AVC Supported Platforms, Interfaces, and Networking Modes

This chapter addresses the following topics:

AVC Supported Platforms

Cisco AVC is supported on the following platforms:

- Cisco IOS Platforms (Cisco ISR G2 and ESR Routers)
  - Cisco 800 Series: C881-K9, C886VA-K9, C887VA-K9, C888-K9, C892FSP-K9, C896VA-K9, C897VA-K9, C897VAW-A-K9, C897VA-M-K9, C898EA-K9, C897VAW-E-K9, C897VAM-W-E-K9.
  - Cisco C1921-AX/K9
  - Cisco C1941-AX/K9
  - Cisco C2901-AX/K9
  - Cisco C2911-AX/K9
  - Cisco C2921-AX/K9
  - Cisco C2951-AX/K9
  - Cisco C3925-AX/K9
  - Cisco C3925E-AX/K9
  - Cisco C3945-AX/K9
  - Cisco C3945E-AX/K9
  - Cisco 5915, 5921, 5930, 5940
- Cisco IOS XE Platforms
  - Cisco ASR1000 Series Aggregation Services Routers
  - Cisco ISR4000 Series Integrated Services Routers
  - Cisco CSR 1000V Cloud Services Routers

For information about licensing and features for supported platforms, see:
AVC Licensed Features (Legacy), page C-1

Logical Interface and VPN Support in AVC

Unsupported Logical Interfaces

Logical interfaces *not* supported by Cisco AVC in the current release:

- Dialer interfaces

  Supported on Cisco IOS platforms. Support was added for Cisco IOS XE platforms beginning with Cisco IOS XE 3.16.3, 15.5(3)S3; not supported in prior releases.

- Multiprotocol Label Switching (MPLS)
- Overlay Transport Virtualization (OTV) overlay interfaces
- IPv6 tunnels that terminate on the device

  Also see Pass-through Tunneled IPv6 Traffic: Classification and Reporting, page 4-47.

Partially Supported Logical Interfaces

Logical interfaces *partially* supported by Cisco AVC in the current release:

- Virtual template interface

  Only ezPM monitors can be configured on the virtual template. Static performance monitors (non-ezPM monitors) cannot be configured on the virtual template.

- Example of *supported* configuration:

```
interface virtual-template 1
    performance monitor context xyz
```

- Example of an *unsupported* configuration:

```
service-policy type Performance monitor input/output  xyz
```

VPN Support

AVC support for VPN modes in the current release:

- FLEXVPN

  Supports spoke-to-spoke and hub-to-spoke topologies.

  FLEXVPN does not support IPv6.

  Only ezPM monitors can be configured for FLEXVPN. Static performance monitors (non-ezPM monitors) cannot be configured for FLEXVPN.

- EzVPN

  Only ezPM monitors can be configured for ezVPN. Static performance monitors (non-ezPM monitors) cannot be configured for EzVPN.

Support for Specific Networking Modes

AVC Compatibility with Layer 2 Transparent Mode

Cisco IOS Platforms	Cisco IOS XE Platforms
Not available	Added in release 3.15S

Background

A router operating in layer 2 transparent mode (also called local switching) bridges two interfaces, transparently forwarding packets directly from one interface to the other. The device does not provide typical router functionality; it is sometimes referred to as operating as a "bump in the wire."

For more information, see Layer 2 Local Switching.

AVC Support

AVC supports Layer 2 transparent mode scenarios, providing full AVC functionality.

Configuration

Bridging the Interfaces

To bridge the interfaces:

connect *connection-name interface1 interface2*

Example:

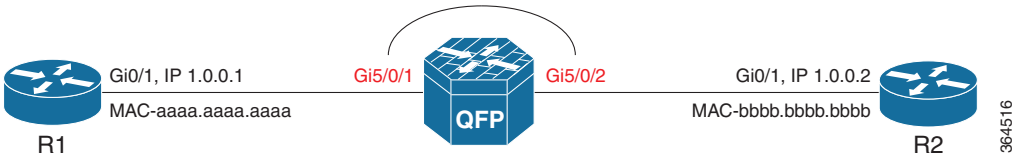
```
connect xyz Gi5/0/1 Gi5/0/2
```

For detailed information, see the configuration guide for your device.

Configure AVC

In the following example, an AVC performance monitor is configured on a device operating in Layer 2 transparent mode. The monitor operates on the bridged traffic.

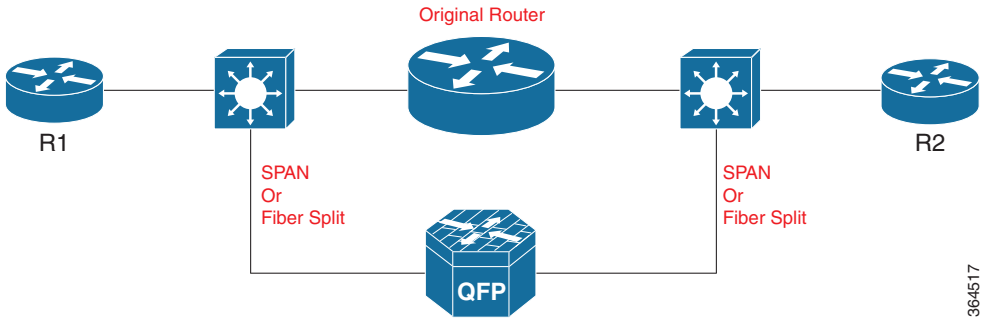
```
Interface Gi5/0/1
  Ip nbar protocol-discovery
  Performance monitor context xyz
```



Use Cases

Case 1: Evaluating AVC Before Full Deployment

Layer 2 transparent mode (local switching) can be used to bypass a router by bridging two interfaces in the network, diverting traffic through a device operating with Cisco AVC. This enables isolation and testing of AVC functionality in the network to evaluate before wider deployment.



Case 2: Standalone AVC-Only Device

Layer 2 transparent mode (local switching) can be used to configure a router to act as a dedicated AVC device, used without routing. A router, such as the comparatively low-cost Cisco ASR1002-X, can serve as the platform for the standalone AVC-enabled device.

Limitations

When operating AVC on a device in Layer 2 transparent mode, the following limitations apply:

- The following MAC addresses are reported as 00:00:00:00:00:00:
  - fields datalink mac source address output
  - datalink mac destination address output
- The per-packet time-to-live (TTL) value may be reported as 1 higher than the actual value.