STORAGE MONITORING
Sentry Software Monitoring for BMC TrueSight Operations Management

**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)
- IBM Spectrum Protect KM for PATROL (Tivoli Storage Manager) (agent-based | CMA Compatible)
- Veritas NetBackup KM for PATROL (agent-based | CMA Compatible)
**SUPPORTED PLATFORMS**

### STORAGE MONITORING

**Vendor** | **Supported Platforms**
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Dell | • Any Dell Storage Center compatible with Dell Compliant Enterprise Manager 6.3<br>• Any Dell EMC Unity storage system with embedded SMI-S provider<br>-JRE 1.5 and higher
EMC | • EMC Symmetrix (DMX, VMAX, VMAX3), EMC CLARiiON, EMC VNX, EMC Celerra, EMC NAS, EMC XtremIO<br>-SMI-S provider enabled<br>-JRE 1.8 and higher
Hitachi | • AMS, HUS, HUS VM, USP, USP-V/USP-VM, VSP<br>-JRE 1.6 update 43 and higher
HP 3PAR | • Any HP 3PAR Storage System with embedded SMI-S Provider<br>-JRE 1.5 and higher
HP | • HP EVA, HP StorageWorks XP, MSA<br>-JRE 1.5 and higher
Huawei | • OceanStor 9000, V3<br>-JRE 1.5 and higher
IBM | • IBM DS 3000, 4000, 5000, 6000, 8000 series, IBM SVC, IBM Storwize v7000/Unified, IBM XIV<br>-JRE 1.6 update 43 and higher
NetApp | All NetApp storage filers<br>-JRE 1.5 and higher
Pure Storage | Any flash array that supports Pure Storage REST API v1.6 and higher

### BACKUP MONITORING

**Products** | **Prerequisites** | **Security Requirements**
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CA ARCserve Backup | Executable access to the asver.exe and tapetest.exe files | Administrative privileges to read and execute BMC Tivoli Storage Manager application programs and access file systems
EMC NetWorker KM for PATROL | Operating Systems:<br>- Oracle Solaris 8 and higher<br>- IBM AIX 5.1 and higher<br>- Red Hat Linux 7.2<br>- Microsoft Windows 2003, 2008, 2008 R2, 2012 | Administrative privileges to read and execute EMC NetWorker application programs and file systems
HP Data Protector KM for PATROL | Operating Systems:<br>- HP-UX<br>- Solaris<br>- Linux<br>- 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 | Administrative privileges to read and execute Symantec Backup Exec application programs and access file systems
IBM Spectrum Protect KM for PATROL | Operating Systems:<br>- Oracle Solaris 8 and higher<br>- HP UX 11 and higher<br>- IBM AIX 5.1 and higher<br>- Red Hat Linux All distributions<br>- Microsoft Windows 2008 and higher | Administrative privileges to read and execute Veritas NetBackup application programs and access file systems
Veritas NetBackup KM for PATROL | Operating Systems:<br>- Oracle Solaris 8 and higher<br>- HP UX 11 and higher<br>- IBM AIX 5.1 and higher<br>- Red Hat Linux All distributions<br>- Microsoft Windows 2008 and higher | Administrative privileges to read and execute Veritas NetBackup application programs and access file systems

### PREREQUISITES

**SUPPORTED PLATFORMS**

### 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)

**Operating Systems:**
- Microsoft Windows 2003, 2008, 2008 R2<br>- Red Hat Linux 7.2<br>- Oracle Solaris 8 and higher

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- IBM SVC-Storwize KM for PATROL<br>  - JRE 1.5 and higher
- IBM XIV KM for PATROL<br>  - JRE 1.5 and higher
- NetApp Filers KM for PATROL<br>  - JRE 1.5 and higher

**Backups:**
- Veritas NetBackup<br>  - JRE 1.5 and higher
- IBM Spectrum Protect (Tivoli Storage Manager)<br>  - JRE 1.5 and higher
- HP Data Protector<br>  - JRE 1.5 and higher
- CA ARCserve Backup<br>  - JRE 1.5 and higher

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