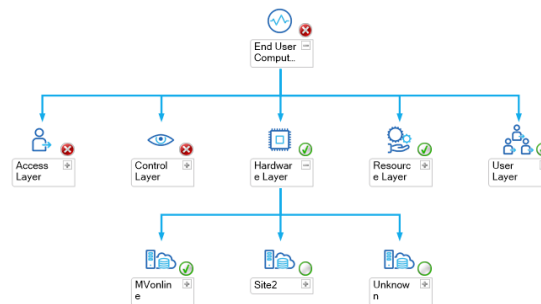


Quick Installation Guide

MetrixInsight for CVAD



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Introduction

This document provides guidance for installing and configuring the MetrixInsight for CVAD Management Pack in a Microsoft System Center Operations Manager 2012 R2/ 2016/ 2019 environment.

Prerequisites

This chapter contains the prerequisites for installation of the management pack as described in this guide.

Supported Software

The following Microsoft System Center Operations Manager releases are supported:

- ▶ System Center Operations Manager 2012 R2 (SCOM 2012 R2 UR2 or higher)
- ▶ System Center Operations Manager 2016 (SCOM 2016)
- ▶ System Center Operations Manager 2019 (SCOM 2019)

The following Operating Systems are supported:

- ▶ Windows Server 2008 R2
- ▶ Windows Server 2012
- ▶ Windows Server 2012 R2
- ▶ Windows Server 2016
- ▶ Windows Server 2019

The following Citrix components are supported:

- ▶ On-premise Citrix Virtual Apps and Desktop 7 1808 and higher CR and LTSR deployments
- ▶ On-premise Citrix XenApp and XenDesktop 7.6 and higher CR and LTSR deployments
- ▶ Citrix Provisioning Services 7.x
- ▶ Citrix StoreFront 2.6 or higher
- ▶ Citrix License server 11.11.1 or higher

- ▶ Needs at least PVS console 7.7 or higher installed on the PVS servers
- ▶ The Citrix Studio console needs to be installed on each delivery controller

PowerShell and WinRM

All SCOM Management Servers, Delivery Controllers, StoreFront Servers, License Servers, Provisioning Servers and Server OS Machines should at least have PowerShell 4.0 or higher installed. By default, Windows Server 2012 R2 and up already have this prerequisite in-place.

Also Windows Remote Management (WinRM) needs to be enabled and available on the Delivery Controllers, StoreFront Servers, License Servers, Provisioning Servers and Server OS Machines. By default, Windows Server 2012 R2 and up already have this prerequisite in-place.

If you are using Windows Server 2008 R2 machines, the following command is an easy way to implement this prerequisite:

```
Winrm quickconfig
```

SCOM Agent

SCOM Agents need to be installed and working properly on all Delivery Controllers, StoreFront Servers, License Servers and Provisioning Servers.

For these SCOM Agents the following agent property needs to be enabled: "Allow this agent to act as a proxy and discover managed objects on other computers".

Citrix Licenses

To be able to discover your CVAD environment by our management pack, make sure your Citrix CVAD licenses are loaded and functioning within your Citrix License server.

Firewall

For the management pack to operate properly, the following firewall rules should be in place in addition to the standard firewall ports the SCOM platform requires:

Source	Protocol & port	Destination	Notes
<p>Members of all MetrixInsight Resource Pools.</p> <p>By default, these are the SCOM Agents from the respective:</p> <p>Delivery Controller(s) StoreFront Server(s) Provisioning Server(s)</p>	WinRM (TCP 5985)	<p>Citrix CVAD Delivery Controller(s) Citrix StoreFront Server(s) Citrix Provisioning Server(s) Server OS Machines</p>	
<p>Members of the MetrixInsight Resource Pool for CVAD Site.</p> <p>By default, these are the SCOM Agents from the respective:</p> <p>Delivery Controller(s)</p>	ICMP	Server OS Machines	<p>MetrixInsight Resource Pool for CVAD Site members must be able to ping Server OS machines successfully.</p>
<p>Citrix CVAD Delivery Controller(s)</p>	<p>DCOM-WMI (TCP 135 & TCP 49152 – 65535 (dynamic port range))</p> <p>This is useful if you want to assign a static port for WMI instead:</p> <p>https://docs.microsoft.com/en-us/windows/desktop/wmidk/setting-up-a-fixed-port-for-wmi</p>	Citrix License server	<p>This is only required when the license server name configured within your CVAD site configuration is not its FQDN (e.g. DNS alias or cluster name).</p>

