

Veritas CommandCentral™ Storage Change Manager

Cross Domain Storage Infrastructure Change Visibility, Impact and Root Cause Analysis

Overview

Veritas CommandCentral™ Storage Change Manager (SCM) is an industry standard based software solution that provides change visibility; impact and root cause analysis to avoid any potential configuration drifts and keep the storage infrastructure healthy. Veritas CommandCentral Storage Change Manager provides policy based management to ensure standard configuration of the storage infrastructure and provides automatic notifications in case of any violations.

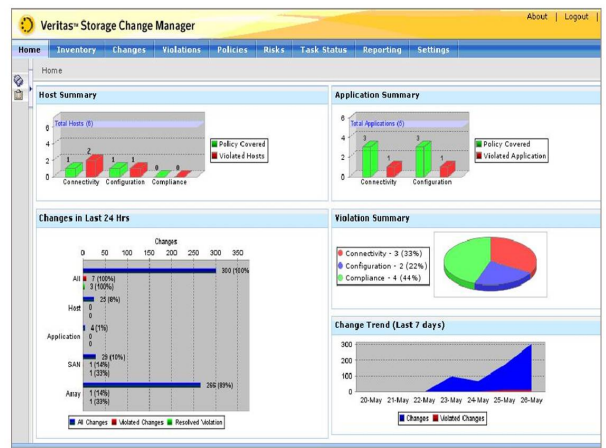
CommandCentral Storage Change Manager provides IT managers with an ability to effectively manage their, ever increasing and complex, data center to meet the needs of the diverse set of business applications and end users. It helps them with storage infrastructure availability and reduces any downtime thus transforming the IT organization from a cost center to more strategic service enabler of the business by delivering higher storage SLAs at the same time reducing operational costs.

CommandCentral Storage Change Manager helps with the ITIL/ITSM initiatives around Change Management, Configuration Management and Incident Management.

- **Change Management:** Identify and track various storage infrastructure related changes happening in application, server, SAN and Storage domain. Users can see historic information on all the changes for audit or compliance.
- **Configuration Management:** Keep track of standard

configurations in the storage infrastructure and immediately identify mis-configurations which could potentially lead to major issues.

- **Incident Management:** Provides ability to create various policies and automatically sends out notifications in case of any violations. It also provides capability to tie in to other ticketing management tools.



Changes are tracked and presented in the dashboard

CommandCentral Storage Change Manager provides the following key features and benefits:

- **Application Dependency Mapping:** Automatically maps end to end dependencies from applications to physical spindle providing visibility of changes made to the IT infrastructure eliminating information silos.
- **Path Management:** Monitors storage data paths between application servers and storage for physical and logical redundancy.
- **Change Detection and Validation:** Detect all the

changes across application, server, SAN and storage domain, enabling validation that a change was made and whether or not it was done correctly.

- **Change Impact and Root Cause Analysis:** Correlate all the changes and detect impact of the change on applications or storage infrastructure. In case of any issues it helps quickly identify the root cause thus reducing mean time to repair.

Application Dependency Mapping

Understanding the dependencies from applications to the underlying physical, logical and virtual infrastructure is critical to ensure appropriate availability and storage SLAs to business applications. CommandCentral Storage Change Manager presents the necessary view into the data path to provide full comprehension of how applications are spread across the physical and virtual disk resources for direct-attached storage, network-attached storage, and SAN-attached storage. This enables storage administrators to identify potential issues or failure points in a data path, regardless of complexity.

Path Management

Availability is a key service that the storage infrastructure needs to provide, any downtime to business applications costs money. In today's data centers understanding the storage data paths and all the logical elements such as zoning, LUN masking is a complex and time consuming task. CommandCentral Storage Change Manager provides the ability to monitor and manage all the paths from applications and servers to the storage and identifies single points of failure. It

also tracks various changes and assesses the impact of those on path availability.

Change Detection and Validation

Visibility into various changes that are occurring across the data center are key requirements of data center administrators. Any unauthorized change could have a potential impact on the security, compliance and could lead to data loss or outage. CommandCentral Storage Change Manager provides comprehensive visibility into various changes in application, server, SAN and storage domain. Using this information, administrators can verify all of the changes made to the storage infrastructure. This information is also very useful for change audit and compliance reporting.

Change Impact and Root Cause Analysis

Identifying the root cause of an issue involves many resources and significant effort. It's a very complex and time consuming job due to the intricacies of the data center and other technologies that are involved. CommandCentral Storage Change Manager not only identifies potential issues in the data center but also finds the root cause of the problem. It provides information for remediation of the issue resulting in the reduction in mean time to repair and increased SLAs.

