Avaya Solutions Platform 130 & S8300 Series

Updating to R6.0.0.2.0 (RHEL 8.10) from R6.0.x (RHEL 8.10)

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Contents

Version Control Table

Version Number	Author	Purpose/Change	Date
Rev 1.0	R&D Engineering Team.	Initial revision.	February 2025
Rev 2.0	R&D Engineering Team.	Release of ASP 6.0.0.1.1	April 2025
Rev 3.0	R&D Engineering Team.	Release of ASP 6.0.0.2.0	June 2025

About this task

Follow the steps outlined in this document when planning and conducting updates to KVM on RHEL 8.10 hosts running on ASP 130 & S8300E servers using the Avaya certified and approved files.

The content in this documented is specifically intended to Avaya Solutions Platform 130 and S8300 (ASP 130/ASP S8300) servers. It is not applicable to other ASP server models or series, such us ASP 110, ASP 120 or ASP 4200.

Avaya will provide a custom update bundle applicable for R660xs, R640 & S8300E servers. This ensures that all updates are fully compatible with the underlying hardware, firmware and drivers running on supported ASP servers.

Warning

To ensure the ongoing support, performance, security and reliability of the ASP130/S8300 servers, it is crucial to only use files and software that have been specifically approved by Avaya. The use of unauthorized files can expose the servers and applications to potential risks and will result in an unsupported configuration.

Refrain from:

- Downloading software directly from external sites such as those posted in the Red Hat or Dell web portals.
- Obtaining software from any source other than Avaya-approved channels, to ensure proper functionality, security, and support.

Prerequisites

- Access to the ASP server over the customer network (MGMT interface) or by directly connecting a service laptop to the server's services port.
- Download the following Avaya approved files from PLDS:

  ➢ ASP 130 download ids:
    - **ASP000000041** - av-asp-tools-1.5-3.el8.x86_64.rpm (**only required if updating from R6.0 GA**).
    - **ASP000000045** – update-asp-all-6.0.0.2.0-02.zip

  ➢ ASP 8300 download ids:
    - **ASP000000131** - av-asp-tools-1.5-3.el8.x86_64.rpm (**only required if updating from R6.0 GA**).
    - **ASP000000134** - update-asp-all-6.0.0.2.0-02.zip
- Ensure proper application backups have been taken prior to conducting the update activity.
- It is considered best practice to document all hypervisor networking configuration values, including IP address, subnet mask, default gateway, DNS, NTP, hostname, and FQDN.

- Before proceeding with the KVM on RHEL 8.10 update activity, ensure that all existing virtual machines (VMs) running on the server are gracefully shut down and powered off. This step will help optimize the overall update process. For detailed prerequisites, guidelines, and procedures, refer to the relevant application documentation.
- `custadm` credentials. Avaya services account (`sroot`) via EASG authentication can also be used.

1. Supported Upgrade Path

Customers are allowed to update from previous Avaya Solutions Platform 130 releases **6.0** to release **6.0.0.1** <u>or later</u> **6.0.x releases**.

Reference to the latest **Avaya Solutions Platform 130 Release Notes** available in https://support.avaya.com for detailed supported update paths. If determined that one or multiple step-up updates are required before a server can be updated to **ASP 6.0.0.1 or later**, reference to previously released ASP 130 update documents respectively.

2. Avaya Solutions Platform 130/S8300 certified images

Note: Image information for **5.1.x and earlier** releases reference to previously released ASP 130 upgrade documents.

ASP Release	Latest Avaya Certified Image	Based on RHEL version	Notes
ASP 130/S8300 R6.0	**ASP_R6_all_4.6-4.8.iso**	RHEL 8.10	Avaya customized KVM on RHEL 8.10 includes Avaya av-asp-tools-**1.2-1**.el8.x86_64 & EASG rpms.
ASP 130/S8300 R6.0.0.1.0	**av-asp-tools-1.5-3.el8.x86_64.rpm** **update-asp-all-6.0.0.1.0-04.zip**	RHEL 8.10	Avaya customized update bundle for KVM on RHEL 8.10. Avaya av-asp-tools rpm installs separately.
ASP 130/S8300 R6.0.0.1.1	**update-asp-all-6.0.0.1.1-02.zip**	RHEL 8.10	Avaya customized update bundle for KVM on RHEL 8.10 includes Avaya `av-asp-tools-`**`1.6-2`**`.el8.x86_64.rpm`.
ASP 130/S8300 R6.0.0.2.0	**update-asp-all-6.0.0.2.0-02.zip**	RHEL 8.10	Avaya customized update bundle for KVM on RHEL 8.10 includes Avaya `av-asp-tools-`**`1.7-1`**`.el8.x86_64`

