

# ProfileUnity Best Practices

---

<b>Installation .....</b>	<b>4</b>
If you want ProfileUnity and are confused by references to the Stratusphere hub and documentation .....	4
ProfileUnity stand-alone .....	4
ProfileUnity with the Stratusphere hub .....	4
If you want your group in Active Directory to be named something OTHER than ProfileUnity (due to naming scheme or security policy) .....	4
If you are upgrading to a later version .....	4
And you are running the stand-alone version of ProfileUnity .....	4
And you are running the Stratusphere Hub .....	4
If you're migrating from a physical environment to a virtual environment .....	5
Suggested Filter Configuration .....	5
<b>Licensing .....</b>	<b>5</b>
If you're licensing a stand-alone copy of ProfileUnity .....	5
<b>Configuration .....</b>	<b>5</b>
Important: Any time you make a change to a configuration you must re-download the .INI file and those changes will not take effect until the next log-on event from the user .....	5
<b>Initial Configuration .....</b>	<b>5</b>
If you see certificate errors in the web interface .....	5
And you are running Mozilla or Chrome browser .....	5
And you are running Internet Explorer .....	5
If you are deploying the client file to a location other than the netlogon share .....	6
If you wish to store user settings that are in the MAPI profile so that they are portable between desktops, preventing users from having to reconfigure the first time they use a new machine .....	6
Enable the default MAPI portability rule set and capture the app data rule set. ....	6
Turn on or enable the "office" rule set. ....	6
If you want to use ProfileUnity to eliminate the personalize menus screen .....	6
If you have multiple INI files in the ProfileUnity folder .....	7
<b>Portability Rule Sets .....</b>	<b>7</b>
What it is: .....	7
If you want to port printers on Windows 7 .....	7
If you want to make the application data folder portable and want to understand the differences between settings under "Portability Settings" and "Folder Redirection" .....	7
Portability Settings = application data stored under HKEY_CURRENT_USER .....	7
Folder Redirection = user shell folders in the registry, that determine pointers accessible through the GUI .....	7
<b>Filters .....</b>	<b>7</b>
What they are: .....	7
If you want to filter based on connection method and have users connecting through PC over IP protocol ..	8
<b>Configuration Management .....</b>	<b>8</b>
What it is: .....	8
<b>Performance Tuning .....</b>	<b>8</b>
If logon and logoff times are outside acceptable parameters .....	8

<b>Procedure to ensure a successful POC</b> .....	<b>8</b>
<b>Known Issues</b> .....	<b>9</b>
If you want to preserve icon placement.....	9
If you want to preserve wallpaper settings .....	9
If you are running Microsoft Outlook 2010 .....	9
<b>Win7</b> .....	<b>9</b>
If your user is prompted to install drivers when adding a printer .....	9
If you're running Windows 7 64-bit.....	9
If your environment requires multiple .ini files AND Thin App deployment or folder redirection with the sync option enabled .....	9
If you are using ThinApp packages with *.dat files in ProfileUnity 4.7.2 or later .....	9
<b>Other Concepts</b> .....	<b>10</b>
<b>Folder Redirection</b> .....	<b>10</b>
If you want to know more about your Folder Redirection options in ProfileUnity .....	10
One option is "No change." .....	10
You can also set ProfileUnity to do a one-time move\copy.....	10
Or you can set ProfileUnity to do a one-time sync. ....	10
If you want to understand how folder redirection affects the folder structure.....	10
If you want to enable or disable offline files for your redirected folders.....	10
Windows XP will often enable offline files. We recommend using the offline files option only for laptop devices or other occasionally connected devices. ....	10
<b>MAPI Profile</b> .....	<b>11</b>
If you wish to port your MAPI profile between different versions of Microsoft Outlook .....	11
<b>File System Concepts</b> .....	<b>11</b>
CTXinit.exe.....	12

*Note: ProfileUnity can be used to replace functions that are historically done through logon scripts and legacy GPOs. It is important to choose either ProfileUnity or the GPO to serve this function. If both ProfileUnity and a GPO are set to manage the same setting, they will conflict and cause inconsistent results.*

*Additional Help Topics can be found throughout the management console anytime you see the "?" icon.*

## Installation

### ***If you want ProfileUnity and are confused by references to the Stratusphere hub and documentation***

ProfileUnity can be installed in two different configurations.

