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UTILITY PATENT APPLICATION TRANSMITTAL

(Only for new nonprovisional applications under 37 CFR 1.53(b))

Attorney Docket No.	
First Inventor	Asghari-Kamrani et al.
Title	Direct Authentication and Authoriz
Express Mail Label No.	

APPLICATION ELEMENTS See MPEP chapter 600 concerning utility patent application contents.	ADDRESS TO: Commissioner for Patents P.O. Box 1450 Alexandria VA 22313-1450
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1. **Fee Transmittal Form** (e.g., PTO/SB/17)
(Submit an original and a duplicate for fee processing)
2. **Applicant claims small entity status.**
See 37 CFR 1.27.
3. **Specification** [Total Pages 41]
Both the claims and abstract must start on a new page
(For information on the preferred arrangement, see MPEP 608.01(a))
4. **Drawing(s)** (35 U.S.C. 113) [Total Sheets 11]
5. **Oath or Declaration** [Total Sheets 2]
 a. Newly executed (original or copy)
 b. A copy from a prior application (37 CFR 1.63(d))
(for continuation/divisional with Box 18 completed)
 i. **DELETION OF INVENTOR(S)**
 Signed statement attached deleting inventor(s)
 name in the prior application, see 37 CFR
 1.63(d)(2) and 1.33(b).
 6. **Application Data Sheet.** See 37 CFR 1.76
 7. **CD-ROM or CD-R** in duplicate, large table or
 Computer Program (*Appendix*)
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 8. **Nucleotide and/or Amino Acid Sequence Submission**
(if applicable, items a. - c. are required)
 a. Computer Readable Form (CRF)
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- ### ACCOMPANYING APPLICATION PARTS
9. **Assignment Papers** (cover sheet & document(s))
Name of Assignee _____
 10. **37 CFR 3.73(b) Statement** **Power of Attorney**
(when there is an assignee)
 11. **English Translation Document** *(if applicable)*
 12. **Information Disclosure Statement** (PTO/SB/08 or PTO-1449)
 Copies of citations attached
 13. **Preliminary Amendment**
 14. **Return Receipt Postcard** (MPEP 503)
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 15. **Certified Copy of Priority Document(s)**
(if foreign priority is claimed)
 16. **Nonpublication Request** under 35 U.S.C. 122(b)(2)(B)(i).
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18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in the first sentence of the specification following the title, or in an Application Data Sheet under 37 CFR 1.76:

Continuation Divisional Continuation-in-part (CIP) of prior application No.: 09/940,635.....

Prior application information: Examiner A. Nobahar Art Unit: 2132

19. CORRESPONDENCE ADDRESS

The address associated with Customer Number: _____ OR Correspondence address below

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Signature		Date	09/29/05
Name (Print/Type)	Nader Asghari-Kamrani	Registration No. (Attorney/Agent)	

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6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
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Effective on 12/08/2004.
 Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818).

FEE TRANSMITTAL
For FY 2005

Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT	(\$)	500
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Complete if Known	
Application Number	
Filing Date	
First Named Inventor	Asghari-Kamrani et al.
Examiner Name	
Art Unit	
Attorney Docket No.	

METHOD OF PAYMENT (check all that apply)

Check Credit Card Money Order None Other (please identify): _____

Deposit Account Deposit Account Number: _____ Deposit Account Name: _____

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FEE CALCULATION

1. BASIC FILING, SEARCH, AND EXAMINATION FEES

Application Type	FILING FEES		SEARCH FEES		EXAMINATION FEES		Fees Paid (\$)
	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	
Utility	300	150	500	250	200	100	500
Design	200	100	100	50	130	65	
Plant	200	100	300	150	160	80	
Reissue	300	150	500	250	600	300	
Provisional	200	100	0	0	0	0	

2. EXCESS CLAIM FEES

Fee Description	Fee (\$)	Small Entity Fee (\$)
Each claim over 20 (including Reissues)	50	25
Each independent claim over 3 (including Reissues)	200	100
Multiple dependent claims	360	180

Total Claims **Extra Claims** **Fee (\$)** **Fee Paid (\$)**

_____ - 20 or HP = _____ x _____ = _____

HP = highest number of total claims paid for, if greater than 20.

Indep. Claims **Extra Claims** **Fee (\$)** **Fee Paid (\$)**

_____ - 3 or HP = _____ x _____ = _____

HP = highest number of independent claims paid for, if greater than 3.

3. APPLICATION SIZE FEE

If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listings under 37 CFR 1.52(e)), the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof	Fee (\$)	Fee Paid (\$)
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4. OTHER FEE(S)

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SUBMITTED BY		
Signature		Registration No. (Attorney/Agent)
Name (Print/Type)	Nader Asghari-Kamrani	Telephone (703) 222-1070
		Date 09/29/05

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**Direct Authentication and Authorization System and Method for Trusted Network
of Financial Institutions**

U.S. Patent Application of:

Nader Asghari-Kamrani ;

and

Kamran Asghari-Kamrani.

**Direct Authentication and Authorization System and Method for Trusted Network
of Financial Institutions**

CROSS-REFERENCE TO RELATED APPLICATIONS

This application is a continuation in part of and claims priority to U.S. patent application Serial No. 09/940,635 filed August 29, 2001. This application also claims priority to U.S. provisional patent application Serial No. 60/615,603 filed October 5, 2004.

BACKGROUND OF THE INVENTION

1. FIELD OF THE INVENTION

The present invention generally relates to a direct authentication and authorization system and method for trusted network of financial institutions allowing them to directly authenticate their customers and receive their

authorization of financial transactions over a communication network such as the Internet. More specifically, the present invention is based on a new identification and authentication scheme as digital identity that enables financial institutions to directly authenticate their account owners and/or receive their authorization of financial transactions over a communication network such as the Internet.

2. BACKGROUND OF THE INVENTION

With the advent of the Internet, the number of online financial transactions has increased dramatically. With this increase, concerns for the security of the financial transactions, proof of authorization for such transactions, and the need for direct authentication of the parties to these transactions have also risen. Therefore the Internet is more than just a different delivery channel for online financial transactions. There are two unique characteristics of the Internet that require special considerations:

- The anonymity of the Internet creates an environment in which parties are not certain with whom they are doing business, which poses unique opportunities for fraud
- The Internet is an open network, which requires special security procedures to be deployed to prevent unauthorized access to the consumer financial information

These unique characteristics of the Internet needed to be addressed by financial institutions in order to maintain their dominance in the payment arena.

Today, any authentication over a communication network such as the Internet is an indirect authentication. Meaning, customers provide confidential, personal and financial information, in the form of social security numbers, names, addresses, credit card and bank account numbers, and businesses verify this information by accessing external databases. This type of authentication is not sufficient to truly identify the identity of customers and tell whether the customer is the actual account owner. This is why financial institutions have limited their online interbank and intrabank service offerings. For example, today, the financial institutions require their account owners to do their interbank funds transfer at a branch office and send a physical check to the receiver of the funds for payment, both of which are inconvenient and burdensome to corporate and individual customers.

NACHA (National Clearing House Association) operating rules and federal government regulations also require financial institutions to authenticate their customers' identity and receive their authorization for any type of financial transaction such as payment or funds transfer over the Internet. In the physical world, financial transactions are authorized by the account owners in writing and signed or similarly authenticated. In the online world however, financial institutions do not have any solution to meet these requirements. An electronic authorization for an online transaction should be authenticated by a method that 1) identifies the customer (account owner), and 2) manifests the assent of the customer to the authorization. Therefore, financial institutions must use a method that provides the same assurance as a signature in the physical world (a

signature both uniquely identifies a person and evidences his assent to an agreement). These objectives should be met by whatever method or process a financial institution employs when obtaining a customers' authorization electronically.

When dealing with customers over any communication network such as the Internet, financial institutions are facing numerous challenges:

- Be able to identify the identity of the customers;
- Be able to obtain transaction authorization from customers over the Internet;
- Be able to confirm that the customer is the account owner and is authorized to use such account

Financial institutions must meet these challenges in order to expand their online service offerings (interbank and intrabank) and maintain their dominance in the market. But lack of identification and real-time account verification methods have prevented financial institutions to achieve their goals.

Today, there are three different identification and authentication schemes in the market:

- Knowledge-based, which involve allowing access according to what a user knows;

- token-based, which involve allowing access according to what a user possesses;
- biometrics-based, which involve allowing access according to what the user is.

Due to various problems the current authentication schemes have, financial institutions have not been able to successfully use these technologies to perform direct authentication and authorization of their customers. Passwords are inexpensive and easy to use, but the static nature of passwords, makes them vulnerable for replay attacks. Another drawback of passwords is that online banking password cannot be used for identification and verification of financial account at the third party web sites. Biometrics can also be useful for user identification, but one problem with these schemes is the difficult tradeoff between imposter pass rate and false alarm rate. In addition, many biometric systems require specialized devices, which may be expensive. Token-based schemes are problematic as well. These are expensive to implement and require users to install special devices and software. Most token-based authentication systems also use knowledge-based authentication to prevent impersonation through theft or loss of the token.

National Clearing House Association (NACHA) and several financial institutions such as Visa and MasterCard have also attempted to develop authentication systems and methods, such as ISAP (Internet Secure ATM

Payments) and SET (Secure Electronic Transaction) using smart card technology, but due to aforementioned smart card problems they failed to achieve customer acceptance. Therefore, they are now experimenting new password based programs such as VPAS (Visa Payer Authentication Service) and UCAF (MasterCard Payer Authentication Service) to allow registered cardholders to verify their purchases, a process known as payer authentication, but unfortunately these have abovementioned password issues and are specific to credit card transactions and do not apply to bank account transactions. It is also very difficult for a customer to manage. Owning N different credit cards requires recalling N different passwords for payment at checkout. According to a survey from Jupiter Media Metrix (epaynews.com, Feb. 21 2002), these systems and methods are also complicating the picture for consumers, who are worried by the mix of identification and authentication schemes.

As for the financial account ownership verification, currently, there are several companies that are attempting to bring systems and methods for verifying account ownership, such as Paypal (EBAY) and CashEdge.

Paypal introduces a system that initiates one or more verifying transactions using financial account information given by the customer. Selected details of the transaction(s) are saved, particularly details that may vary from one transaction to another. Such variable details may include the number of transactions performed, the amount of a transaction, the type of transaction (e.

g., credit, debit, deposit, withdrawal), the merchant name or account used by the system for the transaction, etc. The customer then retrieves evidence of the transaction(s) from his or her financial institution, which may be accomplished on-line, by telephone, in a monthly statement, etc., and submits the requested details to the Paypal system. The submitted details are compared to the stored details and, if they match, the account ownership is verified and the customer is then allowed to use the financial account. There are many drawbacks associated with the Paypal's system, including:

- No real-time account verification: It takes 2 to 3 days to verify customer's financial account
- High cost: Paypal suggests sending two deposits (credits) to the user's financial account, each of which is less than \$0.99 in value.
- Weak account verification: An unauthorized individual who has access to the details about verifying transactions would be verified as the account owner.

CashEdge's system requires the customer to provide bank account information along with the username and password of the online banking web site that the customer is using to access his/her bank account. The system then applies the customer's username and password to login to the online banking system for verification of the account ownership. The drawback of CashEdge system includes:

- **Security and Privacy Concerns:** Requesting the customer to provide the online banking username and password to CashEdge raises customers' security and privacy concerns.
- **Weak account verification:** An unauthorized individual who has access to the customer's username and password would be verified as the account owner.
- **Fraud Risk:** Without CashEdge's system, a fraudster who has access to customer's online banking username and password, is not able to transfer funds from the customer's account, but CashEdge system provides this opportunity to an unauthorized individual to commit fraud.

Financial institutions need a system that eliminates the aforementioned problems and concerns by:

- verifying customers' identity
- verifying account ownerships in real-time
- providing proof of transaction authorization
- being secure, inexpensive and easy to use
- not requiring financial institutions to change their existing systems and processes
- covering bank account as well as credit card transactions

For convenience, the term "customer" is used throughout to represent a financial institution's individual or corporate customer.

The term "financial institution" is used herein to denote any institution such as bank, credit card issuer, brokerage firm, debit card or credit card Company such as Visa, Master card, and AMEX or any other company that offers financial services.

The term "financial account" is used herein to denote any bank account, brokerage account, debit card and credit card account.

The term "account ownership verification" is used herein to denote the process of verifying that the financial account belongs to the customer and the customer is authorized to use such financial account.

The term "communication network" is used herein to denote any private, wireless or public network such as Internet.

The term "indirect authentication" is used herein to denote any authentication method that authenticates the customers based on customers' information. Meaning, customers provide confidential, personal and financial information, in the form of social security numbers, names, addresses, credit card and bank account numbers, and businesses verify this information by accessing external databases.

The term "direct authentication" is used herein to denote any authentication method that authenticates the customers based on customers' credentials such as biometric data or smart card.

The term "funds transfer network" is used herein to denote any network that financial institutions use to transfer funds, such as ACH, Fed wire, Visa network.

The term "interbank funds transfer" is used herein to denote account-to-account funds transfer between accounts at different financial institutions.

The term "debit pull" is used herein to denote the way electronic payments and funds transfer are authorized and executed, where the receiver of funds is asking customer's financial institution to debit the customer's account.

The term "credit push" is used herein to denote the way electronic payments and funds transfer are authorized and executed, where the customer instructs his/her financial institution to credit the account of the receiver (e.g. merchant account).

The term "digital identity" is used herein to denote a dynamic, non-predictable and time dependent alphanumeric code, or any other key, which may be given by customer's financial institution to the customer over a communication network such as the Internet, and may be valid for one-time use. The customer's

digital identity is used for identification, authentication and authorization purposes for processing transactions over the communication network. Digital identity is calculated using a proprietary algorithm that may include any other customer and/or transaction specific information to make the digital identity customer and transaction specific.

The term "identity authority" is used herein to denote any entity that offers direct authentication services to other businesses. Identity authority issues and manages the digital identity.

The term "Digital Identity System" is used herein to denote the system that deals with the calculation, transformation and validation of the digital identity using a proprietary algorithm.

The term "Digital Identity Network" is used herein to denote the trusted network between financial institutions using any communication network such as the Internet. The Digital Identity Network enables the communication between financial institutions to send and receive Digital Identity Messages for identification and authentication of account owners and authorization of financial transactions.

The term "Digital Identity Message" is used herein to denote the message sent or received over the Digital Identity Network that may include customer's digital identity and transaction information.

SUMMARY OF THE INVENTION

The present invention provides solution to the aforementioned problems and the challenges the financial institutions face today. The present invention relates to a direct authentication and authorization system and method for trusted network of financial institutions allowing them to directly authenticate their customers and receive their authorization of financial or non-financial transactions over a communication network such as the Internet.

To overcome the drawbacks of the known systems and methods discussed above, the present invention is based on a new identification and authentication method as digital identity. The new digital identity-based identification and authentication system and method:

- verifies customers' identity
- verifies account ownerships in real-time
- provides prove of transaction authorization
- reduces the risk of fraud and identity theft
- is secure, inexpensive and easy to use
- does not require financial institutions to change their existing systems and processes
- could be utilized for bank account as well as credit card transactions

The digital identity is an alphanumeric code and unlike password, biometric and smart card, the digital identity may be valid for one time use and is dynamic, non-predictable and may be time dependent, which is calculated using a proprietary algorithm that may include other customer's specific information, which makes the digital identity customer specific. Thus, it is impossible to calculate the same digital identity for two different customers or two different customers receive the same digital identity. Therefore, the digital identity offers the benefits of a password, biometric and smart card, without their disadvantages. It's as easy to use as password and as secure as biometric and smart card.

This invention comprises of Digital Identity System and Digital Identity Network. The Digital Identity System deals with the calculation, transformation and validation of the digital identity. The Digital Identity Network is the trusted network between financial institutions that enables the communication between financial institutions to send and receive Digital Identity Messages for identification and authentication of account owners and authorization of financial or non-financial transactions. The Digital Identity Message may include customer's digital identity and transaction information.

Direct authentication and authorization system and method according to the present invention may include the following participants:

- Originator - the Originator is the individual or corporate customer of the Participating Financial Institution (PFI). The Originator receives a new digital identity from its Participating Financial Institution (PFI) each time the Originator desires to initiate and authorize any non-financial or financial transaction such as payment or funds transfer. The Originator provides the digital identity to the Receiver for identification, authentication and/or authorization of the transaction.
- Receiver: Receiver is the individual or corporate customer of the Participating Financial Institution (PFI) that receives Originator's digital identity for identification, authentication and/or authorization of the non-financial or financial transaction such as payment or funds transfer.
- PFI – the Participating Financial Institution is the financial institution that has an existing relationship with Originators and/or Receivers and offers services to the Originators and/or Receivers. When a PFI serves Originators, the PFI is acting as an Originating Participating Financial Institution (OPFI) and when a PFI serves Receivers the PFI is acting as a Receiving Participating Financial Institution (RPFI). A Participating Financial Institution (PFI) may participate in the Digital Identity Network as an OPFI as well as a RPFI.
- DID Operator - the Digital Identity Operator is the digital identity authority that provides digital identity-based authentication and authorization services to the Participating Financial Institutions (PFIs) by maintaining, operating and managing the Digital Identity System and Network. Each time the Originator desires to initiate and authorize any non-financial or financial transaction such

as payment or funds transfer, its Participating Financial Institutions (OPFI) requests the DID Operator to calculate a new digital identity for that Originator.

Financial institutions need to become the Digital Identity Network participants to perform identification and authentication of their customers and/or receive their authorization of transactions.

This invention enables financial institutions and their business customers to perform identification and authentication of their customers and/or to manifest their assent to the authorization of transactions. The customer's digital identity, which has been provided to that customer by the customer's financial institution, is issued and used at the time when third parties (e.g. merchant , billers) or other Participating Financial Institution needs to authenticate the customer's identity, verify the account ownership and/or receive the customer's authorization for the financial or non-financial transaction. Participating Financial Institutions issue digital identities to their account holders and validate digital identities issued by other Participating Financial Institutions in real time. Using Digital Identity System and Network, financial institutions can establish an environment in which parties to a transaction can reliably verify the electronic identities of customers, engage in legally binding agreements, and maintain auditable electronic information trails. The resulting high level of security and trust enables financial institutions to better serve the customers by enhancing their online service offerings.

This invention enables financial institutions to enhance security and reduce fraud by identifying their customers and account holders. This will allow them to provide various services to their customers. As an example, the invention may be used in interbank funds transfer transactions to perform identification and authentication, receive customers' authorization and verify account ownership. As another example, the invention may be used in online payment transactions to perform identification and authentication of customers, receive customers' authorization, obtain payments and receive account ownership verification.

As another example, the invention may be used in identity verification service offered by financial institutions to provide customer identification in e-commerce.

This invention relates to a system and method for verification of customers' identity over a communication network such as the Internet.

Accordingly, it is a principal objective of the invention to perform account ownership verification in real-time over a communication network such as the Internet.

It is another objective of the invention to allow all parties involved in a transaction to give and receive transaction authorization over a communication network such as the Internet.

It is another objective of the invention to provide a direct authentication and authorization system and method that is secure, inexpensive, easy to use and offers privacy to the financial institutions customers.

It is another objective of the invention to provide a direct authentication and authorization system and method that does not require financial institutions to change their existing systems.

It is another objective of the invention to provide a direct authentication and authorization system and method that is independent from any financial institution and applies to various types of financial accounts.

It is another objective of the invention to reduce fraud and identity theft and increase security.

It is another objective of the invention to build a circle of trust between customers, financial institutions, and businesses in e-commerce.

It is another objective of the invention to enable financial institutions to become the identity authority.

These and other objects of the present invention will become readily apparent upon further review of the following specification and drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 is a high-level overview of a direct authentication and authorization system and method for trusted network of financial institutions according to the present invention.

Fig. 2 is a high-level overview of Digital Identity System and Digital Identity Network in a direct authentication and authorization system and method according to the present invention.

Fig. 3 illustrates the participants of direct authentication and authorization system and method according to the present invention.

Fig. 4 illustrates financial institutions utilizing direct authentication and authorization system and method to process an interbank funds transfer transaction according to the present invention.

Fig. 5, 6, 7 are block diagrams illustrating the process flow of financial institutions utilizing direct authentication and authorization system and method to process an interbank funds transfer transaction according to the present invention.

Fig. 8 illustrates financial institutions utilizing direct authentication and authorization system and method to process an online payment transaction according to the present invention.

Fig. 9, 10, 11 are block diagrams illustrating the process flow of financial institutions utilizing direct authentication and authorization system and method to process an online payment transaction according to the present invention..

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

Detailed descriptions of the preferred embodiment are provided herein. It is to be understood, however, that the present invention may be embodied in various forms. Therefore, specific details disclosed herein are not to be interpreted as limiting, but rather as a basis for the claims and as a representative basis for teaching one skilled in the art to employ the present invention in virtually any appropriately detailed system, structure or manner.

The present invention **Fig. 1** relates to a direct authentication and authorization system and method **1**, for trusted network of financial institutions **25, 35** allowing them to directly authenticate their customers **20** and receive their authorization of financial or non-financial transactions over a communication network **50** such as the Internet. More specifically, the present invention is based on a new identification and authentication method as digital identity **10** that enables financial institutions **25, 35** to directly authenticate their account owners **20** and/or receive their authorization of financial or non-financial transactions over a communication network **50** such as the Internet. The digital identity **10** based authentication is secure, inexpensive, easy to use and does not require financial institutions' customers **20** to install any hardware or software on their systems.

The digital identity 10 is an alphanumeric code and unlike password, biometric and smart card, the digital identity 10 is dynamic, non-predictable and may be time dependent, which is calculated using a proprietary algorithm that may include other customer's 20 specific information, which makes the digital identity 10 customer 20 specific. Thus, it is impossible to calculate the same digital identity 10 for two different customers 20 or two different customers 20 receive the same digital identity 10. Those skilled in the art appreciate that for digital identity 10 many different configurations are possible. In one embodiment the digital identity 10 is valid for one-time use and in another embodiment the digital identity is valid for multiple-time use.

The digital identity 10 is:

- Dynamic – each time a digital identity 10 is requested, a different digital identity 10 is calculated;
- Non-predictable – there is no concern with recognizing the pattern, therefore it is impossible to predict the next digital identity 10;
- Time dependent – the digital identity 10 may be valid within certain time constraints to prevent replay attacks;
- Sensitive – any change to a digital identity 10 in transit results in an invalid digital identity 10.

The digital identity **10** offers the benefits of a password, biometric and smart card, without their disadvantages. It **10** is as easy to use as password and as secure as biometric and smart card.

As illustrated in **Fig. 2**, this invention comprises of Digital Identity System **2** and Digital Identity Network **3**. The Digital Identity System **2** deals with the calculation, transformation and validation of the digital identity **10** using a proprietary algorithm. The Digital Identity Network **3** is the trusted network between financial institutions **25, 35** that enables the communication between financial institutions **25, 35** to send and receive Digital Identity Messages for identification and authentication of account owners **20** and authorization of financial or non-financial transactions. The Digital Identity Message may include customer's digital identity **10** and transaction information. When a financial institution **25,35** agrees to use the Digital Identity System **2**, the financial institution **25, 35** will participate in the Digital Identity Network **3** to interchange authentication and authorization messages as well as Digital Identity Messages with other Participating Financial Institutions **25, 35**.

The Digital Identity System **2** and Digital Identity Network **3** are managed and operated by the DID Operator **30**.

The Digital Identity Network **3** is used for identification and authentication of the financial institutions' **25, 35** account owners **20** and/or authorization of

financial or non-financial transactions. The Digital Identity Network 3 will not be used for the transfer of the actual funds between financial institutions 25, 35. Upon successful authentication and authorization, the Participating Financial Institutions 25, 35 or any third party on their behalf, will use their desired funds transfer network, such as ACH or Fed wire, to transfer funds between accounts.

Performing identification, authentication and authorization using digital identity 10 is secure. It is possible to compute millions of digital identities 10 for the same customer 20, and it is computationally infeasible to find customer's information from a given digital identity 10, or to find two different customers 20 with the same digital identity 10. Any change to a digital identity 10 in transit will fail to verify. The timing and dynamic nature of the digital identity protects the system 1 from replay attacks. Therefore the digital identity 10 offers more benefits to the financial institutions 25, 35, and their customers 20, 40 than the existing technologies such as biometrics.

Direct authentication and authorization system and method 1, Fig. 3 according to the present invention may include the following participants:

- Originator 20: The Originator 20 is the individual or corporate customer of the Participating Financial Institution (PFI) 25, 35. The Originator 20 receives a new digital identity 10 from its Participating Financial Institution (PFI) 25 each time the Originator 20 desires to initiate and authorize any non-financial or financial transaction such as payment or funds transfer. The Originator 20

provides the digital identity 10 to the Receiver 40 for identification, authentication and/or authorization of the transaction. A plurality of Originators 20 has an existing relationship with a Participating Financial Institution (PFI) 25. The Originator 20 could also act as a Receiver 40 in a transaction.

- Receiver 40: The Receiver 40 is an individual or corporate customer of the Participating Financial Institution (RPFI) 35 that receives Originator's 20 digital identity 10 for identification, authentication and/or authorization of the non-financial or financial transaction such as payment or funds transfer. The Receiver 40 processes the digital identity 10 received from the Originator 20 through its existing relationship with its Participating Financial Institution (RPFI) 35. The Receiver 40 could also act as an Originator 20 in a transaction.

- PFI 25, 35: The Participating Financial Institution 25, 35 is an institution that has an existing relationship with a plurality of Originators 20 and/or Receivers 40 and offers services to them 20, 40 . When a PFI serves the Originator 20, the PFI is acting as an Originating Participating Financial Institution (OPFI) 25 and when a PFI serves the Receiver 40 the PFI is acting as a Receiving Participating Financial Institution (RPFI) 35. A Participating Financial Institution (PFI) could act as an OPFI 25 as well as a RPFI 35.

- **DID Operator (Digital Identity Operator) 30**: The **DID Operator 30** is the digital identity authority that provides digital identity-based authentication and authorization services to the **Participating Financial Institutions (PFIs) 25, 35** by maintaining, operating and managing the **Digital Identity System 2** and **Network 3**. Each time the **Originator 20** desires to initiate and authorize any non-financial or financial transaction such as payment or funds transfer, its **Participating Financial Institutions (OPFI) 25** requests the **DID Operator 30** to calculate a new digital identity **10** for that **Originator 20**. A plurality of **Participating Financial Institutions 25, 35 (PFIs)** have an existing relationship with the **DID Operator 30** to process digital identities. There could be a single **DID Operator 30** or multiple **DID Operators 30** that are connected by a communication network **50** to perform as one.

As illustrate in **Fig. 3**, a **Participating Financial Institution 25, 35** communicates with other **Participating Financial Institutions 25, 35** through the **DID Operator 30** over the **Digital Identity Network 3**.

The **Originator 20**, the **Participating Financial Institutions (PFIs) 25, 35**, the **Receiver 40** exchange information and messages over any communication network **50** such as the Internet.

When dealing with customers **20** over any communication network **50** such as the Internet, financial institutions **25, 35** are able, for any type of

services, to use the digital identity-based authentication and authorization system and method **1** to perform identification and authentication of their customers **20**, receive their authorization and verify account ownership.

As one example, the invention could be used in an interbank funds transfer transaction where identification, authorization and verification of account ownership at both side of the transaction are required. In this example **Fig. 4, 5, 6, 7**, a financial institution's **25** customer **20** requests to transfer funds between his/her accounts at two different financial institutions **25, 35**. In Interbank funds transfer, the customer **20** acts as an Originator **20** as well as a Receiver **40**. This example highlights the benefits of this invention to the customer (Originator) **20**, the Originating Participating Financial Institution (OPFI) **25** and the Receiving Participating Financial Institution (RPFI) **35**, where both Participating Financial Institutions (PFIs) are able to identify the customer **20**, receive the evidence of the account ownership and the transaction authorization.

To request an interbank funds transfer **Fig. 4, Fig. 5** between two different Participating Financial Institutions **25, 35**, the customer (Originator) **20** authenticates him/herself to the first financial institution (OPFI) **25** over a communication network **50, 100** and requests an interbank funds transfer **105, 110**. The OPFI **25** starts the funds transfer process by requesting a new digital identity **10** for that customer (Originator) **20** from the DID Operator **30** over the Digital Identity Network **3, 115**.

The DID Operator **30** that manages the Digital Identity System **1**, processes the request, calculates a new digital identity **10** that may be specific to

that customer **20** and/or transaction, and forwards the customer's digital identity **10** to the OPFI **25** over the Digital Identity Network **3, 120**. For security reasons, the customer's digital identity **10** could be time dependent and may be valid for one-time use.

When the OPFI **25** receives the customer's digital identity **10** from the DID Operator **30**, the OPFI **25** present that to the customer (Originator) **20** over the communication network **50**. The OPFI **25** might also record the digital identity **10** along with the transaction information for its authentication and authorization purposes **125**. In addition to providing the digital identity **10** to the customer **20** (Originator), the OPFI **25** may request the customer (Originator) **20** to provide the digital identity **10** to the second financial institution (ORFI) **35** to finalize and complete the funds transfer transaction **130**. Since the customer's digital identity **10** is used for identification, authorization of funds transfer and as evidence of account ownership, the funds transfer transaction will not be finalized unless the customer **20** provides his/her digital identity **10** to the RPFi (second financial institution) **35**.

The customer (Receiver) **20** authenticates him/herself to the RPFi **35** over a communication network **50, 140** and provides his/her digital identity **10** to the RPFi **35** and requests to finalize the funds transfer **145**. The RPFi **35** may also request the customer **20** to provide other customer specific information for validation.

The RPFi **35** may validate the information provided by the customer **20** and for validation of customer's digital identity **10** and the transaction processing,

the RPF1 35 may forward a Digital Identity Message 15 containing the customer's digital identity 10 to the DID Operator 150.

The DID Operator 30, upon receiving the Digital Identity Message from the RPF1 35, validates the customer's digital identity 10 and identifies the customer (Originator) 20, 40, 155. Upon successful validation and identification, the DID Operator 30 may send a Digital Identity Message containing the customer's digital identity 10 and possibly other transaction information to the OPFI 25 for processing 160.

The OPFI 25, upon receiving the Digital Identity Message from the DID Operator 30, may validate the customer's digital identity 10 and/or verify the transaction 180. A valid digital identity 10 provides evidence that the customer 20 is the actual account owner at the receiving bank (RPF1) 35 and manifest customer's assent to the transaction. An invalid digital identity 10 will cause a denial message to be sent to the RPF1 and to the customer 20, 157, 181, 182.

Upon successful validation, the OPFI 25 might record the transaction authorization and may either:

- finalizes the funds transfer transaction by sending credit to customer's 20 account at the RPF1 35 using the desired funds transfer network, such as ACH network and notifies the RPF1 (credit push) 185; or
- sends the customer's 20 account information back to the RPF1 35 and RPF1 35 finalizes the funds transfer transaction by sending debit to the customer's 20 account at the OPFI 25 using the desired funds transfer network, such as ACH network (debit pull) 191.

The RPFI 35 may be responsible for notifying the customer (Receiver) 20 of the status of the transaction 195. To the RPFI 35, the validation of the customer's digital identity 10 is the evidence of the account ownership at the OPFI 25 and proves the customer's assent to the funds transfer transaction (transaction authorization).

As another example Fig. 9, 10, 11, where identification, authorization and verification of account ownership at both side of the transaction are required is the online payment service. In an online payment transaction, the customer (Originator) 20 desires to pay a third party (Receiver) 40 such as online merchant from a financial account such as the checking account 200. The customer 20 authenticates him/herself to the first financial institution (OPFI) 25, 205 over a communication network 50 and requests to send the payment to the third party (Receiver) 40, 210. The OPFI 25 starts the payment process by requesting a new digital identity 10 from the DID Operator 30 over the Digital Identity Network 3 specific to that customer 20 and/or transaction 215.

The DID Operator 30 that manages the Digital Identity System 1, processes the request, calculates a new digital identity 10 that may be specific to that customer 20 and/or transaction, and forwards the customer's digital identity 10 to the OPFI 25 over the Digital Identity Network 3, 220. For security reasons, the customer's digital identity 10 could be time dependent and may be valid for one-time use.

When the OPFI 25 receives the customer's digital identity 10 from the DID Operator 30, the OPFI 25 present that to the customer (Originator) 20 over the communication network 50, 225. The OPFI 25 might also record the digital identity 10 along with the transaction information for its authentication and authorization purposes. In addition to providing the digital identity 10 to the customer 20 (Originator), the OPFI 25 may request the customer (Originator) 20 to provide the digital identity 10 to the third party (Receiver) 40 to finalize and complete the payment transaction 230. Since the customer's digital identity 10 is used for identification, authorization of payment and as evidence of account ownership, the payment will not be finalized unless the customer 20 provides his/her digital identity 10 to the third party (Receiver) 40.

The customer (Originator) 20 provides the digital identity received from OPFI 25 to the third party (Receiver) 40 for authentication and authorization of the payment. By providing the digital identity to the third party (Receiver) 40, the customer 20 proves the account ownership at the originating bank (OPFI) 25 and his assent to the payment transaction. The third party (Receiver) 40 may also request the customer 20 to provide other customer specific information for validation. To process the payment, the Receiver 40 forwards the customer's 20 digital identity to the RPI 35 along with the transaction information using any communication network 50, 250.

The RPI 35 may validate the information provided by the customer 20 and for validation of customer's digital identity 10 and the transaction processing, the RPI 35 may forward a Digital Identity Message 15 containing the customer's

digital identity **10** to the DID Operator for authentication and transaction authorization **255**.

The DID Operator **30**, upon receiving the Digital Identity Message from the RPF_I **35**, validates the customer's digital identity **10**, identifies and authenticates the customer (Originator/Receiver) **20, 40, 260**. Upon successful validation and identification, the DID Operator **30** may send a Digital Identity Message containing the customer's digital identity **10** and possibly other transaction information to the OPFI **25** for processing **265**. A denial identification and authorization message will be send to the RPF_I, the Receiver and also the customer if the digital identity is invalid **267, 268, 269**

The OPFI **25**, upon receiving the Digital Identity Message from the DID Operator **30**, may validate the customer's digital identity **10** and/or verifies the transaction **285**. A valid digital identity **10** provides evidence that the customer **20** is the actual account owner at OPFI **35** and manifest customer's assent to the payment transaction. An invalid digital identity will cause a denial message to be sent to the RPF_I, Receiver and to the customer **157, 158**.

Upon successful validation, the OPFI **25** might record the transaction authorization and may either:

- finalizes the payment transaction by sending credit to receiver's **20** account at the RPF_I **35** using the desired funds transfer network, such as ACH network and notifies the RPF_I (credit push) **291**; or
- sends the customer's **20** account information back to the RPF_I **35, 296** and RPF_I **35** finalizes the payment transaction by sending debit to the customer's

20 account at the OPFI **25** using the desired funds transfer network, such as ACH network (debit pull) **297**.

The RPFI **35** may be responsible for notifying the Receiver **20** of the status of the transaction. To the RPFI **35**, the validation of the customer's digital identity **10** is the evidence of the account ownership at the OPFI **25** and proves the customer's assent to the payment transaction (transaction authorization).

Those skilled in the art appreciate that the present invention may be embodied in various forms. In one embodiment, the Participating Financial Institutions (PFIs) **25, 35** might communicate directly with the customers (Originator and Receiver) **20, 40** and might be in charge of processing the transactions and transferring funds. In another embodiment, the DID Operator **35** might communicate directly with the customers (Originator and Receiver) **20, 40** and might be in charge of processing the transactions and transferring funds. Therefore, it will be apparent to those skilled in the art that in processing the transactions and transferring funds many different forms are possible. It is not intended to limit the scope of the invention to the particular form set forth, but on the contrary, it is intended to cover such alternatives, modifications, and equivalents as may be included within the spirit and scope of the invention.

We Claim:

1. A system for direct authentication and/or authorization of a transaction between an Originator and a Receiver, comprising:

an Originator in communication with an Originating Participating Financial Institution (OPFI);

a Receiver in communication with a Receiving Participating Financial Institution (RPFI);

a trusted Digital Identity (DID) Network connecting the OPFI and RPFI through a DID Operator, the DID Operator further coupled to a DID System that calculates a digital identity for the Originator;

whereby upon communication of the digital identity from the Originator to the Receiver, direct authentication of the Originator and/or authorization of the transaction may be performed between the RPFI and the OPFI through the DID Operator.

2. The system of claim 1, wherein said authentication and/or authorization is performed in real time.

3. The system of claim 1, wherein the Originator is not required to implement software or hardware to use said digital identity.

4. The system of claim 1, wherein the digital identity is a dynamic, non-predictable, highly sensitive, and time-dependent alphanumeric or any other key code.
5. The system of claim 1, wherein the digital identity includes information about the Originator that causes the digital identity to be unique and Originator-specific.
6. The system of claim 1, wherein the transaction is a financial or non-financial transaction.
7. The system of claim 6, wherein the financial transaction includes an account to account transfer.
8. The system of claim 6, wherein the non-financial transaction includes an express agreement and/or identity authentication.
9. A system for financial institutions to directly authenticate customers and/or verify authorization of transactions, comprising:
 - an Originating Participating Financial Institution (OPFI);
 - a Receiving Participating Financial Institution (RPFI);

a trusted Digital Identity (DID) network connecting the Participating Financial Institutions (OPFI/RPFI) through a Digital Identity (DID) Operator;

whereby direct authentication of the Originator and/or authorization of a transaction may be performed between the RPFI and the OPFI through the DID Operator.

10. The system of claim 9, wherein said authentication and/or authorization is performed in real time.

11. A method for direct authentication and/or authorization of a transaction between an Originator and Receiver, comprising the steps of:

providing a trusted Digital Identity (DID) Network connecting an Originating Participating Financial Institution (OPFI) and a Receiving Participating Financial Institution (RPFI) through a Digital Identity (DID) Operator;

the Originator requesting and receiving a digital identity from the OPFI;

the Originator providing the Receiver with the digital identity;

the Receiver submitting the digital identity to the RPFI;

The RPFI initiating direct authentication of the Originator and/or authorization of the transaction based on the digital identity;

the OPFI and RPFI completing the transaction upon successful authentication and/or authorization; and

the RPFI notifying the Receiver of denial or completion of the transaction.

12. The method of claim 11, wherein the step of the Originator requesting and receiving a digital identity further includes:

-the Originator authenticating himself to the OPFI and requesting a digital identity;

-the OPFI requesting a digital identity from the DID Operator;

-the DID operator calculating and forwarding the digital identity to the OPFI; and

-the OPFI presenting the digital identity to the Originator.

13. The method of claim 11, wherein the step of the RPFI initiating direct authentication and/or authorization further includes:

-the RPFI forwarding the digital identity to the DID Operator for validation;

-the DID Operator sending a denial message to the RPFI -- if the digital identity is invalid;

-the DID Operator sending a Digital Identity Message (DIM) to the OPFI for approval -- if the digital identity is valid; and

-upon approval, the OPFI sending an approval identification and authorization message back to the RPFI.

14. The method of claim 11, wherein the digital identity is a dynamic, non-predictable, highly sensitive, and time-dependent alphanumeric or any other key code.

15. The method of claim 11, wherein the digital identity includes information about the Originator that causes the digital identity to be unique and Originator-specific.

16. The method of claim 11, wherein the transaction is a financial or non-financial transaction.

17. The method of claim 16, wherein the financial transaction includes an account to account transfer.

18. The method of claim 16, wherein the non-financial transaction includes an express agreement and/or identity authentication.

ABSTRACT OF THE DISCLOSURE

A system and method for direct authentication and/or authorization of transactions. The system includes a trusted Digital Identity (DID) Network connecting an Originating Participating Financial Institution (OPFI) and a Receiving Participating Financial Institution (RPFI) through a DID Operator. The DID Operator may further be coupled to a DID System that calculates digital identities for Originators. According to the method, direct authentication of the Originator and/or authorization of the transaction is initiated upon the Originator communicating its digital identity to the Receiver. The Receiver subsequently provides the digital identity to the RPFI. The RPFI is then able to communicate with the OPFI for authentication of the Originator and/or authorization of the transaction through the DID Operator based on Originator's digital identity. The transaction between the Originator and Receiver can be financial or non-financial and may include, for example, account-to-account transfers, identity authentication or express agreements. In another embodiment, authentication and/or authorization may be performed in real time.

