



Application Note for ASP R5.1.x to ASP R6.0.x Configuration Migration Utility

Contents

Chapter 1: Introduction3

 Purpose3

 Change history4

 Overview.....4

 Migration Best Practices/Prerequisites5

Chapter 2: Backup Application (VM) configuration.....7

Chapter 3: Identify Host level configuration that is not covered by the utilities7

Chapter 4: Export configuration parameters from ASP R5.1.x (ESXi 7) host using export utility.....8

Chapter 5: Prepare ASP Host server for ASP R6.0.x installation 10

Chapter 6: Import configuration parameters to the ASP R6.0.x host using import utility 11

Chapter 7: Deploy Application VMs and restore backup 15

Chapter 1: Introduction

Purpose

This document provides instructions and utilities to facilitate the migration of ASP host-level parameters from ASP R5.1.x (ESXi 7.0U3) to ASP R6.0.x (KVM on RHEL 8.10). Solutions on ASP 130 R4.0.x, R5.0.x must first update to the latest available ASP R5.1.x release to utilize these utilities.

This document is applicable for both ASP 130 R5.1.x and ASP S8300 R5.1.x.

The instructions are applicable for an in-place migration where the same physical hardware is being used or in the case where new hardware is required due to the existing R640 being undersized. The only supported migration scenarios are.

FROM	TO
ASP R5.1.0.7 (or latest available) on Dell R640	ASP R6.0.0.0 -> ASP R6.0.0.2 (or latest available) on Dell R640
ASP R5.1.0.7 (or latest available) on Dell R640	ASP R6.0.0.0 -> ASP R6.0.0.2 (or latest available) on Dell R660xs (if new hardware is required)
ASP R5.1.0.7 (or latest available) on S8300	ASP R6.0.0.0 -> ASP R6.0.0.2 (or latest available) on S8300

Notes:

- Supported as a catastrophic migration. Host server is remastered from ESXi to KVM on RHEL (ASP R6.0.0.0) and then updated to ASP R6.0.0.2.
- Required Initialization and service configuration tools *av-asp-tools-1.5-3.el8.x86_64.rpm* deployed.
- No need to execute *configNetwork* – any data entry will be replaced with the import utility.
- Must execute *configSnmp* script after the import to complete configuration and set all monitoring rules (cpu/memory/disk).
- ASP R6.0.0.2 or greater installed.

Reference the following Release Notes for the latest versions:

ASP R6.0.x Release Notes
ASP 130 6.0.x Release Notes
ASP S8300 6.0.x Release Notes
ASP R5.1.x Release Notes
Avaya Solutions Platform 130 5.1.x Release Notes
Avaya Solutions Platform S8300 Release 5.1.x Release Notes

These utilities are only applicable to the host configuration. Reference applicable application specific documentation for application-level migration.

Change history

Issue	Date	Summary of changes
1	September 2025	Initial Publication
2	October 23, 2025	Updated to reflect export utility will fail if IPv6 is disabled.

Overview

Migrations are catastrophic. Several steps are required prior to a catastrophic migration, including backing up host and application-level data. The migration utilities include export and import functionality. They are provided in a zip file (*asp_migration_utility-v1.zip*) on PLDS and will need to be extracted to the individual components. PLDS requires a unique PLDS ID if the same file is located under multiple Releases/Versions, therefore the following is posted on PLDS:

Downloads

Release	PLDS ID	File name	Extracted Utilities
ASP 130 R5.1.x	ASP000000032	asp_migration_utility-v1.zip	host_config_export_v1.py host_config_import_v1.py
ASP 130 R6.0.x	ASP000000048		
ASP S8300 R5.1.x	ASP000000118		
ASP S8300 R6.0.x	ASP000000135		

Please validate checksums listed on PLDS when downloading before proceeding.

The intent is to facilitate the ASP R5.1.x (ESXi 7.0) host migration to ASP R6.x (KVM on RHEL 8.10). The goal is that the migration utilities will work for the majority of customers; however, some customer configurations will require additional or full manual configurations.