3. ESXi Host Upgrade to R6.x (KVM on RHEL 8.10)

This upgrade path **is not supported**. A complete system re-installation is required. Reference to the latest *Avaya Solutions Platform 130 Release Notes* available in https://support.avaya.com for supported upgrade paths.

4. Updating to R6.0.0.2.0 (KVM on RHEL 8.10) from R6.0.x (KVM on RHEL 8.10)

Warning: Direct upgrades to **R6.x** from **5.x or earlier releases are not supported**. Reference to the latest *Avaya Solutions Platform 130 Release Notes* available in https://support.avaya.com for supported upgrade paths.

Important : The steps documented in this section are only applicable to hosts running the GA version of ASP R6.0.0.0 or later.

Prerequisite

- ASP 130 server **must be** running **R6.0 (KVM on RHEL 8.10) software** or later prior to continuing.

Note: If a step-up upgrade is required, reference to previously released ASP 130 Upgrade documents.

New with this image

- Reference to the latest *Avaya Solutions Platform 130 Release Notes* available in https://support.avaya.com for detailed information about fixes, enhancements and known issues.

4.1 Transferring R6.x Update Files to The Host

Prerequisites

- Ensure there is sufficient space in the system to transfer update files.
- If applicable, remove older images, unnecessary files from previous installations, including those in staging folder used for VM deployment.

Warning: carefully review the files to be removed, especially those with a QCOW2 extension, to ensure they are not currently being used by a virtual machine in production.

Procedure

4.1.1 Transfer the previously downloaded update files to the local PC that will be used to access the hypervisor management interface during the maintenance activity. For detailed file information, please refer to the <u>Prerequisites</u> section.

4.1.2 **ASP R6.0 ONLY -** Using a tool such as WinSCP (not provided by Avaya) transfer the previously downloaded **av-asp-tools** & **ASP Update bundle files** e.g. av-asp-tools-1.5-3.el8.x86_64.rpm, update-asp-all-6.0.0.1.1-02.zip to the KVM on RHEL 8.10 `/home/custadm` directory.

Note: Authenticate using the existing `custadm` credentials.

Note: Upon updating the `av-asp-tools` RPM for the first time, <u>a staging directory</u> will be automatically created at "`/var/lib/libvirt/staging`". This will facilitate the direct transfer of the update bundle "`updates-asp-all-6.x.x.x.x.zip`" to the staging folder directly in future ASP R6.x releases.

The following figures are just a representation and should only be used as an example.

ASP R6.0 example
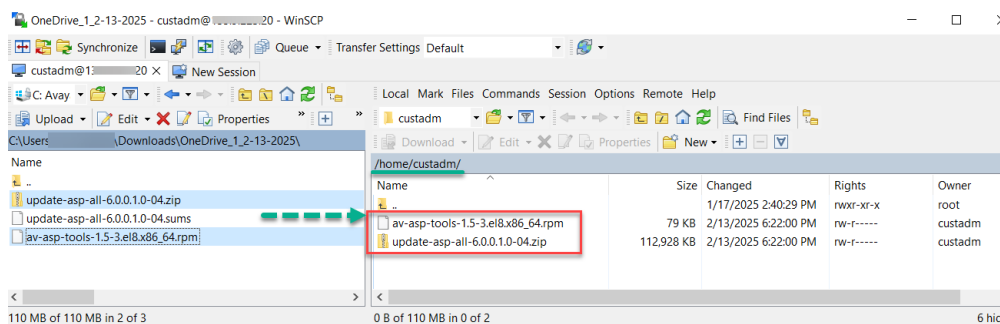
ASP R6.0.0.1.0 and later ONLY - Using a tool such as WinSCP (not provided by Avaya) transfer the previously downloaded **ASP Update bundle files** e.g., update-asp-all-6.0.0.1.1-02.zip to the KVM on RHEL 8.10 `/var/lib/libvirt/staging` directory.