Direct Authentication & Authorization
System and Method

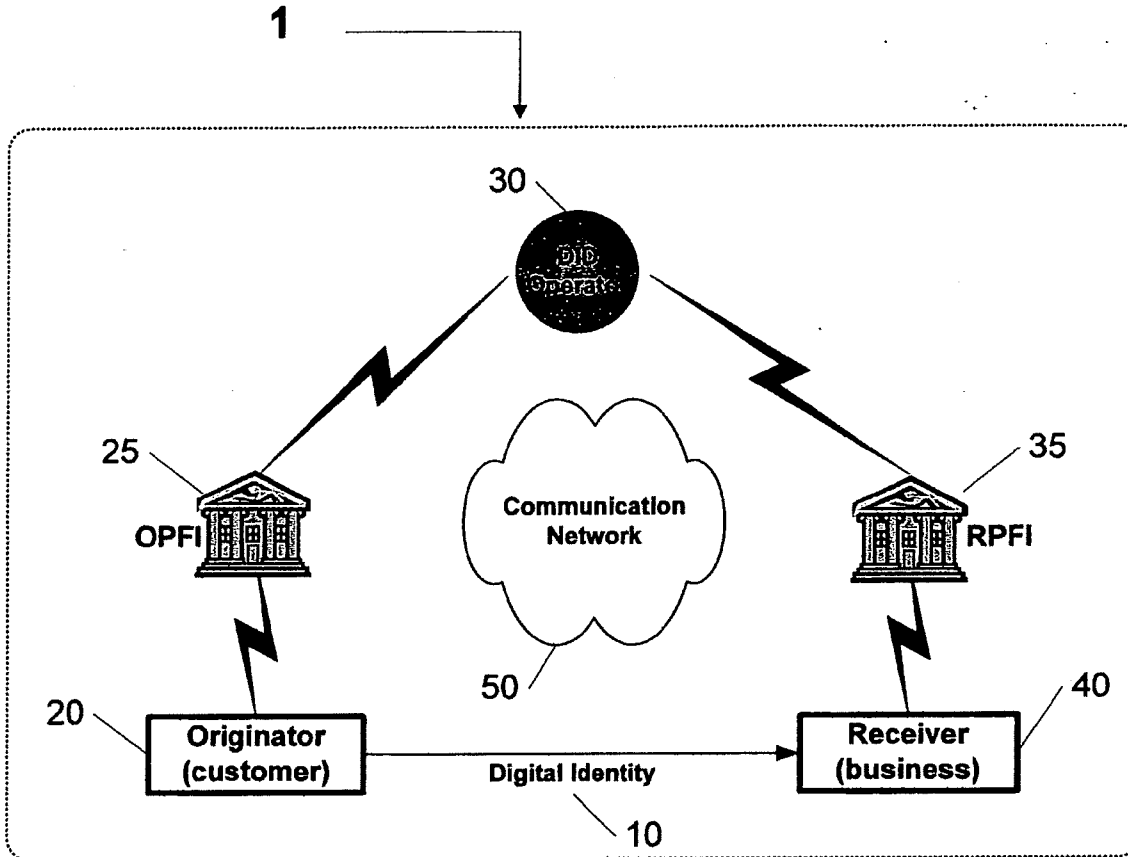


Figure 1

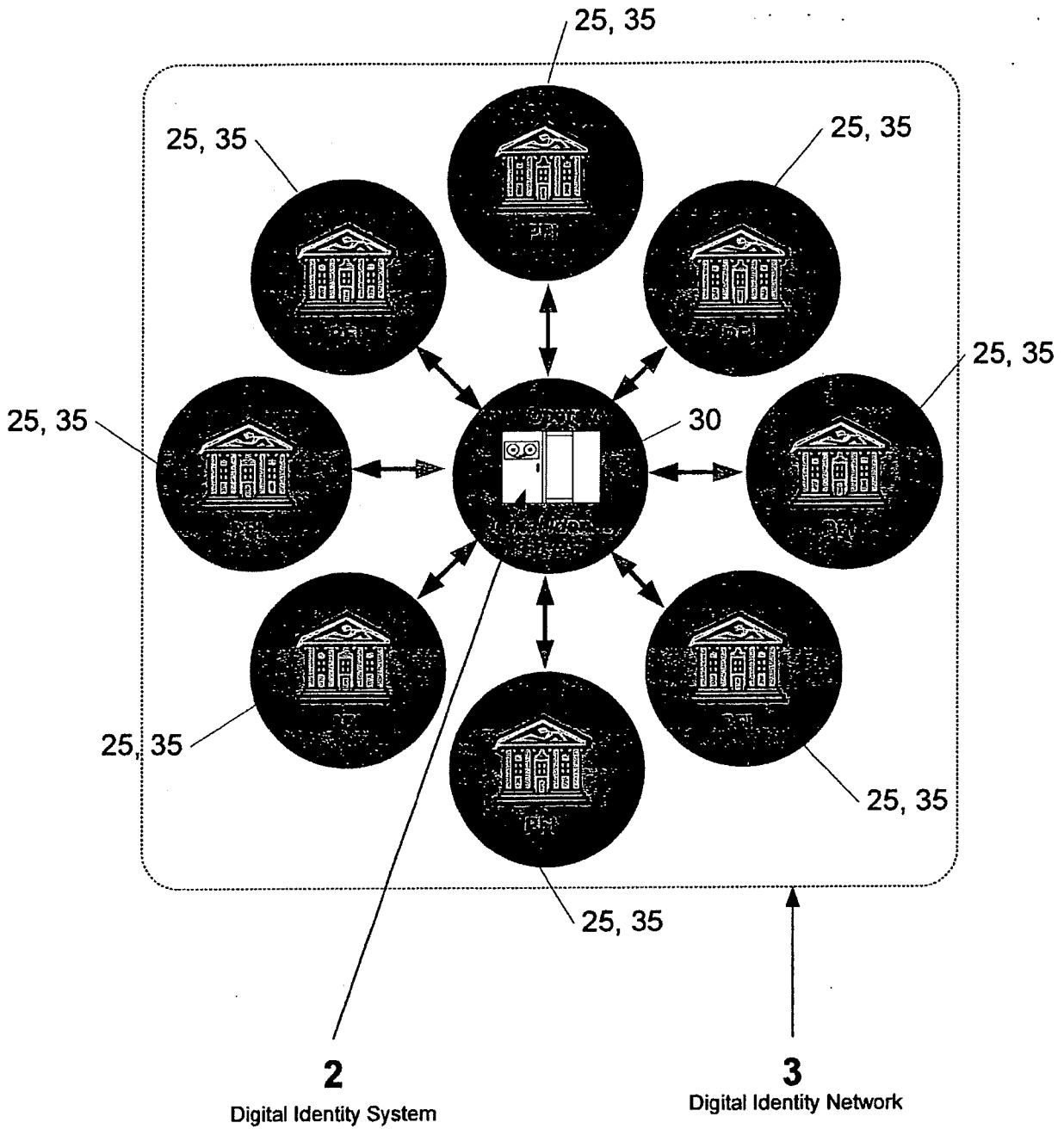
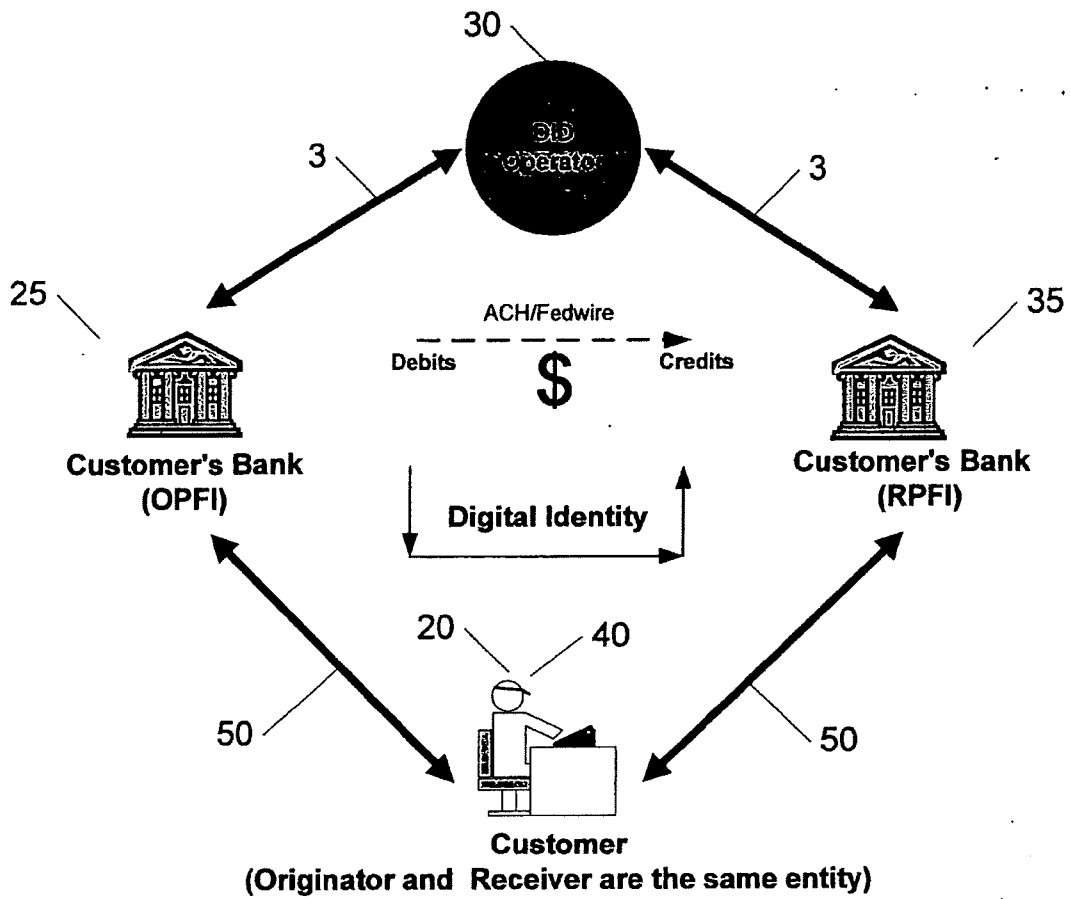


Figure 2



OPFI: Originating Participating Financial Institution
RPFI: Receiving Participating Financial Institution

- ↔ Data Communication
- Digital Identity flow
- - - → Funds transfer flow

Figure 4

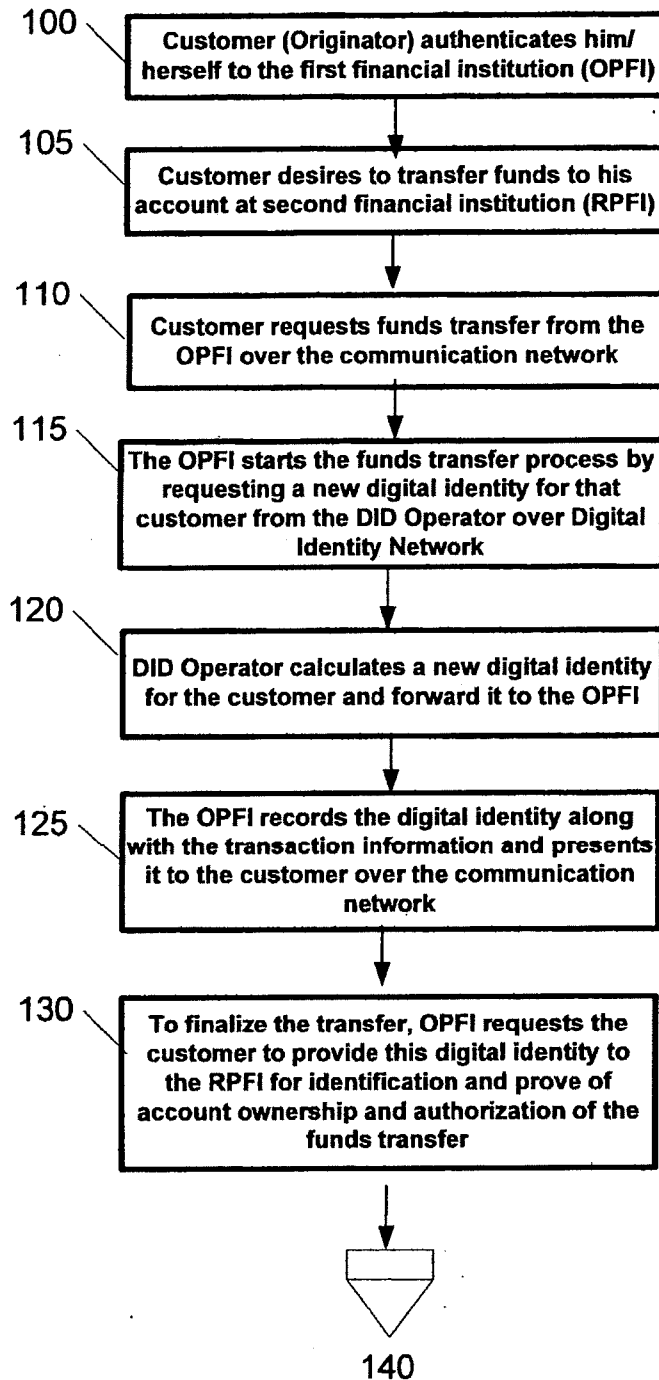


Figure 5

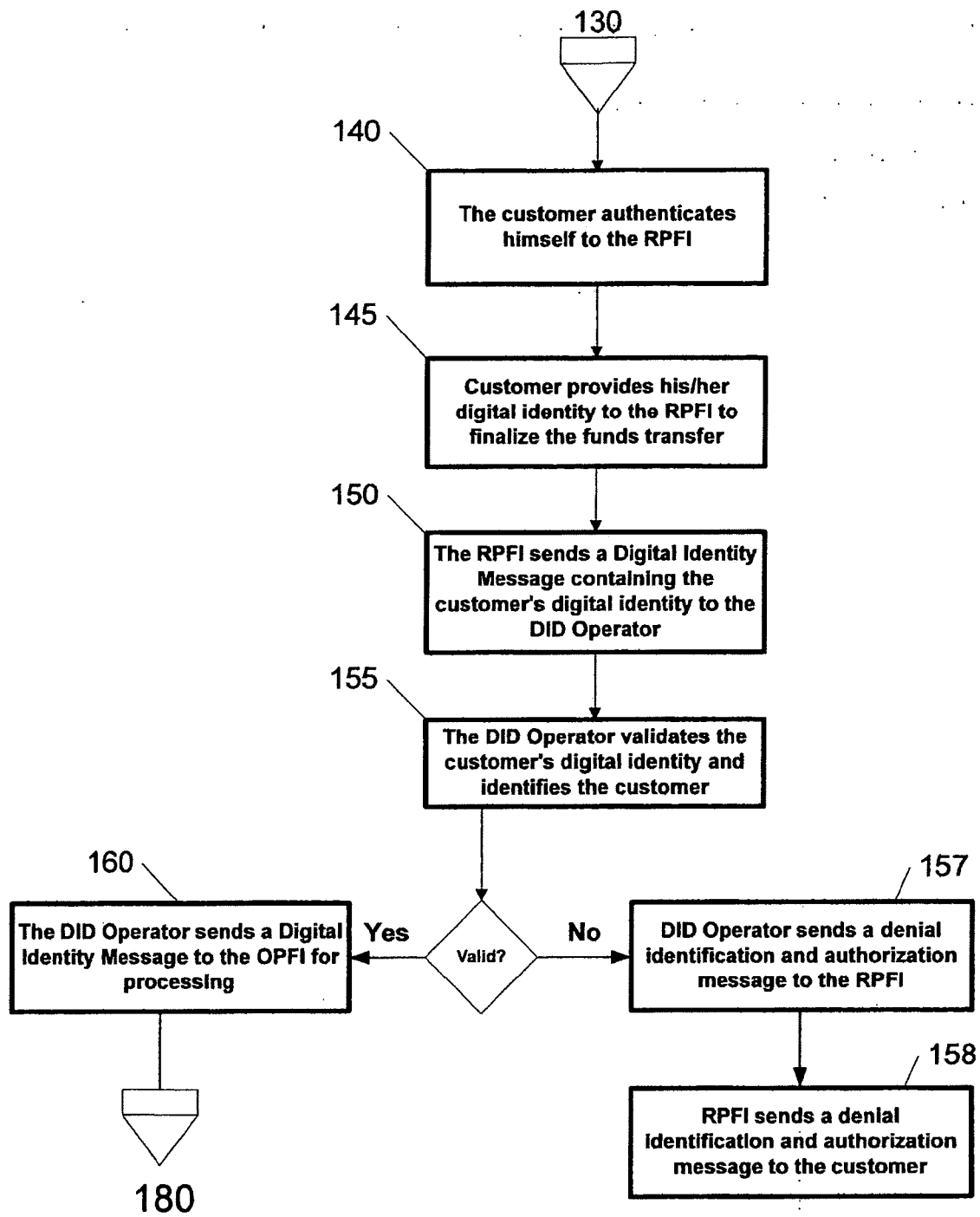


Figure 6

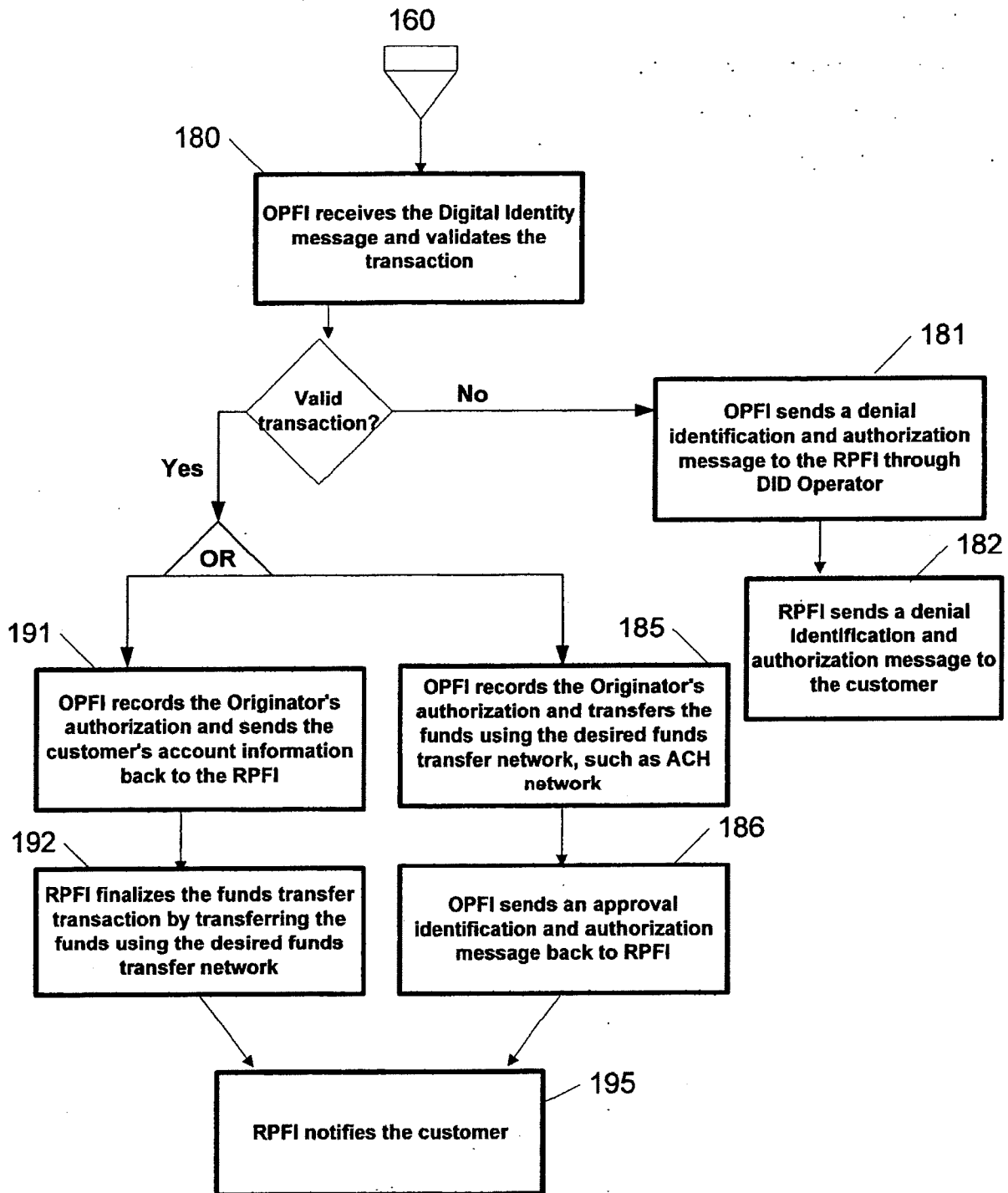
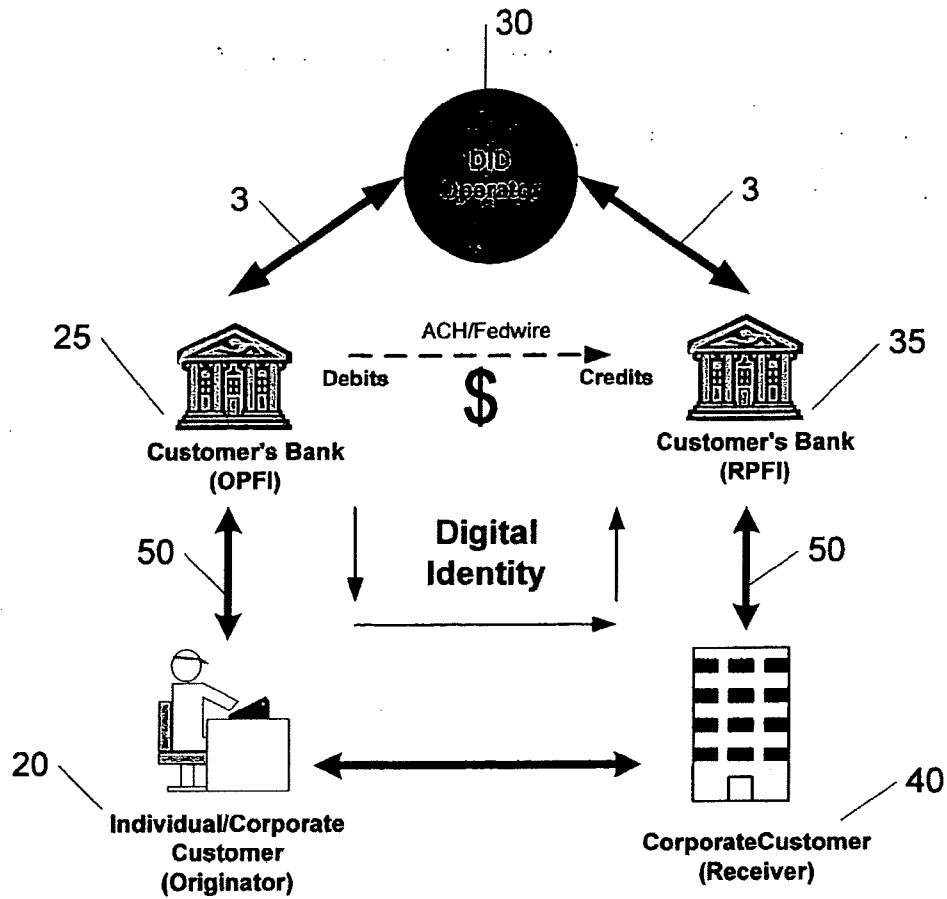


Figure 7



OPFI: Originating Participating Financial Institution
 RPFI: Receiving Participating Financial Institution

- ↔ Data Communication
- Digital Identity flow
- - - → Funds transfer flow

Figure 8

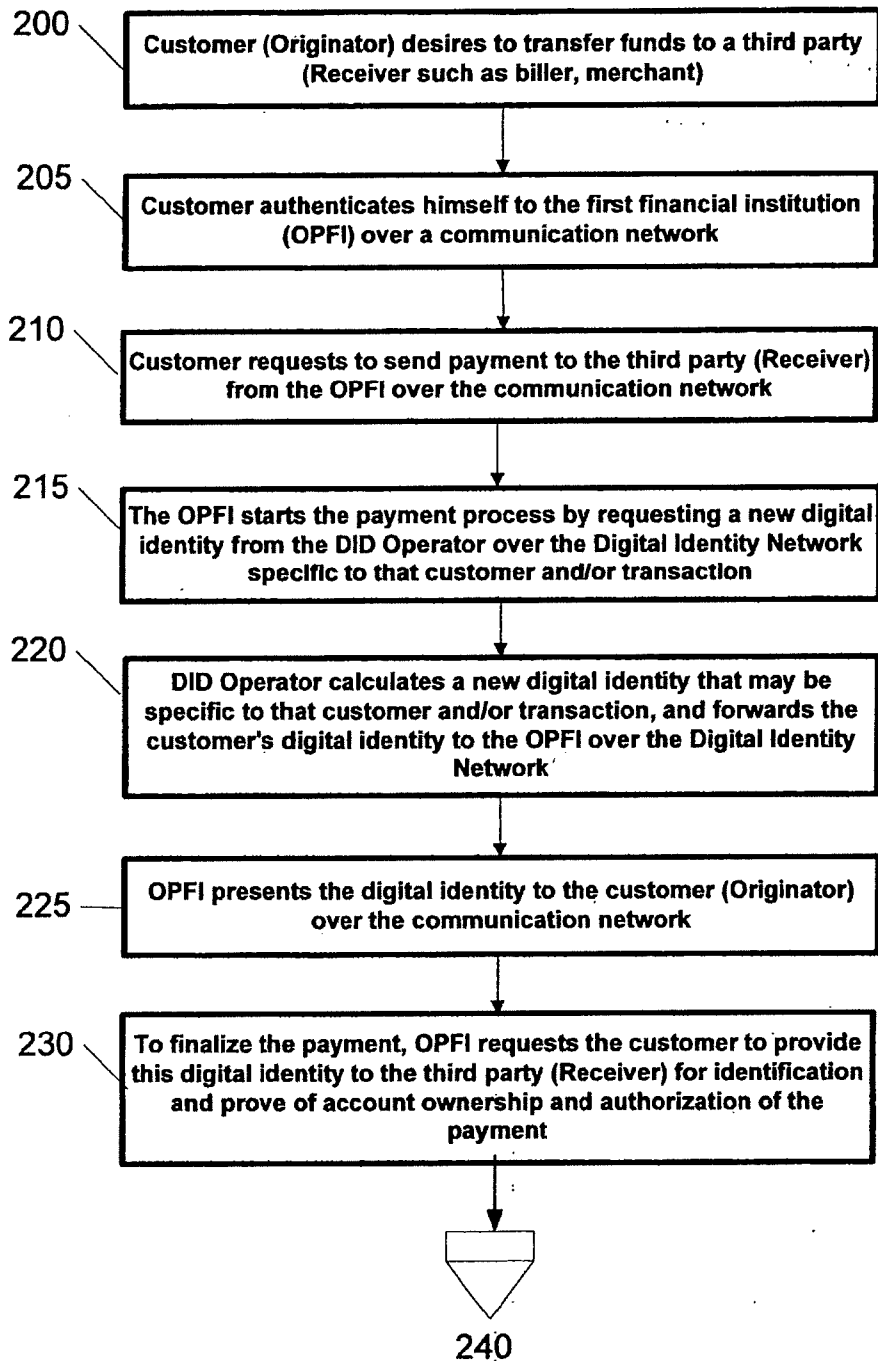


Figure 9

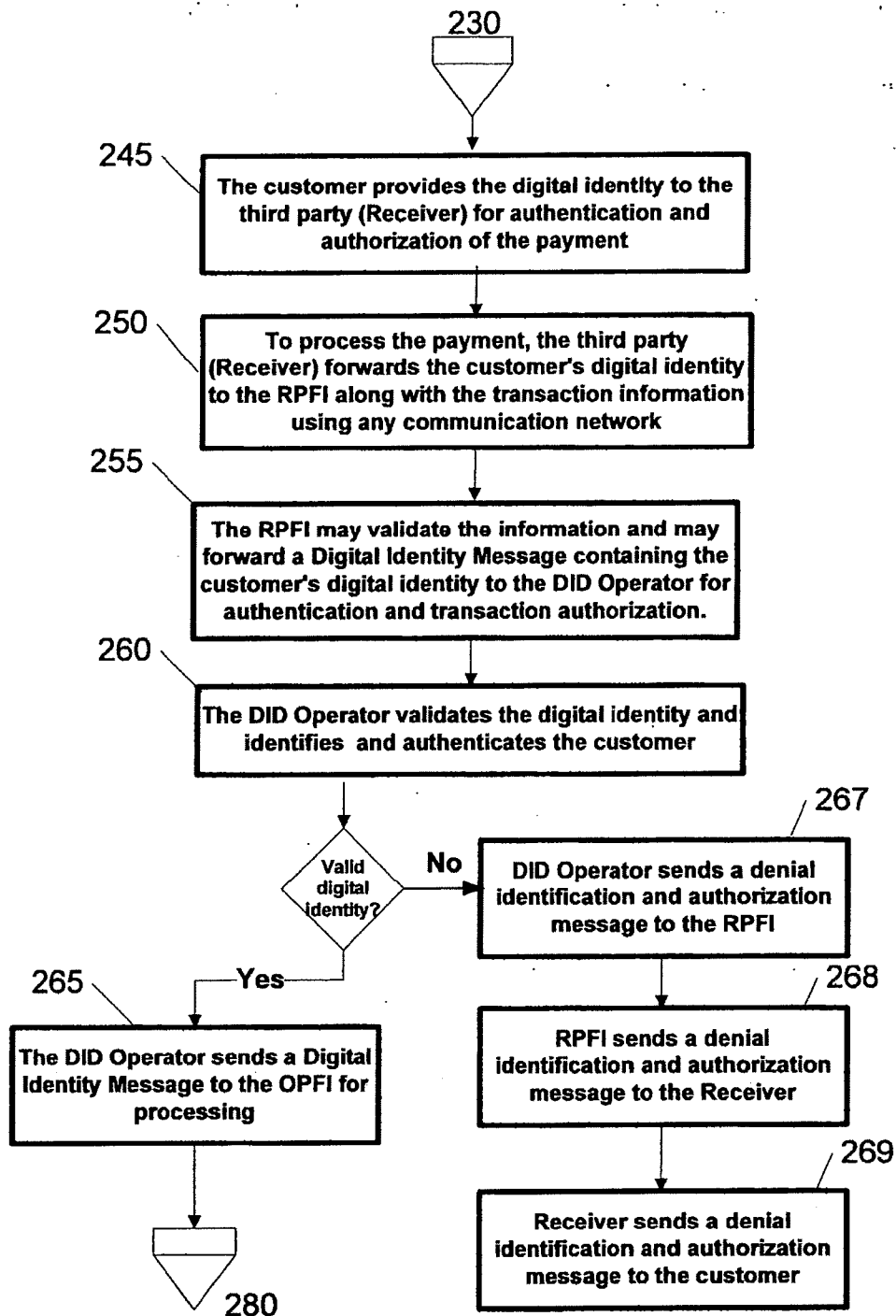


Figure 10

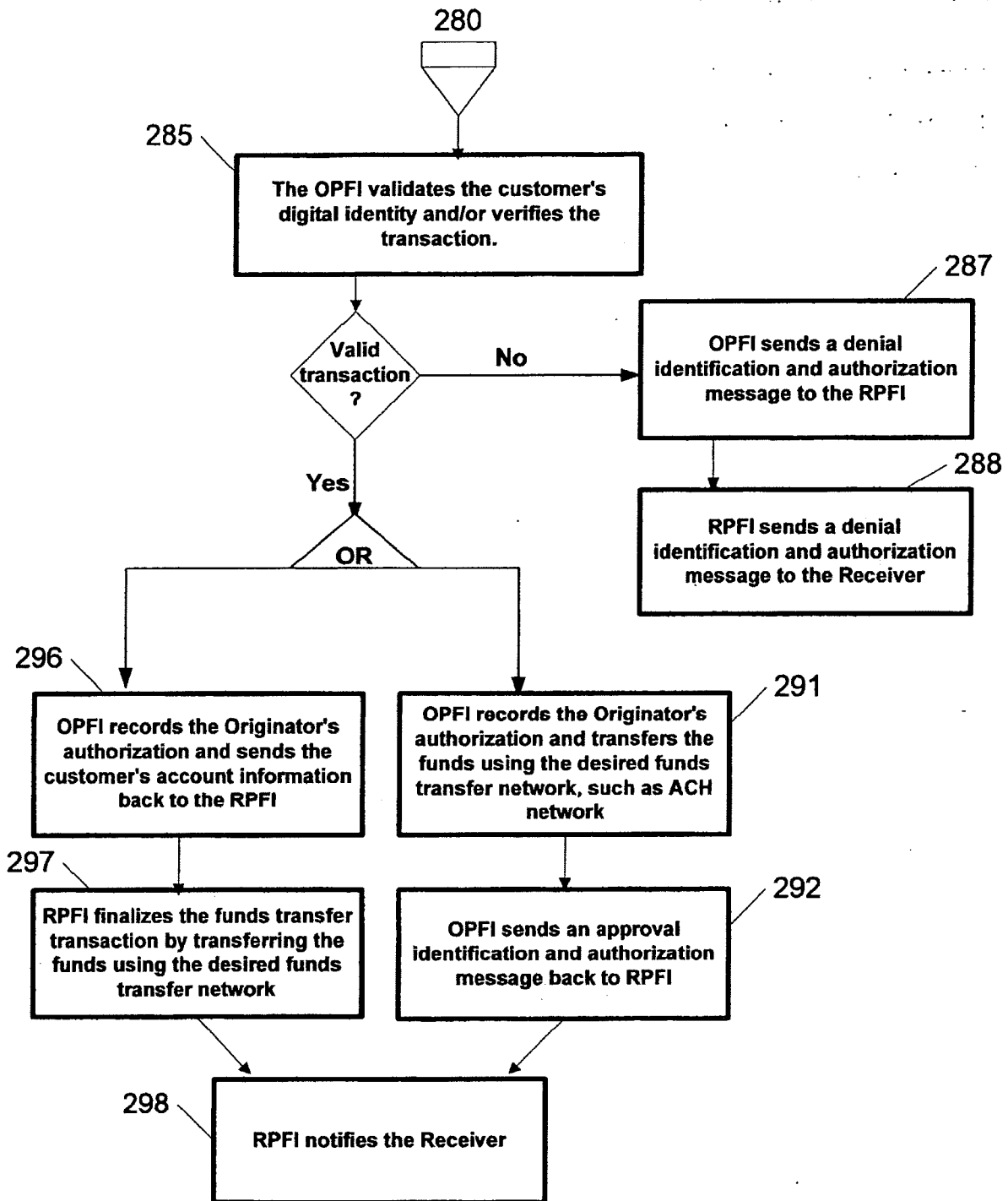


Figure 11

PTO/SB/01 (04-05)
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DECLARATION FOR UTILITY OR DESIGN PATENT APPLICATION (37 CFR 1.63)	Attorney Docket Number	
	First Named Inventor	Asghari-Kamrani et al.
	<i>COMPLETE IF KNOWN</i>	
	Application Number	
	Filing Date	
	Art Unit	
<input checked="" type="checkbox"/> Declaration Submitted With Initial Filing OR <input type="checkbox"/> Declaration Submitted after Initial Filing (surcharge (37 CFR 1.16 (e)) required)		Examiner Name

I hereby declare that:

Each inventor's residence, mailing address, and citizenship are as stated below next to their name.

I believe the inventor(s) named below to be the original and first inventor(s) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

Direct Authentication and Authorization System and Method for Trusted Network of Financial Institutions

(Title of the Invention)

the specification of which

is attached hereto

OR

was filed on (MM/DD/YYYY) as United States Application Number or PCT International Application Number and was amended on (MM/DD/YYYY) (if applicable).

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment specifically referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.

I hereby claim foreign priority benefits under 35 U.S.C. 119(a)-(d) or (f), or 365(b) of any foreign application(s) for patent, inventor's or plant breeder's rights certificate(s), or 365(a) of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below, by checking the box, any foreign application for patent, inventor's or plant breeder's rights certificate(s), or any PCT international application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application Number(s)	Country	Foreign Filing Date (MM/DD/YYYY)	Priority Not Claimed	Certified Copy Attached?	
				YES	NO
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Additional foreign application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto.

[Page 1 of 2]


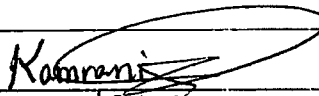
This collection of information is required by 35 U.S.C. 115 and 37 CFR 1.63. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 21 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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DECLARATION — Utility or Design Patent Application

Direct all correspondence to: <input type="checkbox"/> The address associated with Customer Number: <input type="text"/>		OR <input checked="" type="checkbox"/> Correspondence address below	
Name Nader Asghari-Kamrani			
Address 6558 Palisades Drive			
City Centreville		State VA	ZIP 20121
Country U.S.A.	Telephone (703) 222-1070	Email Kamrani@delphinustechnology.com	
I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.			
NAME OF SOLE OR FIRST INVENTOR:		<input type="checkbox"/> A petition has been filed for this unsigned inventor	
Given Name (first and middle [if any]) Nader		Family Name or Surname Asghari-Kamrani	
Inventor's Signature 		Date 09/29/05	
Residence: City Centreville	State VA	Country U.S.A.	Citizenship United States
Mailing Address 6558 Palisades Drive			
City Centreville	State VA	Zip 20121	Country U.S.A.
NAME OF SECOND INVENTOR:		<input type="checkbox"/> A petition has been filed for this unsigned inventor	
Given Name (first and middle [if any]) Kamran		Family Name or Surname Asghari-Kamrani	
Inventor's Signature 		Date 09/29/05	
Residence: City Centreville	State VA	Country U.S.A.	Citizenship Netherlands
Mailing Address 6547 Palisades Drive			
City Centreville	State VA	Zip 20121	Country U.S.A.
<input type="checkbox"/> Additional inventors or a legal representative are being named on the _____ supplemental sheet(s) PTO/SB/02A or 02LR attached hereto.			

PATENT APPLICATION SERIAL NO _____

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE
FEE RECORD SHEET

10/03/2005 YPOLITE1 00000084 11239046

01 FC:2011	150.00 OP
02 FC:2111	250.00 OP
03 FC:2311	100.00 OP

PTO-1556
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PATENT APPLICATION FEE DETERMINATION RECORD

Substitute for Form PTO-875 Effective December 8, 2004

Application or Docket Number
11239046

APPLICATION AS FILED - PART I

FOR	NUMBER FILED (Column 1)	NUMBER EXTRA (Column 2)
BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A
SEARCH FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A
EXAMINATION FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A
TOTAL CLAIMS (37 CFR 1.16(d))	18	minus 20 = 0
INDEPENDENT CLAIMS (37 CFR 1.16(h))	3	minus 3 = 0
APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).	
MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))		

SMALL ENTITY

RATE (\$)	FEE (\$)
N/A	150.00
N/A	\$250
N/A	\$100
X\$ 25	=
X100	=
+180=	
TOTAL	500

OR OTHER THAN SMALL ENTITY

RATE (\$)	FEE (\$)
N/A	300.00
N/A	\$500
N/A	\$200
X\$50	=
X200	=
+360=	
TOTAL	

* If the difference in column 1 is less than zero, enter "0" in column 2.

APPLICATION AS AMENDED - PART II

AMENDMENT A	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA
	Total (37 CFR 1.16(h))		Minus	
Independent (37 CFR 1.16(h))		Minus		=
Application Size Fee (37 CFR 1.16(s))				
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))				

SMALL ENTITY

RATE (\$)	ADDITIONAL FEE (\$)
X\$ 25	=
X100	=
+180=	
TOTAL ADD'L FEE	

OR OTHER THAN SMALL ENTITY

RATE (\$)	ADDITIONAL FEE (\$)
X\$50	=
X200	=
+360=	
TOTAL ADD'L FEE	

AMENDMENT B	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA
	Total (37 CFR 1.16(h))		Minus	
Independent (37 CFR 1.16(h))		Minus		=
Application Size Fee (37 CFR 1.16(s))				
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))				

SMALL ENTITY

RATE (\$)	ADDITIONAL FEE (\$)
X\$ 25	=
X100	=
+180=	
TOTAL ADD'L FEE	

OR OTHER THAN SMALL ENTITY

RATE (\$)	ADDITIONAL FEE (\$)
X\$50	=
X200	=
+360=	
TOTAL ADD'L FEE	

- If the entry in column 1 is less than the entry in column 2, write "0" in column 3.
- If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".
- If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".
- The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1460, Alexandria, VA 22313-1450.

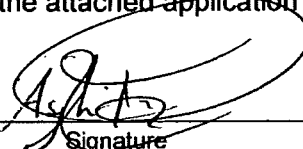
If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

NONPUBLICATION REQUEST UNDER 35 U.S.C. 122(b)(2)(B)(i)	First Named Inventor		ASGHARI-KAMRANI ET AL.
	Title	DIRECT AUTHENTICATION AND AUTHORIZATION SYSTEM	
	Attorney Docket Number		

I hereby certify that the invention disclosed in the attached application has not and will not be the subject of an application filed in another country, or under a multilateral agreement, that requires publication at eighteen months after filing.

I hereby request that the attached application not be published under 35 U.S.C. 122(b).

 _____ Signature	09/29/05 _____ Date
Nader, Asghari-Kamrani _____ Typed or printed name	_____ Registration Number, if applicable
703-222-5104 _____ Telephone Number	

This request must be signed in compliance with 37 CFR 1.33(b) and submitted with the application upon filing.

Applicant may rescind this nonpublication request at any time. If applicant rescinds a request that an application not be published under 35 U.S.C. 122(b), the application will be scheduled for publication at eighteen months from the earliest claimed filing date for which a benefit is claimed.

If applicant subsequently files an application directed to the invention disclosed in the attached application in another country, or under a multilateral international agreement, that requires publication of applications eighteen months after filing, the applicant must notify the United States Patent and Trademark Office of such filing within forty-five (45) days after the date of the filing of such foreign or international application. Failure to do so will result in abandonment of this application (35 U.S.C. 122(b)(2)(B)(iii)).

