Press Releases

Verizon Places Order for Celerity, Teradyne's DSL Test Solution; Teradyne's Celerity Enables Verizon to Speed DSL Deployment

DEERFIELD, Ill.—(BUSINESS WIRE)—April 24, 2001—Teradyne, Inc. (NYSE: TER) Broadband Test Division today announced that Verizon Communications (NYSE:VZ) has placed a multi-million dollar order for key features of Celerity, a comprehensive ADSL test system solution that pre-qualifies copper wire for broadband services in less time than other methods and at a significantly reduced cost. Celerity provides Verizon with very accurate detection of load coils and verification of correct splitter installation. The deployment of Celerity will assist Verizon in pre-qualifying ADSL service on millions of lines located in the former GTE region.

"We worked with Teradyne on extending testing capabilities from our 4TEL II line test system to improve our DSL qualification and provisioning processes. We are now able to use real-time testing information to supplement our records database," says Barry Paulson, Senior Vice President Engineering and Planning, Verizon.

"Verizon has relied on Teradyne to help maintain their network reliability for 20 years," said Chris Bohrson, director of Sales and Marketing for Teradyne Broadband Test. "As customer demand for broadband services continues to grow, Teradyne has responded with Celerity, a comprehensive set of broadband test applications designed to speed provisioning of DSL services. Verizon's initial need was to address load coil and central office splitter issues. With the Celerity system infrastructure in place, Verizon is positioned to add additional Celerity enhancements in the future providing the ability to perform mass qualification of their millions of copper loops."

Teradyne's Celerity helps automate installation processes and supports Verizon's goal of customer "self installation." Celerity's unique low frequency measurements executed via the existing switch narrowband test bus provide accurate identification of elements in the network that inhibit DSL services. This reduces Verizon's dependence on switch based testing and manual methods to verify network equipment configurations.

Celerity's CO splitter detection capabilities were verified with multiple test cases in six switch configurations. Load coil detection capability was tested in 26 configurations to 24,000 feet in cable length. In over 3800 tests Celerity yielded better than 99% accurate load coil detection with no false detections.

With Celerity, Verizon can quickly provide high quality DSL services to customers sooner by automatically:

- **Detecting CO Splitters**—Celerity can detect the presence and verify correct installation of exchange splitters in the network. This reduces manual verification and provides broadband service to consumers faster.
- **Detecting Load Coils**—Celerity detects load coils installed in the network so they can be removed before consumers attempt to go online. This results in fewer customer problems when service is turnedup.

The full Celerity test system uses breakthrough, patented techniques to accurately qualify millions of subscriber lines for DSL. Celerity's measurements provide LEC's the capability to pre-qualify every line in the current voice network using the current switching infrastructure. This allows the LEC's to meet the quality and cycle time

requirements of the market at a significantly reduced cost.

Celerity quickly tests selected lines in the network to determine their readiness to support DSL services. Celerity reduces the effort and cycle time to qualify lines previously requiring skilled engineersusing network drawings by automatically detecting impairments in the network that must be removed or repaired to support DSL service. This provides real-time accuracy to the information in the records database and makes DSL service initialization more reliable.

About VERIZON
Verizon Communications (NYSE:VZ) is one of the world's leading providers of communications services. Verizon companies are the largest providers of wireline and wireless communications in the United States, with nearly 109 million access line equivalents and more than 27.5 million wireless customers. Verizon is also the largest directory publisher in the world. A Fortune 10 company with approximately 260,000 employees and more than $63 billion in annual revenues, Verizon's global presence extends to 40 countries in the Americas, Europe, Asia and the Pacific. For more information on Verizon, visit www.verizon.com.

About Teradyne Broadband Test Division
Teradyne Broadband Test Division is a division of Teradyne Inc. The group develops state-of-the-art testing capabilities that support service provider's goals to sell and deploy more broadband servicessooner and improve the efficiency of qualification, provisioning, and customer care. Teradyne's eight years of internet protocol testing experience and industry leading background in layer 1 DSL testing enhances its 28 years experience in providing test systems that support voice customer care for over 110 million voice lines worldwide.

