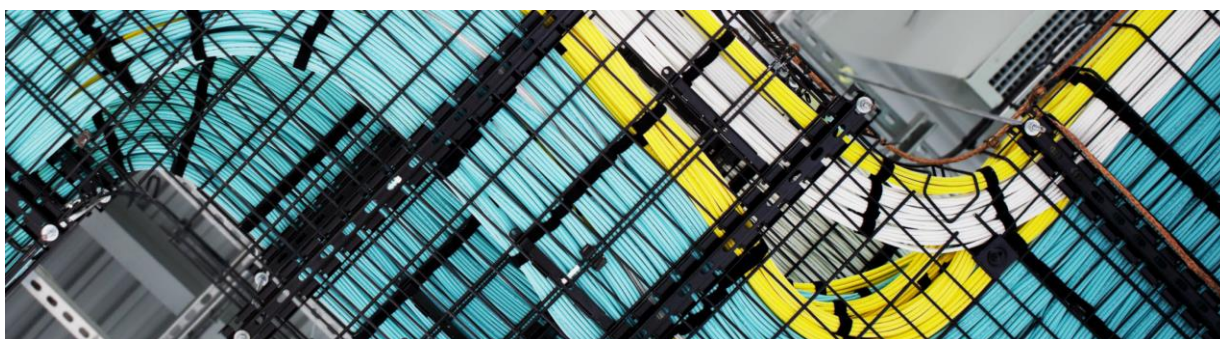


Cisco Connected Analytics for Mobility (Wi-Fi)



Cisco[®] Connected Analytics for Mobility (CAM) is a real-time, streaming analytics solution that provides network, operations, and business insights for proactive governance of Cisco mobility solutions. Achieve better business outcomes with end-to-end insights based on one holistic view across the entire Wi-Fi network. Gain unparalleled information accuracy thanks to real-time data streaming.

Cisco CAM helps customers to:

- Proactively plan network capacity
- Optimize network operations
- Improve Wi-Fi network monetization
- Scale linearly with increasing demand
- Be flexible by using the self-service portal, ad-hoc reporting, and data integration options

About Cisco Connected Analytics for Mobility

Cisco CAM is a streaming analytics solution that provides network, operations, and business insights for real-time decision making and proactive governance of Cisco mobility solutions.

Gain valuable real-time insight that helps identify the key drivers of your Wi-Fi offers and services. Run your mobility solutions more efficiently with a better understanding of correlations and interactions in your mobility network.

With Cisco CAM, you can promote business outcomes to:

- **Gain a competitive advantage:** Make better decisions. Data-driven decisions increase speed and accuracy in the decision-making process, promoting agile processes for your business.
- **Drive accelerated performance:** Proactively identify bottlenecks, optimize processes, and reduce costs through tight operational control. Improve decision making based on best-in-class, out-of-the-box dashboards and reports.
- **Promote new revenue:** Discover monetization opportunities and get insight into customer network usage patterns to identify customer segments and manage monetization strategy.

- **Optimize network operations:** Deep understanding of Wi-Fi usage drives optimal performance and assists in deployment, maintenance, troubleshooting, optimization, and intelligent network planning.

Features and Benefits

Cisco CAM delivers business and operational insights through a number of key performance indicators (KPIs), which are available using a web browser. Cisco CAM default dashboards provide high-level metrics and six default dashboards that provide overview information about the network. These dashboards can be exported to various standard formats, including PDF, CSV, XLS, JPG, and PNG. Table 1 lists default dashboard reports and their descriptions. Table 2 lists three types of dashboard reporting, and Table 3 lists custom reporting details.

Table 1. Default Dashboard Reports

Key Performance Indicator	Description
High-level metrics	Shows the number of total sessions, total session duration, total usage, total unique clients, average usage per session, and repeat unique clients. Users can choose to show data from the current date, last week, current week, last month, or the current month.
Unique clients	Trends the total number of unique devices connected to the network per hour.
Active sessions	Trends the total active sessions reported in five-minute increments.
Authenticated versus unauthenticated associations	Trends the total number of network associations by client per hour. This chart is divided into the total number of authenticated and unauthenticated clients.
New user additions	Trends the total number of new user associations per hour.
Total usage in gigabytes	Trends the total usage of network data per hour. This chart is divided into the total number of gigabytes used to download and upload data.
Top access points by usage	Lists the top access points with respect to transfer of data volume. The number of access points listed can be filtered to show the top 10, 25, or 50.

