

Guide for System Center Management Pack for Web Application Proxy

Microsoft Corporation

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Contents

[Guide for System Center Management Pack for Web Application Proxy 4](#_Toc367197436)

 [Management Pack Purpose 5](#_Toc367197437)

[Monitoring Scenarios 5](#_Toc367197438)

[How Health Rolls Up 6](#_Toc367197439)

[Monitor Descriptions 7](#_Toc367197440)

[Configuring the Management Pack for Web Application Proxy 8](#_Toc367197441)

[Links 9](#_Toc367197442)

[Appendix: Management Pack Contents 10](#_Toc367197443)

Guide for System Center Management Pack for Web Application Proxy

This guide includes a management pack overview, deployment procedures, and monitoring scenarios for the Microsoft Web Application Proxy Management Pack for System Center Operations Manager.

The Microsoft Web Application Proxy Management Pack for System Center Operations Manager includes a set of views, knowledge and monitors to help you monitor your organization’s Web Application Proxy’s health state.

Guide History

| **Release Date** | **Changes** |
| --- | --- |
| October 2013 | Original release of this guide |

Supported Configurations

This management pack requires System Center Operations Manager 2007 R2 or later.

|  |  |
| --- | --- |
| Configuration | Support |
| Web Application Proxy | SCOM 2007R2 and Above |
| Clustered servers | Yes  |
| Agentless monitoring | not tested |
| Virtual environment | not tested |

Management Pack Scope

This management pack supports the monitoring of a Web Application Cluster consisting of an unlimited number of Web Application Proxy servers deployed in the organization’s network.

Files in this Management Pack

The Management Pack for Web Application Proxy includes the following files:

 Microsoft.WebApplicationProxy.mp

Management Pack Purpose

The Web Application Proxy management pack provides health and event monitors to get a unified state for the Web Application Proxy role.

In this section:

 [Monitoring Scenarios](#z5a9ff008734b4183946f840ae0464ab0)

 [How Health Rolls Up](#zb8b3e32eb8154a8da8b18b606568e65d)

For details on the discoveries, rules, monitors, views, and reports contained in this management pack, see [Appendix: Management Pack Contents](#zf475f3cc57b84a049d89cda7b1f37ba8).

Monitoring Scenarios

| **Monitoring scenario** | **Description** | **Associated rules and monitors** |
| --- | --- | --- |
| Web Application Proxy Cluster health | Monitor and analyze the aggregated health of all Web Application Proxy servers | Web Application Proxy Cluster Health monitor |
| Web Application Proxy Server health | Monitor and analyze the health a Web Application Proxy server instance, which is based on the health of the Web Application Proxy service and AD FS service | Web Application Proxy Server Health monitor |
| Web Application Proxy Service health | Monitor and analyze the health of the Web Application Proxy service, which is derived from the running state of the service, events that the service creates, and periodic scripts | Web Application Proxy Service Health monitor |
| AD FS Proxy Service health | The AD FS Proxy is required for the Web Application Proxy to function, therefore its health is also monitored. The health of the ADFS Proxy is derived from the state of the service and periodic scripts | AD FD Service Health monitor |

How Health Rolls Up

The Web Application Proxy role can be installed in Cluster mode, and it is also monitored in this mode. A Web Application Proxy Cluster object aggregates the health of all Web Application Proxy Servers, which in turn aggregate the health of the two services that compose it: Web Application Proxy service (appproxysvc) and ADFS Proxy service (adfssvc).

The health of each service is monitored with basic service monitors and app specific monitors. The Web Application Proxy service contains 5 monitors.

The ADFS Proxy service contains 5 monitors.

Monitor Descriptions


#### Web Application Proxy Service Monitors

##### Web Application Proxy Service Availability Monitor

Monitors the availability of the Web Application Proxy service (appproxyscv). Healthy when the service is up, Critical when the service is down.

##### Web Application Proxy Configuration Reachability Monitor

Two state PowerShell script based monitor that executes Get-WebApplicationProxyConfiguration every 5 minutes. Healthy when the configuration is fetched, Critical otherwise.

##### Web Application Proxy Service SSL Binding Event Monitor

Monitors the WAP event log for event 12021 – WAP was unable to bind an SSL certificate to a URL. Warning when the event is raised. Monitor needs to be reset manually, since there is no automatic resolution for this problem.

