**Microsoft System Center**

Guide to System Center Management Pack for Microsoft Windows Server 2016 and 1709+ Internet Information Services 10

Microsoft Corporation

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If you have an idea or suggestion about this management pack, the Operations Manager team encourages you to share it at the [SCOM Feedback site](http://systemcenterom.uservoice.com/forums/293064-general-operations-manager-feedback/filters/top).

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Contents

[System Center Management Pack for Microsoft Windows Server 2016 and 1709+ Internet Information Services 10 5](#_Toc5298750)

[Document Version 5](#_Toc5298751)

[Changes in Version 10.1.0.0 6](#_Toc5298752)

[Changes in Version 10.0.6.0 6](#_Toc5298753)

[Changes in Version 10.0.6.0 6](#_Toc5298754)

[Changes in Version 10.0.4.0 6](#_Toc5298755)

[Changes in Version 10.0.0.0 7](#_Toc5298756)

[Supported Configurations 7](#_Toc5298757)

[Getting Started 7](#_Toc5298758)

[Before you Import the Management Pack 8](#_Toc5298759)

[Files in this Management Pack 8](#_Toc5298760)

[How to Import the Management Pack 8](#_Toc5298761)

[Creating a New Management Pack for Customizations 8](#_Toc5298762)

[Optional Configuration 9](#_Toc5298763)

[Security Considerations 9](#_Toc5298764)

[Low-Privilege Environments 9](#_Toc5298765)

[Computer Groups 9](#_Toc5298766)

[Understanding Management Pack Operations 9](#_Toc5298767)

[Objects the Management Pack Discovers 10](#_Toc5298768)

[Overrides to Enable Discovery 10](#_Toc5298769)

[Tasks 11](#_Toc5298770)

[How Health Rolls Up 13](#_Toc5298771)

[Key Monitoring Scenarios 13](#_Toc5298772)

[Overriding the Default Discovery Interval 15](#_Toc5298773)

[Resetting the Health State of Unhealthy Unit Monitors 16](#_Toc5298774)

[Enabling Rules and Discoveries that are Disabled by Default 17](#_Toc5298775)

[Links 21](#_Toc5298776)

[System Center Operations Manager 21](#_Toc5298777)

[Known Issues and Troubleshooting 21](#_Toc5298778)

[Appendix A: Monitors and Rules for the Management Packs 22](#_Toc5298779)

[How to View the Management Pack Details 22](#_Toc5298780)

[Unit Monitors for the Management Pack 22](#_Toc5298781)

[Unit Monitors: IIS Components 22](#_Toc5298782)

[Unit Monitors: Windows NT Services 23](#_Toc5298783)

[Unit Monitors: Event Log 24](#_Toc5298784)

[Dependency Monitors for the Management Pack 26](#_Toc5298785)

[Dependency Monitors 26](#_Toc5298786)

[Performance Collection Rules for the Management Pack 27](#_Toc5298787)

[Performance Collection Rules Enabled by Default 27](#_Toc5298788)

[Performance Collection Rules Disabled by Default 30](#_Toc5298789)

[Event Log Rules for the Management Pack 34](#_Toc5298790)

[Event Log Rules Enabled by Default 34](#_Toc5298791)

[Appendix B: Application Pool Properties 42](#_Toc5298792)

[Application Pool Identity Type Property Values 42](#_Toc5298793)

[The Application Pool Recycling Monitor 42](#_Toc5298794)

# System Center Management Pack for Microsoft Windows Server 2016 and 1709+ Internet Information Services 10

The System Center Management Pack for Microsoft Windows Server 2016 and 1709+ Internet Information Services 10 provides proactive and reactive monitoring of your Internet Information Services (IIS) 10 environment.

This management pack provides an early warning to administrators on issues that could affect services, so that administrators can investigate and take corrective action if necessary. The management pack helps to simplify the administrative environment by providing a single console for the administrator to perform a number of useful monitoring tasks. To help troubleshoot common issues, the management pack contains helpful product knowledge and a way to extend this knowledge through adding your own company or organization knowledge related to an issue.

## Document Version

This guide is based on the 10.1.0.0 version of the Internet Information Services 10 Management Pack.

Revision History

|  |  |
| --- | --- |
| Release Date | Changes |
| March, 2019 (version 10.1.0.0) | * Released localized management packs for Windows Server 2016 and 1709+ operating system.
 |
| November, 2018 (version 10.0.9.0) | * Introduced support for Windows Server 1709+ operating system.
 |
| November, 2016 (version 10.0.6.0) | * Removed an obsolete Known Issue
* Introduced minor changes and fixes
 |
| June, 2016 (version 10.0.4.0) | * Removed an obsolete Known Issue
* Supported Nano Server Technical Preview 5
 |
| April, 2016 (version 10.0.4.0) | * Introduced support for Nano Server Technical Preview 4 in IIS 2016 MP
* Added monitoring for W3C logging Service optional logging service
* Introduced minor changes and fixes
 |
| December, 2015 (version 10.0.0.0) | Various versioning and naming changes correlated with “Windows Server Technical Preview” to “Windows Server 2016” Management Pack rebranding Pack |
| August, 2015 (version 7.0.10243.0) | Original release of this guide for Windows Server Technical Preview Internet Information Services 10 Management Pack  |

## Changes in Version 10.1.0.0

* Released localized management packs for Windows Server 2016 and 1709+ operating system.

## Changes in Version 10.0.6.0

* Rebranded the display strings and knowledge base articles according to the supported versions of the operating systems: Microsoft Windows Server 2016 and 1709+.
* Fixed Bug: False alerts when IIS is uninstalled.
* Changed the target type for Start/Stop Web Management service to “IIS 10 Server Role Hosts WMSvc Service”

## Changes in Version 10.0.6.0

* Fixed bug: SCOM was alerting if World Wide Web Publishing Service was disabled manually.
* Fixed bug: Web Management service was discovered even if it was not installed.
* *Start all IIS Services*, *Stop all IIS Services*, and *Restart all IIS Services* tasks were fixed to work with IIS services correctly.

## Changes in Version 10.0.4.0

* Introduced support for Nano Server Technical Preview 4 in IIS 2016 MP:
	+ IISRESET tasks targeted to IIS role class were updated to support Nano Server Technical Preview 4: the output of the tasks is changed correspondingly.
	+ Web Server discovery was updated to support Nano Server Technical Preview 4
	+ Added a group for Nano Web Servers; certain performance rules are disabled for all objects of this group by means of Nano Seed, see the corresponding [Note](#NanoSeed) in Appendix A.
	+ Listed in the guide the tasks, discoveries and rules that are not supported on Nano Server Technical Preview 4; updated the corresponding Knowledge Base articles and display strings.
* Added monitoring for an optional logging service – W3C logging Service (added new event-based rules, see Appendix A)
* Fixed a bug in “List FTP Sites” task
* Added Known Issues and Troubleshooting section in the guide
* Added “How health rolls up” diagram

## Changes in Version 10.0.0.0

* “Windows Server Technical Preview” to “Windows Server 2016” and Internet Information Services 10 versioning and naming rebranding changes

## Supported Configurations

The System Center Management Pack for Microsoft Windows Server 2016 and 2019 Internet Information Services 10 supports monitoring Internet Information Services (IIS) 10 on Windows Server 2016 and 1709+ on System Center 2016 and System Center 2019.

