



Software Migration 6 to 7

Technical Note

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1 Overview

This document describes the steps to upgrade the LoadMaster software, appliance or Virtual LoadMaster (VLM), from version 6 to 7, and to revert back to 6 from 7. Kemp recommends performing a full backup of the system before updating to version 7 or reverting back to version 6.

1.1 Prerequisites

If you plan on updating from a pre-LTS firmware version to a post-LTS firmware version, you must first upgrade to LTS. This is because the kernel was upgraded in the LTS version. You can follow the steps in this document to do this, but ensure to update to the LTS version before updating to a later version.

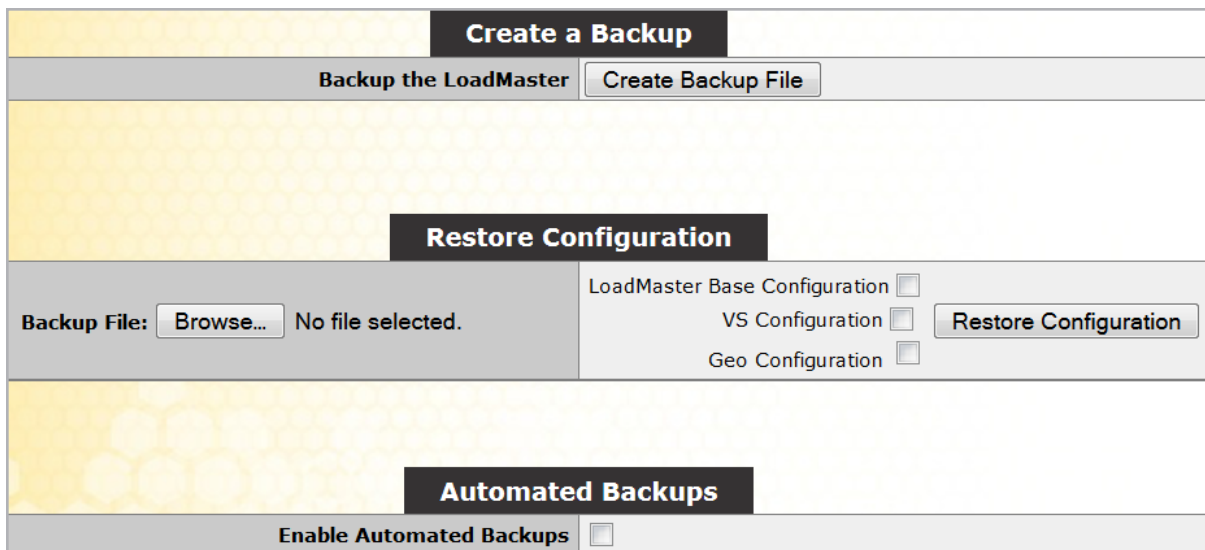
2 Backing Up the LoadMaster

The sections below contain instructions on how to back up the LoadMaster system configuration and SSL certificates.

2.1 Backing Up the System

Follow the steps below to create a backup file:

1. In the main menu of the LoadMaster Web User Interface (WUI), navigate to **System Configuration > System Administration > Backup/Restore**.



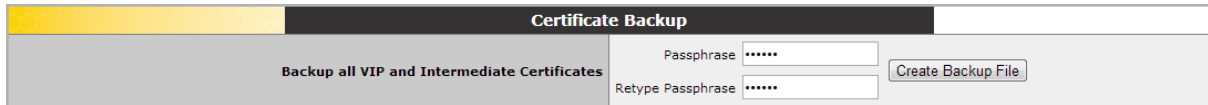
The screenshot shows the 'Backup/Restore' section of the LoadMaster WUI. It features a top navigation bar with 'Create a Backup' and 'Restore Configuration' tabs. Below the navigation bar, there are two main sections: 'Backup the LoadMaster' and 'Automated Backups'. The 'Backup the LoadMaster' section includes a 'Create Backup File' button and a 'Restore Configuration' button. The 'Automated Backups' section includes an 'Enable Automated Backups' checkbox. The 'Backup File' section shows a 'Browse...' button and the text 'No file selected.'.

2. Click the **Create Backup File** button. A download of the backup will start. The file name is set to **LMbackup** and the date and time. Select a location to save the backup file to – this is browser dependent as some browsers will automatically save the file to a location that was already pre-set. The backup file will contain all of the LoadMaster base information such as system defaults and all information pertaining to each configured Virtual Service. If you rename the file ensure to not change the file extension.

