



SyncTool Administrator's Guide

VMware[®] User Environment Manager

VERSION 8.7.0

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Contents

1	Introduction	4
1.1	Scenario 1 – Working offline	4
1.2	Scenario 2 – Slow WAN / limited bandwidth.....	4
2	Planning your deployment	5
2.1	Architecture.....	5
2.2	Infrastructure overview.....	6
2.3	Infrastructure requirements.....	7
2.4	System requirements.....	7
2.5	Overview of SyncTool implementation.....	8
3	Installing SyncTool	9
3.1	Manual installation	9
3.2	Unattended installation	10
3.3	Uninstalling SyncTool.....	10
4	Configuring SyncTool	11
4.1	Scenario 1 – Working offline	11
4.2	Scenario 2 – Slow WAN / limited bandwidth.....	11
4.3	SyncTool Group Policy configuration	12
4.3.1	Creating the SyncTool Group Policy Object.....	12
4.3.2	SyncTool GPO Reference	13
4.3.3	Network detection settings.....	16
4.3.4	Running SyncTool at logoff	18
4.4	Starting SyncTool in resident mode	19
	Appendix A – Command line arguments	20
	Appendix B – Running a one-time sync	21
	Appendix C – Group Policy configuration on Computer OU	22

1 Introduction

This administrator's guide is provided to help you in the deployment and administration of VMware User Environment Manager SyncTool.

VMware User Environment Manager SyncTool is an additional and optional component for VMware User Environment Manager and does not require additional licensing. It provides synchronization capabilities mostly targeted to laptop users and to users connected to a network with limited bandwidth. It only synchronizes User Environment Manager profile archives and the central User Environment Manager configuration files, and therefore is not a replacement for the Windows offline files feature that is often used for actual user data. SyncTool does however make you independent of offline files for all files related to VMware User Environment Manager.

NOTE: SyncTool only synchronizes VMware User Environment Manager files. If you need to make other data available offline, you will still need to use the Windows offline files feature or another offline files product.

When using Windows offline files to make the home share available offline for users, it is strongly recommended to use a separate location for storing VMware User Environment Manager profile archives (one for which Windows offline files support is not configured).

VMware User Environment Manager SyncTool supports two scenarios: working offline, and working on a slow WAN (limited bandwidth).

1.1 Scenario 1 – Working offline

Users with laptops that are not always connected to the corporate network need access to their VMware User Environment Manager files while offline. SyncTool makes all VMware User Environment Manager files available locally and synchronizes the changes the next time the user is online again.

1.2 Scenario 2 – Slow WAN / limited bandwidth

Users who are connected to the central VMware User Environment Manager Configuration and VMware User Environment Manager Profile shares over a slow WAN connection can experience slow performance, and continuously roaming personal settings can consume too much network resources. To optimize the user experience and to limit network traffic, all VMware User Environment Manager files can be used locally and only be synchronized based on configurable network thresholds.

2 Planning your deployment

2.1 Architecture

VMware User Environment Manager SyncTool is an additional client component which works closely together with the VMware User Environment Manager client (FlexEngine). SyncTool only needs to be installed on client devices where you want to provide the synchronization capabilities. It is only supported on client operating systems on which VMware User Environment Manager is also installed and correctly functioning. You will not need to change your existing VMware User Environment Manager configuration, unless you are currently using Windows offline files to synchronize VMware User Environment Manager files.

NOTE: VMware strongly recommends to first make sure VMware User Environment Manager is correctly configured and running in your infrastructure before starting the implementation of SyncTool.

SyncTool synchronizes all VMware User Environment Manager files (personal settings and configuration) to a configurable local location on the client computer and keeps the central and local locations in sync. The configurable local location is known as *Local Sync Path* throughout this administrator's guide and in SyncTool itself.

Synchronization occurs at logon (before FlexEngine performs a path-based import), at logoff (after FlexEngine has performed a path-based export), and optionally during the session (to synchronize changes made to the settings of applications for which DirectFlex support is configured).

To run SyncTool at these moments, specific configuration is necessary. Configuring synchronization to be performed at logon is described in section 4.3.2. Running SyncTool at logoff is described in section 4.3.4.

To synchronize VMware User Environment Manager files during the session, SyncTool needs to be run in resident mode (cf. 4.4). Synchronizing during the session is optional and is not necessary for SyncTool to function properly. However, to limit the amount of files that need synchronizing at logon and logoff, it is recommended to also synchronize changes during the session.

