

1.	Application papers.		42.
2.	Ltr re Cos pay/fig.	02/16/01	43.
3.	Car. pap Drawings	02-23-01	44.
4.	IDS	8/6/01	45.
5.	Petition/Special/Pre Amdt #4-1-02		46.
6.	Decision Granted	4-26-02	47.
6/17.	Fig (3m)	6-20-02	48.
8.	I.D.S.	05/02/02	49.
9.	Amdt	7-15-02	50.
10.	Fig (3m)	9-24-02	51.
11.	Interview Summary	7-3-02	52.
12.	Interview Summary	11-21-02	53.
13.	IDS	12-2-02	54.
14.	Amdt	12-16-02	55.
3/10 15.	Fig (3m)	3/14/03	56.
16.	Interview Summary	3-27-03	57.
17.	Amdt	4-8-03	58.
18.	Notice of Allow	7/1/03	59.
19.	COA	12-1-03	60.
20.			61.
21.			62.
22.			63.
23.			64.
24.			65.
25.			66.
26.			67.
27.			68.
28.			69.
29.			70.
30.			71.
31.			72.
32.			73.
33.			74.
34.			75.
35.			76.
36.			77.
37.			78.
38.			79.
39.			80.
40.			81.
41.			82.

(SEE OUTSIDE)

PATENT APPLICATION SERIAL NO. _____

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

01/05/2001 VYANG1 00000094 09755173

01 FC:101	710.00 OP
02 FC:103	414.00 OP
03 FC:102	480.00 OP

PTO-1556
(5/87)

*U.S. GPO: 2000-468-987/39595



Bib Data Sheet

CONFIRMATION NO. 3915

SERIAL NUMBER 09/755,173	FILING DATE 01/08/2001 RULE	CLASS 375	GROUP ART UNIT 2634	ATTORNEY DOCKET NO. 081513-4						
APPLICANTS David M. Krinsky, Acton, MA; Robert Edmund Pizzano JR., Stoneham, MA; ** CONTINUING DATA ***** This appln claims benefit of 60/224,308 08/10/2000 and claims benefit of 60/174,865 01/07/2000 ** FOREIGN APPLICATIONS ***** IF REQUIRED, FOREIGN FILING LICENSE GRANTED ** 05/02/2001										
Foreign Priority claimed 35 USC 119 (a-d) conditions met Verified and Acknowledged	<input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> yes <input type="checkbox"/> no Met after Allowance Examiner's Signature _____ Initials _____	STATE OR COUNTRY MA	SHEETS DRAWING 2	TOTAL CLAIMS 43	INDEPENDENT CLAIMS 9					
ADDRESS 22204 NIXON PEABODY, LLP 8180 GREENSBORO DRIVE SUITE 800 MCLEAN, VA 22102										
TITLE SYSTEMS AND METHODS FOR ESTABLISHING A DIAGNOSTIC TRANSMISSION MODE AND COMMUNICATING OVER THE SAME										
FILING FEE RECEIVED 6962	FEES: Authority has been given in Paper No. _____ to charge/credit DEPOSIT ACCOUNT No. _____ for following:		<table border="1"> <tr><td>All Fees</td></tr> <tr><td>1.16 Fees (Filing)</td></tr> <tr><td>1.17 Fees (Processing Ext. of time)</td></tr> <tr><td>1.18 Fees (Issue)</td></tr> <tr><td>Other _____</td></tr> <tr><td>Credit</td></tr> </table>		All Fees	1.16 Fees (Filing)	1.17 Fees (Processing Ext. of time)	1.18 Fees (Issue)	Other _____	Credit
All Fees										
1.16 Fees (Filing)										
1.17 Fees (Processing Ext. of time)										
1.18 Fees (Issue)										
Other _____										
Credit										

**SYSTEMS AND METHODS FOR ESTABLISHING A DIAGNOSTIC
TRANSMISSION MODE AND COMMUNICATING OVER THE SAME**

This application claims the benefit of the provisional applications Ser. Nos. 60/334, 303, filed Aug. 10, 2000, and 60/04, 203, filed Jun. 7, 2000.

5

Field of the Invention

This invention relates to test and diagnostic information. In particular, this invention relates to a robust system and method for communicating diagnostic information.

Background of the Invention

10

The exchange of diagnostic and test information between transceivers in a telecommunications environment is an important part of a telecommunications, such as an ADSL, deployment. In cases where the transceiver connection is not performing as expected, for example, where the data rate is low, where there are many bit errors, or the like, it is necessary to collect diagnostic and test information from the remote transceiver. This is performed by dispatching a technician to the remote site, e.g., a truck roll, which is time consuming and expensive.

15

In DSL technology, communications over a local subscriber loop between a central office and a subscriber premises is accomplished by modulating the data to be transmitted onto a multiplicity of discrete frequency carriers which are summed together and then transmitted over the subscriber loop. Individually, the carriers form discrete, non-overlapping communication subchannels of limited bandwidth. Collectively, the carriers form what is effectively a broadband communications channel. At the receiver end, the carriers are demodulated and the data recovered.

20

DSL systems experience disturbances from other data services on adjacent phone lines, such as, for example, ADSL, HDSL, ISDN, T1, or the like. These disturbances may commence after the subject ADSL service is already initiated and, since DSL for internet access is envisioned as an always-on service, the effect of these disturbances must be ameliorated by the subject ADSL transceiver.

25

30

SUMMARY OF THE INVENTION

The systems and methods of this invention are directed toward reliably exchanging diagnostic and test information between transceivers over a digital subscriber line in the presence of voice communications and/or other disturbances. For simplicity of reference, the

NVA165661.1

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.