Please note that Nano Server monitoring is supported by SCOM 2016 only.

**Other SCOM versions support for Microsoft Windows Server 2016 and 1709+, refer below links:**

[https://docs.microsoft.com/en-us/previous-versions/system-center/system-center-2012-R2/dn281931(v%3dsc.12)](https://docs.microsoft.com/en-us/previous-versions/system-center/system-center-2012-R2/dn281931%28v%3Dsc.12%29)

<https://docs.microsoft.com/en-us/system-center/scom/system-requirements?view=sc-om-2016#microsoft-monitoring-agent-operating-system>

<https://docs.microsoft.com/en-us/system-center/scom/system-requirements?view=sc-om-1801#microsoft-monitoring-agent-operating-system>

<https://docs.microsoft.com/en-us/system-center/scom/system-requirements?view=sc-om-1807#microsoft-monitoring-agent-operating-system>

<https://docs.microsoft.com/en-us/system-center/scom/system-requirements?view=sc-om-2019#microsoft-monitoring-agent-operating-system>

For detailed information about installation of IIS server role on Nano Server, see [IIS on Nano Server](https://technet.microsoft.com/en-us/library/mt627783.aspx) article.

## Getting Started

This section describes the actions you should take before you import the management pack, any steps you should take after you import the management pack, and information about customizations.

### Before you Import the Management Pack

Before you import the System Center Management Pack for Internet Information Services 10, note the following limitation of the management pack and perform the corresponding actions:

 Agentless monitoring is not supported. You must deploy an agent on every Internet Information Services (IIS) 10 server that you want to manage.

 Install the up-to-date version of Windows Server 2016 and 1709+ Base Operating System Management Pack.

#### Files in this Management Pack

The download package includes the following files:

 Microsoft.Windows.InternetInformationServices.2016.mp

 Microsoft.Windows.InternetInformationServices.CommonLibrary.mp

These files enable you to monitor IIS 10 (on Windows Server 2016 and 1709+). Note that the management pack guides that include information on IIS 5.0, IIS 6.0, IIS 7.0, IIS 8.0 and IIS 8.5 are separate from this guide.

This guide documents information specific to the Internet Information Services 10 Management Pack for Windows Server 2016 and 1709+.

### How to Import the Management Pack

For instructions about importing a management pack, see [How to Import a Management Pack](http://go.microsoft.com/fwlink/p/?LinkID=219431).

After the System Center Management Pack for Microsoft Windows Server 2016 and 1709+ Internet Information Services 10 is imported, create a new management pack in which you store overrides and other customizations.

### Creating a New Management Pack for Customizations

Most vendor management packs are sealed so that you cannot change any of the original settings in the management pack file. However, you can create customizations, such as overrides or new monitoring objects, and save them to a Different Management Pack. By default, System Center Operations Manager saves all customizations 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.

Creating a new management pack for storing overrides has the following advantages:

 It simplifies the process of exporting customizations that were created in your test and preproduction environments to your production environment. For example, instead of exporting a Default Management Pack that contains customizations from multiple management packs, you can export just the management pack that contains customizations of a single management pack.

 You can delete the original management pack without preliminary deletion of the Default Management Pack. A management pack that contains customizations is dependent on the original management pack. This dependency requires you to delete the management pack with customizations before you can delete the original management pack. If all of your customizations are saved to the Default Management Pack, you must delete the Default Management Pack before you can delete an original management pack.

 It is easier to track and update customizations to individual management packs.

## Optional Configuration

Information about performance collection rules that are disabled by default in this management pack is provided in Appendix A. Since the action of collecting data about performance has a performance cost itself, enable only the performance collection rules that you care about.

## Security Considerations

You may need to customize your management pack. Certain accounts cannot be run in a low-privilege environment or must have minimum permissions. If you operate in a low-privilege computing environment, you may need to elevate the level of permissions assigned to the accounts you use for running management pack rules, monitors, discoveries, recoveries, and diagnostic tasks. These accounts must have minimum permissions in order for management pack components to run properly.

### Low-Privilege Environments

The System Center Management Pack for Microsoft Windows Server 2016 and 1709+ Internet Information Services 10 requires local administrator privileges to discover, monitor, and execute tasks. For the management pack discoveries, monitors, tasks, and diagnostics that require administrative privileges, the management pack uses the **Privileged Management Run As profile**, configured by default to use the Local System account.

### Computer Groups

You can delegate authority to a precise level with user roles. For more information about user roles, see [Implementing User Roles](http://go.microsoft.com/fwlink/?LinkId=221238).

The following computer groups can be used for scoping and roles authorization:

 IIS 10 Computer Group: A group containing all Windows computers that are running a Window Server 2016 and 1709+ version of an IIS component.

 IIS 10 Server Role Instance Group: A group containing all Windows Server 2016 and 1709+ instances of the IIS role.

## Understanding Management Pack Operations

The System Center Management Pack for Microsoft Windows Server 2016 and 1709+ Internet Information Services 10 manages the logical parts of IIS 10 that an operator or administrator is interested in, such as monitoring, configuring, and reporting. The management pack monitors the health of the IIS 10 server role and provides the administrator with a state view of the role.

### Objects the Management Pack Discovers

The System Center Management Pack for Microsoft Windows Server 2016 and 1709+ Internet Information Services 10 discovers the object types described in the following table. All discoveries are enabled by default. Some discoveries have very specific override parameters to customize when the startup type in “Manual”. All IIS objects below are automatically discovered.

|  |
| --- |
| Object Type |
| IIS 10 Computer Group |
| IIS 10 Server Role |
| IIS 10 Server Role Instance Group |
| IIS 10 FTP Server |
| IIS 10 FTP Site |
| Windows Server 2016 and 1709+ SMTP Server |
| Windows Server 2016 and 1709+ SMTP Virtual Server |
| IIS 10 Web Server |
| IIS 10 Web Site |
| IIS 10 Application Pool |
| IIS 10 ASP.NET Application Endpoint |
| IIS 10 ASP.NET Web Service Endpoint |
| Nano Seed\* |

\*For more information, see the corresponding [Note](#NanoSeed) in Appendix A.

### Overrides to Enable Discovery

The discoveries in the table below have a parameter that controls the discovery of the object when the associated service startup type is “Automatic”. By default, the parameter value is “True” so that the object is discovered if the associated service startup type is “Automatic”. If the associated service startup type is “Manual”, the object is not discovered.

Use the following Discovery information to override the default parameter value for objects you want the management pack to discover when the underlying service startup type is “Manual”.

|  |  |  |
| --- | --- | --- |
| Discovery Name | Discovered Type | Parameter Name |
| IIS 10 FTP Server Discovery | IIS 10 FTP Server | Discover FTP Server when the service startup type is “Automatic” |
| Windows Server 2016 and 1709+ SMTP Server Discovery | Windows Server 2016 and 1709+ SMTP Server | Discover SMTP Server when the service startup type is “Automatic” |

Warning

 By default, this management pack will only discover the FTP Server and SMTP Server objects if the underlying service startup type for each is “Automatic”.

 if the underlying service startup type for the objects is “Manual”, we recommend that you create an override for the Service Status monitor for the objects and that you override the discoveries to discover the objects even though the service is not started by default. If the object service startup type is “Manual” and you do not create an override for the Service Status monitor, the management pack will not generate alerts if the service stops.

