



# AVC Feature History

Revised: March 2014

This chapter addresses the following topic:

- [Feature History, page B-1](#)

## Feature History

The sections below describe highlights of new features and optimizations in recent AVC releases. They do not provide a full feature history of Cisco AVC.

- [AVC Features in Cisco IOS Releases, page B-1.](#)
- [AVC Features in Cisco IOS XE Releases, page B-3.](#)

## AVC Features in Cisco IOS Releases

**Table B-1**      *AVC Feature History for Cisco IOS Releases*

Feature	Description
<b>Cisco IOS 15.4(1)T</b>	
Convergence of Cisco AVC Architecture Across Platform Types	The convergence of AVC architecture brings together the strongest AVC features from IOS and IOS XE platforms, providing powerful features and greater standardization of configuration tasks across different Cisco platforms.  Metrics, such as ART, HTTP, and QoS metrics, that were available in earlier releases can now be configured in the same way as on Cisco IOS XE platforms. Additional metrics are also newly available for Cisco IOS.
Metric Mediation Agent (MMA)	The Metric Mediation Agent (MMA) introduces an enhancement to Cisco AVC infrastructure, enabling addition of stateful and derived parameters with dynamic registration. The MMA provides aggregation of connections, history, and alarms from the route processor. The aggregated data is exported at a lower speed than the data path export.  For more information about the MMA, see: <a href="#">Metric Mediation Agent, page 2-7</a>

Feature	Description
QoS Metrics	<p>This Cisco AVC release provides new monitors for collecting metrics related to Quality of Service (QoS) policy. Monitors can indicate:</p> <ul style="list-style-type: none"> <li>• Packets dropped on an interface, per QoS queue, due to a QoS policy that limits resources available to a specific type of traffic.</li> <li>• Class hierarchy (indicating traffic priority) of a reported flow, as determined by the QoS policy map.</li> </ul> <p>For more information, see:  <a href="#">QoS Metrics: Cisco IOS Platforms, page 4-13</a></p>
Easy Performance Monitor (ezPM) Configuration	<p>Easy Performance Monitor “express” method of provisioning monitors. Easy perf-mon provides “profiles” that represent typical deployment scenarios. After a user selects a profile and specifies a small number of parameters, Easy perf-mon provides the remaining provisioning details. This release provides one profile, which includes five different traffic monitors. Future releases will provide additional options. For more information, see:  <a href="#">Easy Performance Monitor, page 4-27</a></p>
Customizing attribute values	See <a href="#">Customizing Attribute Values, page 4-11</a> .
Export Spreading	The export-spreading feature spreads out the export of records from the monitor cache over a time interval, to improve collector performance. For more information, see: <a href="#">NetFlow/IPFIX Flow Monitor, page 4-4</a>
IPv6 Support	The Cisco AVC solution supports both IPv4 and IPv6.

#### Features Available Prior to Cisco IOS 15.4(1)T

Unified Solution	Unifies the technologies of several reporting/control solutions. AVC technologies include the configuration mechanism, metrics, and reports of such components as TCP performance, Medianet, and so on.
Media Metrics	For an overview of the metrics collected by Cisco routers, both for Cisco IOS and for Cisco IOS XE, see: <a href="#">Cisco Application Visibility and Control Field Definition Guide for Third-Party Customers</a>
Cisco Performance Agent (MACE) Metrics, including: <ul style="list-style-type: none"> <li>• Application response (ART)</li> <li>• FNF</li> <li>• HTTP</li> <li>• QoS</li> </ul>	For information about using these metrics, see <a href="#">Configuring AVC to Monitor MACE Metrics</a> .
TCP Performance Metrics	AVC includes several TCP performance measurements for traffic performance reporting.
Cisco Prime Infrastructure	The Cisco Prime Infrastructure management and reporting system is an integral part of the Cisco AVC solution and provides extensive management and reporting features, including provisioning the system, storing exported data, and generating reports.