Table 2. Dashboard Reporting

Type	Description
Live, real-time dashboards	Create graphical representations of the data using multiple available formats, such as pie charts, bar charts, histograms, geography, and more, which combine different kinds of related data from multiple sources. Dynamically updating dashboards enhance the situation awareness of decision makers, allowing people to make better decisions and react immediately to changing conditions.
Historical dashboards	Dashboards can be created using historical data for deeper problem and trend analysis.
Customization	Customization allows you to look at the data your way to meet your business needs.

Table 3. Custom Reports

Type of Report	Description
Report builder	Self-service report creation allows for easy selection of data, the ability to sort, filter, and group data, and generation of reports from a web browser. Prepackaged sample reports are provided. This augments the graphical dashboard capabilities of the product for cases where tabular data is preferred. Users also have the ability to schedule reports
Online analytic processing (OLAP) reports	Support for OLAP reports provides advanced reporting, including customizable drill downs and parameters to slice and dice the data.
Publishing flexibility and exports	Cisco CAM reporting options provide flexibility to meet users' unique business needs. This includes exporting reports to various standard formats including HTML PDF, RTF CSV, and XLS to satisfy the requirements of various users, departments, and applications. Users have the ability to share reports with email or on a local server to provide a variety of options and security levels. Reports can also be scheduled from the CAM portal.
Drag-and-drop report creation	Drag-and-drop reports help nontechnical business users create reports easily. With ad hoc reporting, power users can dynamically select data sources for report generation.

Operation Environment and Storage Requirements

Cisco CAM uses Cisco networking technologies to provide relevant data for analysis. The following network software is required for deploying and using Cisco CAM.

Cisco CAM supports the following Cisco operating systems:

- Red Hat Enterprise Linux Server 6.4

Cisco CAM provides user access to view analytics data using a web browser. Supported browsers include:

- Microsoft Internet Explorer 9 and 10
- Mozilla Firefox ESR 24, and later

Hardware Requirements

The following hardware is required for deploying and using Cisco CAM.

The hardware requirements vary depending on the anticipated deployment size, which is proportional to the real-time data aggregation requirements. There are two main deployment scales—small and large—that are based on the number of access points Cisco CAM reports on. Table 4 lists the hardware requirements for a small-scale (approximately 1,000 access points) virtual deployment. Table 5 lists the hardware requirements for a small-scale (approximately 10,000 access points) deployment. Table 6 lists the hardware requirements for a large-scale (approximately 200,000 access points) deployment.

Table 4. Small-Scale Virtual Deployment: 1K Access Points

Item	Description
Data Mediation	
CPU	Intel Xeon @ 2.4 GHz
Memory	16 GB
Storage Capacity	1 TB
Storage Rate	34.6 MB per second
Data Warehouse	
CPU	Intel Xeon @ 2.4 GHz
Memory	32 GB
Storage Capacity	5 TB
Storage Rate	758 MB per second

Table 5. Small-Scale Deployment: 10K Access Points

Item	Description
Data Mediation	
CPU	Dual Intel Xeon @ 2.4 GHz (8 core/16 thread each)
Memory	16 GB
Storage Capacity	1 TB
Storage Rate	34.6 MB per second
Data Warehouse	
CPU	Dual Intel Xeon @ 2.4 GHz (8 core/16 thread each)
Memory	32 GB
Storage Capacity	5 TB
Storage Rate	758 MB per second

Table 6. Large-Scale Deployment: 200K Access Points

Item	Description
Data Mediation	
CPU	2x Dual Intel Xeon @ 3 GHz (10 core)
Memory	256 GB
Storage	4 TB
Storage Rate	34.6 MB per second
Data Warehouse	
CPU	2x Dual Intel Xeon @ 3 GHz (10 core)
Memory	256 GB
Storage	24 TB (for 1 year, 22 TB for each additional year)
Storage Rate	758 MB per second

For More Information

For more information visit Connected Analytics for Mobility on Cisco.com, or contact your account representative.



Americas Headquarters
Cisco Systems, Inc.
San Jose, CA

Asia Pacific Headquarters
Cisco Systems (USA) Pte. Ltd.
Singapore

Europe Headquarters
Cisco Systems International BV Amsterdam,
The Netherlands

Cisco has more than 200 offices worldwide. Addresses, phone numbers, and fax numbers are listed on the Cisco Website at www.cisco.com/go/offices.

Cisco and the Cisco logo are trademarks or registered trademarks of Cisco and/or its affiliates in the U.S. and other countries. To view a list of Cisco trademarks, go to this URL: www.cisco.com/go/trademarks. Third party trademarks mentioned are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (1110R)