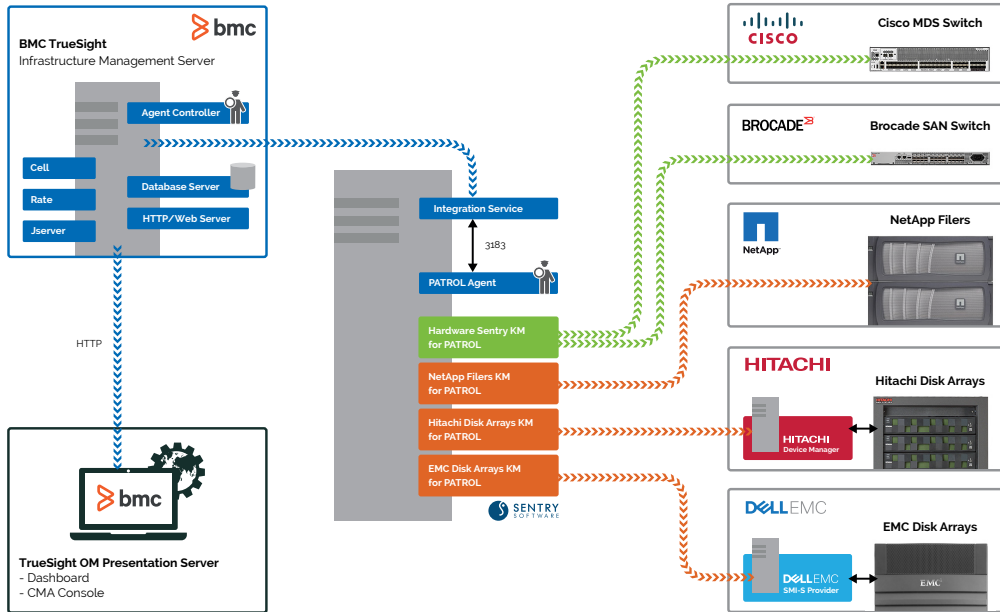


STORAGE MONITORING

Sentry Software Monitoring for BMC TrueSight Operations Management



TECHNICAL DATASHEET

Architecture Diagram for the Storage Monitoring Solution

MAIN FEATURES

MONITORING

DISK ARRAYS

- Detects failures on the disks and controllers
- Monitors the environment (temperature, fans, power supplies) and the fiber links (external and internal)
- Monitors the fiber links (external and internal)
- Reports on all internal performance metrics from the physical disk activity to the overall array response time and the traffic on each LUN
- Reports on the consumed and available disk space (overall, per storage pool and per volume) with full support for thin provisioning
- Reports on the available disk space (total and per volume)
- Reports on the power consumption of the disk array (in Watts and kWh)

MONITORING

FIBER SWITCHES

- Monitors the environment (temperature, fans, power supplies)
- Monitors the fiber links (port, light, connection, speed, etc.)
- Reports on the utilization of each fiber link (traffic, total amount of data per hour or per day, bandwidth utilization)
- Reports on the power consumption of the switch (in Watts and kWh)

MONITORING

TAPE LIBRARIES

- Detects failures on the tape drives and robotics
- Monitors the environment (temperature, fans, power supplies)
- Notifies when drive cleaning is needed
- Reports on the tape drives utilization (mount count)
- Reports on the power consumption (in Watts and kWh)

BACKUP

MONITORING

- Reports on backup and restore activity and performance
- Detects backup and restore errors
- Reports on devices and media
- Monitors log and database storage
- Reports on backup servers, services and daemons