ASP R6.0.0.1.0 and later example
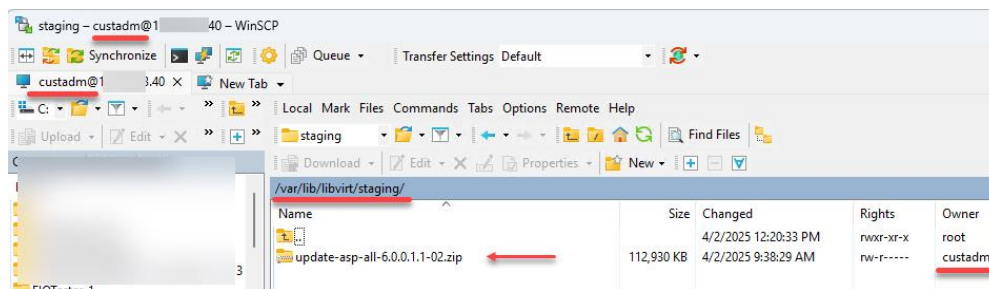
4.2 Checking Update File integrity

4.2.1 Log in to the corresponding KVM on RHEL 8.10 host by using a *Secure Shell (SSH)* client e.g., Putty (Not provided by Avaya).

4.2.2   Authenticate using the existing *custadm* credentials.

4.2.3   Run the following command to ensure files have been transferred to the corresponding location:

ASP R6.0

- `ls -l /home/custadm`

Note: The following output is just a representation and should only be used as an example.

```
[custadm@asp130-r660xs ~]$ ls -l /home/custadm/
total 113008
-rw-r-----. 1 custadm custadm     79908 Feb 13  2025 av-asp-tools-1.5-3.el8.x86_64.rpm
-rw-r-----. 1 custadm custadm 115637456 Feb 13  2025 update-asp-all-6.0.0.1.0-04.zip
[custadm@asp130-r660xs ~]$
```

ASP R6.0.0.1.0 and later

- `ls -l /var/lib/libvirt/staging/`

Note: The following output is just a representation and should only be used as an example.

```
[custadm@asp130-r660xs-qualys ~]$ ls -l /var/lib/libvirt/staging/
total 112932
-rw-r-----. 1 custadm custadm 115639512 Apr  2 09:38 update-asp-all-6.0.0.1.1-02.zip  ⬅
[custadm@asp130-r660xs-qualys ~]$
```

4.2.4   Perform sha256 checksums by executing the following cli commands:

Note: If the checksum values do not match those provided on the PLDS and Avaya Support website, **STOP!** .The files may have been corrupted during transfer. Attempt to re-download and transfer the files again. If the issue persists, contact Avaya Support for further assistance.

ASP R6.0

- ➢ `sha256sum /home/custadm/update-asp-all-6.x.x.x.zip`
- ➢ `sha256sum /home/custadm/av-asp-tools-1.5-3.el8.x86_64.rpm`

Note: The following output is just a representation and should only be used as an example.

```
[custadm@asp130~]$ sha256sum /home/custadm/update-asp-all-6.0.0.2.0-02.zip
865da1983cc58e797f3234f228593790019dc43531196399fb80c336c7af6088
/home/custadm/update-asp-all-6.0.0.2.0-02.zip
[custadm@asp130-r660xs~]$sha256sum /home/custadm/av-asp-tools-1.5-3.el8.x86_64.rpm
87784b61d39cf6ce35e2dfd83fdbb29a291f7858523965c2f12bc29ced410647
/home/custadm/av-asp-tools-1.5-3.el8.x86_64.rpm
```

ASP R6.0.0.1.0 and later

- ➢ `sha256sum /var/lib/libvirt/staging/update-asp-all-6.0.0.1.1-02.zip`

Note: The following output is just a representation and should only be used as an example.

```
[custadm@asp130-r660xs~]$sha256sum /home/custadm/av-asp-tools-1.5-3.el8.x86_64.rpm
87784b61d39cf6ce35e2dfd83fdbb29a291f7858523965c2f12bc29ced410647
/home/custadm/av-asp-tools-1.5-3.el8.x86_64.rpm
```

