

Workspace Environment Management 4.2

Apr 12, 2017

Workspace Environment Management

Workspace Environment Management uses intelligent resource management and Profile Management technologies to deliver the best possible performance, desktop logon, and application response times for XenApp and XenDesktop deployments. It is a software-only, driver-free solution.

Resource management

To provide the best experience for users, Workspace Environment Management monitors and analyzes user and application behavior in real time, then intelligently adjusts RAM, CPU, and I/O in the user workspace environment.

Profile Management

To deliver the best possible logon performance, Workspace Environment Management replaces commonly used Windows Group Policy Object objects, logon scripts, and preferences with an agent which is deployed on each virtual machine or server. The agent is multi-threaded and applies changes to user environments only when required, ensuring users always have access to their desktop as soon as possible.

What's new

Profile Management

Workspace Environment Management 4.2 now supports all versions of Profile Management up to v5.6. New options are now provided in the [Citrix Profile Management Settings](#) pages in the Administration Console.

Documentation

Workspace Environment Management 4.2 documentation is now provided in HTML format in docs.citrix.com. Articles can be downloaded as PDF as required. Advice on load balancing has been added to the section [Install infrastructure services](#).

Fixed issues

The following issues have been fixed since Version 4.1:

- File Association actions cannot be processed by the Agent Host on Windows 8, 8.1, Server 2012, Server 2012 R2, and Server 2016 due to registry access issues.

[#WEM-15]

- The Agent Host waits about 5 minutes before starting if Workspace Environment Management is installed on Windows version 8, 8.1, 10, Server 2012, Server 2012 R2, or Server 2016 (all branches and builds) and a language pack is installed.

[#WEM-17]

Known issues

This release contains the following issues:

- On Windows Server 2012 R2, if Adobe Acrobat Reader is installed it prevents Workspace Environment Management associating files of type .PDF with other PDF reader applications. Users are forced to manually select the PDF reader application to use each time they open a PDF.

[#WEM-33]

Future removals

The platforms, Citrix products, and features described below will be removed in future. Citrix will continue to support them up to and including the next XenApp and XenDesktop Long Term Service Release (LTSR) release, but they are expected to be removed in a subsequent Current Release. When possible, alternatives are offered for items that are deprecated.

The announcements below are intended to give you advanced notice of features which are being phased out so that you can make timely business decisions. Citrix monitors customer use and feedback about feature removal to determine when they are withdrawn.

Platform support in XenApp and XenDesktop generally ends when the platform's manufacturer ends extended support. See the [System requirements](#) article for exceptions.

Announced in Workspace Environment Management 4.2

Citrix Workspace Environment Management Administration Console will not be supported on the following platforms after the next LTSR:

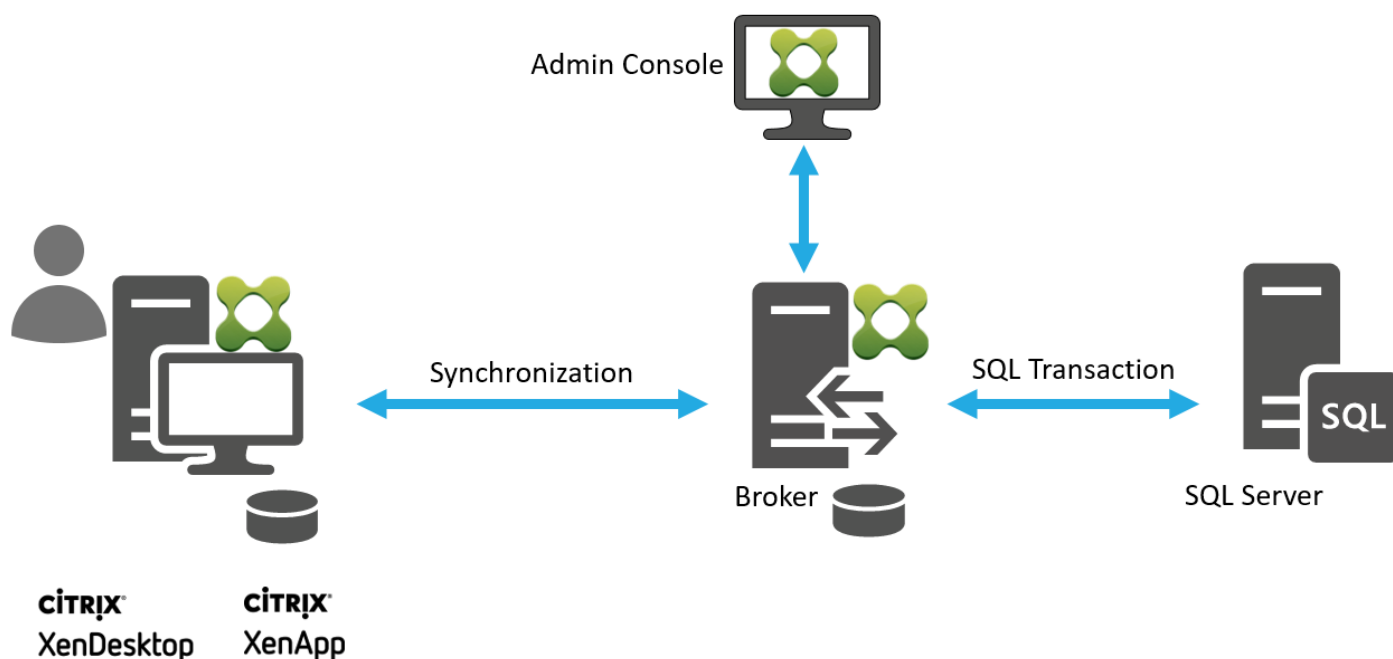
- Windows XP SP3 32-bit and 64-bit
- Windows Vista SP1 32-bit and 64-bit
- Windows 8.x 32-bit and 64-bit
- Windows Server 2003 32-bit and 64-bit
- Windows Server 2003 R2 32-bit and 64-bit
- Windows Server 2008
- Windows Server 2008 R2

Citrix Workspace Environment Management will not be supported on the following software after the next LTSR:

- Microsoft .NET Framework 4.0
- Microsoft .NET Framework 4.5.0
- Microsoft .NET Framework 4.5.1

Technical overview

Workspace Environment Management has the following architecture:



Workspace Environment Management Infrastructure Services. The Infrastructure Services broker is installed on a Windows server. It synchronizes the various back-end components (SQL Server, Active Directory) with the front-end components (Administration Console, Agent Host).

Note

Workspace Environment Management Infrastructure Services cannot be installed on a domain controller. Kerberos authentication issues prevent the broker service from working in this scenario.

Workspace Environment Management Administration Console. The Administration Console is installed on a Windows client or on a server operating system (OS). It connects to the Workspace Environment Management Infrastructure Services. You use the Administration Console to manage your Workspace Environment Management installation (to create and assign resources, manage policies, authorize users, and so on).

Workspace Environment Management Agent Host. The Agent Host can either be deployed on VDAs or on physical Windows devices (for Transformer use cases). It can be installed on a Windows client (to manage client environments) or on a Windows Server (to manage server environments, or to manage published desktops and applications). It connects to the Workspace Environment Management Infrastructure Services and is responsible for enforcing the settings you configure by using the Administration Console.

Note

The Workspace Environment Management Agent Host cannot be installed on the Workspace Environment Management Infrastructure Services server. The Agent Host installer fails in this scenario.

Note

The Transformer feature is not supported on server operating systems.

SQL Server Database: Workspace Environment Management requires a SQL Server database to store its settings. The Workspace Environment Management database requires a minimum of 50 MB of disk space.

Microsoft Active Directory Server: Workspace Environment Management requires access to your Active Directory to push settings to your users.

System requirements

Apr 12, 2017

Software prerequisites

.NET Framework. This is necessary for all Workspace Environment Management components. If the correct version is not available, installation fails. Version 4.5.2 or 4.6.2 are recommended (depending on OS), but the following versions are the minimum requirements:

.NET 4.0 (full package or Client Profile). This is the minimum necessary for the Workspace Environment Management Agent Host and Administration Console.

.NET 4.5.2. This is minimum necessary for the Workspace Environment Management Infrastructure Services.

Microsoft SQL Server Compact 3.5 SP2: SQL Server Compact is used by Workspace Environment Management to cache settings, primarily for use in offline mode. It **must** be installed on the Workspace Environment Management Infrastructure Services server. Install SQL Server Compact on any Workspace Environment Management Agent Host environment to allow the Agent to cache settings and run when in offline mode. If SQL Server Compact is not already installed, it is installed during infrastructure services installation.

Microsoft Sync Framework 2.1. This is necessary for all Workspace Environment Management components. If not already installed, this prerequisite is installed during installation.

Microsoft SQL Server 2008 R2 or later: Workspace Environment Management requires **sysadmin access** to a SQL Server instance to create its database, and read/write access to this database to use it.

Microsoft Active Directory: Workspace Environment Management requires **read access** to your Active Directory to push configured settings out to users. **Administrative access** is required to configure the agent.

Citrix License Server 11.14: Workspace Environment Management requires a Citrix license. Citrix licenses are managed and stored on Citrix License Servers.

Citrix XenApp and XenDesktop. Any [currently supported version](#) of XenApp or XenDesktop is required for this release of Workspace Environment Management.

Operating system prerequisites

Workspace Environment Management Infrastructure Services

Windows Server 2008 R2

Windows Server 2012

Windows Server 2012 R2

Windows Server 2016

Workspace Environment Management Administration Console

Windows XP SP3 32-bit and 64-bit

Windows Vista SP1 32-bit and 64-bit

Windows 7 32-bit and 64-bit

Windows 8.x 32-bit and 64-bit

Windows 10 32-bit and 64-bit

Windows Server 2003 32-bit and 64-bit

Windows Server 2003 R2 32-bit and 64-bit
Windows Server 2008
Windows Server 2008 R2
Windows Server 2012
Windows Server 2012 R2
Windows Server 2016

Workspace Environment Management Agent Host

Windows XP SP3 32-bit and 64-bit
Windows Vista SP1 32-bit and 64-bit
Windows 7 32-bit and 64-bit
Windows 8.x 32-bit and 64-bit
Windows 10 32-bit and 64-bit
Windows Server 2003 32-bit and 64-bit*
Windows Server 2003 R2 32-bit and 64-bit*
Windows Server 2008*
Windows Server 2008 R2*
Windows Server 2012*
Windows Server 2012 R2*
Windows Server 2016*

* The Transformer feature is not supported on server operating systems.

Hardware prerequisites

Workspace Environment Management Infrastructure Services (for up to 3,000 users): 4 vCPUs, 8 GB RAM, 80 MB of available disk space.

Workspace Environment Management Administration Console: minimum dual core processor with 2 GB RAM, 40 MB of available disk space (100 MB during install).

Workspace Environment Management Agent Host: average RAM consumption is 10 MB, but we recommend that you provide 20 MB to be safe. 40 MB of available disk space (100 MB during installation).

Workspace Environment Management database: 50 MB of available disk space.

Service dependencies

Netlogon. The agent service ("Norskale Agent Host service") is added to the Netlogon Dependencies list to ensure that the agent service is running before logons can be made.

Anti-virus exclusions

Workspace Environment Management Agent and Workspace Environment Management Infrastructure Services are installed in the following default directories:

C:\Program Files (x86)\Norskale\Norskale Agent Host	(on 64-bit OS)
C:\Program Files\Norskale\Norskale Agent Host	(on 32-bit OS)
C:\Program Files (x86)\Norskale\Norskale Infrastructure Services	

On-access scanning must be disabled for the entire **Norskale** installation directory for both the Workspace Environment Management Agent and Workspace Environment Management Infrastructure Services. If this is not possible, the following processes must be excluded from on-access scanning:

In the Infrastructure Service installation directory:

- Norskale Broker Service.exe
- Norskale Broker Service Configuration Utility.exe
- Norskale Database Management Utility.exe

In the Agent Host installation directory:

- Norskale Agent Host Service.exe
- VUEMUIAgent.exe
- Agent Log Parser.exe
- AgentCacheUtility.exe
- AppsMgmtUtil.exe
- PrnsMgmtUtil.exe
- VUEMAppCmd.exe
- VUEMAppCmdDbg.exe
- VUEMAppHide.exe
- VUEMCmdAgent.exe
- VUEMMaintMsg.exe
- VUEMRSAV.exe

Install and configure

Feb 23, 2017

Install and configure the following components:

- [Infrastructure services](#)
- [Administration console](#)
- [Agent Host](#)

Infrastructure Services

May 21, 2017

There is currently one infrastructure service:

Norskale Infrastructure Service (NT SERVICE\Norskale Infrastructure Service) : Manages WEM Infrastructure services.
Account: LocalSystem or specified user account.

Install the infrastructure services

Important

Workspace Environment Management Infrastructure Services cannot be installed on a domain controller. Kerberos authentication issues prevent the broker service from working in this scenario.

To Install the infrastructure services, run **Citrix Workspace Environment Management Infrastructure Services v4.02.00.00 Setup.exe** on your infrastructure server. The infrastructure services install into the following default directory:
C:\Program Files (x86)\Norskale\Norskale Infrastructure Services

You can customize your installation using the following arguments:

AgentPort: The Infrastructure Services setup runs a script that opens firewall ports locally, to ensure that the agent network traffic is not blocked. The AgentPort argument allows you to configure which port is opened. The default port is 8286. Any valid port is an accepted value.

AgentSyncPort: The Infrastructure Services setup runs a script that opens firewall ports locally, to ensure that the agent network traffic is not blocked. The AgentSyncPort argument allows you to configure which port is opened. The default port is 8285. Any valid port is an accepted value.

AdminPort: The Infrastructure Services setup program runs a script that opens firewall ports locally, to ensure that the agent network traffic is not blocked. The AdminPort argument allows you to configure which port is opened. The default port is 8284. Any valid port is an accepted value.

The syntax for these install arguments is:

```
"path:\to\Citrix Workspace Environment Management Infrastructure Services v4.02.00.00 Setup" /v"argument1=\"value1\" argument2=\"value2\""
```

Create SPNs

Note

When you are using load balancing, all instances of the Workspace Environment Management Infrastructure Services must be installed and configured using the same service account name.

After the installer is finished, create a Service Principal Name (SPN) for the infrastructure service. Use the command that is applicable to your environment:

- You do not use Windows authentication or load balancing:

```
setspn -C -S Norskale/BrokerService [hostname]
```

where [hostname] is the name of the Citrix Workspace Environment Management Broker server.

- You use Windows authentication or you use load balancing (which requires Windows authentication):

```
setspn -U -S Norskale/BrokerService [accountname]
```

where [accountname] is the name of the service account that is being used for Windows authentication.

SPNs are case-sensitive.

Configure load balancing

To configure Workspace Environment Management with a load balancing service:

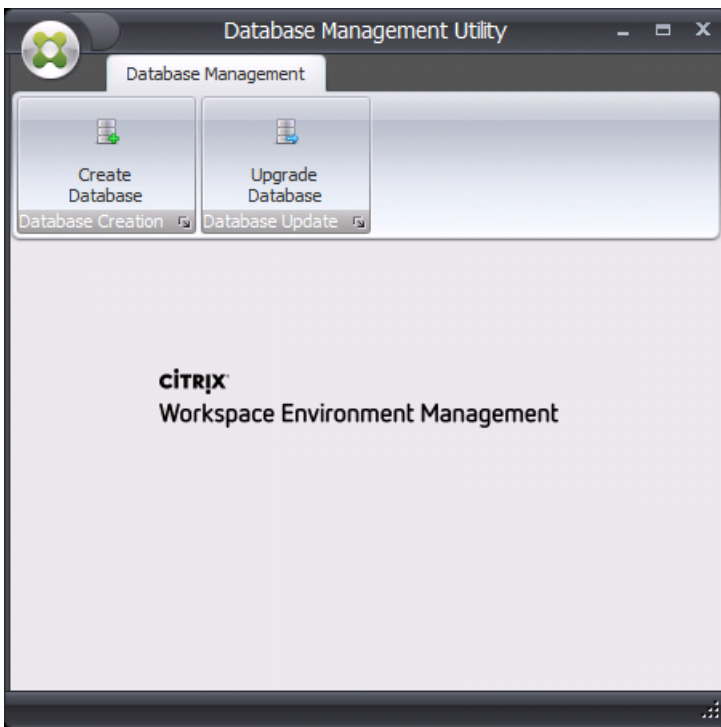
1. Create a Windows Broker Service Account for the Workspace Environment Management broker service to connect to the Workspace Environment Management database.
2. When you create the Workspace Environment Management database, select the option **Broker Database Connection Uses Windows Security** and specify the Broker Service Account name. [See [Create a Workspace Environment Management Database](#).]
3. Configure each broker to connect to the SQL database using Windows authentication instead of SQL authentication: select the option **Enable Windows Account Impersonation** and provide the Broker Service Account credentials. [See [Configure the Citrix Workspace Environment Management Infrastructure Services](#).]
4. Configure the Service Principal Names (SPNs) for the Workspace Environment Management Infrastructure Services to use the Broker Service Account name. [See [Create SPNs](#).]
5. Create a virtual IP address (VIP) that covers the number of brokers you want to put behind a VIP. All the brokers covered by a VIP are eligible when agents connect to the VIP.
6. When you configure the Agent Host Configuration GPO, set the Connection Broker Name setting to the VIP instead of the address for any individual broker. [See [Configure the Agent](#).]
7. Session persistence is required for the connection between agent and broker, and between consoles and broker. Citrix recommends that you connect all Administration Consoles to one Broker Service, rather than using the VIP.

Create a Workspace Environment Management Database

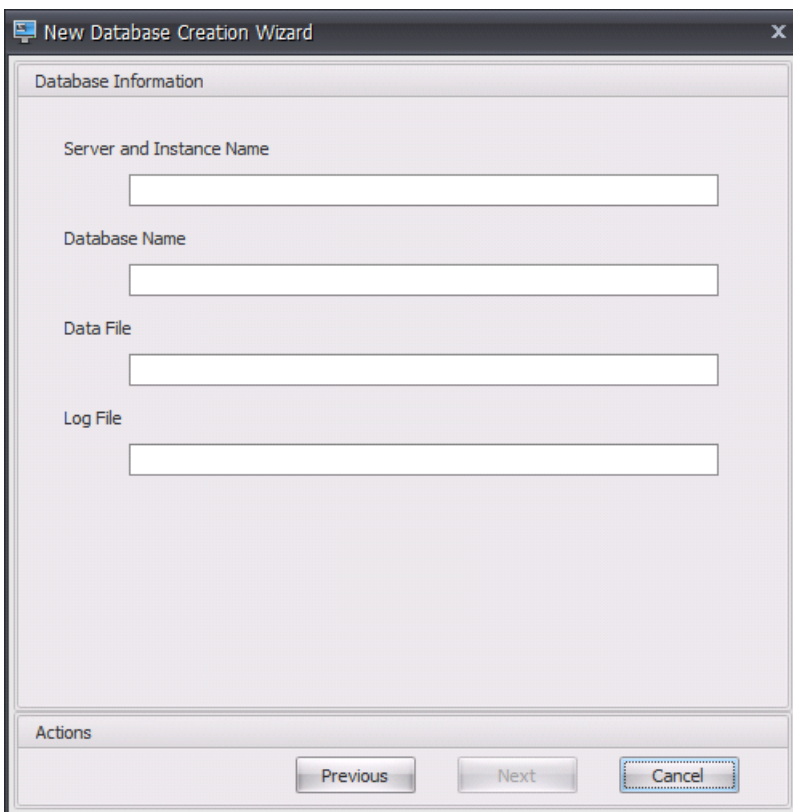
Use the **Norskale Database Management Utility** to create the database. This is installed during the infrastructure services installation process.

Note: If you are using Windows authentication for your SQL Server, run the database creation utility under an identity that has sysadmin permissions.

1. Start the **Database Management Utility** from the **Citrix>Workspace Environment Management>Database Management** folder in the **Start** menu.



2. Click **Create Database**.



3. Type the following Database Information, then click **Next**:

Server and Instance Name. Address of the SQL Server on which the database can be hosted. This address must be

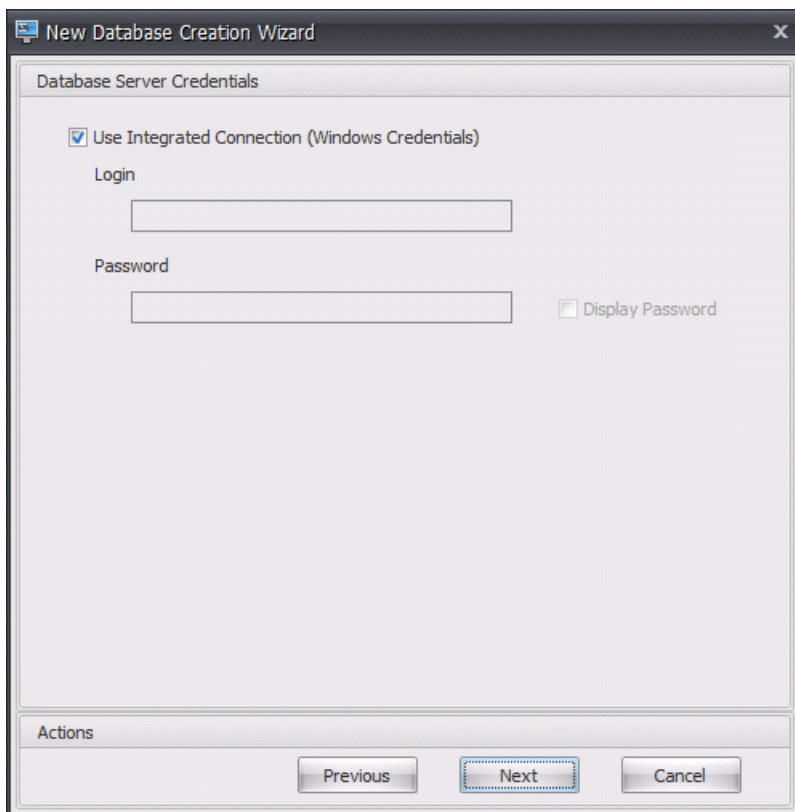
reachable exactly as typed from the Broker server. The server and instance name can be typed as the machine name, fully qualified domain name, or IP address. Specify a full instance address as **serveraddress,port\instancename**. If port is unspecified the default SQL port number (1433) is used.