2.2 Backing Up Certificates

To back up certificates, follow the steps below:

1. In the main menu of the LoadMaster WUI, navigate to **Certificates > Backup/Restore Certs.**



2. Enter a passphrase in the text boxes provided.

The passphrase is very important and should be safeguarded.
The backup file cannot be opened without the passphrase as it is encrypted.

3. Click the **Create Backup File** button.
4. The filename is automatically set with **CertBackup** and the date and time. Select the location to save the backup file to – this is browser-dependent as some browsers will automatically save the file to a location that was already pre-set. It is a good idea to save this file with the system backup. The file can be renamed but do not change the file extension.

The private keys are backed up as part of the certificate backup.
Even though this file is password protected – it should be stored securely as it contains private key material.

3 Updating the Software to Version 7.nn

To update the software, follow the steps below:

You will experience issues accessing the LoadMaster if all of the below conditions are met:

You update the LoadMaster firmware from a version below 7.2.36 to 7.2.NN

Any time after updating the firmware, you change the password to access the LoadMaster

After changing the LoadMaster password, you downgrade to version 7.1.NN

This is because the hashing algorithm changed in version 7.2.36. LoadMasters with firmware version 7.2.36 and above can read old passwords, but LoadMasters with firmware version 7.1.NN cannot read new passwords.

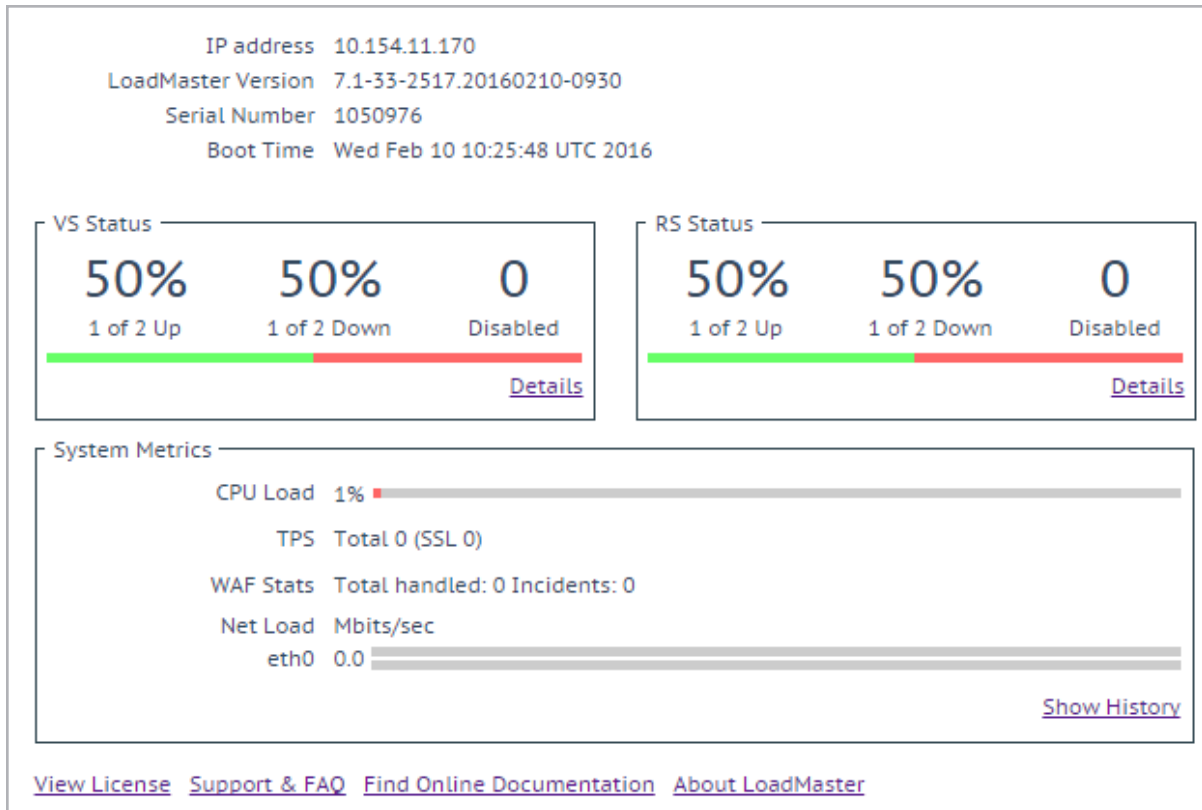
1. Send an email to Kemp support at nasupport@kemptechnologies.com (North America & Canada), emeasupport@kemptechnologies.com (Europe, Middle East and Africa) or apacsupport@kemptechnologies.com (Asia and Pacific).
2. Kemp Support will reply with an email containing a link to the software file, a username and password.
3. Click the link and save the file.

