



Managing Traffic Metrics

Cisco Prime Infrastructure supports tracing Real-Time Transport Protocol (RTP) and TCP application traffic paths across endpoints and sites. Tracing data paths depends on Cisco Medianet and Web Services Management Agent (WSMA). Both are built-in features of Cisco IOS software and Catalyst switches that help isolate and troubleshoot problems with RTP and TCP data streams. Prime Infrastructure supports all versions of Cisco Medianet and WSMA and makes it easy to enable them on any router.

Where Cisco Network Analysis Module (NAM) traffic monitoring data is not available, Prime Infrastructure supports RTP service path tracing (Mediatrace) using Cisco Medianet Performance Monitor and Cisco IOS NetFlow. When properly configured, Mediatrace can be your most valuable tool when troubleshooting RTP and TCP application problems.

Related Topics

- [Prerequisites for Traffic Metrics With Mediatrace](#)
- [Configuring Mediatrace on Routers and Switches](#)
- [Configuring WSMA and HTTP\(S\) Features on Routers and Switches](#)

Prerequisites for Traffic Metrics With Mediatrace

Before you can use Prime Infrastructure's Mediatrace feature, you must complete the prerequisite setup tasks shown under Related Topics, below. These prerequisite tasks are required to enable Cisco routers (ISRs, ISR G2s, ASRs) and NAM devices to act as data (metrics collection) sources to monitor network traffic (RTP and TCP) performance metrics.

Related Topics

- [Configuring Prime Infrastructure to Use NAM Devices as Data Sources](#)
- [Configuring Prime Infrastructure to Use Routers and Switches as Data Sources](#)

Configuring Prime Infrastructure to Use NAM Devices as Data Sources

If your network uses Cisco NAMs to monitor network traffic, complete the following steps to trace service paths for both RTP and TCP traffic.

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- Step 1** Add NAMs to the system. You can do this either automatically using Discovery, or manually using bulk import or the Device Work Center (see “Adding Devices to Prime Infrastructure” in Related Topics).
- Step 2** Enable NAM Data collection. To do this:
- Choose **Services > Application Visibility & Control > Data Sources**.
 - In the NAM Data Collector section, select each NAM and click **Enable** to enable data collection on the selected NAMs (see “Enabling NAM Data Collection”).
- Step 3** Create a site structure for your organization and assign your principal routers to the appropriate sites:
- Choose **Maps > Site Maps**.
 - Add one or more campuses, buildings, and floors (for details, see “Working With Maps”).
- Step 4** Associate your sites with authorized data sources:
- Choose **Services > Application Visibility & Control > Data Deduplication**.
 - Click **Enable Data Deduplication**, then click **Apply**. You can then assign authoritative sources for ART, Traffic Analysis and Voice/Video data (see “Enabling Data Deduplication”).
- Step 5** Associate your sites with endpoint subnets:
- Choose **Services > Application Visibility & Control > Endpoint Association**.
 - Associate subnets with your sites (see “Associating Endpoints With Sites”).
- If you fail to do this, the data collected for these endpoints will have their sites set to “Unassigned.”
- Step 6** Configure your routers for Mediatrace and WSMA (see “Using Mediatrace”).
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Related Topics

- [Adding Devices to Prime Infrastructure](#)
- [Enabling NAM Data Collection](#)
- [Working With Maps](#)
- [Enabling Data Deduplication](#)
- [Associating Endpoints With Sites](#)
- [Controlling Data Collection Jobs](#)
- [Associating Endpoints with a Location](#)
- [Using Mediatrace](#)

Configuring Prime Infrastructure to Use Routers and Switches as Data Sources

If your network uses Cisco routers and switches to monitor network traffic, complete the following steps to enable path tracing for both RTP and TCP flows.

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- Step 1** Create a site structure for your organization and assign your principal routers to the appropriate sites:
- Choose **Maps > Site Maps**.
 - Add one or more campuses, buildings, and floors (for details, see “Working With Maps”).
- Step 2** Associate your sites with authorized data sources:
- Choose **Services > Application Visibility & Control > Data Deduplication**.
 - Click **Enable Data Deduplication**, then click **Apply**. You can then assign authoritative sources for ART, Traffic Analysis and Voice/Video data (see “Enabling Data Deduplication”).
- Step 3** Associate your sites with endpoint subnets:
- Choose **Services > Application Visibility & Control > Endpoint Association**.
 - Associate subnets with your sites (see “Associating Endpoints With Sites”).
- If you fail to do this, by default the data collected for these endpoints will have their sites set to “Unassigned.”
- Step 4** Configure your compatible routers for Cisco Medianet Performance Monitor (see “Configuring Mediatrace on Routers and Switches”).
- Step 5** Configure your routers for Mediatrace and WSMA (see “Using Mediatrace”).
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Related Topics

- [Working With Maps](#)
- [Enabling Data Deduplication](#)
- [Associating Endpoints With Sites](#)
- [Configuring Mediatrace on Routers and Switches](#)
- [Using Mediatrace](#)

Configuring Mediatrace on Routers and Switches

Prime Infrastructure supplies an out-of-the-box template that configures Mediatrace on routers and switches. You must apply this configuration to every router and switch that you want to include in your results whenever you are tracing service paths.

See “Enabling NetFlow Data Collection” in Related Topics to get a list of all the supported routers and switches for Mediatrace.

Before You Begin

You must complete the following tasks:

- [Configuring Prime Infrastructure to Use NAM Devices as Data Sources](#)
- [Configuring Prime Infrastructure to Use Routers and Switches as Data Sources](#)

To configure the Mediatrace-Responder-Configuration template, follow these steps:

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- Step 1** Choose **Configuration > Templates > Features & Technologies > CLI Templates > System Templates - CLI > Mediatrace-Responder-Configuration**.
- Step 2** Enter the required information for the template (see the field reference for the template, in Related Topics).
- Step 3** Click **Save as New Template** and give the new template a name and description. Click **Save**.
- Step 4** Click **Deploy** to deploy the new template (see “Deploying Templates”).
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Related Topics

- [Enabling NetFlow Data Collection](#)
- [Field Reference: Mediatrace-Responder-Configuration](#)
- [Deploying Templates](#)

Configuring WSMA and HTTP(S) Features on Routers and Switches

To trace service path details, the Web Services Management Agent (WSMA) over HTTP protocol must run Mediatrace commands on your routers and switches. Configure this feature on the same set of routers and switches as you did when following the instructions in “Configuring Mediatrace on Routers and Switches” (see Related Topics).

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- Step 1** Choose **Configuration > Templates > Features & Technologies > CLI Templates > System Templates - CLI > HTTP-HTTPS Server and WSMA Configuration-IOS**.
- Step 2** Enter the required information for the template (see the field reference for the template, in Related Topics).
- Be sure to enable the HTTP protocol. WSMA over HTTPS is *not supported* in the current version of Prime Infrastructure.
- Step 3** Click **Save as New Template** and give the new template a name and description. Click **Save**.
- Step 4** Click **Deploy** to deploy the new template (see “Deploying Templates”).
- When adding a device to Prime Infrastructure, you must provide the HTTP user and password for the device.
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Related Topics

- [Configuring Mediatrace on Routers and Switches](#)
- [Field Reference: HTTP-HTTPS Server and WSMA Configuration-IOS](#)
- [Deploying Templates](#)
- [Adding Devices to Prime Infrastructure](#)

