

Petitioner's Demonstratives

Google LLC
v.
Uniloc 2017 LLC

IPR2020-00756

July 15, 2021

GOOGLE EXHIBIT 1028
GOOGLE v. UNILOC
IPR2020-00756

Challenged Patent: '952 Patent



(12) **United States Patent**
Etchehoven et al.
(10) **Patent No.:** US 9,564,952 B2
(45) **Date of Patent:** Feb. 7, 2017

(54) **NEAR FIELD AUTHENTICATION THROUGH COMMUNICATION OF ENCLOSED CONTENT SOUND WAVES**
(71) Applicant: **UNILOC LUXEMBOURG S.A.**, Luxembourg (LU)
(72) Inventors: **Craig S. Etchehoven**, Newport Beach, CA (US); **Dono Harjanto**, Irvine, CA (US); **Sean D. Burdick**, Dallas, TX (US)
(73) Assignee: **Uniloc Luxembourg S.A.**, Luxembourg (LU)

(56) **References Cited**
U.S. PATENT DOCUMENTS
4,200,770 A 4/1980 Hellman et al.
4,218,582 A 8/1980 Hellman et al.
(Continued)
FOREIGN PATENT DOCUMENTS
EP 1 903 518 9/2007
GB 2 591 965 2/2004
(Continued)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

OTHER PUBLICATIONS
Eisen, Ori, "Catching the Fraudulent Man-in-the-Middle and Man-in-the-Browser," *Network Security*, Apr. 2010, pp. 11-12.
(Continued)

(21) Appl. No.: 13/734,178
(22) Filed: **Jan. 4, 2013**
(65) **Priority Publication Data**
US 2013/0203350 A1 Aug. 8, 2013
Related U.S. Application Data

(57) **ABSTRACT**
A method for near field authentication of sources using an audio transceiver computing device includes scanning a plurality of predetermined frequencies for a free frequency, selecting the free frequency from the plurality of predetermined frequencies, generating a periodic enclosed content message, generating a modulated carrier wave representing the periodic enclosed content message, and transmitting the modulated carrier wave at the free frequency. A method for near field authentication of sources using a microphone input of a receiving computing device includes scanning a plurality of predetermined frequencies to detect a signal using the microphone input, verifying, responsive to detecting the signal, that the signal includes at least one enclosed content message, and extracting a content from the enclosed content message.

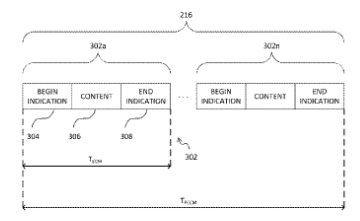
(60) Provisional application No. 61/595,599, filed on Feb. 6, 2012.
(30) **Foreign Application Priority Data**
Apr. 24, 2012 (AU) 2012100462

(51) **Int. Cl.**
H04B 7/00 (2006.01)
H04B 5/02 (2006.01)
H04B 5/00 (2006.01)
(52) **U.S. Cl.**
CPC **H04B 5/02** (2013.01); **H04B 5/0031** (2013.01)

(58) **Field of Classification Search**
CPC H04B 1/034; H04B 1/205; H04B 5/0031; H04B 5/02
(Continued)