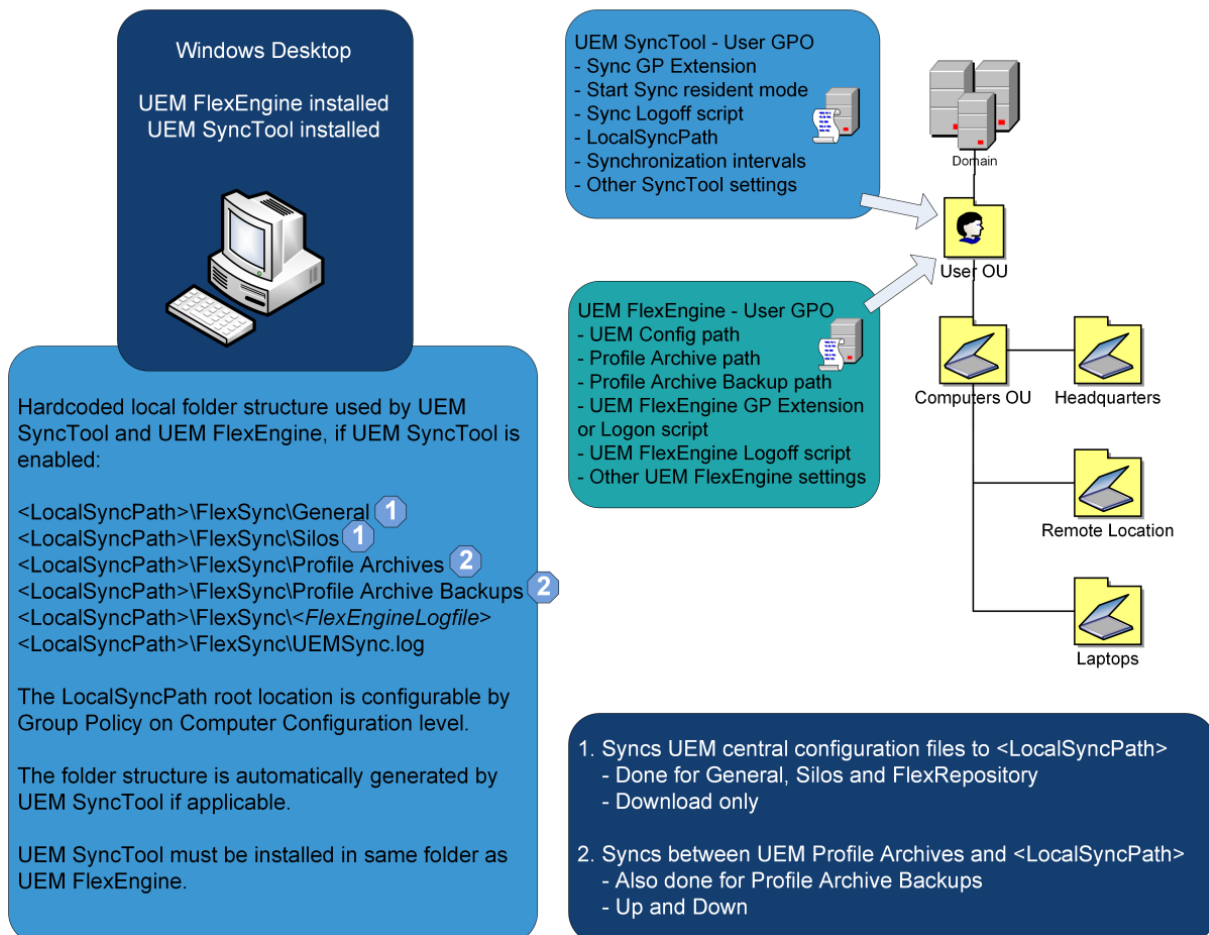
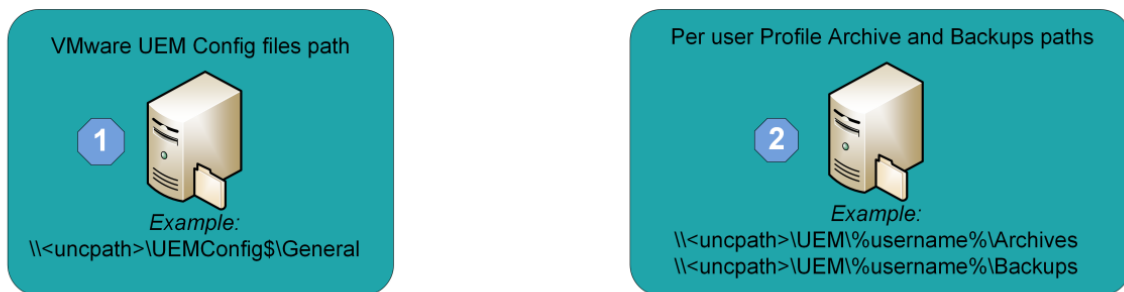
2.2 Infrastructure overview

The following diagram shows a typical VMware User Environment Manager infrastructure including SyncTool.

The green objects are the traditional VMware User Environment Manager components, which consist of a User Environment Manager config files share, a file share with user-specific profile archive folders, the User Environment Manager client (FlexEngine) and a User Environment Manager Group Policy Object (GPO) which configures FlexEngine.

The light blue objects are the additional SyncTool components. They consist of the SyncTool client component and the SyncTool Group Policy Object which enables and configures SyncTool.