4.2.5   Verify the current system software version by executing the following command:
swversion

Note: The following output is just a representation and should only be used as an example.

```
[custadm@asp130-r660xs-a31-8HHD ~]$ swversion
      Operating system:  Linux 4.18.0-553.34.1.el8_10.x86_64
      Kernel Build Date:  Dec 16 04:25 2024

                Contains:  Avaya Solutions Platform
                 Release:  ASP Release 6.0.0.0.0
            Build Number:  4.6-4.8
          Update Version:  6.0.0.1.0
                 Updated:  Jan 16 2025 21:06 UTC
          VM Environment:  KVM
```

4.3 Conducting the KVM on RHEL Host Update
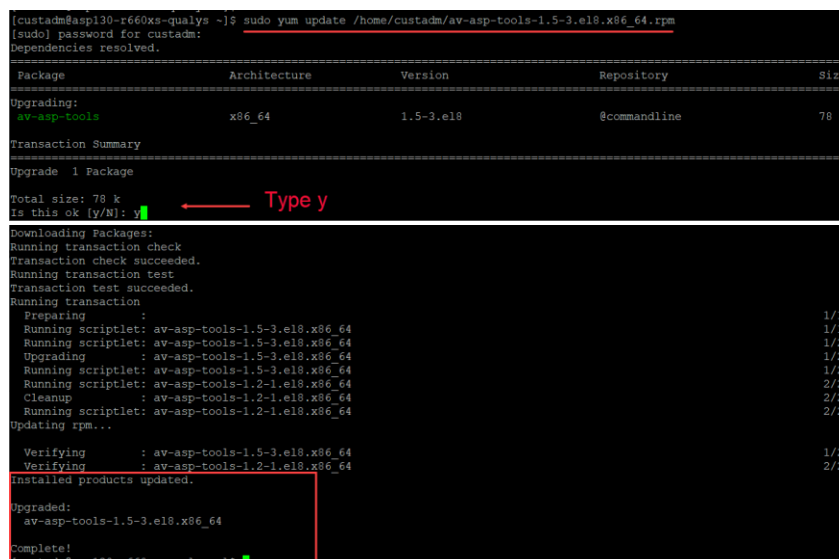
ASP R6.0.0.0 ONLY – Important Consideration:

The update script is not included in the **R6.0.0.0** GA software baseline. Therefore, the `av-asp-tools` RPM must be updated first before attempting to update the KVM on RHEL host.

4.3.1   If not already, log in to the corresponding KVM on RHEL 8.10 host by using a *Secure Shell (SSH)* client e.g., Putty (Not provided by Avaya).

4.3.2   Authenticate using the existing *custadm* credentials.

4.3.3   **ASP R6.0 ONLY** - Execute the following command to update the Avaya `av-asp-tools` rpm:
  ➢ sudo yum **update** /home/custadm/av-asp-tools-1.5-3.el8.x86_64.rpm
  ➢ [sudo] password for custadm: <Type current password for custadm account>
  ➢ Type: Y to continue with asp tool installation.

Output Example

Note: The following images are provided for illustrative purposes only. Versions, package labels,

ASP 6.0.x Output Example

A similar output will be displayed if the Avaya `av-asp-tools` RPM has already been updated on the host.

```
[custadm@asp130-r660xs-qualys ~]$ sudo yum update /home/custadm/av-asp-tools-1.5-3.el8.x86_64.rpm
The same or higher version of av-asp-tools is already installed, cannot update it.
Dependencies resolved.
Nothing to do.
Complete!
[custadm@asp130-r660xs-qualys ~]$
```

4.3.4   Execute the following command to update the KVM on RHEL 8.10 Host:

ASP R6.0 ONLY

➢ `mv /home/custadm/update-asp-all-6.X.X.X.zip /var/lib/libvirt/staging/`

<u>Note:</u> Moving the update bundle ensures there are no duplicate files left on the system.