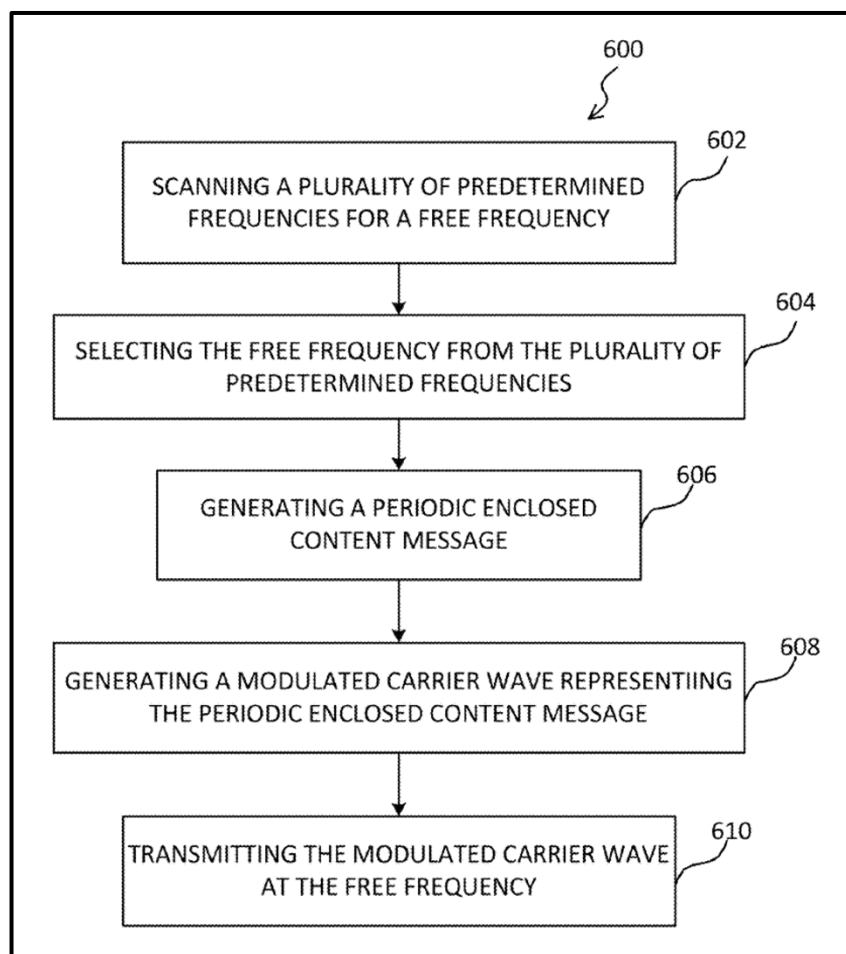
(74) **Attorney, Agent, or Firm** — Sean D. Burdick
Primary Examiner — Ajibola Akinyemi
(57) **ABSTRACT**
A method for near field authentication of sources using an audio transceiver computing device includes scanning a plurality of predetermined frequencies for a free frequency, selecting the free frequency from the plurality of predetermined frequencies, generating a periodic enclosed content message, generating a modulated carrier wave representing the periodic enclosed content message, and transmitting the modulated carrier wave at the free frequency. A method for near field authentication of sources using a microphone input of a receiving computing device includes scanning a plurality of predetermined frequencies to detect a signal using the microphone input, verifying, responsive to detecting the signal, that the signal includes at least one enclosed content message, and extracting a content from the enclosed content message.

12 Claims, 9 Drawing Sheets



U.S. Patent No. 9,564,952
"Near Field Authentication Through Communication of Enclosed Content Sound Waves"

'952 Patent: Near-Field Authentication Using Sound Waves



Petition (Paper 1) at 4;
'952 Patent (Ex. 1001) at Figure 6.

Challenged Claims: '952 Patent

Claim 9

A method for near field authentication of a source, the source using an audio transceiver computing device, the method comprising:

- scanning a plurality of predetermined frequencies for a free frequency;
- selecting the free frequency from the plurality of predetermined frequencies;
- generating a periodic enclosed content message;
- generating a modulated carrier wave representing the periodic enclosed content message; and
- transmitting the modulated carrier wave at the free frequency;

wherein each period of the periodic enclosed content message includes a begin indication, a content, and an end indication;

wherein the content includes device identification data including a bit array derived from user-configurable and non-user-configurable data specific to the audio transceiver computing device; and wherein the modulated carrier wave comprises a sound wave.

Petition (Paper 1) at 5-6;
'952 patent (Ex. 1001) at 14:53-15:5.

Challenged Claims: '952 Patent

Claim 10	The method of claim 9, wherein the transmitting step further comprises transmitting the modulated carrier wave for a predetermined number of periods, or a predetermined period of time.
Claim 11	The method of claim 9, wherein the transmitting step 10 further comprises transmitting the modulated carrier wave until a stop indication is received from a user.
Claim 12	The method of claim 9 wherein the carrier wave is modulated by the periodic enclosed content message.

Petition (Paper 1) at 6;
'952 patent at 15:6-14.

Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.