LoadMaster Software	
Software Update File: Choose File No file chosen	Update Machine
Restore previous version: No previous version	Restore Software

4. In the main menu of the LoadMaster WUI, navigate to **System Configuration > System Administration > Update Software**.

3 Updating the Software to Version 7.nn

5. Click the **Choose File** button in the **LoadMaster Software** section and navigate to the software file that was downloaded from the Kemp site.
6. Click **Update Machine**. The file is checked and validated.
7. Click **OK** to install the software after validation is complete. Once installed, the LoadMaster will need to be rebooted.
8. Click **Reboot**.
9. Click **Continue**.



10. The LoadMaster should now be operational on a version of the 7 software as shown by the **Home** screen.

If the **Persistence Options** were previously set to **SSL Session ID**, after the upgrade the SSL options are gone. To display the SSL options, set the **Persistence Options** to **Source IP Address**. Then, set it back to **None**.

4 Restoring the Software to Version 6

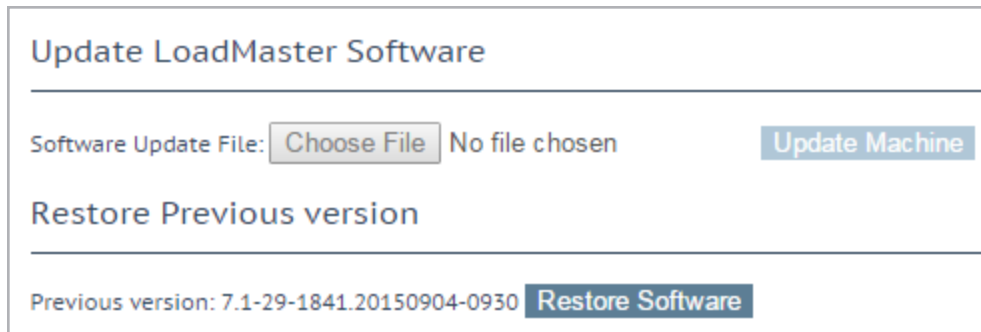
When performing a software update, the LoadMaster automatically creates a restore point of the current system and, provided no changes are made, the restore point can be used. Therefore, when restoring to 5.1 there are two options;

- Restore to version 6 – no changes made
- Restore to version 6 – changes made

Refer to the relevant section below for restore instructions.

4.1 Restore to Version 6 – No Changes

If, since the LoadMaster has been upgraded to 7, there have been no further updates within the 7 family **and** no changes to the configuration since the initial update was performed, the user can take advantage of the restore feature.



The screenshot shows a web interface for updating LoadMaster software. It has a title bar 'Update LoadMaster Software'. Below it, there's a section for 'Software Update File:' with a 'Choose File' button and the text 'No file chosen'. To the right of this is an 'Update Machine' button. Below this section is a 'Restore Previous version' section. At the bottom of this section, it says 'Previous version: 7.1-29-1841.20150904-0930' followed by a 'Restore Software' button.

In the the LoadMaster WUI, follow the steps below:

1. Navigate to **System Configuration > System Administration > Update Software**.
2. Click **Restore Software** and click **OK** to confirm.
3. Reboot the LoadMaster.

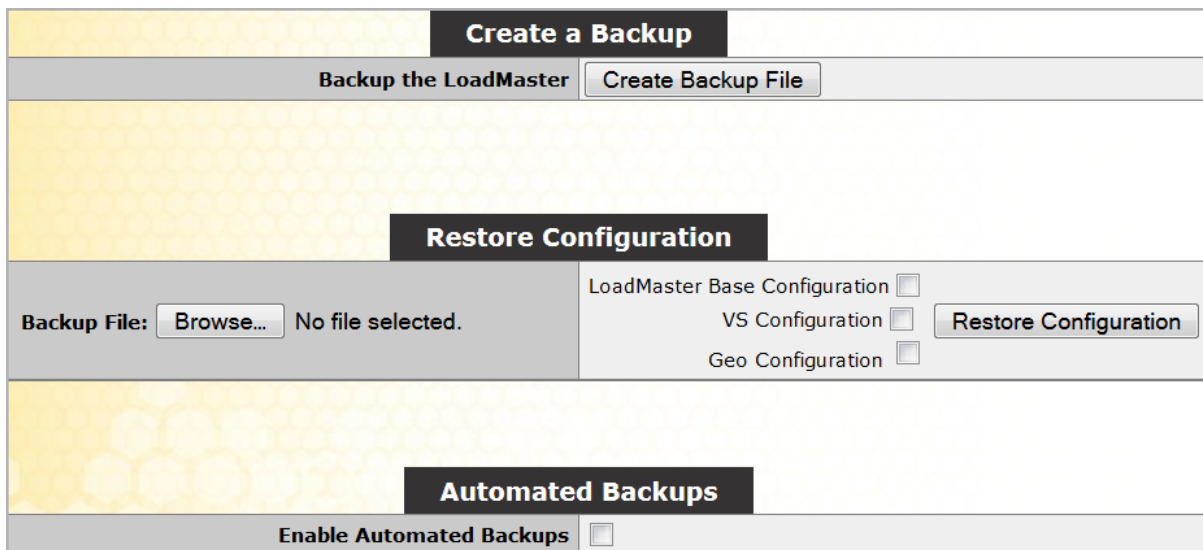
After the reboot, the LoadMaster is restored to the point that was active at the time of the update and is fully operational as it was at that time.

