

CSPP Experiment 10

10.1 Aim:

To explore and analyze the Cisco AI Assistant (BETA) integrated within Cisco Catalyst SD WAN Manager for simplifying network configuration, troubleshooting, and monitoring through natural-language interaction.

10.2 Course Outcome:

Demonstrate the ability to utilize AI-driven tools to automate and optimize network operations, improving visibility, agility, and operational efficiency in SD-WAN environments.

10.3 Lab Objective:

To access and use the Cisco AI Assistant interface to perform configuration queries, monitor device health, and interpret real-time analytics using natural-language prompts.

10.4 Requirements:

- Platform / Tool: Cisco Catalyst SD-WAN Manager (vManage)
- Network Devices: Cisco cEdge or vEdge routers (physical / virtual — e.g., C8000v)
- Software Version: Cisco SD-WAN Release with AI Assistant (BETA) feature enabled
- Browser: Chrome / Edge (latest version)
- User Access: Network Admin login credentials with monitor privileges

10.5 Theory:

The Cisco AI Assistant is a large-language-model (LLM) based component of Cisco's AgenticOps initiative, which merges AI + automation + telemetry + visualization to simplify network operations.

By integrating directly into Cisco Catalyst SD-WAN Manager, it allows administrators to query the system using everyday language.

Key features include:

- Natural-Language Processing (NLP): Enables human-like interaction for configuration and diagnostics.
- Automation: Reduces manual command entry and accelerates repetitive workflows.

- Telemetry-Driven Insights: Uses analytics from SD-WAN fabric to deliver health and performance data.
- AIOps Alignment: Supports intent-based networking for agility, reliability, and cost efficiency.

Through this integration, even less-experienced personnel can perform complex tasks such as tunnel health verification, cloud OnRamp configuration, or ThousandEyes Agent setup with minimal effort.

10.6 Tasks / Procedure:

Step 1: Log in to the Cisco Catalyst SD-WAN Manager portal.

Step 2: Navigate to Monitor → Overview.

Step 3: Click the AI Assistant icon (highlighted symbol) to open the AI Assistance window. Step 4: Explore default natural-language prompts:

1. “What’s New?” – Displays links to new features and documentation.
2. “How to configure ThousandEyes Agent?” – Provides step-by-step configuration guidance.
3. “How is the Application health?” – Summarizes top application performance.
4. “How are tunnels doing?” – Reports tunnel performance and status.
5. “How to configure Cloud OnRamp for SaaS?” – Lists steps to enable Cloud OnRamp.
6. “Show Device Health” – Displays current health of SD-WAN devices.

Step 5: Interact further with the “Show Device Health” response:

- Type Good → Lists sites with Good status.
- Type Fair → Lists sites with Fair status.
- Type Poor → Lists sites with Poor status.

Step 6: Observe how the AI Assistant pulls telemetry data to provide contextual insights and recommendations.

Step 7: Record screenshots of each query and its output.

10.7 Output Screenshots:

The screenshot shows the Workflows section of a management interface. On the left, a sidebar includes icons for Monitor, Configuration, Analytics, Workflows (highlighted with a red dashed box), Reports, Maintenance, Administration, and Explore. The main area displays a grid of workflow cards:

- In Progress:**
 - Create HDPW Policy (purple bar, 100% complete)
 - Configure ThousandEyes (green bar, 100% complete)
 - Software Upgrade (blue bar, 100% complete)
 - Create HDPW Policy (purple bar, 100% complete)
- Library:**
 - Create Configuration Group (yellow bar, 100% complete)
 - Instantiate Service Chain (yellow bar, 100% complete)
 - Define and Configure Service Chain (yellow bar, 100% complete)
 - Create SD-Bouting Config (yellow bar, 100% complete)
 - Create HDPW Policy (yellow bar, 100% complete)
 - Create MPV Configuration Group (yellow bar, 100% complete)
 - Configure Teleworker Devices (yellow bar, 100% complete)
 - Create Cellular Gateway Group (yellow bar, 100% complete)
 - Configure L3 Value (yellow bar, 100% complete)
 - Configure ThousandEyes (yellow bar, 100% complete)
 - Create Multi-regions and Assign Controllers (yellow bar, 100% complete)
 - Quick Connect (yellow bar, 100% complete)
 - Deploy Configuration Group (yellow bar, 100% complete)
 - Attach Service Chain to SD-WAN Router (yellow bar, 100% complete)
 - Deploy Policy Group (yellow bar, 100% complete)
 - Firmware Upgrade (yellow bar, 100% complete)