Both options are fully functional, and both have a centralized web user interface. Some users feel that the Stratusphere Hub may be more useful in an environment run by multiple administrators, and it may be easier to deploy if you have a virtual infrastructure already in place.

#### **ProfileUnity stand-alone**

The stand-alone version of ProfileUnity supports English language systems only. If you are running a non-English version of Windows you will need to use ProfileUnity with the Stratusphere Hub.

Note: Client.exe is not double byte compatible...

#### **ProfileUnity with the Stratusphere hub**

When choosing the hub option you only need to download the Stratusphere hub component in order to have all pieces of the software. Some Stratusphere documentation may be referenced in the ProfileUnity documentation if you choose this option.

### ***If you want your group in Active Directory to be named something OTHER than ProfileUnity (due to naming scheme or security policy)***

You can change this to match your desired naming variation. You are free to change the variable to match the security group of your choice. Please be aware that the ProfileUnity licensing system does not support nested groups. Users must be direct members of the chosen group.

### ***If you are upgrading to a later version***

*And you are running the stand-alone version of ProfileUnity*

- 1) Download the latest version of ProfileUnity from <http://liquidwarelabs.com/download/downloads.asp>.
- 2) Backup your configuration (preferences -> backup).
- 3) Verify that your backup completed and that the file containing your settings is saved.
- 4) Uninstall the current version of ProfileUnity (Add/Remove Programs).
- 5) Install the new version of ProfileUnity.
- 6) Restore your configuration (preferences -> restore).

*And you are running the Stratusphere Hub*

- 1) Log into the Stratusphere™ Hub console using `ssconsole/sspassword`.
- 2) Liquidware Labs recommends taking a snapshot of the Stratusphere™ Hub before applying any updates. We recommend you run the “shutdown” command and use the vSphere client to take a snapshot of the Hub. When finished, power ON the Hub again and log back into the console using `ssconsole/sspassword`.
- 3) Run “software check”. This command will call back to our update servers to check if there is a new version available. It will tell you if there are new versions. The Stratusphere™ Hub needs Internet to check for and download updates. If there is a proxy involved, please run the “set software update proxy

<proxy-server-ip:port>” command. Stratusphere™ does not support authenticated proxies at this time. Use the attached PDF if you have authenticated proxies and need to update the hub manually.

4) Run “software install latest”. This command will download updates and apply them sequentially going through different versions until the latest version is applied. If needed, it will reboot the appliance as well.

5) When the Hub is up, running and considered stable you should go back and delete any snapshots created as it does adversely affect performance of the Hub.

### ***If you’re migrating from a physical environment to a virtual environment***

You can build filters for your physical and virtual machines.

#### **Suggested Filter Configuration**

For physical we suggest syncing the data in the shell folders, for virtual we would select “no change” and work off the network share.

## **Licensing**

### ***If you’re licensing a stand-alone copy of ProfileUnity***

You have received a file that includes your license key. If you have not received a file your first step is to request one from your Liquidware Labs sales representative.

Once you have this file you will need to put it in ***the root of the same folder*** as the folder where your .INI resides.

## **Configuration**

Important: Any time you make a change to a configuration you must re-download the .INI file and those changes will not take effect until the next log-on event from the user.

### **Initial Configuration**

#### ***If you see certificate errors in the web interface***

*And you are running Mozilla or Chrome browser*

This is easily fixed easy because you can easily add a permanent exception.

*And you are running Internet Explorer*

IE has always been weird as to where it puts things. You could put a new cert from a CA using the steps below.

