*Do it first in a safe environment*

# Easy guide to upgrade RHEL to version 8

For the Impatient ( TLDR version )

| Upgrade Redhat Enterprise Linux from 7 to 8 for Impatient | | |
|---|---|---|
| Pre-requisite software<br>Advantage | Win / Linux | • Install vagrant and virtual box inside your system<br>• Virtual Box 6.1 and Vagrant 2.2.7 were used<br>• Use rpm/yum for linux / exe click installation in Windows or brew in case of MacOs |
| Install the plug-ins required to use in this env | Win / Linux | • vagrant-disksize<br>• use command : vagrant plugin install vagrant-disksize |
| Utilize the git repository to download necessary files | Win / Linux | • <git repository address goes here> |
| Utilize the command to install your rhel 7 | Win / Linux | • vagrant up<br>• ** This will install a RHEL 7 with all required filesystem up and running for you. |
| Subscribe the vm in redhat subscription service | Win / Linux | • ** you need to have a valid subscription to do that<br>• ** you can use your server subscription temporally<br>• subscription-manager repos –list<br>• subscription-manager attach --pool=<pool number> |
| Disable/Enable necessary repositories | Win / Linux | • subscription-manager repos --disable rhel-7-server-rpms --enable rhel-7-server-eus-rpms<br>• subscription-manager repos --enable rhel-7-server-extras-rpms<br>• subscription-manager repos --disable rhel-7-server-optional-rpms --enable rhel-7-server-eus-optional-rpms<br>• subscription-manager repos --disable rhel-7-server-supplementary-rpms --enable rhel-7-server-eus-supplementary-rpms |
| Install the boom boot package | Win / Linux | • yum install lvm2-python-boom |

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| Create the lvm snapshot. | Win / Linux | • lvcreate -s **rhel**/root -n root_snapshot_rhel7 -L **XXG**<br>• ** rhel in the command is VG name change accordingly<br>• XXG is size in GB change to your value |
| Use boom command to put line in grub for the snapshoot | Win / Linux | • boom create --title 'Snapshot - RHEL7, pre-upgrade' --rootlv rhel/root_snapshot_rhel7 |
| UPDATE the grub config to understand the change | Win / Linux | • grub2-mkconfig >/boot/grub2/grub.cfg |
| Check if boom output is correct | Win / Linux | • boom list |
| Install necessary packages | Win / Linux | • yum install plugin yum-versionlock |
| Run config commands | Win / Linux | • yum versionlock clear<br>• subscription-manager release --set 7.6  ( or above )<br>• cat /etc/locale.conf ( needs to be UTF_8)<br>• |
| Install Leapp upgrade tool | Win / Linux | • yum install leap<br>• **errors to install is usually a repository problem ( enable or disable) |
| Need to download needed files | Win / Linux | • Follow the guide bellow:<br>• https://access.redhat.com/articles/3664871 |
| Use the command to upgrade | Win / Linux | • leapp upgrade –debug | tee -a /tmp/upgrade.log |
| Possible errors | Win / Linux | ========================================================<br>ERRORS<br>========================================================<br>2020-03-20 17:28:29.876813 [ERROR] Actor: verify_check_results<br>    Message: Detected loaded kernel drivers which have been removed in RHEL 8. Upgrade cannot proceed.<br>2020-03-20 17:28:29.896745 [ERROR] Actor: verify_check_results<br>    Message: Possible problems with remote login using root account<br>========================================================<br>END OF ERRORS<br>======================================================== |
| How to fix errors | Win / Linux | • The kernel driver error is about e1000 driver, need to change the standard NIC card in Virtual Box to virtio type.<br>• Second error just need to change the PermitRootLogin to yes inside sshd_config file and restart the service.<br>• If the errors are different, check /var/log/leapp/leapp-report.txt for detail |

| Around 1 hour of upgrade | Win / Linux | • Upgrade will take about an hour to finish and few reboots,<br>• Once done You will reboot into kernel version 4.18 and will be inside RHEL8. |
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| "Application" | Win / Linux | • Under /appfs you can run application.sh to simply verify date / version /kernel for the system<br>• You can also boot back to the snapshot taken if something goes south. |

## Heading

References used in this "Guide for the impatient"

https://access.redhat.com/documentation/en-us/red_hat_enterprise_linux/8/html/upgrading_to_rhel_8/preparing-a-rhel-7-system-for-the-upgrade_upgrading-to-rhel-8

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https://www.redhat.com/en/about/videos/using-leapp-and-boom-upgrade-to-rhel-8-beta