This collection of information is required by 37 CFR 1.213(a). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 6 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	8012	"726"/.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/14 11:13
L2	34	1 and ((bank\$3 financ\$3 commerc\$3) near2 (authenticat\$3 authoriz\$4) near2 (user customer consumer client))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/14 12:03
L3	37	1 and ((bank\$3 financ\$3 commerc\$3) near2 (authenticat\$3 authoriz\$4) near2 (user customer consumer client origina\$4 receiv\$3))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/14 11:18
L4	47	1 and ((bank\$3 financ\$3 commerc\$3) near2 (authenticat\$3 authoriz\$4 verification verify\$3 validat\$3) near2 (user customer consumer client origina\$4 receiv\$3))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/14 11:56
L5	46	4 and ((user customer consumer client origina\$4 receiv\$3) near2 (identity identification identif\$5 ID DID))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/14 12:08
L6	37	5 and ((center\$4 main authority authorized) near2 (institution entity financ\$4 commerc\$4 bank\$3) CA)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/14 12:05
L7	7277	(realtime real dynamic\$5 temporar\$5) near1 (identity identification identif\$5 ID DID)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/14 12:56
L8	2394	7 and ((center\$4 main authority authorized) near2 (institution entity financ\$6 commerc\$6 bank\$3 offic) CA official)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/14 13:02
L9	293	8 and ((center\$4 main authority authorized institution entity financ\$6 commerc\$6 bank\$3 offic CA official) near2 (authenticat\$3 authoriz\$4 verification verify\$3 validat\$3))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/14 13:01

EAST Search History

L10	228	9 and ((user customer consumer client origina\$4 receiv\$3) near1 (identity identification identif\$5 ID DID))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/14 12:58
L11	117	10 and (transaction near2 (financ\$6 commerc\$6 bank\$3 office official sale))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/14 12:12
L12	115	10 and (transaction near (financ\$6 commerc\$6 bank\$3 office official sale))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/14 12:29
L13	11	12 and ((trusted protected secure) adj network)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/14 13:03
L15	118	10 and ((financ\$6 commerc\$6 bank\$3 credit sale) adj1 transaction)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/14 13:00
L16	87	15 and (buy\$3 purchas\$3)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/14 12:34
L17	19	15 and @ad<"20010829"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/14 12:59
L18	2	"5815665".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/14 12:54
L19	18974	(realtime time dynamic\$5 temporar\$5 single onetime) adj1 (identity identification identif\$5 ID DID)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/14 12:57
L20	4327	19 and ((user customer consumer client origina\$4 receiv\$3 Buy\$3 purchas\$3) adj1 (identity identification identif\$5 ID DID))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/14 12:59

EAST Search History

L21	1951	20 and @ad<"20010829"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/14 12:59
L22	299	21 and ((financ\$6 commerc\$6 bank\$3 credit sale) adj1 transaction)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/14 13:00
L23	56	22 and ((center\$4 main authority authorized institution entity financ\$6 commerc\$6 bank\$3 offic CA official) near2 (authentikat\$3 autoriz\$4 verification verify\$3 validat\$3))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/14 13:04
L24	25	23 and ((center\$4 main authority authorized) near2 (institution entity financ\$6 commerc\$6 bank\$3 offic CA official)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/14 13:04
L25	132	22 and ((trusted protected secure private local) adj network LAN WAN)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/14 13:03
L26	29	25 and ((center\$4 main authority authorized institution entity financ\$6 commerc\$6 bank\$3 offic CA official) near2 (authentikat\$3 autoriz\$4 verification verify\$3 validat\$3))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/14 13:04
L27	11	26 and ((center\$4 main authority authorized) near2 (institution entity financ\$6 commerc\$6 bank\$3 offic CA official)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/14 13:04



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www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/239,046	09/30/2005	Nader Asghari-Kamrani		2201

7590 04/21/2006
Nader Asghari-Kamrani
6558 Palisades Drives
Centreville, VA 20121

EXAMINER

NOBAHAR, ABDULHAKIM

ART UNIT PAPER NUMBER

2132

DATE MAILED: 04/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 11/239,046	Applicant(s) ASGHARI-KAMRANI ET AL.	
	Examiner Abdulahkim Nobahar	Art Unit 2132	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 30 September 2005.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims


- 4) Claim(s) 1-20 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-20 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 - 1. Certified copies of the priority documents have been received.
 - 2. Certified copies of the priority documents have been received in Application No. _____.
 - 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.


KAMBIZ ZAND
PRIMARY EXAMINER

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date _____
- 4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson [5,529,885 B1; hereinafter Johnson] in view of Franklin et al [5,883,810; hereinafter Franklin].

Regarding claims 1, 2 and 9-10, Johnson discloses a system for direct authentication and/or authorization of a transaction between an Originator and a Receiver, comprising (see, for example, abstract; col. 4, lines 32-50) comprising:

an Originator in communication with an Originating Participating Financial Institution (OPFI) (see, for example, Fig. 3, where web buyer and web buyer's home bank correspond to the recited Originator and OPFI, respectively)

a Receiver in communication with a Receiving Participating Financial Institution (RPFI) (see, for example, Fig. 3, where web seller and web seller bank correspond to the recited Receiver and RPFI, respectively);

a DID System that calculates a digital identity for the Originator (see, for example, col. 9, lines 29-37; col. 13, lines 28-30);

whereby upon communication of the digital identity from the Originator to the Receiver, direct authentication of the Originator and/or authorization of the transaction may be performed between the RPFi and the OPFI through the DID Operator (see, for example, col. 12, lines 46-67; col. 13, lines 25-54; col. 14, lines 5-10, where the authentication is performed in real time).

Johnson, however, does not disclose:

a trusted Digital Identity (DID) Network connecting the OPFI and RPFi through a DID Operator, the DID Operator further coupled to a DID System that calculates a digital identity for the Originator.

Franklin on the other hand discloses an online commerce system that uses an online commerce card (see, for example, abstract). Franklin further discloses an issuing institution (a central authority) that issues a permanent account number for each customer, also issues a transaction number (corresponding to the recited digital identity, DID) for a customer upon request each time the customer is planning to conduct an online or an electronic transaction (see, for example, col. 1, line 65-col. 2, line 47). The customer submits the transaction number to the merchant and merchant sends the number to the issuing institution for authentication of the buyer and authorization of the transaction.

It would have been obvious to a person of ordinary skill in the art to employ an trusted institution to issue digital ID for the buyer as taught in Franklin in the system of

Art Unit: 2132

Johnson because it would improve the security and can be integrated in the existing card verification system (Franklin, col. 1, lines 60-64).

Regarding claim 3, Johnson discloses the system of claim 1, wherein the Originator is not required to implement software or hardware to use said digital identity (see, for example, col. 6, lines 31-49; col. 12, lines 59-67, where no hardware or software is used (see also Franklin, col. 2, lines 2-4)).

Regarding claim 4, Franklin discloses:

The system of claim 1, wherein the digital identity is a dynamic, non-predictable, highly sensitive, and time-dependent alphanumeric or any other key code (see, for example, col. 4, lines 48-67).

Regarding claim 5, Franklin discloses:

The system of claim 1, wherein the digital identity includes information about the Originator that causes the digital identity to be unique and Originator-specific (see, for example, col. 4, lines 48-67; col. 7, lines 39-45).

Regarding claim 6, Johnson discloses:

The system of claim 1, wherein the transaction is a financial or non-financial transaction (see, for example, col. 4, lines 32-40).

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Regarding claim 6, Franklin discloses:

The system of claim 1, wherein the transaction is a financial or non-financial transaction (see, for example, abstract; col. 2, lines 1-21).

Regarding claim 7, Johnson discloses:

The system of claim 6, wherein the financial transaction includes an account to account transfer (see, for example, col. 13, lines 49-55).

Regarding claim 8, Franklin discloses:

The system of claim 6, wherein the non-financial transaction includes an express agreement and/or identity authentication (see, for example, abstract; col. 7, lines 33-38; col. 7, lines 62-67).

Regarding claim 11, this claim is rejected as applied to the like elements of claims 1 and 9 as stated above and further Johnson discloses:

the OPFI and RPF1 completing the transaction upon successful authentication and/or authorization (see, for example, col. 16, lines 43-58); and

the RPF1 notifying the Receiver of denial or completion of the transaction (see, for example, col. 13, lines 60-67; col. 16, lines 43-58).

Regarding claims 12 and 13, Johnson discloses:

The method of claim 11, wherein the step of the Originator requesting and receiving a digital identity further includes:

the Originator authenticating himself to the OPFI and requesting a digital identity (see, for example, col. 9, lines 5-39);

the OPFI presenting the digital identity to the Originator (see, for example, col. 9, lines 29-37; col. 13, lines 28-30);

the RPFi forwarding the digital identity to the OPFI for validation (see, for example, col. 12, lines 46-67);

a denial message to the RPFi, if the digital identity is invalid (see, for example, col. 13, lines 60-67);

upon approval, the OPFI sending an approval identification and authorization message back to the RPFi (see, for example, col. 16, lines 43-58).

Johnson, however, does not disclose:

the DID Operator calculating and forwarding the digital identity for the Originator.

Franklin discloses an online commerce system that uses an online commerce card (see, for example, abstract). Franklin further discloses an issuing institution (a central authority) that issues a permanent account number for each customer, also issues a transaction number (corresponding to the recited digital identity, DID) for a customer upon request each time the customer is planning to conduct an online or an electronic transaction (see, for example, col. 1, line 65-col. 2, line 47). The customer submits the transaction number to the merchant and merchant sends the number to the issuing institution for authentication of the buyer and authorization of the transaction.

It would have been obvious to a person of ordinary skill in the art to employ an trusted institution to issue digital ID for the buyer as taught in Franklin in the system of Johnson because it would improve the security and can be integrated in the existing card verification system (Franklin, col. 1, lines 60-64).

Regarding claim 14, Franklin discloses:

The system of claim 11, wherein the digital identity is a dynamic, non-predictable, highly sensitive, and time-dependent alphanumeric or any other key code (see, for example, col. 4, lines 48-67).

Regarding claim 15, Franklin discloses:

The system of claim 11, wherein the digital identity includes information about the Originator that causes the digital identity to be unique and Originator-specific (see, for example, col. 4, lines 48-67; col. 7, lines 39-45).

Regarding claim 16, Franklin discloses:

The system of claim 11, wherein the transaction is a financial or non-financial transaction (see, for example, abstract; col. 2, lines 1-21).

Regarding claim 17, Johnson discloses:

The system of claim 16, wherein the financial transaction includes an account to account transfer (see, for example, col. 13, lines 49-55).

Regarding claim 18, Franklin discloses:

The system of claim 16, wherein the non-financial transaction includes an express agreement and/or identity authentication (see, for example, abstract; col. 7, lines 33-38; col. 7, lines 62-67).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent Application Pub. No. 20010044787 A1 to Shwartz et al.

US Patent No. 5838812 A to Pare, Jr. et al.

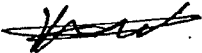
US Patent No. 6748367 B1 to Lee.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Abdulhakim Nobahar whose telephone number is 571-272-3808. The examiner can normally be reached on M-T 8-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on 571-272-3799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


KAMBIZ ZAND
PRIMARY EXAMINER

Abdulhakim Nobahar
Examiner
Art Unit 2132 *A.N.*

April 17, 2006

Notice of References Cited	Application/Control No. 11/239,046	Applicant(s)/Patent Under Reexamination ASGHARI-KAMRANI ET AL.	
	Examiner Abdulkhkim Nobahar	Art Unit 2132	Page 1 of 1

U.S. PATENT DOCUMENTS

*	Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A US-6,529,885 B1	03-2003	Johnson, Richard C.	705/64
*	B US-5,883,810 A	03-1999	Franklin et al.	705/39
*	C US-2001/0044787 A1	11-2001	Shwartz et al.	705/78
*	D US-5,838,812 A	11-1998	Pare et al.	382/115
*	E US-6,748,367 B1	06-2004	Lee, Joonho John	705/66
*	F US-			
*	G US-			
*	H US-			
*	I US-			
*	J US-			
*	K US-			
*	L US-			
*	M US-			

FOREIGN PATENT DOCUMENTS

*	Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
*	N				
*	O				
*	P				
*	Q				
*	R				
*	S				
*	T				

NON-PATENT DOCUMENTS

*	Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
*	U
*	V
*	W
*	X

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

Index of Claims



Application/Control No.

11/239,046

Examiner

Abdulkhikm Nobahar

Applicant(s)/Patent under Reexamination

ASGHARI-KAMRANI ET AL.

Art Unit

2132

✓	Rejected
=	Allowed

—	(Through numeral) Cancelled
+	Restricted

N	Non-Elected
I	Interference

A	Appeal
O	Objected

Claim		Date
Final	Original	
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Bib Data Sheet

CONFIRMATION NO. 2201

SERIAL NUMBER 11/239,046	FILING DATE 09/30/2005 RULE	CLASS 726	GROUP ART UNIT 2132	ATTORNEY DOCKET NO.
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APPLICANTS

Nader Asghari-Kamrani, Centreville, VA;
 Kamran Asghari-Kamrani, Centreville, VA;

** CONTINUING DATA ***** *A.N.*
 This application is a CIP of 09/940,635 08/29/2001
 and claims benefit of 60/615,603 10/05/2004

** FOREIGN APPLICATIONS ***** *A.N.*

IF REQUIRED, FOREIGN FILING LICENSE GRANTED ** SMALL ENTITY **
 ** 10/31/2005

Foreign Priority claimed <input type="checkbox"/> yes <input checked="" type="checkbox"/> no	STATE OR COUNTRY	SHEETS DRAWING	TOTAL CLAIMS	INDEPENDENT CLAIMS
35 USC 119 (a-d) conditions met <input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> Met after Allowance	VA	11	18	3
Verified and Acknowledged Examiner's Signature _____ Initials _____				

ADDRESS
 Nader Asghari-Kamrani
 6558 Palisades Drives
 Centreville, VA
 20121

TITLE
 Direct authentication and authorization system and method for trusted network of financial institutions

FILING FEE RECEIVED	FEES: Authority has been given in Paper No. _____ to charge/credit DEPOSIT ACCOUNT No. _____ for following:	<input type="checkbox"/> All Fees
		<input type="checkbox"/> 1.16 Fees (Filing)
		<input type="checkbox"/> 1.17 Fees (Processing Ext. of time)
		<input type="checkbox"/> 1.18 Fees (Issue)

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TO: Examiner Nobahar	FROM: Shawna J. Shaw
COMPANY:	DATE: 7/17/2006
FAX NUMBER:	TOTAL NO. OF PAGES INCLUDING COVER: 7
PHONE NUMBER: (571) 228-2938	SENDER'S REFERENCE NUMBER:
RE: 11/239,046	YOUR REFERENCE NUMBER:

URGENT FOR REVIEW PLEASE COMMENT PLEASE REPLY PLEASE RECYCLE

NOTES/COMMENTS:

Please find attached Applicants' response to non-final office action mailed 04/21/06.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Nader Ashgari-Kamrani et al.

Application No.: 11/239,046

Confirmation No.:

Filed: 09/30/2005

Art Unit: 2132

For: Direct Authentication and Authorization
System and Method for Trusted
Network of Financial Institutions

Examiner: A. Nobahar

RESPONSE TO NON-FINAL OFFICE ACTION

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

INTRODUCTORY COMMENTS

In response to the Non-Final Office Action mailed 04/21/06, Applicants respectfully request reconsideration based on the Remarks which begin on page 2 of this communication.

Remarks

Claims 1-18 are pending in this application. Regarding the office action mailed 4/21/06, it appears that the Patent Number for Johnson et al. was mistyped as 5,529,885 instead of 6,529,885 (as correctly cited in the PTO-892 form). Claims 1-18 stand rejected under 35 USC 103 by Johnson et al. (U.S. Patent No. 6,529,885; hereafter "Johnson") in view of Franklin et al. (U.S. Patent No. 5,883,810; hereafter "Franklin"). The prior art rejections are addressed below.

Rejections under 35 U.S.C. 103

Claims 1-18 were rejected under 35 USC 103(a) by Johnson in view of Franklin. These rejections are respectfully traversed for the subsequent reasons.

Independent claims 1, 9 and 11 are directed toward a system and method for direct authentication of an Originator and/or authorization of a transaction. Furthermore, as disclosed in the specification, "authentication" refers to, e.g., verification of: customer identity, account ownership, etc.; whereas "authorization" refers to, e.g., proof of customer assent to a transaction. See generally, pages 4-5, 9 and 14. Johnson is directed toward a system and method for carrying out electronic transactions such as electronic drafts. The system of Johnson includes a Web buyer, a Web buyer's home bank, a Web seller, and a Web seller's home bank (see e.g., Figure 3). However, Johnson does not disclose "direct authentication of the Originator" because the iDraft™ software at the web seller's site redirects the buyer to the buyer's home bank for authentication (col. 12 line 65 – col. 13 line 5). Redirecting the buyer to his home bank increases the possibility of "phishing" and "man in the middle" type attacks. For example, it is easy for a fraudulent seller to redirect the buyer to a fake home bank website and steal the buyer's password. Therefore, the system of Johnson is only good for low ticket transactions. Conversely, the direct authentication/authorization system and method of the present invention based on "digital identity" avoids even the possibility of "phishing" and "man in the middle" type attacks, thereby providing a higher level of security. Moreover, because the Receiver does not need to redirect the Originator to another site for authentication, he doesn't risk losing a connection with the Originator or losing the Originator's business to someone else.

In addition, Johnson's system does not teach "authorization" of the transaction. In an offline world businesses receive a customer's authorization by asking the customer for his signature. In the online world, however, businesses currently do not have a simple or cost effective solution to receive a customer's authorization over the internet. The present specification addresses this problem on page 4, stating that "NACHA (National Clearing House

Association) operating rules and federal government regulations [] require financial institutions to *authenticate* their customers' identity *and receive their authorization* for any type of financial transaction" (emphasis added) and that "[i]n the physical world, financial transactions are authorized by the account owners in writing and signed or similarly authenticated. In the current online world, financial institutions do not have any solution to meet these requirements." Johnson does not provide authorization of transactions because there is no way to conclusively prove a buyers' assent to an online transaction using only passwords. This is in part because passwords are inherently susceptible to being more readily guessed, stolen, and/or copied. Passwords are thus not conventionally considered a reliable means in the online world for manifesting customer assent. Thus, in contrast to prior authentication techniques, the "digital identity" of the present invention provides a straightforward and cost-effective solution to financial operating rules and regulations by providing evidence that the customer is the actual account owner, as well as manifesting their assent to the transaction (see for example, pages 31 and 34, middle paragraphs). By providing evidence to non-financial transactions such as express agreements or contracts with "digital identity," businesses would thereby be able to significantly enhance their online service offerings (pages 15 and 17).

Furthermore, Johnson does not disclose or suggest a DID Operator that connects the OPFI and RPI via a DID network and that is further coupled to a DID System that calculates a digital identity for the Originator. Thus, applicants' agree with the examiner's conclusion on pages 3 and 6 of the previous office action that Johnson does not disclose: "a trusted Digital Identity (DID) network connecting the OPFI and RPI through a DID Operator, the DID Operator further coupled to a DID system that calculates a digital identity for the Originator."

Franklin is directed toward providing an electronic commerce card as a proxy for e.g., a credit card so that sensitive customer information associated with an actual credit card number is not released to an online merchant where it may be susceptible to interception or misappropriation. Because the invention of Franklin is specifically directed to payment card transactions - financial institutions, businesses and customers cannot use Franklin's system for non-financial transactions. The system of Franklin includes: a customer, an issuing bank, and an online merchant. According to the system and method of Franklin, a customer receives an electronic card from an issuing bank in the form of a digital certificate and a software module stored on his computer (col. 4 lines 37-42). To conduct a transaction, the customer invokes the software module (e.g., a user interface, "UI") stored on his computer to send a request to the issuing bank for a temporary transaction number (the transaction number resembling a regular credit card number, for example, with 16 digits). See col. 4 lines 48-50. The issuing bank generates a random temporary transaction number and associates the transaction number with the permanent customer account number in a data record (col. 4 lines 50-53). The customer receives the transaction number and submits the number to the merchant as a proxy for an actual

account number (col. 4 lines 63-65). The merchant then receives the transaction number from the Internet and processes the transaction number using its existing computer system and a closed, proprietary payment network (col. 5 lines 4-6, col. 4 lines 8-14). While software modules are implemented "at the customer and issuing institution" of Franklin, no additional components are implemented "at the merchant" (col. 2 lines 63-65). Because no software components need be added to the merchant computer as part of the online commerce system of Franklin, the merchant computer treats the transaction number of the online commerce card no differently than it treats a standard credit card number (col. 10 lines 39-45). Nowhere in the disclosure does Franklin teach or suggest, however, "direct authentication of the Originator and/or authorization of the transaction" or "a trusted Digital Identity (DID) network connecting the OPFI and RPI through a DID Operator." Therefore Franklin fails to provide the claimed limitations which are absent in Johnson. For these reasons, it is clear that the references as combined would not produce the system and method of the present invention as claimed.

Moreover, there is no motivation suggested in the art or in the references themselves for combining the teachings of Johnson and Franklin. The office action stated that it would have been obvious to a person of ordinary skill in the art "to employ an trusted institution to issue digital ID for the buyer as taught in Franklin in the system of Johnson because it would improve the security and can be integrated into the existing card verification system." Applicants' respectfully disagree. What Franklin teaches is a proxy online card that may be integrated with existing *proprietary card verification and settlement systems* (e.g., VISA, Mastercard, etc. col. 12 lines 10-20). Johnson, on the other hand, is not even directed toward payment card verification systems. Applicants' submit that the system of Johnson and the system of Franklin cannot be used together because they are two diverse systems designed to address different target users and different needs. Specifically, according to the system of Johnson, the buyer does not have to purchase or install any proprietary software to use the system (instead the Web seller installs bank-controlled iDraft™ software). Conversely, in the system of Franklin, the seller does not have to install any hardware or software or change existing systems (instead, the buyer installs proprietary software modules and digital certificates on their computer). Thus, the references actually teach away from one another wherein any attempt to combine the teachings (such that both buyer and seller are required to install respective software) would be cost prohibitive and counter-productive to the operation of each of the references.

Even more, Johnson would not look to Franklin (or any other reference) to employ an additional trusted institution to issue a digital ID because Johnson states that "only a limited number of entities (and preferably only one such entity) hold the Web buyers personal and/or financial information" and that "preferably the entity to hold such information is an entity that already enjoys a fiduciary relationship." See col. 7 lines 32-35. Therefore, there is no need to add an issuing bank in the system of Johnson as the Web buyer's home bank already securely

handles the buyer's personal information and password. Another stated object of Johnson is to provide methods and systems that allow financial transactions to be carried out in a manner "that is simple and that ensures the integrity and security of the buyer's personal and financial information" (col. 4 lines 33-37). However, incorporation of the issuing bank of Franklin to generate a digital ID would cause the operation of Johnson to become unnecessarily complex and unpractical. For example, problems that may occur by incorporating the trusted institution of Franklin with Johnson include: 1) the issuing bank could (randomly) generate the same temporary account number for two different customers since the numbers are not customer-specific; 2) the issuing bank could run out of numbers. In other words, the first 6 digits of the credit card number are conventionally known as the Bank Identification Number (BIN) to identify the issuing bank. If Franklin uses only one digit to differentiate transaction number from credit card number, then the issuing bank only has 9 digits left (16 digit - 6 digit - 1 digit = 9 digit) for credit card and temporary numbers. For these reasons, combining the teachings of Franklin to Johnson would not add any value to Johnson's system but would rather render a system that is unnecessarily complex and unpractical.

In addition, neither system of Johnson or Franklin is able to authenticate a customer's identity or provide proof of authorization for non-financial transactions such as express agreements. In an offline world, businesses authenticate customers' identity by looking at the customers' driver's license or identity card and receive a customer's authorization by asking for their signature. In the online world, however, businesses currently do not have a simple or cost effective solution to authenticate online users' identity or obtain authorization with a high degree of reliability. Examples of such non-financial transactions include where the customer: applies for government services over the internet; applies to vote online; applies for mortgage online; applies for online exam; applies to open bank account online; requests his/her credit report online; or applies for a new credit card online. Thus by providing user authentication and/or authorization, the "digital identity" of the present invention would allow businesses to significantly increase their online service offerings.

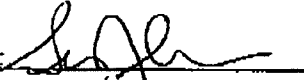
For the above described reasons, Applicants' submit that independent claims 1, 9 and 11 as well as claims 2-8, 10 and 12-18 dependent therefrom, are allowable over the prior art and respectfully request that the previous rejection be withdrawn.

Conclusion

Applicants' respectfully request reconsideration of the claim rejections based on the above remarks. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance. If the examiner believes that personal communication will expedite prosecution of this application, the examiner is invited to telephone the undersigned at (571) 228-2938.

Respectfully submitted,

By:



Shawna J. Shaw
Agent for Applicants
Registration No. 57,091

Dated: 07/17/2006



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/239,046	09/30/2005	Nader Asghari-Kamrani		2201

7590 10/03/2006
Nader Asghari-Kamrani
6558 Palisades Drives
Centreville, VA 20121

EXAMINER
NOBAHAR, ABDULHAKIM

ART UNIT PAPER NUMBER
2132

DATE MAILED: 10/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 11/239,046	Applicant(s) ASGHARI-KAMRANI ET AL.	
	Examiner Abdulkhkim Nobahar	Art Unit 2132	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 17 July 2006.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-18 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-18 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 - 1. Certified copies of the priority documents have been received.
 - 2. Certified copies of the priority documents have been received in Application No. _____.
 - 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)
 Paper No(s)/Mail Date _____.
- 4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____.
- 5) Notice of Informal Patent Application
- 6) Other: _____.

DETAILED ACTION

1. This office action is in response to applicants' response filed on July 17, 2006.
2. Applicants' arguments have been fully considered but they are not persuasive.
3. Examiner suggests that larger fonts should be used in the writing of the communications to enhance the legibility of their texts. For example, on line 21, page 2 of the remarks due to application of small fonts it is not clear to read "low ticket transactions" or "tow ticket transactions".

Response to Arguments

1. With respect to the rejection of independent claims 1, 9 and 11, applicants on page 2 of remarks argue that Johnson does not disclose "direct authentication of the originator" because the iDraft™ software at the web seller's site redirects the buyer to the buyer's home bank for authentication (col. 12 line 65 - 004. 13 line 5). Redirecting the buyer to his home bank increases the possibility of "phishing" and "man in the middle" type attacks. For example, it is easy for a fraudulent seller to redirect the buyer to a fake home bank website and steal the buyer's password. Therefore, the system of Johnson is only good for tow ticket transactions.

Examiner respectfully disagrees and asserts that Johnson discloses that the customer's ID and password are used to authenticate the customer for an online transaction (see, for example, col. 12, lines 37-67 and col. 13, lines 25-60). The customer's ID and password can be considered as customer's credentials and the Johnson method of authenticating a buyer using these credentials is compatible with the

definition of "direct authentication of the originator" described on page 11 of the specifications. Johnson also discloses that secure communication is used during the authentication process and the user password is encrypted upon receipt (col. 8, lines 64-67 and col. 10, lines 1-27). Thus, the possibility of "phishing" and "man in the middle" type attacks are reduced.

2. Applicants on pages 2 and 3 of remarks argue that Johnson's system does not teach "authorization" of the transaction.

Examiner respectfully disagrees and asserts that the method of Johnson for authenticating a web buyer to carry out a secure online transaction is authorization of the transaction (see, for example, col. 13, lines 42-60 and col. 20, lines 5-11).

3. Applicants on page 3 of remarks argue that Johnson does not disclose or suggest a DID operator that connect the OPFI and RPF1 via a DID network and that is further coupled to a DID System that calculates a digital identity for the Originator.

Examiner respectfully disagrees and asserts that Johnson discloses that the authentication of a buyer is carried out over a VPN between the web seller bank and the web buyer bank and for establishing the VPN the required VPN parameters are negotiated (col. 13, lines, 25-41). It is well known in the art of cryptography that except in the case of using digital certificates (i.e., applying public cryptography), a trusted third party (i.e., a central authority) is required to establish a VPN network between two parties. Although, Johnson does not expressly disclose the use of a trusted authority to

control secure communications between the web buyer and web seller banks, it is obvious that a trusted central institution is used for establishing VPN, if the two banks are not using a public cryptography system. In the case of employing a public cryptography system the digital certificates must be issued for the two banks by a trusted institution. Once the certificates are issued the role of a trusted institution (i.e., the recited DID operator) for controlling the communication between the two banks become redundant. However, by combining the teachings of Franklin and Johnson, the issuing institution of Franklin (see col. 2, lines 5-10) can be substituted for the DID operator.

4. Applicants on page 3 of remarks argue that businesses and customers cannot use Franklin system for non-financial transactions.

Although, the claims are silent about the non-financial type of transactions, Franklin discloses a digital card that can be used the same way as the digital identity of the claimed invention is used (see, for example, col. 2, lines 1-5).

5. Applicants on page 4 of the remarks argue that there is no motivation suggested in the art or in the references themselves for combining the teachings of Johnson and Franklin.

In response to applicants' argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention

where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Johnson and Franklin are both analogous in the field of online commerce and both disclose systems and methods that authenticate a web customer for doing online transactions or requesting an online service. Johnson does not expressly disclose that a certifying authority issuing a digital identity for a customer while Franklin teaches that an issuing bank issues a digital card and transaction number (corresponding to the recited digital identity) to a customer for making online transactions. Franklin further teaches that the merchant forward the customer transaction number to the issuing institution to authenticate the customer and authorize the transaction (see, for example, col. 1, line 65-col. 2, line 47). One of ordinary skill in the art at the time of the applicants' invention would have been motivated to take advantage of the teachings of Franklin to deploy an issuing institution for issuing digital identity to web buyers and control and authorize each transaction to remedy for the deficiency of the Johnson system, if it is considered to be a deficiency.

6. The examiner, however, in light of the above submission maintains the previous rejections as follows.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson [5,529,885 B1; hereinafter Johnson] in view of Franklin et al [5,883,810; hereinafter Franklin].

Regarding claims 1, 2 and 9-10, Johnson discloses a system for direct authentication and/or authorization of a transaction between an Originator and a Receiver, comprising (see, for example, abstract; col. 4, lines 32-50) comprising:

an Originator in communication with an Originating Participating Financial Institution (OPFI) (see, for example, Fig. 3, where web buyer and web buyer's home bank correspond to the recited Originator and OPFI, respectively)

a Receiver in communication with a Receiving Participating Financial Institution (RPFI) (see, for example, Fig. 3, where web seller and web seller bank correspond to the recited Receiver and RPFI, respectively);

a DID System that calculates a digital identity for the Originator (see, for example, col. 9, lines 29-37; col. 13, lines 28-30);

whereby upon communication of the digital identity from the Originator to the Receiver, direct authentication of the Originator and/or authorization of the transaction may be performed between the RPFI and the OPFI through the DID Operator (see, for example, col. 12, lines 46-67; col. 13, lines 25-54; col. 14, lines 5-10, where the authentication is performed in real time).

Johnson, however, does not disclose:

a trusted Digital Identity (DID) Network connecting the OPFI and RPFI through a DID Operator, the DID Operator further coupled to a DID System that calculates a digital identity for the Originator.

Franklin on the other hand discloses an online commerce system that uses an online commerce card (see, for example, abstract). Franklin further discloses an issuing institution (a central authority) that issues a permanent account number for each customer, also issues a transaction number (corresponding to the recited digital identity, DID) for a customer upon request each time the customer is planning to conduct an online or an electronic transaction (see, for example, col. 1, line 65-col. 2, line 47). The customer submits the transaction number to the merchant and merchant sends the number to the issuing institution for authentication of the buyer and authorization of the transaction.

It would have been obvious to a person of ordinary skill in the art to employ an trusted institution to issue digital ID for the buyer as taught in Franklin in the system of Johnson because it would improve the security and can be integrated in the existing card verification system (Franklin, col. 1, lines 60-64).

Regarding claim 3, Johnson discloses the system of claim 1, wherein the Originator is not required to implement software or hardware to use said digital identity (see, for example, col. 6, lines 31-49; col. 12, lines 59-67, where no hardware or software is used (see also Franklin, col. 2, lines 2-4)).

Regarding claim 4, Franklin discloses:

The system of claim 1, wherein the digital identity is a dynamic, non-predictable, highly sensitive, and time-dependent alphanumeric or any other key code (see, for example, col. 4, lines 48-67).

Regarding claim 5, Franklin discloses:

The system of claim 1, wherein the digital identity includes information about the Originator that causes the digital identity to be unique and Originator-specific (see, for example, col. 4, lines 48-67; col. 7, lines 39-45).

Regarding claim 6, Johnson discloses:

The system of claim 1, wherein the transaction is a financial or non-financial transaction (see, for example, col. 4, lines 32-40).

Regarding claim 6, Franklin discloses:

The system of claim 1, wherein the transaction is a financial or non-financial transaction (see, for example, abstract; col. 2, lines 1-21).

Regarding claim 7, Johnson discloses:

The system of claim 6, wherein the financial transaction includes an account to account transfer (see, for example, col. 13, lines 49-55).

Regarding claim 8, Franklin discloses:

The system of claim 6, wherein the non-financial transaction includes an express agreement and/or identity authentication (see, for example, abstract; col. 7, lines 33-38; col. 7, lines 62-67).

Regarding claim 11, this claim is rejected as applied to the like elements of claims 1 and 9 as stated above and further Johnson discloses:

the OPFI and RPF1 completing the transaction upon successful authentication and/or authorization (see, for example, col. 16, lines 43-58); and

the RPF1 notifying the Receiver of denial or completion of the transaction (see, for example, col. 13, lines 60-67; col. 16, lines 43-58).

Regarding claims 12 and 13, Johnson discloses:

The method of claim 11, wherein the step of the Originator requesting and receiving a digital identity further includes:

the Originator authenticating himself to the OPFI and requesting a digital identity (see, for example, col. 9, lines 5-39);

the OPFI presenting the digital identity to the Originator (see, for example, col. 9, lines 29-37; col. 13, lines 28-30);

the RPFI forwarding the digital identity to the OPFI for validation (see, for example, col. 12, lines 46-67);

a denial message to the RPFI, if the digital identity is invalid (see, for example, col. 13, lines 60-67);

upon approval, the OPFI sending an approval identification and authorization message back to the RPFI (see, for example, col. 16, lines 43-58).

Johnson, however, does not disclose:

the DID Operator calculating and forwarding the digital identity for the Originator.

Franklin discloses an online commerce system that uses an online commerce card (see, for example, abstract). Franklin further discloses an issuing institution (a central authority) that issues a permanent account number for each customer, also issues a transaction number (corresponding to the recited digital identity, DID) for a customer upon request each time the customer is planning to conduct an online or an electronic transaction (see, for example, col. 1, line 65-col. 2, line 47). The customer submits the transaction number to the merchant and merchant sends the number to the issuing institution for authentication of the buyer and authorization of the transaction.

It would have been obvious to a person of ordinary skill in the art to employ an trusted institution to issue digital ID for the buyer as taught in Franklin in the system of

Johnson because it would improve the security and can be integrated in the existing card verification system (Franklin, col. 1, lines 60-64).

Regarding claim 14, Franklin discloses:

The system of claim 11, wherein the digital identity is a dynamic, non-predictable, highly sensitive, and time-dependent alphanumeric or any other key code (see, for example, col. 4, lines 48-67).

Regarding claim 15, Franklin discloses:

The system of claim 11, wherein the digital identity includes information about the Originator that causes the digital identity to be unique and Originator-specific (see, for example, col. 4, lines 48-67; col. 7, lines 39-45).

Regarding claim 16, Franklin discloses:

The system of claim 11, wherein the transaction is a financial or non-financial transaction (see, for example, abstract; col. 2, lines 1-21).

Regarding claim 17, Johnson discloses:

The system of claim 16, wherein the financial transaction includes an account to account transfer (see, for example, col. 13, lines 49-55).

Regarding claim 18, Franklin discloses:

The system of claim 16, wherein the non-financial transaction includes an express agreement and/or identity authentication (see, for example, abstract; col. 7, lines 33-38; col. 7, lines 62-67).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Abdulhakim Nobahar whose telephone number is 571-272-3808. The examiner can normally be reached on M-T 8-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on 571-272-3799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

September 27, 2006

Abdulkhkim Nobahar
Examiner
Art Unit 2132 *A.N.*

Gilberto Barron Jr.
GILBERTO BARRON JR.
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

Index of Claims



Application/Control No.

11/239,046

Examiner

Abdulkhikim Nobahar

Applicant(s)/Patent under Reexamination

ASGHARI-KAMRANI ET AL.

Art Unit

2132

√	Rejected
≡	Allowed

—	(Through numeral) Cancelled
÷	Restricted

N	Non-Elected
I	Interference

A	Appeal
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Claim		Date									
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Bib Data Sheet

CONFIRMATION NO. 2201

SERIAL NUMBER 11/239,046	FILING DATE 09/30/2005 RULE	CLASS 726	GROUP ART UNIT 2132	ATTORNEY DOCKET NO.
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APPLICANTS

Nader Asghari-Kamrani, Centreville, VA;
 Kamran Asghari-Kamrani, Centreville, VA;

** CONTINUING DATA ***** *A.N.*
 This application is a CIP of 09/940,635 08/29/2001
 and claims benefit of 60/615,603 10/05/2004

** FOREIGN APPLICATIONS ***** *A.N.*

IF REQUIRED, FOREIGN FILING LICENSE GRANTED ** SMALL ENTITY **
 ** 10/31/2005

Foreign Priority claimed 35 USC 119 (a-d) conditions met	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no <input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> Met after Allowance	STATE OR COUNTRY VA	SHEETS DRAWING 11	TOTAL CLAIMS 18	INDEPENDENT CLAIMS 3
Verified and Acknowledged	<i>A. N. Kamrani</i> Examiner's Signature Initials				

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TITLE
 Direct authentication and authorization system and method for trusted network of financial institutions

FILING FEE RECEIVED	FEES: Authority has been given in Paper No. _____ to charge/credit DEPOSIT ACCOUNT No. _____ for following:	<input type="checkbox"/> All Fees
		<input type="checkbox"/> 1.16 Fees (Filing) <input type="checkbox"/> 1.17 Fees (Processing Ext. of time) <input type="checkbox"/> 1.18 Fees (Issue)

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Nader Ashgari-Kamrani et al.

Application No.: 11/239,046

Confirmation No.:

Filed: 09/30/2005

Art Unit: 2132

For: Direct Authentication and Authorization
System and Method for Trusted
Network of Financial Institutions

Examiner: A. Nobahar

AMENDMENT AND RESPONSE TO FINAL OFFICE ACTION

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

INTRODUCTORY COMMENTS

In response to the Final Office Action mailed 10/03/2006, Applicants respectfully request reconsideration based on the Amendments and Remarks which follow.

We Claim:

1. (Currently Amended) A system for direct authentication and/or authorization of a transaction between an Originator and a Receiver, comprising:

 an Originator in communication with an Originating Participating Financial Institution (OPFI);

 a Receiver in communication with a Receiving Participating Financial Institution (RPFI);

 a trusted Digital Identity (DID) Network connecting the OPFI and RPFI through a DID Operator, the DID Operator further coupled to a DID System that calculates a dynamic, non-predictable, time-dependent, unique and Originator-specific digital identity for the Originator;

 whereby upon communication of the digital identity from the Originator to the Receiver, direct authentication of the Originator and/or authorization of the transaction may be performed between the RPFI and the OPFI through the DID Operator.

2. (Originally Presented) The system of claim 1, wherein said authentication and/or authorization is performed in real time.

3. (Originally Presented) The system of claim 1, wherein the Originator is not required to implement software or hardware to use said digital identity.

4. (Canceled) The system of claim 1, wherein the digital identity is a dynamic, non-predictable, highly sensitive, and time-dependent alphanumeric or any other key code.

5. (Canceled) The system of claim 1, wherein the digital identity includes information about the Originator that causes the digital identity to be unique and Originator-specific.

6. (Originally Presented) The system of claim 1, wherein the transaction is a financial or non-financial transaction.

7. (Originally Presented) The system of claim 6, wherein the financial transaction includes an account to account transfer.

8. (Originally Presented) The system of claim 6, wherein the non-financial transaction includes an express agreement and/or identity authentication.

9. (Currently Amended) A system for financial institutions to directly authenticate customers and/or verify authorization of transactions, comprising:

an Originating Participating Financial Institution (OPFI);

a Receiving Participating Financial Institution (RPFI);

a trusted Digital Identity (DID) network connecting the Participating Financial Institutions (OPFI/RPFI) through a Digital Identity (DID) Operator that calculates a dynamic, non-predictable, time-dependent, unique and Originator-specific digital identity for the Originator;

whereby direct authentication of the Originator and/or authorization of a transaction may be performed between the RPFI and the OPFI through the DID Operator based on the digital identity.

10. (Originally Presented) The system of claim 9, wherein said authentication and/or authorization is performed in real time.

