# VMware Monitoring on Microsoft SCOM

### NiCE Management Pack for VMware

#### **Next Level VMware Monitoring**

Virtualization with VMware not only makes the operation of your IT more efficient and flexible, but also more cost-effective. But how do you ensure that your virtual environments always run efficiently and are available?

The NiCE VMware Management Pack is an intuitive System Center extension for managing VMware vSphere environments. Monitor performance and availability, gain transparency beyond virtualization layers, and unleash the full potential of your virtual environments.

- ✓ Discovery of key components health
- ✓ Detect and solve issues fast
- Leverage built-in reports
- ✓ Lowers TCO & MTTR
- ✓ Secured Microsoft SCOM integration





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### Details

#### **Monitoring VMware**

Would you like to run your VMware environment as efficiently and stably as possible? Then you need to know which host server or hardware a virtual environment is running on. You should also monitor specific performance metrics such as CPU, memory, storage, network, and disk usage to identify issues early.

Use the extended VMware monitoring and keep an eye on all components and resources at all times. You benefit from the increased performance and availability of your VMware vSphere environments, which the NiCE Management Pack enables with numerous functions.

#### vCenter Server Monitoring

A vCenter consists of a vSphere Client and Web Client, a vCenter Server database, a vCenter Single Sign-On, and the managed ESXi hosts together with the hosted virtual machines. To keep the vCenter Server running optimally, you should continuously monitor resources such as CPU, memory, storage, and the status of the vCenter Service Health.



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# Details

#### **Datacenter Monitoring**

A data center is a super complex entity consisting of hardware, network components for internal and external connections, storage, security management, and a managed power supply.

The virtualization of data centers reflects this complexity in software-based, centrally managed containers. Monitoring VMware vSphere data centers and their components is extremely important for maximum performance and availability.

#### **Datastore Monitoring**

VMware vSphere Datastores are virtual storage containers for files located on a local server hard drive or in the network on a SAN. They hide the peculiarities of each storage device and offer a unified model for storing virtual machine files. Use the NiCE VMware Management Pack to monitor the connection status, and also the provided, used and free space as well as read and write latencies. You also benefit from warning messages that are automatically triggered in the event of problems.



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#### **Datastore Provision Monitoring**

Thin provisioning is a cost-saving method of providing storage capacity in virtualized storage environments. However, when a datastore runs out of space, thin-provisioned virtual disks can no longer dynamically grow to meet the additional storage needs.

If this condition occurs, VMs with additional storage requirements are stopped immediately to prevent a failure of the guest operating systems. The NiCE VMware MP monitors and collection rules support you in organizing and monitoring your datastore overprovisioning.

#### **Host Monitoring**

VMware ESXi are software-based hypervisors to create virtual machines on one or more physical host systems. They abstract memory, storage, and processing power for the virtual machines. ESXi hosts, on the other hand, are the server or data storage devices on which the hypervisor is installed. Monitor your ESXi hosts for configuration, CPU, disconnect, maintenance, stopped or unresponsive hosts. In addition, connected sensor groups such as fans, memory, power, software, storage, processor, temperature, and voltage metrics paint a complete picture of the health of your VMware hosts.



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#### **VM Monitoring**

Virtual machines are used to emulate different operating systems on a single physical computer to save storage space, time, and management costs. With all the benefits, however, instabilities can also occur if too many VMs are running on a physical computer. By monitoring the key components and detecting problems in time, you get the maximum performance from your VMs.

Monitor memory usage, uptime, tools, network and CPU usage, including swaps, overall health, and status, high balloon drivers, guest disks, dropped packets, distributed resource scheduler (DRS) recommendation ratings, and more.

#### **Cluster Monitoring**

VMware clusters consolidate multiple physical servers with their combined resources. Each is running a VM, that is used for High Availability (HA) and load balancing of the cluster.

The NiCE Management Pack ensures your VMware clusters achieve peak performance. Comprehensive monitoring of CPU utilization, ready time, MHz, min/max active VMs, overall status, memory usage and utilization, noisy neighbors, shut down and suspended VMs, storage HA, and storage failover.



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## Details

#### VMware vSAN Monitoring

VMware vSAN is software-defined storage used in conjunction with the VMware ESXi hypervisor. Regardless the base hardware, vSAN provisions and manages storage space based on defined policies. To ensure configuration, patching, upgrades, and security for vSAN, the VMware tool Skyline Health uncovers potential environmental problems and solutions.

Use the NiCE Management Pack to delve even deeper into the underlying data and microservices flow of vSAN and Skyline Health with a comprehensive set of monitors for optimal performance and utilization accounting of your vSAN deployments.

- ✓ Build Recommendation Engine Group Health
- ✓ Capacity Utilisation Group Health
- ✓ Cluster Group Health
- ✓ Cluster Health
- ✓ Compliance Group Health
- ✓ Data Health
- ✓ Hardware Compatibility DB Health
- ✓ Hardware Compatibility Group Health

- ✓ Hardware Compatibility SCSI Controller Certification
- ✓ Physical Disk Space Health
- ✓ Network Health
- ✓ Online Health Group Health
- ✓ Performance Service Group Health
- ✓ Disk Used Capacity
- ✓ Disk Operational Health Capacity
- ✓ Disk Capacity Health



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#### vCenter Service Monitoring

With vCenter Service, you use a centralized platform for managing, operating, resource provisioning, and performance evaluation of virtual machines and hosts. The VMware Managemen Pack checks the current status and availability of the services. And above all on what undesired failures and thus the DRS and HA management are concerned.

