2004 Communications Test & Measurement Product of the Year Award Navtel Communications Inc.

AWARD DESCRIPTION

The Frost & Sullivan Award for Product of the Year is presented each year to the company that has demonstrated excellence in new products and technologies within their industry. The recipient company has shown innovation by launching a broad line of emerging products and technologies.

RESEARCH METHODOLOGY

To choose a recipient for this award, the analyst team tracks all new product launches, R&D spending, products in development, and new product features and modifications. This is accomplished through interviews with market participants and extensive secondary and technology research. All new product launches and new products in development in each company are compared and evaluated based on degree of innovation and customer satisfaction. Companies are then ranked by number of new product launches and new products in development.

MEASUREMENT CRITERIA

In addition to the methodology described above, there are specific criteria used to determine final competitor rankings in this industry. The recipient of this award has excelled based on one or more of the following criteria:

- Significance of new product(s) in their industry
- Competitive advantage of new product(s) in their industry
- Product innovation in terms of unique or revolutionary technology
- Product acceptance in the marketplace
- New product value-added services provided to customers
- Number of competitors with similar product(s)

AWARD RECIPIENT: NAVTEL COMMUNICATIONS INC.

The 2004 Frost & Sullivan Award for Product of the Year in the Communications Test & Measurement Industry is conferred upon the InterWatch, developed and manufactured by Navtel Communications Inc. (Navtel). The successful incorporation of various technologies and applications places this product in an advantageous position to address network convergence in the future. Network convergence is crucial for all communication networks worldwide to work in perfect synchronization with maximum efficiency.

Navtel's InterWatch addresses these key next-generation networks' (NGNs) issues, as it provides test solutions for all the key components of these networks including - IP (Internet protocol), MPLS (multi-protocol label switching), ATM (asynchronous transfer mode), VoIP (voice over Internet protocol), 3G (3rd generation), SS7 (signaling system 7), and GMPLS (generalized multi-protocol label switching),

Navtel was founded in 1976. In 1990, it was acquired by the Great Nordic group, becoming a part of NetTest. Navtel spun off from NetTest in February 2003, shortly after NetTest was acquired by Axcel, a Danish investment group.

The InterWatch test platform was introduced in 1995 and has undergone several changes from its initial version. Navtel's InterWatch adopted VoIP three years ago. The company has positioned and designed its product to specifically address the transition of voice from traditional circuit switching to packet-switched networks. Frost & Sullivan believes that there will be an eventual transition from the circuit to packet-switched networks for voice. When this happens, it is expected that there will be a need to test diverse network settings. As a result, the major challenge for test vendors going forward will be to provide solutions that can test various platforms and support various proprietary protocols and applications. The InterWatch product has evolved to exactly meet these needs and is now in a unique position in the market to address the testing challenges of complex converged networks.

Navtel's InterWatch is a converged network testing solution that primarily targets the development and system labs of network equipment manufacturers (NEMs) and evaluation labs of service providers (SPs). The InterWatch is an ideal platform for labs as it provides the following - functional testing, conformance testing, interoperability testing, performance testing, and scalability testing.

The InterWatch is even better suited for what Navtel calls Next Generation Converged Networks (NGcN), as it supports control, data, and transport plane testing. Transport plane testing is a very vital aspect in testing converged networks. With the renewed interest in VoIP services, equipment and solutions, Frost & Sullivan believes that the InterWatch will be able to meet, if not exceed, the lab testing requirements of NEMs and service providers in the market place.

Each of the following components, built upon a solid ATM, IP, and MPLS foundation, makes the InterWatch a complete converged solution for next-generation networks:

- VoIP testing
- 3G Mobile Network testing
- GMPLS testing

VoIP Testing

Built according to Navtel's testing guidelines, the InterWatch VoIP applications include functional, conformance, interoperability, performance and scalability testing. With the current migration from a TDM-based to an IP-based voice network infrastructure, the test solution must be capable of handling TDM.

Initially, the InterWatch was introduced to address the LAN/WAN/ATM test market; shortly after, it became a leading ATM tester. Due to its expertise in ATM and the continuous addition and upgrades of its feature set, especially on the IP side, the InterWatch is now in a great position to address VoIP over different types of physical interfaces.