Run As account

A domain user account with the following permissions needs to be configured, as this account will be used as the Run As account within SCOM:

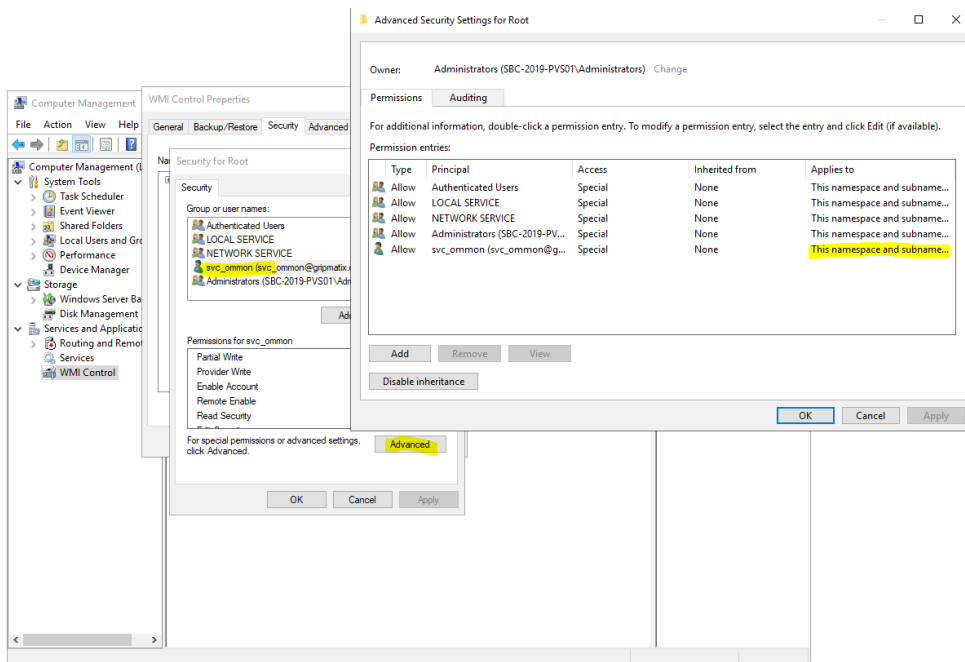
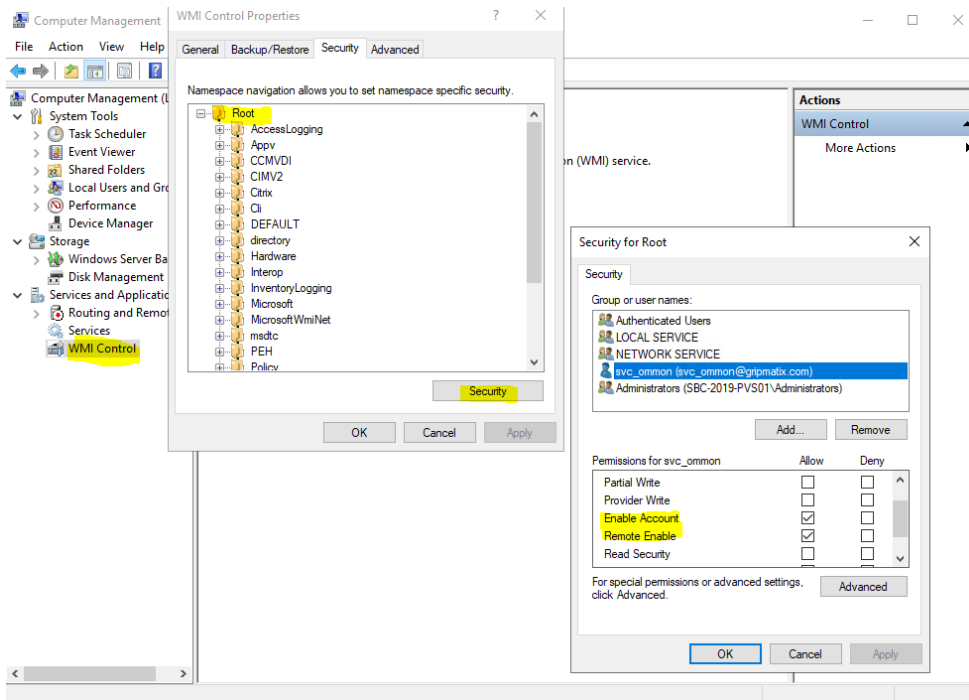
- ▶ Member of the Active Directory Domain Users Global Security Group with Log on as a service user right on Delivery Controllers, StoreFront Servers, License Servers, Provisioning Servers when SCOM 2019 agents are used. Read more about this required user right [here](#). This [community MP](#) will automate the configuration of this user right.
- ▶ Read Only Administrator Role permissions within the Virtual Apps and Desktops site(s) (configure via Citrix Studio console).
- ▶ Farm Admin Role permissions for Provisioning Services (configure via Provisioning Services Console).
- ▶ Member of Local Administrators group on Delivery Controllers, StoreFront Servers, License Servers, Provisioning Servers (if used) and Server OS Machines (if used).