For example, customers on ASP R5.1.x with the following configurations will require additional manual configuration:

- Multiple vSwitch configurations
- NIC Teaming
- Third party CA signed certificates (including SMGR signed certificates)

- Only the following single VLANs will get configured during the import process. **Any other configured VLANs will need to be manually configured:**
 - In-band management (Management Network port group) VLAN
 - Out of band management network (OOB Management Network port group) VLAN
 - Reference [Application Note For ASP 130 VLAN & VLAN TRUNKING CONFIGURATION GUIDE-Rev1](#) for additional information for configuration on ASP R6.0.x.
- IPv6 configuration does not get imported although it is captured in the export process and can be utilized for manual configuration.

NOTE: If IPv6 has been disabled, the export utility will not work and fail with a message similar to the following:

```
An unexpected error occurred:
'NoneType' object has no attribute 'dhcpV6Enabled'
Export failed.
```

NOTE: The export utility can also be utilized as a best practice in existing ASP R5.1.x solutions to ensure easy access to configuration data in the event a remaster or server swap of the ASP R5.1.x server is necessary.

Migration Best Practices/Prerequisites

1. It is imperative that only Avaya ASP certified applications be deployed on ASP host servers. Installation of any other applications will result in an unsupported configuration.
2. The A1SC configuration must be utilized to determine if the current configuration will be supported on the ASP R6.x software baseline.
3. In some cases, additional hardware (HDDs) and/or additional server(s) (R660xs) may be necessary to support application performance as there are differences in performance for applications running on ESXi vs KVM on RHEL. In a migration scenario, additional Hard Drives will be required for the existing Dell R640 Profiles 2, 3, 4. Reference [PSN020640u](#) - Avaya Solutions Platform R6.0.x Introduction for additional details.
4. If A1SC configuration results in multiple servers, applications must be deployed based on the configurator output.
5. While the export utility will capture the following information, it is best practice to have it written down for recovery purposes:

- Copy of ESXi Host IP and Naming Conventions
 - Copy of ESXi Host SNMP configuration
6. Best practice would include having the following available for recovery purposes.
- Latest ASP 130 R5.1.x ISO on your laptop/computer (ASP R5.1.0.7 latest available as of August 2025).
 - Copy of ASP R5.1.x License Key
7. Backup of ESXi host configuration for Recovery. Move this backup from the host to a different location.
- Reference the “*Backing up the VMware ESXi Configuration*” section as documented in the [*Installing the Avaya Solutions Platform 130 Series*](#) and the [*Installing, Maintaining, and Troubleshooting Avaya Solutions Platform S8300*](#) guides.
8. Make note and capture all of the Avaya Application IP Addresses and Naming conventions.
9. Assess Avaya application certificates as new certificates will likely be required.
10. Backup all Avaya Applications specific data off the host.
11. Obtain current Avaya Application Software OVA/ISO, Service Pack, Patches and SSPs in case recovery/fallback is needed.
12. Execute *export utility*.
13. VGA Monitor and USB Keyboard.
14. Update Dell R640 BIOS/FW to v16 or later for in place migration. Update Dell R660xs BIOS/FW to v2 or later. Always reference support.avaya.com for the latest Avaya certified R640/R660xs BIOS/FW PSN.
15. Order 2 HDDs for ASP 130 R5.1.x if performing in place migration on ASP 130 Dell R640 Hardware Profiles 2, 3, and 4.
16. RAID Reconfiguration is required for ASP 130 R5.1.x Profile 2, 3, 4, 5 and 51
17. Obtain the Avaya Application KVM OVA/bin/qcow2 file(s) necessary for migration to ASP R6.0.x. This includes Avaya Application Feature/Service Packs, Security Service Packs, hot fixes, etc.

18. New certificates will be required for the ASP R6.0.x host. Refer to Chapter 10: *Certificate Administration* of [Installing the Avaya Solutions Platform 130 Series Document](#) Release 6.0.x.