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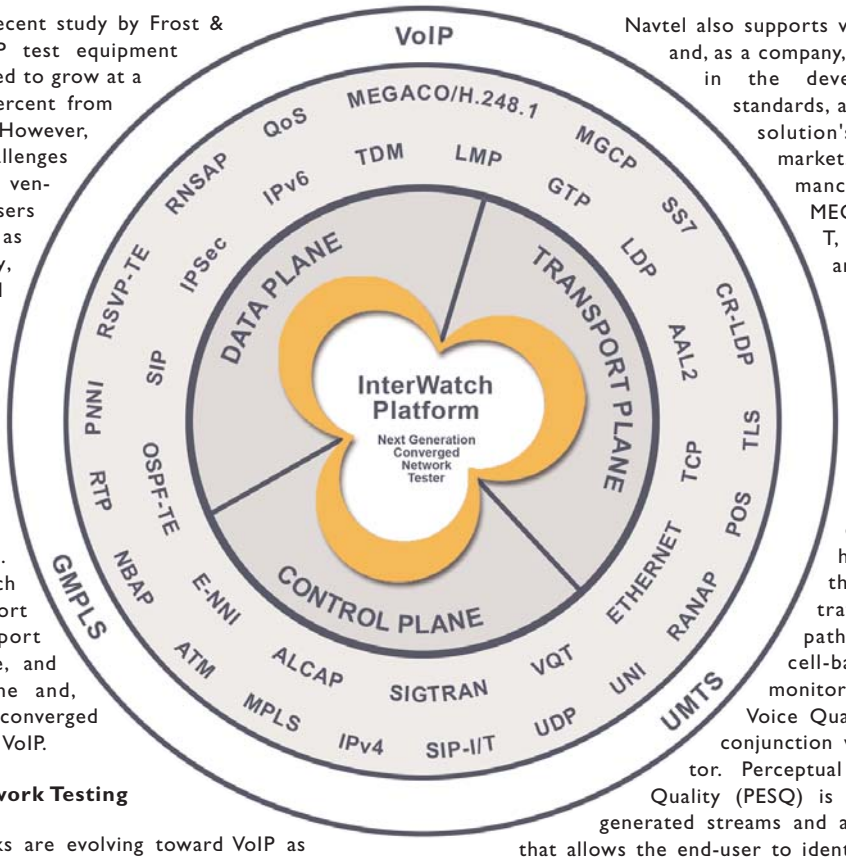
NAVTEL COMMUNICATIONS
The Future of Network Testing

Navtel's InterWatch provides comprehensive support for VoIP by allowing the end users to test signaling transport (SIGTRAN), session initiation protocol (SIP), SIP-T, SIP-I, Gateway Control/H.248.1 (MEGACO), and Media Gateway Control Protocol (MGCP) on all the physical interfaces such as ATM, Packet Over SONET (POS), and Ethernet. This is a very significant aspect, as it enables the end users to test VoIP for functional, conformance, interoperability, and performance testing over diverse physical interfaces.

The InterWatch has also been equipped with a TDM interface allowing validation of the legacy to packet-based migration path through SS7 or ISDN emulation.

According to a recent study by Frost & Sullivan, the VoIP test equipment market is estimated to grow at a CAGR of 24.2 percent from 2003 to 2010. However, the greatest challenges that confront test vendors and end users are issues such as interoperability, conformance, and quality issues. These issues are effectively addressed by the InterWatch due to the range of protocol, platform, and application support that it delivers. The InterWatch provides the support to the transport plane, data plane, and the control plane and, thus, provides a converged testing option for VoIP.



3G Mobile Network Testing

Wireless networks are evolving toward VoIP as quickly as wireline networks. The advantage of the 3G testing solution provided by the InterWatch is that it combines its extensive range of VoIP test applications, adapted to the wireless standards with extensive ATM and IP testing support for 3G testing.

The InterWatch also provides powerful line rate monitoring and detailed expert analysis of 3G network infrastructure, providing invaluable insight to the user. The product provides detailed call tracing for individual subscribers, troubleshooting capabilities and the ability to correlate performance problems to radio quality, data transport problems, and equipment failures.

Convergence - The Key for NGcN Testing

The major reason for choosing Navtel's InterWatch as Frost & Sullivan 2004 Communications Test & Measurement Product of the Year is the fact that the product is in a unique position to address the convergence of next-generation converged networks. The InterWatch product line is a platform that provides an integrated control plane, data plane, and transport plane.

Navtel's InterWatch provides solutions for transport plane by providing ATM, IP, POS, Ethernet, and MPLS support. Such a diverse support is necessary for VoIP and 3G testing as service providers and operators are likely to require the same service delivery over various transport networks. Support for these networks by the testing solution facilitates end-users' work and enable them to provide enhanced services to their customers.

Navtel also supports various VoIP standards and, as a company, is a major participant in the development of these standards, a key factor for a test solution's success in the market. It provides conformance suite for MGCP, MEGACO/H.248, SIP, SIP-T, SCTP, SIGTRAN IUA, and SIGTRAN M3UA.

The InterWatch provides the support in the data plane by providing, in a VoIP application as an example, the RTP generation and analysis option to end-users, which helps them generate the user-defined RTP traffic on pre-defined path across packet or cell-based networks and monitor them. It also provides Voice Quality Testing (VQT) in conjunction with the RTP generator. Perceptual Evaluation of Speech Quality (PESQ) is then applied on the generated streams and a report is generated that allows the end-user to identify errors, losses and delays, and analyze them further.

Navtel's InterWatch features a comprehensive set of components that provide a converged test solution for next-generation networks. The company is leading the way in developing an automatic converged tester for the NGNs. The InterWatch is a very useful platform for NEMs and service providers to test NGNs in their labs and reduce the cost of development, time-to-market, and risks associated with the deployment of NGNs. The solution set and the comprehensive set of functions and platforms offered by the product truly presents a converged solution within a single product offering at a great price-performance point to end users. As a result of these factors, Navtel's InterWatch is the worthy recipient of the 2004 Communications Test & Measurement Product of the Year Award.