



User Profiles for XenApp™ and/or XenDesktop™ Environments

By decoupling the operating system, applications, and user profile, users are enabled to work more productively and administration is more easily facilitated. But because user profiles can be complex, this facet sometimes represents an administrative burden.

This guide provides insights related to user profile solutions based on Microsoft, Citrix, and third-party technologies, as well as considerations for implementing user profiles for XenApp and/or XenDesktop environments.

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Introduction

The user's profile plays a critical role in determining the how successful the user experience is within a virtual desktop or virtual application scenario. Profiles includes if and how user settings are saved, as well as logon time. Even a well-designed virtual desktop/application solution can fail if users are frustrated due to lengthy logon times and lost settings!

Most commonly, user profiles are based on Microsoft, Citrix, or third-party technologies such as AppSense Environment Manager. Although other options exist, for the purposes of this document, the aforementioned user profile solutions are discussed herein as related to functionality with XenApp and XenDesktop.

Many XenApp environments today employ Terminal Services (Remote Desktop) roaming profiles. However, when adding or transitioning to XenDesktop within that same environment, this same user profile may or may not be suitable. This document focuses on user profile solutions for existing XenApp environments that are adding or transitioning to XenDesktop.

To facilitate selection of the optimal user profile option, this guide addresses the following areas:

- User Profile Types and Characteristics
- Choosing the Optimal User Profile Option for XenApp and/or XenDesktop
- Sample Scenarios
- General Recommendations

Address the user profile to optimize the experience for:

XenApp + XenDesktop:
Users accessing both XenApp and XenDesktop

XenApp → XenDesktop:
Users transitioning from XenApp to XenDesktop

What Exactly Is a User Profile?

A user profile houses user personalization data, including many settings defined within the control panel. For example, a left-handed user typically modifies the mouse properties such that the buttons are reversed. When a Microsoft profile is used, this change is recorded to HKey_Current_User\Control Panel\Mouse\SwapMouseButtons in the registry. If the Microsoft profile type being used records changes, this and all other changes made during a user session are saved upon logoff to a file named ntuser.dat.

During user logon, the user profile is loaded and thus impacts logon and personalization. The user profile must be loaded and available on the desktop in order for the desktop to be usable. When using Microsoft profiles, the entire profile must be loaded; however, Citrix Profile management and AppSense Environment Manager stream user profiles and only require a subset of the user profile to be loaded and available initially.

Profile Types and Characteristics

Various user profile types exist, and each has distinct characteristics related to assignment and data storage:

Criteria	Local	Mandatory	Roaming	Terminal Services Mandatory	Terminal Services Roaming	Citrix Profile Mgmt	AppSense
Default setting	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Administrative assignment	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Where stored	Local device	Network	Network	Usually network	Network	Network	SQL Server
Where user changes saved	Local machine	Not saved	Network	Not saved	Network	Network	SQL Server
Data written when profile saved	All	None	All	None	All	Deltas only	Deltas only

If no user profile is administratively designated, a local profile is used. In particular, for XenApp and XenDesktop environments, this is typically not desirable because the following occurs:

Situation	XenApp	XenDesktop	Windows Device
First logon with no network profile administratively designated	New profile created on that <u>server</u> from local default user	New profile created on that <u>desktop</u> from local default user	New profile created on that <u>client device</u> from local default user
Subsequent logon to same computer with no network profile administratively designated	Existing profile on that <u>server</u> accessed and modified in that session	Existing profile on that <u>desktop</u> accessed and modified in that session	Existing profile on that <u>client device</u> accessed and modified in that session
Issues:	User settings not accessible from another XenApp server	When desktop reprovisioned, user settings lost	Settings from XenApp and XenDesktop sessions dissimilar

Thus, for XenApp and XenDesktop environments, it is generally recommended that a user profile is administratively designated as opposed to left to the default local profile.

Active Directory GPOs

Active Directory GPOs can be used to configure some or all aspects of the user profile solution. Citrix has historically recommended designating an OU for Citrix resources. As such, GPOs could be applied to XenApp servers, Web Interface servers, and so on. Designating a distinct OU for Citrix resources becomes even more important with XenApp 6, where administration is based on Active Directory OUs and GPOs.