11. (Currently Amended) A method for direct authentication and/or authorization of a transaction between an Originator and Receiver, comprising the steps of:

providing a trusted Digital Identity (DID) Network connecting an Originating Participating Financial Institution (OPFI) and a Receiving Participating Financial Institution (RPFI) through a Digital Identity (DID) Operator;

the Originator requesting and receiving a dynamic, non-predictable, time-dependent, unique and Originator-specific digital identity from the OPFI;

the Originator providing the Receiver with the digital identity;

the Receiver submitting the digital identity to the RPFI;

The RPFI initiating direct authentication of the Originator and/or authorization of the transaction based on the digital identity;

the OPFI and RPFI completing the transaction upon successful authentication and/or authorization; and

the RPFI notifying the Receiver of denial or completion of the transaction.

12. (Originally Presented) The method of claim 11, wherein the step of the Originator requesting and receiving a digital identity further includes:

-the Originator authenticating himself to the OPFI and requesting a digital identity;

-the OPFI requesting a digital identity from the DID Operator;

-the DID operator calculating and forwarding the digital identity to the OPFI; and

-the OPFI presenting the digital identity to the Originator.

13. (Originally Presented) The method of claim 11, wherein the step of the RPFi initiating direct authentication and/or authorization further includes:

-the RPFi forwarding the digital identity to the DID Operator for validation;

-the DID Operator sending a denial message to the RPFi – if the digital identity is invalid;

-the DID Operator sending a Digital Identity Message (DIM) to the OPFI for approval – if the digital identity is valid; and

-upon approval, the OPFI sending an approval identification and authorization message back to the RPFi.

14. (Canceled) The method of claim 11, wherein the digital identity is a dynamic, non-predictable, highly sensitive, and time-dependent alphanumeric or any other key code.

15. (Canceled) The method of claim 11, wherein the digital identity includes information about the Originator that causes the digital identity to be unique and Originator-specific.

16. (Originally Presented) The method of claim 11, wherein the transaction is a financial or non-financial transaction.

17. (Originally Presented) The method of claim 16, wherein the financial transaction includes an account to account transfer.

18. (Originally Presented) The method of claim 16, wherein the non-financial transaction includes an express agreement and/or identity authentication.

u/239,046

Remarks

Claims 1-3, 6-13 and 16-18 are pending in this application. Claims 1, 9 and 11 have been amended. Claims 4, 5, 14 and 15 have been cancelled. Claims 1-3, 6-13 and 16-18 stand finally rejected under 35 USC 103 by Johnson et al. (U.S. Patent No. 6,529,885; hereafter "Johnson") in view of Franklin et al. (U.S. Patent No. 5,883,810; hereafter "Franklin"). The prior art rejections are addressed below.

Request for Personal Interview

It is believed that the current amendments and remarks define over the prior art and help to further narrow the issues for prosecution. In the event the application is not in immediate condition for allowance, the applicants' respectfully request a personal interview with the examiner in response to this communication as the applicants' have not yet been afforded an opportunity for an interview in this case.

The Office's response to applicants' arguments

1. In paragraph 1, of the Final Office Action (mailed 10/03/2006), it is asserted that Johnson teaches authentication in the form of a customer's ID and password, where the ID and password can be considered as the customer's credentials. However, it is well understood in the financial and online arts that password-based systems provide a weak form of security where passwords are not a reliable mechanism for providing authentication of transactions (e.g., account-to-account transfers). For background on the limitations of authentication in *password-based* systems, the Office is directed to the FFIEC (Federal Financial Institutions Examination Council) document filed herewith.

Instead of *password-based* authentication, the present invention discloses direct authorization and/or authentication of a transaction based on digital identity that is dynamic, non-predictable, time-dependent, unique and Originator-specific, to provide the same assurance as a signature in the online world. See the instant specification page 4 line 21 – page 5 line 4.

The Office Action goes on to state that Johnson discloses that secure communication is used during the authentication process and the password is encrypted

upon receipt - "[t]hus the possibility of 'phishing' and 'man in the middle' type attacks are reduced." The applicants' respectfully disagree. For example, an attacker could easily target the home bank and buyers of Johnson by spoofing the banks' website to elicit a buyer's ID and password (which is sent in unencrypted form over the network). For further reference regarding the problems raised by phishing, the Office is referred to the FFIEC (Federal Financial Institutions Examination Council) document filed herewith (See page 4, paragraph 3 & footprint). See also Appendix I (attached) for detailed illustration how phishing can easily occur in the system of Johnson.

2. In paragraph 2 of the Office Action, it is asserted that authentication of a buyer in Johnson is authorization of the transaction. The applicants respectfully disagree. Authorization is not the same as authentication. For example, in the physical world, an account owner may be *authenticated* by presenting his driver's license. *Authorization* of the financial transaction, however, is obtained by the account owner's signature which evidences his assent to the transaction (cp. Johnson, column 9 lines 5-7). In the same way, authorization in online transactions need to manifest the customer's assent to the transaction (see the instant specification, page 17 lines 7-9). Thus, the present invention recognizes that financial institutions must use a method that provides the *same assurance as a signature* in the physical world. See specification, page 4 line 12 – page 5 line 4. IDs and passwords, on the other hand, cannot provide the same assurance as a signature in the physical world. For example, it is well known in the financial arts that *password-based* systems are not reliable for authorizing transactions such as movement of funds or account-to-account transfers. For background on the limitations of *password-based* systems, see the "FFEIC" and "Security Park" documents filed herewith.

3. Paragraph 3 of the Final Office Action states that Johnson discloses the use of VPNs, and although "Johnson does not expressly disclose the use of a trusted authority . . . it is obvious that a trusted institution is used for establishing VPN." However, the applicants' point out that such a third party (assuming one is necessarily present), is irrelevant to the claimed invention because a third party establishing a VPN would not be used to calculate the password (let alone digital identity) for the Originator. Rather, such a third party (assuming one is necessarily present) would only provide the service of setting up the VPN, and would not have anything to do creating a digital identity.

4. Regarding paragraph 4 of the Final Office Action, claims 8 and 18 of the present invention state that the non-financial transaction may include, for example, an express

agreement. Moreover, nowhere does the Office Action show where Franklin teaches or suggests using its online *commerce* card for non-financial transactions.

5. In paragraph 5 of the Final Office Action, it is asserted that there is suggestion to combine the cited references because: "Johnson and Franklin are both analogous in the field of online commerce and both disclose systems and methods that authenticate a web customer for doing online transactions or requesting an online service." However, a mere assertion that both Johnson and Franklin perform online commerce and authentication is not, in itself, sufficient for establishing analogous art or combinability of the references. See MPEP 2141.01(a). Rather, applicants' contend that such an assertion is based on impermissible hindsight and does not consider the teachings of the references as a whole. However, even assuming Johnson and Franklin are "analogous" art, the Final Office Action does not address the applicants' remarks in the response filed 07/17/2006 concerning the fact that the references as a whole teach away from one another, and therefore *cannot* be combined to result in the claimed invention. See also comments below.

35 U.S.C. 103 Rejections

Claims 1-18 were rejected under 35 USC 103(a) by Johnson in view of Franklin. The 103 rejections are respectfully traversed for the subsequent reasons.

Claims 1, 9 and 11 have been amended to state that the digital identity is dynamic, non-predictable, time-dependent, unique and Originator-Specific to incorporate the limitations of claims 4, 5, 14 and 15, which have been canceled by way of amendment.

I. Neither Johnson or Franklin alone, or in combination, teach all of the claimed limitations:

Claims 1-3, 6-13 and 16-18 stand rejected by the primary reference of Johnson in view of the secondary reference of Franklin. Johnson is generally directed toward a system and method for carrying out electronic transactions such as electronic drafts, and comprises at least one buyer, seller, and home bank (e.g., figure 3). To initiate an electronic draft, Johnson requires the web buyer and web seller to each authenticate themselves to the home bank's web page (see, for example, column 4 lines 61-62).

However, Johnson does not, explicitly or implicitly, teach or suggest all of the claimed elements of claims 1, 9 or 11. For example, nowhere does Johnson teach or suggest that the ID and password are dynamic, non-predictable, time-dependent, unique and Originator-Specific as claimed.

Moreover, in both the Non-Final and Final Office Actions, the Office concedes that Johnson “does not disclose: a trusted Digital Identity (DID) Network connecting the OPFI and RPI through a DID Operator, the DID Operator further coupled to a DID System that calculates a digital identity for the Originator.” For this reason, the Office relies on Franklin for the teaching of an issuing bank (i.e., central authority). However, neither Johnson nor Franklin disclose a DID System or Operator that calculates a digital identity that is dynamic, non-predictable, time-dependent, unique and Originator-specific as claimed.

The system of Johnson also does not disclose that the buyer submits their ID and password to the seller. Because Johnson primarily relies on (static) *password-based* authentication, the operation of Johnson requires the buyer to always submit his password to the bank – *not to the seller. Even if the buyer visits the seller’s website directly, the seller redirects the buyer to the buyer’s bank for authentication (this is exactly where phishing can occur).* See, col. 12 lines 56-58, col. 13, lines 6-8, col. 14 lines 31-34. And since in the system of Johnson the seller is not able to directly authenticate the buyer, the seller is further unable to receive transaction authorization from the buyer. In contrast, the digital identity of the present invention enables secure authentication and authorization transactions to take place directly between the Originator and Receiver. Moreover, as opposed to static *password-based* authentication mechanisms, the present invention discloses a Digital Identity Operator and Digital Identity System that provides digital identity-based authentication, where the digital identity is further dynamic, non-predictable, time-dependent, unique and Originator-specific. See, for example, pages 15-16 and 28-29 of the instant specification.

In addition, the applicants’ further point out that claim 1, for example, discloses an Originator in communication with an OPFI connected through a DID Operator coupled to a DID System that calculates digital identity. Thus, instead of providing a single trusted authority, such as the home bank of Johnson, the present invention provides digital identity to an Originator through a multi-level system of trust that comprises the following participants: a DID System, a DID Operator and an Originating Participating Financial Institution.

Johnson, on the other hand, only discloses that the buyer is in communication with his home bank.

Likewise, Franklin only discloses that the customer is coupled to the issuing bank.

The applicants' invention is therefore unique in that it provides a multi-level system of trust as well as a digital identity that is dynamic, non-predictable, time-dependent, unique and Originator-Specific. For these reasons, the present invention is able to provide reliable security for transactions such as account to account transfers by providing the same assurance as a signature in the offline world. Further, since the DID System calculates digital identity, the OPFI does not have to deal with storage limitations associated with storage of passwords, transaction numbers, etc. in a database.

Advantageously, the digital identity-based authentication system of the present invention also provides a higher level of security and supports a diversity of authentication and/or authorization services because it is *inter alia* dynamic and Originator-specific. Moreover, since the digital identity is non-predictable, it is pseudonymous in that it cannot be associated with a particular individual. Furthermore, as opposed to the *bank-controlled iDraft™* system of Johnson, the digital identity-based authentication system of the present invention allows the *Originator* to be in full control of the transaction and in a position to provide informed consent regarding use of their personal information. Other advantages of the digital identity-based authentication and/or authorization system of the present invention are that the digital identity is: inexpensive and easy to use, does not require the Originator to install any additional hardware or software on their systems, offers real time processing and is applicable for financial as well as non-financial transactions. See, for example, page 23 lines 16-19 of the instant specification.

II. There is no motivation in the references themselves, or in the art, to combine Johnson and Franklin:

To make up for the deficiencies in the primary reference of Johnson, the Office Action relies on the secondary reference of Franklin for the teachings of an issuing institution (central-authority); and a transaction number (digital identity). The main focus of Franklin is to provide a user with an electronic commerce card and transaction number (e.g., as a proxy for a real credit card). In other words, the transaction number

of Franklin resembles a real payment card number and is used for making online payments in the same manner as with e.g., a credit card. Particularly, column 4 lines 57-61 of Franklin states that: *"the transaction number and real customer account number are both 16-digit, mod 10 numbers identically formatted with four spaced apart sets of 4-digits"* (emphasis added). Thus, the transaction number looks like a valid credit card number to the customer (and every other participant in the transaction).

The Office Action states that the motivation for combining Franklin with Johnson is that: "[i]t would have been obvious to a person of ordinary skill in the art to employ an trusted institution to issue digital ID for the buyer as taught in Franklin in the system of Johnson *because it would improve the security and can be integrated in the existing card verification system* (Franklin, col. 1, lines 60-64)." The applicants' respectfully disagree for the following reasons:

Franklin uses a transaction number as a virtual account number to prevent distribution of a real credit card number. However, the (e.g., 10 digit) transaction number of Franklin cannot be used for authentication of user's identity because it is not unique and user-specific, and further does not provide the same assurance as user's signature to enable authorization of transactions. For example, the transaction numbers of Franklin are not unique and Originator-specific because the issuing bank is limited to the amount of numbers it can issue before it needs to start over and begin "recycling" transaction numbers previously assigned to someone else. In contrast, two different individuals will never receive the same digital identity. See e.g., the instant specification, page 15 lines 1-7. Therefore, the digital identity system of the present invention is able to authenticate a user's identity, evidence their assent to a transaction, and provide the same assurance as a user's signature in the offline world.

In addition, there is no teaching or suggestion in Johnson for the home bank to look to an external issuing institution such as Franklin to improve its security. Instead, Johnson's approach toward "improving" security is to encrypt the password upon receipt by the Bank (see, column 8 lines 64-67). It is also implausible to suggest that Johnson would be motivated to issue a (e.g., 10 digit) proxy payment card number to the buyer in place of its alphanumeric customer ID and password. In addition, because the transaction number of Franklin cannot be used for authentication, combining Franklin's teachings with Johnson will not add any value to, or meet the deficiencies of, Johnson.

There is also no teaching or suggestion in Franklin to incorporate its proprietary payment card system into the electronic bank draft system of Johnson (or vice versa).

Instead, what Franklin discloses in col. 1 immediately preceding lines 60-64, is that its card-based online commerce system integrates with existing *proprietary card network systems*. In other words, Franklin teaches implementation of his system with *other proprietary payment card systems*.

For the above described reasons, there is no suggestion found in Johnson or Franklin, or in the art, for using the issuing bank or transaction number of Franklin in the system of Johnson. According to MPEP 2143.01, in order to establish *prima facie* obviousness, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art to modify the references. Thus, applicants' assert that a *prima facie* 103 rejection has not been met.

III. The references of Johnson and Franklin are not combinable:

The applicants' further submit that it would not have been obvious at the time the invention was made to a person of ordinary skill in the art to combine the teachings of Johnson and Franklin because the references *cannot* be successfully combined to result in the present invention as claimed. In the Final Office Action it is stated that Johnson and Franklin are combinable because: "Johnson and Franklin are both analogous in the field of online commerce"; and "both disclose systems and methods that authenticate a web customer for doing online transactions or requesting an online service" (see page 5 lines 4-7). This is unpersuasive. The assertion that both Johnson and Franklin perform online commerce and authentication is not, in itself, sufficient for establishing analogous art or combinability of the references. See MPEP 2141.01(a). Rather, applicants' submit that such an assertion is based on impermissible hindsight and does not consider the teachings of the references as a whole. However, even assuming Johnson and Franklin are "analogous" art, the Final Office Action does not address the applicants' remarks in the response filed 07/17/2006 concerning the fact that the references as a whole teach away from one another, and therefore *cannot* be combined to result in the claimed invention.

For example, Johnson and Franklin cannot be combined because Franklin is directed toward a proxy payment card system that may be integrated with other existing *proprietary card verification and settlement systems* (e.g., VISA, Mastercard, etc. see, col. 12 lines 10-20). Johnson, on the other hand, is directed toward electronic

transactions such as bank drafts that are carried out over public networks. In addition, Johnson mentions the need to: "allow e-commerce to be carried out ... without recourse to credit or charge cards," etc. See column 7 lines 45-46.

Johnson and Franklin further cannot be combined because Franklin utilizes proprietary software modules, user interfaces and digital certificates at the *customer* end where no additional components are implemented at the merchant end (see, Franklin, column 2 lines 63-65). Because no software components are added to the merchant computer as part of the payment card system of Franklin, the merchant computer treats the transaction number of the online commerce card no differently than it treats a standard credit card number (see Franklin, column 10 lines 39-45). Conversely, Johnson teaches bank-controlled iDraft™ software implemented at the *seller* end (see, for example, column 12 lines 45-49). Thus, the applicants' submit that the references as a whole teach away from one another wherein any attempt to combine the iDraft system of Johnson with the software modules and user interfaces of Franklin would require both the buyer and seller to install two distinctly different, non-compatible proprietary systems. Such a requirement for the buyer *and* seller to install software on their systems would render both Johnson and Franklin unsatisfactory for their intended purpose (e.g. that no software needs to be added to merchant computers so that the transaction numbers may be treated the same as standard credit card numbers). According to MPEP 2143.01, there is no suggestion or motivation to make a proposed modification if the modification would render the prior art unsatisfactory for its intended purpose or would change the principle of operation of the reference.

For the reasons discussed above, the applicants submit that there is no teaching or suggestion found in the references or in the art for combining the teachings of Johnson and Franklin; nor any reasonable expectation of success in combining the references, and respectfully request that the rejection be withdrawn. Accordingly, it is believed that independent claims 1, 9 and 11, as well as claims 2-8, 10 and 12-18 which depend therefrom, are now in condition for allowance.

Final Rejection Traversed

The applicants' further submit that the Final Rejection (mailed 10/03/2006) is not proper based, in part, on new grounds of rejection presented. For example, in the Non-Final Rejection (mailed 04/21/2006) it was admitted that Johnson does not teach a

trusted DID Network connecting the OPFI and RPFI through a DID Operator. However, on pages 3-4 of the Final Office Action, it is newly asserted that:

Johnson discloses that the authentication of a buyer is carried out over a VPN between the web seller bank and the web buyer bank and for establishing the VPN the required VPN parameters are negotiated (col. 13 lines 25-41). *It is well known in the art of cryptography that except in the case of using digital certificates (i.e., applying public cryptography), a trusted third party (i.e., a central authority) is required to establish a VPN network between two parties.* Although, Johnson does not expressly disclose the use of a trusted authority to control secure communications between the web buyer and web seller banks, *it is obvious that in the case of employing a public cryptography system the digital certificates must be issued for the two banks by a trusted institution.* Once the certificates are issued the role of a trusted institution (i.e., the recited DID operator) for controlling the communication between the two banks become redundant. However, by combining the teachings of Franklin and Johnson, the issuing institution of Franklin (see col. 2, lines 5-10) can be substituted for the DID operator.

(Emphasis added).

It appears that the Office relies on "common knowledge in the art" where it is stated that: "[i]t is well known in the art of cryptography that a trusted third party (i.e., a central authority) ... is required to establish a VPN network between two parties." It further appears that the Office makes another rejection where it is stated that: "it is obvious that in the case of employing a public cryptography system the digital certificates must be issued for the two banks by a trusted institution." (Emphasis added).

However, the applicants' point out that "it is not appropriate to rely solely on 'common knowledge' in the art without evidentiary support in the record, as the principle evidence upon which a rejection was based" and that "an assessment of basic knowledge and common sense that is not based on any evidence in the record lacks substantial evidence support." See MPEP 2144.03 (citing *Zurko*, 258 F.3d at 1385, 59 USPQ at 1697).

The applicants' respectfully traverse the assertion that establishment of a VPN or digital certificate necessarily includes a DID Operator that calculates a digital identity as claimed, and request that the Office provide documentary evidence showing that such a third-party is necessarily present in Johnson *and* calculates digital identity for the buyer.

Moreover, the Final Rejection is also traversed because new grounds of rejection have been introduced that were neither necessitated by an amendment, or an information disclosure statement as set forth by MPEP 706.07(a). In addition, not all of the applicants' remarks in the previous response dated 07/17/2006 have been properly addressed. Specifically, the applicants' detailed discussion as to how the references teach away was not responded to, but instead a mere assertion made that the references are analogous art, and therefore, "combinable." It is further asserted that the reliance on "common knowledge" in the art as a *basis* for Final Rejection *without documentary evidence for support, and not previously presented* to the applicant for response, is also improper. Because the applicants' have not had a previous opportunity to respond to the new rejections, and at the same time, believe they have a right not to be prematurely cut off from prosecution (see MPEP 706.07), it is respectfully requested that the Final Office Action be withdrawn.

Conclusion

Applicants' respectfully request reconsideration of the claim rejections based on the above remarks. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance. If the examiner believes that personal communication will expedite prosecution of this application, the examiner is invited to telephone the undersigned at (571) 228-2938.

Respectfully submitted,

Dated: 11/20/2006

By: 

Shawna J. Shaw
Agent for Applicants
Registration No. 57,091

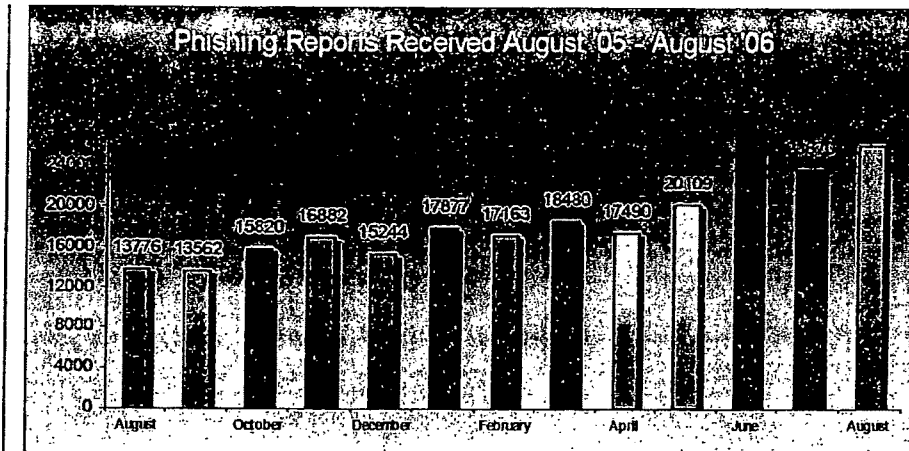
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Appendix I

The number of online crimes, such as phishing, fraud and identity theft, is increasing rapidly. Fraud and identity theft have already been studied by many large institutions, universities and private companies, but no adequate solution has been given.

This report has been provided by Anti-Phishing working group:



Based on Inventors findings an authentication system has to meet the following criteria in order to reach mass market and successfully fight fraud and identity theft (see, for example, the specification of the present invention page 14):

1. Be easy to use and manage for the end users
2. Not require end users to install any hardware or software on their systems
3. Be at no cost to the end users
4. Be independent from financial networks (e.g. ACH, Visa, MasterCard)
5. Offer real time processing
6. Be applicable for financial as well as non financial transactions;
7. Be cost effective
8. Be easy to integrate and compatible with existing systems
9. Reduce users' privacy concerns
10. Be decentralized (No Central Database of users information)

The inventors' authentication system is the only system in the market that can meet the above criteria. Johnson's authentication system is based on password. Passwords are

unable to meet the above criteria because passwords are vulnerable to phishing, spoofing and man in the middle attack. FFIEC (Financial Institution Examination Council) reports that bank account fraud and identity theft are frequently the result of password based authentication exploitation. FFIEC is requiring the financial institutions to plan implementation of stronger form of authentication method. The deadline is December 2006. (See page 4, paragraph 3 & footprint of FFIEC document filed herewith).

When a phisher wants to coordinate an attack to Johnson's system, he does the following:

1. **Planning:** The Phisher decides which banks & credit card companies to target.
2. **Setup:** Once the phisher knows which banks and credit card companies to spoof and who their victims are, phisher creates bogus retail website to gain customer trust. The phisher also creates different phony popup windows (or websites) for different banks that exactly look like the banks' popup window (or bank's website).
3. **Attack:** Once the online customer selects an item and decides to pay -- the phisher sends the phony popup window (or phony bank's website) that appears to be from a reputable bank or credit card company and asks the customer to enter his user id and password for authentication.
4. **Collection:** Popup window ((or bank's website).) look authentic. Online customer enters his user id and password & phisher records the information victims enter.
5. **BINGO, Identity theft and Fraud:** The phisher uses the information (Ids and passwords) gathered to make illegal purchases, access customers' bank accounts or otherwise commit fraud.

ARTIFACT SHEET

Enter artifact number below. Artifact number is application number + artifact type code (see list below) + sequential letter (A, B, C ...). The first artifact folder for an artifact type receives the letter A, the second B, etc.. Examples: 59123456PA, 59123456PB, 59123456ZA, 59123456ZB

11/239, 046 ZA

Indicate quantity of a single type of artifact received but not scanned. Create individual artifact folder/box and artifact number for each Artifact Type.

<input type="checkbox"/>	CD(s) containing:	<input type="checkbox"/>
	computer program listing	
	Doc Code: Computer	Artifact Type Code: P
	pages of specification	<input type="checkbox"/>
	and/or sequence listing	
	and/or table	
	Doc Code: Artifact	Artifact Type Code: S
	content unspecified or combined	<input type="checkbox"/>
	Doc Code: Artifact	Artifact Type Code: U

<input type="checkbox"/>	Stapled Set(s) Color Documents or B/W Photographs
	Doc Code: Artifact Artifact Type Code: C

<input type="checkbox"/>	Microfilm(s)
	Doc Code: Artifact Artifact Type Code: F

<input type="checkbox"/>	Video tape(s)
	Doc Code: Artifact Artifact Type Code: V

<input type="checkbox"/>	Model(s)
	Doc Code: Artifact Artifact Type Code: M

<input type="checkbox"/>	Bound Document(s)
	Doc Code: Artifact Artifact Type Code: B

<input type="checkbox"/>	Confidential Information Disclosure Statement or Other Documents marked Proprietary, Trade Secrets, Subject to Protective Order, Material Submitted under MPEP 724.02, etc.
	Doc Code: Artifact Artifact Type Code X

<input type="checkbox"/>	Other, description: <u>Rem</u>
	Doc Code: Artifact Artifact Type Code: Z

March 8, 2004

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PATENT APPLICATION FEE DETERMINATION RECORD

Substitute for Form PTO-875 Effective December 8, 2004

Application or Docket Number 11 239 046

APPLICATION AS FILED - PART I

(Column 1)

(Column 2)

SMALL ENTITY

OR

OTHER THAN SMALL ENTITY

Table with columns FOR, NUMBER FILED, NUMBER EXTRA. Rows include BASIC FEE, SEARCH FEE, EXAMINATION FEE, TOTAL CLAIMS, INDEPENDENT CLAIMS, APPLICATION SIZE FEE.

Table with columns RATE (\$), FEE (\$). Rows include N/A, X\$25, X100, +180=, TOTAL 500.

Table with columns RATE (\$), FEE (\$). Rows include N/A, X\$50, X200, +360=, TOTAL.

MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(g)) If the difference in column 1 is less than zero, enter "0" in column 2.

APPLICATION AS AMENDED - PART II

11/20/06

(Column 1)

(Column 2)

(Column 3)

SMALL ENTITY

OR

OTHER THAN SMALL ENTITY

Table with columns CLAIMS REMAINING AFTER AMENDMENT, HIGHEST NUMBER PREVIOUSLY PAID FOR, PRESENT EXTRA. Rows include Total, Independent, Application Size Fee, FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM.

Table with columns RATE (\$), ADDITIONAL FEE (\$). Rows include X\$25, X100, +180=, TOTAL ADD'L FEE.

Table with columns RATE (\$), ADDITIONAL FEE (\$). Rows include X\$50, X200, +360=, TOTAL ADD'L FEE.

Table with columns CLAIMS REMAINING AFTER AMENDMENT, HIGHEST NUMBER PREVIOUSLY PAID FOR, PRESENT EXTRA. Rows include Total, Independent, Application Size Fee, FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM.

Table with columns RATE (\$), ADDITIONAL FEE (\$). Rows include X\$25, X100, +180=, TOTAL ADD'L FEE.

Table with columns RATE (\$), ADDITIONAL FEE (\$). Rows include X\$50, X200, +360=, TOTAL ADD'L FEE.

If the entry in column 1 is less than the entry in column 2, write "0" in column 3. If the Highest Number Previously Paid For in THIS SPACE is less than 20, enter "20". If the Highest Number Previously Paid For in THIS SPACE is less than 3, enter "3". The Highest Number Previously Paid For (Total or Independent) is the highest number found in the appropriate box in column 1. This collection of information is required by 37 CFR 1.16. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete. If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

11/239



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/239,046	09/30/2005	Nader Asghari-Kamrani		2201

7590 12/12/2006
 Nader Asghari-Kamrani
 6558 Palisades Drives
 Centreville, VA 20121

EXAMINER

NOBAHAR, ABDULHAKIM

ART UNIT	PAPER NUMBER
----------	--------------

2132

DATE MAILED: 12/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action Before the Filing of an Appeal Brief	Application No. 11/239,046	Applicant(s) ASGHARI-KAMRANI ET AL.	
	Examiner Abdulahakim Nobahar	Art Unit 2132	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 20 November 2006 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) The period for reply expires 3 months from the mailing date of the final rejection.
b) The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
(a) They raise new issues that would require further consideration and/or search (see NOTE below);
(b) They raise the issue of new matter (see NOTE below);
(c) They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
(d) They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: See Continuation Sheet. (See 37 CFR 1.116 and 41.33(a)).

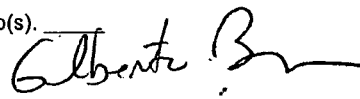
4. The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. Applicant's reply has overcome the following rejection(s): _____.
6. Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. For purposes of appeal, the proposed amendment(s): a) will not be entered, or b) will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
The status of the claim(s) is (or will be) as follows:
Claim(s) allowed: _____
Claim(s) objected to: _____
Claim(s) rejected: _____
Claim(s) withdrawn from consideration: _____

AFFIDAVIT OR OTHER EVIDENCE

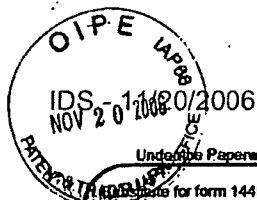
8. The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. The request for reconsideration has been considered but does NOT place the application in condition for allowance because: _____
12. Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). _____
13. Other: _____


GILBERTO BARRON JR.
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

Continuation of 3. NOTE: the new limitations "a dynamic, non-redictable, time-dependent, unique and Originator-specific" and "that calculates a dynamic, non-redictable, time-dependent, unique and Originator-specific digital identity for the Originator" raise new issues require further consideration/search .



PTO/SB/D08 (09-06)
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)		Complete if Known	
		Application Number	11/239,046
		Filing Date	09/30/2005
		First Named Inventor	Kamrani:et.al.
		Art Unit	2132
		Examiner Name	A. Nobahar
Sheet 1	of 1	Attorney Docket Number	

NON-PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
HN		Federal Financial Institutions Examination Council(10/2005)"Authentication in an Internet Banking Environment"available at http://www.ffiec.gov/pdf/authentication_guidance.pdf	
HN		"Will Financial Institutions Really be more Secure with 2-Factor Athentication?" available at http://www.securitypark.co.uk/article.asp?articleid=25011&CategoryID=1%C2%A0	
HN		"Experts Struggle to Fight Online 'Phishing'" (5/4/2006) available at http://domainsmagazine.com/Domains_14/Domain_2830.shtml	

Examiner Signature	/Abdulkhkim Nobahar/	Date Considered	12/06/2006
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.
 1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.
 This collection of information is required by 37 CFR 1.99. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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DFW



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Nader Ashgari-Kamrani et al.

Application No.: 11/239,046

Confirmation No.:

Filed: 09/30/2005

Art Unit: 2132

For: Direct Authentication and Authorization
System and Method for Trusted
Network of Financial Institutions

Examiner: A. Nobahar

AMENDMENT AND RESPONSE TO FINAL OFFICE ACTION

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

INTRODUCTORY COMMENTS

In response to the Final Office Action mailed 10/03/2006, Applicants respectfully request reconsideration based on the Amendments and Remarks which follow.

*Please do not enter
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Bib Data Sheet

CONFIRMATION NO. 2201

SERIAL NUMBER 11/239,046	FILING DATE 09/30/2005 RULE	CLASS 726	GROUP ART UNIT 2132	ATTORNEY DOCKET NO.	
APPLICANTS Nader Asghari-Kamrani, Centreville, VA; Kamran Asghari-Kamrani, Centreville, VA; ** CONTINUING DATA ***** <i>a.n.</i> This application is a CIP of 09/940,635 08/29/2001 and claims benefit of 60/615,603 10/05/2004 ** FOREIGN APPLICATIONS ***** <i>a.n.</i>					
IF REQUIRED, FOREIGN FILING LICENSE GRANTED ** SMALL ENTITY ** ** 10/31/2005					
Foreign Priority claimed <input type="checkbox"/> yes <input checked="" type="checkbox"/> no 35 USC 119 (a-d) conditions met <input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> Met after Allowance Verified and Acknowledged Examiner's Signature: <i>a. n. shah</i> Initials: <i>a.n.</i>	STATE OR COUNTRY VA	SHEETS DRAWING 11	TOTAL CLAIMS 18	INDEPENDENT CLAIMS 3	
ADDRESS Nader Asghari-Kamrani 6558 Palisades Drives Centreville, VA 20121					
TITLE Direct authentication and authorization system and method for trusted network of financial institutions					
FILING FEE RECEIVED	FEES: Authority has been given in Paper No. _____ to charge/credit DEPOSIT ACCOUNT No. _____ for following:			<input type="checkbox"/> All Fees <input type="checkbox"/> 1.16 Fees (Filing) <input type="checkbox"/> 1.17 Fees (Processing Ext. of time) <input type="checkbox"/> 1.18 Fees (Issue)	



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Nader Ashgari-Kamrani et al.

Application No.: 11/239,046

Confirmation No.:

Filed: 09/30/2005

Art Unit: 2132

For: Direct Authentication and Authorization
System and Method for Trusted
Network of Financial Institutions

Examiner: A. Nobahar

REQUEST FOR CONTINUED EXAMINATION (RCE)

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

INTRODUCTORY COMMENTS

In response to the Final Office Action mailed 10/03/2006 and the Advisory Action mailed 12/12/2006, Applicants respectfully request reconsideration based on the Amendments and Remarks which follow. Although the applicants do not agree with the Final Office action, a Request for Continued Examination and the following amendments are submitted herewith to expedite prosecution.

We Claim:

1. (Currently Amended) A system for direct authentication and/or authorization of a transaction between an Originator and a Receiver, comprising:

an Originator in communication with an Originating Participating Financial Institution (OPFI);

a Receiver in communication with a Receiving Participating Financial Institution (RPFI);

a trusted Digital Identity (DID) Network connecting the OPFI and RPFI through a DID Operator, the DID Operator further coupled to a DID System that calculates a dynamic, non-predictable, time-dependent, unique and Originator-specific digital identity for the Originator;

whereby the digital identity is provided to the Originator upon request, and submitted by the Originator to the Receiver as authentication of identity and/or authorization of the transaction upon communication of the digital identity from the Originator to the Receiver, direct authentication of the Originator and/or authorization of the transaction may be performed between the RPFI and the OPFI through the DID Operator.

2. (Currently Amended) The system of claim 1, wherein ~~said authentication and/or authorization is performed~~ the digital identity submitted to the Receiver is verified in real time.

3. (Original) The system of claim 1, wherein the Originator is not required to implement software or hardware to use said digital identity.

4. (Canceled) The system of claim 1, wherein the digital identity is a dynamic, non-predictable, highly sensitive, and time-dependent alphanumeric or any other key code.

5. (Canceled) The system of claim 1, wherein the digital identity includes information about the Originator that causes the digital identity to be unique and Originator-specific.

6. (Currently Amended) The system of claim 1, wherein the transaction ~~is~~ includes a ~~financial or non-financial~~ transaction.

7. (Currently Amended) The system of claim ~~6~~ 1, wherein the financial transaction includes an account to account transfer, an interbank funds transfer, a debit push, and/or a debit pull.

8. (Original) The system of claim 6, wherein the non-financial transaction includes an express agreement and/or identity authentication.

9. (Currently Amended) A system for financial institutions to directly authenticate customers and/or verify authorization of transactions, comprising:

an Originating Participating Financial Institution (OPFI);

a Receiving Participating Financial Institution (RPFI);

a trusted Digital Identity (DID) network connecting the Participating Financial Institutions (OPFI/RPFI) through a Digital Identity (DID) Operator that calculates a dynamic, non-predictable, time-dependent, unique and Originator-specific digital identity for an Originator.

whereby direct authentication of the Originator and/or verification of transaction authorization of a transaction may be performed between the RPF1 and the OPFI through the DID Operator based on the digital identity.

10. (Currently Amended) The system of claim 9, wherein said authentication and/or authorization verification is performed in real time.

11. (Currently Amended) A method for direct authentication and/or authorization of a transaction between an Originator and Receiver, comprising the steps of:

providing a trusted Digital Identity (DID) Network connecting an Originating Participating Financial Institution (OPFI) and a Receiving Participating Financial Institution (RPF1) through a Digital Identity (DID) Operator;

the Originator requesting and receiving a dynamic, non-predictable, time-dependent, unique and Originator-specific digital identity from the OPFI;

the Originator providing the Receiver with the digital identity to authenticate himself and/or authorize the transaction;

the Receiver submitting the digital identity to the RPF1;

The RPF1 initiating direct authentication of the Originator and/or authorization of the transaction based on the digital identity;

the OPFI and RPF1 completing the transaction upon successful authentication and/or authorization; and

the RPF1 notifying the Receiver of denial or completion of the transaction.

12. (Original) The method of claim 11, wherein the step of the Originator requesting and receiving a digital identity further includes:

- the Originator authenticating himself to the OPFI and requesting a digital identity;
- the OPFI requesting a digital identity from the DID Operator;
- the DID operator calculating and forwarding the digital identity to the OPFI; and
- the OPFI presenting the digital identity to the Originator.

13. (Original) The method of claim 11, wherein the step of the RPF1 initiating direct authentication and/or authorization further includes:

- the RPF1 forwarding the digital identity to the DID Operator for validation;
- the DID Operator sending a denial message to the RPF1 – if the digital identity is invalid;
- the DID Operator sending a Digital Identity Message (DIM) to the OPFI for approval – if the digital identity is valid; and
- upon approval, the OPFI sending an approval identification and authorization message back to the RPF1.

14. (Canceled) The method of claim 11, wherein the digital identity is a dynamic, non-predictable, highly sensitive, and time-dependent alphanumeric or any other key code.

15. (Canceled) The method of claim 11, wherein the digital identity includes information about the Originator that causes the digital identity to be unique and Originator-specific.

16. (Currently Amended) ~~The method of claim 11, wherein the transaction is~~
~~includes a financial or non-financial transaction.~~
17. (Currently Amended) The method of claim ~~16~~11, wherein the financial
transaction includes an account to account transfer, an interbank funds transfer, a debit
push, and/or a debit pull.
18. (Original) The method of claim 16, wherein the non-financial transaction includes an
express agreement and/or identity authentication.
19. (New) The system of claim 1, wherein the transaction is selected from any of:
bank account transactions, credit card transactions, and/or non-financial transactions.
20. (New) The system of claim 1, wherein a new digital identity is provided to the
Originator for each transaction.
21. (New) The system of claim 1, wherein the digital identity submitted to the
Receiver provides at least the same assurance as a physical signature, thereby
manifesting the Originator's assent to the transaction.
22. (New) The method of claim 11, wherein the transaction is selected from any of:
bank account transactions, credit card transactions, and/or non-financial transactions.
23. (New) The method of claim 11, wherein a new digital identity is provided to the
Originator for each transaction.

24. (New) The method of claim 11, wherein the digital identity submitted to the Receiver provides at least the same assurance as a physical signature, thereby manifesting the Originator's assent to the transaction.

Remarks

Claims 1-3, 6-13 and 16-24 are pending in this application. Claims 1, 2, 6, 7, 9-11, 16 and 17 have been amended. Claims 4, 5, 14 and 15 have been cancelled. New claims 19-24 have been added. Support for the new claims may be found, for example, on page 4 line 21 – page 5 line 4, page 11, page 14 line 2 – page 15 line 9 and page 17 lines 7-16 of the specification. Claims 1-3, 6-13 and 16-18 stand finally rejected under 35 USC 103 by Johnson et al. (U.S. Patent No. 6,529,885; hereafter “Johnson”) in view of Franklin et al. (U.S. Patent No. 5,883,810; hereafter “Franklin”). The prior art rejections are addressed below.

Request for Personal Interview

It is believed that the current amendments and remarks define over the prior art and help to further narrow the issues for prosecution. In the event the application is not in immediate condition for allowance, the applicants respectfully request a personal interview with the examiner in response to this communication as the applicants have not yet been afforded an opportunity for an interview in this case.

The Office's response to applicants' arguments

1. In paragraph 1, of the Final Office Action (mailed 10/03/2006), it is asserted that Johnson teaches authentication in the form of a customer's ID and password, where the ID and password can be considered as the customer's credentials. However, the ID and password are not dynamic, non-predictable, time-dependent, unique and Originator-specific as claimed. In providing the disclosed digital identity, the present invention takes into account that it is well understood in the financial and online arts that *password-based* systems provide a weak form of security where passwords are not a reliable mechanism for providing authentication or authorization of transactions (e.g., account-to-account transfers). For background on the limitations of *password-based* systems, the Office is directed to the FFIEC (Federal Financial Institutions Examination Council) document filed 11/20/2006.