The screenshot shows the Monitor section of a management interface. On the left, a sidebar includes icons for Monitor (highlighted with a red dashed box), Configuration, Analytics, Workflows, Tools, Reports, Maintenance, Administration, and Explore.

The main area has tabs for Overview, Devices, Security, Multicloud, Tunnels, Logs, Energy Management, Applications, Sites, Circuits, and Certificate Status. The Overview tab is active, displaying the following metrics:

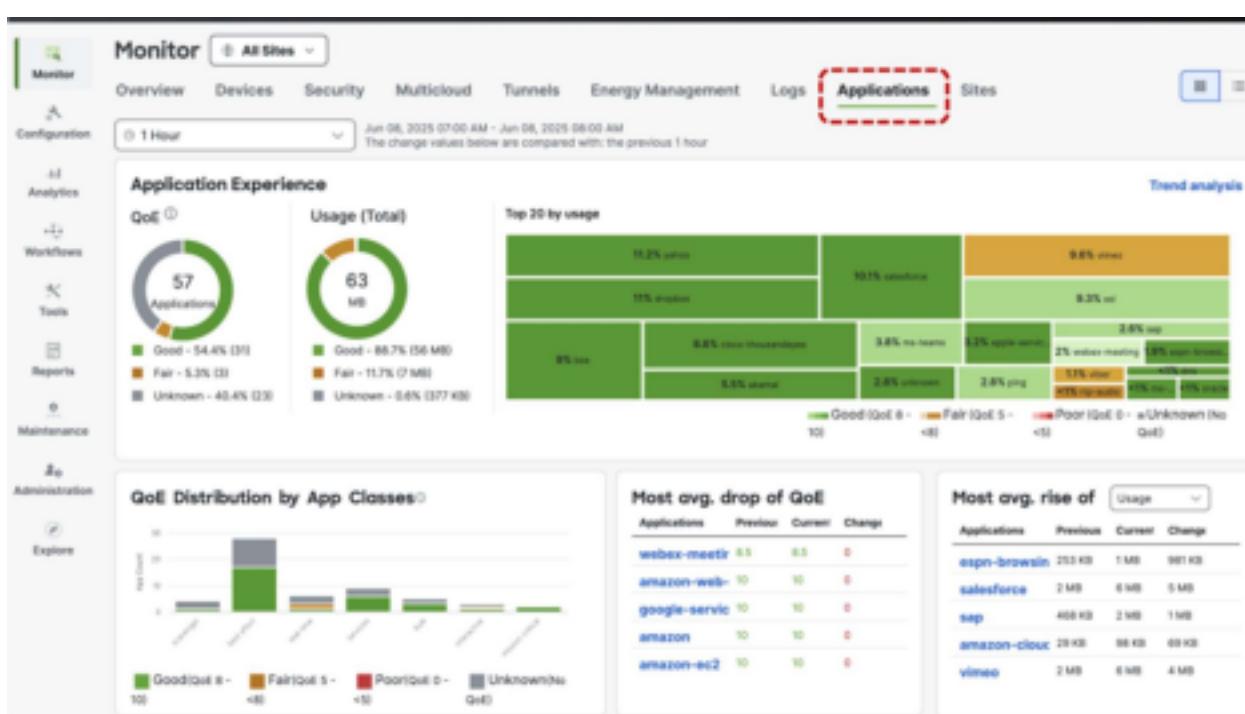
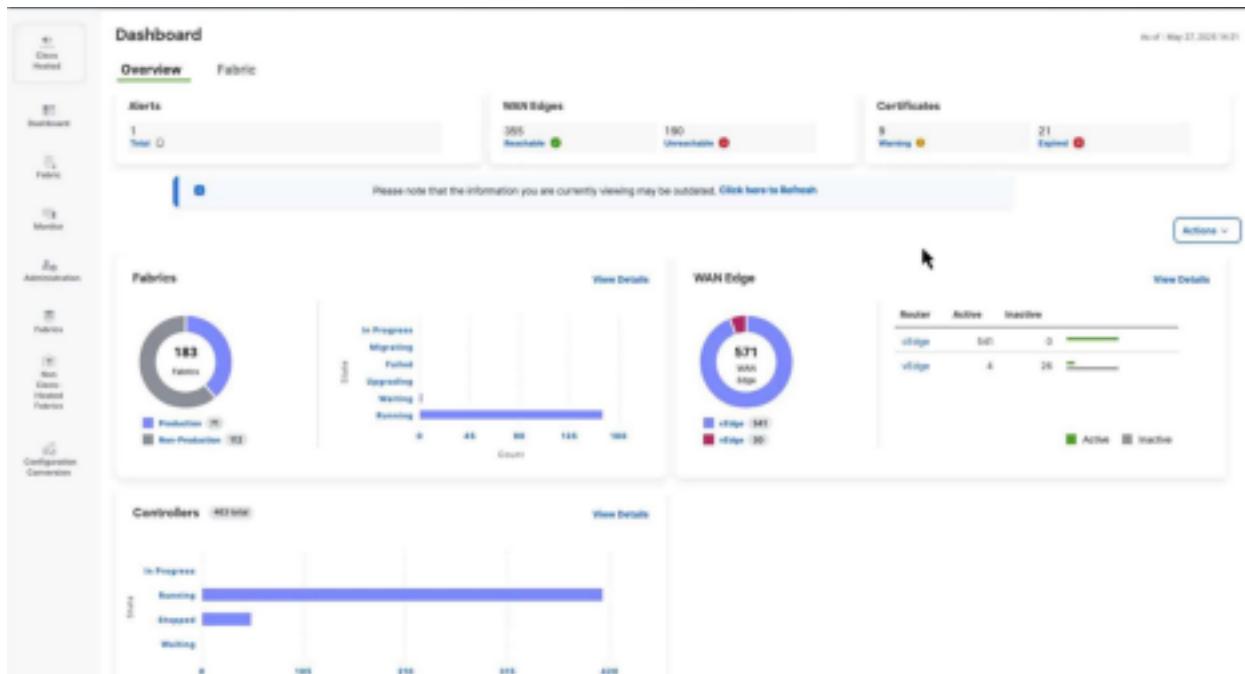
Control Components			WAN Edges		Sites		Circuits		Certificate Status	
2 Validator	2 Controller	1 Manager	47 Reachable	1 Unreachable	28 Up	3 Down	48 Up	4 Down	0 Warning	0 Invalid