ASP R6.0 and later

➢ `cd /var/lib/libvirt/staging/`
➢ `pwd >` (Optional) This step helps ensure that the user is in the correct folder location.
➢ `ls -l`

ASP R6.0 Output Example

```
[custadm@asp130-r660xs ~]$ mv /home/custadm/update-asp-all-6.0.0.1.0-04.zip /var/lib/libvirt/staging/
[custadm@asp130-r660xs ~]$ cd /var/lib/libvirt/staging/  ←
[custadm@asp130-r660xs staging]$ pwd  ←
/var/lib/libvirt/staging
[custadm@asp130-r660xs staging]$ ls -l  ←
total 62034380
-rw-r-----. 1 custadm custadm   115637456 Feb 13  2025 update-asp-all-6.0.0.1.0-04.zip  ←
```

ASP R6.0.0.1.0 and later Output Example

```
[custadm@asp130-r660xs-qualys ~]$ cd /var/lib/libvirt/staging/
[custadm@asp130-r660xs-qualys staging]$ pwd  ←
/var/lib/libvirt/staging
[custadm@asp130-r660xs-qualys staging]$ ls -l  ←
total 112932
-rw-r-----. 1 custadm custadm 115639512 Apr  2 09:38 update-asp-all-6.0.0.1.1-02.zip
[custadm@asp130-r660xs-qualys staging]$
```

➢ `asp-update-os update-asp-all-6.X.X.X.zip`

➤ To proceed type: `yes`

Output Example

```
[custadm@asp130-r660xs-qualys staging]$ asp-update-os update-asp-all-6.0.0.1.1-02.zip
Execution logs will be available in: /var/log/asp/update_log_20250402134516.txt
Executing asp-update-os version 1
Temporary work directory used for processing the update bundle: /var/lib/libvirt/staging/UBInstall_20250402134516
Checking bundle compatibility with current script version
Checking update bundle signature
/var/lib/libvirt/staging/UBInstall_20250402134516/rpms/RootSA.txt: OK
Verified OK
The manifest signature has been verified and confirmed to be signed by Avaya.
Checking update bundle applicability on the system
Update bundle (6.0.0.1.1) will be installed on the system.
Checking if workspace partition has sufficient space to expand update bundle
Extracting update bundle
Verifying update bundle checksum
Applying the update bundle is a service-disrupting activity and may require the following actions:
- Shutting down virtual machines (VMs)
- Restarting services
- Rebooting the system

Before proceeding further, please ensure that
- you do not have any other maintenance activity going on, and
- you do not have any other console/ssh session open to this system, and
- you are prepared for service disruption.

Please confirm if you would like to proceed.

Ready to proceed [yes OR no] ? yes       ◀—— Type yes
```

Warning: During the update process, the script will check for running virtual machines (VMs) and will attempt to power them down gracefully. If the script is unable to power off all VMs within the allotted time frame of **300 seconds per VM**, the process will be halted, and manual intervention will be required. **Do not attempt to forcibly shut down VMs unless explicitly instructed by Avaya**, as this could result in data corruption. If the issue persists, we recommend halting the process and contacting Avaya Support for further assistance.

The example below illustrates an update that was halted due to VMs being unable to power off.

```
Updating MOTD messages to reflect ongoing update
Disabling SIGHUP SIGINT SIGQUIT SIGTERM SIGTSTP during update
Executing Common OS preinstall script
Pruning packages not meant for Dell System
Checking installation space requirement based on Size field of RPMs
.........................................

Installation size of packages to-be-installed from the update bundle : 235460302 bytes
Installation size of corresponding removable installed packages      : 209086704 bytes
Additional space required for update bundle packages installation    : 25756 K
Available space in root(/) partition: 6614092 K

Currently running VMs need to be shut down to apply the update.    ◀————
Shutting down RHEL810-fiotester4-209.57 (max wait time 300 seconds)
..10
Shutting down RHEL810-fiotester3-209.57 (max wait time 300 seconds)  ◀————
..10
Shutting down RHEL810-fiotester2-209.57 (max wait time 300 seconds)  ◀————
..10
Shutting down win2k16-test (max wait time 300 seconds)◀————
..10 ..20 ..30 ..40 ..50 ..60 ..70 ..80 ..90 ..100 ..110 ..120 ..130 ..140 ..150 ..160 ..170 ..180 ..
190 ..200 ..210 ..220 ..230 ..240 ..250 ..260 ..270 ..280 ..290 ..300
ERROR: Unable to shut down win2k16-test in 300 seconds  ◀————
INFO: Force terminating VM may cause corruption of the VM's file system in rare cases.
Please shutdown VM(win2k16-test) and other running VMs, and restart update again.    ◀————
FAILURE: Aborting the update bundle installation  ◀————
Starting VMs that were shut down earlier to apply the update bundle
Starting VM (RHEL810-fiotester4-209.57)
Starting VM (RHEL810-fiotester3-209.57)
Starting VM (RHEL810-fiotester2-209.57)
Please check '/var/log/asp/update_log_20250127081339.txt' for execution details.
[custadm@asp130-r640 staging]$
```

