Working with Protocol Packs

NBAR2 Protocol Pack Overview

NBAR2 Protocol Pack 40.0.0 contains new protocols, improvements to classification of protocols.

Protocol Pack Compatibility

NBAR2 Protocol packs are released for specific NBAR engine versions. You can load an NBAR2 protocol pack only if the NBAR engine version that is used in the Cisco Wireless release is the same as or higher than the engine version that the protocol pack is released for. However, we recommend that you use the protocol pack that is the exact match for the engine.

Table 1: Compatibility Table

WLC Software Release	NBAR Engine Used	Protocol packs released for the NBAR engine used
8.10	NBAR engine 34	• 40.0.0 (built-in)
8.9	NBAR engine 31	• 37.0.0 (built-in)
8.8	NBAR engine 31	• 37.0.0 (built-in)
8.7	NBAR engine 23	• 19.1.0 (built-in) • 24.0.0 (Optional upgrade)
8.6	NBAR engine 23	• 19.1.0 (built-in) • 24.0.0 (Optional upgrade)
8.5	NBAR engine 23	• 19.1.0 (built-in) • 24.0.0 (Optional upgrade)
8.4	NBAR engine 23	• 19.1.0 (built-in) • 24.0.0 (Optional upgrade)
8.3	NBAR engine 23	• 19.1.0 (built-in) • 24.0.0 (Optional upgrade)
8.2	NBAR engine 23	• 14.0.0

WLC Software Release	NBAR Engine Used	Protocol packs released for the NBAR engine used
8.1 8.0	NBAR engine 16	• Protocol packs compatible with NBAR engine 13 • 9.0.0 (comes only built-in, in 8.0) • 11.0.0 • 12.0.0
7.6 7.5	NBAR engine 13	• 4.1.1 • 6.3.0 • 6.4.0

Note Consider a Cisco WLC running a 7.6 or older software release, loaded with a compatible protocol pack. If this controller is upgraded to software release 8.0, then it starts using protocol pack 9.0.0, which comes in-built in 8.0 release. Also you can choose to download the protocol pack 11.0.0, that gets loaded onto the Cisco WLC instead of 9.0.0. However, if you revert to the older software release, then the older protocol pack that is loaded for that release is loaded again.

Note If you try to load an incompatible protocol pack on a controller, it is rejected with an error message stating that the protocol pack is incompatible with the underlying NBAR software version. Any existing protocol pack on the controller, continues to remain active.

Cisco Access Points NBAR Support

The NBAR engine and Protocol Pack supported on the Cisco Access Points for this release is listed in the table.

Table 2: Support for NBAR Engine and Protocol Pack on Cisco APs

Cisco Access Points	NBAR Engine Version	Protocol Pack Version
Cisco Access Points	34	40

Downloading NBAR2 Protocol Packs

Use only the tested and certified protocol packs which are released on cisco.com. You can download these protocol packs from this location:

http://software.cisco.com/download/navigator.html

A protocol pack is numbered in a similar format:

pp-AIR-8.10-**(NBAR Engine Number)-(Protocol Pack Version)** pack.

For example, the Cisco Wireless Release 8.10 uses NBAR engine version 34. Hence, protocol packs released for Release 8.10 has the numbering that is similar to this:

pp-AIR-8.10-**34**-40.0.0.pack

Loading an NBAR2 Protocol Pack

Using FTP or TFTP, you can download newer versions of protocol packs into the controller.

Note You are recommended to download protocol packs into the controller only during maintenance. This is because during download the CPU usage will be quite high, which may cause disruptions in the network. It takes no more than three minutes for the download to complete and for the protocol pack to become operational. You do not need to reboot the controller after the download.

Step 1 Enter this command to download a protocol pack:

transfer download datatype *avc-protocol-pack*

Information that is similar to the following is displayed:

```
Mode............................................ FTP
Data Type....................................... AVC Protocol Pack
FTP Server IP................................... xx.xxx.xxx.xx
FTP Server Port................................. 21
FTP Path........................................ <directory path>
FTP Filename.................................... pp-AIR-8.10-34-40.0.0.pack
FTP Username.................................... cisco
FTP Password.................................... *********

Starting transfer of AVC Protocol Pack

This may take some time.
Are you sure you want to start? (y/N)
```

Step 2 Answer **y** at the prompt to start the download.

Viewing the Protocol Pack and AVC Engine Details

Protocol Pack Details

To view the name and version of the loaded protocol pack, enter this command:

show avc protocol-pack version

Information that is similar to the following is displayed:

```
AVC Protocol Pack Name: Advanced Protocol Pack
AVC Protocol Pack Version: 40.0.0
```

AVC Engine Details

Note   An NBAR2 protocol pack can be installed on a device only if the NBAR engine version on the platform is the same as or later than the version required by the NBAR2 protocol pack.

To view the AVC engine version which the controller is using, enter this command:

show avc engine version

Information that is similar to the following is displayed:

```
AVC Engine Version: 34
```