Using ProfileUnity™ to Migrate

from Windows 7 to Windows 10

Whitepaper

This Whitepaper and guide has been authored by experts at Liquidware in order to provide information and guidance concerning using ProfileUnity to migrate users from Windows 7 to Windows 10 or allow the two to coexist in an environment.

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OVERVIEW

If you're a desktop administrator faced with the looming task of migrating Windows 7 users to Windows 10 on hundreds of desktops (physical or virtual), you need a plan that both makes the transition process easier and keeps users productive. ProfileUnity manages such user environment changes while also allowing the co-existence of Windows 7 and Windows 10 operating systems during the process. Windows 10 itself has multiple profile versions. At the time of writing there are as many as three versions of user profiles in the Windows 10 releases to date.

Ever since the introduction of Windows XP, Microsoft has engaged in a pattern of changing file locations and names within the Windows user profile – literally changing file names and locations within the user profile. For example, the Application Data folder name may change to AppData within the OS. Registry locations may also change between OS versions. Consequently, every new version of Windows has introduced a different profile version format. As a result, profile versions over succeeding Windows OS versions are incompatible with each other. Basic profile tools such as Microsoft Roaming Profiles and Microsoft U-EV would essentially "break" a user profile if they attempt to deliver one profile format into a later version format, e.g. Windows 7 to Windows 10.

With the exception of Windows Server releases that are related to Windows desktop versions, each profile version is incompatible with subsequent versions. Over time, this problem has gotten worse. For example, the launch of Windows 10 Windows introduced a sixth profile version and there have been two subsequent versions. Windows 10 was reported to be "the one OS to rule them all". However, within months of the public launch of Windows 10, Microsoft again announced that further profile changes have be made in Windows 10 resulting in yet further profile versions. See Table 1 below for detail. These disruptive profile changes will likely continue to occur in future Windows OS updates.

Table 1: Microsoft User Profile Versions per OS

Windows Version	Profile Version
Windows XP	V1
Windows 7	V2
Windows 8/8.1	V3 / V4
Windows 10 1507	V5
Windows 10 1511	V5
Windows 10 1607	V6
Windows 10 1703	V7
Windows 10 xxxx	V8?

The example of the Application Data file name change is of great importance to the user's profile because it is where applications write unique user settings that make a user more productive. Spell checkers, email signatures, and bookmarks are examples of personalized user data. Other folders are of equal significance. If these personalized folders are lost due to version profile incompatibility, you not only risk losing mission critical data but also user productivity in the time it takes to recreate these settings.

Other than Microsoft User State Migration Tool (USMT), Microsoft has offered no other significant technologies to make migrating users en masse a straightforward process or to allow more than one OS system type to co-exist in an environment for the same user. Roaming profiles also have no provision to make profile types compatible or to exchange information among them. If you were to use Microsoft Roaming Profiles in a mixed environment, multiple profiles (one for each OS version) would be stored and used by roaming profiles for the users. This approach introduces must more useless complexity to the environment, seriously limiting any benefit to the organizations.

How ProfileUnity Addresses User Profile Version Incompatibility

ProfileUnity can harvest profiles of any Windows Operating System (Windows XP and forward) from your current installation of local profiles or from Microsoft Roaming Profiles. With ProfileUnity, either type of profile is backed up to the user's network share at logoff or when a trigger point is reached during the user's session (time or action based). ("Triggers" are a feature of ProfileUnity that allow administrators to create optional "if, then" statements to apply

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a policy or entitlement to a user. For example, if a user is logging into office endpoint device A, s/he can access applications A, B, C. If s/he is logging into endpoint device B, s/he cannot access those applications.)

With ProfileUnity, user profile data is not separated out and compiled into a database or other proprietary system. User profiles retain native formats which allows this solution to be extremely flexible in how it handles user profiles cross-OS version, offering "co-existence." Upon next user login, ProfileUnity communicates with the OS to determine the required profile format. In literally seconds, ProfileUnity implements the user's unique profile on that OS in the proper format, regardless of the previous profile version. All of this is seamless to the end-user. A user profile in the proper format is actually placed on the local or virtual desktop. The streamlined and well-managed profile is uncompressed and placed on the system in Windows' own native format. In subsequent logons of the same system, only the delta changes are updated.