19. Obtain the following:

- ASP 130 R6.0 installation media and transfer to laptop that will be used for installation.
- Formatted USB drive required for creation of installation media.
- Latest Service Pack (6.0.0.2.0 is current as of July 2025).
- Always reference the ASP R6.x Release Notes and PCNs for the latest available software:

	PCN	Release Notes
ASP 130 R6.0.x	PCN2173Su	ASP 130 Release Notes
ASP S8300 R6.0.x	PCN2174Su	ASP S8300 Release Notes

Note: After deployment of the R6.0 ISO, **prior** to installing the first R6.0 service pack for the first time, *av-asp-tools-1.5-3.el8.x86_64.rpm* needs to be installed first. This updated asp tools not only installs a host update script, but it also creates a */var/lib/libvirt/staging* directory with proper write/read privileges to transfer files to the host.

Chapter 2: Backup Application (VM) configuration

Reference individual application documentation on support.avaya.com for details on backup procedures as well as required configuration details that must be captured. Ensure application-level backups are stored externally as the server's HDDs will be cleared.

Chapter 3: Identify Host level configuration that is not covered by the utilities

Document any host level configuration (as referenced earlier in this document) as that information is not covered by the utilities and some manual configuration will be required. The export utility will capture the details, but the import utility will not configure those items.

Chapter 4: Export configuration parameters from ASP R5.1.x (ESXi 7) host using export utility

1. The migration utilities include export and import functionality. There is a separate utility for each:

Export Utility	<i>host_config_export_v1.py</i>
Import Utility	<i>host_config_import_v1.py</i>

They are provided in one zip file (*asp_migration_utility-v1.zip*) on PLDS and will need to be extracted to the individual components. Reference [Chapter 1, Overview section](#) of this document for the PLDS IDs.

2. **Copy the Export Utility to the ASP R5.1.x host server:**

- Ensure ESXi Shell and SSH are enabled on the host.
- Connect to the host using a file transfer software like WinSCP. Use *root* (or equivalent) credentials.
- Navigate to */tmp* on the ASP R5.1.x ESXi host. Copy the downloaded export utility from your local machine to the */tmp* directory on the host.

NOTE: Files in the */tmp* directory do not persist across a host reboot, therefore, make sure to copy the **output json file** of the export utility from the host to an external location as soon as possible.

3. **Login to the ASP R5.1.x host server**

- Use *root* (or equivalent) credentials to log in to the ASP R5.1.x ESXi Shell using an SSH terminal software like Putty.
- Change to the */tmp* directory where you copied the export utility in step 2 above.

4. **Execute the Export Utility:**

- Run the export utility using the command format:

```
python host_config_export_v1.py localhost <username> <exportASPR5_hostname>.json
```

 - Example where hostname is *MYASP130*:

```
python host_config_export_v1.py localhost root exportASPR5_MYASP130.json
```

- It is recommended to have the hostname as part of the file name so that it can be identified easily in case you are going to collect export files from multiple hosts.
- The “.json” extension is REQUIRED for the output filename.
- The utility will prompt for the user password (*root* or equivalent). Type the password and press ‘Enter’.
- The configuration will get saved (in JSON format) to the specified filename in the */tmp* directory.
- Export Utility Output example:

Information saved to exportASPR5_MYASP130.json

5. Copy the Export file from the ASP R5.1.x host server:

- Connect to the host using a file transfer software like WinSCP.
- Navigate to the */tmp* directory where the export file was generated.
- Copy the export file from the host to your local machine or a secure location.

6. Below is a list of all exported data included in the json file:

- Hostname
- Network information
 - IPv4 Default Gateway
 - IPv6 Default Gateway
 - In-band management (Management Network port group) VLAN
 - Out of band management network (OOB Management Network port group) VLAN
 - DNS Servers and Search domain
 - Physical NICs and their details
 - Virtual NICs and their details
 - Port Groups and their details
 - Virtual Switches and their details

- NTP configuration
- SNMP v2/v3 configuration

NOTE:

- SNMP v3 authentication and privacy passwords are NOT captured.
- The Hostname fields displayed in the SNMP configuration section in the json file are used to describe the hostname or IP address of the trap and inform destination targets.