Run As account (low privileged)

When a low-privileged Run As account is required, a domain user account with the following minimal permissions needs to be configured:

- ▶ Member of the Active Directory Domain Users Global Security Group with Allow log on locally user right on Delivery Controllers, StoreFront Servers, License Servers, Provisioning Servers when SCOM 2012 R2 or 2016 agents are used.
- ▶ Member of the Active Directory Domain Users Global Security Group with Log on as a service user right on Delivery Controllers, StoreFront Servers, License Servers, Provisioning Servers when SCOM 2019 agents are used. Read more about this required user right [here](#). This [community MP](#) will automate the configuration of this user right.
- ▶ Read Only Administrator Role permissions within the Virtual Apps and Desktops site(s) (configure via Citrix Studio).
- ▶ Member of the Local Administrators group on all Provisioning Servers.
- ▶ Farm Admin Role permissions for Provisioning Services (configure via Provisioning Services Console).
- ▶ Member of Local Administrators group on Server OS Machines (if used to get VDA Service Monitoring).
- ▶ Member of Remote Management Users Local Security Group on Delivery Controllers, StoreFront Servers, License Servers, Provisioning Servers and Server OS Machines*
- ▶ Allow Enable Account and Remote Enable permissions at the namespace ROOT\CIMV2 within WMI Control on License Servers and Server OS Machines.

The security properties for WMI control can be found in the following console:



* = When using Windows Server 2008 R2 as Operating System for these components, make the Run As account member of the local administrator group instead.

(Optional) External MP integration

MetrixInsight for CVAD uses a few external management packs to create a complete stack in its topology view, like Windows Operating Systems, SQL databases and Active Directory domains. This external MP integration is optional and not required for our management pack to function.

If you would like to make full use of this feature, the following external Management Packs should be imported and configured in your environment. These packs are available and can be downloaded at [microsoft.com](https://www.microsoft.com).