-----

Do the following as root: (login to the console with user name: friend and password: sspassword, then su- to root with the password: sspassword)

```
cd /var/empty/backend
```

```
mv .keystore .keystore.orig
```

```
/usr/java/default/bin/keytool -keysize 2048 -genkey -alias tomcat -keyalg  
RSA -keystore /var/empty/backend/.keystore
```

*Note:* Use hub's FQDN for your full name, when prompted password is: changeit

```
/usr/java/default/bin/keytool -certreq -keyalg RSA -alias tomcat -file  
/var/empty/backend/stratusphere-hub.csr -keystore  
/var/empty/backend/.keystore
```

```
cat /var/empty/backend/stratusphere-hub.csr
```

*Note:* Copy/paste the CSR and get your certificate from your Certificate Source (verisign, rapidssl, internal certificate authority). scp your certificate to friend@hub-ip-or-name:

```
/usr/java/default/bin/keytool -import -alias tomcat -keystore  
/var/empty/backend/.keystore -trustcacerts -file <name of your certfile.  
example /home/friend/stratusphere-hub.crt>
```

*Note:* do the above to root certificate and any intermediate certificates

```
/usr/java/default/bin/keytool -import -alias tomcat -keystore  
/var/empty/backend/.keystore -trustcacerts -file <name of root certfile>
```

```
sv restart tnt-backend
```

*Note:* Access the UI from the web browser and see if it works without warnings. If it fails, replace

```
/var/empty/backend/.keystore with  
/var/empty/backend/.keystore.orig and restart backend.
```

Use <http://help.godaddy.com/topic/746/article/5276>

<http://help.godaddy.com/topic/742/article/5239> for general instructions.

### ***If you are deploying the client file to a location other than the netlogon share***

You must choose a location that has both read and execute permissions for ALL authenticated users.

### ***If you wish to store user settings that are in the MAPI profile so that they are portable between desktops, preventing users from having to reconfigure the first time they use a new machine***

Enable the default MAPI portability rule set and capture the app data rule set.

This will harvest the MAPI profile for the user. With this configuration you will still get some of the first run dialogues with Outlook if it is the first time it is launched, but the MAPI profile should be captured and layered into the new non-persistent desktops.

Turn on or enable the "office" rule set.

This will get rid of those first run dialogues.

Go to Portability settings under the Configuration Management tab and add the MAPI profile, and save.

### ***If you want to use ProfileUnity to eliminate the personalize menus screen***

Build a custom rule set in the Portability Management Tab

Name: Active Set up Capture

Under Registry

Merge Tree Software\Microsoft\Active Setup

Then go to Portability Settings in the Configuration Module and enable this rule set like the others. The users' will still see that box on their first login, but subsequent logins should be good to go.

### ***If you have multiple INI files in the ProfileUnity folder***

Prior to version 4.7 multiple INI files would break the rsync process which should run as part of the synch option. This is fixed in the 4.7.1 release.

## **Portability Rule Sets**

### **What it is:**

Portability Rule Sets make up the library of rulesets that are available. This is not where the rulesets are enabled, but where they are defined. Portability rulesets include settings for both registry and file system portability.

### ***If you want to port printers on Windows 7***

There is a GPO that needs to be disabled on Win7 for drivers on point and print driver. By default there is an installation control object. It needs to be set to disable.

You may find more about the new GPO here: <http://technet.microsoft.com/en-us/library/cc725938.aspx>

### ***If you want to make the application data folder portable and want to understand the differences between settings under "Portability Settings" and "Folder Redirection"***

Portability Settings = application data stored under HKEY\_CURRENT\_USER

The setting under "Portability Settings" pertains to the portability settings of the Application data that is stored within HKEY\_CURRENT\_USER. This data accounts for 99% of all application specific data that needs to be accounted for when moving between machines and operating systems.

Folder Redirection = user shell folders in the registry, that determine pointers accessible through the GUI

The "Folder Redirection" setting remaps portions of the User Shell Folders section of the registry that tell the operating system which areas to 'point' to when mapping those areas to the GUI.