#### **VMware Certificate Status Monitoring**

If the certificate of your vCenter machine expires, communication and many services usually fail. Be prepared and use the NiCE certificate status monitor to keep an eye on the validity of your certificates and avoid failures.

#### **Rules and Views**

Discover anomalies and trends faster with the advanced monitoring capabilities of the NiCE VMware Management Pack. Use fully customizable, out-of-the-box rules and views to collect, manage and graphically display all data from your VMware environment.



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# Details

#### Tasks

Predefined tasks allow you to run basic and advanced processes with just one mouse click, saving you a lot of "dead" administration time. You can easily automate tasks such as "Check VMware Tools Status", "Check HA Network Configuration", or "Power Off VM" to simplify daily management.

With the NiCE VMware Management Pack for SCOM you get 30 predefined tasks for managing clusters, data centers, hosts, host log files, VMware servers, and VMs.

#### **Snapshot Management**

With the Snapshot Manager you create a disk copy of a VM to be able to restore it at a later point in time, which is especially useful after a failure or system error. However, because snapshot changes are written to a separate delta file, snapshot disks can quickly double in size, affecting the performance of your VMs.

Avoid such problems and administrative cleanup efforts by monitoring your vSphere environment through advanced NiCE snapshot management tasks.



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### Details

#### Reports

Using synergies in the team and increasing the performance and productivity, requires effective communication. And only with complete, accurate, and objective information can you create accurate future forecasts, IT infrastructure plans, and reliable budget planning.

The VMware Management Pack for SCOM makes decision-making easier. It offers you more than 20 predefined reports ranging from infrastructure summaries, memory, CPU over-/underutilization, host capacity and performance, clusters, datastores, VMs, tasks, and events.



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### **Features**

#### **Discovered Objects**

Monitors

Datacenters, Clusters, Hosts, Disk, Datastores including Provisioning, Networks, Resource Pools, VMs and VM certificate, vSAN, vCenter Services, Appliances, Distributed Switches and Port Groups

Cluster, Datacenter, Datastore and Host Reference, Hardware Health Status, Host, Host Local Partition, Host System Network Adapter, Host Sensor, Host Storage, License, Network, Network DV Port Group and Switch, Resource Pool, vCenter and Service, VM, VM CPU, VM Guest Disk, VM Network Adapter, VM Storage, VMware Server, VMware Service, vSAN Physical Disk and Skyline Health



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### **Features**

#### **Rules**

Tasks

Cluster, Datacenter, Datastore and Host Reference, Host, Host Local Partition, Host Network Adapter, Host Sensor, Host Storage, VMware Server Resource Pool, vCenter Storage Class, vCenter Service, VM, VM CPU, VM Guest Disk, VM Network Adapter, VM Storage, VMware Server, VMware Service, vSAN Physical Disk

Cluster, Datacenter, Host, Host Log File, Internal / VMwareServer, VM, VMware Server, Computer



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### **Features**

#### Views

#### Reports

Cluster, Datacenter and Group, Datastore and Group, Datastore Host Reference, Host and Local Partition, Host Log File, Host Network Adapter, Hosts Group, Host Sensor, Host Storage, Network, Network DV Devices Group, Network DV Port Group, Network DV Switch, VMware Server Pool, Pools and Group, vCenter Storage Class, vCenter Service, VM, VM CPU, VM Guest Disk, VM Network Adapter, Virtual Disk, VMs Collection Group, VM Snapshot, VMware Server, VMware Service, VMware Base

Cluster VMs, Cluster CPU, Cluster Memory, VM CPU, VM Memory, Datastore, VM Storage Usage, Capacity, Memory, Performance, Alerts, VM Network Usage, Events, Resource Pool Infrastructure, Tasks, VM Audit, VM Migration



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### **Benefits**

**Highly Customizable** 

**Easy Administration** 

**Boost Performance** 

**Troubleshoot faster** 

**Fire-Proof Operations** 

Environments and business needs are manifold. Adjust all monitors and rules to fit your needs

Use predefined tasks and rules to automate day-to-day tasks

Dedicated health & performance monitors observe and detect issues on-the-go

Alert-Integrated troubleshooting advice speeds up MTTR

Natively secured through full Microsoft SCOM integration



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### **Licensing and Support**

#### Licensing

The NiCE VMware Management Pack is licensed per one (1) physical CPU socket on a vSphere/ESXi production server.

#### Software Support

Customers will receive direct support from the NiCE support team, software updates, and free upgrades to the latest software versions within the support time frame.

#### Services

To help customers get the most practical setup, NiCE is offering remote installation assistance. Remote professional services include installation and configuration, training, and custom application enhancements.



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# FAQ

#### What Microsoft SCOM versions are supported?

The NiCE Management Pack for VMware support Microsoft SCOM 2016, 2019, 2022.

#### What VMware versions are supported?

Supported vSphere Environments (ESXi and vCenter) are 6.7, 7.0, and 8.0.

#### Do you invest in VMware Montoring?

Yes. NiCE Management Packs for Microsoft SCOM are under constant development. New features as well as support for the latest platforms are made available throughout the year.

#### Do you provide customization services?

Yes. Whenever you need a specialized tweak or enhancement specific to your environment, NiCE will assist you with professional Management Pack authoring services.





### Contact

#### Get in touch for more information

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