Whether a Microsoft or non-Microsoft profile solution is implemented, the configuration of existing profile-related GPOs can impact the user experience, session behavior, and troubleshooting. As an example, Citrix Profile management is configured as an Active Directory GPO based on the OU where the respective ADM template has been applied. Citrix Profile management includes a policy rule to delete locally cached profiles at logoff. If Citrix Profile management is used and this rule is enabled, it will take precedence over what appears to be a similar rule: delete cached copies of roaming profiles. This is because the Citrix profile appears as a local profile to the operating system and thus takes precedence over any existing roaming profile configuration.

Based on the Active Directory version and computer operating system, user profile-related GPOs vary. For example, Windows Server 2008 R2 and Windows 7 introduces a new GPO: Background upload of roaming user's profile registry file while user logged on. When configured, this GPO causes the roaming user profile to be uploaded based on a pre-defined schedule.

Further, AppSense Environment Manager can be used to take control of some Active Directory GPOs, including folder redirection. If two administrators were configuring folder redirection through these two mechanisms, the desired outcome may not be achieved.

Because there are a multitude of user profile-related GPOs, thorough testing is recommended to ensure the desired outcome. In particular, administrators should review the following GPOs:

- **User profile GPOs.** Used to designate the location of Terminal Services and network user profile files (ntuser.*)
- **Home directory GPOs.** Used to designate the home directory for other user data, often a centralized corporate data location.
- **Folder redirection.** Used to designate the redirection of specific folders, such as Documents or Favorites.
- **Administrative Templates → System.** Used to limit profile size, maximum wait time, and many other profile-related settings.

User Profile Precedence

By default, Microsoft profiles are applied based on precedence. Thus, when a Terminal Services profile exists, it is applied to Terminal Services/XenApp sessions. Where a Terminal Services profile does not exist and/or Terminal Services/XenApp sessions are not accessed, the network profile, if available is used as the basis for user personalization. Where no profile is defined, the local profile is used.



*Active Directory on Windows Server 2008 or later and Windows Vista or later

Applicability of the profile is dependent upon the OU structure and GPO configuration. For example, if an administrator has designated that a network mandatory profile is applied to an OU that houses both XenApp servers and XenDesktop virtual desktop appliances and no Terminal Services profile exists, the mandatory profile would be applied to both XenApp and XenDesktop resources.

Depending on configuration, non-Microsoft profiles, such as Citrix Profile management and AppSense Environment Manager, generally take precedence over Microsoft profiles.

Profile Types and Platforms

When reusing an existing user profile, consider the profile type and platform already in use and potential incompatibilities with reusing that same profile.

<u>v1</u> Windows XP Windows Server 2003	≠	<u>v2</u> Windows Vista/7 Windows Server 2008
<u>x86</u>	≠	<u>x64</u>

For example, if an administrator currently designates a Terminal Services profile for a user based on XenApp 5 for Windows Server 2003 published desktop, that same mandatory or roaming profile will likely have unexpected results if reused with a Windows 7 virtual desktop agent. Some settings differ, and the user experience will thus likewise differ. Because v1 and v2 profiles read and write some settings based on different locations and/or values within the registry, not all settings cross over transparently.

Similarly, x86- and x64-based systems differ slightly in where settings are written. For example, the contents of the HKCU\Software\Classes hive vary based on true x86 vs. x64 applications. Thus, platform differences can cause profile incompatibilities.

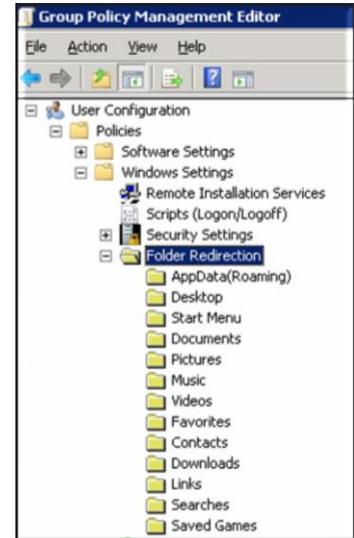
Some non-Microsoft user profile solutions, such as AppSense, account for differences in operating system and/or platform automatically. Citrix Profile management will likewise include this feature in the future.