##### Web Application Proxy Service URL Listener Event Monitor

Monitors the WAP event log for event 12019 – WAP could not create a listener for a URL. Warning when the event is raised. Monitor needs to be reset manually, since there is no automatic resolution for this problem.

##### Web Application Proxy Service URL Reservation Event Monitor

Monitors the WAP event log for event 12020 – WAP could not create a reservation for a URL. Warning when the event is raised. Monitor needs to be reset manually, since there is no automatic resolution for this problem.

#### ADFS Proxy Monitors

##### ADFS Service Availability Monitor

Monitors the availability of the ADFS Proxy service (adfssvc). Healthy when the service is up, Critical when the service is down.

##### ADFS Federation Metadata Accessibility Monitor

Two state PowerShell script based monitor that tries to fetch the ADFS Federation Metadata (https://<hostname>/FederationMetadata/2007-06/FederationMetadata.xml) every 5 minutes. Healthy when the metadata is fetched, Critical otherwise.

##### ADFS WS-Metadata Exchange Endpoint Monitor

Two state PowerShell script based monitor that tries to fetch the ADFS WS-Metadata (https://<hostname>/adfs/services/trust/proxymex) every 5 minutes. Healthy when the metadata is fetched, Critical otherwise.

##### ADFS Proxy Certificate About To Expire Monitor

Two state PowerShell script based monitor that checks the ADFS Proxy certificate’s expiration date every 60 minutes. Healthy when the certificate has more than 30 days before expiration, Warning otherwise.

##### ADFS Proxy Certificate Has Expired Monitor

Two state PowerShell script based monitor that checks the ADFS Proxy certificate’s expiration date every 60 minutes. Healthy when the certificate has not expired, Critical otherwise.

Configuring the Management Pack for Web Application Proxy

This section provides guidance on configuring and tuning this management pack.

 [Best Practice: Create a Management Pack for Customizations](#z2)

 [Security Configuration](#z3)

 [Tuning Performance Threshold Rules](#z4)

 [Using the <name> Template](#z5)

Best Practice: Create a Management Pack for Customizations

By default, Operations Manager saves all customizations such as overrides to the Default Management Pack. As a best practice, you should instead create a separate management pack for each sealed management pack you want to customize.

When you create a management pack for the purpose of storing customized settings for a sealed management pack, it is helpful to base the name of the new management pack on the name of the management pack that it is customizing.

Creating a new management pack for storing customizations of each sealed management pack makes it easier to export the customizations from a test environment to a production environment. It also makes it easier to delete a management pack, because you must delete any dependencies before you can delete a management pack. If customizations for all management packs are saved in the Default Management Pack and you need to delete a single management pack, you must first delete the Default Management Pack, which also deletes customizations to other management packs.

Links

The following links connect you to information about common tasks that are associated with System Center management packs:

System Center 2012 - Operations Manager

 [Management Pack Life Cycle](http://go.microsoft.com/fwlink/p/?LinkID=232986)

 [How to Import a Management Pack](http://go.microsoft.com/fwlink/p/?LinkID=219431)

 [Tuning Monitoring by Using Targeting and Overrides](http://go.microsoft.com/fwlink/p/?LinkID=217065)

 [How to Create a Run As Account](http://go.microsoft.com/fwlink/p/?LinkId=232988)

 [How to Export a Management Pack](http://go.microsoft.com/fwlink/p/?LinkId=232990)

 [How to Remove a Management Pack](http://go.microsoft.com/fwlink/p/?LinkId=232991)

Operations Manager 2007 R2

 [Administering the Management Pack Life Cycle](http://go.microsoft.com/fwlink/?LinkId=211463)

 [How to Import a Management Pack in Operations Manager 2007](http://go.microsoft.com/fwlink/?LinkID=142351)

 [How to Monitor Using Overrides](http://go.microsoft.com/fwlink/?LinkID=117777)

 [How to Create a Run As Account in Operations Manager 2007](http://go.microsoft.com/fwlink/?LinkID=165410)

 [How to Modify an Existing Run As Profile](http://go.microsoft.com/fwlink/?LinkID=165412)

 [How to Export Management Pack Customizations](http://go.microsoft.com/fwlink/?LinkId=209940)

 [How to Remove a Management Pack](http://go.microsoft.com/fwlink/?LinkId=209941)

For questions about Operations Manager and management packs, see the [System Center Operations Manager community forum](http://go.microsoft.com/fwlink/?LinkID=179635).

