EXATEL SA

As telecommunications operators transform their networks to meet their customers' needs for higher broadband connections, the potential rewards and challenges are significant, both in terms of potential revenues and required network investment. To meet these challenges in a cost-effective manner, a geospatial network infrastructure system closely integrated with the operator's other operational support systems is critical.

In 2008, EXATEL revitalized its network inventory initiative with board-level support, a clear business vision and business owner, and a strong sponsor promoting good project management. The project's goal was to develop an end-to-end telecommunication services infrastructure management solution. EXATEL worked with Globema (GE's Value Added Reseller for Smallworld™ solutions in Poland) to successfully deploy GE's Smallworld Network Inventory solution to meet their needs.

GE's telecommunications customers are using the Smallworld Network Inventory product portfolio to address these needs, as well as to plan, design, build, operate and maintain their network infrastructure. GE's highly scalable product set supports an impressive list of more than 140 service providers across 37 countries worldwide, including large and established national telecommunications operators, cable multi-service operators, competitive service providers, long haul carriers and mobile operators.

Technical Situation

The Smallworld Network Inventory solution is a central component of EXATEL's integrated sales and service qualification and design business process. Based on the customer's requirements, required addresses and service parameters are passed to the inventory system. Service qualification is then performed to determine whether the service can be provided based on existing and planned network resources. Implementation options are passed back to the sales team, who provides a detailed offer to the customer.

Once the contract is signed for the selected option, the detailed design of the service implementation is created and work orders are passed to the field crews via the order management system. Once the service configuration is implemented, the inventory is updated, based on both field reports for non-managed systems and NMS updates on service resources for managed systems. The service infrastructure documentation is kept up-to-date, service maintenance plans are activated and documented and the billing system is updated to charge for the service provided.

Solution

To achieve an integrated solution, the network inventory needs to maintain an entire view of the network infrastructure – both physical connections and logical services. For the process to be successful, data quality is essential. EXATEL took great care during the data capture process, introducing many cross-checking procedures to maintain data integrity. Equally important was proper integration with NMS, with every new NMS having to fit to an approved data supply model and correctly positioned within the business process management (BPM) support framework.

Company Profile:

EXATEL SA is a leading telecommunications operator for business and public administration in Poland with more than 1500 customers, mainly large size companies and institutions. The company manages one of the most advanced high technology backbone networks in Europe, extending over 20 thousand kilometers and reaching a throughput of 40 Gb/s, opening new opportunities in the global market. Almost 20 years of the company's experience and proven technologies, coupled with a broad range of services, guarantee EXATEL's clients the highest quality and security.

EXATEL provides service lines, including data transmission, line lease, voice services and Internet services, as well as hosting and co-location. The company's basic competence is data transmission, especially virtual private network services based on modern IP multi-protocol label switching) networks for which EXATEL is a precursor in Poland.

EXATEL is a 100% Polish company that was formed in 2004 following the merger of Tel-Energo and Telbank, two telecommunications operators with more than 10 years of experience providing services for demanding and strategic industries such as public administrations, network operators, banking and finance and power engineering.

Among EXATEL's clients are the Ministry of Justice, the Ministry of National Defense, the Agency for Restructuring and Modernization of Agriculture, the Office of Electronic Communication (Telecommunications Market Regulator), BT Poland Sp. z o.o, Netia SA, Vectra SA, Office of the Polish Financial Supervision Authority, Bank Pekao SA, Bank PKO BP SA, Bank Handlowy SA, Raiffeisen Bank Polska SA, Warsaw Stock Exchange SA, PSE Operator SA, PGE DYSTRYBUCJA SA Oddział Lublin and Vattenfall Europe Netcom GmbH.

The Smallworld solution consists of both Physical Network Inventory and Logical Network Inventory. The physical inventory contains over 15,000 kilometers of aerial routes, 1,500 xDSL devices, 50 radio point-multipoint base stations, 560 radio point-point connections, 500,000 kilometers of fiber and 1,000 optical modems in the access network. The logical inventory contains more than 1,000 SDH nodes, 400 CWDM/DWDM nodes, as well as IMS, ATM/FR and IP/MPLS based services.

End-to-end service visualization maps the service to the supporting logical paths and then to the physical network. Fiber network support helps maintain and manage fiber routes and provide standardized optical path schemes. Support for IP/MPLS includes capacity checking for IP services, monitoring of utilized Ethernet links, ports, and QoS classes, and planning maintenance jobs.

Benefits

The Smallworld solutions for the telecommunications industry help customers to reduce network capital and operational expenditure by:

- Improving network utilization through better understanding of available network assets

- Increasing workforce productivity supported by network planning tools and processes

- Reducing planning and engineering time based on accurate physical network inventory records

- Accelerating response to network outages with knowledge of the exact location of network faults

- Reducing risk of provisioning failure based on accurate knowledge of the physical connectivity of the network.

In addition, it fully integrates with other business applications, providing a seamless flow of information throughout the enterprise.

 EXATEL, in conjunction with Globema, developed an end-to-end network inventory system that is in a central position within their business processes. The Smallworld solution is in use daily, and the system positioning has stimulated people to understand how and why they should use it. The integrated solution enables fast, accurate responses to customer service requests and timely service implementation. The well-defined business process ensures the Smallworld network inventory is maintained to provide an accurate up-to-date model of the physical and logical network.

GE Products and Services Used

- Smallworld Network Inventory, including Physical Network Inventory and Logical Network Inventory

- Globema's complementary products: Service Inventory B2B, LNI-Connector, Physical Route Manager, Voice extensions for LNI

Products and Services Provided By Other Companies

Globema successfully deployed the end-to-end network inventory system based on GE's Smallworld Network Inventory product portfolio and a number of its own products.

In addition to the standard products, Globema developed specific functionality in both the physical and logical layer – especially for integration with other systems and annual obligatory reporting to the Polish Office of Electronic Communications.

imagination at work