Instead of *password-based* authentication, the present invention discloses authentication and/or authorization of a transaction based on digital identity that is

dynamic, non-predictable, time-dependent, unique and Originator-specific, and that provides the same assurance as a physical signature in the online world. See e.g., the instant specification page 4 line 21 – page 5 line 4. To illustrate, in the offline world, financial and non-financial transactions are authorized by account owners in writing and signed. The customer's signature is acceptable because it is unique and not easily reproduced. However, it is difficult to provide the same level of assurance with passwords because they can be easily stolen or guessed (and thereby reproduced). Passwords are further not unique since more than one person can have the same password. The present invention addresses the above problems by providing credentials in the form of digital identity that is dynamic, non-predictable, time dependent, unique and Originator-specific. One advantage of the present invention is that it allows Originators to securely authorize financial or non-financial transactions over a communication network such as the Internet. Another advantage is that the Originator may provide digital identity as authentication and/or authorization of a transaction without the need for specialized hardware such as biometric readers, cards, etc. or software such as digital certificates. In addition, because the digital identity is unique (unlike passwords), it is impossible to calculate the same digital identity for two different Originators or for two different Originators to receive the same digital identity (see page 24 lines 1-7 of the instant specification). Moreover, because the digital identity is unique and not easily reproduced, it provides the same assurance as a physical signature and therefore can be used to securely authorize online transactions such as account-to-account transfers, debit pulls, etc.

The Final Office Action also states that Johnson discloses that secure communication is used during the authentication process and the password is encrypted upon receipt - "[t]hus the possibility of 'phishing' and 'man in the middle' type attacks are reduced." The applicants respectfully disagree. For example, an attacker could easily target the home bank and buyers of Johnson by spoofing the banks' website to elicit a buyer's ID and password (which is further sent in unencrypted form over the network). For further reference regarding the problems raised by phishing, the Office is referred to the FFIEC (Federal Financial Institutions Examination Council) document filed 11/20/2006 (See page 4, paragraph 3 & footprint). See also Appendix 1 (attached) for detailed illustration how phishing can easily occur in the system of Johnson.

2. In paragraph 2 of the Office Action, it is asserted that authentication of a buyer in Johnson "is authorization of the transaction." The applicants respectfully disagree.

Authorization is not the same as authentication. For example, in the physical world, an account owner may be *authenticated* by presenting his driver's license. *Authorization of the financial transaction, however, is obtained by the account owner's signature which evidences his assent to the transaction.* In the same way, authorization in online transactions needs to manifest the customer's assent to the transaction (see the instant specification, page 17 lines 7-9). Thus, the present invention recognizes that financial institutions must use a method that provides the *same assurance as a signature* in the physical world. See specification, page 4 line 12—page 5 line 4. IDs and passwords, on the other hand, cannot provide the same assurance as a signature in the physical world and therefore are not reliable for authorizing transactions such as movement of funds or account to account transfers. For background on the limitations of *password-based systems*, see the "FFEIC" and "Security Park" documents filed 11/20/2006.

3. Paragraph 3 of the Final Office Action states that Johnson discloses the use of VPNs, and although "Johnson does not expressly disclose the use of a trusted authority . . . it is obvious that a trusted institution is used for establishing VPN." However, the applicants' point out that such a third party (assuming one is necessarily present), is irrelevant to the claimed invention because a third party establishing a VPN would not be used to calculate the password (let alone digital identity) for the Originator. Rather, such a third party (assuming one is necessarily present) would only provide the service of setting up the VPN, and would not have anything to do creating a digital identity.

4. Regarding paragraph 4 of the Final Office Action, claims 8 and 18 of the present invention state that the non-financial transaction may include, for example, an express agreement. Moreover, nowhere does the Office Action show where Franklin teaches or suggests using its online *commerce* card for non-financial transactions.

5. In paragraph 5 of the Final Office Action, it is asserted that there is suggestion to combine the cited references because: "Johnson and Franklin are both analogous in the field of online commerce and both disclose systems and methods that authenticate a web customer for doing online transactions or requesting an online service." However, a mere assertion that both Johnson and Franklin perform online commerce and authentication is not, in itself, sufficient for establishing analogous art or combinability of the references. See MPEP 2141.01(a). Rather, applicants' contend that such an assertion is based on impermissible hindsight and does not consider the teachings of the references as a whole — where Johnson is directed toward providing insurance for

electronic drafts and Franklin is directed toward proxy online commerce card transactions. In addition, the references *cannot* be combined because the references as a whole teach away from one another. See discussion below in section III.

35 U.S.C. 103 Rejections

Claims 1-18 were rejected under 35 USC 103(a) by Johnson in view of Franklin. The 103 rejections are respectfully traversed for the subsequent reasons.

I. Neither Johnson or Franklin alone, or in combination, teach all of the claimed limitations:

Claims 1-3, 6-13 and 16-18 stand rejected by the primary reference of Johnson in view of the secondary reference of Franklin. Johnson is generally directed toward a system and method for providing insurance for electronic transactions such as electronic drafts, and comprises at least one buyer, seller, and home bank (e.g., figure 3). To initiate an electronic draft, Johnson requires the web buyer and web seller to each authenticate themselves to the home bank's web page (see, for example, column 4 lines 61-62). However, Johnson does not, explicitly or implicitly, teach or suggest all of the claimed elements of claims 1, 9 or 11. For example, in both the Non-Final and Final Office Actions, the Office concedes that Johnson "does not disclose: a trusted Digital Identity (DID) Network connecting the OPFI and RPFI through a DID Operator, the DID Operator further coupled to a DID System that calculates a digital identity for the Originator." For this reason, the Office relies on Franklin for the teaching of an issuing bank (i.e., central authority). However, neither Johnson nor Franklin disclose a DID System or Operator that calculates a digital identity that is dynamic, non-predictable, time-dependent, unique and Originator-specific as claimed.

The system of Johnson also does not disclose that the Originator submits digital identity to the Receiver. Instead, the operation of Johnson requires the buyer to always submit his password to the bank – *not to the seller*. Even if the buyer visits the seller's website directly, *the seller redirects the buyer to the buyer's bank for authentication* (this is exactly where phishing can occur). See Johnson, column 12 lines 56-58, column 13, lines 6-8 and column 14 lines 31-34. Moreover since the seller in Johnson is not able to

directly authenticate the buyer, the seller is further unable to receive transaction authorization from the buyer. In contrast, the digital identity of the present invention enables secure authentication of the Originator and authorization of transactions to take place directly between the Originator and Receiver. Moreover, as opposed to *password-based* authentication mechanisms, the present invention discloses a Digital Identity Operator and Digital Identity System that provides digital identity-based authentication, where the digital identity is further dynamic, non-predictable, time-dependent, unique and Originator-specific.

II. There is no motivation in the references themselves, or in the art, to combine Johnson and Franklin:

To make up for the deficiencies in the primary reference of Johnson, the Office Action relies on the secondary reference of Franklin for the teachings of an issuing institution (corresponding to a central authority); and a transaction number (corresponding to digital identity). The main focus of Franklin is to provide a user with an electronic commerce card and transaction number (e.g., as a proxy for a real credit card). In other words, the transaction number of Franklin resembles a real payment card number and is used for making online payments in the same manner as with e.g., a credit card. Specifically, column 4 lines 57-61 of Franklin states that: *"the transaction number and real customer account number are both 16-digit, mod 10 numbers identically formatted with four spaced apart sets of 4-digits"* (emphasis added). Thus, the transaction number looks like a valid credit card number to the customer and every other participant in the transaction. However, the (e.g., 10 digit) transaction number of Franklin cannot be used for authentication of user's identity because it is not unique and Originator-specific, nor can it provide the same assurance as user's signature to enable authorization of transactions. For example, the transaction numbers of Franklin cannot be unique and Originator-specific because the issuing bank is limited to the amount of numbers it can issue before it needs to start over and begin "recycling" transaction numbers previously assigned to someone else. In contrast, the digital identity of the present invention is unique and Originator-specific in that two different individuals will never receive the same digital identity. See e.g., the instant specification, page 15 lines 1-7. Thus, the transaction number of Franklin is not the same as the digital identity as claimed and therefore does not provide the limitations which are absent in Johnson.

The Office Action states that the motivation for combining Franklin with Johnson is that: "[i]t would have been obvious to a person of ordinary skill in the art to employ an trusted institution to issue digital ID for the buyer as taught in Franklin in the system of Johnson because it would improve the security and can be integrated in the existing card verification system (Franklin, col. 1, lines 60-64)." The applicants' respectfully disagree for the following reasons:

There is simply no teaching or suggestion in Johnson for the home bank to look to an external issuing institution such as Franklin to improve its security. Instead, Johnson's approach toward "improving" security is to encrypt the password upon receipt by the Bank (see, column 8 lines 64-67). It is also unlikely to suggest that Johnson would be motivated to issue a (e.g., 10 digit) proxy payment card number to the buyer in place of its *alphanumeric* customer ID and password - which are easier for the customer to remember. In addition, because the transaction number of Franklin cannot be used for authentication or authorization, combining Franklin's teachings with Johnson will not add any value to, or meet the deficiencies of, Johnson.

Likewise, there is no teaching or suggestion in Franklin to incorporate its proprietary payment card system into the electronic bank draft system of Johnson (or vice versa). Instead, what Franklin discloses in col. 1 immediately preceding lines 60-64, is that its card-based online commerce system integrates with existing *proprietary card network systems*. In other words, any motivation that may be suggested by Franklin is limited to implementation with *other proprietary payment card systems*.

For the above described reasons, there is no suggestion found in Johnson or Franklin, or in the art, for using the issuing bank or transaction number of Franklin in the system of Johnson. According to MPEP 2143.01, in order to establish *prima facie* obviousness, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art to modify the references. Thus, applicants' assert that a *prima facie* rejection under 103 has not been met.

III. The references of Johnson and Franklin are not combinable:

The applicants' further submit that it would not have been obvious at the time the invention was made to a person of ordinary skill in the art to combine the teachings of Johnson and Franklin because the references *cannot* be successfully combined to result

in the present invention as claimed. In the Final Office Action it is stated that Johnson and Franklin are combinable because: "Johnson and Franklin are both analogous in the field of online commerce"; and "both disclose systems and methods that authenticate a web customer for doing online transactions or requesting an online service" (see page 5 of the Final Office Action, lines 4-7). This is unpersuasive. The assertion that both Johnson and Franklin perform online commerce and authentication is not, in itself, sufficient for establishing analogous art or combinability of the references. See MPEP 2141.01(a). Rather, applicants' submit that such an assertion is based on impermissible hindsight and does not consider the teachings of the references as a whole. The applicants' maintain that the references as a whole teach away from one another, and therefore *cannot* be combined to result in the claimed invention for the following reasons.

Johnson and Franklin cannot be combined because Franklin is directed toward a proxy payment card system that may be integrated with other existing *proprietary card verification and settlement systems* (e.g., VISA, Mastercard, etc. see Franklin, col. 12 lines 10-20). Johnson, on the other hand, is directed toward electronic transactions such as bank drafts that are carried out over public networks and "obviates the need to disseminated identification surrogates such as credit card numbers over public networks" (see Johnson, abstract).

Johnson and Franklin further cannot be combined because Franklin utilizes proprietary software modules, user interfaces and digital certificates at the customer end where no additional components are implemented at the merchant end (see, Franklin, column 2 lines 63-65). Because no software components are added to the merchant computer as part of the payment card system of Franklin, the merchant computer treats the transaction number of the online commerce card no differently than it treats a standard credit card number (see Franklin, column 10 lines 39-45). Conversely, Johnson teaches bank-controlled iDraft™ software implemented at the seller end (see, for example, column 12 lines 45-49). Thus, the applicants' submit that the references as a whole teach away from one another wherein any attempt to combine the iDraft™ system of Johnson with the software modules and user interfaces of Franklin would require both the buyer and seller to install two distinctly different, non-compatible proprietary systems. Such a requirement for the buyer *and* seller to install software on their systems would render both Johnson and Franklin unsatisfactory for their intended purpose (e.g. that no software needs to be added to merchant computers so that the transaction numbers may be treated the same as standard credit card numbers). Thus,

according to MPEP 2143.01, there is no suggestion or motivation to make a proposed modification if the modification would render the prior art unsatisfactory for its intended purpose or would change the principle of operation of the reference.

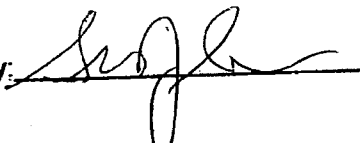
For the reasons discussed above, the applicants submit that there is no teaching or suggestion found in the references or in the art for combining the teachings of Johnson and Franklin; nor any reasonable expectation of success in combining the references, and respectfully request that the rejection be withdrawn. Accordingly, it is believed that independent claims 1, 9 and 11, as well as claims 2, 3, 6-8, 10 and 12, 13 and 16-24 which depend therefrom, are now in condition for allowance.

Conclusion

Applicants respectfully request reconsideration of the claim rejections based on the above remarks. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance. If the examiner believes that personal communication will expedite prosecution of this application, the examiner is invited to telephone the undersigned at (571) 228-2938.

Respectfully submitted,

By:



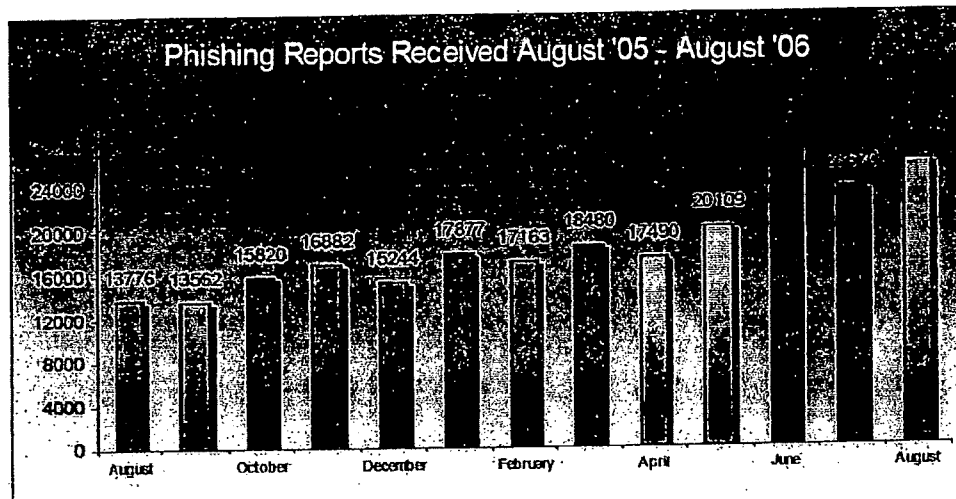
Shawna J. Shaw
Agent for Applicants
Registration No. 57,091

Dated: 01/03/2007

Appendix I

The number of online crimes, such as phishing, fraud and identity theft, is increasing rapidly. Fraud and identity theft have already been studied by many large institutions, universities and private companies, but no adequate solution has been given.

This report has been provided by Anti-Phishing working group:



Based on Inventors findings an authentication system has to meet the following criteria in order to reach mass market and successfully fight fraud and identity theft (see, for example, the specification of the present invention page 14):

1. Be easy to use and manage for the end users
2. Not require end users to install any hardware or software on their systems
3. Be at no cost to the end users
4. Be independent from financial networks (e.g. ACH, Visa, MasterCard)
5. Offer real time processing
6. Be applicable for financial as well as non financial transactions;
7. Be cost effective
8. Be easy to integrate and compatible with existing systems
9. Reduce users' privacy concerns
10. Be decentralized (No Central Database of users information)

The inventors' authentication system is the only system in the market that can meet the above criteria. Johnson's authentication system is based on password. Passwords are unable to meet the above criteria because passwords are vulnerable to phishing, spoofing and man in the middle attack. FFIEC (Financial Institution Examination Council) reports

that bank account fraud and identity theft are frequently the result of password based authentication exploitation. FFIEC is requiring the financial institutions to plan implementation of stronger form of authentication method. The deadline is December 2006. (See page 4, paragraph 3 & footprint of FFIEC document filed herewith).

When a phisher wants to coordinate an attack to Johnson's system, he does the following:

1. **Planning:** The Phisher decides which banks & credit card companies to target.
2. **Setup:** Once the phisher knows which banks and credit card companies to spoof and who their victims are, phisher creates bogus retail website to gain customer trust. The phisher also creates different phony popup windows (or websites) for different banks that exactly look like the banks' popup window (or bank's website).
3. **Attack:** Once the online customer selects an item and decides to pay -- the phisher sends the phony popup window (or phony bank's website) that appears to be from a reputable bank or credit card company and asks the customer to enter his user id and password for authentication.
4. **Collection:** Popup window ((or bank's website) look authentic. Online customer enters his user id and password & phisher records the information victims enter.
5. **BINGO, Identity theft and Fraud:** The phisher uses the information (Ids and passwords) gathered to make illegal purchases, access customers' bank accounts or otherwise commit fraud.



RCE#
JFW

Approved for use through 03/31/2007. OMB 0651-0051
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

<p align="center">Request for Continued Examination (RCE) Transmittal</p> <p>Address to: Mail Stop RCE Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450</p>	Application Number	11/239,046
	Filing Date	09/30/2005
	First Named Inventor	Kamrani et al.
	Art Unit	2132
	Examiner Name	A. Nobahar
	Attorney Docket Number	

This is a Request for Continued Examination (RCE) under 37 CFR 1.114 of the above-identified application. Request for Continued Examination (RCE) practice under 37 CFR 1.114 does not apply to any utility or plant application filed prior to June 8, 1995, or to any design application. See Instruction Sheet for RCEs (not to be submitted to the USPTO) on page 2.

1. **Submission required under 37 CFR 1.114** Note: If the RCE is proper, any previously filed unentered amendments and amendments enclosed with the RCE will be entered in the order in which they were filed unless applicant instructs otherwise. If applicant does not wish to have any previously filed unentered amendment(s) entered, applicant must request non-entry of such amendment(s).

- a. Previously submitted. If a final Office action is outstanding, any amendments filed after the final Office action may be considered as a submission even if this box is not checked.
- i. Consider the arguments in the Appeal Brief or Reply Brief previously filed on _____
- ii. Other _____
- b. Enclosed
- i. Amendment/Reply
- ii. Affidavit(s)/ Declaration(s)
- iii. Information Disclosure Statement (IDS)
- iv. Other _____

2. **Miscellaneous**

- a. Suspension of action on the above-identified application is requested under 37 CFR 1.103(c) for a period of _____ months. (Period of suspension shall not exceed 3 months; Fee under 37 CFR 1.17(f) required)
- b. Other _____

3. **Fees**

- The RCE fee under 37 CFR 1.17(e) is required by 37 CFR 1.114 when the RCE is filed.
- The Director is hereby authorized to charge the following fees; any underpayment of fees, or credit any overpayments, to Deposit Account No. _____ I have enclosed a duplicate copy of this sheet.
- i. RCE fee required under 37 CFR 1.17(e)
- ii. Extension of time fee (37 CFR 1.136 and 1.17) 01/04/2007 SZEWDIE1 00000034 11239046
- iii. Other _____ 01 FC:2801 395.00
- b. Check in the amount of \$ 395 enclosed
- c. Payment by credit card (Form PTO-2038 enclosed)

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED			
Signature		Date	11/3/2007
Name (Print/Type)	Shawna J. Shaw	Registration No.	57,091

CERTIFICATE OF MAILING OR TRANSMISSION			
I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Mail Stop RCE, Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450 or facsimile transmitted to the U.S. Patent and Trademark Office on the date shown below.			
Signature		Date	
Name (Print/Type)		Date	

This collection of information is required by 37 CFR 1.114. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop RCE, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450. If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

PATENT APPLICATION FEE DETERMINATION RECORD
Effective December 8, 2004

11/239046

CLAIMS AS FILED - PART I

	(Column 1)	(Column 2)
TOTAL CLAIMS	1/3/07	
FOR	NUMBER FILED	NUMBER EXTRA
TOTAL CHARGEABLE CLAIMS	minus 20 =	
INDEPENDENT CLAIMS	minus 3 =	
MULTIPLE DEPENDENT CLAIM PRESENT		<input type="checkbox"/>

* If the difference in column 1 is less than zero, enter "0" in column 2

CLAIMS AS AMENDED - PART II

	(Column 1)	(Column 2)	(Column 3)
AMENDMENT A	1/3/07		
	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA
Total	* 20	Minus ** 20	= -
Independent	* 3	Minus *** 3	= -
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM			<input type="checkbox"/>

	(Column 1)	(Column 2)	(Column 3)
AMENDMENT B			
	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA
Total	*	Minus **	=
Independent	*	Minus ***	=
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM			<input type="checkbox"/>

	(Column 1)	(Column 2)	(Column 3)
AMENDMENT C			
	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA
Total	*	Minus **	=
Independent	*	Minus ***	=
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM			<input type="checkbox"/>

SMALL ENTITY TYPE <input type="checkbox"/>		OR OTHER THAN SMALL ENTITY	
RATE	FEE	RATE	FEE
BASIC FEE	150.00	BASIC FEE	300.00
X\$ 25=	395	X\$50=	
X100=		X200=	
+180=		+360=	
TOTAL	PAID	TOTAL	

SMALL ENTITY TYPE <input type="checkbox"/>		OR OTHER THAN SMALL ENTITY	
RATE	ADDITIONAL FEE	RATE	ADDITIONAL FEE
X\$ 25=		X\$50=	
X100=		X200=	
+180=		+360=	
TOTAL ADDIT. FEE		TOTAL ADDIT. FEE	

RATE	ADDITIONAL FEE	RATE	ADDITIONAL FEE
X\$ 25=		X\$50=	
X100=		X200=	
+180=		+360=	
TOTAL ADDIT. FEE		TOTAL ADDIT. FEE	

RATE	ADDITIONAL FEE	RATE	ADDITIONAL FEE
X\$ 25=		X\$50=	
X100=		X200=	
+180=		+360=	



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/239,046	09/30/2005	Nader Asghari-Kamrani		2201

7590 03/05/2007
Nader Asghari-Kamrani
6558 Palisades Drives
Centreville, VA 20121

EXAMINER

NOBAHAR, ABDULHAKIM

ART UNIT PAPER NUMBER

2132

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/05/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 11/239,046	Applicant(s) ASGHARI-KAMRANI ET AL.	
	Examiner Abdulhakim Nobahar	Art Unit 2132	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 03 January 2007.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-3, 6-13 and 16-24 is/are pending in the application.
 4a) Of the above claim(s) 4, 5, 14 and 15 is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-3, 6-13 and 16-24 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)
 Paper No(s)/Mail Date _____.
- 4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date _____.
- 5) Notice of Informal Patent Application
- 6) Other: _____.

DETAILED ACTION

1. This office action is in response to applicants' response filed on 01/03/2007.
2. Claims 1-3, 6-13 and 16-24 are pending.
3. Claims 19-24 are newly added.
4. Claims 4, 5, 14 and 15 are cancelled.
5. Applicant's arguments have been fully considered but they are not persuasive.
6. When responding to the Office action, Applicant is advised to clearly point out the patentable novelty the claims present in view of the state of the art disclosed by the reference(s) cited or the objection made. A showing of how the amendments avoid such references or objections must also be present. See 37 C.F.R. 1.111(c).

Response to Arguments

Further to the responses submitted in the final office action mailed to applicants on October 3, 2006, please see the following:

1. Applicants on page 8, paragraph 1 and on page 11, lines 21-23, of remarks argue that Johnson does not disclose "a DID system or operator to calculate a DID that is dynamic, non-predictable, time-dependent, unique and Originator-specific."

Examiner respectfully disagrees and asserts that Johnson discloses that the web buyer may visit or log onto his or her home bank (col. 9, lines 5-13) to receive a unique and buyer-specific ID and select a password (corresponding to the recited non-predictable)(see, for example, col. 13, lines 25-30, col. 19, lines 65-67, where the biometric information which is user-specific may be used alternatively). Johnson further

discloses that the buyer's unique ID-password combination may be valid only for a session of a limited duration (corresponding to the recited time-dependent) (see col. 19, lines 44-50) and for added security measure the buyer's certificate (a supplant or an equivalent to ID-password combination) may be a one-time and transaction-specific certificate (corresponding to the recited dynamic) authorizing the transaction (see col. 19, lines 58-67 and col. 20, lines 5-10). Franklin discloses a certifying authority (corresponding to the recited DID operator) that issues bank account and transaction number to the customers (see col. 2, lines 5-20). Combination of the Johnson and Franklin teachings meet the aforementioned argued limitation of the instant invention.

2. Applicants on page 9, paragraph 2, of remarks argue that Johnson's system does not teach "authorization" of the transaction.

Examiner respectfully disagrees and asserts that the method of Johnson for authenticating a web buyer to carry out a secure online transaction also authorizes the web buyer for a specific transaction (e.g., limited in amount) (see, for example, col. 13, lines 42-60 and col. 20, lines 5-11).

3. With regard to applicants' arguments on page 10, paragraph 3, of remarks that Johnson does not disclose a trusted as a DID operator, examiner refers the applicants to the prior art Franklin that discloses a certifying authority (corresponding to the recited DID operator) that issues bank account and transaction number to the customers (see col. 2, lines 5-20).

4. With regard to applicants' arguments on page 10, paragraph 4 about the non-financial transactions, refers the applicants to the prior art Johnson, where the web buyer can receive any service on the Internet that might not be a banking financial transaction (see col. 1, lines 20-35) and to the prior art Franklin, where a customer may use a credit card for a service that may not be a banking financial transaction (see col. 1, lines 20-35 and col. 8, lines 24-35).

5. Applicants on pages 12 and 13 of the remarks argue that there is no motivation suggested in the art or in the references themselves for combining the teachings of Johnson and Franklin.

In response to applicants' argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Johnson and Franklin are both analogous in the field of online commerce and both disclose systems and method that authenticate a web customer for doing online transactions or requesting an online service. Johnson does not expressly disclose that a certifying authority issuing a digital identity for a customer while Franklin teaches that an issuing bank issues a digital card and transaction number (corresponding to the recited digital

identity) to a customer for making online transactions. Franklin further teaches that the merchant forward the customer transaction number to the issuing institution to authenticate the customer and authorize the transaction (see, for example, col. 1, line 65-col. 2, line 47). One of ordinary skill in the art at the time of the applicants' invention would have been motivated to take advantage of the teachings of Franklin to deploy an issuing institution for issuing digital identity to web buyers and control and authorize each transaction to remedy for the deficiency of the Johnson system, if it is considered to be a deficiency.

6. The examiner, however, in light of the above submission maintains the previous rejections while considering the amendments to the claims and the newly added claims as follows.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 6-13 and 16-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson [5,529,885 B1; hereinafter Johnson] in view of Franklin et al [5,883,810; hereinafter Franklin].

Regarding claims 1, 2 and 9-10, Johnson discloses a system for direct authentication and/or authorization of a transaction between an Originator and a Receiver, comprising (see, for example, abstract; col. 4, lines 32-50) comprising:

an Originator in communication with an Originating Participating Financial Institution (OPFI) (see, for example, Fig. 3, where web buyer and web buyer's home bank correspond to the recited Originator and OPFI, respectively)

a Receiver in communication with a Receiving Participating Financial Institution (RPFI) (see, for example, Fig. 3, where web seller and web seller bank correspond to the recited Receiver and RPFI, respectively);

a DID System that calculates a dynamic, non-predictable, time-dependent, unique and Originator-specific digital identity for the Originator (see, for example, col. 9, lines 9-13 and 29-37; col. 13, lines 25-30, col. 19, lines 58-67 and col. 20, lines 5-10);

whereby the digital identity is provided to the Originator upon request, and submitted by the Originator to the Receiver as authentication of identity and/or authorization of the transaction (see, for example, col. 12, lines 46-67; col. 13, lines 42-60; col. 20, lines 5-11; col. 14, lines 5-10; where the authentication is performed in real time).

Johnson, however, does not disclose:

a trusted Digital Identity (DID) Network connecting the OPFI and RPFI through a DID Operator, the DID Operator further coupled to a DID System that calculates a digital identity for the Originator.

Franklin on the other hand discloses an online commerce system that uses an online commerce card (see, for example, abstract). Franklin further discloses an issuing institution (a central authority) that issues a permanent account number for each customer, also issues a transaction number (corresponding to the recited digital identity, DID) for a customer upon request each time the customer is planning to conduct an online or an electronic transaction (see, for example, col. 1, line 65-col. 2, line 47). The customer submits the transaction number to the merchant and merchant sends the number to the issuing institution for authentication of the buyer and authorization of the transaction.

It would have been obvious to a person of ordinary skill in the art to employ an trusted institution to issue digital ID for the buyer as taught in Franklin in the system of Johnson because it would improve the security and can be integrated in the existing card verification system (Franklin, col. 1, lines 60-64).

Regarding claim 3, Johnson discloses the system of claim 1, wherein the Originator is not required to implement software or hardware to use said digital identity (see, for example, col. 6, lines 31-49; col. 12, lines 59-67, where no hardware or software is used (see also Franklin, col. 2, lines 2-4)).

Regarding claim 6, Johnson discloses:

The system of claim 1, wherein the transaction includes a non-financial transaction (see, for example, col. 4, lines 32-40).

Regarding claim 6, Franklin discloses:

The system of claim 1, wherein the transaction includes a non-financial transaction (see, for example, abstract; col. 2, lines 1-21).

Regarding claim 7, Johnson discloses:

The system of claim 6, wherein the transaction includes an account to account transfer, an interbank funds transfer, a debit push, and/or a debit pull (see, for example, col. 3, lines 1-10; col. 13, lines 49-55).

Regarding claim 8, Franklin discloses:

The system of claim 6, wherein the non-financial transaction includes an express agreement and/or identity authentication (see, for example, abstract; col. 7, lines 33-38; col. 7, lines 62-67).

Regarding claim 11, this claim is rejected as applied to the like elements of claims 1 and 9 as stated above and further Johnson discloses:

the OPFI and RPI completing the transaction upon successful authentication and/or authorization (see, for example, col. 16, lines 43-58); and

the RPI notifying the Receiver of denial or completion of the transaction (see, for example, col. 13, lines 60-67; col. 16, lines 43-58).

Regarding claims 12 and 13, Johnson discloses:

The method of claim 11, wherein the step of the Originator requesting and receiving a digital identity further includes:

the Originator authenticating himself to the OPFI and requesting a digital identity (see, for example, col. 9, lines 5-39);

the OPFI presenting the digital identity to the Originator (see, for example, col. 9, lines 29-37; col. 13, lines 28-30);

the RPFi forwarding the digital identity to the OPFI for validation (see, for example, col. 12, lines 46-67);

a denial message to the RPFi, if the digital identity is invalid (see, for example, col. 13, lines 60-67);

upon approval, the OPFI sending an approval identification and authorization message back to the RPFi (see, for example, col. 16, lines 43-58).

Johnson, however, does not disclose:

the DID Operator calculating and forwarding the digital identity for the Originator.

Franklin discloses an online commerce system that uses an online commerce card (see, for example, abstract). Franklin further discloses an issuing institution (a central authority) that issues a permanent account number for each customer, also issues a transaction number (corresponding to the recited digital identity, DID) for a customer upon request each time the customer is planning to conduct an online or an electronic transaction (see, for example, col. 1, line 65-col. 2, line 47). The customer submits the transaction number to the merchant and merchant sends the number to the issuing institution for authentication of the buyer and authorization of the transaction.

It would have been obvious to a person of ordinary skill in the art to employ an trusted institution to issue digital ID for the buyer as taught in Franklin in the system of Johnson because it would improve the security and can be integrated in the existing card verification system (Franklin, col. 1, lines 60-64).

Regarding claim 16, Franklin discloses:

The system of claim 11, wherein the transaction is includes a non-financial transaction (see, for example, abstract; col. 2, lines 1-21).

Regarding claim 17, Johnson discloses:

The system of claim 11, wherein the financial transaction includes an account to account transfer, an interbank funds transfer, a debit push, and/or a debit pull (see, for example, col. 3, lines 1-10; col. 13, lines 49-55).

Regarding claim 18, Franklin discloses:

The system of claim 16, wherein the non-financial transaction includes an express agreement and/or identity authentication (see, for example, abstract; col. 7, lines 33-38; col. 7, lines 62-67).

Regarding claims 19 and 22, Johnson discloses:

The system of claim 1, wherein the transaction is selected from any of: bank account transactions, credit card transactions, and/or non-financial transactions (see, for example, col. 3, lines 1-10; col. 13, lines 49-55).

Regarding claims 20 and 23, Johnson discloses:

The system of claim 1, wherein a new digital identity is provided to the originator for each transaction (see, for example, col. 19, lines 40-50).

Regarding claims 21 and 24, Johnson discloses:

The system of claim 1, wherein the digital identity submitted to the Receiver provides at least the same assurance as physical signature, thereby manifesting the Originator assent to the transaction (see, for example, col. 3, lines 63-67; col. 9, lines 9-17).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Abdulhakim Nobahar whose telephone number is 571-272-3808. The examiner can normally be reached on M-T 8-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on 571-272-3799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

Art Unit: 2132

you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

February 27, 2007

Abdulhakim Nobahar

Examiner

Art Unit 2132 *A.M.*

[Handwritten signature]
[Handwritten signature]
Benjamin E. Lanier
Examiner AU 2132

Index of Claims



Application/Control No.

11/239,046

Examiner

Abdulhakim Nobahar

Applicant(s)/Patent under Reexamination

ASGHARI-KAMRANI ET AL.

Art Unit

2132

√	Rejected
=	Allowed

—	(Through numeral) Cancelled
÷	Restricted

N	Non-Elected
I	Interference

A	Appeal
O	Objected

Claim		Date	
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Interview Summary	Application No. 11/239,046	Applicant(s) ASGHARI-KAMRANI ET AL.	
	Examiner Abdulahakim Nobahar	Art Unit 2132	

All participants (applicant, applicant's representative, PTO personnel):

(1) Abdulahakim Nobahar (3) Ms. Shawna Shaw, Applicants' agent
 (2) Mr. Taqhi Arani, Primary examiner (4) Mr. Nader Asghari-Kamrani, Applicant

Date of interview: 25 April 2007.

Type: a) Telephonic b) Video Conference
 c) Personal [copy given to: 1) applicant 2) applicant's representative]

Exhibit shown or demonstration conducted: d) Yes e) No.
 If Yes, brief description: _____

Claim(s) discussed: 3

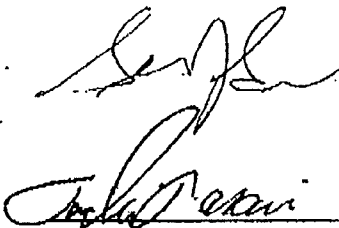
Identification of prior art discussed: 6,529,885 B1

Agreement with respect to the claims f) was reached. g) was not reached. h) N/A.

Substance of interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: See Continuation Sheet

(A fuller description, if necessary, and a copy of the amendments which the examiner agreed would render the claims allowable, if available, must be attached. Also, where no copy of the amendments that would render the claims allowable is available, a summary thereof must be attached.)

THE FORMAL WRITTEN REPLY TO THE LAST OFFICE ACTION MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP Section 713.04). If a reply to the last Office action has already been filed, APPLICANT IS GIVEN A NON-EXTENDABLE PERIOD OF THE LONGER OF ONE MONTH OR THIRTY DAYS FROM THIS INTERVIEW DATE, OR THE MAILING DATE OF THIS INTERVIEW SUMMARY FORM, WHICHEVER IS LATER, TO FILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. See Summary of Record of Interview requirements on reverse side or on attached sheet.


 Examiner's signature, if required

Examiner Note: You must sign this form unless it is an Attachment to a signed Office action.

Interview Summary	Application No.	Applicant(s)	
	09/940,635	ASGHARI-KAMRANI ET AL.	
	Examiner	Art Unit	
	Abdulhakim Nobahar	2132	

All participants (applicant, applicant's representative, PTO personnel):

(1) Abdulhakim Nobahar (3) Ms. Shawna Shaw, Applicant's agent
(2) Mr. Taghi Arani, Primary examiner (4) Mr. Nader Asghari-Kamrani, Applicant

Date of Interview: 25 April 2007

Type: a) Telephonic b) Video Conference
c) Personal [copy given to: 1) applicant 2) applicant's representative]

Exhibit shown or demonstration conducted: d) Yes e) No.
If Yes, brief description: _____

Claim(s) discussed: Proposed amended claims 15, 16 and 17

Identification of prior art discussed: 2002/0188491 A1



Agreement with respect to the claims f) was reached. g) was not reached. h) N/A.

Substance of interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: See Continuation Sheet

(A fuller description, if necessary, and a copy of the amendments which the examiner agreed would render the claims allowable, if available, must be attached. Also, where no copy of the amendments that would render the claims allowable is available, a summary thereof must be attached.)

THE FORMAL WRITTEN REPLY TO THE LAST OFFICE ACTION MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP Section 713.04). If a reply to the last Office action has already been filed, APPLICANT IS GIVEN A NON-EXTENDABLE PERIOD OF THE LONGER OF ONE MONTH OR THIRTY DAYS FROM THIS INTERVIEW DATE, OR THE MAILING DATE OF THIS INTERVIEW SUMMARY FORM, WHICHEVER IS LATER, TO FILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. See Summary of Record of Interview requirements on reverse side or on attached sheet.

Examiner Note: You must sign this form unless it is an Attachment to a signed Office action.



Examiner's signature, if required

Continuation of Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: Applicant, Mr. Asghar-Kamrani, first explained his background expertise in the field of secure electronic commerce. He explained the today's need of secure online financial transactions to a system that positively and securely authenticates an online buyer and authorizes the buyer for a transaction. He presented some examples, such as, current online banking systems of Bank of America and Wachovia and the system of Amazon.com online shopping which all lack sufficient security to prevent unauthorized users impersonation for fraudulent uses.

Applicant proposed an amendment to claims, in which each newly amended claims 3, 20 and 23 contains the limitations of one previously presented independent claim and one dependent claim.

Mr. Arani, referring to the claim 3, asked applicant to explain that how can receiving a digital ID by a user from a financial institution and identity verification of that user are processed securely evoding fraudulent activities.

Applicant answered by describing that through an established special relationship between the user and its financial institution (i.e., a bank), a unique time-dependent digital ID (DID) is created for the user. The user presents the DID received from its financial institution to an online merchant for a financial transaction to be authenticated and authorized for the transaction. Applicant further explained that using the unique DID for online transactions is different from using a digital certificate. Because using a digital certificate, a user can be only authenticated for a transaction not authorized. Additionally the user needs to install a software on his computer system in order to use a digital certificate for online shopping or banking.

Mr. Arani pointed out that the claim 3 recites "whereby the digital identity...submitted by the originator to the receiver as authentication of identity and/or authorization of the transaction..."

Applicant agreed to amend the claim recite "whereby the digital identity...submitted by the originator to the receiver as authentication of identity and authorization of the transaction..." and file a new amendment accordingly.

Examiner Nobahar agreed to examine the claims upon receiving in light of the new amendment.

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FACSIMILE TRANSMITTAL SHEET

TO:	Examiner Nobahar	FROM:	Shawna J. Shaw
COMPANY:		DATE:	5/1/2007
FAX NUMBER:		TOTAL NO. OF PAGES INCLUDING COVER:	18
PHONE NUMBER:	(571) 228-2938	SENDER'S REFERENCE NUMBER:	
RE:	11/239,046	YOUR REFERENCE NUMBER:	

URGENT FOR REVIEW PLEASE COMMENT PLEASE REPLY PLEASE RECYCLE

NOTES/COMMENTS:

Attached are Amendments and Remarks for Serial No. 11/239,046 in response to the Non-Final Office Action mailed 03/05/2007.

Respectfully Submitted,



Shawna J. Shaw
Agent for Applicants
Registration No. 57,091
(571) 228-2938

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Nader Ashgari-Kamrani et al.

Application No.: 11/239,046

Confirmation No.:

Filed: 09/30/2005

Art Unit: 2132

For: Direct Authentication and Authorization
System and Method for Trusted
Network of Financial Institutions

Examiner: A. Nobahar

AMENDMENT AND REMARKS

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

INTRODUCTORY COMMENTS

In response to the Non-final Office Action mailed 03/05/2007, Applicants respectfully request reconsideration based on the Amendments and Remarks which follow.

We Claim:

1. (Canceled)

2. (Canceled)

3. (Currently Amended) The system of claim 1, A system for direct authentication and authorization of a transaction between an Originator and a Receiver, comprising:
an Originator in communication with an Originating Participating Financial Institution (OPFI);
a Receiver in communication with a Receiving Participating Financial Institution (RPFI);
a trusted Digital Identity (DID) Network connecting the OPFI and RPFI through a DID Operator, the DID Operator further coupled to a DID System that calculates a dynamic, non-predictable, time-dependent, unique and Originator-specific digital identity for the Originator;
whereby the digital identity is provided to the Originator upon request, and submitted by the Originator to the Receiver as authentication of identity and authorization of the transaction; and wherein the Originator is not required to implement software or hardware to use said digital identity.