CAPTURING EXISTING USER-AUTHORED DATA AND APPLICATION SETTINGS

In addition to users' profiles, Windows 10 Migration plans must also address user authored data on legacy PCs. Relying on manual drag and drop for file transfers and disparate removable media is haphazard at best. An automated plan is best and helps to ensure that no mission critical data is left behind. ProfileUnity offers an exclusive feature in its Folder Redirection module. When applied, this feature automatically harvests user authored data, such as My Documents, Photos, etc., from legacy desktops. The data is synced to a new location such as a network drive or external cloud storage providers. When the background sync has successfully completed, the folders can then be redirected to the new location.

While you are migrating to Windows 10, you'll also likely be upgrading your applications to the latest version, including Microsoft Office and other popular third-party applications. Application data settings such as Microsoft Outlook configurations, signatures, personal spell checker data, contact lists, and more, are easily lost without a proper planning. Organizations often also upgrade applications during an OS migration. ProfileUnity seamlessly makes users' custom application data settings available even across disparate versions of applications for virtually all applications. Users can seamlessly roam between versions of MS Office and most other

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applications, enjoy automatic configuration of new versions of applications, and retain custom configurations on Windows desktop. Mixed 32- and 64-bit platforms and applications versions are also seamlessly supported.

ASSESSING WHAT YOU HAVE

This paper assumes that you have a great deal of knowledge about your existing environment and resources you need to manage. If not, Liquidware Stratusphere is the ideal solution for performing a comprehensive assessment of your environment, providing detailed data about users and their locations, operating systems, applications, the network, as well as machine metrics. After you know what operating systems and machine types your users have, you can use ProfileUnity to execute the migration.

CONFIGURING PROFILEUNITY TO AUTOMATE YOUR MIGRATION

ProfileUnity comes with several configuration templates that you can instantly leverage to implement a best-practice migration from Windows 7 to Windows 10. You will be prompted to choose a ProfileUnity base configuration template file during installation or by selecting "Create" from the Configuration Management area as demonstrated in the screenshot below.

Windows 7 to Windows 10 Migration Strategy & Step by Step Overview

1. Create a ProfileUnity configuration that best matches your environment in the Management Console. Click on the "Create" button. Choose "Guided" to run the Guided Configuration Wizard.

