
Micro Focus Security ArcSight ESM Express

Software Version: ESM 7.0 Patch 2

Upgrade to RHEL 7.4 or 7.5 on G9 Appliance

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ArcSight Product Documentation	https://community.softwaregrp.com/t5/ArcSight-Product-Documentation/ctp/productdocs

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Upgrading a G9 Appliance Running ESM 7.0 Patch 2

This document provides information on how to upgrade from Red Hat Enterprise Linux (RHEL) 7.3 with Spectre to RHEL 7.4 or 7.5 on a G9 appliance running ESM 7.0 Patch 2.

Verify Operating System Upgrade File

After you download the software, contact support to verify that the signed software you received is indeed from Micro Focus and has not been manipulated by a third party.

Verify the following site for information and instructions:

<https://entitlement.mfgs.microfocus.com/ecommerce/efulfillment/digitalSignIn.do>

Upgrading a Single Appliance

Use one of the following procedures when you *do not* have the High Availability Module (HA).

Upgrading a Single Appliance to RHEL 7.4

1. Log in to the system as user `root`.
2. As user `root`, transfer the upgrade file to the target system in the `/tmp` partition.
The file is named `esm_osupgrade_rhel74_20180727112006.tar.gz`
3. Stop all arcsight services by running the following command:
`/etc/init.d/arcsight_services stop all`
4. From the directory where you put the archive in step 4, extract it as follows:
`/bin/tar zxvf osupgrade_rhel74_20180727112006.tar.gz`
5. Change directory:
`cd rhel74-upgrade`
6. Run the following command to make the script executable:
`chmod 0700 osupgrade`
7. Run the following command to start the upgrade:
`./osupgrade 2>&1 | tee osupgrade.log`
8. Make sure the system is rebooted after the script completes.
9. If any ArcSight services are not restarted automatically, restart them.
10. Check the operating system version by running the following command:
`cat /etc/redhat-release`
The result of this command should be:
`Red Hat Enterprise Linux Server release 7.4`
11. Start the ArcSight Console to make sure you can log in successfully. Check a few features to make sure they are operating as expected.

The RHEL 7.4 upgrade is now complete.

Upgrading a Single Appliance to RHEL 7.5

1. Log in to the system as user `root`.
2. As user `root`, transfer the upgrade file to the target system in the `/tmp` partition..
The file is named `esm_osupgrade_rhel75_20180828142739.tar.gz`
3. Stop all arcsight services by running the following command:
`/etc/init.d/arcsight_services stop all`

4. From the directory where you put the archive in step 4, extract it as follows:
`/bin/tar zxvf esm_osupgrade_rhel75_20180828142739.tar.gz`
 5. Change directory:
`cd esm-rhel75upgrade`
 6. Run the following command to make the script executable:
`chmod 0700 osupgrade`
 7. Run the following command to start the upgrade:
`./osupgrade 2>&1 | tee osupgrade.log`
 8. Make sure the system is rebooted after the script completes.
 9. If any ArcSight services are not restarted automatically, restart them.
 10. Check the operating system version by running the following command:
`cat /etc/redhat-release`
The result of this command should be:
`Red Hat Enterprise Linux Server release 7.5`
 11. Start the ArcSight Console to make sure you can log in successfully. Check a few features to make sure they are operating as expected.
- The RHEL 7.5 upgrade is now complete.

Upgrading High Availability Appliances

Use one of the following procedures when you have the HA module and are upgrading the operating systems on both secondary and primary appliances.

Note: Upgrade the secondary server before the primary server.

Upgrading HA Appliances to RHEL 7.4

Prepare the Two Servers: Primary and Secondary:

1. On *both* servers:
 - a. Run the following command as *root* to disable `drbd.service`:

```
systemctl disable drbd.service
```
 - b. Verify with this command:

```
systemctl list-unit-files --type=service |grep drbd
```

`drbd.service` is shown as disabled. Make sure to keep this disabled setting throughout the upgrade process.
2. Put the *secondary* server on standby by running this command as *root*:

```
crm_standby -v true
```
3. Take the *secondary* server offline by running this command as *root*:

```
systemctl stop heartbeat  
systemctl disable heartbeat
```
4. Proceed with the upgrade of the secondary server, and then upgrade the primary.

Upgrade to RHEL 7.4 on the Secondary:

1. Log in to the system as user `root`.
2. As user `root`, transfer the following files to the `/tmp` partition:
`esm_osupgrade_rhel74_20180727112006.tar.gz`
`esm_ha_support_rpms_rhel74.tar.gz`
`HA_7.0.0_Update_For_7.4OS`
3. From the directory where you put the archive in step 2, extract `esm_osupgrade_rhel74_20180727112006.tar.gz` as follows:
`tar zxvf esm_osupgrade_rhel74_20180727112006.tar.gz`
4. Change directory:
`cd rhel74-upgrade`
5. Run the following command to make the script executable:
`chmod 0700 osupgrade`
6. Run the following command to start the upgrade:
`./osupgrade 2>&1 | tee osupgrade.log`
7. Make sure the system is rebooted after the script completes.
8. Check the operating system version by running the following command:
`cat /etc/redhat-release`
The result of this command should be:
`Red Hat Enterprise Linux Server release 7.4`
9. From the directory where you put the archive in step 2, extract and install the HA Support RPMs using the following commands:
`tar -zxvf esm_ha_support_rpms_rhel74.tar.gz`
`cd esm_ha_support_rpms_rhel74`
`./install_ha_support_pkgs.sh`
10. From the directory where you put the archive in step 2, extract and install the HA update using the following commands:
From the directory where you put the archive in step 2, extract and install the HA update using the following commands:
`cd HA_7.0.0_Update_For_7.4OS/`
`cd dist/`
`tar -xvf HA_7.0.0_Update_For_7.4OS.tgz`
`cd HA_7.0.0_Update_For_7.4OS`
`./HAupdate.sh`
Note: Allow 25 minutes or so for this step to complete.
11. Run the following command as user `root` on the secondary server to bring it online:
`systemctl start heartbeat`


```
systemctl enable heartbeat
```

12. Proceed to the upgrade on the primary server.

Upgrade to RHEL 7.4 on the Primary:

1. Log in to the system as user *root*.
2. As user *root*, transfer the following files to */tmp* partition:
`esm_osupgrade_rhel74_20180727112006.tar.gz`
3. Stop all arcsight services by running the following command:
`service arcsight_services stop all`
4. Run the following command as user *root* on the primary server to take it offline:
`systemctl stop heartbeat`
`systemctl disable heartbeat`
5. From the directory where you put the archive in step 2, extract `esm_osupgrade_rhel74_20180727112006.tar.gz` as follows:
`/bin/tar zxvf esm_osupgrade_rhel74_20180727112006.tar.gz`
6. Change directory:
`cd rhel74-upgrade`
7. Run the following command to make the script executable:
`chmod 0700 osupgrade`
8. Run the following command to start the upgrade:
`./osupgrade 2>&1 | tee osupgrade.log`
9. Make sure the system is rebooted after the script completes.
10. Check the operating system version by running the following command:
`cat /etc/redhat-release`
The result of this command should be:
`Red Hat Enterprise Linux Server release 7.4`
11. From the directory where you put the archive in step 2, extract and install the HA Support RPMs using the following commands:
`tar -zxvf esm_ha_support_rpms_rhel74.tar.gz`
`cd esm_ha_support_rpms_rhel74`
`./install_ha_support_pkgs.sh`
12. From the directory where you put the archive in step 2, extract and install the HA update using the following commands:
`cd HA_7.0.0_Update_For_7.4OS/`
`cd dist/`
`tar xf HA_7.0.0_Update_For_7.4OS.tgz`
`cd HA_7.0.0_Update_For_7.4OS/`
`./HAUpdate.sh`

13. Enter this command as a fix for a Linbit bug in the 7.4 operating system for HA that causes a large delay in the transfer of services when one system in the cluster goes offline:

```
crm configure property cluster-recheck-interval=1M
```

The following messages are displayed:

```
WARNING: unrecognized CIB element <built-in function Comment>
```

```
ERROR: cib-bootstrap-options: attribute expected-quorum-votes does not exist
```

Enter *y* at the prompt:

```
Do you still want to commit (y/n)? y
```

14. Run the following command as user *root* on the primary server to bring it online:

```
systemctl start heartbeat
```

```
systemctl enable heartbeat
```

15. Return to the secondary server.

16. Run the following command as user *root* on the secondary server to bring it online:

```
crm_standby -D
```

17. Run the following command as user *root*, (on either server) to make sure the HA status is OK:

```
/usr/lib/arcsight/highavail/bin/arcsight_cluster status
```

18. If any ArcSight services are not restarted automatically restart them on the primary server, where the */opt/arcsight* resides and you can run the command `service arcsight_services start`.

19. Start the ArcSight Console to make sure you can log in successfully. Check a few features to make sure they are operating as expected.

Note: If, after the upgrade, the disks do not connect, run `arcsight_cluster diagnose` to clear the problem.

The RHEL 7.4 upgrade is now completed on the HA environment.

Upgrading HA Appliances to RHEL 7.5

Prepare the Two Servers: Primary and Secondary:

1. On *both* servers:
 - a. Run the following command as *root* to disable `drbd.service`:

```
systemctl disable drbd.service
```
 - b. Verify with this command:

```
systemctl list-unit-files --type=service |grep drbd
```

drbd.service is shown as disabled. Make sure to keep this disabled setting throughout the upgrade process.

2. Put the *secondary* server on standby by running this command as *root*:

```
crm_standby -v true
```
3. Take the *secondary* server offline by running this command as *root*:

```
systemctl stop heartbeat  
systemctl disable heartbeat
```
4. Proceed with the upgrade of the secondary server, and then upgrade the primary.