Detailed installation steps and configuration settings are described in chapters 3 and 4.



2.3 Infrastructure requirements

The implementation of VMware User Environment Manager SyncTool does not have many infrastructure requirements. It requires only the following:

- A correctly configured and running VMware User Environment Manager environment.
- Group Policy configuration for SyncTool.
- A local folder (unique per user) on each client device where SyncTool will be used. This folder needs to be configured as *Local Sync Path* within the SyncTool Group Policy configuration.

2.4 System requirements

The following versions and editions of Windows client operating systems are supported by VMware User Environment Manager SyncTool:

- Windows Vista Business, Enterprise and Ultimate x86 and x64 SP2
- Windows 7 Professional, Enterprise and Ultimate x86 and x64 SP1
- Windows 8 Professional and Enterprise x86 and x64
- Windows 8.1 Professional and Enterprise x86 and x64 with update 1
- Windows 10 Professional and Enterprise x86 and x64

The installation of VMware User Environment Manager SyncTool requires the following software to be installed:

- VMware User Environment Manager 8.7.0 (FlexEngine)
- .NET Framework 2.0 SP1 or newer.
On Windows 8, Windows 8.1, and Windows 10 this entails [installing .NET Framework 3.5](#), as described on the Microsoft website.

No specific hardware other than the typical operating system requirements and requirements of installed applications is required for SyncTool.

NOTE: VMware recommends configuring the *Local Sync Path* to a location inside the user profile (like %LOCALAPPDATA%\VMware UEM), making it a unique location per user even when sharing a device amongst users.

NOTE: VMware recommends using a local user profile as that is most suitable for offline use.

2.5 Overview of SyncTool implementation

The following is a high level overview of the installation and configuration steps that are required for a VMware User Environment Manager SyncTool implementation. For much more detailed information, refer to chapters 3 and 4.

- Starting point: VMware User Environment Manager (FlexEngine) has been installed, is configured and is working on designated client machines.

NOTE: When using SyncTool, VMware User Environment Manager should still be configured to use network paths for all VMware User Environment Manager paths (i.e. paths for VMware User Environment Manager config files, profile archives, profile archive backups, and FlexEngine log file).

- Install SyncTool on designated client machines, in the same installation directory as VMware User Environment Manager (described in chapter 3).
- Create SyncTool Group Policy configuration using the provided Administrative Template (described in sections 4.3.1 and 4.3.2).

You can create a new Group Policy object for these settings, or add them to your existing VMware User Environment Manager Group Policy object.

- Add SyncTool logoff command as described in section 4.3.4.
- If you deploy SyncTool to support working offline, you must also configure a logon script which starts FlexEngine with the '-OfflineImport' argument as described in the VMware User Environment Manager Administrator's Guide.
- Optionally, configure SyncTool to run in resident mode during session as described in section 4.4.

To run SyncTool, the minimal required configuration is as follows:

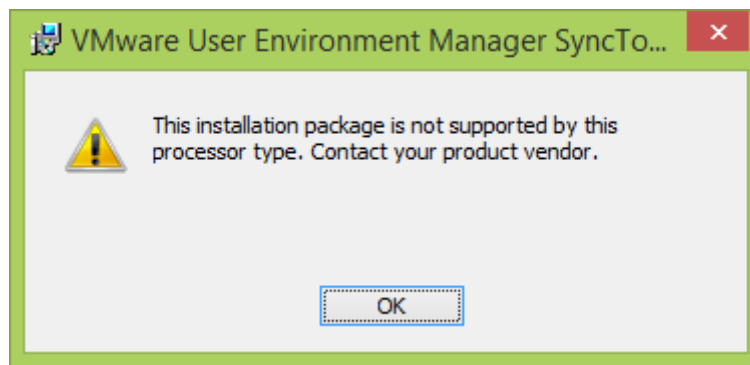
- Configure **Local sync path** Group Policy setting.
- Enable **Run VMware UEM SyncTool during logon** Group Policy setting.
- Add SyncTool logoff command.
- Apply SyncTool Group Policy Object to users.

NOTE: You do not have to worry about applying the SyncTool Group Policy to users who also will work on computers where SyncTool is not installed. The SyncTool Group Policy settings will not affect the behavior of VMware User Environment Manager on computers where SyncTool is not installed.

3 Installing SyncTool

Installation of VMware User Environment Manager SyncTool is very straightforward. After installation SyncTool needs to be configured and enabled through Group Policy in order for it to work. The configuration of SyncTool depends on the scenario. The two supported scenarios have different configuration settings and are described in detail in chapter 4.

NOTE: The VMware User Environment Manager SyncTool MSI file is available in two editions – one for 32-bit systems, and one for 64-bit. If you try to install an MSI that does not match the architecture of your OS, an error message will be displayed:



To resolve this issue, use the MSI that matches your OS architecture.