* The following monitoring objects are not supported on Nano Server:
* IIS 10 FTP Server
* IIS 10 FTP Site
* Windows Server 2016 and 1709+ SMTP Server
* Windows Server 2016 and 1709+ SMTP Virtual Server

For more information, see [IIS on Nano Server](https://technet.microsoft.com/en-us/library/mt627783.aspx).

### Tasks

The administrator can perform a set of basic management tasks without switching to another console. The table displays the predefined tasks included in this Management pack.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| IIS role | Application pool | Web server | Web site | FTP site | SMTP server |
| List status for all IIS Services | Recycle Application Pool | List All IIS Applications | Disable Failed Request Tracing | List FTP sites | Pause SMTP Service |
| Restart all IIS Services | Start Application Pool | List All IIS Worker Processes | Enable Failed Request Tracing | Pause FTP Service | Resume SMTP Service |
| Start all IIS Services | Stop Application Pool | List All Web Sites | List Web Site Properties | Resume FTP Service | Start SMTP Service |
| Start IISADMIN Service |  | List Application Pools | Start Web Site | Start FTP Service | Stop SMTP Service  |
| Start Web Management Service |  | Start W3SVC Service | Stop Web Site | Stop FTP Service | Pause SMTP Service |
| Stop all IIS Services |  | Start WAS Service |  |  | Resume SMTP Service |
| Stop IISADMIN Service |  | Stop W3SVC Service |  |  |  |
| Stop Web Management Service |  |  |  |  |  |

Note

The following tasks are not supported on Nano Server:

* List FTP Sites
* Pause FTP Service
* Resume FTP Service
* Start FTP Service
* Stop FTP Service
* Pause SMTP Service
* Resume SMTP Service
* Start SMTP Service
* Stop SMTP Service
* Start IISADMIN service
* Stop IISADMIN Service
* Start Web Management service
* Stop Web Management Service
* IISADMIN service availability tasks

A set of tasks can be found in the IIS MP’s views, which are defined in external MPs and their operability in Nano Server cannot be guaranteed. The tasks are as follows:

* Windows Server 2016 and 1709+ Logical Disk tasks
* Windows Operating System tasks
* Windows Computer tasks

Please note that these tasks require the up-to-date version of Windows Server 2016 and 1709+ Base Operating System Management Pack installed. See [Before you Import the Management Pack](#_Before_you_Import) section.

### How Health Rolls Up

The following diagram shows how the health state of components rolls up in this management pack.

## Key Monitoring Scenarios

The list below describes common monitoring scenarios.

 Monitor the Web Server status and the status of the following services: Web management, FTP, SMTP, Windows Process Activation Service (WAS).

 Monitor that the following are running and available: Web site, Application Pool, FTP Site, SMTP Virtual Server.

 Detect an alert on configuration and resource errors logged by IIS 10 components.

 Monitor application pool recycling events to detect application pools, which may be executing code that is generating memory leaks or other memory usage problems, and then change the health state accordingly.

Here is the top level view of the IIS MP view structure:



|  |  |
| --- | --- |
| Views | Description |
| Active Alerts | This Alerts view will display all unresolved Alerts for the associated class(es). Several rules are targeted to Windows Computer; therefore, their alerts will not be displayed in this view. |
| All Performance Data | This Performance View will display all performance data for the associated class(es). |
| Application Pool State | This State View will display State and Attributes for the associated class(es). |
| FTP Site State | This State View will display State and Attributes for the associated class(es). |
| IIS Computer State | This State View will display State and Attributes for the associated class(es). |
| IIS Role State | This view displays state for each IIS Role instance. |
| Task Status | This Task Status View will display Task status information for the associated class(es). |
| Web Site State | This State View will display State and Attributes for the associated class(es). |
| Health Monitoring | Application Pool Health, FTP Server Health, FTP Site Health, IIS Server Role Health, NNTP Server Health, SMTP Server Health, SMTP Virtual Server Health, Web Server Health, and Web Site Health. |
| Performance | Disk Capacity, Disk Performance, Disk utilization, FTP Server Performance, FTP Site Performance, Memory Utilization (Page File), Memory Utilization (Physical), Network Adapter Utilization, NNTP Server Performance, NNTP VirtualServer Performance, Processor Performance, SMTP Server Messages Performance, SMTP Server Performance, SMTPVirtualServer Messages Performance, SMTP VirtualServer Performance, Web Server (ASP) Performance, Web Server (ASP.NET) Performance, Web Server Performance and Web Site Performance.  |

## Overriding the Default Discovery Interval

The default interval for discovering IIS management pack objects is four hours. You can override this interval depending on your business environment.

To override the default interval for discovering IIS management pack objects

|  |
| --- |
| 1. In the Operations Console, click the Authoring button.2. Expand Management Pack Objects, and then click Object Discoveries.3. In the Object Discoveries pane, expand the targets until you reach the desired Discovery workflow.4. In the Actions pane, click Overrides.5. Select Override Object Discovery, and then choose the scope for the override from the list of options.Note For some options, you might be required to identify the instances or groups to override.6. Click the Override checkbox for the parameter that specifies the time interval for the Discovery.7. Enter the value in seconds in the Override Setting column. For example, to run the Discovery every hour, you would enter 3600.8. Click OK. |

## Resetting the Health State of Unhealthy Unit Monitors

The following Unit Monitors do not automatically reset their Health State after the system has returned to a healthy state. For example, if one of the following Unit Monitors reports an unhealthy state, it will not update its state to healthy after the problem has been resolved.

|  |  |
| --- | --- |
| Name | Target |
| Application pool disabled due to WAS request failure | IIS 10 Application Pool |
| Application Pool disabled due to worker process failure | IIS 10 Application Pool |
| Potential memory leak in web application code | IIS 10 Application Pool |
| Application Pool identity is invalid | IIS 10 Application Pool |
| WAS has encountered an error during the SID mapping for the application pool | IIS 10 Application Pool |
| Web Site binding is already in use | IIS 10 Web Site |
| Could not initialize the logging module for website | IIS 10 Web Site |
| HTTP.sys has been configured to listen to too many ports | IIS 10 Web Site |
| Web Site is configured to use invalid application pool | IIS Web Site |
| Invalid Web Site Bindings | IIS Web Site |
| Invalid Web Site URL | IIS 10 Web Site |
| IP address for the site is not in the HTTP.sys IP listen list | IIS 10 Web Site |
| Invalid application path | IIS 10 Web Site |
| Windows Process Activation Service (WAS) did not create site | IIS 10 Web Site |
| Windows Process Activation Service (WAS) did not process changes that affect the website | IIS 10 Web Site |
| Configuration request for website failed | IIS 10 Web Site |

To reset the health state for a Unit Monitor

|  |
| --- |
| 1. In the Monitoring pane, expand the Microsoft Windows Internet Information Services folder.2. In the Operations Console, click the Monitoring button.3. Click the Active Alerts alert view.4. In the Active Alerts pane, select the Alert that was generated by one of these monitors.5. In the Actions pane, click Health Explorer.6. In the Health Explorer dialog box, select the unit monitor that is reporting an unhealthy state.7. Click Reset Health on the toolbar.8. Click Yes when prompted to reset the health monitor. |

