TMX 880 Times

HOT TOPIC
DEMONSTRATION OF TMX 880 AND EUROPA 8.1 IS ON LINE

View the successful first interoperability demo for many new Core Switching products. To see the video of the demonstration, please go to npi.bos.asend.com.

OMAHA BEACH

Beginning August of 2001, the TMX 880™ team began working on Omaha Beach, the first phase of the TMX 880 project. Omaha Beach integrated the TMX 880 with NavisCore™ and introduced an ATM to MPLS strategy to increase the speed of the network core and deliver an integration and migration path to IP/MPLS.

ATM over MPLS was added to the TMX 880 system to aggregate ATM traffic from the GX 550™ and GBX 500™ Multiservice Wide Area Network Switches. This solution uses ATM OPTimum™ cell trunks (OPTITrunks). With the OPTITrunks serving as logical point-to-point links between switches, Lucent can provide a larger backbone for ATM networks along with the high capacity of the OC-192 POS module.

TMX 880 QUARTERLY AWARDS

The first Excellence Recognition Awards were presented to the following people in appreciation for extraordinary effort in this past quarter.

Ann Valkoun always goes beyond what is expected of her, she works long and late hours to accommodate changes to ClearQuest database.

Damian Scisci develops and delivers the TMX 880 system training. He jumped in and supplied quality training sessions on ATM and IP technologies for the Marlboro and Westford groups.

Eric Ruan, a key member of the OC-192 development group, worked across the organization to create the NX-MS functional specification for Release 8.0.

Joe Cretney resolved numerous tough hardware issues while maintaining a positive attitude.

Karen Aaronson's representation on our behalf has eased the burden of the reorganization.

Neil Turner, helped develop the MPLS cross connects, provided technical support for the IS-IS-TE project improved access filtering and improved processing 100%.

Louise Reneau, editor of the TMX 880 Times and part of the Tech Pubs group is also responsible for product documentation.

Rajesh Khetan takes on all projects that come his way. He successfully completed key development tasks including ATM-MPLS QoS, and VC Manager enhancements.

"As per the rest of the TMX group, we had all hands to the pumps for Omaha", says John Cole, "working with all parties: hardware, systems, protocols, SQA - to ensure we achieved the goal of getting MPLS-ATM cross connects."

The TMX 880 team successfully completed the Omaha Beach project in only two months. The proof of concept was realized by the demo, held the week of October 15th, at the Westford Robbins Road facility.

HOT TOPIC
TRAINING LIBRARY

John Stowe and his group are creating a library of training they are offering on video, and eventually onto CD. Contact John for more information.

NORMANDY

Building on the success of Omaha Beach, the Normandy 8.0 release delivers ATM over signaled LSPs, load balancing for MPLS static LSPs, and traffic engineering for signaled LSPs. Traffic engineering ensures that interfaces in a path meet resource requirements for an LSP and supports priority queuing of the LSPs.

In order to provide customers with the MPLS features that they need, Lucent looked at this LSP queuing mechanism that allows for low latency and low jitter. In addition, the integrated NavisCore environment enables service providers to deliver configuration and monitoring support as one seamless

task for multiservice traffic across the core.

Improved system redundancy supplies uninterrupted service with failover from a primary RCP to a secondary RCP. OSPF Graceful Restart and BGP Graceful Restart temporarily retain routes if the primary RCP should fail.

Continued talks with customers validate the TXM 880 strategy. The Normandy project creates a migration path from the ATM to the MPLS networking world, while offering service providers a way to expand the existing ATM networks.

HOT TOPIC
TMX TEAM IS LIKE TEA BAGS?

"I once heard a phrase", John Cole says, "People are like tea bags; they never realize their strength until they are dropped in hot water. I feel that this is true for the TMX group, they are a very strong bunch and are totally committed to getting the right product out the door on time. It feels good to be part of such a strong team."

BEYOND NORMANDY

The next two releases for the TMX 880 system, Dover and San Francisco, continue to strengthen ATM and MPLS features and maintain the current competitiveness level for IP-based features.

DOVER

The Dover phase expands the integration of the TMX 880 system with the GX 550 and the CBX 500 by offering an expanded set of network control capabilities (Lucent VNN), new high-speed ATM interfaces (four-port OC-12 and single-port OC-48). Interoperability is enhanced using the Lucent proprietary VNN capabilities, allowing for greater control of QoS parameters and dynamic adjustment to changing conditions. In addition, the Dover release supports broader interoperability with other vendors by implementing a more extensive set of path and re-

source allocation mechanisms (LDP).