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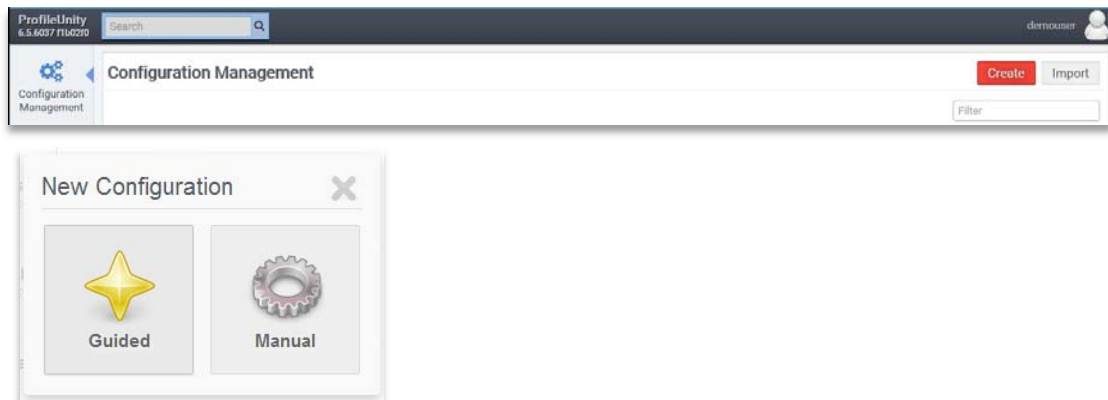
a. In the example below, the Windows 7, 10 or 2016 as a Desktop and 2016 RDS Full Desktop template has been chosen. Choose a configuration template that most closely matches your environment.
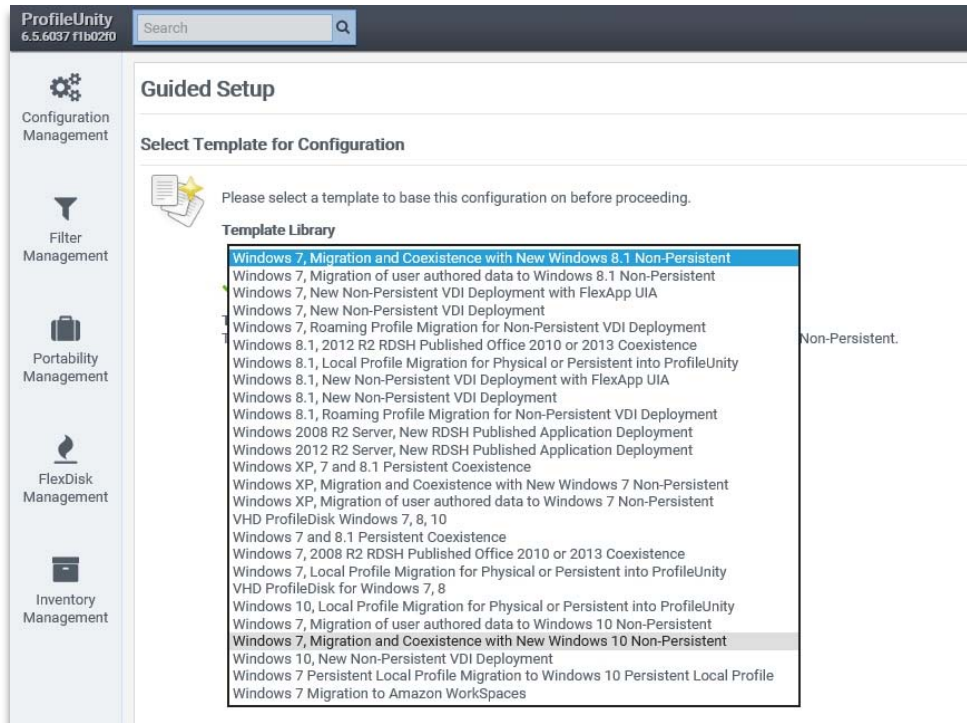