Folder Redirection

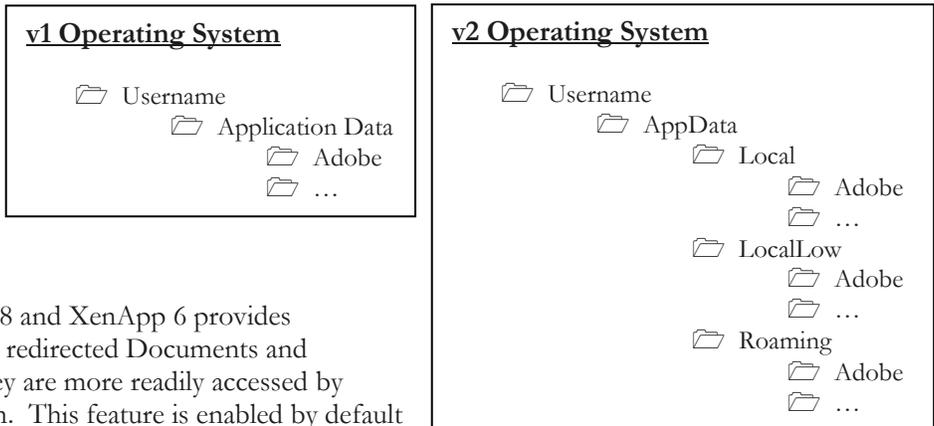
With all the discussed profile types, user data folders can be written to alternate locations rather than included within the user profile. The specific folders that can be redirected vary based on the Active Directory version.

Folder redirection is generally advantageous because profile size is reduced, logon time is minimized, and the data is segregated. Thus, if an administrator needs to use more than one profile type within an environment, the user data redirected to folders is distinct from the user profile.

Folder redirection automatically addresses changes in the operating system and platform, such as My Documents in older operating systems and Documents in newer operating systems. Thus, profile issues that arise from v1 vs. v2 or x86 vs. x64 based system generally do not affect redirected folders. In addition, folder redirection enables users to save some data, such as Outlook settings within the AppData folder, and yet allows administrators to enforce a mandatory profile.



In particular, the AppData folder name and structure have changed between Windows versions, but folder redirection should appropriately address that. Note the variances between v1 and v2 operating systems:



XenApp 5 for Windows Server 2008 and XenApp 6 provides administrators the ability to present redirected Documents and Desktop folders to users so that they are more readily accessed by means of Special Folder Redirection. This feature is enabled by default through XenApp but must be enabled through Web Interface. However, access to the client drives must not be disabled in order to use Special Folder Redirection.

Choosing the Optimal User Profile Option for XenApp and/or XenDesktop

When reviewing the current application delivery system or designing a new one, an administrator should fully understand the existing environment and vision for the new infrastructure. Of course, the user experience is the most critical factor for a successful implementation.

Determining which user profile type is best for XenApp and/or XenDesktop is based on:

- **Resources Accessed**
 - Will the administratively defined user profile be used to access XenApp, XenDesktop, and/or physical client device?
- **Operating System Type and Platform**
 - Are the current and new OSs based on same platform and version (x86 vs x64 and v1 vs v2)?
- **Application Requirements**
 - Where are user settings and data saved for each app?
 - Does the app have any unique requirements that impact the user profile?
- **Existing User Profile**
 - What type is it?
 - Can/will it be used for XenDesktop as is?
- **New User Profile**
 - Will a new profile be designated?
 - Will it be based on the existing profile or will it be a totally new profile?
- **User Experience**
 - Does administrative ease negatively impact users?
 - Has the user experience been validated?

Resources Accessed

A network-based user profile can be used as the basis for user sessions for any or all of the following:

- **Physical Windows device**, such as Windows XP, Windows Vista, or Windows 7. Note that Windows CE and Windows Mobile devices do not use a network-based profile.
- **XenApp server**, such as XenApp 5 for Windows Server 2003/2008 or XenApp 6 for Windows Server 2008 R2.
- **XenDesktop virtual desktop agent**, such as Windows XP or Windows 7.