➤ System starts updating.

The example below illustrates an update where the script successfully powered off any running VMs on the host.

<u>Note:</u> The following images are provided for illustrative purposes only. Versions, package labels, sizes, and dependencies may vary with each update.

```
Ready to proceed [yes OR no] ? yes ◄─────
Updating MOTD messages to reflect ongoing update
Disabling SIGHUP SIGINT SIGQUIT SIGTERM SIGTSTP during update
Executing Common OS preinstall script
Pruning packages not meant for Dell System
Checking installation space requirement based on Size field of RPMs
.........................................

Installation size of packages to-be-installed from the update bundle : 235460302 bytes
Installation size of corresponding removable installed packages     : 209086704 bytes
Additional space required for update bundle packages installation    : 25756 K
Available space in root(/) partition: 6614092 K

Currently running VMs need to be shut down to apply the update. ◄─────
Shutting down RHEL810-fiotester4-209.57 (max wait time 300 seconds) ◄─────
..10
Shutting down RHEL810-fiotester3-209.57 (max wait time 300 seconds) ◄─────
..10
Shutting down RHEL810-fiotester2-209.57 (max wait time 300 seconds) ◄─────
..10
Updating the system packages. Please wait. ◄─────
Last metadata expiration check: 2:25:08 ago on Mon 27 Jan 2025 06:50:24 AM MST.
Package av-asp-tools-1.5-1.el8.x86_64 is already installed.
Dependencies resolved.
=================================================================================
 Package              Arch      Version                     Repository      Size
=================================================================================
Installing: ◄─────
 audispd-plugins      x86_64    3.1.2-1.el8                 @commandline    54 k
 fapolicyd            x86_64    1.3.2-1.el8                 @commandline   141 k
 fapolicyd-selinux    noarch    1.3.2-1.el8                 @commandline    28 k
 kernel               x86_64    4.18.0-553.34.1.el8_10      @commandline    10 M
 kernel-core          x86_64    4.18.0-553.34.1.el8_10      @commandline    43 M
 kernel-modules       x86_64    4.18.0-553.34.1.el8_10      @commandline    36 M
 libqb                x86_64    1.0.3-13.el8_7              @commandline   113 k
 mailx                x86_64    12.5-29.el8                 @commandline   257 k
 opensc               x86_64    0.20.0-8.el8_9             @commandline    1.3 M
 pcsc-lite            x86_64    1.9.5-1.el8                 @commandline   110 k
 pcsc-lite-ccid       x86_64    1.4.29-5.1.el8_4           @commandline   316 k
 pcsc-lite-libs       x86_64    1.9.5-1.el8                 @commandline    43 M
 perccli              noarch    007.2616.0000.0000-1        @commandline    2.1 M
 postfix              x86_64    2:3.5.8-7.el8               @commandline    1.5 M
 protobuf             x86_64    3.5.0-15.el8                @commandline   892 k
 rng-tools            x86_64    6.16-1.el8                  @commandline    80 k
 rpm-plugin-fapolicyd x86_64    4.14.3-31.el8              @commandline    79 k
```