Database Name. Name of the SQL database to create.

Data File: path to the **.mdf** file location on the SQL Server.

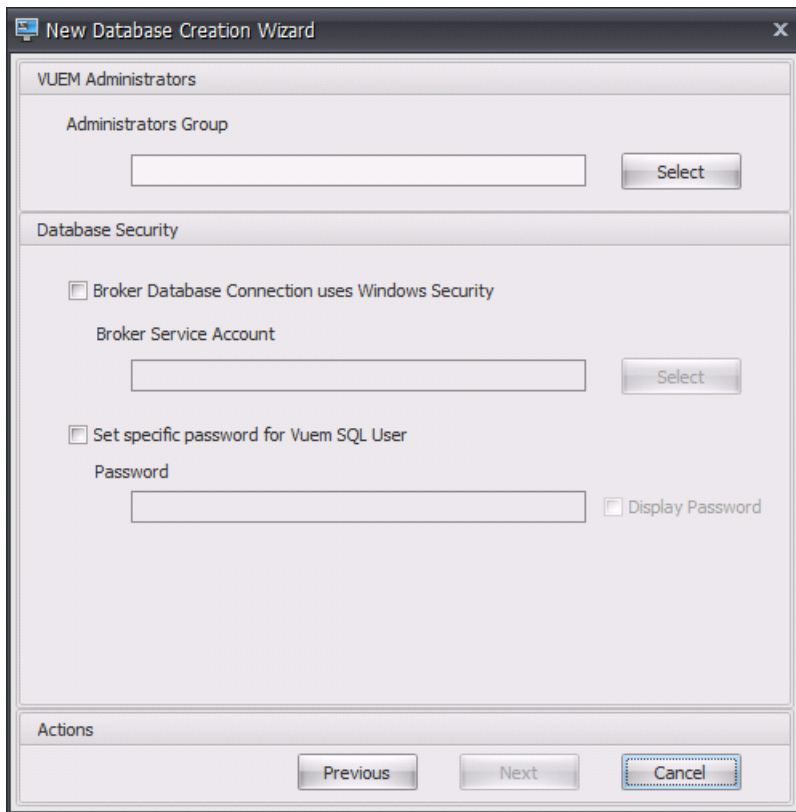
Log File: path to the **.ldf** file location on the SQL Server.

Note. The database management utility cannot query your SQL Server for the default location of these files. The default values for the data and log files are the default values for a default installation of MSSQL. You must type the correct values in these two fields or the database creation process will fail.



4. Provide Database Server Credentials which the wizard can use to create the database, then click **Next**. These credentials are independent from the credentials the infrastructure service uses to connect to the database after it is created. They are not stored.

The option **Use Integrated Connection** is selected by default. It allows the wizard to use the Windows account of the identity it is running under to connect to SQL and create the database. If this Windows account does not have sufficient permissions to create the database, you can either run the database management utility as a Windows account with sufficient privileges, or you can clear this option and provide an SQL account with sufficient privileges instead.



5. Enter VUEM Administrators and Database Security details, then click **Next**. The credentials you provide here are used by the infrastructure service to connect to the database after it is created. They are stored in the database.

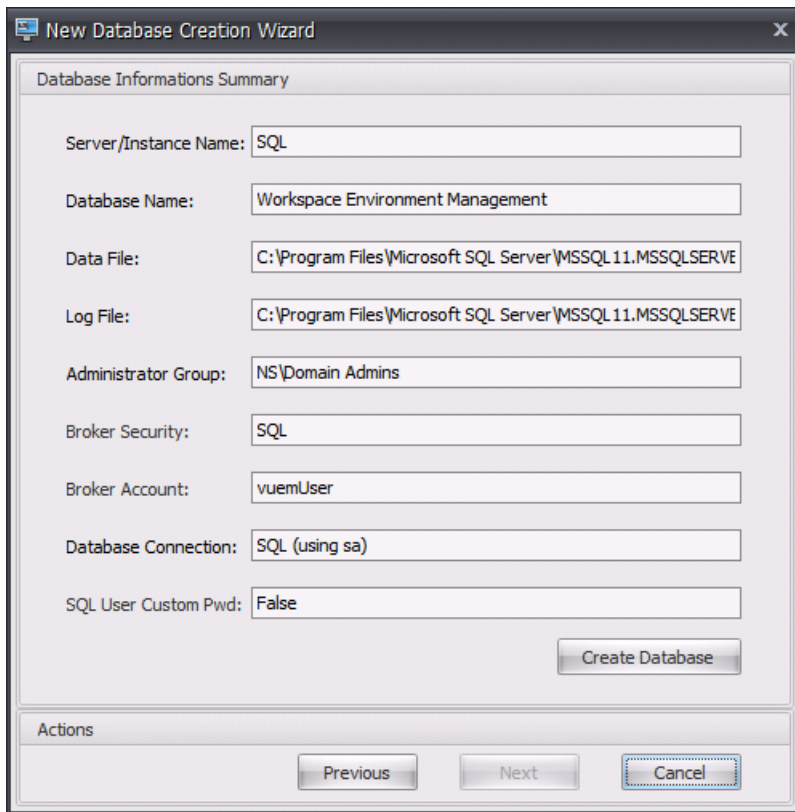
Administrator Group. This user group is pre-configured as Full Access administrators for the Administration Console. Only users configured as Workspace Environment Management administrators are allowed to use the Workspace Environment Management Administration Console. Specify a valid user group or you cannot use the console yourself.

Broker Database Connection Uses Windows Security. When this option is cleared (the default) the database will expect the infrastructure service to use the *vuemUser* SQL user account for connections to the database. The *vuemUser* SQL account is created by the installation process. This requires Mixed-Mode Authentication to be enabled for the SQL instance. When this option is selected, the database expects the infrastructure service to connect to it using a Windows account. The Windows account you select must not already have a login on the SQL instance. In other words you cannot use the same Windows account to run the infrastructure service as you used to create the database.

Set Specific Password for VUEM SQL User. By default, the *vuemUser* SQL account is created with an 8-character password which uses upper and lower case letters, digits, and punctuation. Select this option to enter a *vuemUser* SQL account password yourself (for example, if your SQL policy requires a more complex password).

Important

If you set the password here, remember to specify the same *vuemUser* SQL account password when you configure the infrastructure service.



6. Review the settings you have selected, and when you are satisfied click **Create Database**.

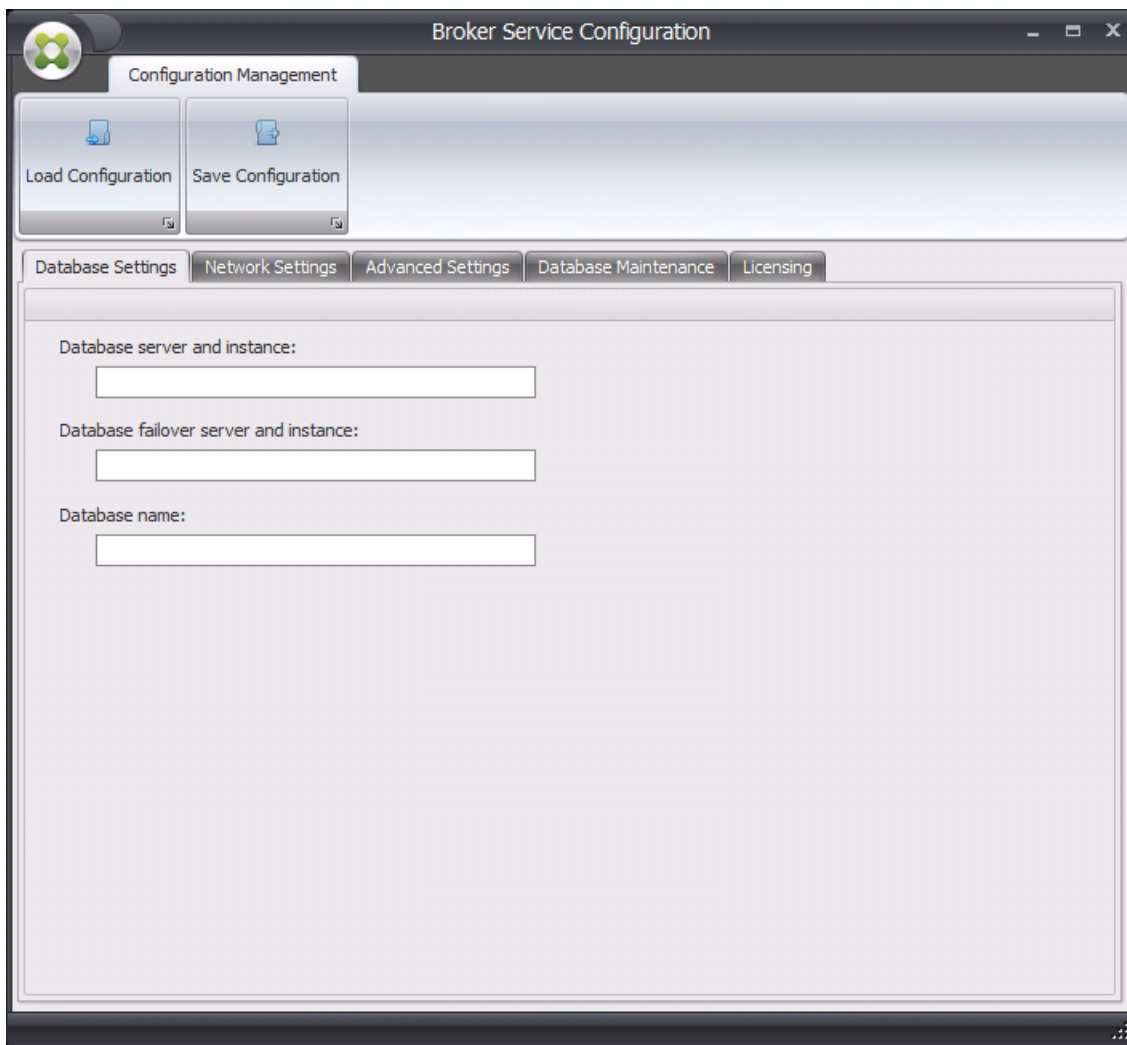
7. When you are notified that the database creation has completed successfully, click **Finish** to exit the wizard.

If there is an error during the database creation, check the log file "Citrix WEM Database Management Utility Debug Log.log" in the infrastructure services installation directory.

Configure the infrastructure service

Before the infrastructure service runs, you must configure it using the **Broker Service Configuration** utility.

1. From the **Start** menu select **Citrix>Workspace Environment Management>Broker Service Configuration**.

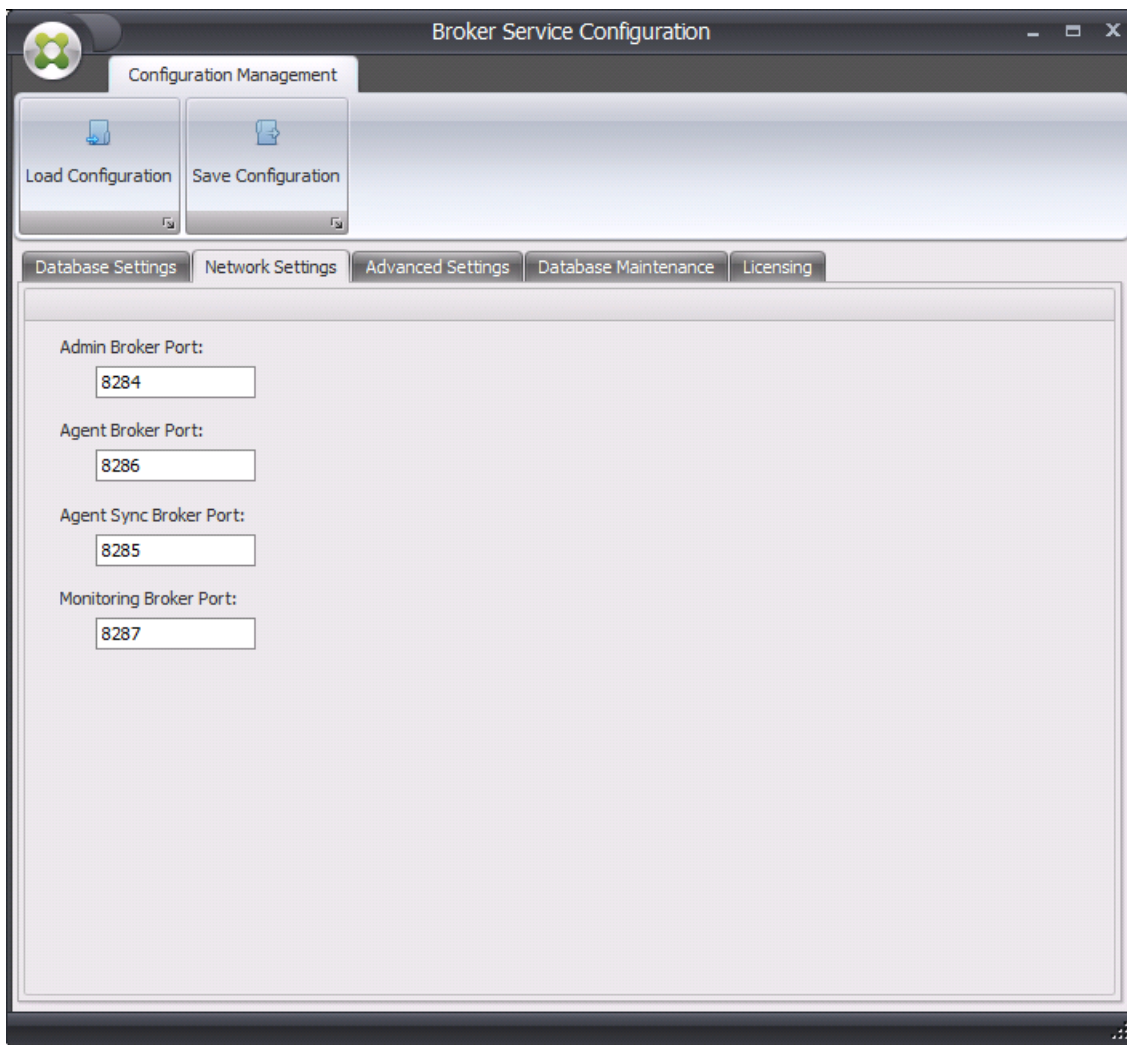


2. In the **Database Settings** tab enter the following details:

Database Server and Instance. Address of the SQL Server instance on which the database is hosted. Must be reachable exactly as typed from the Broker server. Specify a full instance address as serveraddress,port\instancename. If port is unspecified the default SQL port number (1433) is used.

Database Failover Server. If you are using database mirroring, specify the failover server address here.

Database Name. Name of the Workspace Environment Management database on the SQL instance.



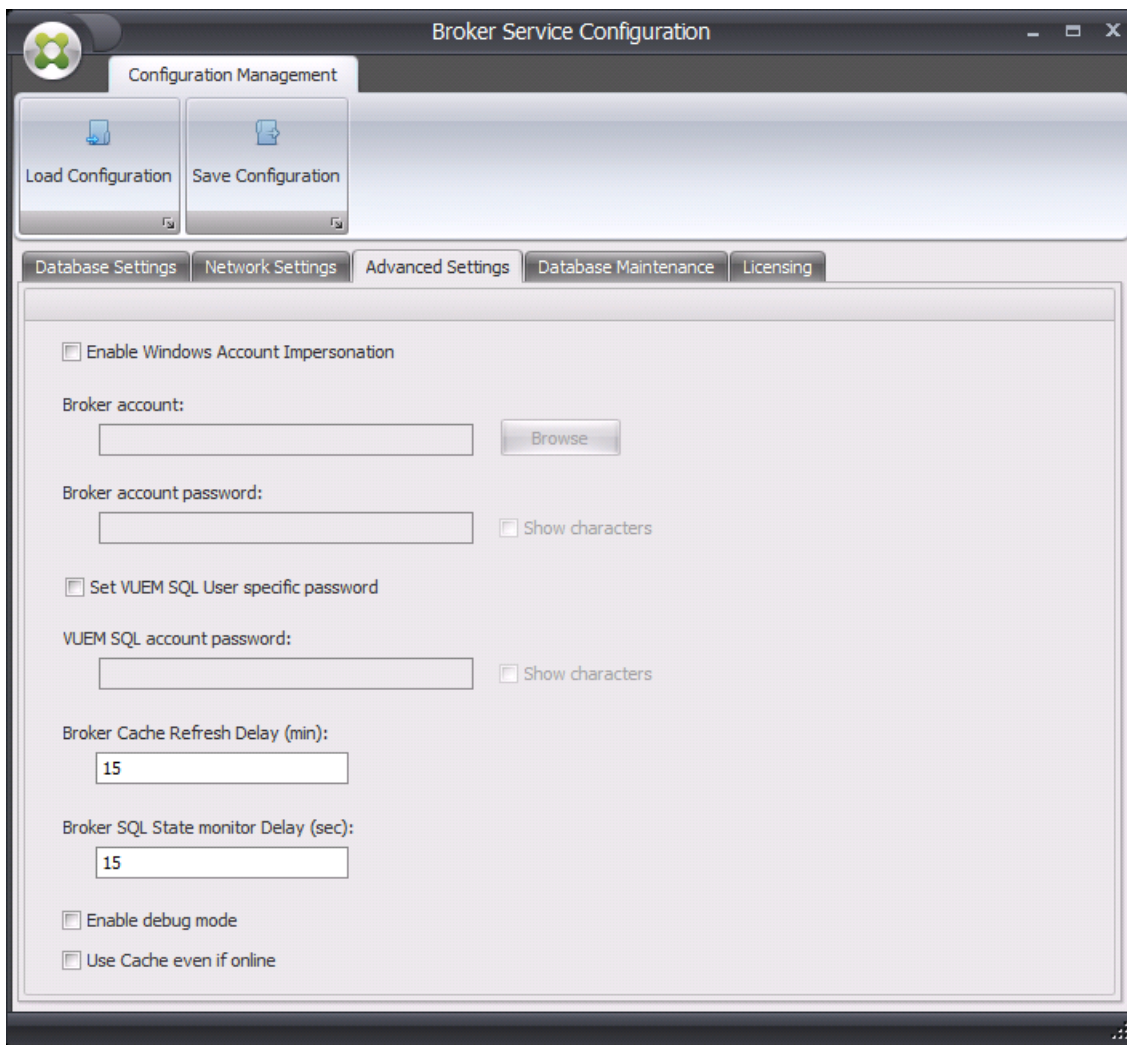
3. In the **Network Settings** tab type the ports the Workspace Environment Management Infrastructure Services uses:

Admin Broker Port. This port is used by the Administration Console to connect to the Workspace Environment Management Infrastructure Services.

Agent Broker Port. This port is used by your Workspace Environment Management Agent Hosts to connect to the Workspace Environment Management Infrastructure Services.

Agent Sync Broker Port. This port is used by the Workspace Environment Management Agent Host service to synchronize its cache with the Workspace Environment Management Infrastructure Services.

Monitoring Broker Port. [Not currently used.]



4. In the **Advanced Settings** tab, enter impersonation and automatic refresh settings.

Enable Windows Account Impersonation. By default, this option is cleared and the infrastructure service uses mixed-mode authentication to connect to the database (using an SQL account called *vuemUser* created during database creation). If you selected a Windows account (Broker Service Account) during database creation, you must select this option and specify the same Windows account for the service to impersonate during connection. The account you select must be a local administrator on the infrastructure server.