Cost of ownership is reduced and reliability is enhanced by providing tighter integration between Navis TMX 880 and NavisCore, the ability to automatically route around failed links, both physical and logical (1+1 APS and fast-reroute), and hitless in-service upgrades for both hardware and software. Not only will the Dover release lower costs, but it will also provide the ability to offer revenue-generating VPN services.

SAN FRANCISCO

The San Francisco phase is the golden gate through which the TMX 880 system can cross into a commanding leadership position in the ATM, ATM-MPLS cross connect, and MPLS markets. This program emulates an ATM network, all management aspects on a MPLS domain and further enhancements to ATM performance.

With higher port densities (8-port OC-12, 2-port OC-48), new high-speed interfaces (10 GigE), granulated user services (VC Switching), a common technological base through the optical core, and more network manageability and user interface capabilities (ATM SVCs, MPLS, VPN support) the TMX 880 system is providing an efficient and cost-effective platform on which to build the next-generation networks.

HOT TOPIC
PRE-BETA DOCUMENTS AVAILABLE

Preliminary drafts of the Release 8.0 command reference, installation guide and configuration guide are available on: http://csdweb.casc.com/TMX_880?OB-JECTID=0b00253b80081c41.

HOT TOPIC
RELEASING MX-OS 1.7.2

Release 1.7.2 is nearing completion. The 1.7.2 release contains the STA alarm subsystem for local visual and audible alarms and incorporates fixes for a new trial in Peru.

LAUNCHING THE TMX 880™ MULTISERVICE XCHANGE SWITCH
Mark Dobson

The launch of the TMX 880 system marks a shift in market focus from the IP multiservice core to the more traditional Core Switching Frame and ATM market. Core Switching and the TMX 880 target market merged as Lucent refocused on its traditional service provider customer base.

The TMX 880 Multiservice Xchange Switch, built upon technology from the Nexabit acquisition in 1999, is radically different to its predecessor, the NX64000.

The TMX 880 system contains new capabilities that will gracefully evolve the ATM/FRAME core networks to 10 Gigabit MPLS capacity while maintaining what our ATM customers depend on today for services and revenues, the inherent reliability of Lucent's ATM switched network, its true quality of service guarantee, and its ease of administration.

The TMX 880 system continues the product family tradition, born out of Cascade's innovation, and brings even more improvement to our core strengths of VNN for dynamic QoS and routing and NavisCore integration for one step provisioning of ATM trunks. Now MPLS tunnels scale ATM networks at OC-192c speeds! The TMX 880 system unique ATM to MPLS link and encapsulation method leverages industry leading lowest latency and jitter. Customers can therefore take the evolutionary step to MPLS while preserving the dependability of ATM and Frame Relay services.

SPOTLIGHT ON TONY FIORE

John Keller hired Tony Fiore in May of 1999 for a two-week contract to write the plan for the documentation required to support the TMX 880 system. Within a few weeks Tony was offered a position as the Manager of Technical Publications at what was then Nexabit Networks.

He organized the Tech Pubs group, hired writers and put the initial plans and procedures in place.

Tony then determined what information was needed to document the product. "The technology was new for me, learning this cutting-edge technology has kept me busy ever since I came to Lucent".

He developed the overall strategy for the product documentation, including plans for the installation guide, troubleshooting guide and the configuration guide. "The suite of books is necessary to use the TMX 880 system correctly and to maintain it effectively."

One of his favorite projects was working on the original command reference. "It was a challenge. The book was more than 500 pages long. We had to sift through each command and remove information that was not pertinent and add many newly implemented commands."

Tony is currently writing the installation guide and four chapters of the user's guide for the Navis TMX 880 Element Management System.

"I enjoy working on the GUI with the developers at Indian Hill. Even though we are working over long distances, there is a lot of co-operation between groups. It's been a lot easier than one might think. The people on the TMX 880 team all have a lot of good team spirit."

HOT TOPIC
OC - 48 ATM MILESTONE

Schematic capture for the new OC - 48 ATM IOD is complete. Component placement and routing have begun.

HOT TOPICS
COMMANDING STATISTICS

Release 8.0 contains a total of 555 commands, 83 of which are new!

The TMX 880 Command Reference will be published in two separate volumes for the next release. Volume one, the configuration commands section, is 296 pages in length, while Volume two, protocol commands, is 686 pages!