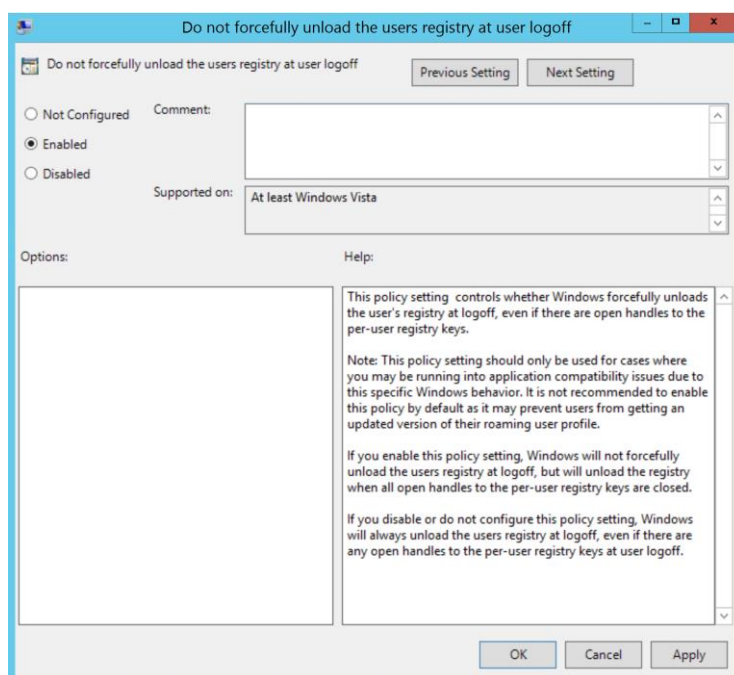
- ▶ Microsoft System Center Management Pack for SQL Server (version agnostic)
<https://www.microsoft.com/en-us/download/details.aspx?id=56203>
- ▶ Microsoft System Center Management Pack for ADDS
<https://www.microsoft.com/en-us/download/details.aspx?id=54525>

Windows Computer Policy

As several workflows run under a domain user account, the Windows User Profile service needs to be configured to not forcefully unload user profile on logoff. This has been enabled by default since Windows Vista/ Server 2008. More information about this behavior can be found here: <https://support.microsoft.com/en-us/help/2287297/a-com-application-may-stop-working-on-windows-server-2008-when-a-user>

By default, concerning workflows only run on StoreFront Servers, Delivery Controllers and Provisioning Servers. Therefore, by default, the following policy needs to be configured on StoreFront Servers, Delivery Controllers and Provisioning Servers by using a local or group policy:

- ▶ Computer Configuration > Administrative Templates > System > User Profiles
- ▶ In the right pane, double-click on Do not forcefully unload the user registry at user logoff.
- ▶ In the resulting window, click in the radio button Enabled.

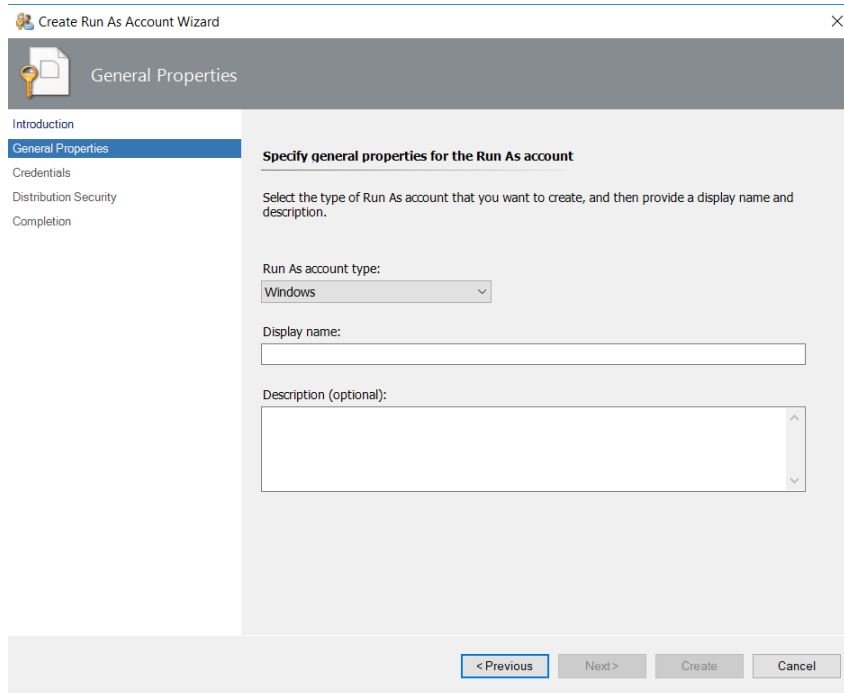


* By default, SCOM Agents on StoreFront Servers, Delivery Controllers and Provisioning Servers are members of corresponding MetrixInsight Resource Pools. If you use other member agents (as well), above Windows policy must be configured on those agents (too).