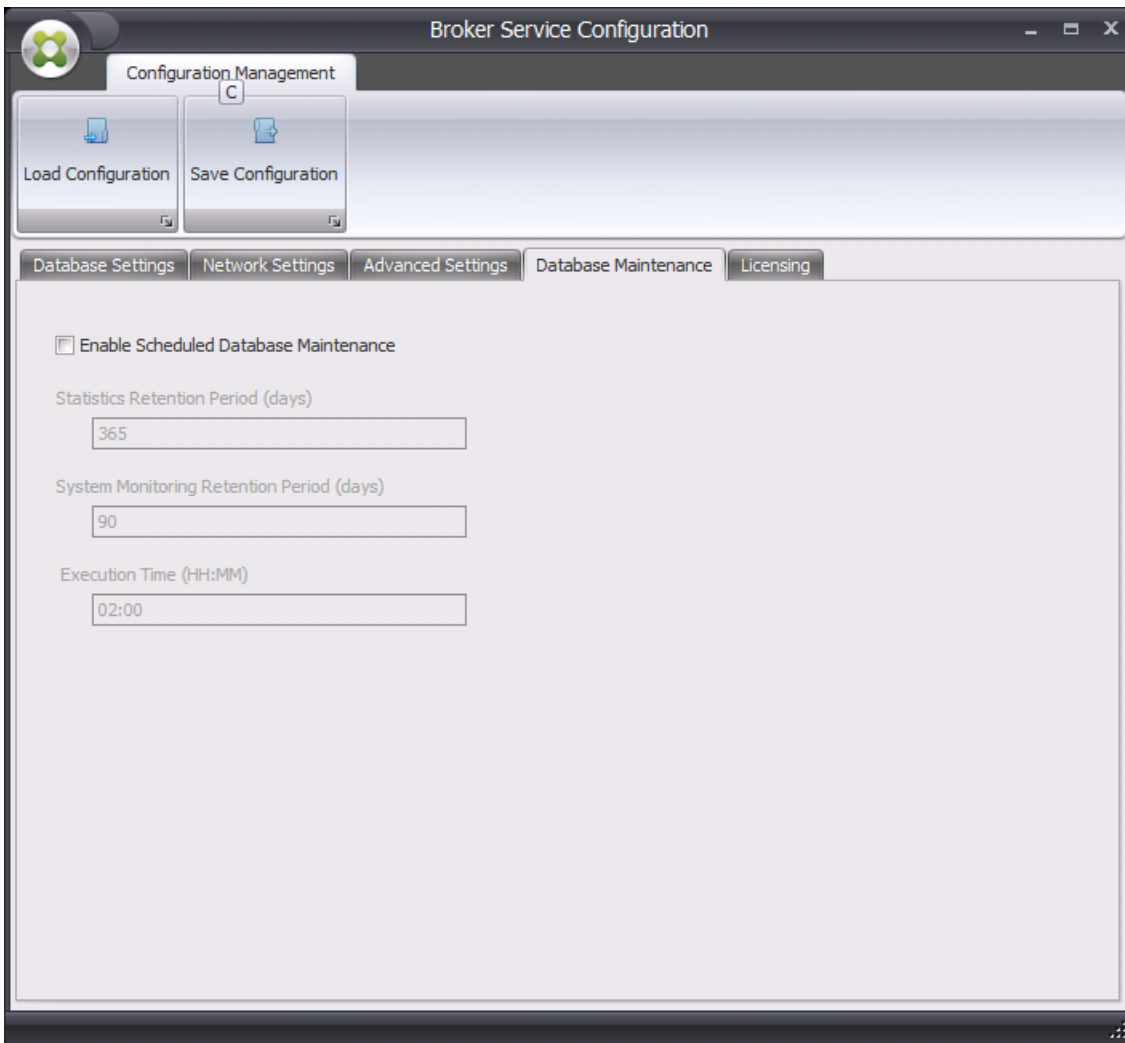
Workspace Environment Management SQL Account Password. If enabled, this setting indicates to the infrastructure service the custom password configured for the Workspace Environment Management SQL user during database creation. **If no custom password was configured, do not enable this setting.**

Broker Cache Refresh Delay. Time (in minutes) before the Workspace Environment Management Infrastructure Services refreshes its cache. The cache is used if the Workspace Environment Management Infrastructure Service is unable to connect to SQL.

Broker SQL State Monitor Delay. Time (in seconds) between the broker's attempts to poll the SQL server.

Enable Debug Mode. If enabled, the Workspace Environment Management Infrastructure Services are set to verbose logging mode.

Use Cache Even if Online. If enabled, the Workspace Environment Management Infrastructure Services always reads site settings from its cache.



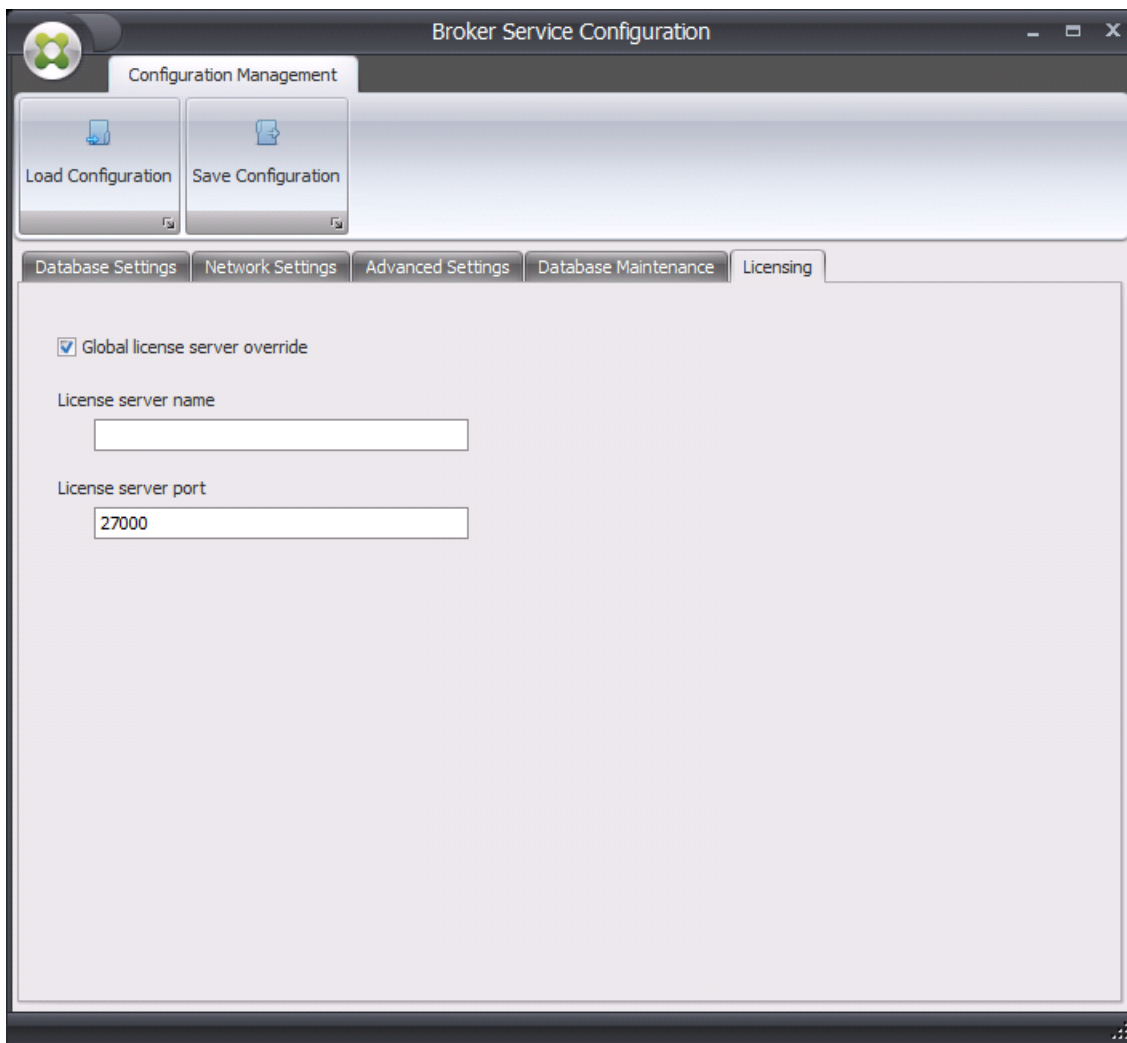
5. You can use the **Database Maintenance** tab to configure database maintenance.

Enable Scheduled Database Maintenance. If enabled, this setting deletes old statistics records from the database at periodic intervals.

Statistics Retention Period. Determines how long user and agent statistics are retained.

System Monitoring Retention Period. Determines how long system optimization statistics are retained.

Execution Time. Determines the time at which the database maintenance action is performed.



6. You can optionally use the **Licensing** tab here to specify a Citrix License Server during infrastructure service configuration. If you do not, when an administration console connects to a new Workspace Environment Management database for the first time, you will need to enter the Citrix License Server credentials in the **About** tab of the administration console ribbon. The Citrix License Server information is stored in the same location in the database in both cases.

Global license server override. Enable this option to enter the credentials of the Citrix License Server used by Workspace Environment Management. Information you enter here will override any Citrix License Server information already in the Workspace Environment Management database.

After the Workspace Environment Management Infrastructure Services is configured to your satisfaction, click **Save Configuration** to save these settings and then exit the Workspace Environment Management Infrastructure Services Configuration Utility.

Administration Console

Feb 23, 2017

Install the Administration Console

Run **Citrix Workspace Environment Management Console v4.02.00.00 Setup.exe** on your Administrator or Console environment.

You can customize your installation using the arguments:

AgentPort: The Administration Console setup runs a script that opens firewall ports locally, to make sure the agent network traffic is not blocked. This argument allows you to configure which port is opened. If unspecified, the default port 8286 is used. Accepted values are any valid port.

AdminPort: The Administration Console setup runs a script that opens firewall ports locally, to make sure the agent network traffic is not blocked. This argument allows you to configure which port is opened. If unspecified, the default port 8284 is used. Accepted values are any valid port.

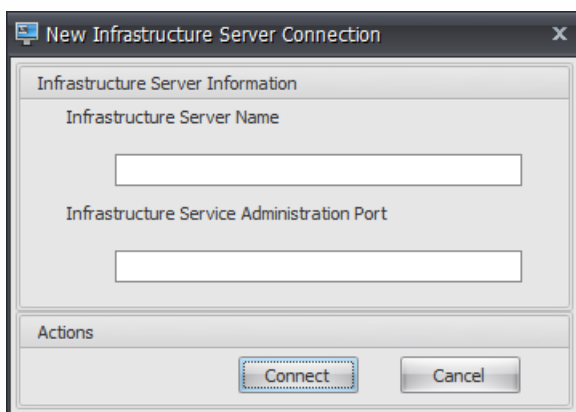
The syntax for these install arguments is as follows:

```
"path:\to\Citrix Workspace Environment Management Console v4.02.00.00 Setup " /v"argument=\"value\""
```

Configure the Administration Console

Create a Database Broker Connection

1. In the **Start** menu select **Citrix>Workspace Environment Management>Administration Console**. By default, the Administration Console launches in a disconnected state.
2. In the ribbon, click **Connect** to open the New Infrastructure Server Connection window.

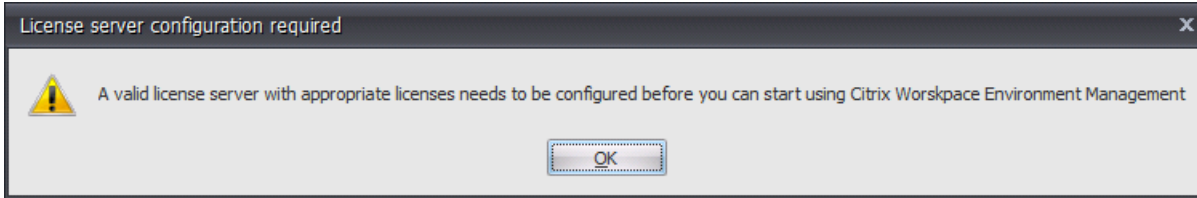


3. Enter the following values then click **Connect**:

Infrastructure Server Name. The name of the Workspace Environment Management Infrastructure Services server. It must resolve from the Administration Console environment exactly as entered.

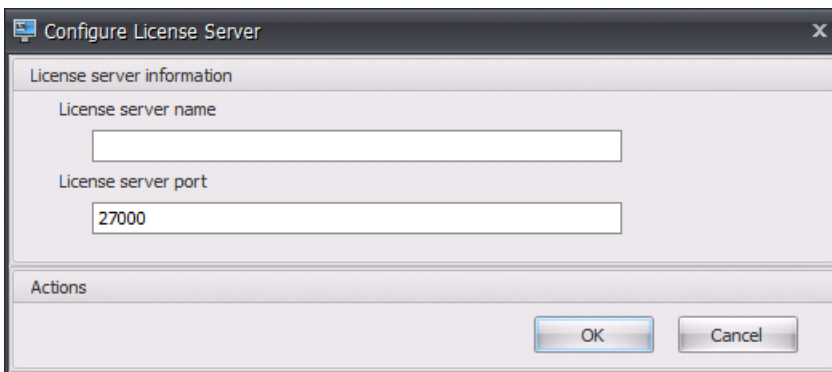
Infrastructure Service Administration Port. The port on which the Administration Console connects to the Workspace Environment Management Infrastructure Services.

Click **Connect**. The first time you connect to a new database, you will see a message warning you that you must have a valid Citrix License Server with valid licenses configured in order to use Workspace Environment Management Administration Console:



Configure the database with a license server

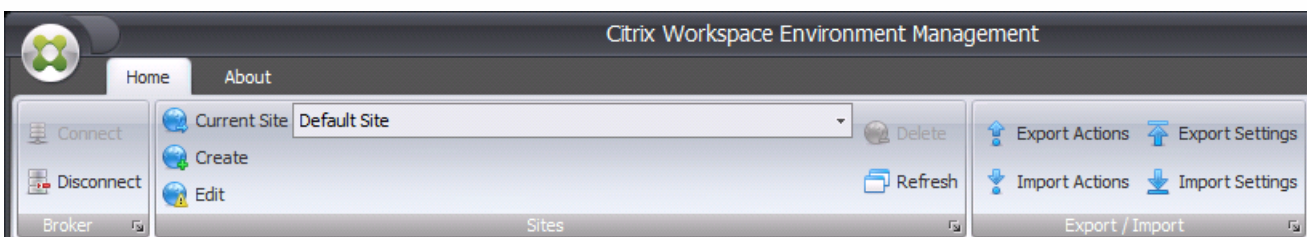
To configure the database with a license server, in the Administration Console ribbon click **About** then click **Configure License Server** and enter your Citrix License Server details. The license server address must resolve from the Administration Console environment as entered.



Import quickstart settings

Workspace Environment Management includes XML files which pre-configure your Workspace Environment Management database so that it is Proof-of-Concept-ready out of the box. The Environmental Settings included in the quickstart setting files are a sample lockdown configuration. All other setting groups are based on best practices.

1. To import the quickstart setting files, in the **Home** ribbon click **Import Settings**:



2. In the **Setting Import Wizard**, select the folder "Configuration Templates" containing the quickstart setting files, then

select every Setting Type.

Agent Host

Apr 12, 2017

Configure the Agent Host

Note

The Workspace Environment Management Agent Host cannot be installed on the Workspace Environment Management Infrastructure Services server.

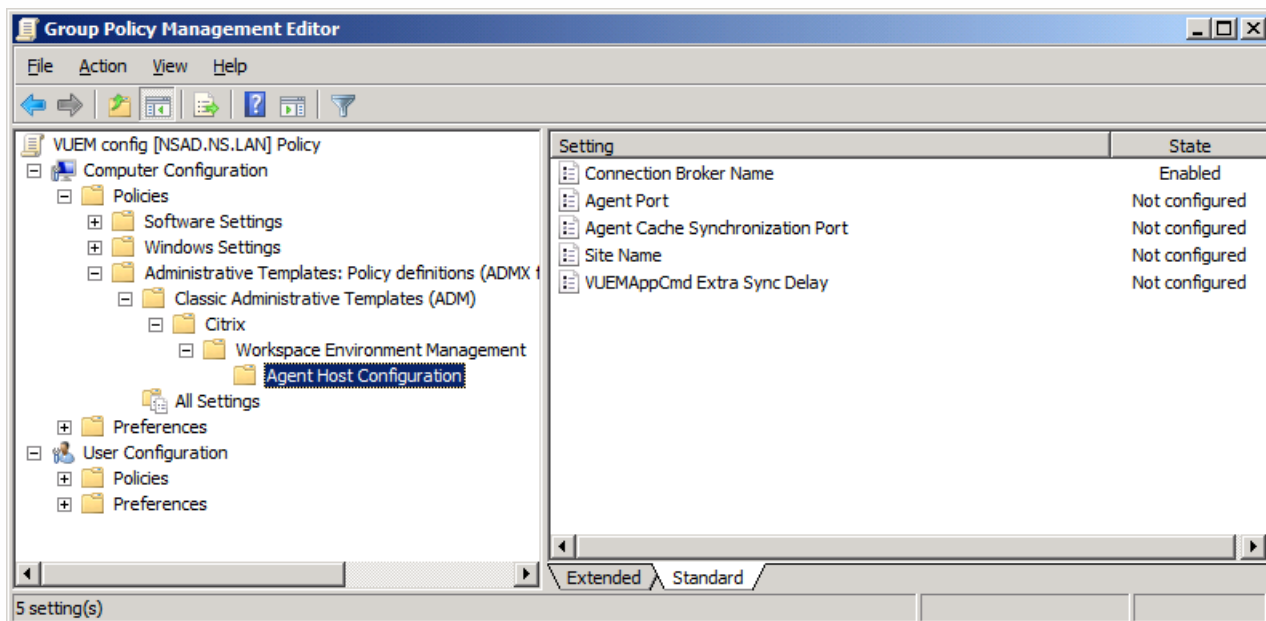
Agent configuration requires administrative access to your Active Directory.

Prerequisites

To configure the Agent, use the Citrix Workspace Environment **Management Agent Host Configuration v4.0.adm** or the Citrix Workspace Environment **Management Agent Host Configuration v4.0.admx** administrative template (provided with the Citrix Workspace Environment Management binaries).

Configure group policies

Use the **Group Policy Management Editor** to configure a GPO with the following settings:



Connection Broker Name. The address of the Workspace Environment Management Infrastructure Services server. It must be reachable as entered from the user environment.

Agent Port: The default value is 8286. The agent port can be changed to use whichever port you configured for Agent

connection during the Workspace Environment Management Infrastructure Services configuration phase.

Agent Cache Synchronisation Port: The default value is 8285. The agent cache synchronization port can be changed to use whichever port you configured for Agent connection during the Workspace Environment Management Infrastructure Services configuration phase.

VUEMAppCmd Extra Sync Delay. Time (in milliseconds) that the Workspace Environment Management Agent Host Application Launcher should wait after launch before checking for the Workspace Environment Management Agent Host mutex. If left unconfigured, the Application Launcher will check at launch.

Deploy the Agent

There is one agent service:

Norskale Agent Host Service (NT SERVICE\Norskale Agent Host Service): Manages WEM Agent. Account: LocalSystem

You can run **Citrix Workspace Environment Management Agent Setup** in your user environment, or deploy the installer to your users. The installer accepts standard InstallShield deployment switches. The agent installs into the following default directory:

C:\Program Files (x86)\Norskale\Norskale Agent Host (on 64-bit OS)
C:\Program Files\Norskale\Norskale Agent Host (on 32-bit OS)

The **Citrix Workspace Environment Management Agent Setup** executable acknowledges the following custom arguments:

WaitForNetwork. This argument allows you to configure whether the **WaitForNetwork** registry key created during installation is active or not. Accepted values are **0** and **1**. If not specified, the key will not be created during installation.

SyncForegroundPolicy. This argument allows you to configure whether the **SyncForegroundPolicy** registry key created during installation is active or not. Accepted values are **0** and **1**. If not specified, the key will not be created during installation.

GpNetworkStartTimeoutPolicyValue. This argument allows you to configure the value of the **GpNetworkStartTimeoutPolicyValue** registry key created during installation, in seconds. By default, this value is 30, but the argument will accept any whole number.

All three keys are created under **HKEY_LOCAL_MACHINE\Software\Microsoft\Windows NT\CurrentVersion\Winlogon** during the installation process, and are there to ensure that the user environment receives the Broker address GPOs before logon. In network environments where the Active Directory or Domain Controller servers are slow to respond, this may lead to additional processing time prior to the login screen being displayed. Please note that Microsoft recommend setting the value of the **GpNetworkStartTimeoutPolicyValue** key to a minimum of 30 in order for it to have an impact.

AgentPort: The Agent Host setup runs a script to open firewall ports locally, to make sure the agent network traffic is not blocked. This argument allows you to configure which port is opened. If unspecified, the default port 8286 is used. Accepted values are any valid port.

AgentSyncPort: The Agent Host setup now runs a script to open firewall ports locally, to make sure the agent

network traffic is not blocked. This argument allows you to configure which port is opened. If unspecified, the default port 8285 is used. Accepted values are any valid port.

ServicesPipeTimeout. This argument allows you to configure the value of the ServicesPipeTimeout registry key, which is created during installation under **HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet**. This registry key adds a delay before the service control manager is allowed to report on the state of the Workspace Environment Management Agent Host service, thereby preventing the Agent from failing because the service launched before the network was initialised. This argument will accept any value, in milliseconds. If unspecified, a default value of 60000 (60 seconds) will be used).

CmdLineToolsDebug. If the value of this argument is 1, the setup executable will display all arguments passed to the agent installer in a separate cmd window that will pause the installation until dismissed.