4. (Canceled)

5. (Canceled)

6. (Currently Amended) The system of claim 13 or 20, wherein the transaction includes a non-financial transaction.

7. (Currently Amended) The system of claim 13 or 20, wherein the transaction

includes an account to account transfer, an interbank funds transfer, a debit push, and/or a debit pull.

8. (Original) The system of claim 6, wherein the non-financial transaction includes an express agreement and/or identity authentication.

9. (Canceled)

10. (Canceled)

11. (Canceled)

12. (Currently Amended) The method of claim ~~11~~23, wherein the step of the Originator requesting and receiving a digital identity further includes:

- the Originator authenticating himself to the OPFI and requesting a digital identity;

- the OPFI requesting a digital identity from the DID Operator;

- the DID operator calculating and forwarding the digital identity to the OPFI; and

- the OPFI presenting the digital identity to the Originator.

13. (Currently Amended) The method of claim ~~12~~23, wherein the step of the RPFII initiating direct authentication and/or authorization further includes:

- the RPFII forwarding the digital identity to the DID Operator for validation;

- the DID Operator sending a denial message to the RPFII -- if the digital identity is invalid;

- the DID Operator sending a Digital Identity Message (DIM) to the OPFI for approval -- if the digital identity is valid; and

-upon approval, the OPFI sending an approval identification and authorization message back to the RPFI.

14. (Canceled)

15. (Canceled)

16. (Currently Amended) The method of claim ~~11~~23, wherein the transaction includes a non-financial transaction.

17. (Currently Amended) The method of claim ~~11~~23, wherein the transaction includes an account to account transfer, an interbank funds transfer, a debit push, and/or a debit pull.

18. (Original) The method of claim 16, wherein the non-financial transaction includes an express agreement and/or identity authentication.

19. (Currently Amended) The system of claim ~~13~~ or 20, wherein the transaction is selected from any of: bank account transactions, credit card transactions, and/or non-financial transactions.

20. (Currently Amended) ~~The system of claim 1;~~ A system for direct authentication and authorization of a transaction between an Originator and a Receiver, comprising:

an Originator in communication with an Originating Participating Financial Institution (OPFI);

a Receiver in communication with a Receiving Participating Financial Institution (RPFI);

a trusted Digital Identity (DID) Network connecting the OPFI and RPFI through a DID Operator, the DID Operator further coupled to a DID System that

calculates a dynamic, non-predictable, time-dependent, unique and Originator-specific digital identity for the Originator;
whereby the digital identity is provided to the Originator upon request, and
submitted by the Originator to the Receiver as authentication of identity and authorization
of the transaction; and wherein a new digital identity is provided to the Originator for
each transaction.

21. (Currently Amended) The system of claim 13 or 20, wherein the digital identity submitted to the Receiver provides at least the same assurance as a physical signature, thereby manifesting the Originator's assent to the transaction.

22. (Currently Amended) The method of claim 11, wherein the transaction is selected from any of: bank account transactions, credit card transactions, and/or non-financial transactions.

23. (Currently Amended) ~~The method of claim 11,~~ A method for direct authentication and authorization of a transaction between an Originator and Receiver, comprising the steps of:

providing a trusted Digital Identity (DID) Network connecting an
Originating Participating Financial Institution (OPFI) and a Receiving
Participating Financial Institution (RPFI) through a Digital Identity (DID)
Operator;

the Originator requesting and receiving a dynamic, non-predictable, time-
dependent, unique and Originator-specific digital identity from the OPFI;

the Originator providing the Receiver with the digital identity to
authenticate himself and authorize the transaction;

the Receiver submitting the digital identity to the RPFI;

The RPFI initiating direct authentication of the Originator and authorization of the transaction based on the digital identity;

the OPFI and RPFI completing the transaction upon successful authentication and authorization; and

the RPFI notifying the Receiver of denial or completion of the transaction; and

wherein a new digital identity is provided to the Originator for each transaction.

24. (Currently Amended) The method of claim 1423, wherein the digital identity submitted to the Receiver provides at least the same assurance as a physical signature, thereby manifesting the Originator's assent to the transaction.

MAY 01 2007

Remarks

Substance of Personal Interview:

The applicants' would like to thank Examiner Nobahar and Primary Examiner Arani, for granting a personal interview on Wednesday April 25, 2007. During the interview, the applicants' pointed out the differences between the present invention and digital-certificate based authentication systems as well as credit card authorization systems. For example, unlike the systems and methods of the present invention, digital certificates require specialized software to be stored on a user's system and cannot be calculated for each transaction (e.g., due to key management and authentication issues). In addition, "digital identity" is created by building unique information about the Originator into the digital-identity, causing it to be Originator-specific such that it is computationally infeasible to calculate the same "digital identity" for two individuals, or for one person to fraudulently use the "digital identity" of the Originator. It was also agreed during the interview that digital certificates do not provide authorization of a transaction, and that while credit card systems may offer "pre-authorization" - they do not provide authentication. Thus, it was agreed that applicants' would further amend the proposed changes to reflect that the present invention provides both authentication and authorization to further distinguish from the prior art.

Status of the Claims:

Claims 3, 6-8, 12, 13 and 16-24 are pending in this application. Claims 1, 2, 4, 5, 9-11, 14 and 15 have been cancelled. Claims 3, 6, 7, 12, 13, 16, 17 and 19-24 have been amended. Claims 3 and 20 have been amended to include all the previous limitations of

claim 1. Claim 23 has been amended to include all the previous limitations of claim 11. The amendments have been made for the purpose of expediting prosecution, therefore the applicants' reserve the right to pursue the canceled claims in a continuing application. No new issues have been raised. Claims 3, 6-8, 12, 13 and 16-24 stand rejected under 35 USC 103 by Johnson et al. (U.S. Patent No. 6,529,885; hereafter "Johnson") in view of Franklin et al. (U.S. Patent No. 5,883,810; hereafter "Franklin"). The prior art rejections are addressed below.

Rejections under 35 U.S.C. 103(a)

Regarding claims 3, 20 and 23, Johnson is directed toward a system for conducting transactions via secure electronic bank drafts. To register with the "bank draft system" of Johnson, the web buyer must follow a certain process such as: visit his home bank in person (or online), fill out appropriate paperwork, and provide requisite identification information (col. 9 lines 5-13). Only after the process is complete, may the user be assigned (or select) a user ID and password (col. 9 lines 29-37 and col. 13 lines 25-30). Thus, the user ID and password are decided upon when the buyer initially registers with their home Bank. The same user ID and password are then used by the Web buyer for each transaction.

1. The Office Action suggests on page 6 that Johnson discloses "a DID System that calculates a dynamic, non-predictable, time-dependent, unique and Originator-specific digital identity for the Originator." In support, the Office cites col. 9 lines 9-13 and 29-37; col. 13 lines 25-30; col. 19, lines 58-67 and col. 20 lines 5-10 of Johnson. From the cited passages, it is inferred that the home Bank of Johnson is asserted to correspond to

the DID System of the present invention. However, unlike applicants' DID System, the home Bank of Johnson does not calculate a dynamic, non-predicable, time-dependent, unique and Originator-specific digital identity for the Originator, or a "digital identity" that is provided upon request, provided for each transaction, or does not require the Originator to implement hardware and/or software as claimed.

Johnson discloses that the bank assigns a user an ID and password as the primary means of authentication (alternatively, the user may select their ID and password). However, unlike the "digital identity" of the present invention, the password of Johnson is static -- not dynamic, because the same user ID and password are used for each transaction. Johnson does not provide a new password to the user for each transaction. In other words, a user receives their password as a result of completing the registration process (e.g., filling out requisite paperwork and providing sufficient evidence of identification, see col. 9 lines 5-14, col. 19 lines 55-62). Even assuming a user is able to initially receive a password by logging on to the bank website, the user ID and password of Johnson still remain the same for every transaction. Johnson also does not teach a time-dependent password - only that a user may be authenticated for a particular session (as a result of providing documented identification). See col. 19 lines 44-62. What this means is that once a party provides their password to the bank, the bank encrypts it, compares it with the encrypted password in its database, and (if they are the same) authenticates the user for a particular amount of time. Therefore, the password itself is neither time-dependent nor dynamic. Nowhere does Johnson teach a dynamic or time-dependent password, or where a new password is provided for each transaction.

Instead of being assigned an ID and/or password, the user may alternatively select a password (col. 9 lines 29-37 and col. 13 lines 25-30). However, the option for the user to select a password does not render it unpredictable, but rather the contrary. Most users typically select variations of the same passwords over and over (such as names of children, pets, etc.) - because they are easy to remember. For a user to select a completely arbitrary password would also reduce the security because it would be difficult to remember and likely end up being written down someplace to be discovered. Thus, the option for users to select their own password would not correspond to the "non-predictable digital identity" of the present invention.

Even more, unlike the "digital identity" of the present invention which is provided to the Receiver, the password of Johnson must always be submitted to the bank. For the user to provide their password to the seller would undermine the security of Johnson for immediately apparent reasons. Although Johnson discloses that the bank ID and/or user ID may be submitted to the seller (col. 12 lines 46-51), the password (used for authentication) of Johnson is always submitted to the buyer's home Bank and not to the seller (col. 12 lines 56-58, col. 12 line 65 - col. 13 line 8). Thus, Johnson does not teach wherein the password is submitted to the seller for authentication of identity and authorization of the transaction as claimed.

For at least the above described reasons, the password of Johnson is not: dynamic, time-dependent, non-predictable, provided to a user for each transaction, or provided to the Receiver as claimed.

Johnson briefly mentions that biometric data may be used (col. 19 lines 65-67). However, such biometric data is not dynamic nor is new biometric data calculated for

each transaction. A major disadvantage of using biometric data is that it is burdensome and costly for the user to implement. Thus, the "digital identity" of the present invention is different from biometric data because it is not only dynamic and time-dependent, but also does not require the user to implement specialized hardware in the form of biometric readers and the like. For at least these reasons, the biometric data of Johnson is not dynamic, is not provided to a user for each transaction, is not submitted from the buyer to the seller, and requires the buyer to implement specialized hardware and/or software. Biometric authentication also raises privacy concerns. If a hacker obtains the user's fingerprint information, it would be impossible for the user to change his fingerprint.

Johnson further mentions that in special circumstances (i.e., when large sums of money are transferred) certificates may be used. However, Johnson warns that their use should be limited so as not to unduly burden the free flow of normal e-commerce (col. 19 line 65 – col. 20 line 17). This is because digital certificates take relatively longer to obtain and are costly to create and manage. In addition, it is well understood in the art that the key management underlying digital certificates is a difficult problem, and that generating a new digital certificate for each transaction would involve far too many keys than could be managed. For at least these reasons, it is impossible to calculate a new digital certificate for every transaction. Moreover, it is well known in the art that digital certificates typically require the user to download or install software on their systems to protect and use the digital certificates.

In addition, digital certificates are susceptible to many well-known security holes. One problem is that of properly identifying users in the first place. If the Certificate Authority does not follow a rigorous procedure for identifying users, there is no

guarantee that the owner of a certificate is who they claim to be. For example, some Certificate Authorities may require a user to present a photo ID or birth certificate, while others may only require name, address, and date of birth (which may be easily forged). Another problem is that it is not always known whether the Certificate Authority itself can be trusted. For example, there are many online Certificate Authorities, and most do not need to meet certain standards before they can begin issuing certificates.

For the above described reasons, Johnson does not disclose a DID System that calculates a dynamic, non-predictable, time-dependent, unique and Originator-specific digital identity that is provided upon request, provided for each transaction, or that does not require the user to implement hardware and/or software as claimed.

2. Johnson also does not disclose a trusted Digital Identity (DID) Network connecting an OPFI and RPI through a DID Operator, the DID Operator further coupled to a DID System that calculates a digital identity for the Originator, as conceded on page 6 of the Office Action. To make up for the above deficiencies in Johnson, the Office relies upon the teachings of Franklin. According to the Office Action, Franklin is primarily relied upon for its teaching of an issuing institution (a central authority) that issues a permanent account number for each customer and a transaction number (asserted to correspond to the recited digital identity, DID).

However, it is not clear how the issuing institution of Franklin provides the: "trusted DID Network connecting the OPFI and RPI through a DID Operator, the DID Operator further coupled to the DID System" that is needed to provide the acknowledged shortcomings of Johnson. The networks disclosed by Franklin are a public network (34, e.g., the Internet) and an existing proprietary payment card network (36, e.g., VisaNet,

Veriphone, etc.). However, neither of the networks of Franklin connect both an OPFI and an RRFI through a DID Operator, nor is the Issuing bank of Franklin coupled to a DID System that calculates a dynamic, non-predictable, time-dependent, unique and Originator specific digital identity as claimed.

In addition, the transaction number of Franklin is unlike the digital identity of the present invention because it does not provide authentication of the customer at the time of use. In other words, the transaction number is not unique and user specific. Since it is possible for the same transaction numbers to be "recycled" and issued to different users, two or more users may receive the same transaction number.

Even more, the 'commerce card system' of Franklin is implemented by way of computer software modules loaded onto the customer computer (col. 4 lines 15-19). In other words, the commerce card is issued to the customer in the form of a signed digital certificate binding the customer to the bank and a software module that must be invoked on the customer's computer when using the commerce card to conduct a transaction (col. 4 lines 36-42). Thus, the 'commerce card system' of Franklin is unlike the applicant's system as set forth in claim 3 because it requires a user to implement software in order to obtain and use the transaction numbers (asserted to correspond to the recited digital identity, DID) issued by the commerce card institution. Furthermore, even though the Office cites col. 2 lines 2-4 of Franklin to support the notion that the customer is not required to implement software to use digital identity, what this passage actually states is merely that the online card exists in digital form. What the Office overlooks, however, is that this online card must be invoked by the software modules installed on the user's computer (col. 4 lines 36-42).

Thus, the Issuing bank of Franklin does not provide the limitations which are absent in Johnson. In response to this communication, the applicants' respectfully request that the Office show where the "DID Operator" of Franklin: is coupled to a DID System that calculates a dynamic, non-predictable, time-dependent, unique and Originator specific digital identity; and connects an OPFI and RPFI using a trusted DID Network as claimed.

3. The reasons provided on page 7 of the Office Action for combining Johnson and Franklin are that "it would be obvious to a person of ordinary skill in the art *to employ a trusted institution to issue digital identity for the buyer as taught in Franklin in the system of Johnson because it would improve the security and can be integrated in the existing card verification system.*" (Emphasis added). However, this is not persuasive. Johnson discloses a buyer in communication with "preferably only one" institution. Franklin discloses a customer in communication with one institution. Johnson and Franklin are therefore 'analogous' only to the extent that a buyer/customer is preferably in communication with one institution. Nowhere do either Johnson or Franklin teach or even remotely suggest the addition of another institution "to increase security." Johnson actually teaches away from the use of an additional (or different) central authority for the simple reason that the home bank does not *need* another central authority -- precisely because it is the buyer's bank, and it is serving that role itself. Rather, the use of a credit card (or any other) issuing institution to issue digital identity would render the system of Johnson *less secure*. This is partly because each third party (bank, credit card company, etc.) has its own set of rules and standards (which are not readily interchangeable) that must be followed before issuing a credential. Supporting such multiple standards adds

complexity, effectively increasing the risk of security failures. Moreover, credit card institutions (such as taught by Franklin) typically do not provide trustworthy "central authorities" simply for the reason that they don't share a secret only with the customer. In other words, these credit card companies are in the business of collecting and selling customer information to others -- not keeping personal information secret. The teachings of Johnson and Franklin are further incompatible with each other because the 'bank draft system,' requires the *seller* to install one type of proprietary software, while the 'commerce card system,' requires the *customer* to install a different form proprietary software. Thus, for at least the above described reasons, employing another institution (especially a credit card institution) to issue a temporary transaction number for a customer would not serve to improve security of (nor add any value to) the bank system of Johnson as asserted, but rather would introduce unwanted complexity and incompatibility thus *weakening the security* of Johnson.

4. Because Franklin fails to provide the limitations absent in Johnson as discussed above; since the teachings of Franklin and Johnson are not combinable; and because the reason provided in the Office Action for combining Johnson and Franklin is based upon an incorrect assumption that using an additional (or different) institution such as that taught by Franklin would add more security to the system of Johnson, it would not be obvious to combine Johnson and Franklin under 35 U.S.C. 103(a) to meet the limitations of claims 3, 20, 23 and their dependents.

The present invention thus provides advantages over problems commonly encountered with passwords and credit card numbers (which may be fraudulently used e.g., because they are not uniquely linked to the user). The present invention also

provides advantages over problems commonly encountered with biometrics and digital certificates which require the user to implement specialized hardware and/or software. In addition, the "digital identity" of the present invention is further: uniquely linked to the Originator; is capable of positively identifying the Originator; may be controlled by the Originator; and is linked to the data to which it relates such that any change in the data is detectable. Moreover, unlike passwords, credit cards, digital certificates, etc., the "digital identity" of the present systems and methods is unique in that it is impossible to calculate the same digital identity for two different Originators or for two different Originators to receive the same digital identity.

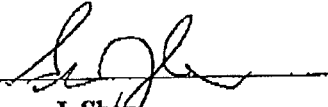
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Conclusion

Applicants' respectfully request reconsideration of the claim rejections based on the above remarks. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance. If the examiner believes that personal communication will expedite prosecution of this application, the examiner is invited to telephone the undersigned at (571) 228-2938.

Respectfully submitted,

Dated: 05/01/2007

By: 
Shawna J. Shay
Agent for Applicants
Registration No. 57,091

PATENT APPLICATION FEE DETERMINATION RECORD
Effective December 8, 2004

11/239046

CLAIMS AS FILED - PART I

	(Column 1)	(Column 2)
TOTAL CLAIMS	11/3/07	
FOR	NUMBER FILED	NUMBER EXTRA
TOTAL CHARGEABLE CLAIMS		minus 20 =
INDEPENDENT CLAIMS		minus 3 =
MULTIPLE DEPENDENT CLAIM PRESENT <input type="checkbox"/>		

SMALL ENTITY TYPE

OR OTHER THAN SMALL ENTITY.

RATE	FEE
BASIC FEE	150.00
X\$ 25=	395
X100=	
+180=	

RATE	FEE
BASIC FEE	300.00
X\$50=	
X200=	
+360=	

TOTAL **paid**

OR TOTAL

* If the difference in column 1 is less than zero, enter "0" in column 2

CLAIMS AS AMENDED - PART II

	(Column 1)	(Column 2)	(Column 3)
AMENDMENT A	11/3/07	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR
		20	** 20
		3	*** 3
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM <input type="checkbox"/>			

SMALL ENTITY OR

OTHER THAN SMALL ENTITY

RATE	ADDITIONAL FEE
X\$ 25=	
X100=	
+180=	
TOTAL ADDIT. FEE	

RATE	ADDITIONAL FEE
X\$50=	
X200=	
+360=	
TOTAL ADDIT. FEE	

Ind. Am. 5-1-07

	(Column 1)	(Column 2)	(Column 3)
AMENDMENT B		CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR
		15	** 20
		3	*** 3
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM <input type="checkbox"/>			

RATE	ADDITIONAL FEE
X\$ 25=	
X100=	
+180=	
TOTAL ADDIT. FEE	

RATE	ADDITIONAL FEE
X\$50=	
X200=	
+360=	
TOTAL ADDIT. FEE	

	(Column 1)	(Column 2)	(Column 3)
AMENDMENT C		CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR
			**

FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM <input type="checkbox"/>			

RATE	ADDITIONAL FEE
X\$ 25=	
X100=	
+180=	

RATE	ADDITIONAL FEE
X\$50=	
X200=	
+360=	



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/239,046	09/30/2005	Nader Asghari-Kamrani		2201

⁷⁵⁹⁰
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EXAMINER

NOBAHAR, ABDULHAKIM

ART UNIT	PAPER NUMBER
2132	

MAIL DATE	DELIVERY MODE
07/26/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 11/239,046	Applicant(s) ASGHARI-KAMRANI ET AL.	
	Examiner Abdulkhkim Nobahar	Art Unit 2132	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 01 May 2007.
2a) This action is **FINAL**. 2b) This action is non-final.
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 3,6-8,12,13 and 16-24 is/are pending in the application.
4a) Of the above claim(s) 1,2,4,5,9-11,14 and 15 is/are withdrawn from consideration.
5) Claim(s) _____ is/are allowed.
6) Claim(s) 3,6-8,12,13 and 16-24 is/are rejected.
7) Claim(s) _____ is/are objected to.
8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This office action is in response to applicants' response filed on 05/01/2007.
2. Claims 3, 6-8, 12, 13 and 16-24 are pending.
4. Claims 1, 2, 4, 5, 9-11, 14 and 15 are cancelled.
5. Applicant's arguments have been fully considered but they are not persuasive.

Response to Arguments

Further to the responses submitted in the previous office actions mailed to applicants, please note the following:

1. Applicants on page 9, last 3 lines, of remarks argue: "Therefore, the password itself is neither time-dependent nor dynamic. Nowhere does Johnson teach a dynamic or time-dependent password, or where a new password is provided for each transaction."

Examiner respectfully disagrees and asserts that Johnson discloses that the certificates or password (see col. 19, lines 62-67) may be for one-time, transaction-specific use or for multiple time use (col. 20, lines 5-9), which makes the password or certificates dynamic. Johnson further discloses that the buyer's unique ID-password combination may be valid only for a session of a limited duration (corresponding to the recited time-dependent) (see col. 19, lines 44-50).

2. Applicants on page 10, 2nd paragraph, of remarks argue: "Johnson does not teach wherein the password is submitted to the seller for authentication of identity and authorization of the transaction as claimed."

Examiner respectfully disagrees and asserts that Johnson explicitly discloses that the web buyer submit his identification information to the web seller to be authenticated - see col. 12, lines 59-67 and Fig. 2, blocks S23 and S24).

3. Applicants on page 12, 2nd paragraph, of remarks argue: "Johnson does not disclose that the DID system does not require the user to implement hardware or software as claimed."

Examiner respectfully disagrees and asserts that Johnson does not require the user to install any specialized software on its computer except having a web browser (see col. 10, lines 10-14).

Claim 3 of the instant invention recites that the user is not required to implement hardware or software as claimed. This statement is inconsistent with Fig. 4, for example, because the user needs a computer for online shopping and at least a browser to connect to a seller's web site via Internet. Therefore, the claim 3 needs to be amended in such a way to define that what kind of software and hardware the user does not require to employed in order to use a digital identity in an e-commerce transaction.

4. Applicants on page 13, 1st paragraph, of remarks argue: "neither of the networks of Franklin connect both an OPFI and an RPI through a DID Operator, nor is the Issuing bank of Franklin coupled to a DID System."

Examiner respectfully disagrees and asserts Franklin discloses a certifying authority (corresponding to the recited DID operator) that issues bank account and transaction number to the customers (see col. 2, lines 5-20). Franklin further discloses that both customer and merchant connect to the Issuing bank through a network (see

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Fig. 1). As the previous office action indicates that a person of ordinary skill in the art could implement the issuing bank feature of Franklin in Johnson system to meet the limitation of DID operator in the instant invention not the type of network is used by Franklin. However, Johnson also discloses that a trusted party such as a government agency or a bank may be deployed in the e-commerce system (see col. 4, lines 36-42). Johnson further discloses that the buyer, seller, the banks (see Fig. 3) and the trusted party (see Fig. 7) are connected and communicate to each other via secure network (see col. 5, lines 30-45).

5. The examiner, however, in light of the above submission maintains the previous rejections while considering the amendments to the claims as follows.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 6-8, 12, 13 and 16-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson [5,529,885 B1; hereinafter Johnson] in view of Franklin et al [5,883,810; hereinafter Franklin].

Regarding claims 3, 20 and 23, Johnson discloses a system for direct authentication and/or authorization of a transaction between an Originator and a Receiver, comprising (see, for example, abstract; col. 4, lines 32-50) comprising:

an Originator in communication with an Originating Participating Financial Institution (OPFI) (see, for example, Fig. 3, where web buyer and web buyer's home bank correspond to the recited Originator and OPFI, respectively)

a Receiver in communication with a Receiving Participating Financial Institution (RPFI) (see, for example, Fig. 3, where web seller and web seller bank correspond to the recited Receiver and RPFI, respectively);

a trusted Digital Identity (DID) Network connecting the OPFI and RPFI (see Fig. 3 and Fig. 7)

a DID System that calculates a dynamic, non-predictable, time-dependent, unique and Originator-specific digital identity for the Originator (see, for example, col. 9, lines 9-13 and 29-37; col. 13, lines 25-30, col. 19, lines 58-67 and col. 20, lines 5-10);

whereby the digital identity is provided to the Originator upon request, and submitted by the Originator to the Receiver as authentication of identity and/or authorization of the transaction (see, for example, col. 12, lines 46-67; col. 13, lines 42-60; col. 20, lines 5-11; col. 14, lines 5-10; where the authentication is performed in real time);

wherein the Originator is not required to implement software or hardware to use said digital identity [Note: examiner assumes that the originator only does not need to utilize specialized software or hardware not any kind of software or hardware] (see, for

example, col. 6, lines 31-49; col. 10, lines 10-14; col. 12, lines 59-67, where no specialized hardware or software is used); and

wherein a new digital identity is provided to the originator for each transaction (see, for example, col. 19, lines 40-50).

Johnson, however, does not explicitly disclose:

a DID Operator, the DID Operator further coupled to a DID System that calculates a digital identity for the Originator.

Franklin on the other hand discloses an online commerce system that uses an online commerce card (see, for example, abstract). Franklin further discloses an issuing institution (a central authority) that issues a permanent account number for each customer, and also issues a transaction number (corresponding to the recited digital identity, DID) for a customer upon request each time the customer is planning to conduct an online or an electronic transaction (see, for example, col. 1, line 65-col. 2, line 47). The customer submits the transaction number to the merchant and merchant sends the number to the issuing institution for authentication of the buyer and authorization of the transaction.

It would have been obvious to a person of ordinary skill in the art to employ a trusted institution to issue digital ID for the buyer as taught in Franklin in the system of Johnson because it would improve the security of the system (Franklin, col. 1, lines 60-64).

Regarding claim 6, Johnson discloses:

Art Unit: 2132

The system of claims 3 or 20, wherein the transaction includes a non-financial transaction (see, for example, col. 4, lines 32-40).

Regarding claim 6, Franklin discloses:

The system of claims 3 or 20, wherein the transaction includes a non-financial transaction (see, for example, abstract; col. 2, lines 1-21).

Regarding claim 7, Johnson discloses:

The system of claims 3 or 20, wherein the transaction includes an account to account transfer, an interbank funds transfer, a debit push, and/or a debit pull (see, for example, col. 3, lines 1-10; col. 13, lines 49-55).

Regarding claim 8, Franklin discloses:

The system of claim 6, wherein the non-financial transaction includes an express agreement and/or identity authentication (see, for example, abstract; col. 7, lines 33-38; col. 7, lines 62-67).

Regarding claims 12 and 13, Johnson discloses:

The method of claim 23, wherein the step of the Originator requesting and receiving a digital identity further includes:

the Originator authenticating himself to the OPFI and requesting a digital identity (see, for example, col. 9, lines 5-39);

the OPFI presenting the digital identity to the Originator (see, for example, col. 9, lines 29-37; col. 13, lines 28-30);

the RPF1 forwarding the digital identity to the OPFI for validation (see, for example, col. 12, lines 46-67);

a denial message to the RPF1, if the digital identity is invalid (see, for example, col. 13, lines 60-67);

upon approval, the OPFI sending an approval identification and authorization message back to the RPF1 (see, for example, col. 16, lines 43-58).

Johnson, however, does not explicitly disclose:

the DID Operator calculating and forwarding the digital identity for the Originator.

Franklin on the other hand discloses an online commerce system that uses an online commerce card (see, for example, abstract). Franklin further discloses an issuing institution (a central authority) that issues a permanent account number for each customer, and also issues a transaction number (corresponding to the recited digital identity, DID) for a customer upon request each time the customer is planning to conduct an online or an electronic transaction (see, for example, col. 1, line 65-col. 2, line 47). The customer submits the transaction number to the merchant and merchant sends the number to the issuing institution for authentication of the buyer and authorization of the transaction.

It would have been obvious to a person of ordinary skill in the art to employ a trusted institution to issue digital ID for the buyer as taught in Franklin in the system of

Johnson because it would improve the security of the system (Franklin, col. 1, lines 60-64).

Regarding claim 16, Franklin discloses:

The system of claim 23, wherein the transaction is includes a non-financial transaction (see, for example, abstract; col. 2, lines 1-21).

Regarding claim 17, Johnson discloses:

The system of claim 23, wherein the financial transaction includes an account to account transfer, an interbank funds transfer, a debit push, and/or a debit pull (see, for example, col. 3, lines 1-10; col. 13, lines 49-55).

Regarding claim 18, Franklin discloses:

The system of claim 16, wherein the non-financial transaction includes an express agreement and/or identity authentication (see, for example, abstract; col. 7, lines 33-38; col. 7, lines 62-67).

Regarding claims 19 and 22, Johnson discloses:

The system of claims 3 or 20, wherein the transaction is selected from any of: bank account transactions, credit card transactions, and/or non-financial transactions (see, for example, col. 3, lines 1-10; col. 13, lines 49-55).

Regarding claims 21 and 24, Johnson discloses:

The system of claims 3 or 20, wherein the digital identity submitted to the Receiver provides at least the same assurance as physical signature, thereby manifesting the Originator assent to the transaction (see, for example, col. 3, lines 63-67; col. 9, lines 9-17).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Abdulhakim Nobahar whose telephone number is 571-272-3808. The examiner can normally be reached on M-T 8-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on 571-272-3799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

July 20, 2007

Abdulhakim Nobahar
Examiner
Art Unit 2132 *a.n.*

Gilberto Barron Jr
GILBERTO BARRON JR
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

Index of Claims



Application/Control No.

11/239,046

Examiner

Abdulahakim Nobahar

Applicant(s)/Patent under Reexamination

ASGHARI-KAMRANI ET AL.

Art Unit

2132

√	Rejected
≡	Allowed

-	(Through numeral) Cancelled
+	Restricted

N	Non-Elected
I	Interference

A	Appeal
O	Objected

Claim		Date			
Final	Original	7/20/07			
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RCE
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PTO/SB/30 (10-07)

Approved for use through 10/31/2007. OMB 0651-0031

U.S. Patent and Trademark Office, U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

<p align="center">Request for Continued Examination (RCE) Transmittal</p> <p>Address to: Mail Stop RCE Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450</p>	Application Number	11/239,046
	Filing Date	09/30/2005
	First Named Inventor	Kamrani et al.
	Art Unit	2132
	Examiner Name	Nobahar
	Attorney Docket Number	

This is a Request for Continued Examination (RCE) under 37 CFR 1.114 of the above-identified application.
Request for Continued Examination (RCE) practice under 37 CFR 1.114 does not apply to any utility or plant application filed prior to June 8, 1995, or to any design application. See Instruction Sheet for RCEs (not to be submitted to the USPTO) on page 2.

1. **Submission required under 37 CFR 1.114** Note: If the RCE is proper, any previously filed unentered amendments and amendments enclosed with the RCE will be entered in the order in which they were filed unless applicant instructs otherwise. If applicant does not wish to have any previously filed unentered amendment(s) entered, applicant must request non-entry of such amendment(s).

a. Previously submitted. If a final Office action is outstanding, any amendments filed after the final Office action may be considered as a submission even if this box is not checked.

i. Consider the arguments in the Appeal Brief or Reply Brief previously filed on _____

ii. Other _____

b. Enclosed

i. Amendment/Reply

ii. Affidavit(s)/ Declaration(s)

iii. Information Disclosure Statement (IDS)

iv. Other _____

2. **Miscellaneous**

a. Suspension of action on the above-identified application is requested under 37 CFR 1.103(c) for a period of _____ months. (Period of suspension shall not exceed 3 months; Fee under 37 CFR 1.17(f) required)

b. Other _____

3. **Fees** The RCE fee under 37 CFR 1.17(e) is required by 37 CFR 1.114 when the RCE is filed.

The Director is hereby authorized to charge the following fees, any underpayment of fees, or credit any overpayments, to Deposit Account No. _____ I have enclosed a duplicate copy of this sheet.

i. RCE fee required under 37 CFR 1.17(e) 10/26/2007 DEMMANU1 00000012 11239046

ii. Extension of time fee (37 CFR 1.136 and 1.17) 01 10/23/01 405.00 OF

iii. Other _____

b. Check in the amount of \$ 405 _____ enclosed.

c. Payment by credit card (Form PTO-2038 enclosed)

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED			
Signature		Date	10/25/2007
Name (Print/Type)	Shawna J. Shaw	Registration No.	57,091

CERTIFICATE OF MAILING OR TRANSMISSION	
I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Mail Stop RCE, Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450 or facsimile transmitted to the U.S. Patent and Trademark Office on the date shown below.	
Signature	
Name (Print/Type)	
Date	

This collection of information is required by 37 CFR 1.114. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop RCE, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Nader Ashgari-Kamrani et al.

Application No.: 11/239,046

Confirmation No.: 5599

Filed: 09/30/2005

Art Unit: 2132

For: Direct Authentication and Authorization
System and Method for Trusted
Network of Financial Institutions

Examiner: A. Nobahar

REQUEST FOR CONTINUED EXAMINATION (RCE)

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

INTRODUCTORY COMMENTS

In response to the Final Office Action mailed 07/26/2007, the Applicants respectfully request reconsideration based on the Amendments and Remarks which follow.

Claims 1-24 (canceled).

- 25. (New) A method for performing a secure transaction between an Originating Participating Financial Institution and a Receiving Participating Financial Institution on behalf of an Originator initiating the transaction, the method comprising the steps of:**
- a) providing a Digital Identity Operator connecting the Originating Participating Financial Institution to the Receiving Participating Financial Institution via a trusted Digital Identity Network;**
 - b) an Originator authenticating himself to the Originating Participating Financial Institution to initiate the transaction;**
 - c) upon successful authentication, the Originating Participating Financial Institution submitting a request for a new digital identity for the Originator to the Digital Identity Operator;**
 - d) the Digital Identity Operator processing the request, dynamically generating a new digital identity that is non-predictable, time dependent and unique to the Originator only, and returning said digital identity to the Originating Participating Financial Institution;**
 - e) the Originating Participating Financial Institution receiving said dynamically generated digital identity and providing said digital identity to the Originator;**
 - f) the Originator providing said digital identity to the Receiving Participating Financial Institution either directly, or indirectly through a Receiver;**
 - g) the Receiving Participating Financial Institution validating said digital identity by forwarding said digital identity to the Digital Identity Operator;**
 - h) the Digital Identity Operator validating said digital identity, and upon successful validation, submitting a Digital Identity Message to the Originating Participating Financial Institution and/or Receiving Participating Financial Institution over the Digital Identity Network; and**
 - i) upon receiving the Digital Identity Message from the Digital Identity Operator, the Originating Participating Financial Institution and Receiving Participating Financial Institution performing the transaction.**

26. (New) The method of claim 25, wherein the Digital Identity Operator validates said digital identity based at least in part upon whether said digital identity is from the Originator.
27. (New) The method of claim 25, wherein said digital identity submitted to the Receiving Participating Financial Institution provides at least the same level of assurance as a physical signature, thereby manifesting the Originator's assent to the transaction.
28. (New) The method of claim 25, wherein the transaction corresponds to a non-financial transaction comprising an identity authentication and/or express agreement.
29. (New) The method of claim 25, wherein said digital identity submitted to the Receiving Participating Financial Institution enables the Receiving Participating Financial Institution to authenticate the Originator.
30. (New) The method of claim 25, wherein the transaction corresponds to an account to account funds transfer, an inter-bank funds transfer, a credit push, and/or a debit pull.
31. (New) A system for performing a secure transaction between an Originating Participating Financial Institution and a Receiving Participating Financial Institution on behalf of an Originator initiating the transaction, the system comprising:
- a Digital Identity Operator connecting the Originating Participating Financial Institution to the Receiving Participating Financial Institution via a trusted Digital Identity Network;
 - an Originator that initiates the transaction by authenticating himself to the Originating Participating Financial Institution over a communication network and requesting a new digital identity;

the Digital Identity Operator adapted to receive the request for a new digital identity from the Originating Participating Financial Institution and dynamically generate a digital identity that is non-predictable, time dependent and unique to the Originator only, and to return said digital identity to the Originating Participating Financial Institution;

the Originating Participating Financial Institution further adapted to receive said generated digital identity and provide said digital identity to the Originator;

whereby the Originator provides said digital identity to the Receiving Participating Financial Institution either directly, or indirectly through a Receiver;

the Receiving Participating Financial Institution adapted to validate said digital identity by forwarding said digital identity to the Digital Identity Operator;

the Digital Identity Operator further adapted to validate said digital identity and, if valid, to send a Digital Identity Message to the Originating Participating Financial Institution and/or Receiving Participating Financial Institution;

whereby upon receipt of the Digital Identity Message, the Originating Participating Financial Institution and the Receiving Participating Financial Institution perform the transaction.

32. (New) The system of claim 31, wherein the Digital Identity Operator validates said digital identity based at least in part upon whether the digital identity is from the Originator.

33. (New) The system of claim 31, wherein the digital identity submitted to the Receiver provides at least the same level of assurance as a physical signature, thereby manifesting the Originator's assent to the transaction.

34. (New) The system of claim 31, wherein the transaction corresponds to a non-financial transaction.

35. (New) The system of claim 34, wherein the non-financial transaction corresponds to an identity authentication and/or express agreement.

36. (New) The system of claim 31, wherein the transaction corresponds to an account to account funds transfer, an inter-bank funds transfer, a credit push, and/or a debit pull.

37. (New) A system for authenticating an Originator and receiving the Originator's authorization for a secure transaction in e-commerce based on digital identity, the system comprising:

an Originator in communication with a Receiver over a public communication network and needing to perform a secure transaction with the Receiver;

the Receiver adapted to require the Originator to authenticate himself and authorize the transaction by providing a valid digital identity before performing the transaction;

the Originator further in communication with an Originating Participating Financial Institution with a request for a new digital identity in response to the Receiver's requirement;

the Originating Participating Financial Institution adapted to request and receive a dynamically-generated non-predictable and time-dependent digital identity from a Digital Identity Operator, wherein said dynamically-generated digital identity is unique to the Originator only;

the Originating Participating Financial Institution adapted to forward said digital identity to the Originator;

whereby the Originator submits said digital identity to the Receiver and the Receiver forwards said digital identity to the Digital Identity Operator for verification and validation; and

whereby upon successful validation by the Digital Identity Operator, the Receiver positively authenticates the Originator and receives proof of the Originator's authorization for the transaction.

38. (New) The system of claim 37, wherein the Receiver is in communication with the Digital Identity Operator via a Receiving Participating Financial Institution.

39. (New) The system of claim 38, wherein the Receiver and Originator perform the transaction via the Receiving Participating Financial Institution and the Originating Participating Financial Institution, respectively.

40. (New) The system of claim 37, wherein the Digital Identity Operator validates said digital identity based at least in part upon whether the digital identity is from the Originator.

41. (New) The system of claim 37, wherein the digital identity submitted to the Receiving Participating Financial Institution provides at least the same level of assurance as a physical signature, thereby manifesting the Originator's assent to the transaction.

42. (New) The system of claim 37, wherein the transaction corresponds to a non-financial transaction.

43. (New) The system of claim 42, wherein the non-financial transaction corresponds to an identity authentication and/or express agreement.

44. (New) The system of claim 37, wherein the transaction corresponds to an account to account funds transfer, an inter-bank funds transfer, a credit push, and/or a debit pull.

REMARKS

The applicants' do not agree with the Final Rejection mailed 07/26/2007 and contend that the Final Rejection is improper based at least on the discussion that follows. However, in order to expedite prosecution, the applicants hereby cancel claims 3, 6-8, 12, 13 and 16-24 with traverse and submit a Request for Continued Examination in favor of new claims 25-44. Support for the new claims may be found for example, at pages 17-18, 25 and 29-30 of the specification.

Regarding the Office's Response on pages 2-4:

1. Johnson does not teach a digital identity provided upon request.

Contrary to the Office's assertion, the notion that the buyer of Johnson is authenticated for a session of limited duration does not mean that a new password is created for each transaction. According to Johnson, the buyer is authenticated by his home bank for a certain time period (e.g., 10 minutes) upon submission his password (issued in registration step S12) to the bank. However, for each (e.g., 10 minute) authentication session, the buyer re-submits the same password.

Passwords are also unlike digital identity because passwords are not customer specific and are easy to copy. Therefore, passwords do not provide the same assurance as physical signature in real world (where a physical signature is unique to the buyer; it authenticates the buyer and manifest buyer's assent to the transaction). In other words, you could not find two different buyers with the same signature, whereas two different buyers may have the same password for authentication. Therefore passwords cannot be relied upon to receive buyer's assent to, or authorization of, the transaction.

Further regarding one-time certificates, Johnson makes clear that the use of such certificates should be limited to "special circumstances." Johnson further indicates that it would not be desirable to issue certificates freely upon request, or for each transaction, (consistent with the inherent nature of such certificates) because this would "unduly burden the free flow of normal e-commerce." See Johnson, col. 19 line 65 – col. 20 line 17. This is understandable because certificates are costly to create and manage. (For

example, it is well understood in the art that the key management issues underlying certificates are a difficult problem, and that generating a new certificate for each transaction would involve far too many keys than could be managed). Thus, Johnson also does not calculate a new certificate for each transaction.

