



System requirements for installing OnCommand Workflow Automation

OnCommand Workflow Automation 5.1

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System requirements for installing OnCommand Workflow Automation

You must be aware of the OnCommand Workflow Automation (WFA) hardware and software requirements before installing WFA.

Hardware requirements for installing WFA

The following table lists the minimum hardware requirements and the recommended hardware specifications for the WFA server.

Component	Minimum requirements	Recommended specifications
CPU	2.27 GHz or faster, 4 core, 64-bit	2.27 GHz or faster, 4 core, 64-bit
RAM	4 GB	8 GB
Free disk space	5 GB	20 GB

If you are installing WFA on a virtual machine (VM), you should reserve the required memory and CPU so that the VM has sufficient resources. The installer does not verify the CPU speed.

Software requirements for installing WFA

WFA runs on a 64-bit Windows operating system, and should be installed on dedicated physical machines or VMs. You must not install any other application on the server that runs WFA.

WFA runs from Microsoft Windows Server 2012 Enterprise Edition to Microsoft Windows Server 2016 (all editions). Enterprise Edition is the recommended Windows operating system.

For Windows 2012 servers, .NET Framework version 4.5.2 must be installed on your Windows system. If .NET Framework version 4.5.2 is not installed, WFA 5.1 installation fails.

- One of the following supported browsers:
 - Mozilla Firefox
 - Microsoft Internet Explorer
 - Google Chrome
- PowerShell 3.0
- VMware PowerCLI version 5



The PowerShell extension for VMware APIs is required only if you are using WFA to execute workflows on VMware vSphere.



Antivirus applications might prevent WFA services from starting.

To avoid this issue, configure antivirus scanning exclusions for the following WFA directories:

- The directory where you have installed WFA
- The directory where you have installed Perl
- The directory where you have installed OpenJDK
- The MySQL Data Directory

For more details, see the Interoperability Matrix Tool.

Related information

[NetApp Interoperability Matrix Tool](#)

Ports required for Workflow Automation

If you are using a firewall, you must be aware of the required ports for Workflow Automation (WFA).

The default port numbers are listed in this section. If you want to use a non-default port number, you must open that port for communication. For more details, see the documentation on your firewall.

The following table lists the default ports that should be open on the WFA server:

Port	Protocol	Direction	Purpose
80, 443	HTTP, HTTPS	Incoming	Opening WFA and logging in
80, 443, 22	HTTP, HTTPS, SSH	Outgoing	Command execution (ZAPI, PowerCLI)
445, 139, 389, 636	Microsoft-DS, NetBIOS-ssn, AD LDAP, AD LDAPS	Outgoing	Microsoft Active Directory LDAP authentication
161	SNMP	Outgoing	Sending SNMP messages on the status of workflows
3306	MySQL	Incoming	Caching read-only user
25	SMTP	Outgoing	Mail notification
80, 443, 25	HTTP, HTTPS, SMTP	Outgoing	Sending AutoSupport messages
514	Syslog	Outgoing	Sending logs to a syslog server

The following table lists the default ports that should be open on the Unified Manager server:

Port	Protocol	Direction	Purpose
3306	MySQL	Incoming	Caching data from Active IQ Unified Manager 6.0 and later

The following table lists the default port that should be open on the VMware vCenter:

Port	Protocol	Direction	Purpose
443	HTTPS	Incoming	Caching data from VMware vCenter

The following table lists the default port that should be open on the SNMP host machine:

Port	Protocol	Direction	Purpose
162	SNMP	Incoming	Receiving SNMP messages on the status of workflows

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