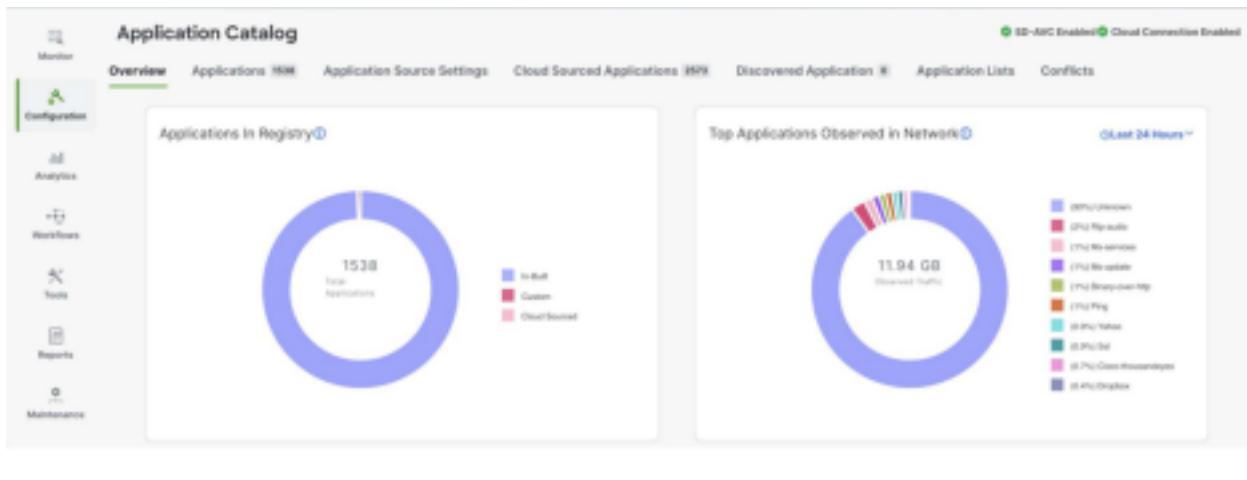
Below these are sections for Licensing (75 Assigned, 0 Unassigned) and Reboot (2 Last 24 hrs).

The Applications Experience section contains two donut charts and a bar chart:

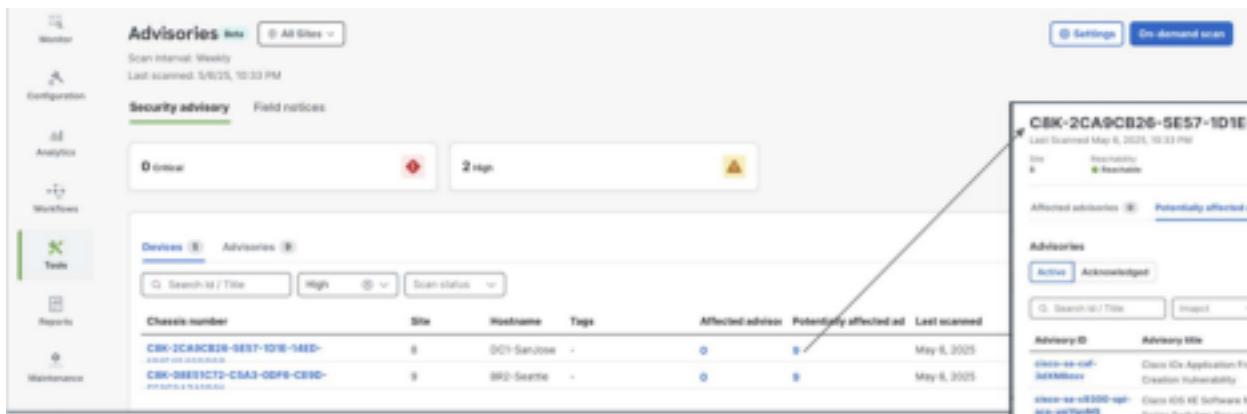
- QoE:** 37 Applications (Green)
- Usage (Total):** 15 MB (Green)
- Top 20 by usage (11 MB):**
 - dns, express... ping
 - dns, unlnx, express, mof, share, mirror...
 - http, http

At the bottom, a legend indicates QoE levels: Good (Green), Fair (Yellow), Poor (Red), and Unknown (Grey).





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10.8 Conclusion:

The Cisco AI Assistant (BETA) within Catalyst SD-WAN Manager effectively translates natural language queries into actionable configuration guidance and real-time analytics. Tangible benefits of combining AI-driven natural-language processing with SD-WAN orchestration, lowering the skills barrier and improving network agility. Continuous telemetry coupling ensures that recommendations remain contextually relevant, reinforcing Cisco's AgenticOps vision for intent based, automated network operations.