User profiles can be applied as follows:

Criteria	Local	Mandatory	Roaming	Terminal Services Mandatory	Terminal Services Roaming	Citrix Profile Mgmt	AppSense
Applies to physical Windows device	<input checked="" type="checkbox"/> (phys. only)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Applies to XenDesktop sessions	<input checked="" type="checkbox"/> (VDA only)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Applies to Terminal Services/XenApp sessions	<input checked="" type="checkbox"/> (server only)	<input checked="" type="checkbox"/>					

Next, consider whether the user profile will be used to access more than one of the aforementioned resources simultaneously or whether the user profile will be used by only one resource at a time. For the purposes of our discussion, we will focus on two technologies:

- **XenApp + XenDesktop.** User is accessing both XenApp and XenDesktop or accessing XenApp hosted applications through XenDesktop.
- **XenApp → XenDesktop.** User is accessing XenApp today and will be accessing XenDesktop exclusively tomorrow.

This narrows the user profile decision as follows:

- **Local**
 - With rare exceptions, a local user profile is not an optimal choice because it cannot be read by another network device
- **Mandatory**
 - If user and application settings support, a viable option
- **Roaming**
 - If >1 resource accessed simultaneously, potential last writer wins issues
- **Terminal Services Roaming or Mandatory**
 - Cannot be used with XenDesktop as is
- **Citrix Profile Management**
 - A viable option
- **AppSense**
 - A viable option

Operating System Type and Platform

If an administrator plans to transition an existing user profile currently used for XenApp to support XenDesktop, the existing and future operating system type and platform are relevant factors that impact functionality and the user experience.

Being that Microsoft v1 and v2 profiles do not provide a seamless experience and further do not account for differences between x86 and x64 systems, user profiles applied to distinct operating system types and/or platforms may yield unexpected results. Thorough testing based on specific environmental variables may or may not show that true cross-platform integration is required.

For example, testing may reveal that an application functions properly based on distinct operating systems or platforms, but the appearance of the application differs slightly. Incorporating folder redirection of the AppData folder should also be tested to ensure that the issue cannot be easily addressed.

Cross-platform integration is available as follows:

Criteria	Local	Mandatory	Roaming	Terminal Services Mandatory	Terminal Services Roaming	Citrix Profile Mgmt	AppSense
v1/v2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Future	<input checked="" type="checkbox"/>
x86/x64	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Future	<input checked="" type="checkbox"/>

If cross-platform integration is a requirement for functionality or other reasons, administrators and architects may need to consider a non-Microsoft user profile solution.

Application Requirements

Although Microsoft provides standardized application development guidelines, all applications are not created equal. User interaction with applications needs to be tested in order to ensure that the user profile does not negatively impact functionality or the user experience. Specifically, the following questions should be addressed:

- **Does the application installation follow standards?**
 - Does application install into c:\Program Files folder or other location?
- **How will application be delivered?**
 - Hosted, streamed, locally installed?
- **Does the application have any special requirements?**
 - Does it require connectivity to printers, database connection, etc.?
- **Where is user data stored?**
 - Can unique data be stored in a network home directory?
- **Where is application data stored?**
 - If stored in App Data folder, use folder redirection if apps support
 - If stored in other location, can it be moved, copied, or rerouted to folder?

Common applications and those certified by Microsoft follow developer standards. However, when installing and testing applications for data storage or special requirements, a tool such as Microsoft Process Monitor can be used to identify the files and registry keys accessed.

If you have an environment where users access Microsoft Office 2007, including Outlook, from a XenApp 5 for Windows Server 2003 farm and you plan to migrate users to XenDesktop based on Windows 7 VDAs based on embedded applications, some considerations exist. Although Outlook can automatically create the new user account based on the logon, user settings such as the signature may not transition. Thus, the following should be considered:

- **Folder Redirection.** Implement folder redirection of the AppData folder so that application settings are segregated from the user profile and automatically transitioned as necessary. Regardless of the user profile solution currently implemented, folder redirection will ensure that the application settings are available to the user so long as the GPO is applied properly.
- **Microsoft Office Customization Tool for Office 2007.** This tool enables administrators to customize the settings that are transitioned from a previous version of Office or created as part of a new installation.
- **Non-Microsoft User Profile.** Solutions such AppSense automatically address operating system and platform changes and enable administrators to granularly define the settings that are transitioned to a new environment.