2. The password of Johnson is not submitted to the seller.

The password of Johnson (used for authentication) is *not* submitted to the seller, but always to the buyer's bank (see Johnson, col. 12 lines 56-58). Thus, although the Office asserts that the web buyer submits his identification information to the web seller, the applicants' point out that the "identification information" (*i.e.*, buyer and/or bank ID), which may be publicly known such as the stock symbol for a bank) is *different* from the "password" which is used for authenticating the buyer (and which must be kept secret). In addition, security statements of financial institutions explicitly indicate that for security reasons online customers do not have to reveal their online banking passwords to anyone or any entity.

4. Neither Johnson nor Franklin teach or suggest a Digital Identity Operator connecting an Originating Participating Financial Institution and a Receiving Participating Financial Institution via a trusted Digital Identity Network.

The Final Office Action mailed 07/26/07 conceded that "Johnson does not explicitly disclose: a DID Operator, the DID Operator coupled to a DID System that calculates a digital identity for the Originator" (see page 6 of the Office Action). Moreover, the Office Action mailed 03/05/2007 (upon which the Final Rejection is based) also conceded that "*Johnson, however, does not disclose a trusted Digital Identity (DID) Network connecting an OPFI and RPF1 through a DID Operator, the DID Operator further coupled to a DID System that calculates a digital identity for the Originator*" (emphasis added, see page 6 of the Office Action).

At the same time, however, *the Office does not show where Franklin teaches or suggests a DID Operator connecting an OPFI and RPF1 via a secure DID Network that remedies these shortcomings of Johnson. Instead, the Office merely states that Franklin discloses "both the customer and merchant connect to the Issuing bank through a network."* However, the customer and the merchant are not an Originating Participating

Financial Institution or Receiving Participating financial institution. In addition, the network of Franklin connecting the customer and merchant is an *insecure* network 34 (such as the Internet) and not a secure Digital Identity Network. Moreover, the proprietary (credit card) payment network 36 of Franklin only connects the merchant to the issuing bank. Thus, *Franklin does not teach or suggest a DID Operator connecting an OPFI and RPI via a secure DID Network.*

The Office further states on page 4 that “a person of ordinary skill in the art could implement the issuing bank feature of Franklin in Johnson system to meet the limitation of DID operator in the instant invention not the type of network is used by Franklin.” The applicants’ find this statement confusing and request further clarification on what the Office is attempting to communicate here. The applicants’ point out that if Franklin does not teach a secure DID Network connecting an Originating Participating Financial Institution and a Receiving Financial Institution, then Franklin does not remedy the deficiencies of Johnson and the combination does not teach all of the claimed limitations. The Office asserts further down on page 4 that “Johnson further discloses that the buyer, seller, the banks (see Fig. 3) and the trusted party (see Fig. 7) are connected and communicate to each other via secure network.” However, as previously conceded by the Office, Johnson does not teach: a trusted Digital Identity (DID) Network connecting an OPFI and RPI through a DID Operator. According to MPEP § 2142, to make a prima facie case of obviousness the references must teach or suggest all of the claimed limitations. Thus, because neither Johnson nor Franklin teach or suggest a trusted Digital Identity Operator connecting an OPFI and RPI through a trusted Digital Identity Network, the applicants’ contend that a prima facie case of obviousness has not been established.

103 REJECTION UNDER JOHNSON IN VIEW OF FRANKLIN:

I. THE COMBINATION OF JOHNSON AND FRANKLIN DOES NOT PROVIDE ALL OF THE CLAIMED LIMITATIONS

5. The combination of Johnson and Franklin does not teach or suggest a Digital Identity Operator connecting an Originating Participating Financial Institution to a Receiving Participating Financial Institution via a trusted Digital Identity Network.

Neither Johnson nor Franklin teaches a Digital Identity Operator connecting the Originating Participating Financial Institution to the Receiving Participating Financial Institution via a trusted Digital Identity Network, nor does the combination of the references suggest this limitation. Rather, the networks disclosed by Franklin are a public network 34 and an existing proprietary payment card network 36. However, neither of the networks connect an Originating Participating Financial Institution and a Receiving Participating Financial Institution through a DID Operator. According to MPEP § 2142, to make a prima facie case of obviousness, the references must teach or suggest all of the claimed limitations. See also the discussion in paragraph 4.

6. The combination of Johnson and Franklin does not teach or suggest a Digital Identity Operator that validates the digital identity, and upon validation submits a Digital Identity Message to the Originating Participating Financial Institution and/or Receiving Participating Financial Institution.

Neither Johnson nor Franklin teach or suggest a Digital Identity Operator that validates digital identity, and upon validation, sends a Digital Identity Message to an Originating Participating Financial Institution and/or Receiving Participating Financial Institution as now claimed. As disclosed in the specification, the Digital Identity Message may include the Originator's digital identity (authenticating and/or authorizing the transaction), and may be interchanged with other Participating Financial Institutions. See for example, pages 13 and 25 of the specification.

7. The combination of Johnson and Franklin does not teach or suggest a Digital Identity Operator that validates the digital identity based at least in part upon whether the digital identity is from the Originator.

Johnson and Franklin also do not teach or suggest a Digital Identity Operator that validates the digital identity based at least in part upon whether the digital identity is from the Originator as now claimed. Furthermore, in Johnson and Franklin, it is possible for the passwords or transaction IDs to be stolen or intercepted for fraudulent use (see *e.g.*, Franklin, col. 2 lines 59-61 and col. 4 line 67 – col. 5 line 2). Therefore, the sellers in Johnson and Franklin cannot be fully assured that the buyer is who he says he is. However, because the digital identity of the present invention is unique to the Originator only and cannot be used by someone else, for example, the Digital Identity Operator can positively identify the Originator based on the digital identity. Thus, the Digital Identity Operator knows that the digital identity is from the Originator (not someone else) and that the transaction “originated” from the Originator. See, for example, page 31 of the specification.

8. Neither Johnson nor Franklin are able to positively authenticate an Originator and receive the Originator’s authorization for a transaction based on digital identity as claimed.

Neither Johnson nor Franklin positively authenticate an Originator and receive the *Originator’s* authorization for a transaction based on digital identity as now claimed. For example, as mentioned above, passwords and transaction IDs cannot be used for proof of buyer’s authorization (or proof of buyer’s assent to the transaction), since *e.g.*, passwords and transaction IDs do not provide the same assurance as physical signature. While the credit-card institution of Franklin may provide “pre-authorization” – obtaining authorization from a financial institution is different from directly obtaining *the buyer’s* authorization for a transaction. In other words, because credit card companies are willing to assume the risks associated with numerous fraudulent online transactions, they freely “pre-authorize” users with little or no authentication of the user or proof of the user’s assent to the transaction. In the physical world, a physical signature manifests the buyer’s authorization of, or assent to, the transaction. Because the digital identity of the present invention is *e.g.*, Originator-specific and unique to the Originator only (it is

impossible to calculate the same digital identity for two different Originators), it provides the same assurance as a physical signature in the real world. By receiving the digital identity from the Originator, the Receiver can authenticate the Originator as well as receive direct transaction authorization from the Originator. See, for example, pages 4-6, page 28 lines 5-10, page 29 lines 4-14, page 31 lines 11-13 and page 32 lines 2-5 of the specification.

II. THE REFERENCES TEACH AWAY FROM ONE ANOTHER

9. Johnson teaches away from the use of a separate, additional “Central Authority.”

Johnson teaches away from the use of a separate or additional central authority for the reason that the home bank does not need another issuing authority – since it is already serving that role itself (by issuing passwords used for authentication). Thus, in Johnson, once the buyer provides his ID and password to the Bank, there is no reason for the Bank to even calculate a dynamic, non-predictable, time dependent “digital identity,” that the buyer presents to the seller. This is because the Bank is already acting as a secure “portal” between the buyer and the seller (col. 10 lines 61-66).

In addition, the use of a separate credit card (or any other) issuing institution would actually render the system of Johnson *less* secure. This is partly because each third party (bank, credit-card company, etc.) has its own set of rules and standards (which are not readily interchangeable) that must be followed before issuing a credential. Supporting such multiple standards adds complexity, effectively increasing the risk of security failures. Moreover, credit card institutions (such as taught by Franklin) typically do not provide trustworthy “central authorities” simply for the reason that they don’t share a secret only with the customer. In other words, these credit card companies are in the business of collecting and selling customer information to others – and not keeping personal information secret. Thus, it would not be obvious to use a separate, additional (e.g., credit card) issuing institution as a “trusted” central authority in the system of Johnson “to increase security.”

For at least the above described reasons, employing a separate, additional institution (especially a credit card institution) with the system of Johnson is contrary to the teachings of Johnson and is rather based upon impermissible hindsight.

10. Johnson requires the seller to install software, while Franklin advantageously teaches that the seller need *not* change their existing system.

According to Johnson, the Web seller is required to install bank-controlled iDraft™ software (see *e.g.*, col. 12 lines 45-49). Conversely, in the system of Franklin, the seller (Merchant) need not install any new hardware or software or change their existing system (see *e.g.*, Franklin, col. 2 lines 45-57, 63-65, col. 4 lines 20-22). Thus, because the teachings of Johnson and Franklin are directly contrary to one another, it would not be obvious to combine the references nor would such a combination provide any reasonable expectation of success.

11. The meaning of the digital identity of Johnson is counter to the meaning of the digital identity of Franklin.

The rationale for combining Johnson and Franklin is flawed in part because it is based upon an equivocal use of the term “digital identity.” In this case, the meanings attributed to the term “digital identity” change in the middle of the rejection. Moreover, the meaning of the cited “digital identity” in Johnson is counter to the meaning of the cited “digital identity” in Franklin.

In Johnson, the “*passwords*” or “*certificates*” are asserted to correspond to the cited “digital identity.” Here, the “digital identity” is submitted to the bank and not to the seller. In Franklin, the credit card “transaction ID” is asserted to correspond to the cited “digital identity.” In Franklin, however, the “digital identity” is submitted to the seller and not to the bank. Thus, it would not be obvious to substitute the transaction number of Franklin for the passwords or certificates of Johnson because the alleged “digital identities” of Johnson and Franklin have different meanings which are contrary to one another. Because the teachings of Johnson and Franklin are directly contrary to one another, it would not be obvious to combine the references nor would such a combination provide any reasonable expectation of success.

According to MPEP 2141.02, in determining the differences between the prior art and the claims, the question under 35 USC § 103 is not whether the differences

themselves would have been obvious, but whether the claimed invention as a whole would have been obvious; and that distilling an invention down to the “gist” or “thrust” of an invention disregards the requirement of analyzing the subject matter “as a whole.” In addition, each prior art reference must be considered in its *entirety*, *i.e.*, as a whole, including portions that would lead away from the claimed invention. For these and the above described reasons, a 103 rejection under Johnson in view of Franklin is based on improper hindsight and cannot be sustained.

III. THERE IS NO “REASONABLE EXPECTATION OF SUCCESS” IN COMBINING THE TEACHINGS OF FRANKLIN WITH THE TEACHINGS OF JOHNSON

12. The combination of Johnson and Franklin would render both of the references inoperable for their intended purposes.

Johnson and Franklin cannot be combined because Franklin is directed toward a proxy payment card system that is integrated with *other existing proprietary card verification and settlement systems* (e.g., VISA, Mastercard, etc. see Franklin, col. 12 lines 10-20). Johnson, on the other hand, is directed toward electronic transactions such as bank drafts that are carried out over public networks and thus “*obviates the need to disseminate identification surrogates such as credit card numbers over public networks*” (emphasis added, see e.g., Johnson, abstract).

In addition, Franklin utilizes proprietary software modules, user interfaces and digital certificates at the *customer end* - where no additional components are implemented at the merchant end (see, Franklin, column 2 lines 63-65). Advantageously, because no software components are added to the merchant computer as part of the payment card system of Franklin, the merchant computer can treat the transaction number of the online commerce card no differently than it treats a standard credit card number (see Franklin, column 10 lines 39-45). Conversely, Johnson teaches bank-controlled iDraft™ software that must be implemented at the *seller end* (see, for example, column 12 lines 45-49). Thus, the applicants’ submit that the references as a whole teach away from one another wherein any attempt to combine the iDraft™ system of Johnson with the software modules and user interfaces of Franklin would require both the buyer and

seller to install two distinctly different, non-compatible proprietary systems. Such a requirement for the buyer *and* seller to install software on their systems would result in an unnecessarily complex, inefficient, and expensive system while at the same time rendering both Johnson and Franklin unsatisfactory for their intended purpose (e.g. that no software needs to be added to merchant computers of Franklin so that the transaction numbers may be treated the same as standard credit card numbers).

According to MPEP 2143.01, there is no suggestion or motivation to make a proposed modification if the modification would render the prior art unsatisfactory for its intended purpose or would change the principle of operation of the reference. Therefore, because combining the teachings of Johnson and Franklin would render each of the references unsatisfactory for their intended purposes (as described above) and also would change the principle of operation of the references, a 103 rejection under Johnson in view of Franklin is based on impermissible hindsight and cannot be sustained.

IV. THE OFFICE HAS NOT EXPLICITLY ARTICULATED ITS LINE OF REASONING OR PROVIDED ANY EVIDENTARY SUPPORT FOR THE PRINCIPLE EVIDENCE UPON WHICH THE REJECTION IS BASED.

13. The Office has not provided supporting evidence or clearly articulated rationale that adding the issuing institution of Franklin to Johnson would “increase security.”

The Office Action does not provide an explicit analysis or provide any rational underpinnings for how incorporating the teachings of Franklin with the teachings of Johnson would “increase security.”

In particular, nowhere do either Johnson or Franklin teach or even suggest that the addition of another institution would increase security – thus such a motivation must be found from a source outside of the references themselves. However, the addition of the issuing institution to Johnson – the principle upon which the rejection is based – is not a peripheral issue, yet the Office has not provided any documentary evidence in support of this assertion. If the Office persists in its assertion that the combination of Johnson and Franklin would increase security, the applicants’ request an affidavit articulating how the separate “trusted” institution in the credit card-based system of Franklin would increase

the security of the bank-based system of Johnson. The applicants' further assert that until explicit and unmistakable reasoning is provided, such a rejection cannot be sustained.

Rather, the applicants' continue to maintain that the use of a separate, additional credit card (or any other) issuing institution would render the system of Johnson *less* secure. This is partly because each third party (bank, credit card company, etc.) has its own set of rules and standards (which are not readily interchangeable) that must be followed before issuing a credential. Supporting such multiple standards adds complexity, effectively increasing the risk of security failures. Moreover, credit card institutions (such as taught by Franklin) typically do not provide trustworthy "central authorities" since credit card companies are in the business of collecting and selling customer information to others – and not keeping personal information secret. Thus, at least for the above described reasons, forwarding a request for digital identity to an additional, separate institution (especially a credit card institution) would not serve to improve security of the bank system of Johnson as asserted, but rather would introduce unwanted complexity and incompatibility as discussed above – thus *weakening* the security of Johnson.

Additionally, the Office has not provided a line of reasoning that is clear and unmistakable, but rather has merely provided a conclusory statement that such a combination would "increase security." However, incorporating the teachings of Franklin with Johnson to "increase security" - is not instantly and unquestionably demonstrated. In particular, it is still unclear how the teaching of Franklin would be incorporated with the teaching of Johnson – by substituting the "transaction ID" for the password? If so, in order to obtain the transaction ID, wouldn't the buyer of Johnson have to install software on their system – *directly contrary* to the teachings of Johnson?

The Office thus does not provide convincing rationale for combining the teachings of Johnson and Franklin. The Office states that "it would be obvious to a person of ordinary skill in the art to employ an trusted institution to issue digital identity for the buyer as taught in Franklin in the system of Johnson *because it would improve the security...*" (emphasis added). However such a blanket motivation statement does not clearly articulate the Offices' line of reasoning and is not clear and unmistakable. Because the applicants' have above provided more articulated rationale for why

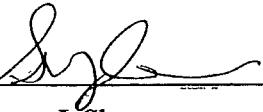
combining the teachings of Johnson and Franklin would rather *decrease* security, the motivation provided by the Office is not sufficient to sustain a rejection under 35 USC § 103.

Conclusion

The applicants' respectfully request reconsideration of the claim rejections based on the above amendments and remarks. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance. If the examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (571)228-2938.

Respectfully submitted,

Dated: 10/25/2007

By: 
Shawna J. Shaw
Agent for Applicants
Registration No. 57,091

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 11/239,046	Filing Date 09/30/2005	<input type="checkbox"/> To be Mailed
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APPLICATION AS FILED – PART I			SMALL ENTITY <input checked="" type="checkbox"/> OR OTHER THAN SMALL ENTITY					
FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	RATE (\$)	FEE (\$)		RATE (\$)	FEE (\$)	
<input checked="" type="checkbox"/> BASIC FEE <small>(37 CFR 1.16(a), (b), or (c))</small>	N/A	N/A	N/A	150	OR	N/A		
<input type="checkbox"/> SEARCH FEE <small>(37 CFR 1.16(k), (l), or (m))</small>	N/A	N/A	N/A			N/A		
<input type="checkbox"/> EXAMINATION FEE <small>(37 CFR 1.16(o), (p), or (q))</small>	N/A	N/A	N/A			N/A		
TOTAL CLAIMS <small>(37 CFR 1.16(j))</small>	20 minus 20 =	* 0	X \$25 =	0	OR	X \$ =		
INDEPENDENT CLAIMS <small>(37 CFR 1.16(h))</small>	3 minus 3 =	* 0	X \$100 =	0		X \$ =		
<input type="checkbox"/> APPLICATION SIZE FEE <small>(37 CFR 1.16(s))</small>	If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).							
<input type="checkbox"/> MULTIPLE DEPENDENT CLAIM PRESENT <small>(37 CFR 1.16(j))</small>								
			TOTAL	150		TOTAL		

APPLICATION AS AMENDED – PART II					SMALL ENTITY OR OTHER THAN SMALL ENTITY					
AMENDMENT	(Column 1)	(Column 2)	(Column 3)		RATE (\$)	ADDITIONAL FEE (\$)		RATE (\$)	ADDITIONAL FEE (\$)	
	10/25/2007	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA					
	Total (37 CFR 1.16(i))	* 20	Minus	** 20	= 0	X \$25 =	0	OR	X \$ =	
	Independent (37 CFR 1.16(h))	* 3	Minus	***3	= 0	X \$105 =	0	OR	X \$ =	
<input type="checkbox"/> Application Size Fee (37 CFR 1.16(s))							OR			
<input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR			
					TOTAL ADD'L FEE	0	OR	TOTAL ADD'L FEE		

AMENDMENT	(Column 1)	(Column 2)	(Column 3)		RATE (\$)	ADDITIONAL FEE (\$)		RATE (\$)	ADDITIONAL FEE (\$)	
		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA					
	Total (37 CFR 1.16(i))	*	Minus	**	=	X \$ =		OR	X \$ =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	X \$ =		OR	X \$ =	
<input type="checkbox"/> Application Size Fee (37 CFR 1.16(s))							OR			
<input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR			
					TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE		

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.
 ** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".
 *** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".
 The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

Legal Instrument Examiner:
 Jessica Gaynor

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**
 If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	40829	(user customer consumer client origina\$4 receiv\$3 buy\$3 purchas\$3 initiat\$3 sell\$3 merchant trad\$3) near5 bank\$3	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/12/21 13:53
L2	13067	1 and ((user customer consumer client origina\$4 receiv\$3 buy\$3 purchas\$3 initiat\$3 sell\$3 merchant trad\$3) near1 (identity identification identif\$5 ID DID certificat))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/12/21 13:55
L3	8167	2 and ((financ\$6 commerc\$6 ecommerc\$6 bank\$3 credit\$3 sale electronic\$5 trad\$3 sell\$3 buy\$3 purchas\$3 fund\$3 monetary money) near2 (transaction business deal\$3 contract\$3))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/12/21 14:04
L4	5489	3 and ((center\$4 main authorized institution entity financ\$6 commerc\$6 bank\$4 office authority CA official) with (authentikat\$4 autoriz\$5 verification verify\$3 validat\$4) with (user customer consumer client origina\$4 receiv\$3 buy\$3 purchas\$3 initiat\$3 sell\$3 merchant trad\$3))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/12/21 14:23
L7	2574	4 and ((trust\$3 protected secur\$3 private local) adj2 network)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/12/21 14:11
L8	1887	7 and ((realtime time dynamic\$6 temporar\$5 single onetime on-the-fly transaction) near3 (identity identification identif\$5 ID DID certificate))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/12/21 14:13
L9	1938	7 and ((realtime time dynamic\$6 temporar\$5 single onetime on-the-fly transaction duration session period) near3 (identity identification identif\$5 ID DID certificate))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/12/21 14:14
L11	1436	9 and ((center\$4 main authorized) adj1 (institution entity financ\$6 commerc\$6 bank\$4 office party) authority CA official)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/12/21 14:27

EAST Search History

L12	1344	11 and ((authenticat\$4 authoriz\$5 verification verify\$3 validat\$4) near2 (user customer consumer client origina\$4 receiv\$3 buy\$3 purchas\$3 initiat\$3 sell\$3 merchant trad\$3))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/12/21 14:27
L13	1084	12 and ((authenticat\$4 authoriz\$5 verification verify\$3 validat\$4) near2 (identity identification identif\$5 ID DID certificat))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/12/21 14:28
L14	372	13 and @ad<"20010901"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/12/21 14:32

EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L15	242	14 and ((retail\$3 receiv\$3 vend\$3 sell\$3 merchant trad\$3 business mercantile suppl\$4 wholesal\$3 broker) near1 (identity identification identif\$5 ID DID certificat))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/12/21 18:06
L16	41	15 and ((retail\$3 receiv\$3 vend\$3 sell\$3 merchant trad\$3 business mercantile suppl\$4 wholesal\$3 broker) with (identity identification identif\$5 ID DID certificat) with ((center\$4 main authorized) adj1 (institution entity financ\$6 commerc\$6 bank\$4 office party) authority CA official))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/12/21 18:07



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/239,046	09/30/2005	Nader Asghari-Kamrani		2201

7590 01/02/2008
Nader Asghari-Kamrani
6558 Palisades Drives
Centreville, VA 20121

EXAMINER

NOBAHAR, ABDULHAKIM

ART UNIT	PAPER NUMBER
2132	

2132

MAIL DATE	DELIVERY MODE
01/02/2008	PAPER

01/02/2008 PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

mn

Office Action Summary	Application No. 11/239,046	Applicant(s) ASGHARI-KAMRANI ET AL.	
	Examiner Abdulhakim Nobahar	Art Unit 2132	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133): Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 25 October 2007.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 25-44 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 25-44 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 - 1. Certified copies of the priority documents have been received.
 - 2. Certified copies of the priority documents have been received in Application No. _____.
 - 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)
 Paper No(s)/Mail Date _____.
- 4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____.
- 5) Notice of Informal Patent Application
- 6) Other: _____.

DETAILED ACTION

1. This office action is in response to applicants' amendment filed on 10/25/2007.
2. Claims 25-44 are pending.
3. Claims 25-44 are newly added.
3. Claims 3, 6-8, 12, 13 and 16-24 are cancelled.
4. Applicant's arguments with respect to the rejections of claims 3, 6-8, 12, 13 and 16-24 under 35 USC § 103 have been fully considered and are persuasive. Therefore, the rejections have been withdrawn. However, upon further consideration of the new claims the following rejection is made.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 25, 31 and 37 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 25, in step h), recites "submitting a Digital Identity Message to the Originating Participating Financial Institution and/or Receiving Participating Financial

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Page 3

Institution over the Digital Identity Network.” The specification of the instant application does not provide any description that the Digital Identity Operator sends a message to the Receiving Participating Financial Institution over the Digital Identity Network, after validating the digital identity of the Originator.

Claim 31, in lines 7-9, recites “an Originator...and requesting a new digital identity.” The specification of the instant application does not provide any description that the Originator requests for a new digital identity from the Digital Identity Operator which is in conflict with the next limitation in this claim. Instead, the specification describes that the Originating Participating Financial Institution requests for a new digital identity for the Originator from the Digital Identity.

Claim 37, in lines 10-12, recites “an Originator further in communication with an Originating Participating Financial Institution with a request for a new digital identity...” As stated in the case of claim 31, the specification does not provide any description that the Originator requests for a new digital identity.

Allowable Subject Matter

Claims 25-44 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 1st paragraph, set forth in this Office action.

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11/239,046
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Page 4

Conclusion

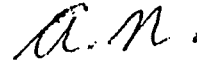
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Abdulhakim Nobahar whose telephone number is 571-272-3808. The examiner can normally be reached on M-T 8-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on 571-272-3799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

NASSER MOAZZAMI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

Abdulhakim Nobahar
Examiner
Art Unit 2132



December 21, 2007


12,26,07

Index of Claims



Application/Control No.

11/239,046

Examiner

Abdulkhakim Nobahar

Applicant(s)/Patent under Reexamination

ASGHARI-KAMRANI ET AL.

Art Unit

2132

√	Rejected
≡	Allowed

-	(Through numeral) Cancelled
+	Restricted

N	Non-Elected
I	Interference

A	Appeal
O	Objected

Claim		Date			
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IPW



Application Serial No.: 11/239,046
Amendment and Response 02/12/2008

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Nader Ashgari-Kamrani et al.

Application No.: 11/239,046

Confirmation No.: 5599

Filed: 09/30/2005

Art Unit: 2132

For: Direct Authentication and Authorization Examiner: A. Nobahar
System and Method for Trusted
Network of Financial Institutions

AMENDMENT AND RESPONSE

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

INTRODUCTORY COMMENTS

In response to the Non-final Office Action mailed 01/02/2008, the Applicants respectfully request reconsideration based on the Amendments and Remarks which follow.

Claims 1-24 (canceled).

25. (Currently Amended) A method for performing a secure transaction between an Originating Participating Financial Institution and a Receiving Participating Financial Institution on behalf of an Originator initiating the transaction, the method comprising the steps of:

a) providing a Digital Identity Operator connecting the Originating Participating Financial Institution to the Receiving Participating Financial Institution via a trusted Digital Identity Network;

b) an Originator authenticating himself to the Originating Participating Financial Institution to initiate the transaction;

c) upon successful authentication, the Originating Participating Financial Institution submitting a request for a new digital identity for the Originator to the Digital Identity Operator;

d) the Digital Identity Operator processing the request, dynamically generating a new digital identity that is non-predictable, time dependent and unique to the Originator only, and returning said digital identity to the Originating Participating Financial Institution;

e) the Originating Participating Financial Institution receiving said dynamically generated digital identity and providing said digital identity to the Originator;

f) the Originator providing said digital identity to the Receiving Participating Financial Institution either directly, or indirectly through a Receiver;

g) the Receiving Participating Financial Institution validating said digital identity by forwarding said digital identity to the Digital Identity Operator; and

~~h) the Digital Identity Operator validating said digital identity, and upon successful validation, submitting a Digital Identity Message to the Originating Participating Financial Institution and/or Receiving Participating Financial Institution over the Digital Identity Network; and~~

~~i) h) upon receiving the a Digital Identity Message from the Digital Identity Operator, the Originating Participating Financial Institution and Receiving Participating Financial Institution performing the transaction.~~

26. (Previously Presented) The method of claim 25, wherein the Digital Identity Operator validates said digital identity based at least in part upon whether said digital identity is from the Originator.
27. (Previously Presented) The method of claim 25, wherein said digital identity submitted to the Receiving Participating Financial Institution provides at least the same level of assurance as a physical signature, thereby manifesting the Originator's assent to the transaction.
28. (Previously Presented) The method of claim 25, wherein the transaction corresponds to a non-financial transaction comprising an identity authentication and/or express agreement.
29. (Previously Presented) The method of claim 25, wherein said digital identity submitted to the Receiving Participating Financial Institution enables the Receiving Participating Financial Institution to authenticate the Originator.
30. (Previously Presented) The method of claim 25, wherein the transaction corresponds to an account to account funds transfer, an inter-bank funds transfer, a credit push, and/or a debit pull.
31. (Currently Amended) A system for performing a secure transaction between an Originating Participating Financial Institution and a Receiving Participating Financial Institution on behalf of an Originator initiating the transaction, the system comprising:
a Digital Identity Operator connecting the Originating Participating Financial Institution to the Receiving Participating Financial Institution via a trusted Digital Identity Network;

an Originator that initiates the transaction by authenticating himself to the Originating Participating Financial Institution over a communication network and requesting a new digital identity;

the Digital Identity Operator adapted to receive the a request for a new digital identity from the Originating Participating Financial Institution and dynamically generate a digital identity that is non-predictable, time dependent and unique to the Originator only, and to return said digital identity to the Originating Participating Financial Institution;

the Originating Participating Financial Institution further adapted to receive said generated digital identity and provide said digital identity to the Originator;

whereby the Originator provides said digital identity to the Receiving Participating Financial Institution either directly, or indirectly through a Receiver;

the Receiving Participating Financial Institution adapted to validate said digital identity by forwarding said digital identity to the Digital Identity Operator;

the Digital Identity Operator further adapted to validate said digital identity and, if valid, to send a Digital Identity Message to the Originating Participating Financial Institution and/or Receiving Participating Financial Institution;

whereby upon receipt of the Digital Identity Message, the Originating Participating Financial Institution and the Receiving Participating Financial Institution perform the transaction.

32. (Previously Presented) The system of claim 31, wherein the Digital Identity Operator validates said digital identity based at least in part upon whether the digital identity is from the Originator.
33. (Previously Presented) The system of claim 31, wherein the digital identity submitted to the Receiver provides at least the same level of assurance as a physical signature, thereby manifesting the Originator's assent to the transaction.
34. (Previously Presented) The system of claim 31, wherein the transaction corresponds to a non-financial transaction.

35. (Previously Presented) The system of claim 34, wherein the non-financial transaction corresponds to an identity authentication and/or express agreement.
36. (Previously Presented) The system of claim 31, wherein the transaction corresponds to an account to account funds transfer, an inter-bank funds transfer, a credit push, and/or a debit pull.
37. (Currently Amended) A system for authenticating an Originator and receiving the Originator's authorization for a secure transaction in e-commerce based on digital identity, the system comprising:
- an Originator in communication with a Receiver over a public communication network and needing to perform a secure transaction with the Receiver;
 - the Receiver adapted to require the Originator to authenticate himself and authorize the transaction by providing a valid digital identity before performing the transaction;
 - the Originator further in communication with an Originating Participating Financial Institution with a request for a new digital identity in response to the Receiver's requirement;
 - the Originating Participating Financial Institution adapted to request and receive a dynamically-generated non-predictable and time-dependent digital identity from a Digital Identity Operator, wherein said dynamically-generated digital identity is unique to the Originator only;
 - the Originating Participating Financial Institution adapted to forward said digital identity to the Originator;
 - whereby the Originator submits said digital identity to the Receiver and the Receiver forwards said digital identity to the Digital Identity Operator for verification and validation; and

whereby upon successful validation by the Digital Identity Operator, the Receiver positively authenticates the Originator and receives proof of the Originator's authorization for the transaction.

38. (Previously Presented) The system of claim 37, wherein the Receiver is in communication with the Digital Identity Operator via a Receiving Participating Financial Institution.

39. (Previously Presented) The system of claim 38, wherein the Receiver and Originator perform the transaction via the Receiving Participating Financial Institution and the Originating Participating Financial Institution, respectively.

40. (Previously Presented) The system of claim 37, wherein the Digital Identity Operator validates said digital identity based at least in part upon whether the digital identity is from the Originator.

41. (Previously Presented) The system of claim 37, wherein the digital identity submitted to the Receiving Participating Financial Institution provides at least the same level of assurance as a physical signature, thereby manifesting the Originator's assent to the transaction.

42. (Previously Presented) The system of claim 37, wherein the transaction corresponds to a non-financial transaction.

43. (Previously Presented) The system of claim 42, wherein the non-financial transaction corresponds to an identity authentication and/or express agreement.

44. (Previously Presented) The system of claim 37, wherein the transaction corresponds to an account to account funds transfer, an inter-bank funds transfer, a credit push, and/or a debit pull.

REMARKS

By this Amendment, claims 25, 31 and 37 are amended. The Applicants' submit that the amendments do not raise any new issues or necessitate the undertaking of an additional search by the Examiner as they do not introduce any new subject matter to the claims as previously examined. Accordingly no new matter is added. Currently, claims 25-44 are pending. Claims 25-44 stand rejected. Applicants respectfully request reconsideration based on the remarks that follow.

I. Rejections Under 35 U.S.C. § 112, first paragraph

In the Office Action mailed 01/02/2008, claims 25, 31 and 37 were rejected under 35 U.S.C. § 112, first paragraph. Although the Applicants' believe that there is adequate support in the written description to convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention as previously presented, claims 25, 31 and 37 have been amended to overcome the 112 first paragraph rejections.

Regarding claim 25, the Office Action stated that step of "submitting a Digital Identity Message to the Originating Participating Financial Institution and/or Receiving Participating Financial Institution over the Digital Identity Network" was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The Applicants' respectfully disagree and point, for example, to page 31 lines 3-8 and page 34 lines 5-10. These passages state *inter alia* that upon successful validation, the DID Operator sends a Digital Identity Message to the OPFI. However to expedite prosecution, claim 25 has been amended to remove the above limitation, thereby rendering the rejection under 35 USC 112 first paragraph moot. The Applicants' further point out that the resulting limitation is similar in language to claim 31 as previously examined and therefore does not raise any new issues.

Regarding claim 31, the Office Action stated that an Originator "requesting a new digital identity" was not described in the specification in such a way as to reasonably

convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The Applicants' respectfully disagree and point, for example, to page 26 lines 18-21 and page 28 lines 5-8. These passages state *inter alia* that each time the Originator desires to initiate a transaction, the OPFI requests the DID Operator to calculate a new digital identity. This illustrates that the Originator's request for a new digital identity may be direct or indirect. In this case, the OPFI requests a new digital identity from the DID Operator on behalf of the Originator *based on an indication from the Originator*. Put another way, the OPFI does not spontaneously request a new digital identity from the DID Operator, but rather waits until it receives an indication from the Originator to do so. However to expedite prosecution, claim 31 has been amended to remove the above limitation, thereby rendering the rejection under 35 USC 112 first paragraph moot.

Regarding claim 37, the Office Action stated that an Originator "with a request for a new digital identity" was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The Applicants' respectfully disagree and point, for example, to page 26 lines 18-21 and page 28 lines 5-8. These passages state *inter alia* that each time the Originator desires to initiate a transaction, the OPFI requests the DID Operator to calculate a new digital identity. This illustrates that the Originator's request for a new digital identity may be direct or indirect. In this case, the OPFI requests a new digital identity from the DID Operator on behalf of the Originator *based on an indication from the Originator*. In other words, the OPFI does not spontaneously request a new digital identity from the DID Operator, but rather waits until it receives an indication from the Originator to do so. However to expedite prosecution, claim 37 has been amended to remove the above limitation, thereby rendering the rejection under 35 USC 112 first paragraph moot.

Conclusion

The applicants' respectfully request reconsideration of the claim rejections based on the above amendments and remarks. The Applicants' would also like to thank the Office for indicating that Claims 25-44 would be allowable if amended to overcome the rejection(s) under 35 USC 112, first paragraph. Since it is believed that all aspects of the rejections set forth in the Office Action mailed 01/02/2008 have been addressed and overcome, the Applicants' submit that the present application is now in condition for allowance. If the examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (571) 228-2938.

Respectfully submitted,

Dated: 02/12/2008



Shawna J. Shaw
Agent for Applicants
Registration No. 57,091

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 11/239,046	Filing Date 09/30/2005	<input type="checkbox"/> To be Mailed
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APPLICATION AS FILED – PART I			OTHER THAN SMALL ENTITY				
(Column 1)		(Column 2)	SMALL ENTITY <input checked="" type="checkbox"/>		OR	OTHER THAN SMALL ENTITY	
FOR	NUMBER FILED	NUMBER EXTRA	RATE (\$)	FEE (\$)	OR	RATE (\$)	FEE (\$)
<input type="checkbox"/> BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A			N/A	
<input type="checkbox"/> SEARCH FEE (37 CFR 1.16(k), (l), or (m))	N/A	N/A	N/A			N/A	
<input type="checkbox"/> EXAMINATION FEE (37 CFR 1.16(e), (p), or (q))	N/A	N/A	N/A			N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X \$ =		OR	X \$ =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X \$ =			X \$ =	
<input type="checkbox"/> APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).						
<input type="checkbox"/> MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))							
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL			TOTAL	

APPLICATION AS AMENDED – PART II					OTHER THAN SMALL ENTITY				
(Column 1)		(Column 2)	(Column 3)	SMALL ENTITY		OR	OTHER THAN SMALL ENTITY		
AMENDMENT	02/12/2008	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)	OR	RATE (\$)	ADDITIONAL FEE (\$)
	Total (37 CFR 1.16(i))	* 20	Minus	** 20	=	0	OR	X \$ =	
	Independent (37 CFR 1.16(h))	* 3	Minus	***3	=	0	OR	X \$ =	
	<input type="checkbox"/> Application Size Fee (37 CFR 1.16(s))								
	<input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						OR		
					TOTAL ADD'L FEE	0	OR	TOTAL ADD'L FEE	

APPLICATION AS AMENDED – PART II					OTHER THAN SMALL ENTITY			
(Column 1)		(Column 2)	(Column 3)	SMALL ENTITY		OR	OTHER THAN SMALL ENTITY	
AMENDMENT	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)	OR	RATE (\$)	ADDITIONAL FEE (\$)
	Total (37 CFR 1.16(i))	*	Minus	**	=		X \$ =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=		X \$ =	
	<input type="checkbox"/> Application Size Fee (37 CFR 1.16(s))							
	<input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))					OR		
					TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.
 ** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".
 *** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".

Legal Instrument Examiner:
 /NICOLLE SCRIVNER/

The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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NOTICE OF ALLOWANCE AND FEE(S) DUE

7590 05/30/2008
Nader Asghari-Kamrani
6558 Palisades Drives
Centreville, VA 20121

EXAMINER
NOBAHAR, ABDULHAKIM
ART UNIT PAPER NUMBER
2132

DATE MAILED: 05/30/2008

Table with 5 columns: APPLICATION NO., FILING DATE, FIRST NAMED INVENTOR, ATTORNEY DOCKET NO., CONFIRMATION NO.

TITLE OF INVENTION: DIRECT AUTHENTICATION AND AUTHORIZATION SYSTEM AND METHOD FOR TRUSTED NETWORK OF FINANCIAL INSTITUTIONS

Table with 7 columns: APPLN. TYPE, SMALL ENTITY, ISSUE FEE DUE, PUBLICATION FEE DUE, PREV. PAID ISSUE FEE, TOTAL FEE(S) DUE, DATE DUE

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

- A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.
B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

- A. Pay TOTAL FEE(S) DUE shown above, or
B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

**Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE
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 Alexandria, Virginia 22313-1450
 or Fax (571)-273-2885**

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CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

7590 05/30/2008

Nader Asghari-Kamrani
 6558 Palisades Drives
 Centreville, VA 20121

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

_____ (Depositor's name)
_____ (Signature)
_____ (Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/239,046	09/30/2005	Nader Asghari-Kamrani		2201

TITLE OF INVENTION: DIRECT AUTHENTICATION AND AUTHORIZATION SYSTEM AND METHOD FOR TRUSTED NETWORK OF FINANCIAL INSTITUTIONS

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$720	\$0	\$0	\$720	09/02/2008

EXAMINER	ART UNIT	CLASS-SUBCLASS
NOBAHAR, ABDULHAKIM	2132	726-021000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).
 Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
 "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.

2. For printing on the patent front page, list
 (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, 1 _____
 (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2 _____
 3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)
 PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.
 (A) NAME OF ASSIGNEE _____ (B) RESIDENCE: (CITY and STATE OR COUNTRY) _____

Please check the appropriate assignee category or categories (will not be printed on the patent): Individual Corporation or other private group entity Government

4a. The following fee(s) are submitted:
 Issue Fee
 Publication Fee (No small entity discount permitted)
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4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)
 A check is enclosed.
 Payment by credit card. Form PTO-2038 is attached.
 The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)
 a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature _____ Date _____
 Typed or printed name _____ Registration No. _____

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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Table with 5 columns: APPLICATION NO., FILING DATE, FIRST NAMED INVENTOR, ATTORNEY DOCKET NO., CONFIRMATION NO.