NOTE: The VMware User Environment Manager SyncTool MSI file has a digital signature, which the Windows Installer infrastructure will validate when the installation is started. This includes a so-called certificate revocation check, for which the system needs Internet access. If there is no (sufficient) Internet connectivity, the installation will continue, but only after several timeouts – in the meantime, the installer seems to stall without providing any feedback.

3.1 Manual installation

Install SyncTool by executing *VMware UEM SyncTool 8.7 x86.msi* or *VMware UEM SyncTool 8.7 x64.msi*, depending on your OS architecture. The *VMware User Environment Manager SyncTool Setup Wizard* will guide you through the steps required to install the software on your computer. During the installation of VMware User Environment Manager SyncTool no additional configuration is needed.

The steps to install VMware User Environment Manager SyncTool are as follows:

1. After uncompressing the VMware User Environment Manager download package, run the MSI file corresponding to your OS architecture.

IMPORTANT: The *VMware UEM SyncTool* MSI file must be executed under an account with administrative privileges.

2. The *VMware User Environment Manager SyncTool Setup Wizard* starts and displays the *Welcome* page. Click *Next*.

3. The *License Agreement* page is displayed. Please read it carefully by scrolling down the license text. You must accept the license agreement before you can click *Next*.
4. The next page lets you select the destination folder. To install into a different folder, click the *Browse* button and select another folder. Click *Next*.
IMPORTANT: The SyncTool must be installed in the same folder as the VMware User Environment Manager client (FlexEngine).
5. The *Ready to install* page is displayed. Proceed by clicking *Install*.
6. The installation starts.
7. When the installation is finished, a final page shows the success. Click *Finish* to exit the installation.

3.2 Unattended installation

In most enterprise environments, Electronic Software Distribution systems are used to install software in an automated fashion. The VMware User Environment Manager SyncTool MSI supports unattended installation, using the following MSI property to select the installation directory.

Property	Description
INSTALLDIR	The absolute path to the installation directory. Defaults to <code>%ProgramFiles%\Immidio\Flex Profiles</code> .

An example of a custom unattended installation command is shown in the following (split across multiple lines for readability only).

```
msiexec.exe /i "VMware UEM SyncTool 8.7 x86.msi" /qn
INSTALLDIR="D:\Apps\VMware UEM /1* InstallSyncTool.log
```

An example of a typical unattended installation which installs SyncTool in the default installation directory is shown in the following.

```
msiexec.exe /i "VMware UEM SyncTool 8.7 x86.msi" /qn
```

3.3 Uninstalling SyncTool

You may uninstall VMware User Environment Manager SyncTool from your computer by opening *Add or Remove Programs* (in Windows XP) or *Programs and Features* (in newer Windows versions) in the *Control Panel*. Selecting VMware User Environment Manager SyncTool and clicking the *Remove* or *Uninstall* button opens a wizard which guides you through the steps to remove the software successfully.

When uninstalling VMware User Environment Manager SyncTool only the SyncTool files will be removed; the regular VMware User Environment Manager files will remain.

4 Configuring SyncTool

4.1 Scenario 1 – Working offline

Users with laptops that are not always connected to the corporate network need access to their VMware User Environment Manager files while offline. SyncTool transparently makes all VMware User Environment Manager files available locally and synchronizes the changes the next time the user is online and SyncTool runs.

In this scenario, SyncTool is deployed to enable users to work at home, or other locations where they are not connected to the corporate network.

To support this scenario, do the following:

1. Install VMware User Environment Manager SyncTool on every client that needs to work offline (see chapter 3 for more information about installation).
2. Configure a Group Policy Object and link it to the users who need to work offline. The specific policy settings are described in section 4.3.

4.2 Scenario 2 – Slow WAN / limited bandwidth

Users who are connected to the central VMware User Environment Manager Configuration and VMware User Environment Manager Profile shares over a slow WAN connection can experience slow performance, and continuously roaming personal settings can consume too much network resources. To optimize the user experience and to limit network traffic, all VMware User Environment Manager files can be used locally and only be synchronized based on configurable network thresholds.

To support this scenario, do the following:

1. Follow the same steps as for scenario 1 (as described in section 4.1).
2. Depending on your requirements, additionally configure one or both network thresholds as described in section 4.3.3.

4.3 SyncTool Group Policy configuration

The configuration of VMware User Environment Manager SyncTool is done by creating a Group Policy Object in Active Directory Group Policy with the SyncTool Administrative Template, which is provided in the VMware User Environment Manager download.

4.3.1 Creating the SyncTool Group Policy Object

The *VMware UEM SyncTool USER.admx* administrative template supports User Configuration. The settings are ignored by VMware User Environment Manager client (FlexEngine) if SyncTool is not installed. This way the settings can be applied to every user; they only take effect when a user works on a computer where SyncTool is installed.

NOTE: More advanced scenarios where you would rather configure the SyncTool group policy settings on the computer level (e.g. configuring different network thresholds settings for different computers) are also supported. See Appendix C for more information.