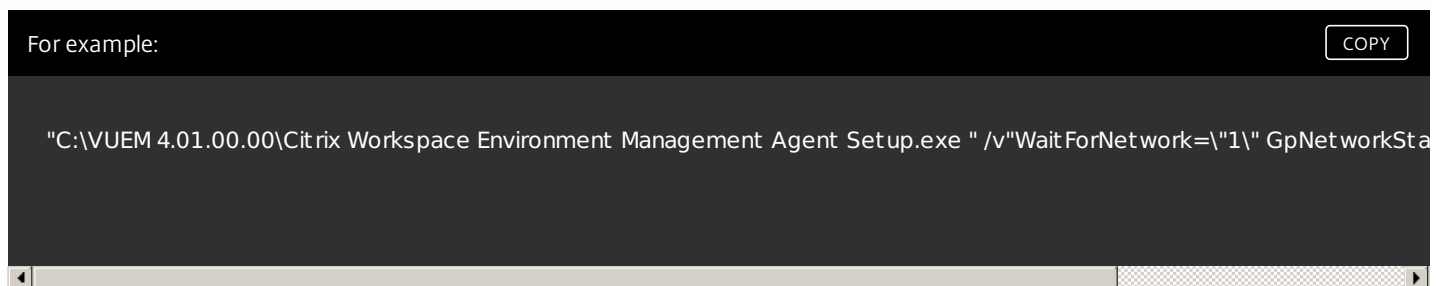
ARPSYSTEMCOMPONENT. This argument allows you to designate the VUEM Agent as a system component, which will prevent it from appearing in Add/Remove Programs. Accepted values are 0 or 1.

AgentCacheAlternateLocation. This argument allows you to specify the value of the associated registry setting which must be expressed as a valid file path. If configured, the Agent's local cache file will be saved in the designated location instead of in the Agent install directory.

AgentServiceUseNonPersistentCompliantHistory. This argument allows you to specify the value of the associated registry setting. If configured, the Agent service's process optimisation history will be saved externally to an XML file in the same location as the Agent local cache (the Agent install directory by default, or the location configured via **AgentCacheAlternateLocation**) rather than in the machine registry. Accepted value is 1.

The syntax for these install arguments is as follows:

```
"path:\to\Citrix Workspace Environment Management Agent Setup.exe" /v"argument=\"value\""
```



Build the Agent Service Cache

As an optional third step, or to build an image that includes the Workspace Environment Management Agent Host as pre-installed software, you can ensure that the Agent Service setting cache is built before the Agent is run. (By default, the cache is built the first time the Agent runs).

Run the command line executable **AgentCacheUtility.exe** in the Agent Host install directory. This constructs the Agent Service cache or, if the cache already exists, triggers a rebuild.

The executable accepts the following command line arguments:

-help: display a list of allowed arguments.

-refreshcache or **-r**: trigger a cache build or refresh.

Upgrade a deployment

Mar 21, 2017

Introduction

You can upgrade certain deployments to newer versions without having to first set up new machines or Sites; this is called an in-place upgrade. You can upgrade:

- From Workspace Experience Manager version 4.0 to the latest released (current) Workspace Experience Manager version

The Workspace Environment Management components must be upgraded in the following order:

1. [Infrastructure Services](#)
2. [Database](#)
3. [Administration Console](#)
4. [Agent Host](#)

Step 1: Upgrade the infrastructure services

To upgrade the Workspace Environment Management Infrastructure Services, run the new Workspace Environment Management Infrastructure Services setup on your broker server. This is otherwise identical to the installation procedure. You will need to reconfigure the Workspace Environment Management Infrastructure Services once the database upgrade (described in the next section) is over.

Step 2: Upgrade the database

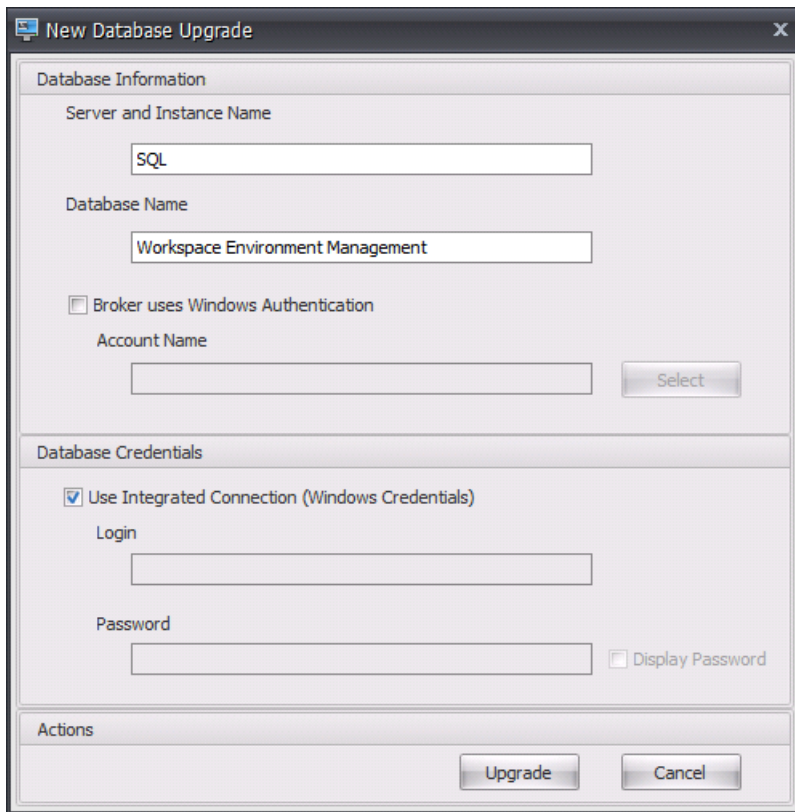
Important

The database upgrade process is not reversible. Ensure that you have a valid database backup before launching the upgrade process.

Note

Upgrading the database requires the same rights as creating a new database.

To upgrade the Workspace Environment Management database, run the Database Management Utility on your Workspace Environment Management Infrastructure Services server and click **Upgrade Database**.



Server and Instance Name. Address of the SQL Server\instance on which the database can be hosted. Must be reachable as-entered from the Broker server.

Database Name. Name of the database as it will be created in SQL.

Broker uses Windows Authentication. By default, the Workspace Environment Management Infrastructure Services runs as a local system service. To select alternative credentials, select this option and type an **Account Name**. (**Note:** You cannot use the same Windows account as both the database server account and the broker service account.)

Database Credentials. By default, the Database Management Utility uses the credentials of the identity it is currently running under to create the database. If this identity does not have the requisite rights to create a database, you cannot create a database. If you wish to use a SQL account instead, clear the **Use Integrated Connection** option. These credentials are not stored.

Click **Upgrade** to launch the database upgrade process. Once you are notified that the database upgrade has completed successfully, you can exit the application.

If there has been an error during the database creation, please check the **VUEM Database Management Utility Log** file in your Workspace Environment Management Infrastructure Services installation directory.

Step 3: Upgrade the Administration Console

To upgrade the Workspace Environment Management Administration Console, run the Workspace Environment Management Administration Console setup executable. This is otherwise identical to the installation procedure.

Note

All of the settings you have configured via the Administration Console are stored in the Citrix Workspace Environment Management database and are preserved during upgrade.

Step 4: Upgrade the Agent Host

To upgrade the Workspace Environment Management Agent Host, run the new Workspace Environment Management Agent Host setup executable on the target machines. Make sure that no users are logged in on the machine on which you are updating the Agent Host so that setup can modify the files it needs to modify.

After upgrading the agent (via installer or private patch) run the following two commands to ensure that the Agent **.dll** files are correctly precompiled:

```
C:\Windows\Microsoft.NET\Framework64\v4.0.30319\ngen.exe update
```

```
C:\Windows\Microsoft.NET\Framework64\v4.0.30319\ngen.exe eqi 3
```

(Please note that for 32-bit operating systems, the path is instead

```
C:\Windows\Microsoft.NET\Framework\v4.0.30319\ngen.exe).
```

By design, agents are backward-compatible within the same major release version.

Use the Administration Console

Feb 23, 2017

Start the Administration Console

To start the Workspace Environment Management Administration Console:

1. From the **Start** menu use the **Administration Console** shortcut. By default, the Administration Console launches in a disconnected state.
2. In the Administration Console ribbon click **Connect**.
3. In the Database Broker Connection window, enter the address of your Workspace Environment Management broker and click **Connect**.

Configure your installation

1. Click on menu items in the lower-left-hand pane to display their sub-sections in the pane above them.
2. Click on sub-section items to populate the main window area with appropriate content.
3. Change configuration as required. See the [user interface reference](#) for information on settings you can use.

User interface reference

Feb 23, 2017

This section describes the Citrix Workspace Environment Management Administration Console user interface. Use the contents list to navigate between the following sections of the user interface:

- [Ribbon](#)
- [Actions](#)
- [Filters](#)
- [Assignments](#)
- [System Optimization](#)
- [Policies and Profiles](#)
- [Configured Users](#)
- [Transformer Settings](#)
- [Advanced Settings](#)
- [Administration](#)
- [Monitoring](#)

Ribbon

Feb 23, 2017

The ribbon in the Administration Console contains the following tabs:

- [Home tab](#)
- [About tab](#)

Home tab

Dec 23, 2016

The **Home** tab contains the following controls:

Connect. Connect administration console to specified Infrastructure Service server. In the **New Infrastructure Server Connection** dialog specify:

Infrastructure Server Name. Name of the Infrastructure Service server you wish to connect to.

Infrastructure Server Administration Port. Port on which you wish to connect to the Infrastructure Service server. Default value of 8284 is pre-populated and corresponds to the default Infrastructure Service connection port in the Infrastructure Service setup utility.

Disconnect. Disconnect administration console from current Infrastructure Service server. This allows the administrator to manage multiple Infrastructure Services from a single console, by disconnecting from one and connecting to another.

Current Site. This dropdown menu allows you to switch from one configured Citrix Workspace Environment Management site to another.

Create. Opens up the site creation window.

Name. Site name as it appears in the Current Site dropdown menu.

Description. Site description as it appears in the site edition window.

Site State. Toggles whether the site is Enabled or Disabled. When Disabled, Citrix Workspace Environment Management Agents cannot connect to the site.

Edit. Opens up the **Edit Site** dialog, with identical options to the site creation window.

Delete. Deletes the specified site and all its settings. Note that you cannot delete the default Citrix Workspace Environment Management site as it is required for Citrix Workspace Environment Management to function. You can, however, rename it.

Refresh. Refreshes the Current Site sites list. The list will not refresh automatically if a new site is created from another administration console.

Export Actions. Opens up the **Actions Export Wizard**:

Export Actions	<p>Action Types to Export. These checkboxes allow you to select the Action categories you wish to export.</p> <p>Export Destination. Allows you to specify the location at which the Action Export files are created.</p>
Action Export Processing	<p>Export Actions. Creates the Action Export files in the previously-specified location. Each type of Action is exported as a separate XML file.</p>

Import Actions. Opens the **Actions Import Wizard**:

Export File Load	<p>Export Folder. Allows you to specify which folder to import exported Actions from.</p> <p>Action Type to Import. Allows you to select which type of Actions to import.</p>
Actions Selection	<p>You to search for actions by entering a search string and clicking Find.</p> <p>Update Existing Action. Allows you to specify whether or not the Action Import will overwrite existing site Actions with identical names. If unselected, duplicate Actions are not imported.</p>
Actions Import Processing	<p>Import Actions. Starts the import.</p>

Export Settings. Opens up the Settings Export wizard.

Export Settings	<p>Setting Types to Export. These checkboxes allow you to select the setting categories you wish to export.</p> <p>Export Destination. Allows you to specify the location at which the Setting Export files are created.</p>
Settings Export Processing	<p>Export Settings. Creates the Settings Export files in the previously-specified location. Each category of settings is exported as a separate XML file. This pane displays the Settings Export log during the export</p>

Import Settings. Opens the Setting Import wizard.

Export File Load	<p>Export Folder. Allows you to specify which folder to import exported settings from.</p> <p>Setting Types to Import. Allows you to select which category of settings to import.</p>
Settings Import Processing	<p>Import Settings. Imports the selected setting categories, overwriting current settings.</p>

About tab

Feb 23, 2017

Configure License Server. Allows you to specify the address of your Citrix License Server, without which the console will not let you modify any settings. **Note** This global setting can be overridden at broker level.

Get Help. Opens a web browser window pointed at the Citrix website.

Options. Opens the **Administration Console Options** dialog. These options are specific to this local instance of the Administration Console.

Auto Admin Logon. If enabled, the console will automatically connect to the last broker it was connected to on startup.

Enable Debug Mode. Enables verbose logging for the administration console. Logs are created in the root of the current user's "Users" folder.

Console Skin. Allows you to select from a variety of skins for the administration console only.

Port Number. Allows you to customize which port the admin console will connect to the broker service on. This must match the port configured on the broker side.

About. Lists the current version of the Administration Console as well as licensing (license type, registration and count) and legal information.

Actions

Feb 23, 2017

These settings create user resources such as network drives or application short cuts.

Applications

Feb 23, 2017

Controls the creation of application shortcuts.

Tip

To use the Citrix Workspace Environment Management agent with XenApp XenApp and XenDesktop applications, edit your XenApp application to point to **VUEMAppCmd.exe** (located in the agent installation directory) with the application path as an argument. You can then create your shortcuts as normal via XenApp, or via Citrix Workspace Environment Management by copying the XenApp shortcut details to a new application action in the admin console.

Application List

A list of your existing application resources. You can use **Find** to filter the list by name or ID against a text string.

To add an application

1. Use the context menu **Add** command.
2. Enter details in the **New Application** dialog tabs, then click **OK**.

General tab	<p>Name. The display name of the application shortcut, as it appears in the application list.</p> <p>Description. This field is only shown in the edition/creation wizard and allows you to specify additional information about the resource.</p> <p>Command Line. The path to the application executable as the client machine will see it. The Browse button allows you to browse to the executable if it is installed locally.</p> <p>Working Directory. The shortcut working directory. Automatically filled out if you browse to the executable.</p> <p>Parameters. Allows you to specify any launch parameters for the application.</p> <p>Start Menu Integration. Allows you to select a specific path in the Start Menu. By default, a new shortcut is created in Programs.</p>
	<p>Select Icon. Allows you to browse to an icon file and select an icon for your application. By default, this uses the application executable's icon but you can select any valid icon. Icons are stored in the database as text.</p> <p>High Resolution Icons Only. Only displays HD icons in the selection box.</p> <p>Application State. Controls whether the application shortcut is enabled or not. When disabled, it is not processed by the Agent even if assigned to a user.</p> <p>Maintenance Mode. When active, this will prevent the user from running the application shortcut. The shortcut icon is modified to include a warning sign to denote that the icon is not available, and the user will</p>

Options tab	<p>receive a short message informing them the application is unavailable if they try to launch it. This allows you to proactively manage scenarios where published applications are in maintenance without having to disable or delete application shortcut resources.</p> <p>Display Name. The name of the shortcut as it will appear in the user's environment.</p> <p>Window Style. This controls what state the application starts in (minimized, maximized, or normal).</p> <p>Self-Service Display. If selected, the resource will not be shown in the Citrix Workspace Environment Management Agent self-service window.</p> <p>Hotkey. Allows you to specify a hotkey for the user to launch the application with. Hotkeys are case sensitive and are entered in the following format (e.g.): Ctrl + Alt + S.</p> <p>Action Type. Describes what type of action this resource is.</p>
Advanced Settings tab	<p>Enable Automatic Self-Healing. When selected, application shortcuts will automatically be recreated by the Agent at refresh if they have been moved or deleted by the user.</p> <p>Enforce Icon Location. Allows you to specify the exact location of the application shortcut on the user's desktop. Values are in pixels.</p> <p>Application Type. Controls the type of application that this shortcut points to. This modifies the settings available on the General tab.</p>

Start Menu View

Displays a tree view of your application shortcut resource locations in the Start Menu.

Refresh. Refreshes the application list.

Move. Opens up a wizard which allows you to select a location to move the application shortcut to.

Edit. Opens up the application edition wizard.

Delete. Deletes the selected application shortcut resource.

Printers

Feb 23, 2017

This tab controls the mapping of printers.

Network Printer List

A list of your of your existing printer resources, with unique IDs. You can use **Find** to filter your printers list by name or ID against a text string. You can import printers using **Import Network Print Server** on the ribbon.

To add a printer

1. Use the context menu **Add** command.
2. Enter details in the **New Network Printer** dialog tabs, then click **OK**.

General tab	<p>Name. The display name of the printer, as it appears in the printer list.</p> <p>Description. This field is only shown in the edition/creation wizard and allows you to specify additional information about the resource.</p> <p>Target Path. The path to the printer as it resolves in the user's environment.</p> <p>Printer State. Toggles whether the printer is enabled or disabled. When disabled, it is not processed by the Agent even if assigned to a user.</p> <p>External Credentials. Allows you to state specific credentials with which to connect to the printer.</p>
Options tab	<p>Self-Healing. Toggles whether the printer will automatically be recreated for your users when the Agent refreshes.</p> <p>Action Type. Describes what type of action this resource is. For Use Device Mapping Printers File, specify Target Path as the absolute path to an XML printer list file (see XML printer list configuration). When the Agent Host refreshes it parses this XML file for printers to add to the action queue.</p>

To import a printer

1. In the ribbon click **Import Network Print Server**.
2. Enter details in the **Import from Network Print Server** dialog, then click **OK**:

Print Server Name. The name of the print server you wish to import printers from.

Use Alternate Credentials. By default, the import uses the credentials of the Windows account under whose identity the Administration Console is currently running. Select this option to specify different credentials for the connection to the print server.

Network Drives

Feb 23, 2017

Controls the mapping of network drives.

Network Drive List

A list of your existing network drives. You can use **Find** to filter the list by name or ID against a text string.

To add a network drive:

1. Use the context menu **Add** command.
2. Enter details in the **New Network Drive** dialog tabs, then click **OK**.

Tab	Controls
General	<p>Name. The display name of the drive, as it appears in the network drive list.</p> <p>Description. This field is only shown in the edition/creation wizard and allows you to specify additional information about the resource.</p> <p>Target Path. The path to the network drive as it resolves in the user's environment. The Browse button allows you to browse to the executable if it is installed locally.</p> <p>Network Drive State. Toggles whether the network drive is enabled or disabled. When disabled, it is not processed by the Agent even if assigned to a user.</p> <p>Parameters. Allows you to specify any launch parameters for the application.</p> <p>External Credentials. Allows you to state specific credentials with which to connect to the network drive.</p>
Options	<p>Enable Automatic Self-Healing. Toggles whether the printer is automatically recreated for your users when the Agent refreshes.</p> <p>Set as Home Drive.</p> <p>Action Type. Describes what type of action this resource is. Defaults to Map Network Drive.</p>

Virtual Drives

Apr 12, 2017

Controls the mapping of virtual drives. Virtual drives are Windows virtual drives or MS-DOS device names which map local file paths to drive letters.

Virtual Drive List

A list of your existing virtual drives, with a unique ID. You can use **Find** to filter the list by name or ID against a text string.

To add a virtual drive:

1. Use the context menu **Add** command.
2. Enter details in the **New Virtual Drive** dialog tabs, then click **OK**.

Tab	Controls
General	<p>Name. The display name of the drive, as it appears in the virtual drive list.</p> <p>Description. This field is only shown in the edition/creation wizard and allows you to specify additional information about the resource.</p> <p>Target Path. The path to the virtual drive as it resolves in the user's environment.</p> <p>Virtual Drive State. Toggles whether the virtual drive is enabled or disabled. When disabled, it will not be processed by the Agent even if assigned to a user.</p> <p>Parameters. Allows you to specify any launch parameters for the application.</p> <p>External Credentials. Allows you to state specific credentials with which to connect to the printer.</p>
Options	<p>Action Type. Describes what type of action this resource is.</p>

Registry Entries

Feb 23, 2017

Controls the creation of registry entries.

Registry Value List

A list of your existing registry entries. You can use **Find** to filter the list by name or ID against a text string.

To add a registry entry:

1. Use the context menu **Add** command.
2. Enter details in the **New Registry Value** dialog tabs, then click **OK**.

Tab	Controls
General	<p>Name. The display name of the registry entry, as it appears in the registry entry list.</p> <p>Description. This field is only shown in the edition/creation wizard and allows you to specify additional information about the resource.</p> <p>Registry Value State. Toggles whether the registry entry is enabled or disabled. When disabled, it will not be processed by the Agent even if assigned to a user.</p> <p>Target Path. The registry location in which the registry entry will be created. Citrix Workspace Environment Management can only create Current User registry entries, so you do not need to preface your value with %ComputerName%\HKEY_CURRENT_USER – this is done automatically.</p> <p>Target Name. The name of your registry value as it will appear in the registry (e.g. NoNtSecurity).</p> <p>Target Type. The type of registry entry that will be created.</p> <p>Target Value. The value of the registry entry once created (e.g. 0 or C:\Program Files)</p> <p>Run Once. By default, Citrix Workspace Environment Management will create registry entries every time the Agent refreshes. Tick this box to make Citrix Workspace Environment Management only create the registry entry once, rather than at every refresh. This will speed up the Agent refresh process, especially if you have many registry entries assigned to your users.</p>
Options	<p>Action Type. Describes what type of action this resource is.</p>

To import registry files:

1. In the ribbon click **Import Registry File**.
2. Enter details in the **Import from Registry** dialog, then click **OK**:

Registry File Name. This field allows you to browse to a **.reg** file containing the registry settings you wish

to import into Citrix Workspace Environment Management. For best results, the .reg file should be generated from a clean environment that has only the registry settings you wish to import applied to it.

Scan. This will scan the **.reg** file and display a list of registry settings contained inside it.

Registry Values List. This lists all of the registry values contained within your imported **.reg**.

Enable Imported Items. If disabled, newly-imported registry keys are disabled by default.