Existing User Profile/New User Profile

The existing user profile type impacts if/how it can be transitioned to another profile type. Most XenApp environments today employ Terminal Services roaming profiles, and this profile configuration cannot be used as is for XenDesktop environments.

However, the Terminal Services profile itself can be reused. Typically, Terminal Services profiles are configured within the respective GPO, pointing to a location such as \\ProfileServer\Profiles\%username%. This same pointer can be used when configuring the network



profile, keeping the same characteristics of the profile. Because Terminal Services profiles only apply to Terminal Services/XenApp sessions, a XenDesktop VDA cannot access this same profile because Terminal Services is not installed on that computer.

Administrators and architects should also consider if/how that user profile can be transitioned to another profile type in the future. The table below summarizes the profile types that can be transitioned to and from mandatory and roaming profiles:

Criteria	Local	Mandatory	Roaming	Terminal Services Mandatory	Terminal Services Roaming	Citrix Profile Mgmt	AppSense
Can transition from mandatory	n/a	n/a	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> *	<input checked="" type="checkbox"/>
Can transition from roaming	n/a	<input checked="" type="checkbox"/>	n/a	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Can transition to mandatory	<input checked="" type="checkbox"/>	n/a	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> **
Can transition to roaming	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	n/a	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> **

*If mandatory profile saved as a template, can be transitioned

**Can be done by manually extracting profile settings from database

User Experience

Lastly, the user experience is the foremost criteria that determines the user profile solution. An optimized Citrix environment that does not properly address user personalization will meet with resistance from users and may fail.

User acceptance testing should incorporate live users accessing a variety of applications. Users should be queried regarding their experiences and the user profile solution should be adjusted accordingly.

Service Monitoring (EdgeSight) can be used to test the user logon experience either prior to or as part of user acceptance testing. In particular, the Session Startup Duration Detail report provides detailed information regarding the exact time expended loading the user profile as part of the logon process.

Bookmark This Page Add To Favorite Reports Refresh Subscribe Properties

Department of C Group: All Root Only

Start: 2010-02-18 18:00 End: 2010-02-25 18:00

Optional Parameters

1 of 1 100% Select a format Export

Session Startup Duration Detail

Session Startup Duration Detail for department "All", between 2/18/2010 and 2/25/2010

Session Started	Device	User	Client Address	Client Name	Avg SSO	Avg CSD
2/22/2010 5:02:05 PM	J0882-P-WOODDY	QAL-ABJadm_idf	10.204.4.134	BOSDJOSEPH002	8.626	6.099
2/25/2010 12:49:16 PM	VOLTRON2	NUNAJuduser10	10.204.5.32	BOSDDANAG01	14.265	1.657

Server Startup Details

Start Time	End Time	CASD	CONSD	PNCOSD	PLSD	LEESD	PCSD	DMSD	SCSD	SSD
2/25/2010 12:49:15 PM	2/25/2010 12:49:29 PM	15			1485	10297		204	547	14265

Client Startup Details

Start Time	CFDCD	BUCC	AECD	IFDCD	NRWD	TRWD	LPWD	SCCD	NRCD	SLCD	CSD
2/25/2010 12:49:19 PM					375	0	406	350			1657

Generated 2/25/2010 | EdgeSight 5.3 | © Citrix Systems, Inc. | Server:regamma Page 1 of 1

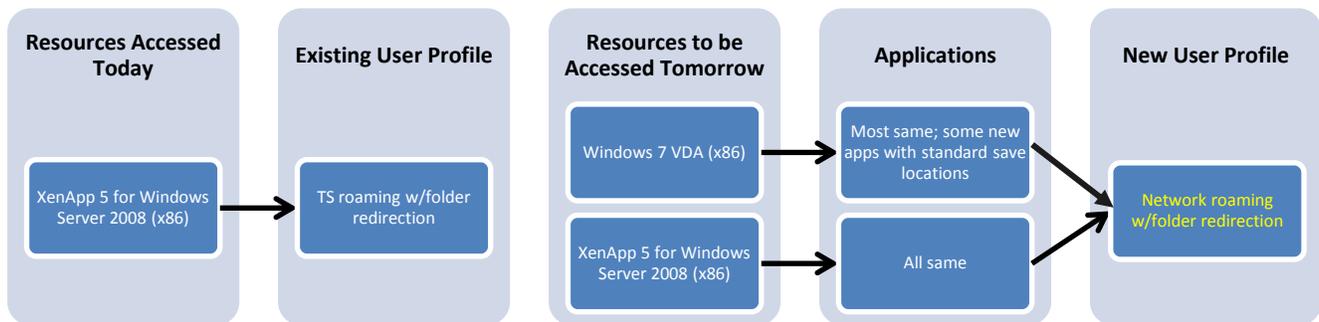
Sample Scenarios

To assist administrators and architects with understanding whether reusing an existing user profile solutions may or may not be optimal, several sample scenarios are discussed:

