Solution Overview

STORAGE AREA NETWORK SOLUTION

Our Client is an established storage area network (SAN) solution provider that has differentiated itself by offering hardware independent solutions for the enterprise market. The Company's products, manage heterogeneous SAN products, trace the various performance parameters and can also initiate corrective actions. With its expertise in management systems, its line of products and services, the Company can anticipate its customers' needs and quickly customize the solution for its clients .

Challenge

The company required a software toolkit to develop the management of their flagship product. In-house development capacity could not meet their requirements for the timely delivery of the development toolkit, leading the company to look for external solutions.   Vertel's integration and development environment 'M*Ware', provided the ideal framework. Vertel was chosen because of its in depth knowledge and experience, in developing network management using diverse interfaces, its competitive pricing and professional project management methodology (3PM).
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Solution

Vertel demonstrated the M*Ware Convergent Manager solution and it proved to be the best solution for the company's requirements. M*Ware is a complete product line of pre-built and customizable components, and solutions for the development and integration of Network Management applications, M*Ware makes network and system integration easily maintainable and highly re-usable. The M*Ware Network Management Development Environment is based on a Model Driven Architecture and maps all given information models internally on to the DMTF Common Information Model (CIM). Syntactic mediation logic is kept in rules or scripts to facilitate flexible mediation and close alignment with the SNIA'S BULEFIN initiative. This high grade of flexibility combined with many off-the-shelf components provided the ideal solution in a very short time.

Benefits

By implementing M*Ware, the company eliminated approximately one and a half years of development time, that would have been required for their in-house developers to develop the required toolkit.

Vertel's M*WARE Convergent Manager based solution is within both the company's budget and delivery timeframes.

The advanced toolkit now available to the company enables rapid and high quality customization and new releases of the company's products.

The advanced management solution they can now offer to their customers is a clear competitive advantage in the marketplace.

The clearly divided software components also enables reliable and customer friendly maintenance and trouble shooting of the software developed with the M*Ware toolkit.
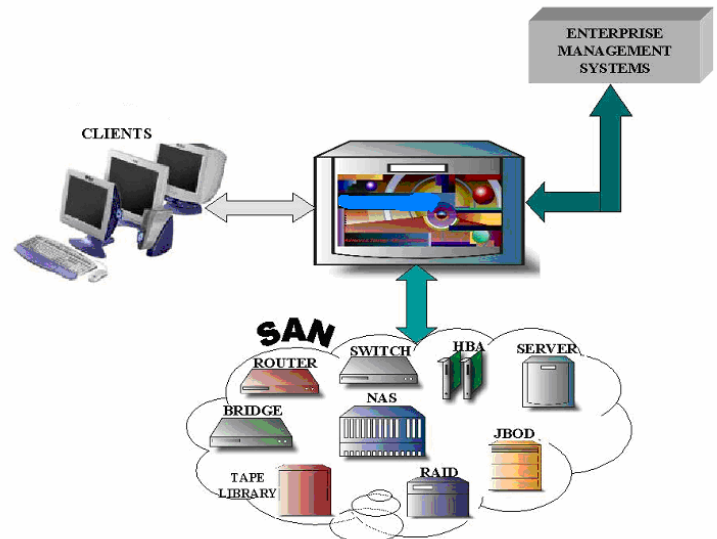
Management System for Storage Area Network

Figure 1: Storage Area Network and Management Solution

Vertel's product M*Ware Convergent Manager was used to develop the SAN management solution.

The company's clients now use the management solution to manage the heterogeneous equipment from various SAN vendors.

Vertel M*Ware Convergent Manager proved to be the ideal framework for this type of solution because. M*Ware provided all the required features by pre- built network management services components. M*Ware Convergent Manager includes the following differentiating features.

- *Very advanced multi layer GUI's for all the management processes*
- *Any type of network protocol adapters that ensure very easy integration to a wide range of network devises (south bound)*
- *Easy integration with other upstream OSS's (north bound)*
- *A fully distributed architecture that addresses all requirements of scalability and performance*
- *Mapping of all involved information on the DMTF Common Information Model*
- *Automated import of GDMO and UML based information models*
- *Off-the shelf network management services for*
  - *Topology discovery and management*
  - *Configuration and Provisioning*
  - *Software Administration*
  - *Fault Monitoring and Management*
  - *Performance Monitoring and Management*
- *Interfaces that can be changed-added and deleted without any system down time, enabled by metadata driven adapters and syntactical logic in rules or scripts*

