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Introduction

This article is a reference guide detailing the process of restoring a factory build of the V3 appliance to existing customer hardware. The hard disk of the appliance will be wiped during this process so the previous appliance Operating System and data will be unrecoverable.

Prerequisites

IMPORTANT: These prerequisites are absolutely essential for a successful installation process. If not followed correctly your Swivel appliance may enter an unusable state and you may not be entitled to support. Please read the prerequisites very carefully.

- Your Swivel appliance must be less than five years old;
- A Swivel hardware warranty must be in place before undertaking this restoration process;
 You will need to have an existing Swivel Maintenance Agreement;
- You must perform a backup of your appliance configuration, Swivel configuration and data from your existing appliance CMI menu;
- Your backup must then be copied off the appliance to a safe place, ideally on your Workstation, for restoration later;
 If migrating from a Version 2 appliance to a Version 3 appliance, please observe the prerequisites for the restoration process which is detailed in a separate article V3 Appliance Migrate From V2;
- You must contact your Swivel Reseller in the first instance to obtain the Version 3 appliance Bootable Media ISO file. This is not available for public download and requires a Swivel Maintenance Agreement;

- It is essential for a reliable restore process that Physical DVD media is created from the ISO file;
 You must not only burn the ISO file to a DVD, but also validate the disc after burning;
 Any failed attempt using Virtual Media via the DRAC or any other means other than a Physical DVD inserted into the disc drive of the appliance will not be supported;
- The restoration process is only supported against compatible hardware listed below;
 Physical access is required to insert the DVD or configure DRAC networking (for Keyboard and Monitor). You may need to connect a KVM or Keyboard and Monitor to configure the DRAC networking from the BIOS if this has not already been done. Please verify that you have DRAC access already setup before proceeding.

Prerequisite: Compatible hardware

The below hardware is only compatible for Swivel supplied hardware. You may need to remove the orange Swivel steel faceplate to determine whether the appliance is DELL branded or OEM DELL (unbranded).

- DELL branded PowerEdge R210
- OEM DELL (unbranded) PowerEdge R210
- DELL branded PowerEdge R220
- OEM DELL (unbranded) PowerEdge R220

Backup your appliance

IMPORTANT: Be sure to copy the backup off the appliance to a safe place, ideally on your Workstation, for restoration later.

Backup Version 2

If backing up an existing Version 2 appliance with the intention of migrating to Version 3, please follow the backup process listed in the V3 Appliance Migrate From V2 article. This is very important because you will likely need to update your Version 2 appliance to very specific build numbers listed in the article, in order to have a robust and supported migration process, prior to taking a backup of your Version 2 appliance.

Backup Version 3

If backing up an existing Version 3 appliance, please be sure to take a 'Full Backup' using the CMI menu options provided.

NOTE: Once you have completed the backup be sure to return to this article to begin the process of restoring a Factory build of the Version 3 appliance to your Hardware.

Creating the Bootable Media

IMPORTANT: Any attempt at using the ISO as Virtual Media via DRAC, USB drive or any other means will not be supported. A physical DVD must be created, validated and inserted into the appliance DVD drive.

You must contact your Swivel Reseller in the first instance to obtain the Version 3 appliance Bootable Media ISO file. This is not available for public download and requires a Swivel Maintenance Agreement.

The ISO file is approximately 2.87GB in size so we recommend downloading this well in advance of any scheduled work taking place.

It is essential for a reliable restore process that Physical DVD media is created from the ISO file.

You must not only burn the ISO file to a DVD, but also validate the disc after burning

When using the media to restore a Factory build of the Version 3 appliance, the disc must be inserted into the DVD drive. Any attempt at using the ISO as Virtual Media via DRAC, USB drive or any other means will not be supported.

The supported method to burn the disc is Windows 7/8/10 shell menu extension. When you have downloaded the ISO file, right click the file and select 'Burn disc image' to run the 'Windows Disc Image Burner' program. You must click the 'Verify disc after burning' checkbox to ensure that the burn is validated before using the disc.

If the burn validation fails you must discard the disc and dispose of it to ensure that it is not accidentally used.

Only one DVD is required during this process as the disc is capable of restoring all of the Version 3 appliance variants: Single, DR, Primary, Standby.

Once a physical DVD has been created you can proceed to the next section.