A useful resource is the [System Center Operations Manager Unleashed blog](http://go.microsoft.com/fwlink/?LinkId=246391), which contains “By Example” posts for specific management packs.

For additional information about Operations Manager, see the [System Center 2012 - Operations Manager Survival Guide](http://go.microsoft.com/fwlink/?LinkId=246383) and [Operations Manager 2007 Management Pack and Report Authoring Resources](http://go.microsoft.com/fwlink/?LinkId=246388)

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Appendix: Management Pack Contents

The Management Pack for Web Application Proxy discovers the object types described in the following sections. All of the objects should be automatically discovered.

Web Application Proxy Cluster

Discovery Information

| **Interval** | **Enabled** | **When to Enable** |
| --- | --- | --- |
| Automatic (None) | True | Always |

Related Monitors

The health of the Web Application Proxy cluster is directly derived from the worse health of all of the contained Web Application Proxy servers.

Related Views

| **View** | **Description** | **Rules and Monitors that Populate the View** |
| --- | --- | --- |
| Web Application Proxy Cluster State | Displays the compound state of all discovered Web Application Proxy servers, using “worse case” rollup | None |

Web Application Proxy Server

Discovery Information

| **Interval** | **Enabled** | **When to Enable** |
| --- | --- | --- |
| 14400 | True | Always |

Related Monitors

Health of the Web Application Proxy server is depends on the health of its two contained services: Web Application Proxy service (appproxysvc) and AD FS Proxy service (adfssvc). No extra monitors are defined for this class.

Related Views

| **View** | **Description** | **Rules and Monitors that Populate the View** |
| --- | --- | --- |
| Web Application Proxy Servers State | Displays the state of all discovered servers in which the Web Application Proxy role is installed | **** Web Application Proxy service monitor**** AD FS Service |

AD FS Proxy Service

Discovery Information

| **Interval** | **Enabled** | **When to Enable** |
| --- | --- | --- |
| 14400 | True | Always |

Related Monitors

| **Monitor** | **Data source** | **Interval** | **Alert** | **Reset Behavior** | **Corresponding Rule** | **Enabled** | **When to Enable** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| AD FS Service Availability Monitor | adfssvc  |  | False | Automatic |  | True | N/A |
| ADFS Federation Metadata Availability Monitor | Script | 300 | False | Automatic |  | True | N/A |
| ADFS WS-Metadata Exchange Endpoint Monitor | Script | 300 | False | Automatic |  | True | N/A |
| ADFS Proxy Certificate About To Expire Monitor | Script | 3600 | False | Automatic |  | True | N/A |
| ADFS Proxy Certificate Has Expired Monitor | Script | 3600 | False  | Automatic |  | True | N/A |

Related Views

| **View** | **Description** | **Rules and Monitors that Populate the View** |
| --- | --- | --- |
| Web Application Proxy Servers State | Displays the state of all discovered servers in which the Web Application Proxy role is installed. The state of the AD FS service is shown for each discovered Web Application Proxy Server |  |

Web Application Proxy Service

Discovery Information

| **Interval** | **Enabled** | **When to Enable** |
| --- | --- | --- |
| 14400 | True | Always |

Related Monitors

| **Monitor** | **Data source** | **Interval** | **Alert** | **Reset Behavior** | **Corresponding Rule** | **Enabled** | **When to Enable** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Web Application Proxy Service Availability Monitor | Appproxysvc |  | False | Automatic |  | True | N/A |
| Web Application Proxy Configuration Reachability Monitor | script | 300 | False | Autormatic |  | True | N/A |
| Web Application Proxy Service SSL Binding Event Monitor | Event 12021 |  | False | Manual |  | True | N/A |
| Web Application Proxy Service URL Listener Monitor | Event 12019 |  | False | Manual |  | True | N/A |
| Web Application Proxy Service URL Reservation Event Monitor | Event 12020 |  | False | Manual |  | True | N/A |

Related Views

| **View** | **Description** | **Rules and Monitors that Populate the View** |
| --- | --- | --- |
| Web Application Proxy Servers State | Displays the state of all discovered servers in which the Web Application Proxy role is installed. The state of the Web Application Proxy service is shown for each discovered Web Application Proxy Server |  |