Nader Asghari-Kamrani
6558 Palisades Drives
Centreville, VA 20121

EXAMINER

NOBAHAR, ABDULHAKIM

ART UNIT PAPER NUMBER

2132
DATE MAILED: 05/30/2008

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 0 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 0 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability	Application No.	Applicant(s)	
	11/239,046	ASGHARI-KAMRANI ET AL.	
	Examiner	Art Unit	
	ABDULHAKIM NOBAHAR	2132	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. This communication is responsive to 02/12/2008.
2. The allowed claim(s) is/are 25-44.
3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some* c) None of the:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) hereto or 2) to Paper No./Mail Date _____.
 - (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| <ol style="list-style-type: none"> 1. <input type="checkbox"/> Notice of References Cited (PTO-892) 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material | <ol style="list-style-type: none"> 5. <input type="checkbox"/> Notice of Informal Patent Application 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. 7. <input type="checkbox"/> Examiner's Amendment/Comment 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance 9. <input type="checkbox"/> Other _____. |
|---|--|

/Benjamin E Lanier/
Primary Examiner, Art Unit 2132

DETAILED ACTION

1. This communication is in response to applicants Amendment after non-final rejection received on 02/12/2008.
2. Applicant's arguments with respect to the claims rejections under 35 USC § 112, first paragraph have been fully considered and are persuasive. Therefore, the rejections have been withdrawn.

Allowable Subject Matter

1. Claims 25-44 are allowed.
2. The following is an examiner's statement of reasons for allowance:

The primary reasons for the allowance of the independent claims 25, 31 and 37 are the inclusion of limitations that are not found in the prior arts and they are uniquely distinct features. The closest prior arts are Johnson (US 6,529,885 B1) and Franklin et al (US 5,883,810 A). Johnson discloses methods and systems that allow financial transactions to be carried out on a network such as the Internet in a manner that is simple and that ensures the integrity and security of the buyer's personal and financial information. Johnson also discloses e-commerce methods and systems that include financial institutions such as banks or other trusted parties such as governmental agencies or corporations as integral and central participants in Web-based and like transactions. Johnson further discloses an infrastructure allowing complex transactions to be securely consummated by remote participants. Franklin discloses method for facilitating online commerce over a public network (such as the Internet or Interactive

TV/Cable Network) using an online commerce card. The "card" of this system does not exist in physical form, but instead exists in a digital form that can be electronically realized for online commerce. Franklin further discloses that the online commerce card is issued electronically to a customer by an issuing institution, such as a bank or third party certifying authority. The issued card is assigned a permanent customer account number that is maintained on behalf of the customer by the issuing institution. The customer account number is not given to the customer to remove the risk of that number being lost or stolen.

However, the above arts, singularly or in combination, fail to anticipate or render the following unique limitations of the independent claims in the instant invention:

"Claim 25: a) providing a Digital Identity Operator connecting the Originating Participating Financial Institution to the Receiving Participating Financial Institution via a trusted Digital Identity Network;

d) the Digital Identity Operator processing the request, dynamically generating a new digital identity that is non-predictable, time dependent and unique to the Originator only, and returning said digital identity to the Originating Participating Financial Institution."

"Claim 31: a Digital Identity Operator connecting the Originating Participating Financial Institution to the Receiving Participating Financial Institution via a trusted Digital Identity Network;

the Digital Identity Operator adapted to receive a request for a new digital identity from the Originating Participating Financial Institution and dynamically generate a digital

identity that is non-predictable, time dependent and unique to the Originator only, and to return said digital identity to the Originating Participating Financial Institution.”

“Claim 37: the Originating Participating Financial Institution adapted to request and receive a dynamically-generated non-predictable and time-dependent digital identity from a Digital Identity Operator, wherein said dynamically-generated digital identity is unique to the Originator only; whereby upon successful validation by the Digital Identity Operator, the Receiver positively authenticates the Originator and receives proof of the Originator's authorization for the transaction. “

3. The dependent claims 26-30, 32-36 and 38-44 are allowed because they were originally found to include a unique feature not found in the closest abovementioned art.

4. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Abdulhakim Nobahar whose telephone number is 571-272-3808. The examiner can normally be reached on M-T 8-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on 571-272-3799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number: 11/239,046
Art Unit: 2132


Page 5

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Abdulhakim Nobahar/
Examiner, Art Unit 2132

May 27, 2008


/Benjamin E Lanier/
Primary Examiner, Art Unit 2132

Search Notes 	Application/Control No. 11239046	Applicant(s)/Patent Under Reexamination ASGHARI-KAMRANI ET AL.
	Examiner ABDULHAKIM NOBAHAR	Art Unit 2132

SEARCHED			
Class	Subclass	Date	Examiner
726	4 and 21	05/27/08	AN
713	168 and 170	05/27/08	AN
705	64, 67 and 44	05/27/08	AN

SEARCH NOTES		
Search Notes	Date	Examiner
PALM inventor's name search	05/27/08	AN
EAST inventor's name search (see attached report)	05/27/08	AN
Overall EAST- BRS search (text search only - see attached report)	05/27/08	AN

INTERFERENCE SEARCH			
Class	Subclass	Date	Examiner
726	4 and 21	05/27/08	AN
713	168 and 170	05/27/08	AN
705	64, 67 and 44	05/27/08	AN

Index of Claims 	Application/Control No. 11239046	Applicant(s)/Patent Under Reexamination ASGHARI-KAMRANI ET AL.
	Examiner ABDULHAKIM NOBAHAR	Art Unit 2132

✓	Rejected
=	Allowed


-	Cancelled
÷	Restricted

N	Non-Elected
I	Interference

A	Appeal
O	Objected

Claims renumbered in the same order as presented by applicant
 CPA
 T.D.
 R.1.47

CLAIM			DATE							
Final	Original	05/27/2008								
	1	-								
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6	30	=								
7	31	=								
8	32	=								
9	33	=								
10	34	=								
11	35	=								
12	36	=								

Index of Claims 	Application/Control No. 11239046	Applicant(s)/Patent Under Reexamination ASGHARI-KAMRANI ET AL.
	Examiner ABDULHAKIM NOBAHAR	Art Unit 2132

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

<input checked="" type="checkbox"/> Claims renumbered in the same order as presented by applicant			<input type="checkbox"/> CPA			<input type="checkbox"/> T.D.			<input type="checkbox"/> R.1.47		
CLAIM		DATE									
Final	Original	05/27/2008									
13	37	=									
14	38	=									
15	39	=									
16	40	=									
17	41	=									
18	42	=									
19	43	=									
20	44	=									

EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	7133	(726/4,21).ccls. (713/168,170).ccls. (705/64,67,44).ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/05/27 06:31
L2	919	1 and ((realtime time dynamic\$6 temporar\$5 single onetime on-the-fly) near1 (identity identification identif\$5 ID DID password passphrase))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/05/27 06:33
L3	766	2 and ((user customer consumer client origina\$4 receiv\$3 buy\$3 purchas\$3 initiat\$3) near1 (identity identification identif\$5 ID DID password passphrase))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/05/27 06:34
L4	496	3 and ((center\$4 main authorized trust\$3 authority) near1 (trust\$3 institution entity financ\$6 commerc\$6 bank\$4 office) authority CA official)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/05/27 06:36
L5	415	4 and ((center\$4 main authoriz\$3 institution entity financ\$6 commerc \$6 bank\$4 office authority CA official trust\$3) with (authentocat\$4 authoriz\$4 verification verify\$3 validat \$4) with (user customer consumer client origina\$4 receiv\$3 buy\$3 purchas\$3 initiat\$3))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/05/27 06:38
L6	185	5 and ((financ\$6 commerc \$6 bank\$3 credit\$3 sale electronic\$5 buy\$3 purchas\$3) adj1 transaction)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/05/27 06:39
L7	82	6 and ((trusted protected secure secured private local) adj network)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/05/27 06:40

L8	34	7 and @ad<"20010829"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/05/27 06:41
L9	69320	(realtime time dynamic\$6 temporar\$5 single onetime on-the-fly) near1 (identity identification identif\$5 ID DID password passphrase)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/05/27 06:44
L10	22494	9 and ((user customer consumer client origina\$4 receiv\$3 buy\$3 purchas\$3 initiat\$3) near1 (identity identification identif\$5 ID DID password passphrase))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/05/27 06:44
L11	10911	10 and ((center\$4 main authorized trust\$3 authority) near1 (trust\$3 institution entity financ\$6 commerc\$6 bank\$4 office) authority CA official)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/05/27 06:44
L12	10121	"113" and ((center\$4 main authoriz\$3 institution entity financ\$6 commerc\$6 bank\$4 office authority CA official trust \$3) with (authentical\$4 authoriz\$4 verification verify\$3 validat\$4) with (user customer consumer client origina\$4 receiv\$3 buy\$3 purchas\$3 initiat \$3))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/05/27 06:45
L13	2194	12 and ((financ\$6 commerc\$6 bank\$3 credit \$3 sale electronic\$5 buy \$3 purchas\$3) adj1 transaction)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/05/27 06:45
L14	1054	13 and ((trusted protected secure secured private local) adj network)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/05/27 06:45

L15	985	14 and ((authenticat\$4 authoriz\$5 verification verify\$3 validat\$4) near2 (user customer consumer client origina\$4 receiv\$3 buy\$3 purchas\$3 initiat\$3 sell\$3 merchant trad\$3))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/05/27 06:47
L16	885	15 and ((authenticat\$4 authoriz\$5 verification verify\$3 validat\$4) near2 (identity identification identif\$5 ID DID certificat password passphrase))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/05/27 06:49
L17	329	16 and ((retail\$3 receiv\$3 vend\$3 sell\$3 merchant trad\$3 business mercantile suppl\$4 wholesal\$3 broker) near1 (identity identification identif\$5 ID DID certificat password passphrase))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/05/27 06:50
L18	121	17 and ((retail\$3 receiv\$3 vend\$3 sell\$3 merchant trad\$3 business mercantile suppl\$4 wholesal\$3 broker) with (identity identification identif\$5 ID DID certificat password passphrase) with (institution entity financ\$6 commerc\$6 bank \$4 office party authority CA official trust\$3))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/05/27 06:52
L19	52	18 and @ad<"20010829"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/05/27 06:53
L26	3	asghari near2 (nader kamran)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/05/27 07:07

L27	0	1 and ((realtime time dynamic\$6 temporar\$5 single onetime on-the-fly) near2 (identity identification identif\$5 ID DID password passphrase) and (user customer consumer client origina\$4 receiv\$3 buy\$3 purchas\$3 initiat\$3) near2 (identity identification identif\$5 ID DID password passphrase) and ((center\$4 main authorized trust\$3 authority) near2 (trust\$3 institution entity financ\$6 commerc\$6 bank\$4 office) authority CA official) and ((financ\$6 commerc\$6 bank\$3 credit \$3 sale electronic\$5 buy \$3 purchas\$3) adj2 transaction)).CLM.	US-PGPUB	OR	ON	2008/05/27 07:26
L28	7	1 and ((realtime time dynamic\$6 temporar\$5 single onetime on-the-fly) near2 (identity identification identif\$5 ID DID password passphrase) and (user customer consumer client origina\$4 receiv\$3 buy\$3 purchas\$3 initiat\$3) near2 (identity identification identif\$5 ID DID password passphrase) and ((center\$4 main authorized trust\$3 authority) near2 (trust\$3 institution entity financ\$6 commerc\$6 bank\$4 office) authority CA official)).CLM.	US-PGPUB	OR	ON	2008/05/27 07:27

5/27/2008 7:28:32 AM

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UNITED STATES PATENT AND TRADEMARK OFFICE

Handwritten initials: JHJ

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
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P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov



NOTICE OF ALLOWANCE AND FEE(S) DUE

Nader Asghari-Kamrani
6558 Palisades Drives
Centreville, VA 20121

7590 05/30/2008

EXAMINER
NOBAHAR, ABDULHAKIM

ART UNIT PAPER NUMBER

2132
DATE MAILED: 05/30/2008

Table with 5 columns: APPLICATION NO., FILING DATE, FIRST NAMED INVENTOR, ATTORNEY DOCKET NO., CONFIRMATION NO.

TITLE OF INVENTION: DIRECT AUTHENTICATION AND AUTHORIZATION SYSTEM AND METHOD FOR TRUSTED NETWORK OF FINANCIAL INSTITUTIONS

Table with 7 columns: APPLN. TYPE, SMALL ENTITY, ISSUE FEE DUE, PUBLICATION FEE DUE, PREV. PAID ISSUE FEE, TOTAL FEE(S) DUE, DATE DUE

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

- A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.
B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

- A. Pay TOTAL FEE(S) DUE shown above, or
B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

**Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE
 Commissioner for Patents
 P.O. Box 1450
 Alexandria, Virginia 22313-1450
 or Fax (571)-273-2885**

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

7590 05/30/2008

Nader Asghari-Kamrani
 6558 Palisades Drives
 Centreville, VA 20121

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission
 I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

_____ (Depositor's name)
_____ (Signature)
_____ (Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/239,046	09/30/2005	Nader Asghari-Kamrani		2201

TITLE OF INVENTION: DIRECT AUTHENTICATION AND AUTHORIZATION SYSTEM AND METHOD FOR TRUSTED NETWORK OF FINANCIAL INSTITUTIONS

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$720	\$0	\$0	\$720	09/02/2008

EXAMINER	ART UNIT	CLASS-SUBCLASS
NOBAHAR, ABDULHAKIM	2132	726-021000

<p>1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363). <input type="checkbox"/> Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached. <input type="checkbox"/> "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.</p>	<p>2. For printing on the patent front page, list (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, 1 _____ (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2 _____ 3 _____</p>
--	---

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)
 PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.
 (A) NAME OF ASSIGNEE _____ (B) RESIDENCE: (CITY and STATE OR COUNTRY) _____

Please check the appropriate assignee category or categories (will not be printed on the patent): Individual Corporation or other private group entity Government

<p>4a. The following fee(s) are submitted: <input type="checkbox"/> Issue Fee <input type="checkbox"/> Publication Fee (No small entity discount permitted) <input type="checkbox"/> Advance Order - # of Copies _____</p>	<p>4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above) <input type="checkbox"/> A check is enclosed. <input type="checkbox"/> Payment by credit card. Form PTO-2038 is attached. <input type="checkbox"/> The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).</p>
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5. Change in Entity Status (from status indicated above)
 a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature _____ Date _____
 Typed or printed name _____ Registration No. _____

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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Table with 5 columns: APPLICATION NO., FILING DATE, FIRST NAMED INVENTOR, ATTORNEY DOCKET NO., CONFIRMATION NO.
11/239,046 09/30/2005 Nader Asghari-Kamrani 2201

7590 05/30/2008
Nader Asghari-Kamrani
6558 Palisades Drives
Centreville, VA 20121

EXAMINER

NOBAHAR, ABDULHAKIM

ART UNIT PAPER NUMBER

2132

DATE MAILED: 05/30/2008

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 0 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 0 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability	Application No.	Applicant(s)	
	11/239,046	ASGHARI-KAMRANI ET AL.	
	Examiner	Art Unit	
	ABDULHAKIM NOBAHAR	2132	

– The MAILING DATE of this communication appears on the cover sheet with the correspondence address–

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. This communication is responsive to 02/12/2008.
2. The allowed claim(s) is/are 25-44.
3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some* c) None of the:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) hereto or 2) to Paper No./Mail Date _____.
 - (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| <ol style="list-style-type: none"> 1. <input type="checkbox"/> Notice of References Cited (PTO-892) 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | <ol style="list-style-type: none"> 5. <input type="checkbox"/> Notice of Informal Patent Application 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. 7. <input type="checkbox"/> Examiner's Amendment/Comment 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance 9. <input type="checkbox"/> Other _____. |
|---|--|

/Benjamin E Lanier/
 Primary Examiner, Art Unit 2132

DETAILED ACTION

1. This communication is in response to applicants Amendment after non-final rejection received on 02/12/2008.
2. Applicant's arguments with respect to the claims rejections under 35 USC § 112, first paragraph have been fully considered and are persuasive. Therefore, the rejections have been withdrawn.

Allowable Subject Matter

1. Claims 25-44 are allowed.
2. The following is an examiner's statement of reasons for allowance:

The primary reasons for the allowance of the independent claims 25, 31 and 37 are the inclusion of limitations that are not found in the prior arts and they are uniquely distinct features. The closest prior arts are Johnson (US 6,529,885 B1) and Franklin et al (US 5,883,810 A). Johnson discloses methods and systems that allow financial transactions to be carried out on a network such as the Internet in a manner that is simple and that ensures the integrity and security of the buyer's personal and financial information. Johnson also discloses e-commerce methods and systems that include financial institutions such as banks or other trusted parties such as governmental agencies or corporations as integral and central participants in Web-based and like transactions. Johnson further discloses an infrastructure allowing complex transactions to be securely consummated by remote participants. Franklin discloses method for facilitating online commerce over a public network (such as the Internet or Interactive

TV/Cable Network) using an online commerce card. The "card" of this system does not exist in physical form, but instead exists in a digital form that can be electronically realized for online commerce. Franklin further discloses that the online commerce card is issued electronically to a customer by an issuing institution, such as a bank or third party certifying authority. The issued card is assigned a permanent customer account number that is maintained on behalf of the customer by the issuing institution. The customer account number is not given to the customer to remove the risk of that number being lost or stolen.

However, the above arts, singularly or in combination, fail to anticipate or render the following unique limitations of the independent claims in the instant invention:

"Claim 25: a) providing a Digital Identity Operator connecting the Originating Participating Financial Institution to the Receiving Participating Financial Institution via a trusted Digital Identity Network;
d) the Digital Identity Operator processing the request, dynamically generating a new digital identity that is non-predictable, time dependent and unique to the Originator only, and returning said digital identity to the Originating Participating Financial Institution."

"Claim 31: a Digital Identity Operator connecting the Originating Participating Financial Institution to the Receiving Participating Financial Institution via a trusted Digital Identity Network;

the Digital Identity Operator adapted to receive a request for a new digital identity from the Originating Participating Financial Institution and dynamically generate a digital

Art Unit: 2132

identity that is non-predictable, time dependent and unique to the Originator only, and to return said digital identity to the Originating Participating Financial Institution.”

“Claim 37: the Originating Participating Financial Institution adapted to request and receive a dynamically-generated non-predictable and time-dependent digital identity from a Digital Identity Operator, wherein said dynamically-generated digital identity is unique to the Originator only;

whereby upon successful validation by the Digital Identity Operator, the Receiver positively authenticates the Originator and receives proof of the Originator's authorization for the transaction. “

3. The dependent claims 26-30, 32-36 and 38-44 are allowed because they were originally found to include a unique feature not found in the closest abovementioned art.

4. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Abdulhakim Nobahar whose telephone number is 571-272-3808. The examiner can normally be reached on M-T 8-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on 571-272-3799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number: 11/239,046
Art Unit: 2132

Page 5

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Abdulhakim Nobahar/
Examiner, Art Unit 2132

May 27, 2008

/Benjamin E Lanier/
Primary Examiner, Art Unit 2132



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CORRECTED
NOTICE OF ALLOWANCE AND FEE(S) DUE

7590 08/06/2008

Nader Asghari-Kamrani
6558 Palisades Drives
Centreville, VA 20121

EXAMINER
NOBAHAR, ABDULHAKIM
ART UNIT PAPER NUMBER

2132

DATE MAILED: 08/06/2008

Table with 5 columns: APPLICATION NO., FILING DATE, FIRST NAMED INVENTOR, ATTORNEY DOCKET NO., CONFIRMATION NO.
11/239,046 09/30/2005 Nader Asghari-Kamrani 2201

TITLE OF INVENTION: DIRECT AUTHENTICATION AND AUTHORIZATION SYSTEM AND METHOD FOR TRUSTED NETWORK OF FINANCIAL INSTITUTIONS

Table with 7 columns: APPLN. TYPE, SMALL ENTITY, ISSUE FEE DUE, PUBLICATION FEE DUE, PREV. PAID ISSUE FEE, TOTAL FEE(S) DUE, DATE DUE
nonprovisional YES \$720 \$0 \$0 \$720 11/06/2008

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

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B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

- A. Pay TOTAL FEE(S) DUE shown above, or
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II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

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CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

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 I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

_____ (Depositor's name)
_____ (Signature)
_____ (Date)

APPLICATION NO. 11/239,046	FILING DATE 09/30/2005	FIRST NAMED INVENTOR Nader Asghari-Kamrani	ATTORNEY DOCKET NO.	CONFIRMATION NO. 2201
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TITLE OF INVENTION: DIRECT AUTHENTICATION AND AUTHORIZATION SYSTEM AND METHOD FOR TRUSTED NETWORK OF FINANCIAL INSTITUTIONS

APPLN. TYPE nonprovisional	SMALL ENTITY YES	ISSUE FEE DUE \$720	PUBLICATION FEE DUE \$0	PREV. PAID ISSUE FEE \$0	TOTAL FEE(S) DUE \$720	DATE DUE 11/06/2008
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EXAMINER NOBAHAR, ABDULHAKIM	ART UNIT 2132	CLASS-SUBCLASS 726-021000
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1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).
 Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
 "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.

2. For printing on the patent front page, list
 (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, _____ 1
 (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. _____ 2
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 (A) NAME OF ASSIGNEE _____ (B) RESIDENCE: (CITY and STATE OR COUNTRY) _____

Please check the appropriate assignee category or categories (will not be printed on the patent): Individual Corporation or other private group entity Government

4a. The following fee(s) are submitted:
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 The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)
 a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

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Table with 5 columns: APPLICATION NO., FILING DATE, FIRST NAMED INVENTOR, ATTORNEY DOCKET NO., CONFIRMATION NO.
11/239,046 09/30/2005 Nader Asghari-Kamrani 2201

7590 08/06/2008

Nader Asghari-Kamrani
6558 Palisades Drives
Centreville, VA 20121

EXAMINER

NOBAHAR, ABDULHAKIM

ART UNIT PAPER NUMBER

2132

DATE MAILED: 08/06/2008

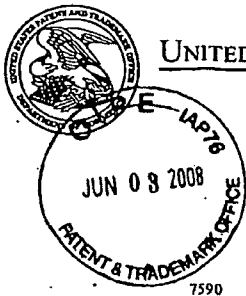
Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 0 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 0 day(s).

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NOTICE OF ALLOWANCE AND FEE(S) DUE

Nader Asghari-Kamrani
6558 Palisades Drives
Centreville, VA 20121

05/30/2008

EXAMINER

NOBAHAR, ABDULHAKIM

ART UNIT PAPER NUMBER

2132

DATE MAILED: 05/30/2008

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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11/239,046 09/30/2005 Nader Asghari-Kamrani 2201

TITLE OF INVENTION: DIRECT AUTHENTICATION AND AUTHORIZATION SYSTEM AND METHOD FOR TRUSTED NETWORK OF FINANCIAL INSTITUTIONS

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
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nonprovisional YES \$720 \$0 \$0 \$720 09/02/2008

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B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

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 Centreville, VA 20121

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(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/239,046	09/30/2005	Nader Asghari-Kamrani		2201

TITLE OF INVENTION: DIRECT AUTHENTICATION AND AUTHORIZATION SYSTEM AND METHOD FOR TRUSTED NETWORK OF FINANCIAL INSTITUTIONS

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$720	\$0	\$0	\$720	09/02/2008

EXAMINER	ART UNIT	CLASS-SUBCLASS
NOBAHAR, ABDULHAKIM	2132	726-021000

<p>1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).</p> <p><input type="checkbox"/> Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.</p> <p><input type="checkbox"/> "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.</p>	<p>2. For printing on the patent front page, list</p> <p>(1) the names of up to 3 registered patent attorneys or agents OR, alternatively, 1 _____</p> <p>(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2 _____</p> <p>3 _____</p>
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3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

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Please check the appropriate assignee category or categories (will not be printed on the patent): Individual Corporation or other private group entity Government

<p>4a. The following fee(s) are submitted:</p> <p><input type="checkbox"/> Issue Fee</p> <p><input type="checkbox"/> Publication Fee (No small entity discount permitted)</p> <p><input type="checkbox"/> Advance Order - # of Copies _____</p>	<p>4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)</p> <p><input type="checkbox"/> A check is enclosed.</p> <p><input type="checkbox"/> Payment by credit card. Form PTO-2038 is attached.</p> <p><input type="checkbox"/> The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).</p>
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5. Change in Entity Status (from status indicated above)

a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/239,046	09/30/2005	Nader Asghari-Kamrani		2201

7590 05/30/2008
Nader Asghari-Kamrani
6558 Palisades Drives
Centreville, VA 20121

EXAMINER

NOBAHAR, ABDULHAKIM

ART UNIT	PAPER NUMBER
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2132

DATE MAILED: 05/30/2008

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(application filed on or after May 29, 2000)

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NOTICE OF ALLOWANCE AND FEE(S) DUE

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Centreville, VA 20121

05/30/2008

EXAMINER

NOBAHAR, ABDULHAKIM

ART UNIT PAPER NUMBER

2132

DATE MAILED: 05/30/2008

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/239,046	09/30/2005	Nader Asghari-Kamrani		2201

TITLE OF INVENTION: DIRECT AUTHENTICATION AND AUTHORIZATION SYSTEM AND METHOD FOR TRUSTED NETWORK OF FINANCIAL INSTITUTIONS

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$720	\$0	\$0	\$720	09/02/2008

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If the SMALL ENTITY is shown as NO:

- A. Pay TOTAL FEE(S) DUE shown above, or
- B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: **Mail** **Mail Stop ISSUE FEE**
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
 or **Fax** **(571)-273-2885**

INSTRUCTIONS: This form should be used for transmitting the **ISSUE FEE** and **PUBLICATION FEE** (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

7590 05/30/2008

Nader Asghari-Kamrani
 6558 Palisades Drives
 Centreville, VA 20121

Certificate of Mailing or Transmission
 I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

_____ (Depositor's name)
_____ (Signature)
_____ (Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/239,046	09/30/2005	Nader Asghari-Kamrani		2201

TITLE OF INVENTION: DIRECT AUTHENTICATION AND AUTHORIZATION SYSTEM AND METHOD FOR TRUSTED NETWORK OF FINANCIAL INSTITUTIONS

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$720	\$0	\$0	\$720	09/02/2008

EXAMINER	ART UNIT	CLASS-SUBCLASS
NOBAHAR, ABDULHAKIM	2132	726-021000

<p>1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).</p> <p><input type="checkbox"/> Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.</p> <p><input type="checkbox"/> "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.</p>	<p>2. For printing on the patent front page, list</p> <p>(1) the names of up to 3 registered patent attorneys or agents OR, alternatively, _____ 1</p> <p>(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. _____ 2</p> <p>_____ 3</p>
--	---

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE _____ (B) RESIDENCE: (CITY and STATE OR COUNTRY) _____

Please check the appropriate assignee category or categories (will not be printed on the patent): Individual Corporation or other private group entity Government

<p>4a. The following fee(s) are submitted:</p> <p><input type="checkbox"/> Issue Fee</p> <p><input type="checkbox"/> Publication Fee (No small entity discount permitted)</p> <p><input type="checkbox"/> Advance Order - # of Copies _____</p>	<p>4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)</p> <p><input type="checkbox"/> A check is enclosed.</p> <p><input type="checkbox"/> Payment by credit card. Form PTO-2038 is attached.</p> <p><input type="checkbox"/> The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).</p>
---	--

5. Change in Entity Status (from status indicated above)

a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature _____ Date _____

Typed or printed name _____ Registration No. _____

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/239,046	09/30/2005	Nader Asghari-Kamrani		2201

7590 05/30/2008
Nader Asghari-Kamrani
6558 Palisades Drives
Centreville, VA 20121

EXAMINER

NOBAHAR, ABDULHAKIM

ART UNIT	PAPER NUMBER
2132	

DATE MAILED: 05/30/2008

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 0 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 0 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability	Application No.	Applicant(s)	
	11/239,046	ASGHARI-KAMRANI ET AL.	
	Examiner	Art Unit	
	ABDULHAKIM NOBAHAR	2132	

- The MAILING DATE of this communication appears on the cover sheet with the correspondence address-

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. This communication is responsive to 02/12/2008.
2. The allowed claim(s) is/are 25-44.
3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some* c) None of the:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) hereto or 2) to Paper No./Mail Date _____.
 - (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

/Benjamin E Lanier/
Primary Examiner, Art Unit 2132

DETAILED ACTION

1. This communication is in response to applicants Amendment after non-final rejection received on 02/12/2008.
2. Applicant's arguments with respect to the claims rejections under 35 USC § 112, first paragraph have been fully considered and are persuasive. Therefore, the rejections have been withdrawn.

Allowable Subject Matter

1. Claims 25-44 are allowed.
2. The following is an examiner's statement of reasons for allowance:

The primary reasons for the allowance of the independent claims 25, 31 and 37 are the inclusion of limitations that are not found in the prior arts and they are uniquely distinct features. The closest prior arts are Johnson (US 6,529,885 B1) and Franklin et al (US 5,883,810 A). Johnson discloses methods and systems that allow financial transactions to be carried out on a network such as the Internet in a manner that is simple and that ensures the integrity and security of the buyer's personal and financial information. Johnson also discloses e-commerce methods and systems that include financial institutions such as banks or other trusted parties such as governmental agencies or corporations as integral and central participants in Web-based and like transactions. Johnson further discloses an infrastructure allowing complex transactions to be securely consummated by remote participants. Franklin discloses method for facilitating online commerce over a public network (such as the Internet or Interactive

Art Unit: 2132

TV/Cable Network) using an online commerce card. The "card" of this system does not exist in physical form, but instead exists in a digital form that can be electronically realized for online commerce. Franklin further discloses that the online commerce card is issued electronically to a customer by an issuing institution, such as a bank or third party certifying authority. The issued card is assigned a permanent customer account number that is maintained on behalf of the customer by the issuing institution. The customer account number is not given to the customer to remove the risk of that number being lost or stolen.

However, the above arts, singularly or in combination, fail to anticipate or render the following unique limitations of the independent claims in the instant invention:

"Claim 25: a) providing a Digital Identity Operator connecting the Originating Participating Financial Institution to the Receiving Participating Financial Institution via a trusted Digital Identity Network;

d) the Digital Identity Operator processing the request, dynamically generating a new digital identity that is non-predictable, time dependent and unique to the Originator only, and returning said digital identity to the Originating Participating Financial Institution."

"Claim 31: a Digital Identity Operator connecting the Originating Participating Financial Institution to the Receiving Participating Financial Institution via a trusted Digital Identity Network;

the Digital Identity Operator adapted to receive a request for a new digital identity from the Originating Participating Financial Institution and dynamically generate a digital

identity that is non-predictable, time dependent and unique to the Originator only, and to return said digital identity to the Originating Participating Financial Institution."

"Claim 37: the Originating Participating Financial Institution adapted to request and receive a dynamically-generated non-predictable and time-dependent digital identity from a Digital Identity Operator, wherein said dynamically-generated digital identity is unique to the Originator only;

whereby upon successful validation by the Digital Identity Operator, the Receiver positively authenticates the Originator and receives proof of the Originator's authorization for the transaction. "

3. The dependent claims 26-30, 32-36 and 38-44 are allowed because they were originally found to include a unique feature not found in the closest abovementioned art.

4. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Abdulhakim Nobahar whose telephone number is 571-272-3808. The examiner can normally be reached on M-T 8-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on 571-272-3799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number: 11/239,046
Art Unit: 2132

Page 5

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Abdulhakim Nobahar/
Examiner, Art Unit 2132

May 27, 2008

/Benjamin E Lanier/
Primary Examiner, Art Unit 2132

Notice of Allowability	Application No.	Applicant(s)	
	11/239,046	ASGHARI-KAMRANI ET AL.	
	Examiner	Art Unit	
	ABDULHAKIM NOBAHAR	2132	

- The MAILING DATE of this communication appears on the cover sheet with the correspondence address -

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

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2. The allowed claim(s) is/are 25-44.
3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some* c) None of the:
 1. Certified copies of the priority documents have been received.
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* Certified copies not received: _____.

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5. CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) hereto or 2) to Paper No./Mail Date _____.
 - (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| <ol style="list-style-type: none"> 1. <input type="checkbox"/> Notice of References Cited (PTO-892) 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material | <ol style="list-style-type: none"> 5. <input type="checkbox"/> Notice of Informal Patent Application 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ 7. <input type="checkbox"/> Examiner's Amendment/Comment 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance 9. <input type="checkbox"/> Other _____ |
|---|--|

/Benjamin E Lanier/
Primary Examiner, Art Unit 2132

DETAILED ACTION

1. This communication is in response to applicants Amendment after non-final rejection received on 02/12/2008.
2. Applicant's arguments with respect to the claims rejections under 35 USC § 112, first paragraph have been fully considered and are persuasive. Therefore, the rejections have been withdrawn.

Allowable Subject Matter

1. Claims 25-44 are allowed.
2. The following is an examiner's statement of reasons for allowance:

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Art Unit: 2132

TV/Cable Network) using an online commerce card. The "card" of this system does not exist in physical form, but instead exists in a digital form that can be electronically realized for online commerce. Franklin further discloses that the online commerce card is issued electronically to a customer by an issuing institution, such as a bank or third party certifying authority. The issued card is assigned a permanent customer account number that is maintained on behalf of the customer by the issuing institution. The customer account number is not given to the customer to remove the risk of that number being lost or stolen.

However, the above arts, singularly or in combination, fail to anticipate or render the following unique limitations of the independent claims in the instant invention:

"Claim 25: a) providing a Digital Identity Operator connecting the Originating Participating Financial Institution to the Receiving Participating Financial Institution via a trusted Digital Identity Network;

d) the Digital Identity Operator processing the request, dynamically generating a new digital identity that is non-predictable, time dependent and unique to the Originator only, and returning said digital identity to the Originating Participating Financial Institution."

"Claim 31: a Digital Identity Operator connecting the Originating Participating Financial Institution to the Receiving Participating Financial Institution via a trusted Digital Identity Network;

the Digital Identity Operator adapted to receive a request for a new digital identity from the Originating Participating Financial Institution and dynamically generate a digital

Art Unit: 2132

identity that is non-predictable, time dependent and unique to the Originator only, and to return said digital identity to the Originating Participating Financial Institution."

"Claim 37: the Originating Participating Financial Institution adapted to request and receive a dynamically-generated non-predictable and time-dependent digital identity from a Digital Identity Operator, wherein said dynamically-generated digital identity is unique to the Originator only;

whereby upon successful validation by the Digital Identity Operator, the Receiver positively authenticates the Originator and receives proof of the Originator's authorization for the transaction. "

3. The dependent claims 26-30, 32-36 and 38-44 are allowed because they were originally found to include a unique feature not found in the closest abovementioned art.

4. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on 571-272-3799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number: 11/239,046
Art Unit: 2132

Page 5

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/Abdulkhakim Nobahar/
Examiner, Art Unit 2132

May 27, 2008

/Benjamin E Lanier/
Primary Examiner, Art Unit 2132

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE
 Commissioner for Patents
 P.O. Box 1450
 Alexandria, Virginia 22313-1450
 or Fax (571)-273-2885



INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

7590 08/06/2008
 Nader Asghari-Kamrani
 6558 Palisades Drives
 Centreville, VA 20121

Certificate of Mailing or Transmission
 I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/239,046	09/30/2005	Nader Asghari-Kamrani		2201

TITLE OF INVENTION: DIRECT AUTHENTICATION AND AUTHORIZATION SYSTEM AND METHOD FOR TRUSTED NETWORK OF FINANCIAL INSTITUTIONS

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$720	\$0	\$0	\$720	11/06/2008

EXAMINER	ART UNIT	CLASS-SUBCLASS
NOBAHAR, ABDULHAKIM	2132	726-021000

09/22/2008 MAHHEDE 00000102 11239046
 01 FC:2501 720.00 OP

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).
 Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
 "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.
2. For printing on the patent front page, list
 (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, _____
 (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)
 PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.
 (A) NAME OF ASSIGNEE _____ (B) RESIDENCE: (CITY and STATE OR COUNTRY) _____

Please check the appropriate assignee category or categories (will not be printed on the patent): Individual Corporation or other private group entity Government

- 4a. The following fee(s) are submitted:
 Issue Fee
 Publication Fee (No small entity discount permitted)
 Advance Order - # of Copies _____
- 4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)
 A check is enclosed.
 Payment by credit card. Form PTO-2038 is attached.
 The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)
 a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature Nader Asghari-Kamrani Date 08/24/2008
 Typed or printed name Nader, Asghari Kamrani Registration No. _____

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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United States Patent and Trademark Office
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APPLICATION NO.	ISSUE DATE	PATENT NO.	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/239,046	10/28/2008	7444676		2201

7590 10/08/2008
Nader Asghari-Kamrani
6558 Palisades Drives
Centreville, VA 20121

ISSUE NOTIFICATION

The projected patent number and issue date are specified above.

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(application filed on or after May 29, 2000)

The Patent Term Adjustment is 0 day(s). Any patent to issue from the above-identified application will include an indication of the adjustment on the front page.

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at (571)-272-4200.

APPLICANT(s) (Please see PAIR WEB site <http://pair.uspto.gov> for additional applicants):

Nader Asghari-Kamrani, Centreville, VA;
Kamran Asghari-Kamrani, Centreville, VA;

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PATENT - POWER OF ATTORNEY OR REVOCAION OF POWER OF ATTORNEY WITH A NEW POWER OF ATTORNEY AND CHANGE OF CORRESPONDENCE ADDRESS	Patent Number	7,444,676
	Issue Date	October 28, 2008
	First Named Inventor	Nader Asghari-Kamrani
	Title	DIRECT AUTHENTICATION AND...
	Attorney Docket Number	PL0831185

I hereby revoke all previous powers of attorney given in the above-identified patent.

 A Power of Attorney is submitted herewith.

OR

 I hereby appoint Practitioner(s) associated with the following Customer Number as my/our attorney(s) or agent(s) with respect to the patent identified above, and to transact all business in the United States Patent and Trademark Office connected therewith:

105857

OR

 I hereby appoint Practitioner(s) named below as my/our attorney(s) or agent(s) with respect to the patent identified above, and to transact all business in the United States Patent and Trademark Office connected therewith:

Practitioner(s) Name	Registration Number

Please recognize or change the correspondence address for the above-identified patent to:

 The address associated with the above-mentioned Customer Number.

OR

 The address associated with Customer Number.

OR

 Firm or Individual Name:

Address

City

State

Zip

Country

Telephone

Email

I am the:

 Inventor, having ownership of the patent

OR

 Patent owner.

Statement under 37 CFR 3.73(b) (Form PTO/SB/96) submitted herewith or filed on _____

SIGNATURE of Inventor or Patent Owner

Signature

Date

Name

Nader Asghari-Kamrani

Telephone

Title and Company

NOTE: Signatures of all the inventors or patent owners of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below.

 Total of 2 forms are submitted.

This collection of information is required by 37 CFR 1.31, 1.32 and 1.35. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

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PATENT - POWER OF ATTORNEY OR REVOCAION OF POWER OF ATTORNEY WITH A NEW POWER OF ATTORNEY AND CHANGE OF CORRESPONDENCE ADDRESS	Patent Number	7,444,676
	Issue Date	October 23, 2008
	First Named Inventor	Nader Asghari-Kamrani
	Title	DIRECT AUTHENTICATION AND...
	Attorney Docket Number	PL0831185

I hereby revoke all previous powers of attorney given in the above-identified patent.

 A Power of Attorney is submitted herewith.

OR

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OR

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OR

 The address associated with Customer Number:

OR

 Firm or Individual Name

Address

City

State

Zip

Country

Telephone

Email

I am the:

 Inventor, having ownership of the patent.

OR

 Patent owner.

Statement under 37 CFR 3.73(b) (Form PTO/SB/81A) submitted herewith or filed on _____

SIGNATURE of Inventor or Patent Owner

Signature

Date

Name

Telephone

Title and Company

NOTE: Signatures of all the inventors or patent owners of the entire interest or their representatives(s) are required. Submit multiple forms if more than one signature is required, see below.

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If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Electronic Acknowledgement Receipt

EFS ID:	24390532
Application Number:	11239046
International Application Number:	
Confirmation Number:	2201
Title of Invention:	DIRECT AUTHENTICATION AND AUTHORIZATION SYSTEM AND METHOD FOR TRUSTED NETWORK OF FINANCIAL INSTITUTIONS
First Named Inventor/Applicant Name:	Nader Asghari-Kamrani
Correspondence Address:	Nader Asghari-Kamrani - 6558 Palisades Drives - Centreville VA 20121 US - -
Filer:	Jae Youn Kim/Min Gyu Kim
Filer Authorized By:	Jae Youn Kim
Attorney Docket Number:	
Receipt Date:	17-DEC-2015
Filing Date:	30-SEP-2005
Time Stamp:	10:49:07
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no
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File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Power of Attorney	PL0831185-POA.pdf	3400619 875d967dd153f3784ac75e6ff2427fcd6c6300e1	no	2

Warnings:

Information:

Total Files Size (in bytes):	3400619
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This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.



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www.uspto.gov

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
11/239,046	09/30/2005	Nader Asghari-Kamrani	PL0831185

105857
NOVICK, KIM & LEE, PLLC
1604 Spring Hill Road, Suite 320
Vienna, VA 22182

CONFIRMATION NO. 2201
POA ACCEPTANCE LETTER



Date Mailed: 12/29/2015

NOTICE OF ACCEPTANCE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 12/17/2015.

The Power of Attorney in this application is accepted. Correspondence in this application will be mailed to the above address as provided by 37 CFR 1.33.

Questions about the contents of this notice and the requirements it sets forth should be directed to the Office of Data Management, Application Assistance Unit, at (571) 272-4000 or (571) 272-4200 or 1-888-786-0101.

/mbeyene/