Configuring guest operating systems

General guidelines

It is important to correctly configure your guest operating systems so that they run optimally in the virtualized environment. In this chapter, we will show you how to configure different operating systems, but these are some general guidelines you can follow for any kind of guest:

1. Install the flexVDI guest tools. They include device drivers for paravirtualized devices that will drastically increase the guest performance. They also include the tools and agents that enable some of flexVDI features, like Follow-me Printing and Single Sign-On.
2. Disable swap partitions/pagefiles. They will make clone images grow very fast. If you are getting out of memory errors in the guests, just increase their allocated RAM.
3. Disable fancy desktop effects. The virtual GPU is software based, and the Spice presentation protocol must transmit all the screen changes, so the perceived performance will drop if they have to show a full-screen animation, like a vanishing window.
4. Configure your virtual hard drives as SSD disks. You will avoid unnecessary write operations.
5. In template-based guests, disable system updates.

For information on particular guest operating systems, refer to the corresponding section:

- Windows
- Linux

Volatile guests

Volatile desktops are those desktops that fulfill the following conditions:

- They do not store any users' data.
- Their disk image is created by cloning a gold image.
- Any user can use any clone of the gold image indistinctly.

As a result, desktops can be 'recycled' periodically. That is, they can be destroyed and cloned again without an impact on the user experience. This volatility has several advantages:

- Changes made to a volatile desktop are lost when it is recycled. This allows for a tightly controlled user workspace, where unknown programs or data cannot be installed and the system returns periodically to a safe state.
- Users' data is not distributed among several computers, making backup strategies much easier.
- Patches and updates are applied only once to the gold image. Then, they are distributed automatically when desktops are recycled.
- System administrators can react faster to malware attacks, and the management of the user workspaces is easier in general.

Volatile desktops are commonly used in environments where all users must use a common, specific set of applications, e.g. a classroom, a call center or the accounting department of an enterprise. However, cloning the gold image into physical computers can become tedious. Instead, they are best suited for VDI environments because template-based guests can be cloned almost instantly. flexVDI **encourages using volatile desktops** whenever possible through Desktop Policies with the following features:

- Clones are automatically created from the template associated to a desktop policy when users log in.
- A pool of precreated clones can be allocated to further improve the user experience, booting the desktops in advance and bringing users directly to the login form.
- A sysprep answer file can be provided to automatically prepare Windows desktops, with information such as the domain to join and the license to apply.

However, volatile desktops require a particular configuration of the guest operating systems (e.g. using roaming profiles and remote users), and the deployment of additional elements (an authentication server, a storage space for user and configuration data, a licensing server, etc). Please, refer to the corresponding section of each guest operating system for additional information.