Connect your appliance to a console

In order to view and carry out the on-screen instructions after inserting the disc, the appliance must have access to either a KVM with keyboard and monitor leads or a physical keyboard and monitor. Alternatively you may receive monitor output and give keyboard input via the DRAC (Dell Remote Access Controller) but this requires prior networking setup via the BIOS, so may yet still require a physical keyboard and monitor to the appliance.

- The monitor will require a standard 15-PIN VGA RGB connector. The port is located at the rear of the unit;
- The keyboard will require a USB connector. USB ports are available at the front and rear of the unit.

Alternatively if using DRAC:

- The DRAC ethernet port is located to the rear of the appliance and is often denoted with a spanner/wrench symbol;
 Remember: You will need to have configured the DRAC via the BIOS to have a specific network IP prior to attempting to gain access to it from your web browser.

Insert the DVD and boot it up

The DVD drive is built into the appliance and is a standard component that ships with all compatible hardware listed in the pre-requisites section. Located at the front of the unit, the drive is of slim-line form factor.

To open the drive:

- The appliance must be powered on;
- The button to open the drive is located on the plastic bezel of the tray itself, similar to a DVD drive you might find on a laptop.

After pressing the button, the green status light may flash and the tray should pop out after a short delay. You will need to pull the tray fully out before inserting the disc.

After inserting the disc, close the tray until it clicks shut. Reboot the machine. Be ready to hit the F11 key when prompted, to get to the Boot Options menu.

If you don't hit the key in time, you may need to reboot the appliance again to make another attempt. You should receive confirmation at the top right of the screen if your keypress has been accepted. If you are not registering any key presses from a physical keyboard, you may need to try the keyboard in another USB port.

Select the DVD drive as the boot option and proceed to the next section.

Restoring the V3 Factory build

NOTE: The hard disk will not be wiped by this process until after the RESTORE command has been issued and the appliance variant you wish to restore has been selected.

After successfully booting the DVD you will see some loading take place. You should be presented with a command prompt.

Please do not proceed unless you have taken a backup as detailed in the previous section Backup your appliance. On the command line, type the word RESTORE in uppercase and press Enter to continue.

NOTE: If you need to back out of this process at this point simply reboot then eject the disc immediately.

If you are able to proceed with the RESTORE command, after some loading you should be presented with a list of appliance variants e.g.: Single, DR, Primary, Standby.

Select the appliance variant that you are entitled to restore. This will invoke the restoration process. If you restore the wrong appliance variant then your appliance will not be supported and your license may be invalidated.

After the restore has completed you should be prompted to reboot the appliance.

Updating the appliance

It is critical to update the appliance via the Internet after using this restore disc. This is because the disc contents are not always going to be up to date.

If you intend to restore from a Version 2 backup then you will need to manually update some packages to some very specific versions in order to have a successful migration. This is detailed in the below subsection.

Updating for appliance Version 2 migration

If you have taken a backup from an up to date Version 2 appliance, you can use the following instructions to update your Version 3 appliance to the correct packages required in order to have a robust and successful restore of your Version 2 appliance backup.

After the appliance has booted up, login to the CMI using the default credentials of:

Username: admin

Password: lockbox

By entering the menu numbers and pressing Enter, navigate from the "Main Menu" to the "Administration -> Update Appliance" screen.

Select the "Flush Cache" option to flush the package manager cache. Return to the menu;

- Select the "Install / Update Package" menu option;
- When prompted, enter the package name swivel-cmi-3.0.1869-881 being careful to enter this exactly as shown. Press Enter to proceed with the update;
- When prompted, enter the package name **apache-tomcat-7.0.59-43** being careful to enter this exactly as shown. Press Enter to proceed with the update;
- When prompted, enter the package name swivel-PINsafe-3.10.5.3022-35 being careful to enter this exactly as shown. Press Enter to proceed with the update;

Restore your Appliance Backup

IMPORTANT: The Version 3 appliance should be updated to some specific package versions prior to restoring your Version 2 appliance backup. This is necessary to ensure a successful migration. If you have skipped ahead to this section, please review Updating for appliance Version 2 migration

If restoring an appliance Version 2 backup that you created earlier you can pickup the Restore to your new Version 3 Appliance, section of the Version 2 migration article to proceed with the Restore of your Version 2 backup.