Press Releases

Teradyne's Celerity Deployed to Test More Than 20 Million Lines in Its First Year of Availability

Business/Technology Editors

DEERFIELD, Ill.--(BUSINESS WIRE)--June 18, 2001--

Teradyne's ADSL Loop Qualification Test System Pre-qualifies Subscriber Lines Throughout North America and Western Europe

Teradyne, Inc. (NYSE: TER) Broadband Test Division today announced that its Celerity ADSL Loop Qualification Test System is now testing over 20 Million subscriber lines since the product was launched on June 5, 2000. The bookings are comprised of multiple customers throughout North America and Western Europe. Celerity augments line record systems to enable accurate pre-qualification of copper loops for DSL services by testing all lines in the network by directory number, refreshing information in the line record database weekly or monthly, and operating independently of other systems without requiring complex interfaces.

Celerity accurately qualifies millions of lines in hours enabling Local Exchange Carriers (LEC's) to test every line exposed to DSL every month. In addition, Celerity enables LEC's to deploy more DSL sooner by increasing the pool of available DSL-ready lines and increasing the productivity of the provisioning process.

"Celerity is a product that addresses the key business issues of DSL: provisioning, loop qualification and service assurance," said Wayne Lasson, general manager of Teradyne's Broadband Test Division. "The proven technology allows customers to successfully meet their goal of speeding up and dramatically reducing the cost of DSL deployment."

Celerity tests the physical network in seconds and determines the following vital characteristics of loop make up:

--Loss, accounting for the presence of bridged taps
--Presence of Load Coils
--Loop Length
--Imbalance faults
--Metallic faults
--Termination detection, including splitters.

Celerity qualifies large volumes of lines to support volume DSL deployment and develops a database of lines that are qualified to install immediately, lines

that require conditioning or lines that are disqualified. Celerity also performs a real time test that provides detailed loop qualification information. The system tests in-service DSL lines, identifying the presence and dispatch location of data affecting faults.

"Celerity is a highly flexible solution with a feature set of modules that can be selected and deployed based on specific service provider needs," says Chris Bohrson, director of sales and marketing of Teradyne's Broadband Test Division. "The ability for a service provider to create a network testing system catered to his particular needs is crucial in today's market. Celerity operates independently of other systems and does not require a complicated interface to be implemented. In addition, Celerity can be applied as an overlay where existing voice loop test systems are in place."

Celerity consists of a Test System Controller (TSC), and a number of central office-based Loop Diagnostic Units (LDU). The LDU executes specialized narrowband test techniques through the existing low frequency test bus in class 5 switches. The TSC contains expert system software and an array of cable and modem models. With this capability, Celerity can determine the presence of DSL speed impairments such as load coils or series imbalance faults, as well as determine the transmission speed of the line through it's loss measurement. Celerity's distributed architecture enables the system to access thousands of lines simultaneously and thereby perform tests on millions of lines in hours. Celerity is a self-contained test system, delivering information that is immediately useable through standard OS interfaces to data warehouses.

"The technology we developed is innovative, proven and gets our customers results," said Frank Bauer, director of advanced technology of Teradyne's Broadband Test Division. "Celerity's overwhelming success within the short period of a year establishes it as a true leader in a highly competitive telecommunications marketplace."

About Teradyne Broadband Test Division

Teradyne Broadband Test develops state-of-the-art-testing capabilities that support service provider's goals to sell and deploy more services sooner and improve the efficiency of qualification, provisioning, and customer care. Teradyne's nine years of Internet protocol testing experience enhances its 29 years experience in providing test systems that support voice customer care for over 110 million voice lines worldwide. For more information on Teradyne's Broadband Test Products, visit Teradyne at:
http://www.teradyne.com/prods/btd/