Next Generation Management for Connectrix B-Series SAN Components

SANnav Management Portal and SANnav Global View empower IT administrators to be more efficient and productive by providing comprehensive visibility into the SAN environment. These tools transform information about SAN behavior and performance into actionable insights, allowing administrators to quickly identify, isolate and correct problems before they impact the business. In addition, SANnav Management Portal and SANnav Global View accelerate administrative tasks by simplifying workflows and automating redundant steps, making it easier for organizations to realize their goal of an autonomous SAN.

Visualize the SAN

Most organizations are overwhelmed by the enormous volume of storage data they must process daily. Even well-managed IT organizations struggle to both keep up with the demand for storage and manually correlate millions of data points to extract useful information for the business. To increase efficiency, enterprises need tools that collect, aggregate, distribute and serve up data in ways that can be easily consumed and uniquely optimized for different users.

SANnav Management Portal

SANnav Management Portal is a next-generation SAN management application, architected from the ground up with a simple browser-based user interface (UI) and with a focus on streamlining common workflows, such as configuration, zoning, deployment, troubleshooting and reporting. It also increases operational efficiencies with a modernized graphical user interface (GUI) that enables enhanced monitoring capabilities, faster troubleshooting and advanced analytics. Key features and capabilities include:

- **Configuration management**: Implements policy-based configuration that allows users to apply consistent switch and monitoring configurations across their environments, view switches that have experienced configuration drifts via a dashboard widget, and examine what exactly has changed in the environment. This ensures operational stability and maximum uptime. In addition, SANnav Management Portal dramatically simplifies zoning configuration by implementing a highly simplified and intuitive workflow.

- **Dashboards**: Provides at-a-glance views and summary health scores for fabrics, switches, hosts and targets that may be contributing to performance issues within the network. Administrators can instantly drill down into any hot spots for investigation and take corrective action. The summary health score represents the overall health of the network from various perspectives, providing an overall score from 1 to 100. A score above 90 is healthy, 71 to 90 is degraded, and below 70 is poor.
• **Contextual-based topology views:** Allows users to quickly locate an object of interest without having to sift through irrelevant information. Visualizing relevant contextual information about a specific device, such as a particular switch, enables users to see all directly connected entities in the data path for that switch, as well as all end-point physical devices directly connected to that switch (see Figure 2). This ability to navigate and investigate points of interest dramatically simplifies the process of detecting, isolating, and troubleshooting problems.

• **Context search:** Enables users to search by various contexts, such as switches, switch ports, hosts, host ports, virtual machines (VMs), storage and storage ports. While doing a context-based search, users can type any word to search for within that context. A drop-down display under the search box will then show the search results.

• **Filter management:** Provides users with the ability to sort through large amounts of data by selecting only attributes of importance. For example, users can search for all 32Gb/s ports that are offline. This filter reduces the displayed content to only the points of interest, allowing faster identification and troubleshooting.

• **Investigation mode:** Provides intuitive views that users can instantly drill down into for key details to help them understand complex behaviors. SANnav Management Portal periodically collects metrics and stores them in a historical time-series database for further analysis. In addition, it can collect metrics more frequently (at 10-second intervals) for selected ports.

• **Reporting:** Generates customized reports that provide graphical summaries of performance and health information, including all data captured using Fabric Vision technology. Reports can be configured and scheduled directly from SANnav Management Portal to show only the most relevant data, enabling administrators to more efficiently prioritize their actions and optimize network performance.

Figure 2: Topology View from SANnav Management Portal

SANnav Global View

Whether an organization has data center locations across the globe or a single multi-tenant data center, it is important for administrators to be able to understand the health of the entire SAN. With SANnav Global View, administrators can quickly visualize the health, performance and inventory of multiple SANnav Management Portal instances using a simple, intelligent dashboard. In addition, they can easily navigate from a global view down to local environments to investigate points of interest. Important events across all local environments are propagated at a global level for instant visibility in the alerts box. Using the powerful search capabilities within SANnav Global View, administrators can then seamlessly navigate across instances and drill down into any individual SANnav Management Portal instance for additional details.
Optimize the SAN with Analytics

Connectrix B-Series 32 Gigabit per second (Gb/s) hardware includes integrated network sensors that non-disruptively gather millions of real-time metrics that SANnav Management Portal uses to identify, monitor and analyze the overall health and performance of the SAN. This data is then contextualized into dashboards that can be used to quickly detect and isolate problems. At a glance administrators have actionable intelligence on the overall health of their fabric, switches, servers and storage, which they can view in the form of summary health circles. The summary health score circles help administrators quickly identify areas that require further investigation. Administrators can drill down from each dashboard into investigation mode to further examine any relevant data for performance optimization or troubleshooting. SANnav Management Portal and SANnav Global View not only transform SAN telemetry data into useful insights, such as health and performance scores, but also enables administrators to quickly associate real-time data with historical metrics and logs for in-depth analysis. This can help with spotting trends, establishing baselines and identifying any behavioral changes over time.

SANnav Highlights

- Streamline workflows to accelerate deployment of new applications, switches, hosts and targets
- Transform information into actionable insights to quickly identify and isolate problems
- Quickly visualize and isolate points of interest with simple to understand topology views
- Minimize manual tasks by automating data collection and reporting
- Capture SAN telemetry data and translates it into visual health and performance dashboards
- Easily navigate the entire SAN from a global view down to local environments
- Automate the identification of out-of-compliance fabrics and switches
- Increase workflow efficiencies with an intuitive one-click navigation