Quick Installation Steps

The following steps need to be done to perform the installation of the management pack.

- ▶ Create a Windows Run As account in System Center Operations Manager.



Make sure the Run As account gets distributed properly to concerning agents using the Distribution tab. By default, these are the agents on the Delivery Controllers, License Servers, StoreFront Servers and Provisioning Servers.

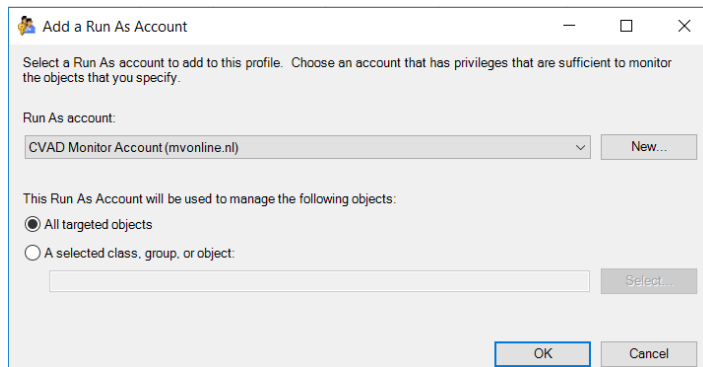
The account must have the permissions assigned as mentioned above in the prerequisite section.

- ▶ Extract and import the management pack files from the zip file you received by email from GripMatix into your System Center Operations Management management group. It should contain the following files:










































- 📄 MetrixInsight.EndUserComputing.Citrix.CVAD.ExtInst.mpb
- 📄 MetrixInsight.EndUserComputing.Citrix.CVAD.mpb
- 📄 MetrixInsight.EndUserComputing.Citrix.Dashboards.mpb
- 📄 MetrixInsight.EndUserComputing.Citrix.LS.mpb
- 📄 MetrixInsight.EndUserComputing.Citrix.PS.ExtInst.mpb
- 📄 MetrixInsight.EndUserComputing.Citrix.PS.mpb
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- 📄 MetrixInsight.EndUserComputing.Citrix.SF.mpb
- 📄 MetrixInsight.EndUserComputing.mpb

Note! If the pre-requisites described in paragraph (Optional) External MP integration have not been met, the optional Management Pack file `MetrixInsight.EndUserComputing.Citrix.ExtInst.mpb` cannot be imported.

- ▶ Associate the Run As account you configured earlier to the MetrixInsight Citrix Run As Profile.



- ▶ Discovery can take up to 4 hours after completing the above steps. When done, you should see your Citrix CVAD stack components using state and topology views from the following folders:

- ▶  MetrixInsight for Citrix CVAD
 -  Alerts
 -  Connection State Change Events
 -  CVAD Catalog
 -  CVAD Catalog
 -  CVAD Delivery Controller
 -  CVAD Delivery Group
 -  CVAD Delivery Group
 -  CVAD Hosting Connection
 -  CVAD Server OS Machine
 -  CVAD Server OS Machine
 -  CVAD Service
 -  CVAD Site
 -  CVAD Site
 -  CVAD Zone
- ▶  MetrixInsight for Citrix CVAD Dashboards
 -  Alerts
 -  CVAD End User Computing
 -  CVAD End User Computing - User Layer
 -  Topology
- ▶  MetrixInsight for Citrix License Server
 -  Alerts
 -  License
 -  License
 -  License Server
 -  License Services
- ▶  MetrixInsight for Citrix Provisioning Services
 -  Alerts
 -  PVS Farm
 -  PVS Server
 -  PVS Server
 -  PVS Service
 -  PVS Site
 -  PVS Store
 -  PVS Store
 -  PVS vDisk
- ▶  MetrixInsight for Citrix StoreFront
 -  Alerts
 -  SF Group
 -  SF Server
 -  SF Service

Notice Statement

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