## Enabling Rules and Discoveries that are Disabled by Default

The following rules and discoveries are disabled by default:

|  |  |  |
| --- | --- | --- |
| Rules | Target | Comment |
| HTTP Service Request Queues\Current Queue Size Performance Rule | IIS 10 Application Pool |  |
| HTTP Service Request Queues\Rejection Rate Performance Rule | IIS 10 Application Pool |  |
| Failed to perform Web Application discovery | Windows Server 2016 and 1709+ Computer |  |
| Failed to perform Web Server properties discovery | Windows Server 2016 and 1709+ Computer |  |
| Failed to perform Web Site discovery | Windows Server 2016 and 1709+ Computer |  |
| Failed to find Application Pool while attempting to retrieve state | Windows Server 2016 and 1709+ Computer |  |
| Failed to find site while attempting to retrieve state | Windows Server 2016 and 1709+ Computer |  |
| Failed to perform Application Pool discovery | Windows Server 2016 and 1709+ Computer |  |
| Failed to perform FTP server discovery | Windows Server 2016 and 1709+ Computer |  |
| Failed to perform FTP site discovery | Windows Server 2016 and 1709+ Computer |  |
| IIS component discovery failed due to insufficient privileges | Windows Server 2016 and 1709+ Computer |  |
| Failed to perform initialization of IIS state monitoring module | Windows Server 2016 and 1709+ Computer |  |
| Failed to retrieve site state | Windows Server 2016 and 1709+ Computer |  |
| Failed to retrieve Application Pool state | Windows Server 2016 and 1709+ Computer |  |
| FTP Service\Bytes Received/sec Performance Rule | IIS 10 FTP Server | Not supported on Nano Server |
| FTP Service\Bytes Sent/sec Performance Rule | IIS 10 FTP Server | Not supported on Nano Server |
| FTP Service\Bytes Received/sec Performance Rule | IIS 10 FTP Site | Not supported on Nano Server |
| FTP Service\Bytes Sent/sec Performance Rule | IIS 10 FTP Site | Not supported on Nano Server |
| FTP Service\Bytes Total/sec Performance Rule | IIS 10 FTP Site | Not supported on Nano Server |
| FTP Service\Current Connections Performance Rule | IIS 10 FTP Site | Not supported on Nano Server |
| Active Server Pages\Requests Not Found Performance Rule | IIS 10 Web Server | Not supported on Nano Server |
| Active Server Pages\Requests Queued Performance Rule | IIS 10 Web Server | Not supported on Nano Server |
| Active Server Pages\Requests/Sec Performance Rule | IIS 10 Web Server | Not supported on Nano Server |
| Active Server Pages\Request Wait Time Performance Rule | IIS 10 Web Server | Not supported on Nano Server |
| ASP.NET Applications\Errors Total/Sec Performance Rule | IIS 10 Web Server | Not supported on Nano Server, disabled with override for Nano |
| ASP.NET Applications\Requests In Application Queue Performance Rule | IIS 10 Web Server | Not supported on Nano Server, disabled with override for Nano |
| ASP.NET Applications\Requests/Sec Performance Rule | IIS 10 Web Server | Not supported on Nano Server, disabled with override for Nano |
| ASP.NET\Requests Current Performance Rule | IIS 10 Web Server | Not supported on Nano Server, disabled with override for Nano |
| ASP.NET\Requests Queued Performance Rule | IIS 10 Web Server | Not supported on Nano Server, disabled with override for Nano |
| ASP.NET\Request Wait Time Performance Rule | IIS 10 Web Server | Not supported on Nano Server, disabled with override for Nano |
| ASP.NET\Worker Process Restarts Performance Rule | IIS 10 Web Server | Not supported on Nano Server, disabled with override for Nano |
| .NET CLR Memory\% Time in GC Performance Rule | IIS 10 Web Server | Not supported on Nano Server, disabled with override for Nano |
| .NET CLR Memory\# Induced GC | IIS 10 Web Server | Not supported on Nano Server, disabled with override for Nano |
| .NET CLR Exceptions\# Exceptions Thrown/sec Performance Rule | IIS 10 Web Server | Not supported on Nano Server, disabled with override for Nano |
| Web Service\Current ISAPI Extension Requests/sec Performance Rule | IIS 10 Web Server |  |
| Web Service\ISAPI Extension Requests/sec Performance Rule | IIS 10 Web Server |  |
| Web Service\Bytes Received/sec Performance Rule | IIS 10 Web Site |  |
| Web Service\Bytes Sent/sec Performance Rule | IIS 10 Web Site |  |
| Web Service\Bytes Total/sec Performance Rule | IIS 10 Web Site |  |
| Web Service\Current Connections Performance Rule | IIS 10 Web Site |  |
| Web Service\Current ISAPI Extension Requests Performance Rule | IIS 10 Web Site |  |
| Web Service\ISAPI Extension Requests/sec Performance Rule | IIS 10 Web Site |  |

To enable rules and discoveries disabled by default, perform the following actions:

|  |
| --- |
| 1. In the Operations Console, click the Authoring button.2. Expand Management Pack Objects, and then click Rules.3. Select the rule that you want to enable in the Rules pane4. In the Actions pane, click Enable. |

## Links

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

### System Center 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)

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

A useful resource is [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 [System Center 2012 - Operations Manager Survival Guide](http://go.microsoft.com/fwlink/?LinkId=246383)

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## Known Issues and Troubleshooting

No know issues discovered.

## Appendix A: Monitors and Rules for the Management Packs

This section provides detailed procedures and scripts that allow you to display rules and other information about the management packs you import.

### How to View the Management Pack Details

For more information about a monitor and the associated override values, see the Knowledge Base article for the monitor.

To View Knowledge for a Monitor

|  |
| --- |
| 1. In the Operations Console, click the Authoring button.2. Expand Management Pack Objects, and then click Monitors.3. In the Monitors pane, expand the targets until you reach the monitor level. Alternatively, you can use the Search box to find a particular monitor.4. Click the monitor, and in the Monitors pane, click View knowledge.5. Click the Product Knowledge tab. |

### Unit Monitors for the Management Pack

You can display unit monitors for Internet Information Services 10 components, for a set of Windows NT services, and for events in the event log.

The following applies to all unit monitors listed in the tables below:

 All are enabled by default

 All generate an alert by default (unless otherwise noted). This can be changed by creating an override.

#### Unit Monitors: IIS Components

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Target | Interval (sec) | Severity | Auto Resolve |
| Application pool availability | IIS 10 application pool | 60 | Error | True |
| FTP site availability | IIS 10 FTP site | 60 | Error | True |
| Web site availability | IIS 10 Web site | 60 | Error | True |
| SMTP Virtual Server availability | Windows Server 2016 and 1709+ SMTP Virtual Server | 60 | Error | True |

#### Unit Monitors: Windows NT Services

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Name | Target | Service | Interval (sec) | Severity | Auto Resolve |
| FTP service availability | IIS 10 FTP server | FTPSVC | 60 | Error | True |
| IISAdmin service availability\* | IIS 10 server role | IISADMIN | 60 | Error | True |
| Web Management Service availability | IIS 10 server role | WMSVC | 60 | Warning | True |
| Windows Process Activation Service availability\*\* | IIS 10 Web server | WAS | 60 | Error | True |
| World Wide Web Publishing Service availability | IIS 10 Web server | W3SVC | 60 | Error | True |
| SMTP Service availability | Windows Server 2016 and 1709+ SMTP server | SMTPSVC | 60 | Error | True |

\* IIS Admin service availability tasks are not supported on Nano Server.