Creating the VMware User Environment Manager SyncTool GPO requires the following steps.

1. Copy the *VMware UEM.admx* and *VMware UEM SyncTool USER.admx* ADMX templates (and their corresponding ADML files) from the download package to the ADMX location as described in the [Managing Group Policy ADMX Files Step-by-Step Guide](#) on the Microsoft web site.
2. Open *Group Policy Management Console*. Create a new Group Policy Object (GPO) or select an existing GPO that is applied to the users for which you want to configure SyncTool. Open the *Group Policy Management Editor* by a right-click on the selected GPO and then a click on *Edit...*
3. The *VMware UEM SyncTool* ADMX template is available under *User Configuration\Administrative Templates\VMware UEM\SyncTool*.
4. Configure the appropriate SyncTool Group Policy settings. For details see the next section.

4.3.2 SyncTool GPO Reference

After adding the VMware User Environment Manager SyncTool Administrative Template, all SyncTool settings can be configured through the Group Policy Object in Active Directory, using Group Policy Management Editor.

SyncTool	
Setting	State
Run VMware UEM SyncTool during logon as Group Policy Extension Edit policy setting Requirements: At least Microsoft Windows XP Professional with SP3 or Windows Server 2003 family with SP2 Description: Run the VMware UEM SyncTool during logon.	
Network Detection	
Do not synchronize icons	Not configured
Do not use laptop conflict resolution	Not configured
Hide 'Sync' button in resident mode UI	Not configured
Local sync path	Enabled
Run VMware UEM SyncTool during logon as Group Policy Extension	Enabled
Sync local FlexEngine log file to network at logoff	Enabled
Synchronization intervals	Enabled
Synchronization retry intervals	Enabled
Synchronize profile archive backups	Enabled
Trigger FlexEngine refresh	Not configured
VMware UEM SyncTool logging	Enabled
Watch local profile archive changes	Enabled

In the following list, all SyncTool policy settings are described in detail. Note that some settings are optional; you only need to configure them if you wish to use the corresponding features.

- **Run VMware UEM SyncTool during logon.** Starts the SyncTool at a very early stage during logon, even before FlexEngine performs its path-based import. This guarantees that the latest changes are always synchronized before FlexEngine processes them at logon.

IMPORTANT: If VMware User Environment Manager client (FlexEngine) is configured to run as a Group Policy extension, and you want to run FlexEngine at logon when working offline as well, you should configure a logon script which starts FlexEngine with the '-OfflineImport' argument as described in the VMware User Environment Manager Administrator's Guide.

IMPORTANT: To synchronize changes at logoff, make sure that the SyncTool logoff command is configured by using the Group Policy logoff script mechanism as described in section 4.3.4.

- **Local sync path.** Location where SyncTool stores all VMware User Environment Manager files. Configure to a local path, unique per user. We recommend using %LOCALAPPDATA%\VMware UEM.

IMPORTANT: We strongly recommend using local user profiles for clients using SyncTool.

- **Watch local profile archive changes.** Automatically triggers a synchronization in resident mode as soon as a local modification to a profile archive is detected, for example when closing an application for which DirectFlex has been configured.

- **Synchronization Intervals.** During resident mode, synchronization occurs periodically. Configure this setting to specify how frequently this happens. If you do not configure this setting, synchronization takes place every 3600 seconds (every hour).
 - **FlexConfig.** This setting controls the synchronization interval of the VMware User Environment Manager config files path which contains all Flex config (.INI) files.
 - **FlexRepository.** This setting controls the synchronization interval of the Flex Repository folder which contains all the User Environment, Condition Set and Application Migration (.XML) files.
 - **Profile Archives.** This setting controls the synchronization interval of the VMware User Environment Manager profile archives which contain personal settings.
- NOTE:** Changes to files in the *FlexConfig* and *FlexRepository* paths only occur through administrative changes to the VMware User Environment Manager environment; therefore these two paths need much less frequent synchronization than *Profile Archives*.
- **Synchronization retry intervals.** During resident mode, if a synchronization fails or is not allowed due to network thresholds, a retry is performed periodically. Configure this setting to specify how frequently this happens. If you do not configure this setting, retry takes place every 300 seconds (every 5 minutes).
 - **FlexConfig.** This setting controls the retry interval when synchronization of the VMware User Environment Manager config files path has failed.
 - **FlexRepository.** This setting controls the retry interval when synchronization of the Flex Repository folder has failed.
 - **Profile Archives.** This setting controls the retry interval when synchronization of the VMware User Environment Manager profile archives has failed.
 - **VMware UEM SyncTool logging.** If **Create VMware UEM SyncTool log file** is enabled, a `FlexSync.log` file is created in the configured *Local Sync Path*.