- Additional information:
 - Hypervisor information
 - License information
 - Networks
 - NTP Configuration
 - The json file output will reference “Time Configuration”.
 - System wide Auto Start configuration for ESXi only.

Chapter 5: Prepare ASP Host server for ASP R6.0.x installation

1. Ensure ASP 130 Server’s BIOS/FW is updated to the latest available.
 - a. For in-place migration on a Dell R640, ensure the BIOS/FW is updated to latest Avaya Certified BIOS/FW ([PSN027112u](#) - Avaya Solutions Platform 100 Series Dell® R640 Avaya Certified BIOS/Firmware Update, Version 16 as of July 2025).
 - b. For a migration that requires new Dell R660xs hardware, ensure the BIOS/FW is updated to latest Avaya Certified BIOS/FW ([PSN027113u](#) - Avaya Solutions Platform 100 Series Dell® R660xs Avaya Certified BIOS/Firmware Update, Version 2 as of July 2025).

NOTE: Migration will wipe out all data on the ASP R5.1.x host as this is a catastrophic migration. For ASP 130 Dell R640 hardware, ensure that the configuration has been updated as necessary (two additional Hard Drives required for Hardware Profile P2, P3, P4).

2. Utilize the ASP 130 and/or ASP S8300 R6.0.x software obtained in earlier step 19 in the *Migration Best Practices/Prerequisites* section of this document.
3. Before proceeding, review the latest ASP R6.0.x PCN, Release Notes, Upgrade and Installation documents
4. Verify before proceeding that the ASP R6.x software obtained in the Prerequisites section of this document is the latest based on the information in the PCN, Release Notes and Upgrade documents.
5. Follow the instructions in *Chapter 9: Performing server recovery and/or software remastering* of the [Installing the Avaya Solutions Platform 130 Series Document Release 6.0.x](#) as this chapter contains the instructions for a fresh deployment of ASP R6.0.x (KVM on RHEL 8.10).

Chapter 6: Import configuration parameters to the ASP R6.0.x host using import utility

Notes:

- There is always the option to utilize the export utility output for manual input to the *configNetwork* utility that launches at first boot in deployment of ASP R6.0.x. The export output json file can be opened with a text editor (vi on Linux, notepad or word on Windows, etc.).
 - If utilizing the import utility, one should set the *root* and *custadm* passwords at first boot, accept the EULA and determine if EASG is enabled. Do not make any additional data entry. Simply hit enter on each of the questions presented by the *configNetwork* utility. The import utility will populate most of these values in the steps below. If entries are made during the *configNetwork* utility, they will be overwritten during the import.
1. **After first boot has completed, and the system has been updated to ASP R6.0.0.2 (or later), copy the Import Utility to the ASP R6.0.x host server:**
 - Connect your laptop to the Services Port NIC of the host server.
 - Connect to the host using a file transfer software like WinSCP. Use *custadm* user credentials.
 - Navigate to the */var/lib/libvirt/staging* directory on the ASP R6.0.x host.

- Copy the downloaded import utility `host_config_import_v1.py` from your local machine to the `/var/lib/libvirt/staging` directory on the ASP R6.0.x host.
- Copy the export json file (e.g. `exportASPR5_MYASP130.json`) that was previously created on the ASP R5.1.x host to the `/var/lib/libvirt/staging` directory.

2. Login to the ASP R6.x host:

- Use your *custadm* credentials to log in to the host using an SSH terminal software like PuTTY.
- Change to the `/var/lib/libvirt/staging` directory where you copied the import utility and export json file in earlier step.

3. Execute the Import Utility:

- Run the import utility using the command format:

```
sudo python3 host_config_import_v1.py <export_file>
```

Example:

```
sudo python3 host_config_import_v1.py exportASPR5_MYASP130.json
```

- Provide your *custadm* password when prompted by sudo.
- Read the displayed prompts and instructions carefully.