## **Filters**

### **What they are:**

Filters allow for selective application of profiles. For example, you may wish to apply a filter to map drives based on department.

## ***If you want to filter based on connection method and have users connecting through PC over IP protocol***

Version 4.7.1 added a new filter option for “View Client Name. This works for PCoIP connections. For upgrade instructions see the “if you are upgrading to a later version” section in this document.

## **Configuration Management**

### **What it is:**

Configuration management is where you build your .ini file.

## **Performance Tuning**

### ***If logon and logoff times are outside acceptable parameters***

The portability rule sets may need to be tuned.

- 1) Navigate to the zip file where the user settings are being saved
- 2) Find those archives that are the largest (typically App Data and third party Applications)
- 3) Extract the archive of the largest rule set(s) and navigate to determine if the files within that archive are required. For example: some applications utilizing JAVA will create a temporary folder in App Data at the following path \sun\JAVA\deployment\system\cache. This directory can grow large over time creating longer compression time as well as backup and restore latency; however the files in this directory are temporary in nature and are usually not needed from session to session.
- 4) Therefore you can edit the App Data ruleset to create an exclusion of this directory so that it will not be included in the archive, thus reducing compression time, archive size, and ultimately logon and logoff times.

This procedure can be used on folders, files, and/or wildcards within the management console and is encouraged to optimally tune your environment.

## **Procedure to ensure a successful POC**

To ensure a successful proof of concept it is important to implement a thorough test procedure after each configuration change.

How to test that things are working right.

- Test OUs for computers/users.
- Test base images (Win7, XP, or base servers).
- Test user accounts.

Configure one setting at a time.

- 1) Start with portability only.
- 2) Add provisioning (drive mapping, folder redirection, as appropriate).
- 3) Layer on filters as needed. Some commonly used filters:
  - Physical vs. Virtual – Filter based on the type of machine used
  - Access Methods – Connect via console, RDP, ICA, and/or PCoIP.

## Known Issues

### ***If you want to preserve icon placement***

Icon placement is preserved XP to XP and Win7 to Win7, not XP to Win7.

Windows XP = Windows XP

Windows 7 = Windows 7

Windows XP ≠ Windows 7

### ***If you want to preserve wallpaper settings***

Windows XP only allows bitmap files to be used as wallpaper. Windows 7 allows other graphical formats such as JPEG files. If you set a non-bitmap file to be your wallpaper in Windows 7 and then log on to a Windows XP machine your wallpaper will not display.

### ***If you are running Microsoft Outlook 2010***

Once you use ProfileUnity to migrate your MAPI profile settings to Microsoft Outlook 2010 you can't migrate them back. ProfileUnity version 4.7 and previous versions do not support provisioning of Microsoft Outlook 2010.

## Win7

### ***If your user is prompted to install drivers when adding a printer***

ProfileUnity has several options for adding printers including capturing a port, setting the printer as default, and automatically adding the printer.

Selecting the Automatic Add option will automatically install the printer on Windows 2000, Windows XP, Windows 2003, Windows Vista, Windows 2008, and Windows 7 clients. This option is only available if Connect is selected as the Action.

This option leverages Microsoft Point and Print technology. The printer and drivers must be properly configured on the server for this option to function. The easiest way to test Point and Print is to attempt connecting to the printer from a client. If a client machine can connect without prompting for drivers, Point and Print is properly configured.

### ***If you're running Windows 7 64-bit***

64-bit Windows 7 will require 4.7.2 or later for thin app deployment and folder redirection with sync option enabled.

### ***If your environment requires multiple .ini files AND Thin App deployment or folder redirection with the sync option enabled***

You must use ProfileUnity version 4.7.1 or later.

### ***If you are using ThinApp packages with \*.dat files in ProfileUnity 4.7.2 or later***

You must only run them from the network. They must be "streamed," not run from the local cache.