\*\*This service is monitored even though the default Startup type is “Manual”.

#### Unit Monitors: Event Log

These 16 unit monitors are “Manual reset” monitors. Unit monitors do not detect when to transit back to a healthy state and must be reset manually.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Name | Target | Log | Source | Event | Severity | Auto Resolve |
| Application pool disabled due to Windows Process Activation Service (WAS) request failure. | IIS 10 application pool | System | Microsoft-Windows-WAS | 5144 | Error | True |
| Application pool disabled due to worker process failure. | IIS 10 application pool | System | Microsoft-Windows-WAS | 5002, 5059 | Error | True |
| Application pool identity is invalid. | IIS 10 application pool | System | Microsoft-Windows-WAS | 5021, 5057 | Error | True |
| Potential memory leak in Web application code. | IIS 10 application pool | System | Microsoft-Windows-WAS | 5117, 5077 | Warning | True |
| Windows Process Activation Service (WAS) has encountered an error during the security identifier (SID) mapping for the application pool. | IIS 10 application pool | System | Microsoft-Windows-WAS | 5190 | Error | True |
| Configuration request for Web site failed. | IIS 10 Web site | System | Microsoft-Windows-WAS | 5150 | Error | True |
| Could not initialize the logging module for Web site. | IIS 10 Web site | Application | Microsoft-Windows-IIS-W3SVC-WP | 2271 | Error | True |
| HTTP.sys has been configured to listen to too many ports. | IIS 10 Web site | System | Microsoft-Windows-IIS-W3SVC | 1131 | Error | True |
| Invalid application path. | IIS 10 Web site | System | Microsoft-Windows-WAS | 5056, 5161 | Error | True |
| Invalid Web site bindings. | IIS 10 Web site | System | Microsoft-Windows-IIS-W3SVC | 1029, 1004, 1172, 1043, 1174 | Error | True |
| Invalid Web site bindings. | IIS 10 Web site | System | Microsoft-Windows-WAS | 5043 | Error | True |
| Invalid Web site URL. | IIS 10 Web site | System | Microsoft-Windows-IIS-WMSVC | 1003 | Error | True |
| IP address for the site is not in the HTTP.sys IP listen list. | IIS 10 Web site | System | Microsoft-Windows-IIS-W3SVC | 1129, 1130 | Error | True |
| Web site binding is already in use. | IIS 10 Web site | System | Microsoft-Windows-IIS-WMSVC | 1007 | Error | True |
| Web site is configured to use invalid application pool. | IIS 10 Web site | System | Microsoft-Windows-WAS | 5055 | Error | True |
| Windows Process Activation Service (WAS) did not create site. | IIS 10 Web site | System | Microsoft-Windows-WAS | 5102 | Error | True |
| Windows Process Activation Service (WAS) did not process changes that affect the Web site. | IIS 10 Web site | System | Microsoft-Windows-WAS | 5143 | Error | True |

### Dependency Monitors for the Management Pack

The following table displays the dependency monitors enabled by default in the System Center Management Pack for Microsoft Windows Server 2016 and 1709+ Internet Information Services 10.

#### Dependency Monitors

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Target | Algorithm | Generate Alert |
| IIS availability health state depends on FTP Service. | IIS 10 server role | WorstOf | False |
| IIS availability health state depends on SMTP Service. | IIS 10 server role | WorstOf | False |
| IIS availability health state depends on World Wide Web Publishing Service. | IIS 10 server role | WorstOf | False |
| Web site availability health state depends on application pool. | IIS 10 Web site | WorstOf | False |
| Web site configuration health depends on application pool. | IIS 10 Web site | WorstOf | False |

### Performance Collection Rules for the Management Pack

The following tables display information about the performance collection rules in the System Center Management Pack for Microsoft Windows Server 2016 and 1709+ Internet Information Services 10.

The following applies to all performance collection rules listed below:

 Default interval (in seconds): 300

 Alerts are not generated.

#### Performance Collection Rules Enabled by Default

The performance collection rules in the list are enabled by default in this management pack.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Target | Object | Counter | Comment |
| FTP Service\Bytes Total/sec | IIS 10 FTP server | Microsoft FTP Service | Bytes Total/sec |  |
| FTP Service\Current Connections | IIS 10 FTP server | Microsoft FTP Service | Current Connections | Not supported on Nano Server |
| Web Service\Bytes Received/sec | IIS 10 Web server | Web Service | Bytes Received/sec |  |
| Web Service\Bytes Sent/sec | IIS 10 Web server | Web Service | Bytes Sent/sec |  |
| Web Service\Bytes Total/sec | IIS 10 Web server | Web Service | Bytes Total/sec |  |
| Web Service\Connection Attempts/sec | IIS 10 Web server | Web Service | Connection Attempts/sec |  |
| Web Service\Current Connections | IIS 10 Web server | Web Service | Current Connections |  |
| Web Service\Total Method Requests/sec | IIS 10 Web server | Web Service | Total Method Requests/sec |  |
| SMTP Server\Bytes Received/sec | Windows Server 2016 and 1709+ SMTP server | SMTP Server | Bytes Received/sec | Not supported on Nano Server |
| SMTP Server\Bytes Sent/sec | Windows Server 2016 and 1709+ SMTP server | SMTP Server | Bytes Sent/sec | Not supported on Nano Server |
| SMTP Server\Bytes Total/sec | Windows Server 2016 and 1709+ SMTP server | SMTP Server | Bytes Total/sec | Not supported on Nano Server |
| SMTP Server\Inbound Connections Current | Windows Server 2016 and 1709+ SMTP server | SMTP Server | Inbound Connections Current | Not supported on Nano Server |
| SMTP Server\Message Bytes Received/Sec | Windows Server 2016 and 1709+ SMTP server | SMTP Server | Message Bytes Received/sec | Not supported on Nano Server |
| SMTP Server\Message Bytes Sent/Sec | Windows Server 2016 and 1709+ SMTP server | SMTP Server | Message Bytes Sent/sec | Not supported on Nano Server |
| SMTP Server\Messages Delivered/Sec | Windows Server 2016 and 1709+ SMTP server | SMTP Server | Messages Delivered/sec | Not supported on Nano Server |
| SMTP Server\Messages Received/Sec | Windows Server 2016 and 1709+ SMTP server | SMTP Server | Messages Received/sec | Not supported on Nano Server |
| SMTP Server\Messages Sent/Sec | Windows Server 2016 and 1709+ SMTP server | SMTP Server | Messages Sent/sec | Not supported on Nano Server |
| SMTP Server\Outbound Connections Current | Windows Server 2016 and 1709+ SMTP server | SMTP Server | Outbound Connections Current | Not supported on Nano Server |
| SMTP Server\Total Messages Submitted | Windows Server 2016 and 1709+ SMTP server | SMTP Server | Total Messages Submitted | Not supported on Nano Server |
| SMTP Server\Bytes Received/sec | Windows Server 2016 and 1709+ SMTP Virtual Server | SMTP Server | Bytes Received/sec | Not supported on Nano Server |
| SMTP Server\Bytes Sent/sec | Windows Server 2016 and 1709+ SMTP Virtual Server | SMTP Server | Bytes Sent/sec | Not supported on Nano Server |
| SMTP Server\Bytes Total/sec | Windows Server 2016 and 1709+ SMTP Virtual Server | SMTP Server | Bytes Total/sec | Not supported on Nano Server |
| SMTP Server\Inbound Connections Current | Windows Server 2016 and 1709+ SMTP Virtual Server | SMTP Server | Inbound Connections Current | Not supported on Nano Server |
| SMTP Server\Message Bytes Received/Sec | Windows Server 2016 and 1709+ SMTP Virtual Server | SMTP Server | Message Bytes Received/sec | Not supported on Nano Server |
| SMTP Server\Message Bytes Sent/Sec | Windows Server 2016 and 1709+ SMTP Virtual Server | SMTP Server | Message Bytes Sent/sec | Not supported on Nano Server |
| SMTP Server\Messages Delivered/Sec | Windows Server 2016 and 1709+ SMTP Virtual Server | SMTP Server | Messages Delivered/sec | Not supported on Nano Server |
| SMTP Server\Messages Received/Sec | Windows Server 2016 and 1709+ SMTP Virtual Server | SMTP Server | Messages Received/sec | Not supported on Nano Server |
| SMTP Server\Messages Sent/Sec | Windows Server 2016 and 1709+ SMTP Virtual Server | SMTP Server | Messages Sent /sec | Not supported on Nano Server |
| SMTP Server\Outbound Connections Current | Windows Server 2016 and 1709+ SMTP Virtual Server | SMTP Server | Outbound Connections Current | Not supported on Nano Server |
| SMTP Server\Total Messages Submitted | Windows Server 2016 and 1709+ SMTP Virtual Server | SMTP Server | Total Messages Submitted | Not supported on Nano Server |

