Micro Focus Security
ArcSight High Availability Module

Software Version: 6.11.0 Patch 3

Upgrade HA Environment on ESM 6.11.0 Patch 3 to RHEL 7.4/RHEL7.5 or CentOS 7.4/7.5

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Phone	A list of phone numbers is available on the Technical Support Page: https://softwaresupport.softwaregrp.com/support-contact-information
Support Web Site	https://softwaresupport.softwaregrp.com/
ArcSight Product Documentation	https://community.softwaregrp.com/t5/ArcSight-Product-Documentation/ct-p/productdocs

Document Revision History

The title page of this document contains the following identifying information:

- Software Version number, which indicates the software version.
- Document Release Date, which changes each time the document is updated.

To check for recent updates or to verify that you are using the most recent edition of a document, go to the : ArcSight Product Documentation Community on Protect 724.

Document Changes

Date	Product Version	Description

Contents

Upgrade Procedure for ESM 6.11.0 Patch 3

This document provides information on how to upgrade ESM 6.11.0 Patch 3 with the High Availability module (HA) as implemented on:

- RHEL 7.3 to support RHEL 7.4 and 7.5
- CentOS 7.3 to support CentOS 7.4 and 7.5

The starting state (before upgrade) is assumed to be:

- ESM 6.11.0 with or without any patches

HA implemented on the primary and secondary servers

- RHEL 7.3 or 7.4
- CentOS 7.3 or 7.4

Upgrading to 7.4

1. Run the following command to disable `drbd.service` as user *root* on both servers before you start the upgrade:

   ```
   systemctl disable drbd.service
   ```

   To verify, run:

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

   This setting should persist.

2. Run the following command as user *root* on the secondary server to put it on standby:
   ```
   crm_standby -v true
   ```
3. Run the following command as user *root* on the secondary server to take it offline:

   ```
   Systemctl stop heartbeat
   Systemctl disable heartbeat
   ```

4. On the secondary server:
   a. Have `yum` configured to upgrade to the new operating system.

      Upgrade the operating system to RHEL 7.4 or CentOS 7.4

      Add an exclude statement for the following packages to your CentOS/RHEL 7 base repo configuration (/etc/yum.repos.d/CentOS-Base.repo), under the updates section. It should look something like this for CentOS:

      ```
      [updates]name=CentOS-$releasever -
      Updatesmirrorlist=http://mirrorlist.centos.org/?release=$releasever&amp
      ;arch=$basearch&amp;repo=updates#baseurl=http://mirror.centos.org/cento
      s/$releasever/updates/$basearch/gpgcheck=1gpgkey=file:///etc/pki/rpm-
      gpg/RPM-GPG-KEY-CentOS-7exclude=heartbeat* corosync* pacemaker* drbd*
      resource-agents clusterglue* linbit-cluster-stack-heartbeat* libqb
      ```

      It should look like this for RHEL:

      ```
      updates]name=RHEL-$releasever -
      Updatesmirrorlist=http://mirrorlist.rhel.org/?release=$releasever&amp;a
      rch=$basearch&amp;repo=updates#baseurl=http://mirror.rhel.org/rhel/$rel
      easever/updates/$basearch/gpgcheck=1gpgkey=file:///etc/pki/rpm-gpg/RPM-
      GPG-KEY-RHEL-7exclude=heartbeat* corosync* pacemaker* drbd* resource-
      agents clusterglue* linbit-cluster-stack-heartbeat* libqb*
      ```

   b. Download the HA Upgrade from the Micro Focus Software Support Online site (http://softwaresupport.softwaregrp.com/). The file name is `HA_6.11.0_Update_For_7.4OS.tgz`. Be sure to verify the upgrade file. provides a digital public key to enable you to verify that the signed software you received is indeed from and has not been manipulated in any way by a third party.

      Visit the following site for information and instructions: digitalSignIn.do

   c. Copy the HA update to the /tmp partition on the server.

   d. Install the HA update using these commands:

      ```
      tar -zxvf HA_6.11.0_Update_For_7.4OS.tgz
      cd HA_6.11.0_Update_For_7.4OS
      ./HAUpdate.sh
      ```

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

   ```
   Systemctl start heartbeat
   Systemctl enable heartbeat
   ```

6. Stop ArcSight services on the primary server:

   ```
   service arcsight_services stop all
   ```

   ArcSight Services will not be available until after the OS upgrade is completed on the primary server.

7. Repeat steps 3 through 5 on the primary server. It is expected that ESM will go down while the primary server is updating.

8. Run the following command as user *root* on the secondary server to take it off standby:
   `crm_standby -D`

9. Run the following command as user *root*, (on either server) to check the HA installation, as described in the HA Users Guide, in the "Verify HA Installation” section:

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

10. 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`)

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.

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

Upgrading to 7.5

1. Run the following command to disable `drbd.service` as user *root* on both servers before you start the upgrade:

   ```
   systemctl disable drbd.service
   ```

   To verify, run:

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

   This setting should persist.

