CHAPTER 3

AVC Licensing and Feature Activation

This chapter addresses Cisco AVC licensing and includes the following topic(s):

- Licensing and Feature Activation, page 3-1

Licensing and Feature Activation

Activating full Cisco AVC functionality on supported platforms may require additional feature licensing and activation. See AVC Supported Platforms, page A-1 for information about supported platforms.

Feature activation is accomplished differently for different platforms. See the following sections for details:

- AVC Licensing for Cisco ASR 1000 Series Routers, page 3-2
- AVC Licensing for Cisco CSR 1000V, page 3-3

AVC Functionality

The AES or AIS license adds advanced AVC functionality, as summarized in Table 3-1.

Table 3-1   AVC feature licensing

Feature	Without Additional Licensing	With AES or AIS Licensing
NBAR[1] Protocol Pack	Standard	Advanced
NBAR custom protocols	Not available	Available
NBAR customization of application protocol attributes	Not available	Available
NBAR HTTP field extraction	Not available	Available
NBAR IPv6 tunneling	Not available	Available
WAAS[2]	Not available	Available

1. NBAR = Cisco Network Based Application Recognition
2. WAAS = Cisco Wide Area Application Services

Required IOS XE Image and License

Table 3-2 describes the IOS XE image and the license required to activate full AVC functionality for supported models.

Table 3-2   Image/License required for AVC functionality

Platform	IOS XE image required for AVC functionality	License	Temporary licence activation supported
Cisco ASR 1001 Cisco ASR 1002-X	Universal	AES[1] or AIS[2]	Yes
Cisco ASR 1000 Series routers other than ASR 1001 and ASR 1002-X **Note**: These platforms are also provided with the IPBASE image, which does not include AVC functionality.	AES or AIS	AES or AIS **Note**: This license is typically bundled with the AIS or AES image.	No
Cisco CSR-1000V Cloud Services Router	AES	AES **Note**: The AES license is typically bundled with the AES image provided with the platform.	No

1. AES = Advanced Enterprise Services

2. AIS = Advanced IP Services

AVC Licensing for Cisco ASR 1000 Series Routers

See Table 3-2 for information about the IOS XE image and the license required to activate full AVC functionality.

For additional information about purchasing and installing the AES or AIS license for Cisco ASR 1000 series routers, see:

- *Software Activation Configuration Guide, Cisco IOS XE Release 3S*
- *Cisco ASR 1000 Series Aggregation Services Routers Ordering Guide*

Temporary Activation/Deactivation of the AES or AIS License

Cisco ASR 1001 and Cisco ASR 1002-X routers support temporary activation of AES or AIS features before obtaining a license, using the `license boot level` CLI command. Activating either of these feature sets provides full AVC functionality.

Note   Cisco ASR 1000 series models other than Cisco ASR 1001 and Cisco ASR 1002-X do not support temporary license activation.

Activation

To temporarily activate AES or AIS features, load the AES or AIS image and reboot the router. Execute the following from the console (using `adventerprise` for the AES image or `advipservices` for the AIS image):

```
conf t
     license boot level [adventerprise | advipservices]
end
reboot
```

Deactivation

To deactivate the AES/AIS license features, load the IPbase image and reboot the router. Execute the following from the console:

```
conf t
     license boot level ipbase
end
reboot
```

AVC Licensing for Cisco CSR 1000V

Cisco CSR 1000V Cloud Services Routers are provided with an Advanced Enterprise Services (AES) IOS XE image and license, providing full AVC functionality.