FEATURED PRODUCTS

STORAGE MONITORING

- Dell Compellent KM for PATROL (agent-based | agent-less | CMA Compatible)
- Dell EMC Unity KM for PATROL (agent-based | CMA Compatible)
- EMC Disk Arrays KM for PATROL (agent-based | agent-less | CMA Compatible)
- EMC XtremIO KM for PATROL (agent-based | CMA Compatible)
- Hitachi Disk Arrays KM for PATROL (agent-based | agent-less | CMA Compatible)
- HP 3PAR KM for PATROL (agent-based | agent-less | CMA Compatible)
- HP EVA KM for PATROL (agent-based | agent-less | CMA Compatible)
- IBM DS 3000, DS 4000, DS 5000 Series KM for PATROL (agent-based)
- IBM DS 6000, DS 8000 Series KM for PATROL (agent-based | CMA Compatible)
- IBM SVC-Storwize KM for PATROL (agent-based | CMA Compatible)
- IBM XIV KM for PATROL (agent-based | CMA Compatible)
- NetApp Filers KM for PATROL (agent-based | agent-less | CMA Compatible)
- Pure Storage KM for PATROL (agent-based | CMA Compatible)

BACKUP MONITORING

- CA ARCserve Backup KM for PATROL (agent-based)
- EMC NetWorker KM for PATROL (agent-based | CMA Compatible)
- HP Data Protector KM for PATROL (agent-based)
- Symantec Backup Exec KM for PATROL (agent-based)
- Tivoli Storage Manager KM for PATROL (agent-based | CMA Compatible)
- Veritas NetBackup KM for PATROL (agent-based | CMA Compatible)

SUPPORTED PLATFORMS

STORAGE MONITORING

| Vendor | Supported Platforms |
|--------------|--|
| Dell | <ul style="list-style-type: none"> Any Dell Storage Center compatible with Dell Compellent Enterprise Manager 6.3 Any Dell EMC Unity storage system with embedded SMI-S provider |
| EMC | EMC Symmetrix (DMX, VMAX, VMAX3), EMC CLARiiON, EMC VNX, EMC Celerra, EMC NAS, EMC XtremIO |
| Hitachi | AMS, HUS, HUS VM, USP, USP-V/USP-VM, VSP |
| HP 3PAR | Any HP 3PAR Storage System with embedded SMI-S Provider |
| HP | HP EVA, HP StorageWorks XP, MSA |
| Huawei | OceanStor 9000, V3 |
| IBM | IBM DS 3000, 4000, 5000, 6000, 8000 series, IBM SVC, IBM Storwize v7000/Unified, IBM XIV |
| NetApp | All NetApp storage filers |
| Pure Storage | Any flash array that supports Pure Storage REST API v1.6 and higher |

BACKUP MONITORING

| Backup Software | Supported Version |
|------------------------|-------------------|
| CA ARCserve Backup | v6.5 and higher |
| EMC NetWorker | v8.x and higher |
| HP Data Protector | v4.0 and higher |
| Symantec Backup Exec | v10 and higher |
| Tivoli Storage Manager | v5.1 and higher |
| Veritas NetBackup | v7.7 and higher |

BMC PLATFORMS

| Platform | Supported Version |
|---------------|------------------------------|
| BMC PATROL | PATROL Agent v3.9 and higher |
| BMC PATROL | PATROL Console |
| BMC Portal | v2.5 and higher |
| BMC TrueSight | v9.0.00 and higher |



PREREQUISITES

STORAGE MONITORING

Methods for Communicating with Storage Systems:

- SMI-S proxy (WBEM)
- Embedded SMI-S Provider (WBEM)
- Storage System's Management Interface (SSH/SNMP/Proprietary)
- Access to the embedded SNMP agent (for Huawei Storage Systems)