## AVC Features in Cisco IOS XE Releases

**Table B-2** AVC Feature History for Cisco IOS XE Releases

Feature	Description
<b>Cisco IOS XE 3.12S</b>	
New sampling-rate option added to Easy Performance Monitor configuration.	Added option of entering value of 1 for <b>sampling-rate</b> in Easy Performance Monitor configuration, to disable the sampler feature. For more information, see: <a href="#">Easy Performance Monitor, page 4-27</a>
AVC interoperability with GETVPN	AVC interoperability with Group Encrypted Transport VPN (GETVPN). For more information, see <a href="#">AVC Interoperability with Cisco GET VPN, page 2-13</a> .
Support for virtual template interface	Support for configuring ezPM monitors on virtual template interfaces. For more information, see: <a href="#">Logical Interface and VPN Support in AVC, page A-2</a>
Additional support for FLEXVPN	Added support for hub-to-spoke topologies. For more information, see: <a href="#">Logical Interface and VPN Support in AVC, page A-2</a>
Performance improvements	This release includes optimization changes that improve AVC performance.
NBAR protocol pack hitless upgrade	When updating an NBAR protocol pack or any NBAR configuration, the previous configuration remains active until the new configuration becomes active. This ensures that NBAR continues to classify traffic in the data path.
<b>Cisco IOS XE 3.11S</b>	
New metric added to track information about the interface being monitored	The <b>observation point id</b> metric provides the physical port number of the interface to which the monitor is attached.
Customizing attribute values	See <a href="#">Customizing Attribute Values, page 4-11</a> .
Interoperability with Cisco GET VPN	See <a href="#">NBAR Interoperability with Cisco GET VPN, page 2-13</a> .
<b>Cisco IOS XE 3.10S</b>	
Improved Exporting Model	An improved and optimized exporting configuration model includes: <ul style="list-style-type: none"> <li>Exporting only a single record per packet, reducing duplicate data.</li> <li>Optimizing monitor assignment.</li> <li>Filtering low-bandwidth traffic.</li> <li>Per server reports.</li> </ul> The improved exporting model is used as part of the Easy Performance Monitor profile included in this release.

## Feature History

Feature	Description
Easy Performance Monitor Configuration	Easy Performance Monitor “express” method of provisioning monitors. Easy perf-mon provides “profiles” that represent typical deployment scenarios. After a user selects a profile and specifies a small number of parameters, Easy perf-mon provides the remaining provisioning details. This release provides one profile, which includes five different traffic monitors. Future releases will provide additional options. For more information, see: <a href="#">Easy Performance Monitor, page 4-27</a>
Performance Improvements	This release includes changes, such as an improved exporting model, predefined monitors, and MMA optimization, that improve performance by up to 30%.
Parsing URI Address	This release introduces the ability to parse URI addresses, enabling AVC to report depth 1 of the URI and filter traffic according to that value. For more information, see: <a href="#">HTTP URI, page 4-36</a>
Support for Records with 40 Fields	This release introduces support for configuring records containing 40 fields.
<b>Cisco IOS XE 3.9S</b>	
Enhanced Connection/Transaction Metrics	Beginning with IOS XE release 3.9S, Flexible NetFlow (FNF) monitors can report on individual transactions within a flow. This enables greater resolution for traffic metrics. For more information, see: <a href="#">Connection/Transaction Metrics, page 4-24</a>
QoS Metrics	This Cisco AVC release provides new monitors for collecting metrics related to Quality of Service (QoS) policy. Monitors can indicate: <ul style="list-style-type: none"> <li>• Packets dropped on an interface, per QoS queue, due to a QoS policy that limits resources available to a specific type of traffic.</li> <li>• Class hierarchy (indicating traffic priority) of a reported flow, as determined by the QoS policy map.</li> </ul> For more information, see: <a href="#">QoS Metrics: Cisco IOS XE Platforms, page 4-18</a>
<b>Cisco IOS XE 3.8S</b>	
Interoperability with Cisco AppNav	Cisco AppNav is the Wide Area Application Services (WAAS) diversion mechanism. Beginning with IOS XE release 3.8S, AVC provides statistics before and after the AppNav WAAS service controller (AppNav SC), as well as inspecting and reporting application information on optimized traffic.
Unified Solution	Unifies the technologies of several reporting/control solutions. AVC technologies include the configuration mechanism, metrics, and reports of such components as TCP performance, Medianet, and so on.
Metric Mediation Agent (MMA)	The Metric Mediation Agent (MMA) is a new infrastructure element developed in the IOS XE 3.8 release to manage, correlate, and aggregate metrics from different metric providers. MMA provides the following functions: <ul style="list-style-type: none"> <li>• Controls traffic monitoring and filtering policy.</li> <li>• Correlates data from multiple metric providers (see <a href="#">Metric Providers, page 2-7</a>) into the same record.</li> <li>• Aggregates metrics.</li> <li>• Supports history and alert functions. This requires sending the metrics records to the route processor (RP) before exporting them to the management and reporting tools.</li> </ul>

Feature	Description
TCP Performance Metrics	This release adds several TCP performance measurements for traffic performance reporting.
Interoperability with AppNav	AppNav is the Wide Area Application Services (WAAS) diversion mechanism. AVC for IOS XE 3.8 provides statistics before and after the AppNav WAAS service controller (AppNav SC), as well as inspecting and reporting application information on optimized traffic.
Packet Capture	Cisco Embedded Packet Capture (EPC) technology performs packet capture.
Cisco Prime Infrastructure	The Cisco Prime Infrastructure management and reporting system is an integral part of the Cisco AVC solution and provides extensive management and reporting features, including provisioning the system, storing exported data, and generating reports.
IPv6 Support	The Cisco AVC solution supports both IPv4 and IPv6.