#### Performance Collection Rules Disabled by Default

The performance collection rules in the list are disabled by default in this management pack.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Target | Object | Counter | Comments |
| HTTP Service Request Queues\Current Queue Size | IIS 10 application pool | HTTP Service Request Queues | CurrentQueueSize |  |
| HTTP Service Request Queues\Rejection Rate | IIS 10 application pool | HTTP Service Request Queues | RejectionRate |  |
| FTP Service\Bytes Received/sec | IIS 10 FTP server | Microsoft FTP Service | Bytes Received/sec | Not supported on Nano Server |
| FTP Service\Bytes Sent/sec | IIS 10 FTP server | Microsoft FTP Service | Bytes Sent/sec | Not supported on Nano Server |
| FTP Service\Bytes Received/sec | IIS 10 FTP site | Microsoft FTP Service | Bytes Received/sec | Not supported on Nano Server |
| FTP Service\Bytes Sent/sec | IIS 10 FTP site | Microsoft FTP Service | Bytes Sent/sec | Not supported on Nano Server |
| FTP Service\Bytes Total/sec | IIS 10 FTP site | Microsoft FTP Service | Bytes Total/sec | Not supported on Nano Server |
| FTP Service\Current Connections | IIS 10 FTP site | Microsoft FTP Service | Current Connections | Not supported on Nano Server |
| .NET CLR Exceptions\# Exceptions Thrown/sec | IIS 10 Web server | .NET CLR Exceptions | # of Exceps Thrown/sec | Not supported on Nano Server, disabled with override for Nano |
| .NET CLR Memory\# Induced GC | IIS 10 Web server | .NET CLR Memory | # Induced GC | Not supported on Nano Server, disabled with override for Nano |
| .NET CLR Memory\% Time in GC | IIS 10 Web server | .NET CLR Memory | % Time in GC | Not supported on Nano Server, disabled with override for Nano |
| Active Server Pages\Request Wait Time | IIS 10 Web server | Active Server Pages | Request Wait Time | Not supported on Nano Server |
| Active Server Pages\Requests Not Found | IIS 10 Web server | Active Server Pages | Requests Not Found | Not supported on Nano Server |
| Active Server Pages\Requests Queued | IIS 10 Web server | Active Server Pages | Requests Queued | Not supported on Nano Server |
| Active Server Pages\Requests/Sec | IIS 10 Web server | Active Server Pages | Requests/Sec | Not supported on Nano Server |
| ASP.NET Applications\Errors Total/Sec | IIS 10 Web server | ASP.NET Applications | Errors Total/Sec | Not supported on Nano Server, disabled with override for Nano |
| ASP.NET Applications\Requests In Application Queue | IIS 10 Web server | ASP.NET Applications | Requests In Application Queue | Not supported on Nano Server, disabled with override for Nano |
| ASP.NET Applications\Requests/Sec | IIS 10 Web server | ASP.NET Applications | Requests/Sec | Not supported on Nano Server, disabled with override for Nano |
| ASP.NET\Request Wait Time | IIS 10 Web server | ASP.NET | Request Wait Time | Not supported on Nano Server, disabled with override for Nano |
| ASP.NET\Requests Current | IIS 10 Web server | ASP.NET | Requests Current | Not supported on Nano Server, disabled with override for Nano |
| ASP.NET\Requests Queued | IIS 10 Web server | ASP.NET | Requests Queued | Not supported on Nano Server, disabled with override for Nano |
| ASP.NET\Worker Process Restarts | IIS 10 Web server | ASP.NET | Worker Process Restarts | Not supported on Nano Server, disabled with override for Nano |
| Web Service\Current ISAPI Extension Requests/sec | IIS 10 Web server | Web Service | Current ISAPI Extension Requests |  |
| Web Service\ISAPI Extension Requests/sec | IIS 10 Web server | Web Service | ISAPI Extension Requests/sec |  |
| Web Service\Bytes Received/sec | IIS 10 Web server | Web Service | Bytes Received/sec |  |
| Web Service\Bytes Sent/sec | IIS 10 Web server | Web Service | Bytes Sent/sec |  |
| Web Service\Bytes Total/sec | IIS 10 Web server | Web Service | Bytes Total/sec |  |
| Web Service\Current Connections | IIS 10 Web server | Web Service | Current Connections |  |
| Web Service\Current ISAPI Extension Requests | IIS 10 Web server | Web Service | Current ISAPI Extension Requests |  |
| Web Service\ISAPI Extension Requests/sec | IIS 10 Web server | Web Service | ISAPI Extension Requests/sec |  |

Note

To prevent noise from some performance rules that are not supported on Nano Server, a special Nano Web Servers group is created and populated by means of Nano Seed class. The following performance rules are disabled for this group by means of overrides:

* ASP.NET Applications\Errors Total/Sec Performance Rule
* ASP.NET Applications\Requests In Application Queue Performance Rule
* ASP.NET Applications\Requests/Sec Performance Rule
* ASP.NET\Requests Current Performance Rule
* ASP.NET\Requests Queued Performance Rule
* ASP.NET\Request Wait Time Performance Rule
* ASP.NET\Worker Process Restarts Performance Rule
* .NET CLR Memory\# Induced GC
* .NET CLR Exceptions\# Exceptions Thrown/sec Performance Rule
* .NET CLR Memory\% Time in GC Performance Rule

### Event Log Rules for the Management Pack

The following tables display information about the event log rules in the System Center Management Pack for Microsoft Windows Server 2016 and 1709+ Internet Information Services 10.

