

The Science of IT Management

SMARTS Command and Control Centre (S3c)



Features

- Intuitive GUI - 100% web-based
- SMARTS historical notifications maintained in centralised database, facilitating indexing, archival and search capabilities.
- Full audit logging including all system and user actions
- Sophisticated, dynamic search Facilities – even extending to attributes not present within the original SMARTS notification (e.g. Vendor, OS, Device Type etc)
- Roles-based workflow approval engine
- Out of the box integration with EMC SMARTS

Business Benefits

- Reduced operating costs
- Improved service availability and productivity
- Empowers operations staff
- Reduce dependency on highly skilled administrative-level skills
- Reduced operational 'white noise'

Supported Platforms

- Solaris-based EMC SMARTS platforms
- Up to 20 x SMARTS servers from a single HNM module.

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S3c Historical Notifications Manager (S3c-HNM)

The Challenge

Today, within the core EMC SMARTS application suite there are no in-built mechanisms for easily visualising fault notifications once they have expired and are no longer visible within the SAM global console.

Given that Archive and Audit Files are typically being archived on a regular basis it soon becomes a system administrator responsibility to help operations staff extract SMARTS historical notifications from such archives (assuming they are still present on the systems hard disk). Such scripts typically make use of complex regular expression pattern matching techniques to identify notification data of interest. In real-world environments there is a growing requirement for this task to be undertaken by Network Operations staff that need rapid access to and the ability to visualise historical fault information.

Solution Overview

The S3c Historical Notification Manager (HNM) enables Network Operations teams to perform this undertaking on an 'on demand' basis without the traditional reliance on highly skilled administrative personnel. Using the intuitive S3c GUI, Operators can easily construct complex search patterns to create summary reports of SMARTS historical notifications, and view full audit trails of those notifications.

Full 'out of the box' integration with the S3c Device Lifecycle Manager (S3c-DLM) Module also allows operators to immediately visualise Smarts historical notifications alongside device commissioning and maintenance requests - in a single pane of glass.

The ability to view a chronological audit of events is a very powerful way of allowing operators to correlate events from discrete systems to determine complex causality. For example, using S3c HNM and DLM together, operators can easily identify Smarts notifications that resulted from the device in question undergoing changes within a pre-determined maintenance window.

Designed for Integration

In fact, the S3c Historical Notification Module has been specifically designed to import notifications and events from any number of Network, System and Security Management systems so as to provide a consolidated view of what was happening at any point in time. Further integrations with Network Configuration Management, Network Authentication Systems, etc., enable operators to easily see how configuration and access events potentially resulted in Smarts Notifications being raised in response to an exception in the Network. Specific examples in a typical customer environment could include:

- **Device configuration change records** from a Network Change and Configuration management (NCCM) tool, such as Voyence, Opsware or Intelliden. S3c- HNM will import events from the NCCM tool and identify a device configuration change.

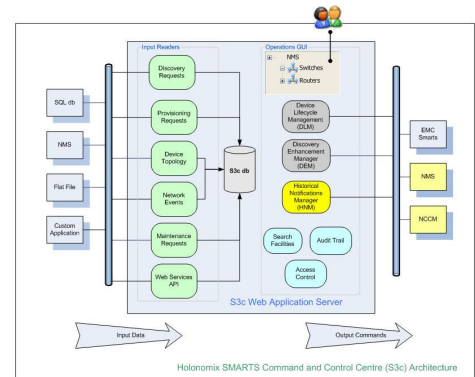


Fig 1: S3c-HNM Architectural Overview

- **CiscoSecure TACACS+**. Used to provide TACACS+ Authentication, Authorisation and Accounting (AAA) services for network devices. When full accounting is enabled - all Router/Switch commands issued in 'Enable' mode are logged to CiscoSecure. S3c-HNM could then import this information and display it alongside other NMS systems event data.

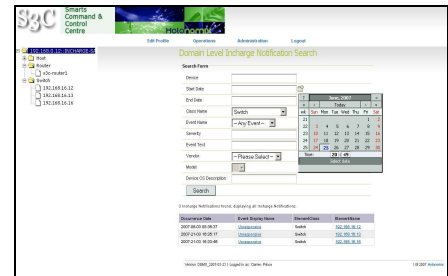


Fig 2: S3c-HNM Notification search by start/end date

The ability to view event information in context using the complex search capability of S3c-HNM is extremely powerful, especially when combined with Smarts notification data.

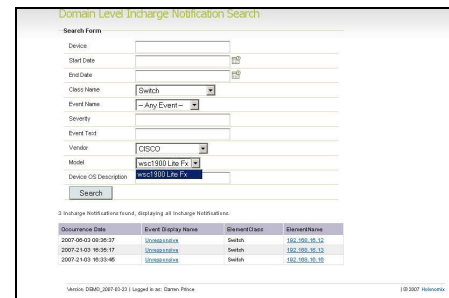


Fig 3: S3c-HNM search by device vendor and model

S3c-HNM Extensibility

S3c-HNM also includes the ability to extend data importation to any external system or data source. This feature provides customers with the ability to import data from data sources as diverse as CSV format files, and to map and search against attributes of these events