b. Select appropriate storage path variables for your environment, usually the same file share path on which users store user-authored data on the network. Choose "Next" when done.
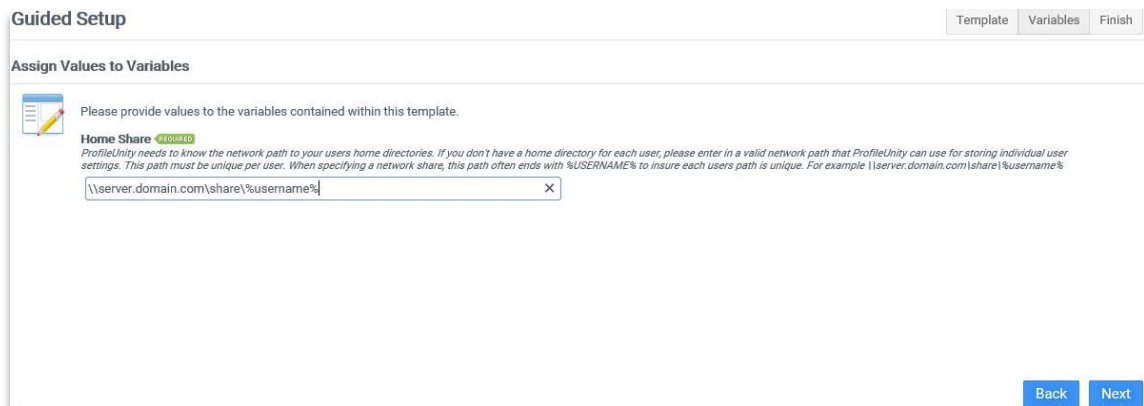
c.   "Deploy" your configuration to your Netlogon path if you'd like to make this configuration live. If you'd like to review before going live with this configuration, choose Finish and do not select the "Deploy" button. You can later deploy/download this configuration from the Configuration Management view.
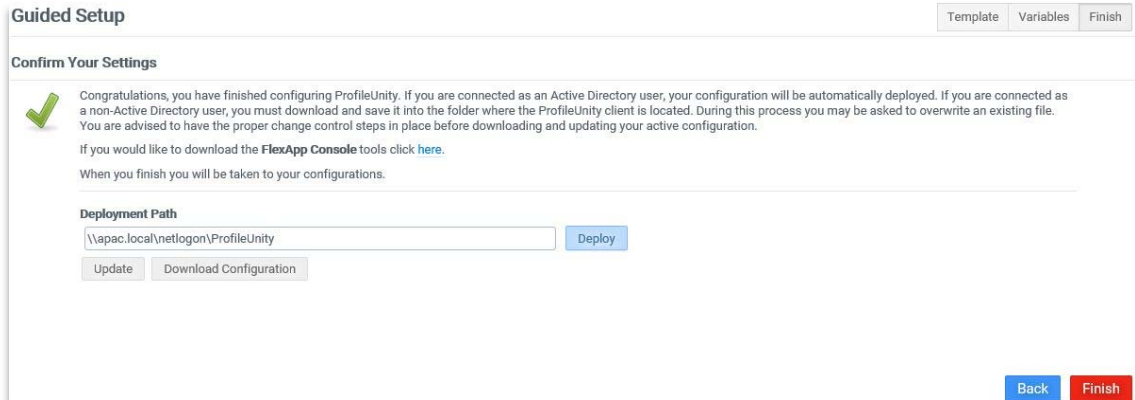
d.   Review your configuration if desired, by selecting the Edit icon in the Configuration Management view.
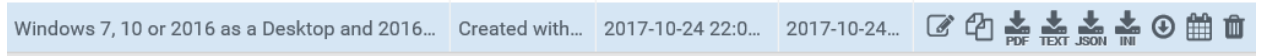
e.   Your configuration includes best practices for a basic Windows 7 to 10 migration. For example. Portability Settings have been configured with a certain number of rule sets per configuration that will start to pick up and manage portions of the profile and registry across Windows 7 and 10.

OPTIONAL: You can customize these to add or remove rule sets or write custom rule sets. These advanced options are covered in the full ProfileUnity Help Guide.