#### Event Log Rules Enabled by Default

The event log rules in the table below are enabled by default and generate alerts by default.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Name | Target | Event ID | Event Source | Event Log | Alert Severity |
| Application pool has an IdleTimeout equal to or greater than the PeriodicRestart time. | IIS 10 application pool | 5152 | Microsoft-Windows-WAS | System | Warning |
| Application pool worker process is unresponsive. | IIS 10 application pool | 5010, 5011, 5012, 5013 | Microsoft-Windows-WAS | System | Warning |
| Application pool worker process terminated unexpectedly. | IIS 10 application pool | 5009 | Microsoft-Windows-WAS | System | Warning |
| Job object associated with the application pool encountered an error. | IIS 10 application pool | 5088, 5061, 5060 | Microsoft-Windows-WAS | System | Warning |
| Windows Process Activation Service (WAS) did not apply configuration changes to application pool. | IIS 10 application pool | 5085 | Microsoft-Windows-WAS | System | Warning |
| Windows Process Activation Service (WAS) did not run the automatic shutdown executable for application pool. | IIS 10 application pool | 5054, 5091 | Microsoft-Windows-WAS | System | Error |
| Windows Process Activation Service (WAS) encountered a failure while setting the affinity mask of an application pool. | IIS 10 application pool | 5058 | Microsoft-Windows-WAS | System | Warning |
| Windows Process Activation Service (WAS) encountered an internal error while managing a worker process. | IIS 10 application pool | 5014 | Microsoft-Windows-WAS | System | Warning |
| Windows Process Activation Service (WAS) failed to create application pool. | IIS 10 application pool | 5101 | Microsoft-Windows-WAS | System | Error |
| Windows Process Activation Service (WAS) failed to issue recycle request to application pool. | IIS 10 application pool | 5070, 5093 | Microsoft-Windows-WAS | System | Warning |
| Worker process for application pool encountered an error while trying to read global module configuration. | IIS 10 application pool | 2297 | Microsoft-Windows-IIS-W3SVC-WP | Application | Warning |
| Worker process serving an application pool reported a failure. | IIS 10 application pool | 5039 | Microsoft-Windows-WAS | System | Warning |
| Worker process serving application pool was orphaned. | IIS 10 application pool | 5015 | Microsoft-Windows-WAS | System | Warning |
| Worker process serving the application pool is no longer trusted by Windows Process Activation Service (WAS). | IIS 10 application pool | 5127 | Microsoft-Windows-WAS | System | Warning |
| World Wide Web Publishing Service encountered an error when it tried to secure the handle of the application pool. | IIS 10 application pool | 1026 | Microsoft-Windows-IIS-W3SVC | System | Warning |
| World Wide Web Publishing Service failed to properly configure the application pool queue length. | IIS 10 application pool | 1087 | Microsoft-Windows-IIS-W3SVC | System | Warning |
| World Wide Web Publishing Service failed to properly configure the load balancer capabilities on application pool. | IIS 10 application pool | 1086 | Microsoft-Windows-IIS-W3SVC | System | Warning |
| A script has not responded within the configured time-out period. | IIS 10 Web server | 2216 | Microsoft-Windows-IIS-W3SVC-WP | Application | Warning |
| A server-side-include file has included itself, or the maximum depth of server-side include files has been exceeded. | IIS 10 Web server | 2221 | Microsoft-Windows-IIS-W3SVC-WP | Application | Warning |
| An attempt was made to load an ISAPI filter on a server instance, but because it requires the SF\_NOTIFY\_READ\_RAW\_DATA filter notification, it must be loaded as a global filter. | IIS 10 Web server | 2222 | Microsoft-Windows-IIS-W3SVC-WP | Application | Warning |
| ASP application error occurred. | IIS 10 Web server | 500, 499, 23, 22, 21, 20, 19, 18, 17, 16, 9, 8, 7, 6, 5 | Active Server Pages | Application | Warning |
| HTTP control channel for the World Wide Web Publishing Service did not open. | IIS 10 Web server | 1037 | Microsoft-Windows-IIS-W3SVC | System | Warning |
| HTTP Server could not create a client connection object for user. | IIS 10 Web server | 2208 | Microsoft-Windows-IIS-W3SVC-WP | Application | Warning |
| HTTP Server could not create the main connection socket. | IIS 10 Web server | 2206 | Microsoft-Windows-IIS-W3SVC-WP | Application | Warning |
| HTTP Server could not initialize its security. | IIS 10 Web server | 2201 | Microsoft-Windows-IIS-W3SVC-WP | Application | Warning |
| HTTP Server could not initialize the socket library. | IIS 10 Web server | 2203 | Microsoft-Windows-IIS-W3SVC-WP | Application | Warning |
| HTTP Server was unable to initialize because of a shortage of available memory. | IIS 10 Web server | 2204 | Microsoft-Windows-IIS-W3SVC-WP | Application | Warning |
| ISAPI application error detected. | IIS 10 Web server | 2274, 2268, 2220, 2219, 2214 | Microsoft-Windows-IIS-W3SVC-WP | Application | Warning |
| Module has an invalid precondition. | IIS 10 Web server | 2296 | Microsoft-Windows-IIS-W3SVC-WP | Application | Warning |
| Module registration error detected (failed to find RegisterModule entry point). | IIS 10 Web server | 2295 | Microsoft-Windows-IIS-W3SVC-WP | Application | Warning |
| Module registration error detected (module returned an error during registration). | IIS 10 Web server | 2293 | Microsoft-Windows-IIS-W3SVC-WP | Application | Warning |
| Only one type of logging can be enabled at a time. | IIS 10 Web server | 1133 | Microsoft-Windows-IIS-W3SVC | System | Warning |
| SF\_NOTIFY\_READ\_RAW\_DATA filter notification is not supported in IIS 10. | IIS 10 Web server | 2261 | Microsoft-Windows-IIS-W3SVC-WP. | Application | Warning |
| The configuration manager for Windows Process Activation Service (WAS) did not initialize. | IIS 10 Web server | 5036 | Microsoft-Windows-WAS | System | Error |
| The directory specified for caching compressed content is invalid. | IIS 10 Web server | 2264 | Microsoft-Windows-IIS-W3SVC-WP | Application | Warning |
| The Global Modules list is empty. | IIS 10 Web server | 2298 | Microsoft-Windows-IIS-W3SVC-WP | Application | Warning |
| The HTTP server encountered an error processing the server-side include file. | IIS 10 Web server | 2218 | Microsoft-Windows-IIS-W3SVC-WP | Application | Warning |
| The server failed to close client connections to URLs during shutdown. | IIS 10 Web server | 2258 | Microsoft-Windows-IIS-W3SVC-WP | Application | Warning |
| The server was unable to acquire a license for an SSL connection. | IIS 10 Web server | 2227 | Microsoft-Windows-IIS-W3SVC-WP | Application | Warning |
| The server was unable to allocate a buffer to read a file. | IIS 10 Web server | 2233 | Microsoft-Windows-IIS-W3SVC-WP | Application | Warning |
| The server was unable to read a file. | IIS 10 Web server | 2226, 2230, 2231, 2232 | Microsoft-Windows-IIS-W3SVC-WP | Application | Warning |
| Windows Process Activation Service (WAS) detected invalid configuration data. | IIS 10 Web server | 5174, 5179, 5180 | Microsoft-Windows-WAS | System | Warning |
| Windows Process Activation Service (WAS) encountered a failure requesting IIS configuration store change notifications. | IIS 10 Web server | 5063 | Microsoft-Windows-WAS | System | Warning |
| Windows Process Activation Service (WAS) encountered an error attempting to configure centralized logging. | IIS 10 Web server | 5066 | Microsoft-Windows-WAS | System | Error |
| Windows Process Activation Service (WAS) encountered an error attempting to look up the built-in IIS\_IUSRS group. | IIS 10 Web server | 5153 | Microsoft-Windows-WAS | System | Warning |
| Windows Process Activation Service (WAS) encountered an error trying to read configuration. | IIS 10 Web server | 5172, 5173 | Microsoft-Windows-WAS | System | Warning |
| Windows Process Activation Service (WAS) is stopping because it encountered an error. | IIS 10 Web server | 5005 | Microsoft-Windows-WAS | System | Error |
| Windows Process Activation Service (WAS) received a change notification but was unable to process it correctly. | IIS 10 Web server | 5053 | Microsoft-Windows-WAS | System | Warning |
| Windows Process Activation Service (WAS) terminated unexpectedly, and the system was not configured to restart it. | IIS 10 Web server | 5030 | Microsoft-Windows-WAS | System | Error |
| Worker process encountered an error during initialization. | IIS 10 Web server | 2279, 2278, 2277 | Microsoft-Windows-IIS-W3SVC-WP | Application | Warning |
| Worker process failed to initialize communication with the World Wide Web Publishing Service and therefore could not be started. | IIS 10 Web server | 2281 | Microsoft-Windows-IIS-WMSVC | Application | Warning |
| World Wide Web Publishing Service did not initialize the HTTP driver and was unable start. | IIS 10 Web server | 1173 | Microsoft-Windows-IIS-W3SVC | System | Error |
| World Wide Web Publishing Service failed to configure the centralized World Wide Web Consortium (W3C) logging properties. | IIS 10 Web server | 1135,1134 | Microsoft-Windows-IIS-W3SVC | System | Warning |
| World Wide Web Publishing Service failed to configure the HTTP.SYS control channel property. | IIS 10 Web server | 1020 | Microsoft-Windows-IIS-W3SVC | System | Warning |
| World Wide Web Publishing service failed to configure the logging properties for the HTTP control channel. | IIS 10 Web server | 1062 | Microsoft-Windows-IIS-W3SVC | System | Warning |
| World Wide Web Publishing Service failed to copy a change notification for processing. | IIS 10 Web server | 1126 | Microsoft-Windows-IIS-W3SVC | System | Warning |
| World Wide Web Publishing Service failed to enable end point sharing for the HTTP control channel. | IIS 10 Web server | 1175 | Microsoft-Windows-IIS-W3SVC | System | Warning |
| World Wide Web Publishing Service failed to enable global bandwidth throttling. | IIS 10 Web server | 1071, 1073 | Microsoft-Windows-IIS-W3SVC | System | Warning |
| World Wide Web Publishing Service property failed range validation. | IIS 10 Web server | 5067 | Microsoft-Windows-WAS | System | Warning |
| W3C Logging Service crashed with error | IIS 10 Web server | 7023, 7024 | Service Control Manager | System | Error |
| W3C Logging Service crashed with corrective action | IIS 10 Web server | 7031 | Service Control Manager | System | Error |
| W3C Logging Service crashed unexpectedly | IIS 10 Web server | 7034 | Service Control Manager | System | Error |
| W3C Logging Service did not shutdown properly after receiving pre-shutdown control | IIS 10 Web server | 7043 | Service Control Manager | System | Error |
| W3C service failed to start | IIS 10 Web server | 6001 | Microsoft-Windows-W3LOGSVC | System | Error |
| W3C Logging Service failed to create the log file directory | IIS 10 Web server | 6002 | Microsoft-Windows-W3LOGSVC | System | Error |
| W3C logging service failed to create the log file | IIS 10 Web server | 6003 | Microsoft-Windows-W3LOGSVC | System | Error |
| W3C logging service failed to write the log file | IIS 10 Web server | 6004 | Microsoft-Windows-W3LOGSVC | System | Error |
| W3C logging service failed to connect to the pipe server in the worker process | IIS 10 Web server | 6005 | Microsoft-Windows-W3LOGSVC | System | Error |
| W3C Logging Service failed to write message to the pipe server in the worker process | IIS 10 Web server | 6006 | Microsoft-Windows-W3LOGSVC | System | Error |
| W3C logging service failed to stop | IIS 10 Web server | 6007 | Microsoft-Windows-W3LOGSVC | System | Error |
| W3C logging service is stopping because it encountered an error. The data field contains the error number. | IIS 10 Web server | 6008 | Microsoft-Windows-W3LOGSVC | System | Error |
| Owner of the log file or the directory is invalid | IIS 10 Web server | 6009 | Microsoft-Windows-W3LOGSVC | System | Error |
| W3C Logging Service failed to read config | IIS 10 Web server | 6010 | Microsoft-Windows-W3LOGSVC | System | Error |
| ETW session events to W3C Logging Service were dropped. Some entries may not be available in the log file | IIS 10 Web server | 6011 | Microsoft-Windows-W3LOGSVC | System | Warning |