The screenshot shows a configuration window for VMware UEM SyncTool logging. It contains the following settings:

- Create VMware UEM SyncTool log file
- Log level: Debug ▼
- Maximum log file size (in kB): 0 ▲▼
- Create central sync status log file
- Maximum sync status log file size (in kB): 0 ▲▼
- Truncate sync status log file to this size (in kB): 0 ▲▼
- Maximum number of log entries in resident UI: 500 ▲▼

- **Log level** controls the level of detail that is logged. It is not recommended to use 'Debug' or 'Info' in production, as the amount of logging information can impact the performance.
- If a **Maximum log file size** is specified, the log file will be recreated once that size is reached. If the maximum size is set to 0, the file will grow indefinitely.
- To centrally log the most important sync status, enable **Create central sync status log file**. A file named `FlexSyncStatus-%COMPUTERNAME%.log` will be created during logoff, in the same folder as the log file of FlexEngine.
 - If a **Maximum sync status log file size** is specified, the sync status log file will be truncated as specified. If the maximum size is set to 0, the file will grow indefinitely.
- When running SyncTool in resident mode, log messages are displayed in its user interface. To prevent this log from growing indefinitely, the **Maximum number of log lines in resident mode UI** can be configured.
- **Synchronize profile archive backups**. Use this setting to configure when profile archive backups are synchronized.

If you configure backups to be synchronized during a session, you can additionally choose to only do this once per session.

NOTE: Backups are never synchronized at logon.

NOTE: If you do not configure this setting, profile archive backups are never synchronized.

- **Sync local FlexEngine log file to network at logoff**. If this setting is enabled, the local FlexEngine log file will be uploaded to the central location. The name of the log file will be modified to include the computer name.
- **Do not use laptop conflict resolution**. This setting controls the behavior when a conflict is detected between a local and a central profile archive. A conflict occurs when both the local and central profile archive have changed since the last synchronization. In the default behavior (known as 'laptop conflict resolution'), the local profile archive will 'win'.
If this setting is enabled, conflict resolution for laptops will not be applied and the profile archive with the most recent changes 'wins'.
- **Hide 'Sync' button in resident mode UI**. If this setting is enabled, the 'Sync' button is hidden in the resident mode UI.
- **Do not synchronize icons**. If this setting is enabled, .ICO files are not synchronized. This can improve performance on slow networks.
- **Trigger FlexEngine refresh**. If this setting is enabled, SyncTool triggers a FlexEngine refresh if synchronization resulted in updates for one or more of the selected item types (DirectFlex configuration, ADMX-based settings, drive mappings, environment variables, file type associations, printer mappings, and/or shortcuts).

4.3.3 Network detection settings

Users who are connected to the central VMware User Environment Manager Configuration and VMware User Environment Manager Profile shares over a slow WAN connection can experience slow performance, and continuously roaming personal settings can consume too much network resources. To optimize the user experience and limit network traffic, all VMware User Environment Manager files can be used locally and only be synchronized based on configurable network thresholds.

These network thresholds are configured through settings in the *Network Detection* category. A threshold can be defined based on network bandwidth, or based on network latency. It is also possible to combine the two. Only when the defined threshold(s) are met will synchronization occur.

The Group Policy settings for network detection are described in detail below.

Network Detection		
Setting	State	
Network threshold: Bandwidth		
Edit policy setting		
Requirements: At least Microsoft Windows XP Professional with SP3 or Windows Server 2003 family with SP2		
Description: Specify the minimum bandwidth that should be available to allow synchronization to occur.		
This setting can be combined with the latency threshold.		
DFS namespace support	Not configured	
Force synchronization at logoff	Not configured	
Force synchronization at logon	Not configured	
Force synchronization in resident mode	Not configured	
Network measurement settings	Not configured	
Network threshold: Bandwidth	Enabled	
Network threshold: Latency	Enabled	
Prefer IPv6 when resolving host names	Not configured	

- **Prefer IPv6 when resolving host names.** To perform network measurements, host names must be resolved to IP addresses. This setting controls the behavior when a host name resolves to both IPv4 and IPv6.

NOTE: If you have not configured network thresholds, you do not need to configure this setting.

- **DFS namespace support.** When using DFS namespaces to store VMware User Environment Manager files, this setting must be enabled to correctly perform network measurements.

NOTE: If you have not configured network thresholds, you do not need to configure this setting.

- **Network measurement settings.** These settings control how network measurements are performed when network thresholds are configured.

The ping cache setting controls how long network measurement results are remembered, to prevent performing multiple measurements for VMware User Environment Manager network paths hosted on the same server.

If these settings are not configured, 3 pings will be done of 2048 bytes with a timeout of 5 seconds. The default ping cache is 60 seconds.

NOTE: If you have not configured network thresholds, you do not need to configure these settings.

- **Network threshold: Bandwidth.** Specify the minimum bandwidth that should be available to allow synchronization to occur.

This setting can be combined with the latency threshold.

- **Network threshold: Latency.** Specify the maximum latency acceptable for synchronization to occur.