- *Off-the-shelf systems services for*
  - *Distribution*
  - *Security*
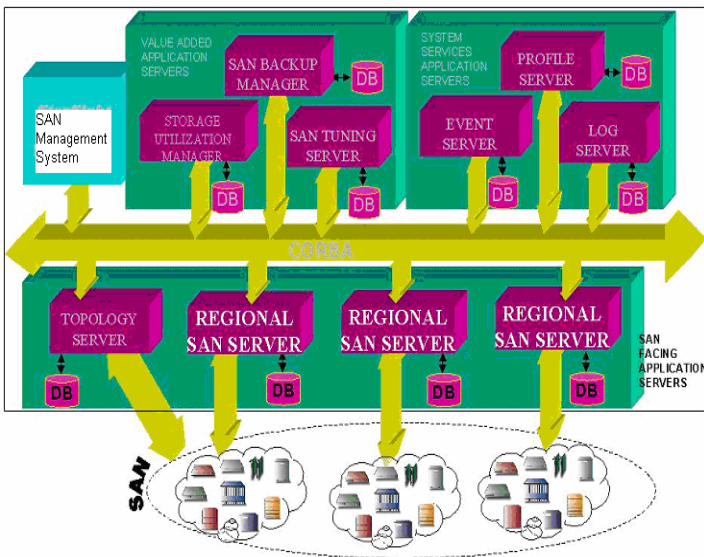 - *Database integration and database persistence*

Figure 2: Distributed Architecture

Overall structural architectural robustness is further enhanced by efficient and appropriate use of the queues and concurrency thread in the physical architecture of the solution.

M*Ware is built according to NG-OSS architectural guidelines, which makes integration with other NG-OSS applications extra easy.
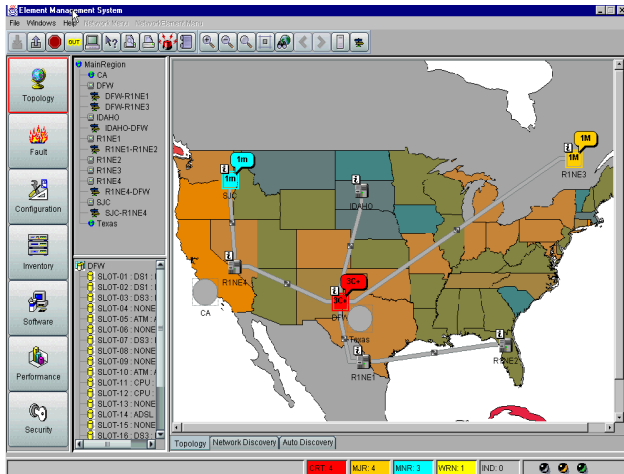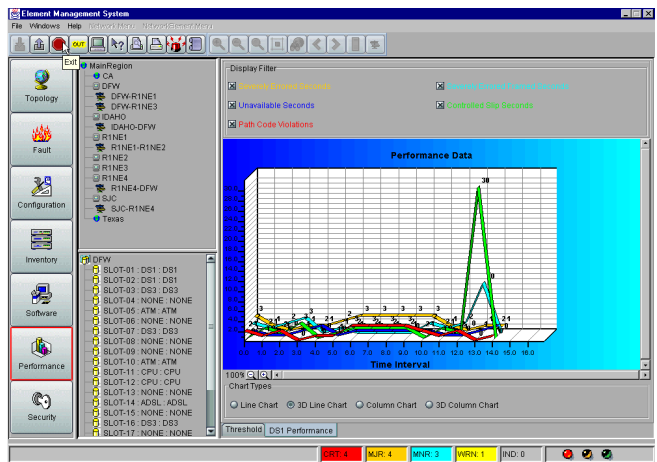

Figure 3: Topology Service and GUI

Figure 4: Performance Management Service and GUI

About Vertel

Vertel is a leading provider of convergent service management mediation solutions.

Since 1995, Vertel has provided network management, mediation and integration solutions to both telecom infrastructure vendors and service providers such as Alcatel, Nokia, Motorola, Lucent, Nortel, NTT, Samsung , AT&T, BT, Deutsche Telekom, Cingular and Williams Communications.

Vertel's in-depth knowledge and commitment to industry standards, combined with experience of working with many different equipment types, creates high performance solutions that enable customers to quickly cross technological barriers. Vertel's mission is to make its customers successful by enabling them to reduce operational costs and introduce new services, networks and OSSs while leveraging existing investments.

Vertel's core product offering, M*Ware, allows seamless management in multi-technology and multi-vendor environments. M*Ware offers a full suite of mediation based applications that can address protocol translation, data transformation, element and network management, OSS application integration, and OSS exchange services. M*Ware components are highly scalable and are very suited for mission critical operational environments. Vertel's Professional Services organization develops customized communications software solutions tailored to individual customer requirements, and also offers project management, systems analysis and other technical services

Vertel is based in Woodland Hills and has sales offices throughout the world.

For more information on Vertel or its products, contact us at 21300 Victory Boulevard, Suite 700, Woodland Hills, Ca. 91367; telephone: + 1818 227 1400; fax: +1 818 598 0047 or visit www.vertel.com

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