SUPER HOT TOPICS
TMX 880 TRIALS BEGIN IN JANUARY

Five new trials to demonstrate the powerful capabilities of the TMX 880* system are being planned for January 2002.

Two tests of the TMX 880 IP/QoS capabilities are planned. One at Iowa Communications Networks will provide distance-learning video applications and both local and long distance services. The other, Telemex, is a TMX 880 trial at the edge of network with the core providing only the LSP tunnels.

Another study at R-1 Networks combines TMX 880 systems, Springtide and AP300 for a Video over IP network. The trial begins by implementing an all IP network and then migrating to a MPLS solution.

Telefonica Peru Lab validation starts this month to test the ability of the TMX 880 system to solve current BSTDX IP scaling issues. Passing live traffic in the customer's network is scheduled for January.

And finally, in Embratel Brazil, the trial is at the core, the largest ISP in Brazil, focusing on QoS and MPLS.

LINING UP BETAS

TMX Beta planning has started with plans to facilitate an on going customer demo in the Atlanta sales office.

*TMX 880 includes the features and functionality of the NX64000.

HOT TOPIC
OCTAL GIGE MILESTONE

The circuit designs for the new IOA and IOD have been completed and reviewed. Printed wiring boards are being fabricated, and will be completed before the end of the month.

THE TMX 880 LAB TEAM @ INDIAN HILL
Natasha Dela Cruz

Ronald Rousseau and Robert Sklar support the Indian Hill TMX 880 lab software, protocols, system test, end stage design, hardware, and diagnostics teams in Lisle, IL. They designed, planned, and implemented the 6000 square foot lab.

The new lab features a software and system test equipment room, that includes a combination of TMX 880 systems, GX 550 systems, FORE, and Cisco equipment.

The hardware area provides six TMX 880 chassis and a modular workstation area with adjacent space for soldering and wiring.

The three lab sections have 100% interconnectivity through a patch panel so that all chassis and all router testers are accessible to lab users in both rooms. The goal was to create a lab that enables developers and testers to spend their time testing, rather than configuring and debugging test set-ups.

Ronald and Robert

What is Ronald and Robert's formula for implementing and running an efficient lab environment? They created a lab environment where every interface is intuitive and every power and data connection is conveniently at hand using scalable trays,

mobile chassis cabinets and customizable patch panels.

Their unique backgrounds and experience add to the successful formula. Robert's extensive experience in lab wiring and infrastructure coordination, design and support began with his earning a Bachelor of Science degree in Biology.

What started as a career as a medical technician led to years as a consultant, building labs and designing wiring and infrastructure for offices, computer rooms, data centers, corporate headquarters, sales centers, and operator services centers in five states.

Ronald worked for one year in 5ESS lab support after earning a BS in Electrical Engineering Technology. He later joined the DACS project and helped to define the new lab environments for Denver, France, and China. He is now the resident expert on the lab networks, servers, and router tester set-up.

Ronald notes two keys to sustaining a good lab, "Daily maintenance, and engaging people to participate as one team."

HOT TOPIC
THE WISE UK DEVELOPMENT TEAM

The TMX 880 team in the UK is a very professional and experienced bunch. They possess a cumulative knowledge of 120 years on IP, Routing Protocols and Networks.

HOT TOPIC
DOCUMENTATION IMPACT FIELD ADDED TO CLEAR QUEST

A "Documentation Impact" field has been added to the Rational ClearQuest defect tracking database.

Using this new field will ensure that Tech Pubs is notified when a change is needed to the TMX 880 product documentation as a result changes to software, hardware or diagnostics.

CODE BRANCH STATUS AND RELEASE

The Sustaining Engineering Group maintains a Code Branch Status and Release Table on the intranet. See: http://charlotte.inse.lucent.com/ ~sustaining/releases/codeBranch Status.html

Customer Service and Technical Pubs use this table to see which branches and releases are being worked on, and for the description of the release and the build number.

The table also provides the code release number, branch status, update availability, release name, build date, patch description, links to applicable release notes on the Technical Publications website and a link to the image file for downloading and testing.

HOT TOPIC
STORK VISITS KERNS' HOUSEHOLD

Congratulations to Dave and Joyce Kerns who welcomed a baby boy to their household. Samuel Alexander was born on November 24th.

HOW TO SUBMIT ARTICLES

Your comments and ideas and are welcome. Please email all suggestions to the editor: lreneau@lucent.com.