Data Sheet: Storage Management

Veritas CommandCentral™ Storage Change Manager

Message	Violations Caused	Violations Resolved	Time Stamp
NTPS file system mounted on mount point [...]	0	0	0_2008-01-21 11:42:56 PST
NTFS file system mounted on mount point [...]	0	0	0_2008-01-21 11:42:56 PST
Inactive zone configuration in fabric [...]	0	0	0_2008-01-21 23:19:15 PST
Headset Pack and HVEV10 Array [...]	0	0	0_2008-01-21 18:28:30 PST
Headset Pack and HVEV10 Array [...]	0	0	0_2008-01-21 18:28:30 PST
Headset Pack and HVEV10 Array [...]	0	0	0_2008-01-21 14:58:29 PST
Headset Pack and HVEV10 Array [...]	1	0	0_2008-01-21 11:28:44 PST
Headset Pack and HVEV10 Array [...]	1	1	1_2008-01-21 22:07:06 PST
Headset Pack and HVEV10 Array [...]	1	1	1_2008-01-21 22:07:06 PST
Headset Pack and HVEV10 Array [...]	0	0	0_2008-01-21 11:24:53 PST
Fabric [...]	0	0	0_2008-01-21 22:36:20 PST
Fabric [...]	6	0	0_2008-01-21 18:17:33 PST
Fabric [...]	0	0	3_2008-01-21 20:34:50 PST
Fabric [...]	0	0	0_2008-01-21 11:42:50 PST

Using CommandCentral Storage Change Manager, Administrators receive end-to-end data path information at their fingertips.

Host	Array Name	Disk	HBA Count	HBA Port Count	Array Adapter Port Count	Array Adapter Port Count	Path Count
parabola.veritas.com	array06	disk01	2	2	1	2	2
parabola.veritas.com	array06	LUN_22	2	2	1	2	2
parabola.veritas.com	array06	LUN_21_remote	2	2	1	2	2
parabola.veritas.com	array06	disk03	2	2	1	2	2
parabola.veritas.com	array06	disk02	1	1	2	2	2
parabola.veritas.com	5000FE150011220	disk01	1	1	2	2	2
parabola.veritas.com	5000FE150011220	disk02	1	1	2	2	2
parabola.veritas.com	5000FE150011220	disk03	1	1	2	2	2
parabola.veritas.com	5000FE150011220	disk04	1	1	2	2	2
parabola.veritas.com	5000FE150011220	disk05	1	1	2	2	2
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In case of downtime, CommandCentral SCM assists administrators in finding the root cause of the problem and suggests actions for remediation. Administrators no longer need to rely on multiple point tools to determine the cause of the failure.

Industry standards support

CommandCentral supports many industry standards, including support for SNMP and certification for the CIM/SMI-S 1.1 storage management standard that was originally created by Veritas and is now owned by the Storage Networking Industry Association.

Additional Product Highlights

- Agent-less mode – Offered as an agent-less solution

for quick time to value, easy deployment, configuration and maintenance

- Web-based interface—Offers an intuitive Web interface for a single management point for multiple SAN, NAS, and DAS environments and provides dashboards for a consolidated view of IT assets and change impact
- Centralized storage change management—Integrates storage resource management, performance and policy management, and SAN management
- Scalability—Scales to the largest data center environments and supports thousands of servers and multiple petabytes of storage capacity from one management server
- Role-based security—Incorporates variable secure access controls ranging from read-only to administrator
- Broad heterogeneous support – Monitors SAN, NAS and DAS and a wide range of databases, operating systems and switches
- Open database—Has a published database structure for full access and easy custom reporting
- Complete SRM offering – Available as a stand-alone storage change management solution or integrates with the complete CommandCentral Family including CommandCentral Storage and CommandCentral Enterprise Reporter
- Veritas CommandCentral Storage, Storage Assessment Program is a two-week consulting engagement, in which Symantec storage management experts are

Data Sheet: Storage Management

Veritas CommandCentral™ Storage Change Manager

available onsite to identify areas of significant storage infrastructure savings. The purpose of the Storage Assessment is to assess and audit the storage infrastructure in order to identify potential areas of risk in achieving the company's business, financial, and operational objectives over a three-year period.

Supported Operating Systems

- IBM® AIX®
- HP-UX®
- Sun™ Solaris™
- Red Hat® Linux
- SUSE Linux
- Microsoft Windows®
- VMware

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