## Other Concepts

### Folder Redirection

#### ***If you want to know more about your Folder Redirection options in ProfileUnity***

Folder redirection works the same in ProfileUnity as a typical GPO. ProfileUnity changes the registry location for the shell folder in Windows, which is in HKCU\software\microsoft\windows\current version\explorer\shell folders.

For existing files there are several options.

One option is “No change.”

This means ProfileUnity doesn’t do anything with existing files.

You can also set ProfileUnity to do a one-time move\copy.

The move or copy is suggested when moving a small amount of data, no more than several MB, and the user login will not complete until the copy is done.

Or you can set ProfileUnity to do a one-time sync.

The sync option is a background copy operation that starts an Rsync process. The user logs in and this trickles in the background. Two syncs, one is background which can take several sessions. One is foreground that cleans up files that changed while the background was in process.

It’s important to note that the sync option is NOT a two-way sync, it’s a one-time operation.

#### ***If you want to understand how folder redirection affects the folder structure...***

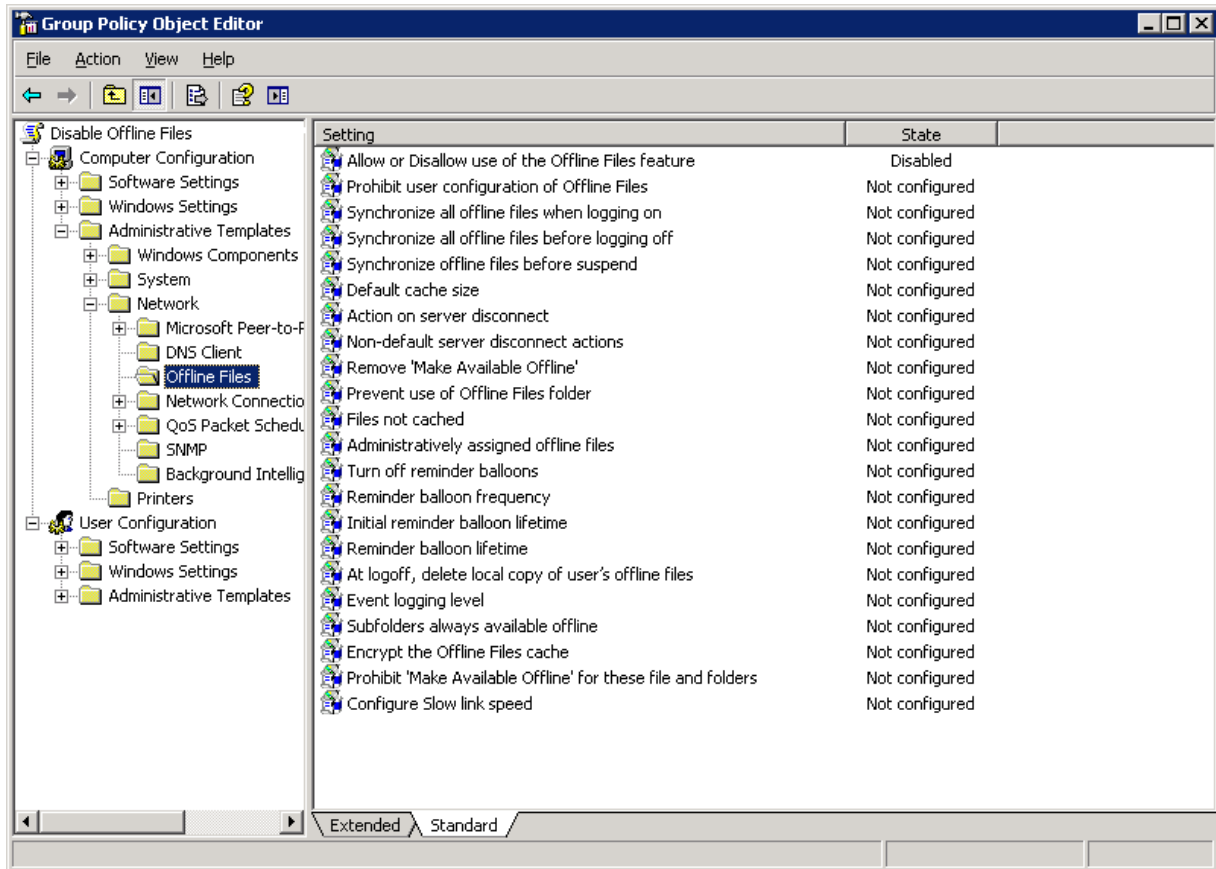
While ProfileUnity changes the location in the registry for the shell folder, it DOES NOT modify the folder structure. ProfileUnity can hide the previous shell location, but if the user drilled down they could still put a file in a folder that is hidden, and that file wouldn’t be synced. You can set ProfileUnity to hide the previous shell folder location and use a shortcut module to create a shortcut to the redirected location.