- XenApp 5 for Windows Server 2008 x86 + Windows 7 x86 VDA
- XenApp 5 for Windows Server 2008 x64 + Windows 7 x86 VDA
- XenApp 5 for Windows Server 2008 x86 → Windows 7 x86 VDA
- XenApp 5 for Windows Server 2003 x86 → Windows 7 x86 VDA

XenApp 5 for Windows Server 2008 x86 + Windows 7 x86 VDA

ABC Company has deployed XenApp 5 for Windows Server 2008 x86 and plans to implement Windows 7 x86 VDAs to host a new mission-critical application suite that is resource intensive. All applications hosted on XenApp will be transitioned to XenDesktop as embedded applications, but this project will not be completed for several months. In the interim, users will access existing applications via XenApp and the new mission-critical application via XenDesktop. For business reasons, the XenApp applications cannot be presented via XenDesktop.



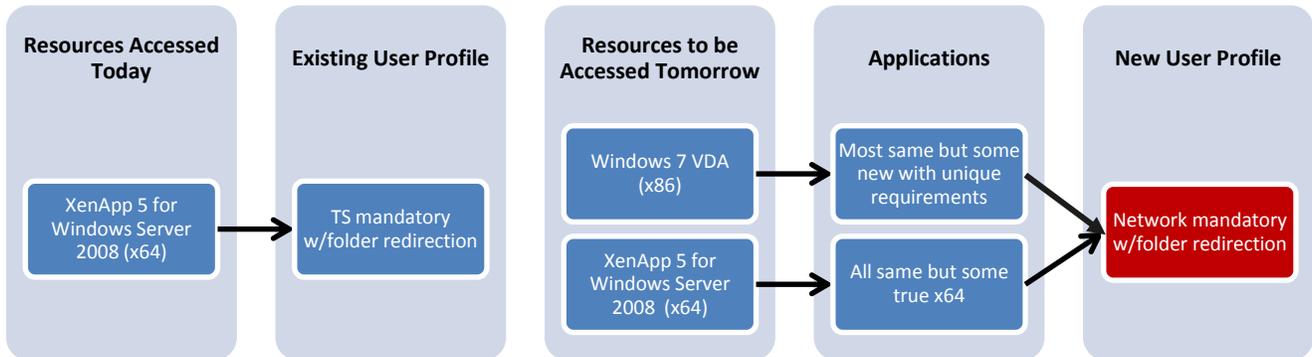
Based on the scenario presented above, the same platform (x86) and profile type (v2) are used, and no new applications with unique requirements are introduced.

Some comments about selecting a roaming profile with folder redirection as the solution:

- Folder redirection enables user data to be stored in folders that are accessible from both resources.
- A roaming profile would work from the standpoint of the platform and profile type, but a better alternative would be a mandatory profile or a non-Microsoft profile. Additionally, a non-Microsoft profile could limit the size and thus have less impact on logon time. Because users typically do not like mandatory profiles after experiencing roaming profiles, a non-Microsoft profile is likely the better option.
- Although a bit more complicated, a distinct profile could be used for XenApp and XenDesktop, with each incorporating the same redirected folders.
- If the roaming profile is accessed simultaneously by a XenApp server and a Windows 7 VDA, the user could experience last writer wins issues wherein interim changes to the profile are not saved.

XenApp 5 for Windows Server 2008 x64 + Windows 7 x86 VDA

DEF Company has deployed XenApp 5 for Windows Server 2008 x64 and plans to add Windows 7 x86 VDAs that will present applications hosted on XenApp. Thus, the applications presented to users within the Windows 7 VDA will actually be hosted on XenApp.