At this point the cache on the browser must be cleared. The JavaScript that handles many of the address validation functions has changed and the new JavaScript needs to be reloaded. Once the cache has been cleared, reload the page – this will load the new JavaScript.

4.2 Restore to Version 6 - Changes Made

If changes to the version 7 configuration have been made and you want to keep the changes, the version 7 system will need to be backed up by following the steps in the **Backing Up the LoadMaster** section above.

1. In the main menu of the LoadMaster (WUI), navigate to **System Configuration > System Administration > Backup/Restore**.



The screenshot shows the 'Backup/Restore' interface in the LoadMaster WUI. It features three main sections: 'Create a Backup', 'Restore Configuration', and 'Automated Backups'. The 'Create a Backup' section has a 'Backup the LoadMaster' button and a 'Create Backup File' button. The 'Restore Configuration' section includes a 'Backup File:' field with a 'Browse...' button and the text 'No file selected.'. To the right of this field are three checkboxes: 'LoadMaster Base Configuration', 'VS Configuration', and 'Geo Configuration', all of which are unchecked. A 'Restore Configuration' button is positioned to the right of these checkboxes. The 'Automated Backups' section at the bottom has an 'Enable Automated Backups' checkbox, which is also unchecked.

2. Click the **Browse** button.
3. Locate and select the backup LMbackup file.

At this point there is an option to restore the system base configuration, the Virtual Service configuration, or both. Kemp recommends restoring both (check both boxes).

4. Click **Restore Configuration**.
5. Click **Reboot**.

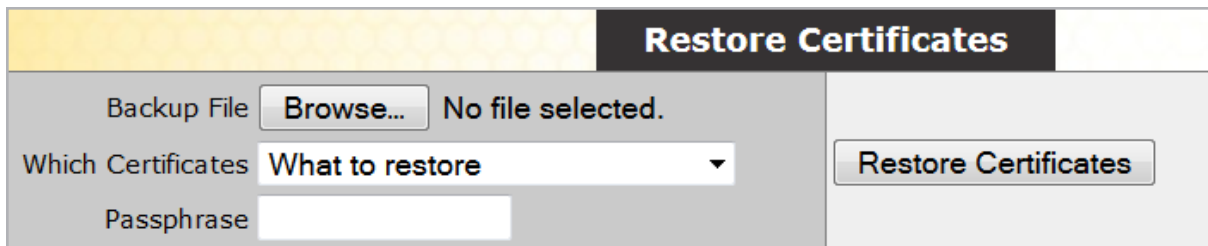
6. Click **Continue**.

The LoadMaster should now be accessible and have the same configuration that existed before moving up to version 7.

4.3 Restoring Certificates and Private Keys

To restore certificates, follow the instructions below:

1. In the main menu of the LoadMaster WUI, navigate to **Certificates > Backup/Restore Certs.**



2. Click the **Browse** button. Locate and select the certificate backup file.
3. In the drop-down list select **All VS and Intermediate certificates**.
4. Enter the passphrase assigned to the certificate backup file.
5. Click **Restore Certificates** button.

The LoadMaster will now have the exact same configuration as the one backed up prior to the version 7.0 upgrade.

References

Unless otherwise specified, the following documents can be found at <http://kemptechnologies.com/documentation>.

Web User Interface (WUI), Configuration Guide

Kemp LoadMaster, Product Overview

Last Updated Date

This document was last updated on 27 July 2023.