This setting can be combined with the bandwidth threshold.

- **Force synchronization at logon.** When network thresholds do not meet the configured requirements during logon, synchronization does not occur. Use these settings to override this behavior.

Enable **Force sync at logon** to always synchronize all VMware User Environment Manager files at logon. If you want to only synchronize certain file types, also select one or more of the other options.

NOTE: If you have not configured network thresholds, you do not need to configure these settings.

- **Force synchronization in resident mode.** When network thresholds do not meet the configured requirements in resident mode, synchronization does not occur. Use these settings to override this behavior.

Enable **Force sync in resident mode** to always synchronize all VMware User Environment Manager files during a session. If you want to only synchronize certain file types, also select one or more of the other options.

NOTE: If you have not configured network thresholds, you do not need to configure these settings.

- **Force synchronization at logoff.** When network thresholds do not meet the configured requirements during logoff, synchronization does not occur. Use these settings to override this behavior.

Enable **Force sync at logoff** to always synchronize all VMware User Environment Manager files at logoff. If you want to only synchronize certain file types, also select one or more of the other options.

NOTE: If you have not configured network thresholds, you do not need to configure these settings.

4.3.4 Running SyncTool at logoff

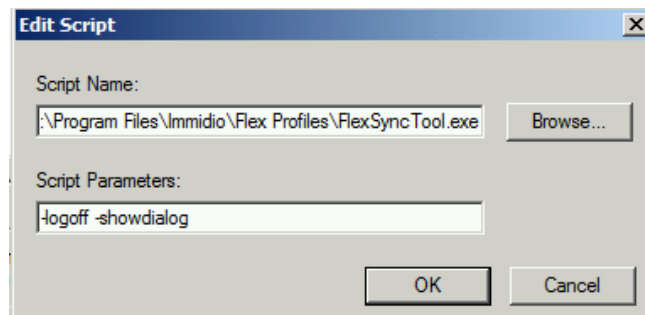
To synchronize the latest changes to the network at logoff, SyncTool needs to be run at logoff. This can be done by using the logoff script Group Policy setting and can be configured in the same Group Policy Object that contains the SyncTool Group Policy settings. Alternatively, you can add the SyncTool logoff command to an existing logoff script. It is recommended to use *User Configuration\Windows Settings\Scripts* for this purpose.

When running SyncTool at logoff, the **-Logoff** argument must be specified:

"C:\Program Files\Immidio\Flex Profiles\FlexSyncTool.exe" -Logoff

To display a splash screen with progress information, the optional **-ShowDialog** argument can be added as well.

To run SyncTool as a logoff script from a Group Policy Object, use the following settings:



IMPORTANT: Make sure that SyncTool is run AFTER the FlexEngine export. If both the VMware User Environment Manager client (FlexEngine) and the SyncTool Group Policy Objects are applied at the same OU, ensure that the SyncTool Group Policy Object has a lower *Link Order* number to accomplish that the SyncTool logoff task takes place after the FlexEngine export as shown below:

Linked Group Policy Objects				
Group Policy Inheritance				
Link Order	GPO	Enforced	Link Enabled	
1	VMware UEM SyncTool Configuration	No	Yes	
2	VMware User Environment Manager Configuration	No	Yes	

4.4 Starting SyncTool in resident mode

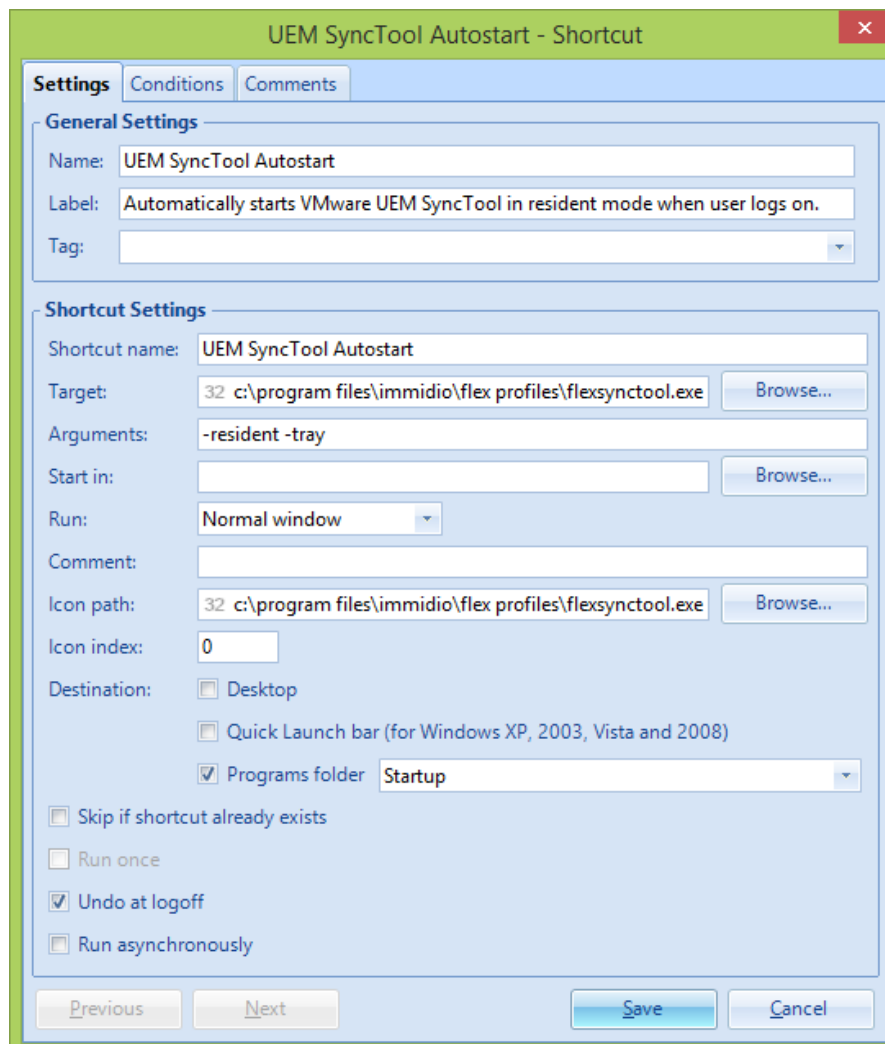
To start VMware User Environment Manager SyncTool in resident mode, it needs to be started with the **-Resident** argument after a user has logged on:

FlexSyncTool.exe -Resident

By default running SyncTool in resident mode runs it in the background, with no user interface. To display the user interface, also provide the optional **-Tray** argument.

Our recommended way of starting SyncTool in resident mode is by creating a shortcut in the 'Startup' folder of the Windows Start Menu. Shortcuts in this folder will automatically be launched when Windows Explorer starts.

You can use VMware User Environment Manager to do this by creating a shortcut like illustrated below:



NOTE: Do not enable the 'Run asynchronously' option, as that may result in the shortcut being created after Windows Explorer has already started.

NOTE: If users will also logon to computers managed by VMware User Environment Manager where SyncTool is not installed, we recommend that you also configure a condition on this shortcut, which checks whether the SyncTool is installed.

Appendix A – Command line arguments

To start the SyncTool in resident mode:

FlexSyncTool.exe -Resident [-Tray]

To perform a one-time synchronization during a session:

**FlexSyncTool.exe -SyncNow
[-SyncArchives] [-SyncFlexConfig] [-SyncFlexRepository]
[-ShowDialog]**

To synchronize at logoff:

FlexSyncTool.exe -Logoff [-ShowDialog]

Arguments:

-Resident	Starts SyncTool in resident mode
-Tray	Shows tray icon, which provides access to the user interface
-Logoff	Performs synchronization at logoff
-ShowDialog	Shows splash screen with progress information
-SyncNow	Performs one-time synchronization

For **-SyncNow**, by default all three categories are synchronized. To be more specific, also specify one or more of the following optional arguments:

-SyncArchives
-SyncFlexConfig
-SyncFlexRepository

Appendix B – Running a one-time sync

To perform a one-time synchronization during a session, just start the SyncTool executable at any time with the **-SyncNow** argument:

**FlexSyncTool.exe -SyncNow [-SyncArchives] [-SyncFlexConfig]
[-SyncFlexRepository] [-ShowDialog]**

If SyncTool is already running in resident mode when launching FlexSyncTool.exe with the **-SyncNow** argument, the resident instance will perform the actions as provided by the command line arguments. The **-ShowDialog** argument will be ignored in this scenario.

Appendix C – Group Policy configuration on Computer OU

For advanced scenarios where you would rather configure the SyncTool Group Policy settings on the computer level, we provide an additional Administrative Template which contains almost all SyncTool Group Policy settings as Computer Configuration (*VMware UEM SyncTool COMPUTER.admx*).

This Administrative Template can be used to create a Group Policy Object which can be linked to an OU which contains computers.

Configuring SyncTool Group Policy settings on a computer level provides you with the ability to have multiple SyncTool configurations for different OU's within Active Directory. This could be useful if you want to configure different network thresholds for computers or locations where different types of network connections are available.

IMPORTANT: SyncTool always has to start in the user context. This means that even though you are able to configure most of the SyncTool Group Policy settings through Computer Configuration, the following settings must still be applied using a GPO on the user level:

- Group Policy setting **Run VMware UEM SyncTool during logon** (cf. 4.3.2).
- Running SyncTool with **-Logoff** argument using the Group Policy logoff script mechanism (cf. 4.3.4).
- If you deploy SyncTool to support working offline, you must also configure a logon script which starts FlexEngine with the `'-OfflineImport'` argument as described in the VMware User Environment Manager Administrator's Guide.