The example below illustrates an update where the script did not detect any running VMs on the host.

```
Ready to proceed [yes OR no] ? yes
16-Jan-2025 14:04:47: Updating MOTD messages to reflect ongoing update
16-Jan-2025 14:04:47: Disabling SIGHUP SIGINT SIGQUIT SIGTERM SIGTSTP during update
16-Jan-2025 14:04:47: Executing Common OS preinstall script
16-Jan-2025 14:04:47: Pruning packages not meant for Dell System
16-Jan-2025 14:04:47: Checking installation space requirement based on Size field of RPMs
.........................................

Installation size of packages in the update bundle: 234855095 bytes
Installation Size of corresponding installed packages: 208481513 bytes
Additional space required for update bundle packages installation: 25756 K
Available space in root(/) partition: 7671452 K

16-Jan-2025 14:04:57: Currently running VMs need to be shut down to apply the update.
16-Jan-2025 14:04:57: Updating the system packages. Please wait.
Package av-asp-tools-1.4-11.el8.x86_64 is already installed.
Dependencies resolved.
=================================================================================
 Package              Arch      Version                     Repository      Size
=================================================================================
Installing:
 audispd-plugins      x86_64    3.1.2-1.el8                 @commandline    54 k
 fapolicyd            x86_64    1.3.2-1.el8                 @commandline   141 k
 fapolicyd-selinux    noarch    1.3.2-1.el8                 @commandline    28 k
 kernel               x86_64    4.18.0-553.34.1.el8_10      @commandline    10 M
 kernel-core          x86_64    4.18.0-553.34.1.el8_10      @commandline    43 M
 kernel-modules       x86_64    4.18.0-553.34.1.el8_10      @commandline    36 M
 libqb                x86_64    1.0.3-13.el8_7              @commandline   113 k
 mailx                x86_64    12.5-29.el8                 @commandline   257 k
 opensc               x86_64    0.20.0-8.el8_9             @commandline    1.3 M
 pcsc-lite            x86_64    1.9.5-1.el8                 @commandline   110 k
```

➢ Once completed, the system will automatically reboot.

The example below illustrates a complete update where no VMs were running on the host during the activity.


```
Complete!
SUCCESS: Update bundle version 6.0.0.1.1 has been applied successfully. ←
The system is now being rebooted. ←
```

The example below illustrates an update where VMs were gracefully powered off by the script during the activity.


```
Complete!
Updated applied bundle information in '/etc/opt/avaya/avaya-asp.upd'.
SUCCESS: Update bundle version 6.0.0.1.0 has been applied successfully.
Following VMs were shut down earlier to apply the update bundle.
Please ensure that these are started after system reboot.
RHEL810-fiotester4-209.57
RHEL810-fiotester3-209.57
RHEL810-fiotester2-209.57
Rebooting system now ←
```

Note: Virtual machines (VMs) that are listed must be started manually. The ASP update script does not preserve the VM's state prior to the host update. Avaya strongly suggest configuring the auto-start feature to reduce application down time.

Note: Virtual machines (VMs) that were shut down manually by the user, rather than by the update script, will not be listed and will not automatically power on unless auto-start has been configured for them. Avaya strongly suggest configuring the auto-start feature to reduce application down time.

Warning!

Avaya follows Red Hat's recommended practice of retaining the two latest kernel versions after applying a kernel update. Upon reboot, the latest kernel becomes the default and is used to automatically boot Red Hat Enterprise Linux.

Avaya strongly advises against modifying the boot menu or selecting a previous kernel version during boot, as doing so may result in an unsupported configuration and could expose the system to security vulnerabilities associated with the older kernel version.


```
Red Hat Enterprise Linux (4.18.0-553.34.1.el8_10.x86_64) 8.10 (Ootpa) ←
Red Hat Enterprise Linux (4.18.0-553.22.1.el8_10.x86_64) 8.10 (Ootpa) ←
Red Hat Enterprise Linux (0-rescue-8ad8bcbfc6da409faba91f69781d8f26) 8.1► ←


Use the ▲ and ▼ keys to change the selection.
Press 'e' to edit the selected item, or 'c' for a command prompt.
The selected entry will be started automatically in 4s. ←  5 sec countdown
```

4.4 Validating the KVM on RHEL Host Update

Note: Allow ~5 mins for ASP Server to fully reboot and be reachable over the network before attempting to reconnect.