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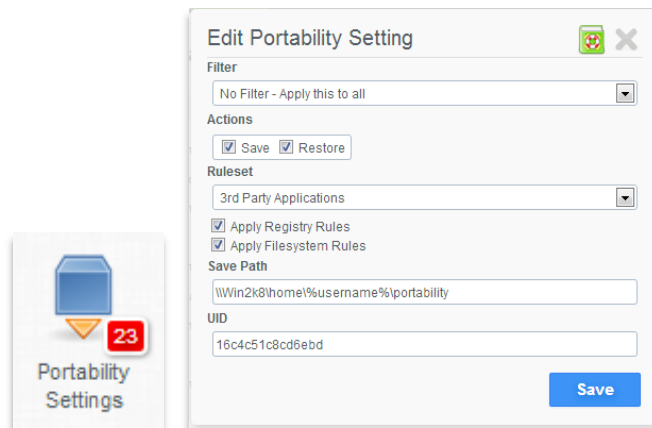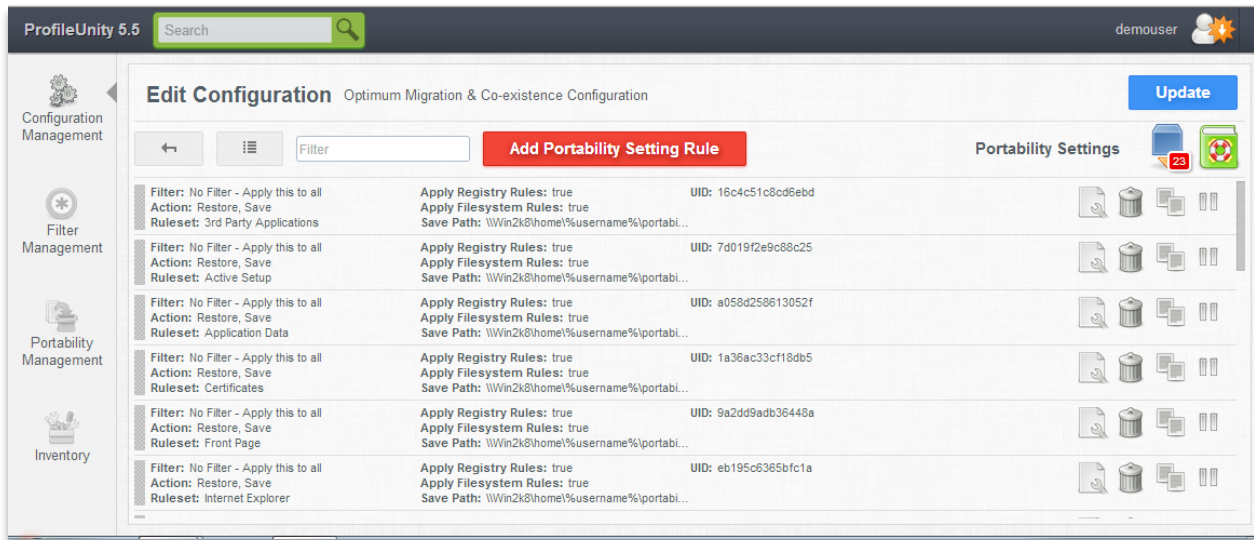
f. Certain **Folder Redirection** settings have been set in your configuration as well such as best practices for My Documents and the Desktop. If you would like to harvest user authored data from existing shell folders (My Documents for example), modify the folder redirection settings and set them to first **Sync to the folder share New Location** before redirection will automatically be invoked. You can optionally limit the bandwidth to a selected speed if you are turning this on for dozens or hundreds of users. Exclude any file types or subfolders you do not wish to migrate e.g. *.mp3, *.mpeg, *.jpeg. If you do not see these options, please click on the "Advanced" button.
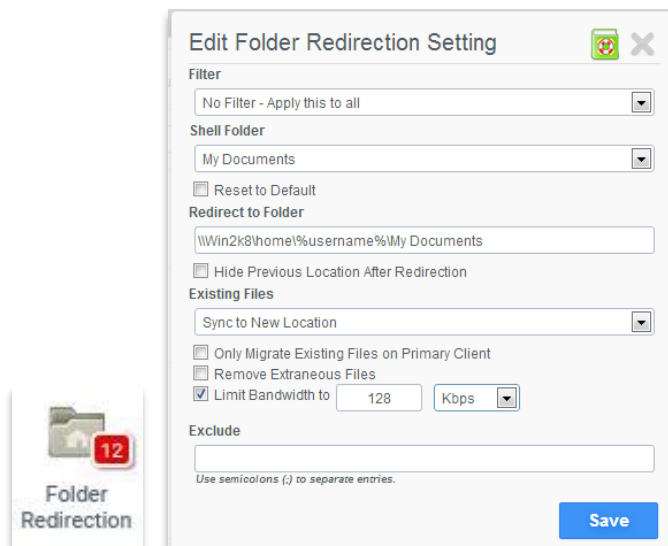
g. **OPTIONAL:** Turn on **Inventory** for all users. This will enable ProfileUnity to gather information on the folder redirection and sync status of your user authored data migration for each desktop. Use Reporting Server means that the ProfileUnity client will report back to the ProfileUnity central management console.
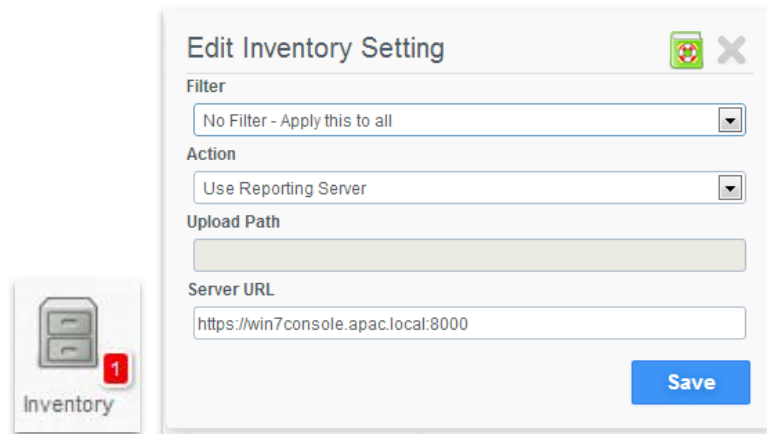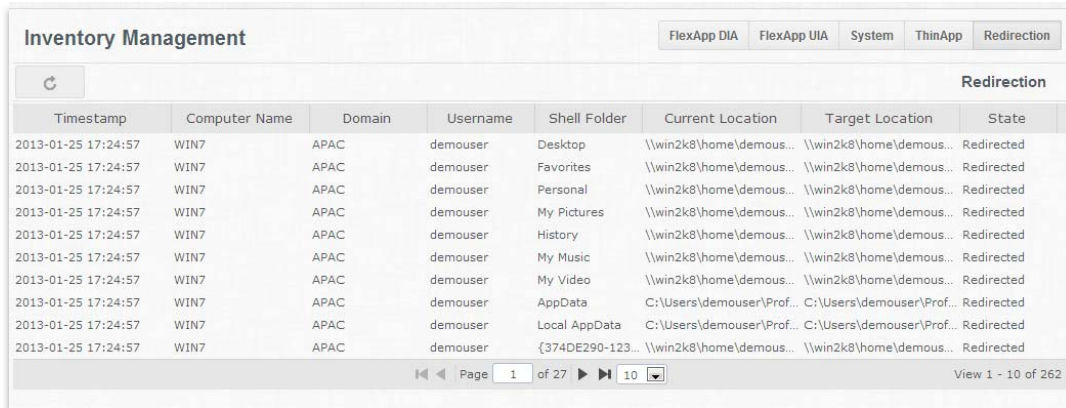