Upgrade to RHEL 7.5 on the Secondary:

1. Log in to the system as user *root*.
2. As user *root*, transfer the following files to the */tmp* partition:

```
esm_osupgrade_rhel75_20180828142739.tar.gz  
esm_ha_support_rpms_rhel75.tar.gz  
HA_7.0.0_Update_For_7.5OS
```
3. From the directory where you put the archive in step 2, extract `esm_osupgrade_rhel75_20180828142739.tar.gz` as follows:

```
esm_osupgrade_rhel75_20180828142739.tar.gz
```
4. Change directory:

```
cd rhel75-upgrade
```
5. Run the following command to make the script executable:

```
chmod 0700 osupgrade
```
6. Run the following command to start the upgrade:

```
./osupgrade 2>&1 | tee osupgrade.log
```
7. Make sure the system is rebooted after the script completes.
8. Check the operating system version by running the following command:

```
cat /etc/redhat-release
```

The result of this command should be:

```
Red Hat Enterprise Linux Server release 7.5
```
9. From the directory where you put the archive in step 2, extract and install the HA Support RPMs using the following commands:

```
tar -zxvf esm_osupgrade_rhel75_20180828142739.tar.gz  
cd esm_ha_support_rpms_rhel75.tar.gz  
./install_ha_support_pkgs.sh
```
10. From the directory where you put the archive in step 2, extract and install the HA update using the following commands:

```
cd HA_7.0.0_Update_For_7.5OS/
```

```
cd dist/  
tar xf HA_7.0.0_Update_For_7.5OS.tgz  
cd HA_7.0.0_Update_For_7.5OS/  
./HAUpdate.sh
```

11. Run the following command as user *root* on the secondary server to bring it online:

```
systemctl start heartbeat  
systemctl enable heartbeat
```
12. Proceed to the upgrade on the primary server.

Upgrade to RHEL 7.5 on the Primary:

1. Log in to the system as user *root*.
2. As user *root*, transfer the following files to /tmp partition:

```
esm_osupgrade_rhel75_20180828142739.tar.gz  
esm_ha_support_rpms_rhel75  
HA_7.0.0_Update_For_7.5OS
```
3. Stop all arcsight services by running the following command:

```
systemctl stop heartbeat  
systemctl disable heartbeat
```
4. Run the following command as user *root* on the primary server to take it offline:

```
service heartbeat stop
```
5. From the directory where you put the archive in step 2, extract `esm_osupgrade_rhel75_20180828142739.tar.gz` as follows:

```
/bin/tar zxvf esm_osupgrade_rhel75_20180828142739.tar.gz
```
6. Change directory:

```
cd rhel75-upgrade
```
7. Run the following command to make the script executable:

```
chmod 0700 osupgrade
```
8. Run the following command to start the upgrade:

```
./osupgrade 2>&1 | tee osupgrade.log
```
9. Make sure the system is rebooted after the script completes.
10. Check the operating system version by running the following command:

```
cat /etc/redhat-release
```

The result of this command should be:

```
Red Hat Enterprise Linux Server release 7.4
```
11. From the directory where you put the archive in step 2, extract and install the HA Support RPMs using the following commands:

```
tar -zxvf esm_ha_support_rpms_rhel75.tar.gz  
cd esm_ha_support_rpms_rhel75  
./install_ha_support_pkgs.sh
```

12. From the directory where you put the archive in step 2, extract and install the HA update using the following commands:

```
cd HA_7.0.0_Update_For_7.50S/  
cd dist/  
tar xf HA_7.0.0_Update_For_7.50S.tgz  
cd HA_7.0.0_Update_For_7.50S/  
./HAUpdate.sh
```

13. Enter this command as a fix for a Linbit bug in the 7.4 operating system for HA that causes a large delay in the transfer of services when one system in the cluster goes offline:

```
crm configure property cluster-recheck-interval=1M
```

The following messages are displayed:

```
WARNING: unrecognized CIB element <built-in function Comment>  
ERROR: cib-bootstrap-options: attribute expected-quorum-votes does not  
exist
```

Enter *y* at the prompt:

```
Do you still want to commit (y/n)? y
```

14. Run the following command as user *root* on the primary server to bring it online:

```
systemctl start heartbeat  
systemctl enable heartbeat
```

15. Return to the secondary server.

16. Run the following command as user *root* on the secondary server to bring it online:

```
crm_standby -D
```

17. Run the following command as user *root*, (on either server) to make sure the HA status is OK:

```
/usr/lib/arcsight/highavail/bin/arcsight_cluster status
```

18. If any ArcSight services are not restarted automatically restart them on the primary server, where the */opt/arcsight* resides and you can run the command `service arcsight_services start`.

19. Start the ArcSight Console to make sure you can log in successfully. Check a few features to make sure they are operating as expected.

Note: If, after the upgrade, the disks do not connect, run `arcsight_cluster diagnose` to clear the problem.

The RHEL 7.5 upgrade is now completed on the HA environment.

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Feedback on Upgrade to RHEL 7.4 or 7.5 on G9 Appliance (ESM Express ESM 7.0 Patch 2)

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