2. Run the following command as user *root* on the secondary server to put it on standby:
   `crm_standby -v true`

3. Run the following command as user *root* on the secondary server to take it offline:

   ```
   Systemctl stop heartbeat
   Systemctl disable heartbeat
   ```

4. On the secondary server:
   a. Have yum configured to upgrade to the new operating system.

      Upgrade the operating system to RHEL 7.5 or CentOS 7.5

      Add an exclude statement for the following packages to your CentOS/RHEL 7 base repo configuration (/etc/yum.repos.d/CentOS-Base.repo), under the updates section. It should look something like this for CentOS:

      ```
      [updates]name=CentOS-$releasever -
      Updatesmirrorlist=http://mirrorlist.centos.org/?release=$releasever&amp
      ;arch=$basearch&amp;repo=updates#baseurl=http://mirror.centos.org/cento
      s/$releasever/updates/$basearch/gpgcheck=1gpgkey=file:///etc/pki/rpm-
      gpg/RPM-GPG-KEY-CentOS-7exclude=heartbeat* corosync* pacemaker* drbd*
      resource-agents clusterglue* linbit-cluster-stack-heartbeat* libqb*
      ```

      It should look like this for RHEL:

      ```
      updates]name=RHEL-$releasever -
      Updatesmirrorlist=http://mirrorlist.rhel.org/?release=$releasever&amp;a
      rch=$basearch&amp;repo=updates#baseurl=http://mirror.rhel.org/rhel/$rel
      easever/updates/$basearch/gpgcheck=1gpgkey=file:///etc/pki/rpm-gpg/RPM-
      GPG-KEY-RHEL-7exclude=heartbeat* corosync* pacemaker* drbd* resource-
      agents clusterglue* linbit-cluster-stack-heartbeat* libqb*
      ```

   b. Download the HA Upgrade from the Micro Focus Software Support Online site (http://softwaresupport.softwaregrp.com/). The file name is `HA_6.11.0_Update_For_7.5OS.tgz`. Be sure to verify the upgrade file. provides a digital public key to enable you to verify that the signed software you received is indeed from and has not been manipulated in any way by a third party.

      Visit the following site for information and instructions: digitalSignIn.do

   a. Copy the HA update to the /tmp partition on the server.
   b. Install the HA update using these commands:

      ```
      tar -zxvf HA_6.11.0_Update_For_7.5OS.tgz
      cd HA_6.11.0_Update_For_7.5OS
      ./HAUpdate.sh
      ```

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

   ```
   Systemctl start heartbeat
   Systemctl enable heartbeat
   ```

6. Stop ArcSight services on the primary server:

   ```
   service arcsight_services stop all
   ```

   ArcSight Services will not be available until after the OS upgrade is completed on the primary server.

7. Repeat steps 3 through 5 on the primary server. It is expected that ESM will go down while the primary server is updating.

8. Run the following command as user *root* on the secondary server to take it off standby:
   ```
   crm_standby -D
   ```
9. Run the following command as user *root*, (on either server) to check the HA installation, as described in the HA Users Guide, in the "Verify HA Installation" section:
   ```
   /usr/lib/arcsight/highavail/bin/arcsight_cluster status
   ```
10. 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`)
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.

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

Route Metric Size Issue:

If the route metric for the route associated with the Service-IP interface is larger than that of the default route this may cause pacemaker problems determining the netmask. One of the symptoms of this problem is pairs of messages in `/var/log/messages`:

```
'....: info: RA output: (Service-IP:start:stderr) ERROR: Cannot use default
route w/o netmask...'
'...: ERROR: [/usr/lib64/heartbeat/findif -C] failed...'
```

If these messages appear, run the following steps on the primary and secondary servers:

1. Run this command:
   ```
   ip route
   ```
   Results should be several lines including some similar to the following (in this example, the Host IP address is 12.34.156.78).
   ```
   default via xxx.xxx.xxx.xxx dev ens32 proto static metric 100
   12.34.128.0/19 dev ens32 proto kernel scope link src 12.34.156.78 metric
   1000
   ```
2. Identify the Network ID and metric specified for:
   a. Default
   b. Host IP (this line should include the Host IP)
3. If the metric is larger for the Host IP route than for the default route, run the following commands as user *root*:
   ```
   ip route replace <CIDR and interface> metric <default route metric>
   ip route delete <CIDR and interface> metric <host route metric>
   ```
   In the example, these commands would be:
   ```
   ip route replace 12.34.128.0/19 dev ens32 metric 100
   ip route delete 12.34.128.0/19 dev ens32 metric 1000
   ```

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Feedback on Upgrade HA Environment on ESM 6.11.0 Patch 3 to RHEL 7.4/RHEL7.5 or CentOS 7.4/7.5 (High Availability Module 6.11.0 Patch 3)

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