Prefix Imported Item Names. This adds a prefix to the name of all registry items imported via this wizard (e.g. "XP ONLY" or "finance"), to make it easier to organise your registry entries.

Note

The wizard cannot import registry entries with duplicate names. If your **.reg** file contains more than one registry entry with the same name (as displayed in the Registry Values List), select one of these entries for import and rename it if you wish to import the others.

Environment Variables

Feb 23, 2017

Controls the creation of environment variables.

Environment Variable List

A list of your existing environment variables. You can use **Find** to filter the list by name or ID against a text string.

To add an environment variable:

1. Use the context menu **Add** command.
2. Enter details in the **New Environment Variable** dialog tabs, then click **OK**.

Tab	Controls
General	<p>Name. The display name of the variable, as it appears in the environment variable list.</p> <p>Description. This field is only shown in the edition/creation wizard and allows you to specify additional information about the resource.</p> <p>Environment Variable State. Toggles whether the environment variable is enabled or disabled. When disabled, it will not be processed by the Agent even if assigned to a user.</p> <p>Variable Name. The functional name of the environment variable.</p> <p>Variable Value. The environment variable value.</p>
Options	<p>Action Type. Describes what type of action this resource is.</p> <p>Execution order.</p>

Ports

Feb 23, 2017

Controls the mapping of ports.

Ports List

A list of your existing ports. You can use **Find** to filter the list by name or ID against a text string.

To add a port:

1. Use the context menu **Add** command.
2. Enter details in the **New Port** dialog tabs, then click **OK**.

Tab	Controls
General	<p>Name. The display name of the port, as it appears in the port list.</p> <p>Description. This field is only shown in the edition/creation wizard and allows you to specify additional information about the resource.</p> <p>Port State. Toggles whether the port is enabled or disabled. When disabled, it will not be processed by the Agent even if assigned to a user.</p> <p>Port Name. The functional name of the port.</p> <p>Port Target. The target port.</p>
Options	<p>Action Type. Describes what type of action this resource is.</p>

Ini Files

Feb 23, 2017

Controls the creation of **.ini** file operations, which allow you to modify **.ini** files.

Ini Files Operation List

A list of your existing ini file operations. You can use **Find** to filter the list by name or ID against a text string.

To add an .ini files operation:

1. Use the context menu **Add** command.
2. Enter details in the **New Ini Files Operation** dialog tabs, then click **OK**.

Tab	Controls
General	<p>Name. The display name of the .ini file operation, as it appears in the Ini File Operations list.</p> <p>Description. This field is only shown in the edition/creation wizard and allows you to specify additional information about the resource.</p> <p>.ini File Operation State. Toggles whether the .ini file operation is enabled or disabled. When disabled, it will not be processed by the Agent even if assigned to a user.</p> <p>Target Path. This specifies the location of the .ini file that will be modified as it resolves in the user's environment.</p> <p>Target Section. This specifies which section of the .ini file is targeted by this operation. If you specify a non-existent section, it will be created.</p> <p>Target Value Name. This specifies the name of the value that will be added.</p> <p>Target Value. This specifies the value itself.</p> <p>Run Once. By default, Citrix Workspace Environment Management will perform an .ini file operation every time the Agent refreshes. Tick this box to make Citrix Workspace Environment Management only perform the operation once, rather than at every refresh. This will speed up the Agent refresh process, especially if you have many .ini file operations assigned to your users.</p>
Options	<p>Action Type. Describes what type of action this resource is.</p>

External Tasks

Feb 23, 2017

Controls the execution of external tasks such as running **.vbs** or **.cmd** scripts.

External Task List

A list of your existing external tasks. You can use **Find** to filter the list by name or ID against a text string.

To add an external task:

1. Use the context menu **Add** command.
2. Enter details in the **New External Task** dialog tabs, then click **OK**.

Tab	Controls
General	<p>Name. The display name of the external task, as it appears in the external task list.</p> <p>Name. The display name of the external task, as it appears in the external task list.</p> <p>Description. This field is only shown in the edition/creation wizard and allows you to specify additional information about the resource.</p> <p>Target Path. The path to the external task script as it resolves in the user's environment.</p> <p>Target Arguments. Allows you to specify any launch parameters or arguments.</p> <p>External Task State. Toggles whether the external task is enabled or disabled. When disabled, it is not processed by the Agent even if assigned to a user.</p> <p>Run Hidden. If selected, the external task is run in the background and not shown to the user.</p> <p>Run Once. By default, Citrix Workspace Environment Management will run an external task every time the Agent refreshes. Tick this box to make Citrix Workspace Environment Management only run the external task once, rather than at every refresh. This will speed up the Agent refresh process, especially if you have many external tasks assigned to your users.</p> <p>Wait for Task Completion. This toggles whether or not the Agent should wait for the external task to complete. The Timeout value controls the maximum wait time.</p> <p>Execute Only at Logon. If selected, the external task will only be run at logon rather than during every single refresh.</p> <p>External Task Execution Order. This allows you to specify a priority for each individual external task, in case multiple tasks are assigned to one user and some tasks rely on results from others to run successfully.</p>
Options	<p>Action Type. Describes what type of action this resource is.</p>

File System Operations

Feb 23, 2017

Controls the copying of folders and files into the user's environment.

File System Operations List

A list of your existing file/folder operations. You can use **Find** to filter the list by name or ID against a text string.

To add a file system operation:

1. Use the context menu **Add** command.
2. Enter details in the **New File System Operation** dialog tabs, then click **OK**.

Tab	Controls
General	<p>Name. The display name of the file/folder operation, as it appears in the list.</p> <p>Description. This field is only shown in the edition/creation wizard and allows you to specify additional information about the resource.</p> <p>Filesystem Operation State. Toggles whether the file system operation is enabled or disabled. When disabled, it is not processed by the Agent even if assigned to a user.</p> <p>Source Path. The path to the source file or folder that is copied.</p> <p>Target Path. The destination path for the source file or folder that is copied.</p> <p>Overwrite Target if Existing. Toggles whether the file/folder operation will overwrite existing files or folders with the same names in the target location. If cleared and a file or folder with the same name already exists at the target location, offending files are not copied.</p> <p>Run Once. By default, Citrix Workspace Environment Management will run a file system operation every time the Agent refreshes. Tick this box to make Citrix Workspace Environment Management only run the operation once, rather than at every refresh. This will speed up the Agent refresh process, especially if you have many file system operations assigned to your users.</p>
Options	<p>Action Type. Describes what type of action this file/folder action is: Copy, Delete, Move, Rename or Symbolic Link operation. Please note that for symbolic link creation, you will need to give users the SeCreateSymbolicLinkPrivilege privilege for Windows to allow symbolic link creation.</p>

User DSN

Feb 23, 2017

Controls the creation of user DSNs.

User DSN List

A list of your existing user DSNs. You can use **Find** to filter the list by name or ID against a text string.

To add a user DSN:

1. Use the context menu **Add** command.
2. Enter details in the **New User DSN** dialog tabs, then click **OK**.

Tab	Controls
General	<p>Name. The display name of the user DSN, as it appears in the user DSN list.</p> <p>Description. This field is only shown in the edition/creation wizard and allows you to specify additional information about the resource.</p> <p>User DSN State. Toggles whether the user DSN is enabled or disabled. When disabled, it will not be processed by the Agent even if assigned to a user.</p> <p>DSN Name. The functional name of the user DSN.</p> <p>Driver. The DSN driver. At present, only SQL server DSNs are supported.</p> <p>Server Name. The name of the SQL server to which the user DSN is connecting.</p> <p>Database Name. The name of the SQL database to which the user DSN is connecting.</p>
Options	<p>Connect Using Specific Credentials. Allows you to specify credentials with which to connect to the server/database.</p> <p>Run Once. By default, Citrix Workspace Environment Management will create a user DSN every time the Agent refreshes. Tick this box to make Citrix Workspace Environment Management only create the user DSN once, rather than at every refresh. This will speed up the Agent refresh process, especially if you have many DSNs assigned to your users.</p> <p>Action Type. Describes what type of action this resource is.</p>

File Associations

Feb 23, 2017

Controls the creation of file associations in the user environment.

File Association List

A list of your existing file associations. You can use **Find** to filter the list by name or ID against a text string.

To add a file association:

1. Use the context menu **Add** command.
2. Enter details in the **New File Association** dialog tabs, then click **OK**.

Tab	Controls
General	<p>Name. The display name of the file association, as it appears in the file association list.</p> <p>Description. This field is only shown in the edition/creation wizard and allows you to specify additional information about the resource.</p> <p>File Association State. Toggles whether the file association is enabled or disabled. When disabled, it will not be processed by the Agent even if assigned to a user.</p> <p>File Extension. Allows you to specify the extension used for this file association.</p> <p>ProgID. Allows you to specify the extension ProgID.</p> <p>Action. Allows you to select the action type: open, edit or print.</p> <p>Target. Allows you to specify the executable used with this file extension.</p> <p>Command. Allows you to state any specific commands the executable should follow.</p> <p>Set as Default Action. Toggles whether the association is set as a default for that file extension or not.</p> <p>Overwrite. Toggles whether or not this file association will overwrite any existing associations for the specified extension.</p> <p>Run Once. By default, Citrix Workspace Environment Management will create a file association every time the Agent refreshes. Tick this box to make Citrix Workspace Environment Management only create the file association once, rather than at every refresh. This will speed up the Agent refresh process, especially if you have many file associations assigned to your users.</p>
Options	<p>Action Type. Describes what type of action this resource is.</p>

Filters

Feb 23, 2017

Filters contains rules and conditions which allow you to make actions available (assign) to users. Set up rules and conditions before assigning actions to users.

- [Rules](#)
- [Conditions](#)

Rules

Feb 23, 2017

Rules are composed of multiple conditions. You use rules to define when an action is assigned to a user.

Filter Rule List

A list of your existing rules. You can use **Find** to filter the list by name or ID against a text string

To add a filter rule:

1. Use the context menu **Add** command.
2. Enter details in the **New Filter Rule** dialog.
3. Move conditions you want configured in this rule from the **Available** list to the **Configured** list.
4. Click **OK**.

Tab	Controls
General	<p>Name. The display name of the rule, as it appears in the rule list.</p> <p>Description. This field is only shown in the edition/creation wizard and allows you to specify additional information about the rule.</p> <p>Filter Rule State. Toggles whether the rule is enabled or disabled. When disabled, the Agent will not process actions using this rule even if they are assigned.</p> <p>Available Conditions. These are the filter conditions available to be added to the rule. Note. The DateTime filter expects results in the format: YYYY/MM/DD HH:mm</p> <p>Multiple values can be separated with semicolons (;) and ranges can be separated with hyphens. When specifying a range between two times on the same date, the date should be included in both ends of the range, e.g.: 1969/12/31 09:00-1969/12/31 17:00</p> <p>Configured Conditions. These are the conditions already added to the rule.</p> <p>Note: these conditions are AND statements, not OR statements. Adding multiple conditions requires them all to trigger for the filter to be considered triggered.</p>

Conditions

Feb 23, 2017

Conditions are specific triggers which allow you to configure the circumstances under which the Agent Host acts to assign a resource to a user.

Filter Condition List

A list of your existing conditions. You can use **Find** to filter the list by name or ID against a text string.

To add a filter condition:

1. Use the context menu **Add** command.
2. Enter details in the **New Filter Condition** dialog tabs, then click **OK**.

Tab	Controls
General	<p>Name. The display name of the condition, as it appears in the condition list and in the rule creation/edition wizard.</p> <p>Description. This field is only shown in the edition/creation wizard and allows you to specify additional information about the condition.</p> <p>Filter Condition State. Toggles whether the filter is enabled or disabled. When disabled, it will not appear in the rule creation/edition wizard.</p> <p>Filter Condition Type. The type of filter condition type to use. See Filter conditions. Note: rules using the Always True condition will always trigger.</p> <p>Settings. These are the specific settings for individual conditions. See Filter conditions.</p>

Note

When entering an IP address, you can either specify individual addresses or ranges.

If you specify a range, both bounds must be specified in full. Use the dash character (-) to separate IP range bounds (e.g. **192.168.10.1-192.168.10.5**). Separate multiple ranges or addresses using the semicolon character (;). For example, **192.168.10.1-192.168.10.5;192.168.10.8-192.168.10;192.168.10.17** is a valid value which includes the ranges **.1-.5** and **.8-.10**, plus the individual address **.17**.

Assignments

Feb 23, 2017

Tip

Before assigning actions to users you need to perform the following steps in the order given:

- Configure users, see [Configured Users](#).
- Define conditions, see [Conditions](#).
- Define filter rules, see [Rules](#).
- Configure actions, see [Actions Assignment](#).

Use assignments to make actions available to your users. This allows you to replace a portion of your users' logon scripts.

To assign actions to users/groups:

1. In the **Configured Users** list, double-click on a user/group. This populates the Assignments lists.
2. In the **Available** list, select an action and click the right-arrow (>) button.
3. In the **Assign Filter** dialog, select a **Filter Rule** and click **OK**.
4. In the **Assigned list**, you can use the **Enable** and **Disable** context actions to fine-tune the behaviour of the assignment.

Action Assignment

Feb 23, 2017

Configured Users

This is your list of configured users and groups (see [Configured Users](#)). Double-click a user or group to show the assignments menu. You can use **Find** to filter the list by name or ID against a text string.

Assignments

Allows you to assign actions to the selected user/group. You can use **Find** to filter the list by name or ID against a text string.

Available. These are the actions available to you to assign to this user or group.

Double-clicking an action or clicking the arrow buttons will assign/unassign it. When you assign an action, you are prompted to select the rule you wish to use to contextualize it.

Assigned. These are the actions already assigned to this user or group. You can expand individual actions to configure them (application shortcut locations, default printers, drive letter, and so on).

Modelling Wizard

Feb 23, 2017

The **Actions Modelling Wizard** displays the resultant actions for a given user only (it does not work for groups).

Pane	Controls
1	Actions Modelling Target User: You can Select the account name for the user you wish to model.
2	Resultant Actions. The actions assigned to the user (whether individually or to groups the user belongs to). User Groups. The groups the user belongs to.

System Optimization

Feb 23, 2017

These settings allow you to optimize applications and desktops.

- [Fast Logoff](#)
- [CPU Management](#)
- [Memory Management](#)
- [I/O Management](#)
- [Process Management](#)

Fast Logoff

Feb 23, 2017

Settings

Enable Fast Logoff. Enables fast logoff for all users on this site. Fast logoff logs users out instantly while continuing to perform logoff tasks in the background. **Note** Fast Logoff works with XenApp/RDS resources only.

Exclude Specific Groups. Allows you to exclude specific groups of users from fast logoff.

CPU Management

Feb 23, 2017

These settings allow you to optimize CPU usage.

CPU Management Settings

These settings control global CPU optimization.

Enable CPU Spikes Protection. This setting will prevent all processes from taking more than a percentage of the server's processing power by lowering their priority.

CPU Usage Limit. This is the percentage of CPU utilization that will trigger CPU spike protection. Please note that this is a total percentage across all cores.

Limit Sample Time. This is the duration over which a process must exceed the CPU Usage Limit for its priority to be lowered.

Idle Priority Time. This is the length of time for which the process' priority is lowered.

Limit CPU/Core Usage. If enabled, processes that trigger CPU Spike Protection are also confined to the selected number of cores (**CPU/Core Usage Limit**) while Spike Protection is triggered.

Enable Intelligent CPU Optimization. If enabled, the Agent will keep a list of processes that have triggered spike protection and intelligently optimize process CPU priority based on that process history. Processes that repeatedly trigger spike protection is assigned lower CPU priority at launch than processes that behave correctly.

Enable Intelligent I/O Optimization. If enabled, the Agent will keep a list of processes that have triggered spike protection and intelligently optimize process I/O priority based on that process history. Processes that repeatedly trigger spike protection is assigned lower I/O priority at launch than processes that behave correctly.

Exclude Specified Processes. Excludes processes from CPU spike protection by executable name (e.g. notepad.exe).

CPU Priority

Enable Process Priority. If enabled, this allows you to manually set process priority for specified processes.

CPU Affinity

Enable Process Affinity. If enabled, this allows you to manually set process affinity for specified processes.

CPU Clamping

These settings allow you to forcefully prevent named processes from using more than X% of the CPU. **Note** The clamping percentage is global, not per core (that is, 10% on a quad-core CPU is 10%, not 10% of one core).

Enable Process Clamping. Toggles whether process clamping is enabled or not.

Add. Add the process by executable name (for example, notepad.exe).

Remove. Deletes the highlighted process from the clamping list.

Edit. Allows you to edit the values entered for a given process.

Memory Management

Feb 23, 2017

These settings allow you to optimize application memory usage.

Enable Working Set Optimization. Toggles whether WSO is enabled or not. When enabled, applications that are idle (have not been interacted with by a user) for a certain time is forced to release excess memory until they are no longer idle.

Idle Sample Time. Time in minutes for which an application must be idle before it is forced to release excess memory.

Idle State Limit. The CPU usage threshold under which a process is considered idle.

Exclude Specified Processes. Allows you to exclude processes from memory management by name (for example, notepad.exe).

I/O Management

Feb 23, 2017

These settings allow you to optimize I/O usage.

I/O Priority

Enable Process I/O Priority. If enabled, this allows you to manually set I/O priority for specified processes.

Process Management

Feb 23, 2017

These settings allow you to whitelist or blacklist specific processes.

Process Management

Enable Process Management. This toggles whether process whitelists/blacklists are in effect. If disabled, none of the settings on the **Process BlackList** and **Process WhileList** tabs are taken into account.

Note

This option only works if the WEM UI Agent executable is running in the user's session. To do this use the **Main Configuration** Agent settings to set the **Launch Agent** options (**at Logon/at Reconnect/for Admins**) to launch according to the user/session type, and set **Agent Type** to "UI". These options are described in Advanced Settings [Configuration](#).

Process BlackList

These settings allow you to blacklist specific processes.

Enable Process Blacklist. This enables process blacklisting. Processes must be added by executable name (for example, cmd.exe).

Exclude Local Administrators. Excludes local administrator accounts from the process blacklisting.

Exclude Specified Groups. Allows you to exclude specific user groups from process blacklisting.

Process WhiteList

These settings allow you to whitelist specific processes. Process blacklists and process whitelists are mutually exclusive.

Enable Process Whitelist. This enables process whitelisting. Processes must be added by executable name (for example, cmd.exe). **Note** If enabled, **Enable Process Whitelist** automatically blacklists all processes not in the whitelist.

Exclude Local Administrators. Excludes local administrator accounts from the process whitelisting (they are able to run all processes).

Exclude Specified Groups. Allows you to exclude specific user groups from process whitelisting (they are able to run all processes).

Policies and Profiles

Feb 23, 2017

These settings allow you to replace user GPOs and configure user profiles.

- [Environmental Settings](#)
- [Microsoft USV Settings](#)
- [Citrix Profile Management Settings](#)
- [VMware Persona settings](#)

Environmental Settings

Feb 23, 2017

These options modify the user's environmental settings. Some of the options are processed at logon, while some others can be refreshed in session with the agent refresh feature.

Start Menu

These options modify the user's Start Menu.

Process Environmental Settings. This checkbox toggles whether or not the Agent will process environmental settings. If it is cleared, no environmental settings are processed.

Exclude Administrators. If enabled, environmental settings are not processed for administrators, even if the Agent is launched.

User Interface: Start Menu. These settings control which Start Menu functions are disabled by the Agent.

User Interface: Appearance. These settings allow you to customize the user's Windows theme and desktop. Paths to resources must be entered as they are accessed from the user's environment.

Desktop

User Interface: Desktop. These settings control which desktop elements are disabled by the Agent.

User Interface: Edge UI. These settings allow you to disable aspects of the Windows 8.x Edge user interface.

Windows Explorer

These settings control which Windows Explorer functionalities are disabled by the Agent.

User Interface: Explorer. These options allow you to disable access to **regedit** or **cmd**, and hide certain elements in Windows Explorer.

Hide Specified Drives. If enabled, the listed drives are hidden from the user's My Computer menu. They are still accessible if browsed to directly.

Restrict Specified Drives. If enabled, the listed drives are blocked. Neither the user nor their applications can access them.

Control Panel

Hide Control Panel. This option is enabled by default to secure the user environment. If disabled, the user has access to his Windows control panel.

Show only specified Control Panel Applets. If enabled, all control panel applets except the ones listed here are hidden from the user. Additional applets are added using their canonical name.

Hide specified Control Panel Applets. If enabled, only the listed control panel applets are hidden. Additional applets are added using their canonical name.

See [Common Control Panel applets](#) along with their canonical names.

Known Folders Management

Disable Specified Known Folders. Prevents the creation of the specified user profile known folders at profile creation.

SBC/HVD Tuning

User Environment: Advanced Tuning. These options allow you to optimize performance in SBC/HVD environments.

Microsoft USV Settings

Feb 23, 2017

These settings allow you to optimize Microsoft User State Virtualization (USV).

Roaming Profiles Configuration

These settings allow you to configure Citrix Workspace Environment Management's integration with Microsoft roaming profiles.

Process USV Configuration. This checkbox toggles whether or not the Agent will process USV settings. If it is cleared, no USV settings are processed.

Set Windows Roaming Profile Path. This field allows you to specify the path to your Windows profiles.

Set RDS Roaming Profiles Path. This field allows you to specify the path to your RDS roaming profiles.