## Appendix B: Application Pool Properties

In Internet Information Services (IIS) 10 running on Windows Server 2016 and 1709+, Application Pool objects include properties that define the configuration settings for various Application Pool processes. The Identity Type property determines the account type under which the application pool runs.

### Application Pool Identity Type Property Values

The following table contains the possible values and account types for the Application Pool Identity Type property. The default Identity Type is 2 (Network Service).

|  |  |
| --- | --- |
| Value | Account Type |
| 0 | Local System |
| 1 | Local Service |
| 2 | Network Service |
| 3 | Specific User |
| 4 | Application Pool Identity |

### The Application Pool Recycling Monitor

The application pool recycling monitor tracks the number of times an application pool recycling event occurs during a given time period. If the number of application pool recycling events exceeds the number allowed in the specified period, the management pack changes the component health state to Warning (yellow).

The table below shows the configurable parameters that trigger the monitor to change the health state to Warning (yellow).

|  |  |
| --- | --- |
| Parameter | Description |
| Number of occurrences | Controls the allowable number of times an application pool-recycling event can occur during a specified period. |
| Time interval (in seconds) | Sets the length of time allowed for the configured number of occurrences. |

\*The Start All IIS Services task does not start the FTP or SMTP services. This task uses the IISRESET.exe command, which starts only those IIS services with a Startup type set to “Automatic”. By default, the Startup type for FTP and SMTP services is “Manual”.