The Science of IT Management

Features

- Intuitive GUI - 100% web-based
- Accurately and automatically identify which network devices require re-discovery in SMARTS
- Roles-based workflow approval engine
- Calendar-based scheduling of device rediscovery
- Sophisticated Search Facilities
- Full audit trail history for device discovery
- Out of the box integration with EMC SMARTS

Business Benefits

- Proactively maintain accuracy of SMARTS network device inventory
- Improved service availability and productivity
- Minimize operational impact of excessive network discovery
- Empowers operations staff
- Reduced reliance on highly skilled systems administrators
- Reduced operational 'white noise'
- Reduced operating costs

Supported Platforms

- Solaris-based EMC SMARTS platforms
- Up to 20 x SMARTS servers from a single *S3c-DEM* module.

Holonomix Ltd.
Medius House
2 Sheridan Street
London W1F 8BH
United Kingdom

T +44 (0)870 3664452
F +44 (0)871 2513018
E info@holonomix.com
www.holonomix.com

SMARTS Command and Control Centre (S3c)

S3c Discovery Enhancement Manager (*S3c –DEM*)

The Challenge

Customers that deploy EMC SMARTS solutions into large, complex, dynamically changing networks typically struggle with the task of keeping SMARTS IP Availability and Performance Managers (APM) 'in sync' with the large volume of network changes that occur daily.

The standard SMARTS APM mechanism for rediscovering network devices is the 'pending discovery' queue which is populated upon receipt of a limited number of SNMP traps - indicating that device changes may have occurred.

In reality, many network changes tend to go unnoticed by APM. Furthermore the pending queue discovery interval is often set very conservatively (every 4-6 hours) due to maintenance-window restrictions, and the system and network overhead that can result from excessive APM rediscovery.

This can result in any changed network devices being inadequately represented by the SMARTS system.

Solution Overview

SMARTS Command and Control Centre Discovery Enhancement Manager (*S3C-DEM*) is a value-add enhancement for EMC SMARTS that mitigates APM's dependency on SNMP trap receipt. DEM allows authorized network operations to selectively place target devices directly onto the SMARTS discovery pending queue.

Using its intuitive web-based GUI, *S3C-DEM* allows operations staff to rediscover devices individually, as a group or in bulk using 'batch mode'. The specific time at which the SMARTS pending queue is populated can be set to coincide with the devices maintenance window. Alignment with approval windows and change control mechanisms is also facilitated.

Accurate, controlled network device discovery

DEM utilizes and is tightly integrated with the core S3c foundation workflow engine, approvals mechanism and information repository.

All DEM rediscovery requests are subject to the standard S3c user approval mechanism, preventing unauthorized network rediscoveries. Operators are also able to easily use *S3c-DEM* to search the history of discovery-centric events relating to selected devices.

S3c-DEM 'Remote Pollers'

S3c-DEM utilizes its own distributed SNMP polling engines known as 'Remote Pollers' to perform additional change checks to minimize the potential impact of excessive SMARTS APM network rediscovery. Periodic checks are performed to determine whether a hardware or configuration change has occurred on the device, since the last APM discovery.

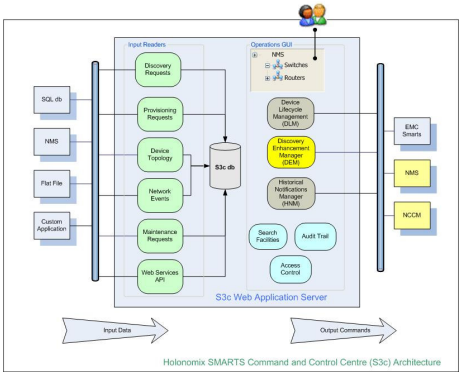

Fig 1: S3c-DEM Architectural Overview

In the event that a hardware ('entity') change has occurred, the device is simply added directly to the SMARTS APM pending discovery list.

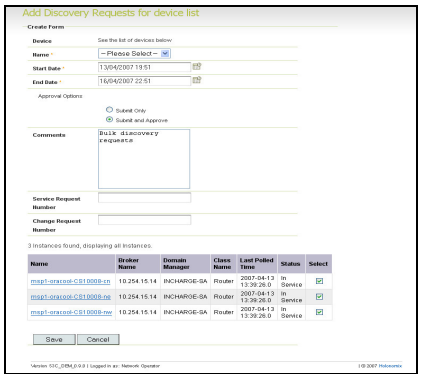

Fig 2: S3c-DEM Bulk device rediscovery

In the event that a software configuration change has occurred, it is not always possible to determine at that time whether the change truly necessitates a SMARTS APM rediscovery. The device is therefore added to a DEM queue for 'light polling'. DEM 'light polling' compares the 'live' configuration of the device with a small subset of the device configuration data stored in SMARTS to determine whether a SMARTS APM rediscovery is truly necessary.

Light polling is scheduled to occur shortly before the SMARTS pending list is due to be rediscovered. Devices that require rediscovery in SMARTS are passed to the SMARTS APM pending list, any devices that do not require SMARTS discovery are therefore 'filtered' by the DEM light poll mechanism.

In this way any network overhead associated with excessive and unnecessary SMARTS rediscovery is effectively minimized.