Set RDS Home Drive Path. This field allows you to specify the path to your RDS home drive, as well as the drive letter it will appear with in the user environment.

Roaming Profiles Advanced Configuration

These are the advanced roaming profile optimization options.

Enable Folder Exclusions. If enabled, the listed folders are not included in a user's roaming profile. This allows you to exclude specific folders known to contain large amounts of data which the user does not need to have as part of their roaming profile. The list is pre-populated with default Windows 7 exclusions, and can be pre-populated with default Windows XP exclusions instead.

Delete Cached Copies of Roaming Profiles. If enabled, the Agent will delete cached copies of the roaming profiles.

Add Administrators Security Group to Roaming User Profiles. If enabled, the Administrators group is added as owner to roaming user profiles.

Do Not Check for User Ownership of Roaming Profiles Folders. If enabled, the Agent will not check to see if the user owns the roaming profiles folder before acting.

Do Not Detect Slow Network Connections. If enabled, will skip the connection speed detection.

Wait for Remote User Profile. If enabled, the Agent will wait for the remote user profile to be fully downloaded before processing its settings.

Profile Cleansing. Opens the **Profiles Cleanser** wizard, which allows you to clean up existing profiles.

Cleanse Profiles. This button will cleanse the selected profiles per the Folder Exclusion settings.

Scan Profiles Folder. Will scan the specified folder with the specified recursion settings to find user profiles, then will display all profiles found.

Profiles Root Folder. This field allows you to specify the root folder of your user profiles. You can also Browse to this folder if you wish.

Search Recursion. This setting controls how many levels of recursion the user profile search will go through.

Folders Redirection

Process Folder Redirection Configuration. This checkbox toggles whether or not the Agent will process folder redirections. If it is cleared, no folder redirections are processed. Select the options here to controls whether and where the user's folders are redirected.

Delete Local Redirected Folders. If enabled, the Agent will delete the local copies of the folders selected for redirection.

Citrix Profile Management Settings

Feb 23, 2017

These settings control Citrix Workspace Environment Management's integration with Citrix User Profile Management (UPM) technology. **Note** Some options only work with specific versions of UPM; please consult the relevant Citrix documentation for detailed instructions.

These settings control the main Citrix Profile Management parameters.

Enable Profile Management Configuration. This checkbox toggles whether or not the Agent processes Citrix Profile Management settings. If cleared, none of the Profile Management settings are processed.

Enable Profile Management. This checkbox toggles whether or not the Agent will process the settings in the Profile Management section of this page. If disabled, the Agent will not process any of these.

Set processed groups. Allows you to specify which groups are processed by Profile Management. Only the specified groups will have their Profile Management settings processed. If left blank, all groups are processed.

Set excluded groups. Allows you to specify which groups to exclude from UPM.

Process logons of local administrators. If enabled, local administrator logons are treated the same as non-admin logons for Profile Management.

Set path to user store. This field allows you to specify the path to the user store directory.

Enable active write back. If enabled, profiles are written back to the user store during the user's session. This helps prevent data loss.

Enable Offline profile support. If enabled, profiles are cached locally for use while not connected.

Enable active write back registry. If enabled, registry entries are written back to the user store during the user's session. This helps prevent data loss.

These settings control Profile Management profile handling.

Delete local cached profiles on logoff. If enabled, locally-cached profiles are deleted when the user logs off.

Set delay before deleting cached profiles. Allows you to specify a delay (in seconds) before cached profiles are deleted at log-off.

Enable Migration of Existing Profiles. If enabled, existing Windows profiles are migrated to Profile Management at login.

Enable local profile conflict handling. This setting configures how Citrix Workspace Environment Management handles cases where Profile Management and Windows profiles conflict.

Enable template profile. If enabled, this will use a template profile at the indicated location.

Template profile overrides local profile. If enabled, the template profile will override local profiles.

Template profile overrides roaming profile. If enabled, the template profile will override roaming profiles.

Template profile used as Citrix mandatory profile for all logons. If enabled, the template profile will override all other profiles.

These options control advanced UPM settings.

Set number of retries when accessing locked files. Configures the number of times the Agent will retry accessing locked files.

Set Directory of MFT cache file. Allows you to specify the MFT cache file directory.

Process Internet cookie files on logoff. If enabled, stale cookies are deleted at logoff.

Delete redirected folders. If enabled, will delete local copies of redirected folders.

Disable automatic configuration. If enabled, dynamic configuration will be disabled.

Log off user if a problem is encountered. If enabled, users are logged off rather than switched to a temporary profile if a problem is encountered.

Customer experience improvement program. If enabled, Profile Management uses the Customer Experience Improvement Program (CEIP) to help improve the quality and performance of Citrix products by collecting anonymous statistics and usage information. For more information on the CEIP, see [About the Citrix Customer Experience Improvement Program \(CEIP\)](#).

These options control Profile Management logging.

Enable Logging. Enables/disables logging of Profile Management operations.

Configure Log Settings. Allows you to specify which types of events to include in the logs.

Set Maximum Size of Log File. Allows you to specify a maximum size in bytes for the log file.

Set Path to Log File. Allows you to specify the location at which the log file will be created.

These options control Profile Management registry settings.

NTUSER.DAT Backup. If selected, Profile Management maintains a last known good backup of the NTUSER.DAT file. If Profile Management detects corruption, it uses the last known good backup copy to recover the profile.

Enable Default Exclusion List. Default list of registry keys in the HKCU hive that are not synchronized to the user's profile. If selected, registry settings which are selected in this list are forcibly excluded from Profile Management profiles.

Enable Registry Exclusions. Registry settings in this list are forcibly excluded from Profile Management profiles.

Enable Registry Inclusions. Registry settings in this list are forcibly included in Profile Management profiles.

These options control file system exclusions for Profile Management.

Enable Default Exclusion List - Directories. Default list of directories ignored during synchronization. If selected, folders which are selected in this list are excluded from the Profile Management synchronization.

Enable File Exclusions. If enabled, the listed files are not included in a user's Profile Management profile. This allows you to exclude specific folders known to contain large amounts of data which the user does not need to have as part of their Profile Management profile. The list is pre-populated with default Windows 7 exclusions, and can be pre-populated with default Windows XP exclusions instead.

Enable Folder Exclusions. If enabled, the listed folders are not included in a user's Profile Management profile. This allows you to exclude specific folders known to contain large amounts of data which the user does not need to have as part of their Profile Management profile. The list is pre-populated with default Windows 7 exclusions, and can be pre-populated with default Windows XP exclusions instead.

Profile Cleansing. Opens the **Profile Cleansing** wizard, which allows you to clean up existing profiles.

Profiles Root Folder. This field allows you to specify the root folder of your user profiles. You can also Browse to this folder if you wish.

Search Recursion. This setting controls how many levels of recursion the user profile search will go through.

Scan Profiles Folder. Will scan the specified folder with the specified recursion settings to find user profiles, then will display all profiles found.

Cleanse Profiles. This button will cleanse the selected profiles per the Folder Exclusion settings.

These options control Profile Management synchronization settings.

Enable Directory Synchronization. If enabled, the listed folders are synchronized with the profile store at refresh.

Enable File Mirroring. If enabled, the listed files are mirrored to the profile store, ensuring users always get the most up-to-date versions of these files.

Enable Folder Mirroring. If enabled, the listed folders are mirrored to the profile store, ensuring users always get the most up-to-date versions of these folders.

These options control streamed user profile settings.

Enable Profile Streaming. If disabled, none of the settings in this section are processed.

Always cache. If enabled, files of the specified size (in megabytes) or larger will always be cached.

Set timeout for pending area lock files: frees up files so they are written back to the user store from the pending area after the specified time, in the event that the user store remains locked when a server becomes unresponsive.

Set streamed user profile groups. This list determines which user groups streamed profiles are used for.

These options control cross-platform settings.

Enable cross-platform settings. If disabled, none of the settings in this section are processed.

Set cross-platform settings groups. Allows you to specify the user groups for which cross-platform profiles are used.

Set path to cross-platform definitions. Allows you to specify the path to your cross-platform definition files.

Set path to cross-platform setting store. Allows you to specify the path to your cross-platform setting store.

Enable source for creating cross-platform settings. Enables a source platform for cross-platform settings.

VMware Persona settings

Feb 23, 2017

These settings control Citrix Workspace Environment Management's integration with VMware View Persona Management. Please note that some options only work with specific versions of View Persona Management; please consult the relevant VMware documentation for detailed instructions.

These settings control the main Persona parameters.

Enable VMware Persona Settings Management. This checkbox toggles whether or not the Agent will process Persona settings management instructions. If it is cleared, none of the Persona settings are processed.

Manage User Persona. When enabled, the user's persona settings are managed dynamically. The profile upload interval is used to determine how often to upload profile changes to the network.

Enable Persona Repository Location. This setting controls the UNC path to the repository where user profiles are stored.

Override Active Directory User Profile Path. If enabled, the AD user profile path is overridden with the Persona repository location if both have been configured.

Remove Local Persona at Logoff. When enabled, each user's locally stored profile is removed at log off.

Remove Locally Stored Personas When Users Log Off. If enabled, this deletes Local Settings and AppData\Local when the persona is removed.

Roam Local Settings Folders. When enabled, the local settings folders are roamed along with the rest of the user's profile.

Enable Background Download for Laptops. When enabled, laptop users are allowed to background download their profile.

Cleanup CLFS Files. If enabled, CLFS logs are removed at logoff.

Hide Local Offline File Icon. When enabled, the offline icon is hidden when locally viewing most offline persona files.

Show Progress When Downloading Large Files. When enabled, a progress window is shown when downloading large files from the persona repository. The minimum file size required to show the progress window can be specified as well.

Show Critical Errors to Users. When enabled, critical tray icon alerts pertaining to replication or network connectivity failure is displayed to the user.

Set Logging Filename. The full pathname of the local View Persona Management log file. This path should include the file name, and cannot be a UNC path.

Set Logging Destination. These settings allow you to specify whether to send log messages to the local log file or the debug port.

Set Logging Flags. These settings allow you to control what messages are logged.

Set Debug Flags. These settings allow you to control what messages are logged in debug mode.

Enable Files and Folders to Preload. When enabled, the selected file and folder paths are downloaded at user logon and replicated when files are changed. Exceptions can also be configured.

Enable Windows Roaming Profile Synchronisation. When enabled, the selected file and folder paths are downloaded at user logon and replicated during logoff. Exceptions can also be configured.

Enable Files and Folders Excluded from Roaming. When enabled, the selected file and folder paths are completely excluded from roaming. Exceptions can also be configured to select subfolders and files within the folders excluded from roaming that need to be roamed.

Enable Folders to Background Download. When enabled, the selected file and folder paths are downloaded in the background after users log on. Exceptions can also be configured.

Enable Excluded Processes. When enabled, the selected processes' I/O is ignored by Persona.

These settings allow you to configure redirection for individual user profile folders.

Enable Files and Folders Excluded from Redirection. When enabled, the selected file and folder paths are completely excluded from redirection. Exceptions can also be configured to select subfolders and files within the folders excluded from redirection that need to be redirected.

Configured Users

Feb 23, 2017

This page allows you to add users and groups to Citrix Workspace Environment Management.

Note

Users and groups must be added to Citrix Workspace Environment Management before the Agent can do anything for them.

Configured Users

Feb 23, 2017

A list of your existing users and groups. You can use **Find** to filter the list by name or ID against a text string.

To add a user:

1. Use the context menu **Add** command.
2. Enter details in the Windows Select Users dialog, then click **OK**.

Name. The name of the user or group.

Description. This field is only shown in the **Edit Item** dialog and allows you to specify additional information about the user or group.

Item State. This allows you to choose whether a user/group is enabled or disabled. If disabled, it is not available to assign actions to.

Item Priority. This allows you to configure priority between different groups and user accounts. In case of conflict (for example, when mapping network drives), the group or user account with the higher priority will win out.

Transformer Settings

Feb 23, 2017

These options allow you to configure the Transformer thin-client mode.

- [General](#)
- [Advanced](#)

General

Feb 23, 2017

These settings control the appearance and basic settings for Transformer.

Enable Transformer. If you enable this option, Agent Hosts connected to this site will automatically go into *kiosk mode*. While in kiosk mode, the Agent Host becomes a web/application launcher which will redirect the user to the configured remote desktop interface. The user environment can be completely locked down and the user only allowed to interact with the Agent. If you disable this option, none of the settings in either the **General** or **Advanced** pages are processed.

Web Interface URL. This URL is used as the web frontend for the user's virtual desktop. This should be the access URL for your XenDesktop or XenApp environment,

Custom Title. If enabled, the Citrix Workspace Environment Management Agent kiosk window is given a custom title-bar.

Enable Window Mode. If enabled, the Citrix Workspace Environment Management Agent kiosk will start in windowed mode. The user will still be locked out of their Windows environment.

Allow Language Selection. If enabled, users are allowed to pick what language the Transformer interface is in.

Show Navigation Buttons. If enabled, the "Forward", "Back" and "Home" web navigation buttons display on the Agent kiosk window. "Home" sends users back to the web interface URL defined above.

Display Clock. If enabled, displays a clock in the Transformer UI.

Show 12 Hour Clock. By default, the Transformer clock is a 24-hour clock. If enabled, this will instead display a 12-hour clock (AM/PM).

Enable Application Panel. If enabled, this will display a panel with the user's applications as assigned in Citrix Workspace Environment Management.

Auto-Hide Application Panel. If enabled, the application panel auto-hides itself when not in use.

Change Unlock Password. This option allows you to specify the password that can be used to unlock the user's environment by pressing **Ctrl+Alt+U**. This is designed to allow administrators and support agents to troubleshoot the user environment without restrictions.

Enable Site List. If enabled, this option adds a list of URLs to the kiosk interface.

Enable Tool List. If enabled, this option adds a list of tools to the kiosk interface.

Advanced

Feb 23, 2017

These options allow you to turn the Citrix Workspace Environment Management Agent kiosk mode into a process launcher rather than presenting a web interface.

Enable Process Launcher. If enabled, this option will put the Citrix Workspace Environment Management Agent into process launcher mode. While in process launcher mode, the Citrix Workspace Environment Management Agent will launch the process specified in Process Command Line. If terminated, the process will simply be re-launched.

Process Command Line. This field allows you to enter the command line for a specific process (for example, the path to mstsc.exe to launch an RDP connection).

Process Arguments. This field allows you to specify any arguments to the command line listed above (for example, in the case of mstsc.exe, the IP address of the machine to connect to).

Fix Browser Rendering. If enabled, this will force IE to run in IE7 compatibility mode.

Log Off Screen Redirection. If enabled, this will automatically redirect the user to the logon page whenever they land on the logoff page.

Suppress Script Errors. If enabled, the Agent will suppress any script errors it encounters.

Fix SSL Sites. If enabled, hides SSL warnings entirely.

Hide Kiosk While in Citrix Session. If enabled, the Citrix Workspace Environment Management Agent kiosk is hidden while the user is connected to their Citrix session.

Always Show Admin Menu. If enabled, will display the kiosk admin menu at all times – this gives all users access to the kiosk admin menu.

Hide Taskbar & Start Button. If enabled, this will hide the user's taskbar and start menu; otherwise, the user will still be able to access their desktop.

Lock Alt-Tab. If enabled, this will ignore alt tab commands, preventing the user from switching away from the Agent.

Fix Z-Order. If enabled, adds a "hide" button to the kiosk interface that allows the user to push the kiosk to the background.

Administration Settings. By default, the Citrix Workspace Environment Management Agent kiosk mode allows the user to control some aspects of the underlying OS. These options allow you to disable these features.

Pre-Launch Receiver. If enabled, the Agent will launch Receiver and wait for it to load before bringing up the kiosk mode window.

Disable Unlock. If enabled, the Agent cannot be unlocked via the **Ctrl+Alt+U** unlock shortcut.

Enable Auto-Logon Mode. If enabled, users are automatically logged on into the desktop environment by the Agent, bypassing the Windows login screen.

Log Off Web Portal When Session is Launched. If enabled, the web frontend specified in the General Settings page is logged off when the user's desktop session is launched.

End of Session Options. This allows you to specify which action the Agent should take with the environment it is running in when the user ends their session.

Shut Down at Specified Time. If enabled, the Agent will automatically shut off the environment it is running in at the specified local time.

Shut Down When Idle. If enabled, the Agent will automatically shut off the environment it is running in after running idle (no user input) for the specified length of time.

Advanced Settings

Feb 23, 2017

These settings modify how and when the Agent Host processes actions.

Configuration

Apr 12, 2017

These options control basic Agent behaviour.

Agent Actions. These settings determine whether or not the Agent processes actions configured in the [Actions](#) tab. These settings apply at login, automatic refresh, or manual (user or admin triggered) refresh.

Process Applications. When selected, the Agent processes application actions.

Process Printers. When selected, the Agent processes printer actions.

Process Network Drives. When selected, the Agent processes network drives actions.

Process Virtual Drives. When selected, the Agent processes virtual drive actions. (Virtual drives are Windows virtual drives or MS-DOS device names which map a local file path to a drive letter.)

Process Registry Values. When selected, the Agent processes registry entry actions.

Process Environment Variables. When selected, the Agent processes environment variable actions.

Process Ports. When selected, the Agent processes port actions.

Process Ini Files Operations. When selected, the Agent processes .ini file actions.

Process External Tasks. When selected, the Agent processes external task actions.

Process File System Operations. When selected, the file system operation actions.

Process File Associations. When selected, the Agent processes file association actions.

Process User DSNs. When selected, the Agent processes user DSN actions.

Agent Service Actions. These settings determine when the Agent service processes its instructions.

Launch Agent at Logon. Determines whether or not the Agent executable is run at logon.

Launch Agent at Reconnect. Determines whether or not the Agent executable is run when reconnecting to a published desktop.

Launch Agent for Admins. Determines whether or not the Agent executable will run when a user is an administrator.

Agent Type. Determines whether the user is presented with a user interface (UI) or not (CMD) when interacting with the Agent.

Enable (Virtual) Desktop Compatibility. This setting is necessary for the Agent to be launched when the user is logged in to session 1. It should be enabled if you have any users on physical desktops or VDI.

Execute only CMD Agent in Published Applications. If enabled, the Agent will launch in command line mode when launching a published application, rather than in GUI mode. This will display a command prompt instead of the

Agent splash screen.

These settings determine whether or not the Agent performs an environment cleanup on refresh.

Shortcut Deletion at Startup. The Agent will delete all shortcuts of the selected type whenever it refreshes.

Delete Network Drives at Startup. If enabled, the Agent will delete all network drives whenever it refreshes.

Delete Network Printers at Startup. If enabled, the Agent will delete all network printers whenever it refreshes.

Preserve Auto-created Printers. If enabled, the Agent will not delete auto-created printers.

Preserve Specific Printers. If enabled, the Agent will not delete any of the printers in this list.

These options control the Agent Host's settings.

Enable Agent Logging. Enables the Agent Host log file.

Log File Location. By default, this is the root of the logged-in user's profile.

Debug Mode. This enables verbose logging for the Agent Host.

Enable Offline Mode. If this is disabled, the Agent Host will not fall back on its cache if it cannot connect to the Broker Service. **Note** In order for Offline Mode to work, SQL Server Compact Edition 3.5 SP2 must be installed in the user's environment and on the Citrix Workspace Environment Management Broker server.

Use Cache Even if Online. If enabled, the Agent Host will always read its settings and actions from its cache (which is built whenever the Agent service cycles).

Refresh Settings. If enabled, the Agent will trigger a Windows refresh whenever an Agent refresh occurs.

Refresh on Environmental Setting Change. If enabled, the Agent will always trigger a Windows refresh if an environmental setting has been modified.

Asynchronous Printer Processing. If enabled, the Agent will process printers asynchronously from other actions.

Asynchronous Network Drive Processing. If enabled, the Agent will process network drives asynchronously from other actions.

Initial Environment/Desktop Cleanup. If enabled, the Agent will clean up the environment/desktop at first login only.

Check Application Existence. If enabled, the Agent will check that an application is available to the user/group before creating a shortcut to that application.

Expand App Variables. If enabled, variables are expanded by default (see *Error! Reference source not found.* for normal behavior when the Agent Host encounters a variable).

Enable Cross-Domain User Group Search. If enabled, the Agent Host will query user groups in all domains under your AD. Please be aware that this is an extremely time-intensive process and that this option should not be used if at all possible.

Broker Service Timeout. This allows you to configure the timeout value for the Agent Host to Broker connection, beyond which the Agent Host will switch to its cache if configured to do so. Default value is 2000 milliseconds.

Directory Services Timeout. This allows you to configure the timeout value for directory services on the Agent Host machine, beyond which the Agent Host will use its own internal cache of user group associations. Default value is 2000 milliseconds.

Network Resources Timeout. This allows you to configure the timeout value for resolving network resources (e.g. network drives or file/folder resources located on the network), beyond which the Agent Host will pass on the action and mark it as failed. Default value is 500 milliseconds.

Agent Max Degree of Parallelism. This allows you to control the maximum number of threads the Agent Host is allowed to operate at. Default value is 0 (as many threads as physically allowed by the processor), 1 is single-threaded, 2 is dual-threaded, etc. You should not need to modify this value in most cases.

Enforce Execution of Agent Actions. If these settings are enabled, the Agent Host will always refresh those actions, even if no changes have been made.

Revert Unassigned Actions. If these settings are enabled, the Agent Host will delete any unassigned actions when it next refreshes.

