liquidware

ProfileUnity™ with FlexApp™ Technology

Base Image Creation Basic Guidance & Best Practices

This guide has been authored by experts at Liquidware in order to provide information and guidance concerning ProfileUnity™ with FlexApp™.

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General Base Image Creation Guidance

Creating an optimized base image is the foundation that most end user computing (EUC) projects are built upon.

Most enterprises have developed processes or workflows to accomplish this task. There are number of critical pieces of collateral to help optimize these processes to achieve better results across physical and virtual environments.

The following tools and articles might be useful as you work to establish a baseline:

- **VMware OS Optimization Tool**

  This is a unique, robust GUI interface that allows the administrator to make optimization changes to a wide range of Windows Operating Systems as part of the base image creation process. The power of this tool is unprecedented but can also be daunting when faced with all of the options. Consider small steps and robust testing when leveraging this tool.

- **The Ultimate Windows 10 Tuning Template for any VDI Environment**

  This template from LoginVSI works with the VMware OS Optimization tool to achieve even greater performance.

- **Citrix TargetOSOptimizer Tool**

  This tool applies a set of optimizations specifically recommended for Pooled and Dedicated machines as part of the VDA installation process.

- **Install all C++ Runtimes**

  With respect to ProfileUnity and FlexApp, this is definitely considered a best practice.

No matter which path or tool you select, optimizing the Windows operating system as part of the base image creation process is a critical step for every enterprise.

Getting Started

The following represents a basic workflow when creating an enterprise base image. Many organizations have existing processes that they follow. This is not meant to replace existing processes but rather augment or serve as a refresher of sorts.

1. Consider leveraging Stratusphere FIT to conduct desktop and application assessments.
   - Identify the list of applications that will be part of the base image.
   - Identify the list of applications that can be provisioned to through other solutions.

2. Establish a baseline

   Of the options listed above, one of them should be a sufficient starting point.

3. Broker Optimizations

   Historically, a best practice is to install things like VMware tools and the Citrix VDA as part of the base image or golden image.

4. Install all C++ Runtimes.

   With respect to ProfileUnity and FlexApp, this is definitely considered a best practice.

5. Create Anti-virus exclusions

   Under certain scenarios, some anti-virus or security solutions observe or flag some FlexApp actions during normal run time. After investigation, it is clear that nothing out of the ordinary is happening. Therefore, some exclusions are needed to allow for normal activity to take place. Liquidware is currently working with some known anti-virus and security vendors to adjust this behavior.

6. Install all versions of Microsoft .NET Framework your applications might need.

   If you do not have any .NET version sensitive applications, install all major versions of .NET.

Base Image Creation Checklist

Step	Task	Status
1	Determine which operating system versions are required.	
2	Determine whether 32- or 64-bit architecture versions are required.	
3	Maintain a minimum of one (1) VM with snapshots per OS version.	
4	Establish hardware settings within the corresponding VMs that match or resemble production target application requirements.	
5	Identify application dependencies.	
6	Consider leveraging the VMware OS Optimization Tool to adjust the following settings:	
7	Install VMware tools	
8	Install Citrix VDA	
9	Disable error reporting	
10	Disable automatic updates	
11	Remove unnecessary applications at boot	
12	Remove any unnecessary Windows components	
13	Change NTFS behavior	
14	Disable hibernation	
15	Disable system restore	
16	Disable paging the executive	
17	Properly size the VM memory	
18	Set page file to a fixed size	
19	Disable indexing	
20	Disable unnecessary services	
21	Disable super-fetch	
22	Disable success logging	
23	Group Policy Refresh interval	
24	Disable scheduled defrag	
25	Remove Tablet PC components	
26	Disable boot graphic	
27	Any additional components as needed	

Getting Help with ProfileUnity

If you have questions or run into issues while using ProfileUnity with FlexApp, Liquidware is here to help. Our goal is to provide you with the knowledge, tools, and support you need to be productive.

Using Online Resources

Liquidware maintains various kinds of helpful resources on our Customer Support Portal. If you have questions about your product, use these online resources. The Support Portal includes product forums and a searchable knowledge base, among other items. You can visit our website at https://www.liquidware.com. For product documentation, refer to our Liquidware Document Repository.

Troubleshooting with the Software

ProfileUnity with FlexApp provides full logging capabilities to track activities. After you have tried to duplicate the issue with full logging turned on, the logfile details can be used to help pinpoint the source of the problem you are experiencing. To turn logging on, go to your login user ID at the top right of the Management Console screen and select the **Administration** option in the drop-down list. The Administration screen opens with the **Settings** tab displayed. Scroll to the ProfileUnity Console Service Log section and set the **Level of Logging** to **Debug** to provide the most information. To view the log file, click **View Log**. If you are still experiencing issues and need to contact Technical Support for additional help, the logfile can be sent to Support for further evaluation.

Not sure about your configuration settings? ProfileUnity offers summary reports for all your configurations, filters, and portability settings. To access these, click the **Report** link next to the name of the configuration, filter, or portability setting for which you need a report. You can download and save the report in either PDF or text format. These summary reports can also be very helpful in troubleshooting issues.

Contacting Support

If you need to contact our Support staff for technical assistance, log a request on the Liquidware Customer Support Portal or call us. Prior to logging a case you should review these helpful tips:

- Check the online help included with your Liquidware Product.

- Check the Product Documentation included with your Liquidware Product.

- Try to see if the problem is reproducible.

- Check to see if the problem is isolated to one machine or more.

- Note any recent changes to your system and environment.

- Note the version of your Liquidware product and environment details such as operating system, virtualization platform version, etc.

To speak directly with Support, call one of the following numbers:

Main Line	1-678-397-0460
Toll Free in US & Canada	1-866-914-9665
Europe/Middle East/Africa	+44 800 014 8097
Toll Free in Europe	
UK	0800 014 8097
Netherlands	0800 022 5973
Switzerland	0800 561 271