4.4.1 Log in to the corresponding KVM on RHEL 8.10 host by using a *Secure Shell (SSH)* client e.g., Putty (Not provided by Avaya). Authenticate using `custadm` credentials.

4.4.2 Execute the following command to validate system version: `swversion`

Note: At this stage it is expected to have the KVM on RHEL host updated to the corresponding build number. If the version on the updated host does not match the intended version **STOP!** and restart the update process from the beginning prior to continuing with the next server.

Note: The following output is just a representation and should only be used as an example.

```
[custadm@asp130-r660xs ~]$ swversion
             Operating system:  Linux 4.18.0-553.52.1.el8_10.x86_64
          Kernel Build Date:  May 5 10:03 2025

                    Contains:  Avaya Solutions Platform
                    Release:  ASP Release 6.0.0.0.0
             Build Number:  4.6-4.8
           Update Version:  6.0.0.2.0
  Update Installation Date:  May 21 2025 13:01 UTC
Virtualization Environment:  KVM
```

4.4.3 Execute the following command to validate the Avaya av-asp-tools running on the system:
- `rpm -qa | grep av-asp`

Note: The following output is just a representation and should only be used as an example.

```
[custadm@asp130-r660xs ~]$ rpm -qa | grep av-asp
av-asp-tools-1.7-1.el8.x86_64
```

4.4.4 **As a good practice,** remove any previous and current ASP update bundle files, including av-asp-tools from the host before disconnecting.

4.4.5 When applicable, repeat entire procedure to the next KVM on RHEL 8.10 host. To minimize service impact always conduct system updates with one server at a time.

5 Licensing Procedure

With the introduction of KVM on RHEL 8.10, a specific license key is no longer required, unlike ASP R5.1.x and earlier versions running ESXi. However, it is crucial for customers to maintain a record in PLDS for every server, as both customers and Avaya will be subject to audits to ensure that right-to-use royalties have been paid.

Finding documents on the Avaya Support website

Procedure

1. Go to https://support.avaya.com.
2. At the top of the screen, type your username and password and click **Login**.
3. Click **Support by Product > Documents**.
4. In **Enter your Product Here**, type the product name and then select the product from the list.
5. In **Choose Release**, select the appropriate release number.
   The **Choose Release** field is not available if there is only one release for the product.
6. In the **Content Type** filter, click a document type, or click **Select All** to see a list of all available documents.
   For example, for user guides, click **User Guides** in the **Content Type** filter. The list only displays the documents for the selected category.

7. Click **Enter**.

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Using the Avaya Documentation Center, you can:

- Search for keywords.
  To filter by product, click **Filters** and select a product.

- Search for documents.
  From **Products & Solutions**, select a solution category and product, and then select the appropriate document from the list.

- Sort documents on the search results page.
- Click **Languages** to change the display language and view localized documents.
- Publish a PDF of the current section in a document, the section and its subsections, or the entire document.
- Add content to your collection using **My Docs** (☆).
  Navigate to the **Manage Content > My Docs** menu, and do any of the following:

  - Create, rename, and delete a collection.
  - Add topics from various documents to a collection.
  - Save a PDF of the selected content in a collection and download it to your computer.
  - Share content in a collection with others through email.
  - Receive collection that others have shared with you.
- Add yourself as a watcher using the **Watch** icon (👁).
  Navigate to the **Manage Content > Watchlist** menu, and do the following:

  - Enable **Include in email notification** to receive email alerts.

- Unwatched selected content, all content in a document, or all content on the **Watch list** page.

As a watcher, you are notified when content is updated or deleted from a document, or the document is removed from the website.

- Share a section on social media platforms, such as Facebook, LinkedIn, and X.
- Send feedback on a section and rate the content.

NOTE: Some functionality is only available when you log in to the website. The available functionality depends on your role.

Support

Go to the Avaya Support website at http://support.avaya.com for the most up-to-date documentation, product notices, and knowledge articles. You can also search for release notes, downloads, and resolutions to issues. Use the online service request system to create a service request. Chat with live agents to get answers to questions or request an agent to connect you to a support team if an issue requires additional expertise.