2. Deploy your configuration to the Netlogon file share (or alternate if chosen) to test as part of a Proof of Concept (POC) with real users' desktops. Ensure users logon to their Windows 7 desktop first. You can limit a configuration to run for a select group of test users by in the "Main" feature module tab in your configuration by choosing "Require Group Membership for Execution"

> *Note: Users only need to logon and off of Windows 7 one time for their profile to be picked up by ProfileUnity. The profile is then a dynamic profile that will work with Windows 7/Windows Server 2008 R2 and Windows 10/Windows Server 2012 R2. User authored data (Folder Redirection and synching) may take longer and several logons depending how much data is being transferred and the speed you chose for throttling above.*

3. **OPTIONAL:** Modify the configuration to speed up logon times by eliminating items such as the Sun's Java Cache and any bloated Cache and Temporary files. Consider options for moving PST and OST files or other bloated areas that may impact performance. ProfileUnity's ProfileDisk option is a solution for these large files. If interested, please see further detail in a separate White Paper on the subject of ProfileDisk.
4. Test again for optimal performance.
5. Go live with all users when login performance is acceptable.

6. Give users at least two weeks to migrate. This will ensure that users on vacation have had a chance to logon at least once to make their user profile dynamic.

7. Check inventory in the ProfileUnity central management console to ensure all users have migrated user authored data (folder redirection that was synched) successfully.

8. Once all users have migrated, reconfigure ProfileUnity for a hybrid profile (partially compressed and partially redirected) if desired (for always-on network desktops). Such a configuration can be built with the automated configuration in v5.5 or later.

Final Notes

Laptops that need an offline copy of their redirected folders will need file/folder synchronization from Microsoft turned on after the migration or ProfileUnity's continuous sync options for folder redirection. ProfileUnity does not currently offer bi-directional synching. More comprehensive 2-way sync options are available through Liquidware ISV partners such as PeerSync.

This guide is not meant to be a complete guide for your migration. Liquidware System Engineers and Support Staff will be glad to review your configuration before going live. Further information can be found in the full ProfileUnity Help Manual located on the Liquidware Support Portal. Other documentation is available at www.liquidware.com/support/documentation.asp.

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