Automatic Refresh. If enabled, the Agent Host will refresh automatically. By default, the refresh delay is 30 minutes.

Action Processing on Reconnection. These settings control what actions the Agent Host processes upon reconnection to the user environment.

Filter Processing Enforcement. If enabled, these options will force the Agent Host to re-process filters at every refresh.

These settings configure the Agent Host service.

Agent Cache Refresh Delay. This setting controls how long the Agent Host service will wait to refresh its cache.

SQL Settings Refresh Delay. This setting controls how long the Agent Host service will wait to refresh its SQL connection settings.

Agent Extra Launch Delay. This setting controls how long the Agent Host service will wait to launch the Agent Host executable.

Enable Debug Mode. This enables verbose logging for all Agent Hosts connecting to this site.

Bypass ie4unit Check. By default, the Agent Host service will wait for ie4unit to run before launching the Agent Host executable. This setting forces the Agent Host service to not wait for ie4unit.

Agent Launch Exclusions. If enabled, the Citrix Workspace Environment Management Agent Host will not be launched for any user belonging to the specified user groups.

Forbidden Drives. Any drive letter added to this list is excluded from the drive letter selection when assigning a drive resource.

UI Agent Personalization

Apr 10, 2017

These options allow you to personalize the look and feel of the Citrix Workspace Environment Management Agent Host as well as help desk and self-service facilities.

These settings let you customize how the Agent Host looks in the user's environment.

Custom Background Image Path. If entered, will display a custom image when the Agent Host launches/refreshes, rather than the Citrix Workspace Environment Management logo. The image used must be accessible from the user environment. It is recommended you use a 400*200px .bmp file.

Loading Circle Color. Allows you to modify the color of the loading circle to fit your custom background.

Text Label Color. Allows you to modify the color of the loading text to fit your custom background.

UI Agent Skin. Allows you to select from a variety of skins for the UI Agent only.

Hide Agent Splashscreen. If enabled, will not show the splash screen when the Agent Host is loading/refreshing. This will only take effect after the Agent Host has refreshed while the setting is enabled.

Hide Agent Icon in Published Applications. If enabled, published applications will not show the Citrix Workspace Environment Management Agent icon.

Hide Agent Splashscreen in Published Applications. If enabled, the Agent splash screen will not be shown for published apps running through it.

Only Admins Can Close Agent. If enabled, non-administrators cannot shut down the Citrix Workspace Environment Management Agent Host.

Allow Users to Manage Printers. If enabled, users can access the Citrix Workspace Environment Management Agent Host **Manage Printers** menu to assign a default printer and modify print preferences.

Allow Users to Manage Applications. If enabled, users can access the Citrix Workspace Environment Management Agent Host **Manage Applications** menu, which allows them to manage where their application shortcuts are created. Shortcuts created in self-healing mode cannot be deleted using this menu.

Prevent Admins to Close Agent. If enabled, administrators cannot shut down the Citrix Workspace Environment Management Agent Host.

Enable Applications Shortcuts. If enabled, users can run applications from the Manage Applications menu.

Disable Administrative Refresh Feedback. When Administrators force an Agent Host to refresh from the Administration Console, select this option to prevent a notification tooltip appearing in the user environment.

These options control the Agent Host's help desk functionalities.

Help Link Action. This field controls what happens when the user clicks on the "Help" link in the Citrix Workspace

Environment Management Agent Host.

Custom Link Action. This field controls what happens when the user clicks on the "Support" link in the Citrix Workspace Environment Management Agent Host.

Enable Screen Capture. If enabled, users are given the option to open a screen capture utility. This allows the user to screenshot any errors in their environment, which they can then send to your support staff.

Enable Send to Support Option. If enabled, the user is able to send screenshots and log files directly to the nominated support email address, with the specified template. This requires a working, configured email client.

Custom Subject. If enabled, the support email generated by the Citrix Workspace Environment Management Agent Host screen capture utility is sent with the specified subject.

Email Template. This field allows you to specify a template for the support email generated by the Citrix Workspace Environment Management Agent Host screen capture utility. Note You must configure the email template to include useful information.

See [Dynamic tokens](#) for a list of hash-tags which can be used in the email template. **Note** Users are only presented with the option to enter a comment if the **##UserScreenCaptureComment##** hash-tag is included in the email template.

Use SMTP to Send Email. If enabled, this will send the support email using SMTP instead of MAPI.

Test SMTP. Tests your SMTP settings as entered above to verify that they are correct.

Shut Down At Specified Time. If enabled, the Agent Host will automatically shut off the environment it is running in at the specified local time.

Shut Down When Idle. If enabled, the Agent Host will automatically shut off the environment it is running in after running idle (no user input) for the specified length of time.

Administration

Feb 23, 2017

These settings control administrative functions such as delegation, user statistics, and change logging.

Administrators

Feb 23, 2017

These options allow you to nominate Citrix Workspace Environment Management administrators (users or groups who have the right to connect to the current site via the Administration Console).

Configured Administrators List

A list of your existing configured administrators, with a unique ID. You can use **Find** to filter the list by name or ID against a text string.

To add an administrator:

1. Use the context menu **Add Users** command.
2. Enter details in the Windows Select Users dialog, then click **OK**.

Name. This field displays name of the user or group you are currently editing.

Description. This field is only shown in the edition/creation wizard and allows you to specify additional information about the user or group.

Global Administrator. This checkbox controls whether the selected user/group is a Global Administrator or a Site Administrator. Global Administrators have their permissions applied to all sites. Site Administrators have their permissions configured on a per-site basis.

Permissions. This allows you to specify one of the following levels of access to the selected user/group. **Note:** Administrators cannot view settings which they do not have access to.

Full Access administrators have full control over every aspect of the specified site(s). Only Global Full Access administrators can add/delete Citrix Workspace Environment Management administrators, and the **Administration** tab is only visible to Global Full Access and Global Read Only administrators.

Read Only administrators can view the entire console, but cannot modify any settings at all.

Action Creators can create and manage actions.

Action Managers can both create/manage actions and control their assignment. Assigned actions cannot be edited or deleted by Action Managers.

Filter Managers can create and manage conditions and rules. Rules that are in use on assigned applications cannot be edited or deleted by Filter Managers.

Assignment Managers can only assign resources to users or groups.

System Utilities Managers can manage the System Utilities settings (CPU, RAM and process management).

Policies and Profiles Managers can manage Policies and Profiles settings.

Configured Users Managers can add, edit and remove users or groups from the configured users list. Users or groups with assigned actions cannot be edited or deleted by Configured Users Managers.

Transformer Managers can manage Transformer settings.

Advanced Settings Managers can manage advanced settings (enabling or disabling action processing, cleanup actions, etc.).

State. This controls whether the selected user/group is enabled or disabled. If disabled, the user/group is treated as if they were not a Citrix Workspace Environment Management administrator and is unable to use the Citrix Workspace Environment Management Administration Console.

Type. This field is informative only and indicates whether the selected entity is a user or group.

If the **Global Administrator** checkbox is cleared the following controls are enabled:

Site Name. All Citrix Workspace Environment Management sites belonging to the database this broker is connected to.

Enabled. Select to enable this administrator for the specified Citrix Workspace Environment Management site. If disabled, the user/group is treated as if it were not an administrator of that site and is unable to access it.

Permissions. Select a permission level for the selected user/group for each Citrix Workspace Environment Management site attached to this broker.

Users

Feb 23, 2017

This page displays statistics about your Citrix Workspace Environment Management installation.

Statistics

This page displays a summary of users whose Agent Hosts have connected to this database.

Users Summary. Displays a count of total users who have reserved a Citrix Workspace Environment Management license, for both the current site and all sites. Also displays a count of new users in the last 24 hours and in the last month.

Users History. This displays connection information for all the users associated with this site, including the last connection time, the name of the machine from which they last connected and the Agent Host type (UI or CMD) and version. You can use **Find** to filter the list by name or ID against a text string.

Agents

Feb 23, 2017

This page displays statistics about your Citrix Workspace Environment Management installation.

Statistics

This page displays a summary of Agent Host connected to this database.

Agents Summary. Displays a count of total Agent Hosts who have reserved a Citrix Workspace Environment Management license, for both the current site and all sites. Also displays a count of new Agent Hosts in the last 24 hours and in the last month.

Agents History. This displays connection information for all the Agent Hosts associated with this site, including the last connection time, the name of the device from which they last connected and the Agent Host version. You can use **Find** to filter the list by name or ID against a text string.

Administration Log

Feb 23, 2017

The administration log displays a list of all changes made to your Citrix Workspace Environment Management settings. By default, the log is unpopulated until the log is refreshed manually.

Filtering Options. These options allow you to filter the log by site, as well as specifying bounding dates.

Export Log. This button will export the log in XLS format.

Refresh Log. This button will refresh the log.

Clear Log. This button flushes the log. **This applies for all users, and cannot be undone.** Clearing the log leaves an event in the new log indicating this has been done. This option is only available to Global Full Access administrators.

Monitoring

Feb 23, 2017

These pages contain detailed user login and machine boot reports. You can **Export** all reports in various formats.

Daily Reports

Feb 23, 2017

Daily Login Report. A daily summary of login times across all users connected to this site. You can double-click a category for a detailed view showing individual logon times for each user on each device.

Daily Boot Report. A daily summary of boot times across all devices connected to this site. You can double-click a category for a detailed view showing individual boot times for each device.

User Trends

Feb 23, 2017

Login Trends Report. This report displays overall login trends for each day over the selected period. You can double-click each category of each day for a detailed view.

Boot Trends Report. This report displays overall boot trends for each day over the selected period. You can double-click each category of each day for a detailed view.

Device Types. This report displays a daily count of the number of devices of each listed operating system connecting to this site. You can double-click each device type for a detailed view.

User & Device Reports

Feb 23, 2017

User Report. This report allows you to view login trends for a single user over the selected period. You can double-click each data point for a detailed view.

Device Report. This report allows you to view boot trends for a single device over the selected period. You can double-click each data point for a detailed view.

Configuration

Feb 23, 2017

Report Options. These options allow you to control the reporting period and work days. You can also specify minimum **Boot Time** and **Login Time** (in seconds) below which values are not reported.

Dynamic tokens

Feb 23, 2017

Sometimes you need to manipulate strings within a script to map drives or launch applications. The following string operations are accepted by the Agent Host:

```
#Left(string,length)#
```

```
#Right(string,length)#
```

```
#Truncate(string,length)#
```

```
&Trim(string)&
```

```
&RemoveSpaces(string)&
```

```
&Expand(string)&
```

```
$Split(string,[splitter],index)$
```

```
#Mid(string,start index)#
```

```
!Mid(string,start index,length)!
```

Note

All Operators are case sensitive. String operations are also supported with hashtags and Active Directory attributes. In cases where your string operations are nested, **Mid** operations are always performed last.

Hash-tags are a replacement feature embedded in almost all of Workspace Environment Management's item processing. The following example illustrates how you use hash-tags:

To write to an .ini file, you can use %UserName% in the .ini file's path and Citrix Workspace Environment Management will process it and expand the final directory. However, assessing the value which Citrix Workspace Environment Management writes in the .ini itself is more complicated: you may want to write %UserName% literally or to write the expanded value.

To increase flexibility, ##UserName## exists as a hash-tag, so that using %UserName% for a value will write it literally and ##UserName## will write the expanded value.

The following hash-tags have been implemented for general use:

```
##UserName##
```

```
##UserProfile##
```

```
##FullUserName##
```

```
##UserInitials##
```

```
##UserAppData##
```

```
##UserPersonal##
```

```
##UserDocuments##
```

```
##UserDesktop##
```

```
##UserFavorites##
```

```
##UserTemplates##
```

```
##UserStartMenu##
```

```
##UserStartMenuPrograms##
```

```
##ComputerName##
```

```
##ClientName##
```

##ClientIPAddress##

##ADSite##

##DefaultRegValue##

##UserLDAPPath##

##VUEMAgentFolder##

##RDSSessionID##

##RDSSessionName##

##ClientRemoteOS##

##ClientOSInfos##

Additionally, hash-tag **##UserScreenCaptureComment##** has been implemented for use in specific parts of the product. This tag can be included in the Email Template under **Advanced Settings > UI Agent Personalisation > Helpdesk Options**. When included, the user is presented with a comment field located below the screen capture in the Citrix Workspace Environment Management Agent Host screen capture utility. The comment is included in the support email at the location at which you placed the tag in the email template.

Note

All Hashtags are case sensitive.

If you need to work with Active Directory Attributes, Citrix Workspace Environment Management replaces the **[ADAttribute:attrName]** value with the related Active Directory attribute.

For user OU structures, Citrix Workspace Environment Management replaces the **[UserParentOU:level]** value with the related Active Directory OU name.

Note

All AD attributes are case sensitive.

Common Control Panel applets

Feb 23, 2017

The following applets are common control panel applets in Windows:

Applet name	Canonical name
Action Center	Microsoft.ActionCenter
Administrative Tools	Microsoft.AdministrativeTools
AutoPlay	Microsoft.AutoPlay
Biometric Devices	Microsoft.BiometricDevices
BitLocker Drive Encryption	Microsoft.BitLockerDriveEncryption
Color Management	Microsoft.ColorManagement
Credential Manager	Microsoft.CredentialManager
Date and Time	Microsoft.DateAndTime
Default Programs	Microsoft.DefaultPrograms
Device Manager	Microsoft.DeviceManager
Devices and Printers	Microsoft.DevicesAndPrinters
Display	Microsoft.Display
Ease of Access Center	Microsoft.EaseOfAccessCenter
Family Safety	Microsoft.ParentalControls
File History	Microsoft.FileHistory
Folder Options	Microsoft.FolderOptions

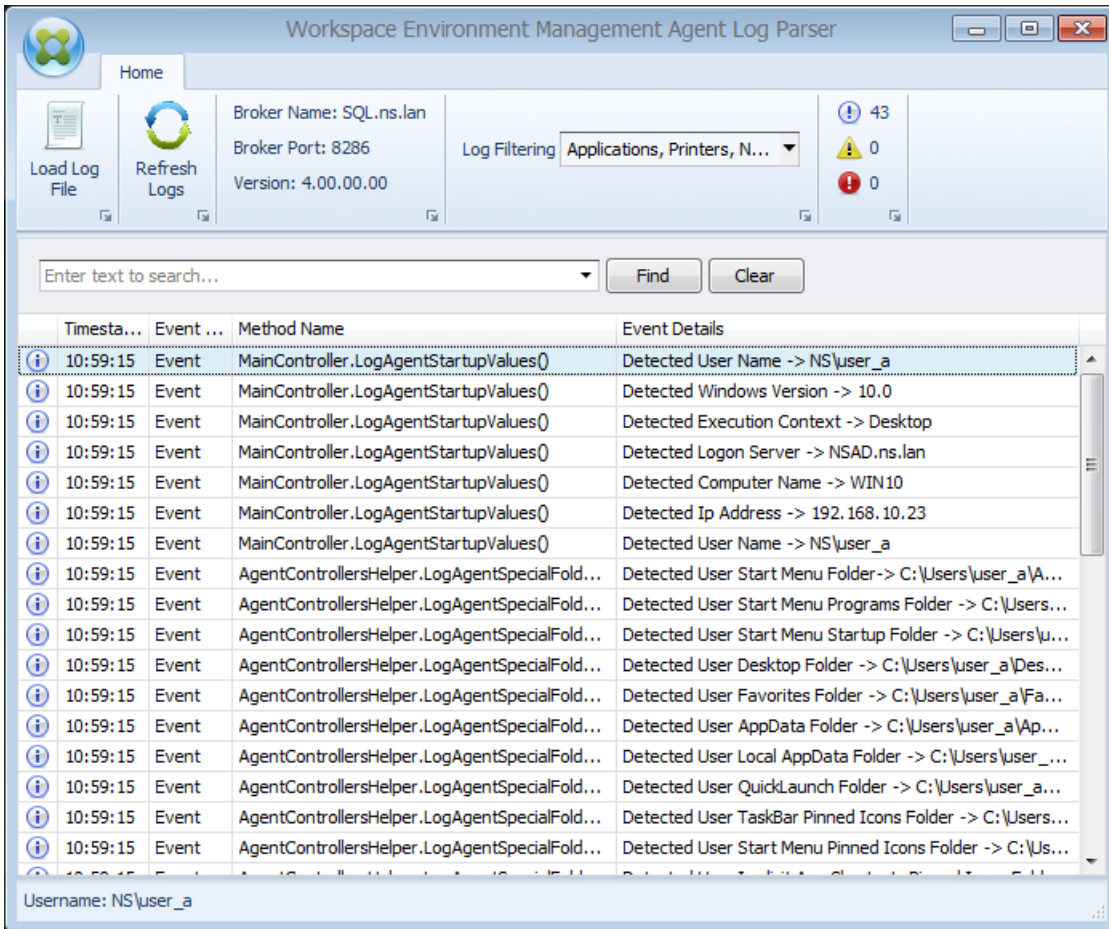
Fonts	Microsoft.Fonts
HomeGroup	Microsoft.HomeGroup
Indexing Options	Microsoft.IndexingOptions
Infrared	Microsoft.Infrared
Internet Options	Microsoft.InternetOptions
iSCSI Initiator	Microsoft.iSCSIInitiator
iSNS Server	Microsoft.iSNSServer
Keyboard	Microsoft.Keyboard
Language	Microsoft.Language
Location Settings	Microsoft.LocationSettings
Mouse	Microsoft.Mouse
MPIOConfiguration	Microsoft.MPIOConfiguration
Network and Sharing Center	Microsoft.NetworkAndSharingCenter
Notification Area Icons	Microsoft.NotificationAreaIcons
Pen and Touch	Microsoft.PenAndTouch
Personalization	Microsoft.Personalization
Phone and Modem	Microsoft.PhoneAndModem
Power Options	Microsoft.PowerOptions
Programs and Features	Microsoft.ProgramsAndFeatures

Recovery	Microsoft.Recovery
Region	Microsoft.RegionAndLanguage
RemoteApp and Desktop Connections	Microsoft.RemoteAppAndDesktopConnections
Sound	Microsoft.Sound
Speech Recognition	Microsoft.SpeechRecognition
Storage Spaces	Microsoft.StorageSpaces
Sync Center	Microsoft.SyncCenter
System	Microsoft.System
Tablet PC Settings	Microsoft.TabletPCSettings
Taskbar and Navigation	Microsoft.Taskbar
Troubleshooting	Microsoft.Troubleshooting
TSAppInstall	Microsoft.TSAppInstall
User Accounts	Microsoft.UserAccounts
Windows Anytime Upgrade	Microsoft.WindowsAnytimeUpgrade
Windows Defender	Microsoft.WindowsDefender
Windows Firewall	Microsoft.WindowsFirewall
Windows Mobility Center	Microsoft.MobilityCenter
Windows To Go	Microsoft.PortableWorkspaceCreator
Windows Update	Microsoft.WindowsUpdate

Log parser

Feb 23, 2017

Workspace Environment Management includes a log parser application which is located in the Workspace Environment Management Agent Host installation directory:



The **Log Parser** allows you to open any Workspace Environment Management Agent Host log, making them searchable and filterable. The parser also summarizes the total number of events, warnings and exceptions (in the top right of the ribbon), as well as details about the log file (the name and port of the Workspace Environment Management Broker service it first connected to, as well as the Agent Host version and username).

XML printer list configuration

Apr 24, 2017

Workspace Environment Management includes the ability to configure user printers via an XML printer list file.

After you have created an XML printer list file, create a [printer action](#) in the Administration Console with an **Action Type** option set to **Use Device Mapping Printers File**.

Note

Only printers that do not require specific Windows credentials are supported.

The basic structure is as follows:

```
<?xml version="1.0" encoding="UTF-8"?>

<ArrayOfSerializableKeyValuePairOfStringListOfVUEMUserAssignedPrinter xmlns:xsd="http://www.w3.org/2001/XMLSchema"

...

</ArrayOfSerializableKeyValuePairOfStringListOfVUEMUserAssignedPrinter>
```

Encoding is in UTF-8. The object representing every client and associated device is of the following type:

```
SerializableKeyValuePair<string, List<VUEMUserAssignedPrinter>>>
```

Individual tags for each device are as follows:

```
<SerializableKeyValuePairOfStringListOfVUEMUserAssignedPrinter>  
  
  <Key>DEVICE1</Key>  
  
  <Value>  
  
    <VUEMUserAssignedPrinter>  
  
      ...  
  
    </VUEMUserAssignedPrinter>  
  
  </Value>  
  
</SerializableKeyValuePairOfStringListOfVUEMUserAssignedPrinter>
```

Each block of devices must be matched to a specific client or computer name. The **<Key>** tag contains the relevant name. The **<Value>** tag contains a list of **VUEMUserAssignedPrinter** objects matching the printers assigned to the specified client.



```

<?xml version="1.0" encoding="utf-8"?>

<ArrayOfSerializableKeyValuePairOfStringListOfVUEMUserAssignedPrinter xmlns:xsi="http://www.w3.org/2001/XMLSchema-i

  <SerializableKeyValuePairOfStringListOfVUEMUserAssignedPrinter>

    <Key>DEVICE1</Key>

    <Value>

      <VUEMUserAssignedPrinter>

        ...

      </VUEMUserAssignedPrinter>

    </Value>

  </SerializableKeyValuePairOfStringListOfVUEMUserAssignedPrinter>

</ArrayOfSerializableKeyValuePairOfStringListOfVUEMUserAssignedPrinter>

```

Each configured printer must be defined in a `<VUEMUserAssignedPrinter>` tag, using the following attributes:

`<IdPrinter>`. This is the Workspace Environment Management printer ID for the configured printer. Each printer must have a different ID. **Note** The XML Printer List action configured in the Workspace Environment Management Administration Console is also a printer action with its own ID which must be different from the ID of printers individually configured in the XML list.