| Products | Prerequisites |
|--|---|
| Dell Compellent KM for PATROL | <ul style="list-style-type: none"> Dell Compellent Enterprise Manager 6.3 and higher JRE 1.6 update 43 and higher |
| Dell EMC Unity KM for PATROL | <ul style="list-style-type: none"> Embedded SMI-S enabled A user with operator role created in Unisphere JRE 1.8 and higher |
| EMC Disk Arrays KM for PATROL | <ul style="list-style-type: none"> EMC SMI-S Provider (ECOM) 4.6 or later (SAN Monitoring) Statistics enabled Embedded SMI-S Provider enabled (NAS Monitoring) JRE 1.8 and higher |
| EMC XtremIO KM for PATROL | <ul style="list-style-type: none"> EMC XtremIO Management Server JRE 1.8 and higher |
| Hitachi Disk Arrays KM for PATROL | <ul style="list-style-type: none"> Hitachi Device Manager 6.3 and higher JRE 1.8 and higher |
| HP 3PAR KM for PATROL | <ul style="list-style-type: none"> 3PAR embedded SMI-S provider SMI-S Provider enabled JRE 1.6 update 43 and higher |
| HP EVA KM for PATROL | <ul style="list-style-type: none"> HP StorageWorks 9.1 and higher JRE 1.6 update 43 and higher |
| IBM DS 3000, DS 4000, DS 5000 Series KM for PATROL | <ul style="list-style-type: none"> Latest version of IBM Storage Manager JRE 1.5 and higher |
| IBM DS6000, DS 8000 Series KM for PATROL | <ul style="list-style-type: none"> Latest version of IBM Storage Manager JRE 1.5 and higher |
| IBM SVC-Storwize KM for PATROL | <ul style="list-style-type: none"> WBEM access rights JRE 1.8 and higher |
| IBM XiV KM for PATROL | <ul style="list-style-type: none"> IBM XiV embedded SMI-S Provider JRE 1.6 and higher |
| NetApp Filers KM for PATROL | <ul style="list-style-type: none"> All NetApp storage filers with Data ONTAP up to version 9.x (both 7-mode and C-mode) JRE 1.8 and higher |

BACKUP MONITORING

| Products | Prerequisites | Security Requirements |
|--------------------------------------|---|---|
| CA ARCserve Backup KM for PATROL | Executable access to the aserver.exe and tapetest.exe files | |
| EMC NetWorker KM for PATROL | Operating Systems: <ul style="list-style-type: none"> Oracle Solaris 8 and higher HP UX 11 and higher IBM AIX 5.1 and higher Red Hat Linux 7.2 Microsoft Windows 2003, 2008, 2008 R2 | Administrative privileges to read and execute EMC NetWorker application programs and file systems |
| HP Data Protector KM for PATROL | Operating Systems: <ul style="list-style-type: none"> HP-UX Solaris Linux Windows | Administrative privileges to run HP Data Protector CLIs |
| Symantec Backup Exec KM for PATROL | Any Microsoft Windows operating system supported by Symantec Backup Exec and PATROL Agent | |
| Tivoli Storage Manager KM for PATROL | Operating Systems: <ul style="list-style-type: none"> Oracle Solaris 8 and higher HP UX 11 and higher IBM AIX 5.1 and higher Red Hat Linux 7.2 Microsoft Windows 2003, 2008, 2008 R2 | Administrative privileges to read and execute Tivoli Storage Manager application programs and access file systems |
| Veritas NetBackup KM for PATROL | Operating Systems: <ul style="list-style-type: none"> Oracle Solaris 8 and higher HP UX 11 and higher IBM AIX 5.1 and higher Red Hat Linux 7.2 Microsoft Windows 2003, 2008, 2008 R2 | Administrative privileges to read and execute Veritas NetBackup application programs and access file systems |



ABOUT SENTRY SOFTWARE

Sentry Software, a BMC MarketZone Direct and Technology Alliance Partner, provides monitoring solutions that expand and enhance the capabilities of BMC TrueSight Operations Management, thus enabling up to 100-percent coverage of any infrastructure. Sentry Software specializes in single solutions for multi-platform monitoring of hardware, storage, custom applications, or any IT infrastructure component. Its products are deployed in diverse industry sectors around the globe. To learn more, please visit sentrysoftware.com/about.



ABOUT BMC SOFTWARE

Sentry Software products are made exclusively for BMC Software and are marketed, sold and supported by BMC Software as "BMC" products. They are listed on the BMC Software website products page under the BMC TrueSight Operations Management category. To learn more about BMC TrueSight Operations Management, please visit www.bmc.com