#### ***If you want to enable or disable offline files for your redirected folders***

Windows XP will often enable offline files. We recommend using the offline files option only for laptop devices or other occasionally connected devices.

Laptop users are often disconnected from the network, so the cache of relocated files is often VERY useful as these devices roam. This may also apply to the rare VDI environment where users take their virtual desktops offline.

For devices that are always connected to the network there is no need to cache the files in redirected folders.



You may use group policy to disable caching.

## MAPI Profile

### *If you wish to port your MAPI profile between different versions of Microsoft Outlook*

MAPI profiles are portable from Outlook 2003 to Outlook 2007 bi-directionally. You can move freely between the two. Once you migrate to Outlook 2010 you can't migrate it back, also the current 4.7 and previous versions do not support provisioning of Outlook 2010.

Outlook 2003 ↔ Outlook 2007

Outlook 2003, Outlook 2007 → Outlook 2010

## File System Concepts

The ProfileUnity installer targets the NETLOGON share for the installation on the DC due to the fact that it has the appropriate permissions inherently in it as well as it is a DFS replicated share. This gives us instant scalability and because we create a folder there, we do not interfere with anything else that may be going on there. You could put it in another DFS replicated place, but you would need to insure the appropriate permissions for the computer accounts and the user accounts involved.

### **The files that will be extracted to it are as follows:**

*Startup.vbs*-this is a startup script that will be applied to the **computers** in the OU that will be running ProfileUnity to download the zero touch agent & loaders to the endpoints

*ProfileUnity.adm*— this is the GPO template that we use that specifies location of the \*.ini file where the profile migration instructions live, the enablement or disablement of running ProfileUnity, whether or not to show the ProfileUnity splash screen when it runs and whether or not to look at a time stamp so that user settings for those that may be off-line won't be

*Client.exe*—this is the zero-touch agent that will be cached to the endpoints running ProfileUnity

*Rdpinit.exe and userinit.exe*—these are chain loaders that prevent us from having a traditional user based logon script—in the older architecture, some environments had other user based log on scripts and we had to wait our turn—this lets us execute PU simultaneously instead of having to wait in line for other scripts that may not have anything to do with profile management, etc. thus decreasing log in time

*CTXinit.exe*---In Citrix environments, modification of the userinit.exe causes issues with published applications. Therefore, we use this file in lieu of the userinit.exe file to call our client. This file is loaded in the AppSetup key.

*Logoff.vbs*-this is a user based logoff script that will execute when the user logs off and begin the process of executing PU and backing up the user profile according to the configurations

*ProfileUnity.lic*—this is the license file

*\*.ini* (typically default.ini)--this is the configuration file that is created by the management console and which determined what will be harvested in terms of user settings and data migration as well as where to put it. This is the result of the going through the configuration console.

**The profile data can be stored anywhere (typically a NFS or CIFS—not the DC) share that the user account has read/write access to.**

*Note: ProfileUnity can be used to replace functions that are historically done through logon scripts and legacy GPOs. It is important to choose either ProfileUnity or the GPO to serve this function. If both ProfileUnity and a GPO are set to manage the same setting, they will conflict and cause inconsistent results.*

***Additional Help Topics can be found throughout the management console anytime you see the “?” icon.***