`<IdSite>`. Contains the site ID for the relevant Workspace Environment Management site, which must match the ID of an existing site.

`<State>`. Specifies the state of the printer where 1 is active and 0 is disabled.

`<ActionType>`. Must always be 0.

`<UseExtCredentials>`. Must be 0. The use of specific Windows credentials is not currently supported.

`<isDefault>`. If 1, printer is the default Windows printer. If 0, it is not configured as default.

`<IdFilterRule>`. Must always be 1.

`<RevisionId>`. Must always be 1. If printer properties are subsequently modified, increment this value by 1 to notify the Agent Host and ensure the printer action is re-processed.

`<Name>`. This is the printer name as perceived by the Workspace Environment Management Agent Host. This field cannot

be left blank.

<Description>. This is the printer description as perceived by the Workspace Environment Management Agent Host. This field can be blank.

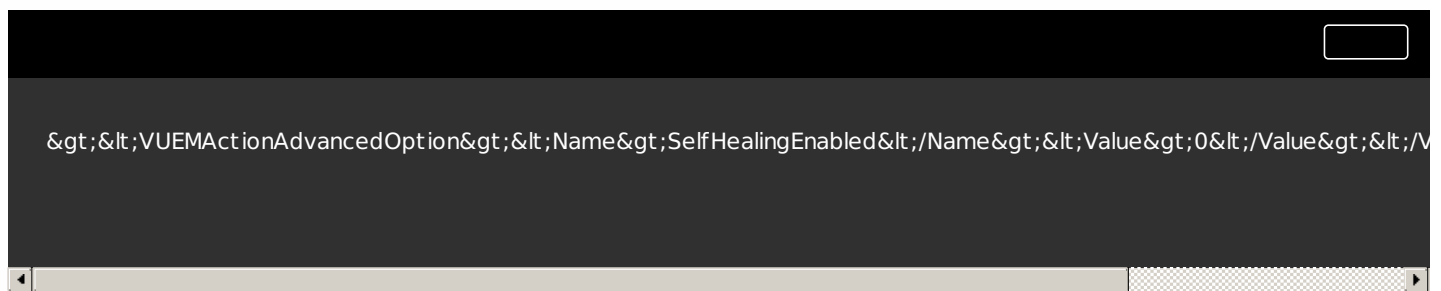
<DisplayName>. This is unused and should be left blank.

<TargetPath>. This is the UNC path to the printer.

<ExtLogin>. Contains the name of the Windows account used when specifying Windows credentials for connection. [Currently unsupported. Leave this field blank.].

<ExtPassword>. Contains the password for the Windows account used when specifying Windows credentials for connection. [Currently unsupported. Leave this field blank.].

<Reserved01>. This contains advanced settings. **Do not** alter it in any way.

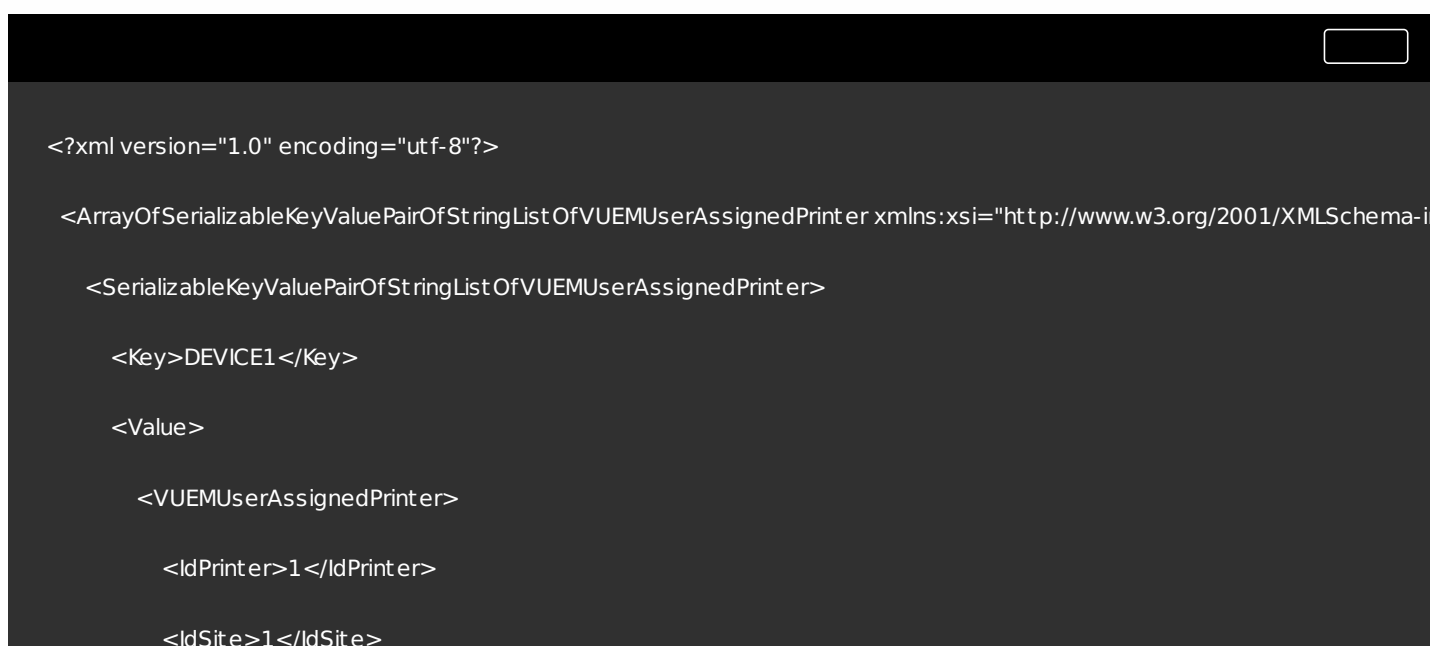


```
<VUEMActionAdvancedOption Name="SelfHealingEnabled" Value="0"/>
```

To activate self-healing for a given printer object, simply copy and paste the above contents, changing the highlight **0** value to **1**.

Example printer object

The following example assigns an active printer with the name **HP LaserJet 2200 Series** printer on the client or computer **DEVICE1**, the UNC path `\\server.example.net\HP LaserJet 2200 Series`, and which is not configured as the default printer:



```
<?xml version="1.0" encoding="utf-8"?>
<ArrayOfSerializableKeyValuePairOfStringListOfVUEMUserAssignedPrinter xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="">
  <SerializableKeyValuePairOfStringListOfVUEMUserAssignedPrinter>
    <Key>DEVICE1</Key>
    <Value>
      <VUEMUserAssignedPrinter>
        <IdPrinter>1</IdPrinter>
      </VUEMUserAssignedPrinter>
    </Value>
  </SerializableKeyValuePairOfStringListOfVUEMUserAssignedPrinter>
</ArrayOfSerializableKeyValuePairOfStringListOfVUEMUserAssignedPrinter>
```

```
<State>1</State>

<ActionType>0</ActionType>

<UseExtCredentials>0</UseExtCredentials>

<isDefault>0</isDefault>

<IdFilterRule>1</IdFilterRule>

<RevisionId>1</RevisionId>

<Name>HP LaserJet 2200 Series</Name>

<Description />

<DisplayName />

<TargetPath>\\server.example.net\HP LaserJet 2200 Series</TargetPath>

<ExtLogin />

<ExtPassword />

<Reserved01>&lt;?xml version="1.0" encoding="utf-8"&gt;&lt;ArrayOfVUEMActionAdvancedOption xmlns:xsi="f

</VUEMUserAssignedPrinter>

</Value>

</SerializableKeyValuePairOfStringListOfVUEMUserAssignedPrinter>

</ArrayOfSerializableKeyValuePairOfStringListOfVUEMUserAssignedPrinter>
```


Filter conditions

Feb 23, 2017

Workspace Environment Management includes the following filter conditions which you use to configure the circumstances under which the Agent Host assigns resources to users. (For details of using these conditions in the Administration Console, see [filter conditions](#).)

Condition Name	Always True
Expected value type	N/A
Expected result type	N/A
Expected syntax	N/A
Returns	true

Condition Name	ComputerName Match
Expected value type	N/A
Expected result type	String
Expected syntax	Single name test : Computername Multiple tests (OR) : Computername1;Computername2 Wildcard (also works with multiples) : ComputerName*
Returns	True if the current computer name matches the tested value false otherwise

Condition Name	ClientName Match
Expected value type	N/A
Expected value type	String

Expected syntax	<p>Single name test : Clientname</p> <p>Multiple tests (OR) : Clientname1;Clientname2</p> <p>Wildcard (also works with multiples) : ClientName*</p>
Returns	True if the current client name matches the tested value false otherwise

Condition Name	IP Address Match
Expected value type	N/A
Expected result type	IP address
Expected syntax	<p>Single name test : IpAddress</p> <p>Multiple tests (OR) : IpAddress1;IpAddress2</p> <p>Wildcard (also works with multiples) : IpAddress*</p> <p>Range (also works with multiples) : IpAddress1-IpAddress2</p>
Returns	True if the current computer ip address matches the tested value false otherwise

Condition Name	Client IP Address Match
Expected value type	N/A
Expected result type	IP address
Expected syntax	<p>Single name test : ClientIpAddress</p> <p>Multiple tests (OR) : ClientIpAddress1;ClientIpAddress2</p> <p>Wildcard (also works with multiples) : ClientIpAddress*</p> <p>Range (also works with multiples) : IpAddress1-IpAddress2</p>

Returns	True if the current client ip address matches the tested value false otherwise
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Condition Name	Active Directory Site Match
Expected value type	N/A
Expected result type	Exact name of the Active Directory site to test
Expected syntax	Active directory site name
Returns	True if the specified site matches the current site false otherwise

Condition Name	Scheduling
Expected value type	N/A
Expected result type	Day of week (example: Monday)
Expected syntax	Single name test : DayOfWeek Multiple tests (OR) : DayOfWeek1; DayOfWeek2
Returns	True if today matches the tested value false otherwise

Condition Name	Environment Variable Match
Expected value type	String. Name of the tested variable
Expected result type	String. Expected value of the tested variable
Expected syntax	Single name test : value Not null test: ?

Returns	True if environment variable exists and value matches false otherwise.
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Condition Name	Registry Value Match
Expected value type	String. Full path and name of the registry value to test. Example : Registry Key HKCU\Software\Citrix\TestValueName
Expected result type	String. Expected value of the tested registry entry
Expected syntax	Single name test : value Not null test: ?
Returns	True if registry value exists and value matches false otherwise.

Condition Name	WMI Query result Match
Expected value type	N/A
Expected result type	String.
Expected syntax	Valid WMI query. https://msdn.microsoft.com/en-us/library/aa392902(v=vs.85).aspx
Returns	True if query is successful and has result false otherwise.

Condition Name	User Country Match
Expected value type	N/A
Expected result type	String.
Expected syntax	Two letter ISO language name.

Returns	True if user ISO language name matches the specified value false otherwise.
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Condition Name	User UI Language Match
Expected value type	N/A
Expected result type	String. Two letter ISO language name. Example FR
Expected syntax	Two letter ISO language name. Example FR
Returns	True if user UI ISO language name matches the specified value false otherwise.

Condition Name	User SBC Resource Type
Expected value type	N/A
Expected result type	Select from dropbox
Expected syntax	N/A
Returns	True if user context (published desktop or application) matches selected value false otherwise.

Condition Name	OS Platform Type
Expected value type	N/A
Expected result type	Select from dropbox
Expected syntax	N/A
Returns	True if machine platform type (x64 or x86) matches selected value false otherwise.

Condition Name	Connection State
Expected value type	N/A
Expected result type	Select from dropbox
Expected syntax	N/A
Returns	True if connection state (online or offline) matches selected value false otherwise.

Condition Name	XenApp Version Match
Expected value type	N/A
Expected result type	String. XenApp Version. Example: 6.5
Expected syntax	N/A
Returns	True if version matches selected value false otherwise.

Condition Name	XenApp Farm Name Match
Expected value type	N/A
Expected result type	String. XenApp Farm Name (up to version 6.5). Example: Farm
Expected syntax	N/A
Returns	True if name matches selected value false otherwise.

Condition Name	XenApp Zone Name Match
Expected value type	N/A
Expected result type	String. XenApp Zone Name (up to version 6.5). Example: Zone
Expected syntax	N/A
Returns	True if name matches selected value false otherwise.

Condition Name	XenDesktop Farm Name Match
Expected value type	N/A
Expected result type	String. XenDesktop Farm Name (up to version 5). Example: Farm
Expected syntax	N/A
Returns	True if name matches selected value false otherwise.

Condition Name	XenDesktop Desktop Group Name Match
Expected value type	N/A
Expected result type	String. XenDesktop Desktop Group Example: Group
Expected syntax	N/A
Returns	True if name matches selected value false otherwise.

Condition Name	Provisioning Services Image Mode

Expected value type	N/A
Expected result type	Select from dropbox
Expected syntax	N/A
Returns	True if current provisioning services image mode matches selected value false otherwise.

Condition Name	Client OS
Expected value type	N/A
Expected result type	Select from dropbox
Expected syntax	N/A
Returns	True if current client operating system matches selected value false otherwise.

Condition Name	Active Directory Path Match
Expected value type	N/A
Expected result type	String. Name of the tested Active Directory Path
Expected syntax	Single name test : strict LDAP path matching Wilcard test: OU=Users* Multiple entries: separate entries with semicolon (;)
Returns	True if attribute exists and value matches false otherwise.

Condition Name	Active Directory Attribute Match
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Expected value type	String. Name of the tested Active Directory attribute
Expected result type	String. Expected value of the tested Active Directory attribute
Expected syntax	Single value test : value Multiple value entries: separate entries with semicolon (;) Test for not null: ?
Returns	True if attribute exists and value matches false otherwise.

Condition Name	Name or Value is in List
Expected value type	String. Full file path of the xml list generated by the Integrity List manager utility
Expected result type	String. Expected value of the name/value to look for in the list
Expected syntax	String
Returns	True if the value is found in the name/value pairs in the specified list false otherwise.

Condition Name	No ComputerName Match
Negative condition behavior	Will execute ComputerName Match and return the opposite result (true if false, false if true). See condition ComputerName Match for more information.

Condition Name	No ClientName Match
Negative condition behavior	Will execute ClientName Match and return the opposite result (true if false, false if true).

See condition **ClientName Match** for more information.

Condition Name	No IP Address Match
Negative condition behavior	Will execute IP Address Match and return the opposite result (true if false, false if true). See condition IP Address Match for more information.

Condition Name	No Client IP Address Match
Negative condition behavior	Will execute Client IP Address Match and return the opposite result (true if false, false if true). See condition Client IP Address Match for more information.

Condition Name	No Active Directory Site Match
Negative condition behavior	Will execute Active Directory Site Match and return the opposite result (true if false, false if true). See condition Active Directory Site Match for more information.

Condition Name	No Environment Variable Match
Negative condition behavior	Will execute Environment Variable Match and return the opposite result (true if false, false if true).

See condition **Environment Variable Match** for more information.

Condition Name	No Registry Value Match
Negative condition behavior	Will execute Registry Value Match and return the opposite result (true if false, false if true). See condition Registry Value Match for more information.

Condition Name	No WMI Query result Match
Negative condition behavior	Will execute WMI Query result Match and return the opposite result (true if false, false if true). See condition WMI Query result Match for more information.

Condition Name	No User Country Match
Negative condition behavior	Will execute User Country Match and return the opposite result (true if false, false if true). See condition User Country Match for more information.

Condition Name	No User UI Language Match
Negative condition behavior	Will execute User UI Language Match and return the opposite result (true if false, false if true).

See condition **User UI Language Match** for more information.

Condition Name	No XenApp Version Match
Negative condition behavior	Will execute XenApp Version Match and return the opposite result (true if false, false if true). See condition XenApp Version Match for more information.

Condition Name	No XenApp Farm Name Match
Negative condition behavior	Will execute XenApp Farm Name Match and return the opposite result (true if false, false if true). See condition XenApp Farm Name Match for more information.

Condition Name	No XenApp Zone Name Match
Negative condition behavior	Will execute XenApp Zone Name Match and return the opposite result (true if false, false if true). See condition XenApp Zone Name Match for more information.

Condition Name	No XenDesktop Farm Name Match
Negative condition behavior	Will execute XenDesktop Farm Name Match and return the opposite result (true if false, false if true).

See condition **XenDesktop Farm Name Match** for more information.

Condition Name	No XenDesktop Desktop Group Name Match
Negative condition behavior	Will execute XenDesktop Desktop Group Name Match and return the opposite result (true if false, false if true). See condition XenDesktop Desktop Group Name Match for more information.

Condition Name	No Active Directory Path Match
Negative condition behavior	Will execute Active Directory Path Match and return the opposite result (true if false, false if true). See condition Active Directory Path Match for more information.

Condition Name	No Active Directory Attribute Match
Negative condition behavior	Will execute Active Attribute Path Match and return the opposite result (true if false, false if true). See condition Active Attribute Path Match for more information.

Condition Name	Name or Value is not in List
Negative condition behavior	Will execute Name or Value is in List and return the opposite result (true if false, false if true).

See condition **Name** or **Value is in List** for more information.

Condition Name	Client Remote OS Match
Expected value type	N/A
Expected result type	Select from dropbox
Expected syntax	N/A
Returns	True if current remote client operating system matches selected value false otherwise.

Condition Name	No Client Remote OS Match
Negative condition behavior	Will execute Client Remote OS Match and return the opposite result (true if false, false if true). See condition Client Remote OS Match for more information.

Condition Name	Dynamic Value Match
Expected value type	String. Any dynamic expression using environment variables or Dynamic Tokens
Expected result type	String. Expected value of the tested expression
Expected syntax	Single name test : value Not null test: ?
Returns	True if dynamic expression result value exists and value matches false otherwise.

Condition Name	No Dynamic Value Match
Negative condition behavior	Will execute Dynamic Value Match and return the opposite result (true if false, false if true). See condition Dynamic Value Match for more information.

Condition Name	Transformer Mode State
Expected value type	N/A
Expected result type	Select from dropbox
Expected syntax	N/A
Returns	True if current Transformer state matches selected value false otherwise.

Condition Name	No Client OS Match
Negative condition behavior	Will execute Client OS Match and return the opposite result (true if false, false if true). See condition Client OS Match for more information.

Condition Name	Active Directory Group Match
Expected value type	N/A
Expected result type	String
Expected syntax	Single name test : group netbios name (DOMAIN\Groupname)

	Multiple tests (OR) : Groupname1;Groupname2
Returns	True if any of the current user groups matches the tested value false otherwise

Condition Name	No Active Directory Group Match
Negative condition behavior	Will execute Active Directory Group Match and return the opposite result (true if false, false if true). See condition Active Directory Group Match for more information.

Condition Name	File Version Match
Expected value type	String. Full path and name of the file to test. Example : C:\Test\TestFile.dll
Expected result type	String. Expected file version value of the tested file
Expected syntax	Single name test : value Not null test: ?
Returns	True if registry value exists and value matches false otherwise.

Condition Name	No File Version Match
Negative condition behavior	Will execute File Version Match and return the opposite result (true if false, false if true). See condition File Version Match for more information.

Condition Name	Network Connection State
Expected value type	N/A
Expected result type	Select from dropbox
Expected syntax	N/A
Returns	True if current network connection state matches selected value false otherwise.

Condition Name	Published Resource Name
Expected value type	N/A
Expected result type	String. Name of the published resource (XenApp/XenDesktop/RDS)
Expected syntax	Single name test : published resource name Multiple tests (OR) : Name1;Name2 Wildcard test: Name*
Returns	True if the current published resource name matches the tested value false otherwise

Condition Name	Name is in List
Expected value type	String. Full file path of the xml list generated by the Integrity List manager utility
Expected result type	String. Expected value of the name to look for in the list
Expected syntax	String
Returns	True if there is a name match in the name/value pairs in the specified list false otherwise.

Condition Name	Name is not in List
Negative condition behavior	Will execute Name is in List and return the opposite result (true if false, false if true). See condition Name is in List for more information.

Condition Name	File/Folder exists
Expected value type	N/A
Expected result type	String.
Expected syntax	Full path of the file system entry (file or folder) to test
Returns	True if the specified file system entry exists false otherwise

Condition Name	File/Folder does not exist
Negative condition behavior	Will execute File/Folder exists and return the opposite result (true if false, false if true). See condition File/Folder exists for more information.

Condition Name	DateTime Match
Expected value type	N/A
Expected result type	DateTime as String. Date/time to test
Expected syntax	Single Date: 06/01/2016

	<p>Date Range: 06/01/2016-08/01/2016</p> <p>Multiple entries: entry1;entry2 Ranges and single dates can be mixed</p>
Returns	True if execution datetime matches any of the specified entry false otherwise.

Condition Name	No DateTime Match
Negative condition behavior	<p>Will execute DateTime Match and return the opposite result (true if false, false if true).</p> <p>See condition DateTime Match for more information.</p>