WARNING: This utility is intended to be run on a freshly installed machine.
It will import configuration settings and make/overwrite changes to the system configuration.

Do you want to proceed with the execution? (yes/no):

- If the import utility is executed by mistake or some pre-requisites are not met, cancel by typing *no* and exit from the utility.
- Otherwise, type *yes* to proceed.
- Check the output to verify that the import utility has finished without errors.

Output example on the following page.

```

Proceeding with execution...

Configuring Host Name:
  Host Name set to: asp130-r640
Configuring Network:
  Configuring Management Network:
    Custom VLAN ID not there. Proceed without VLAN configuration.
    Bridge bridge0: IP initialization successful.
      IP Address: 10.10.10.10/22
      Default IPv4 Gateway: 10.10.10.1
      IPv4 DNS Servers: 198.152.1.1 198.152.1.2
      IPv4 DNS Search Domain: domain.com
    Connection Mgmt_VM_Network activated.
    Removed cockpit auto-generated certificate files.
Configuring NTP:
  Sources: 198.152.1.1 198.152.1.2
  NTP enabled.
Configuring SNMP:
  System Location configured: Thornton,CO
  System Contact configured: tester@test.com
  No SNMP Read-Only Community Strings configured.
  No SNMP Trap Destinations configured.
  SNMPv3 User created: avaya
  SNMPv3 Remote User created:
    Note: Security Level from import data is unsupported and has
    been changed to AuthPriv (priv)
    Note: Authentication protocol from import data is unsupported
    and has been changed to SHA1 (SHA)
    Note: Privacy protocol from import data is unsupported and has
    been changed to AES128 (AES)
  SNMPv3: Trap destination configured: 10.1.2.3:162 avaya
  SNMP agent service restarted and enabled. Further configuration
  required.
  [Note]: The command configSnmp needs to be run after this import
  finishes in order to complete the remaining SNMP configuration.

```

NOTE:

- During the import process the authentication password is set to **avaya123** and privacy password is set to **avaya123*^!**. These must be changed to the desired ones using the *configSnmp* utility.
- The *configSnmp* utility **MUST** be executed regardless of SNMP v2 or V3.
- There is no need for a reboot of the system.

4. Additional Post-import configuration:

Details for commands referenced below can be found in the [Installing the Avaya Solutions Platform 130 Series R6.0.x](#) and [Installing Maintaining and Troubleshooting Avaya Solutions Platform S8300 R6.0.x](#) documents.

- If OOBM configuration was imported then utilize the *configNetwork* utility to make changes or do additional configuration.
- If SNMP configuration (v2 and/or v3) was imported then the *configSnmp* utility **MUST** be executed for completing the SNMP configuration initialization.
- SNMPv3 configurations require the execution of the *configSnmp* utility to change the authentication and privacy passwords of the imported SNMP v3 users to the correct password values. ASP R6.x supports SNMPv3 users with security level AuthPriv only. You will need to change the SNMPv3 user configuration in your SNMP Manager and/or SNMP Trap Receiver to match what is configured in the *configSnmp* utility.

5. Below is a list of data that is imported and overlaid on the factory default installation “values”.

- Hostname with domain.
- IPv4 Address/Netmask/Default Gateway for **bridge0**.
- IPv4 Address/Netmask/Default Gateway for **bridgeOOB** if OOBM configuration was imported. **bridge0** IP Address is disabled.
- In-band management (Management Network port group) VLAN for bridge0
- Out of band management network (OOB Management Network port group) VLAN for bridgeOOB.
- DNS Servers and Search domain.
- NTP configuration.
- SNMP configuration
 - SNMP v2 read-only communities
 - SNMPv2 trap destinations
 - SNMP v3 users
 - SNMP v3 trap destinations
 - SNMP v3 remote users and inform destinations

Chapter 7: Deploy Application VMs and restore backup

Reference individual Avaya application documentation for details on deployment of KVM images, configuration procedures and restoration of Avaya application-level backups. Ensure that Avaya applications are deployed based on output from the A1SC configurator.