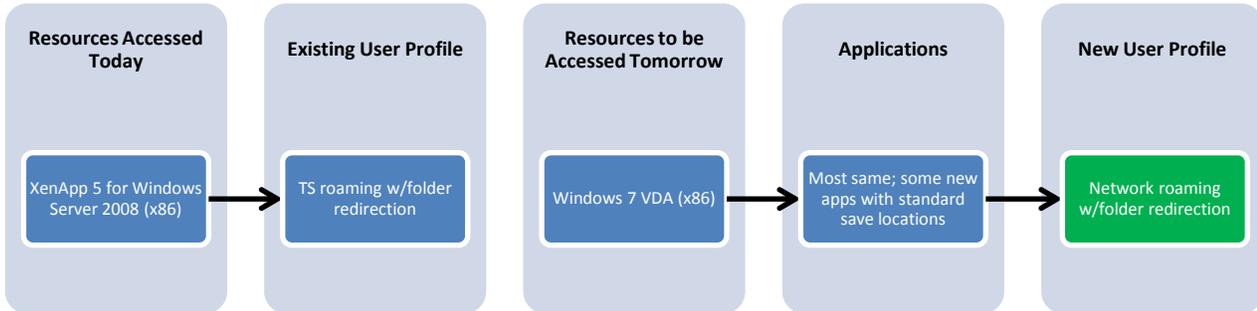
Based on the scenario presented above, the same profile type (v2) but different platform (x86) are used. New applications with some unique requirements are introduced.

Some comments about selecting a mandatory profile with folder redirection as the solution:

- Folder redirection enables user data to be stored in folders that are accessible from both resources.
- The existing profile should be fully tested to ensure compatibility being that distinct platforms are implemented.
- A full understanding of the new applications and unique requirements will be critical to understanding whether a mandatory profile will suffice.
- Because of the platform differences and new application requirements, a mandatory profile is likely not an optimal solution. A better alternative would be a non-Microsoft profile that explicitly supports distinct platforms and application granularity.
- Although a bit more complicated, a distinct profile could be used for XenApp and XenDesktop, with each incorporating the same redirected folders.

XenApp 5 for Windows Server 2008 x86 → Windows 7 x86 VDA

GHI Company has deployed XenApp 5 for Windows Server 2008 x86 and plans to cut over to Windows 7 x86 VDAs. All applications will be embedded within the Windows 7 VDA.



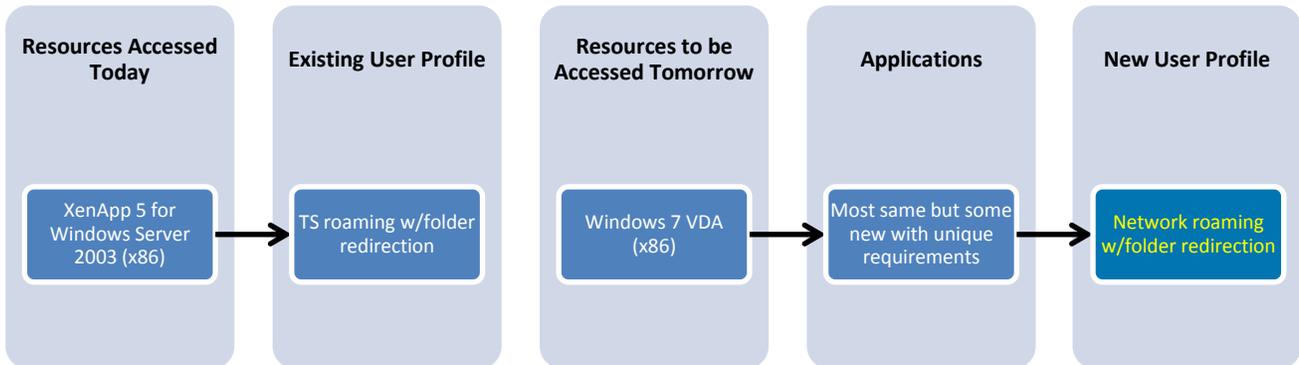
Based on the scenario presented above, the same platform (x86) and profile type (v2) are used, and no new applications with unique requirements are introduced.

Some comments about selecting a roaming profile with folder redirection as the solution:

- Folder redirection enables user data to be stored in folders that are static throughout the transition.
- A roaming profile would work from the standpoint of the platform and profile type, and the existing path listed in the Terminal Services profile path would be replaced with the same path definition for the roaming profile.
- This solution would also work for a mandatory profile. Being that the existing profile is not mandatory, transitioning users from roaming to mandatory may be met with resistance by users.

XenApp 5 for Windows Server 2003 x86 → Windows 7 x86 VDA

JKL Company has deployed XenApp 5 for Windows Server 2003 x86 and plans to transition to Windows 7 x86 VDAs. All applications will be embedded within the Windows 7 VDA.



Based on the scenario presented above, the same platform (x86) but different profile type (v1/v2). New applications with some unique requirements are introduced.

Some comments about selecting a roaming profile with folder redirection as the solution:

- Folder redirection enables user data to be stored in folders that are static throughout the transition.
- The existing profile should be fully tested to ensure compatibility being that distinct profile types are involved.
- Although roaming profiles can typically address unique application requirements, such as non-standard data repository, new applications should be fully tested.
- Because of the profile type differences and new application requirements, re-using the existing Terminal Services profile is questionable. A better alternative would be a non-Microsoft profile that explicitly supports distinct profile types and application granularity.

General Recommendations

As part of the transition to XenApp + XenDesktop or XenApp → XenDesktop, Citrix generally recommends the following:

- **Intentionally implement a user profile solution other than local profiles.** While local profiles may suffice in a few instances, defaulting to local profiles because profiles have not been addressed is far from optimal. Environmental factors and requirements should be weighed in order to intentionally determine a user profile solution.
- **Implement the simplest user profile solution that addresses requirements.** In many cases, a mandatory profile with folder redirection may address user requirements. This type of profile is easy to configure and virtually effortless to maintain. Where mandatory is not satisfactory, consider a roaming profile when multiple resources are not accessed simultaneously or a non-Microsoft solution as required.
- **Use the correct user name variable when configuring the user repository.** Microsoft uses the variable %username%, whereas Citrix Profile management uses #SamAccountName#. Ensure that the user name variable points to the correct location.
- **Incorporate folder redirection where feasible.** Because folder redirection removes specific folders from the profile and is centralized on the network, user profile maintenance is reduced. In addition, logon time and profile bloat are minimized.
- **Applications.** Ensure that applications work properly with the user profile. This means that applications are presented correctly and function appropriately.
- **Active Directory structure.** Review the Active Directory structure and configuration to ensure that GPOs are applied optimally. Generally, all Citrix-related resources should be located under a distinct parent OU.
- **GPO Interaction.** Review the configuration of all user profile-related GPOs to ensure that these do not introduce unexpected impact on user profiles. The user profile-related GPOs, such as those found under Administrative Templates → System → User Profiles interact with Microsoft user profiles and may interact with non-Microsoft user profiles.
- **Logon time.** Because the entire logon time affects the user profile experience, all aspects of logon, including authentication, logon script processing, and resource availability should be addressed as part of the user profile decision.
- **Service Monitoring (EdgeSight).** To better understand each aspect of the user logon process, review session startup data. This will pinpoint delays associated with loading the user profile.
- **Consider all costs.** Costs include administrative time, hard dollar costs, storage, and help desk calls. All of these should factor into the user profile solution.
- **Fully test any profile changes.** Any changes to the user profile should be fully tested in a segregated lab environment before being presented to users. User acceptance testing should be the final decision regarding any proposed user profile changes.
- **User experience.** User experience should carry the most weight in determining the optimal user profile solution.

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About Citrix

Citrix Systems, Inc. (NASDAQ:CTXS) is the leading provider of virtualization, networking and software as a service technologies for more than 230,000 organizations worldwide. Its Citrix Delivery Center, Citrix Cloud Center (C3) and Citrix Online Services product families radically simplify computing for millions of users, delivering applications as an on-demand service to any user, in any location on any device. Citrix customers include the world's largest Internet companies, 99 percent of Fortune Global 500 enterprises, and hundreds of thousands of small businesses and prosumers worldwide. Citrix partners with over 10,000 companies worldwide in more than 100 countries. Founded in 1989, annual revenue in 2008 was \$1.6 billion.