

Arista AVA: AI for Network Operations

Arista's Autonomous Virtual Assistant (AVA) is an agentic NetOps platform that helps network operators through a set of agents that answer questions, investigate problems, and formulate action plans. AVA builds on what Arista has offered for years: its multi-domain management suite for wired, wireless, identity, and security, and EOS, the network operating system that runs on every Arista switch. Networks now generate more operational data, and change faster than any team can piece together by hand, and getting from that data to an answer still falls to the network operator. AVA takes on that work, using the extensive real-time telemetry stored in Arista's network data lake (NetDL), so operations teams can spend their time making decisions instead of digging for answers. Through a unified experience, AVA gives operators a new way to interact with and manage the network, and saves significant time at every step.



Great data in, great decisions out

Whether an AIOps platform answers questions, investigates problems alongside the operator, or takes on routine work with approval, it starts with the data. Consider the following example.

Users report that video calls keep freezing. The operator checks the dashboards and every uplink shows less than 15 percent utilization, the five-minute averages are flat, and nothing is alerting. They ask an AI assistant what's wrong and get a plausible-sounding answer that sends them chasing the wrong cause.

The actual problem was a microburst. For a very brief period of time, traffic spiked past what a switch queue could hold and packets were dropped, then everything returned to normal. Polled data can't show that, and neither can an AI reasoning over it. The AI wasn't the weak link. The data underneath had blind spots, so the event was never in the picture.

Now imagine the same question asked of a system that streams telemetry in real time, keeps every sample as it arrives, understands how every device and user connects, and has the history to see the burst when it happened. Inference is only as good as the data it reasons over, and a chatbot changes how you ask, not what the system knows. What makes an assistant useful is everything behind it: complete structured data with history, tools that can query the network, skills that define how an experienced engineer works, and guard rails that set limits. That is what AIOps is really about, and it's what AVA is built to deliver.

Four layers, one foundation

AVA is built in layers, each depending on the one beneath it. At the base telemetry layer, NetDL, a network data lake Arista has been building for over ten years, stores streamed telemetry in real time from across the network. The intelligence layer organizes that data into structures the LLMs can consume and relates it to the entities and relationships that make up the network, so every inference starts from relevant, structured context instead of raw telemetry. Above that, AI layer pairs off-the-shelf frontier large language models (LLMs) with the AVA harness component, which gives them tools to query and act on the network along with guard rails that set limits. Alongside it, the AVA knowledge component feeds the LLMs with product documentation and knowledge base information, and well-defined troubleshooting cheatsheets known as skills to more efficiently and accurately solve problems. Operators then work with the AI agents through interfaces such as the Ask AVA chat interface or proactive AVA Insights, with additional agents working in the background watching for new network conditions that require attention.

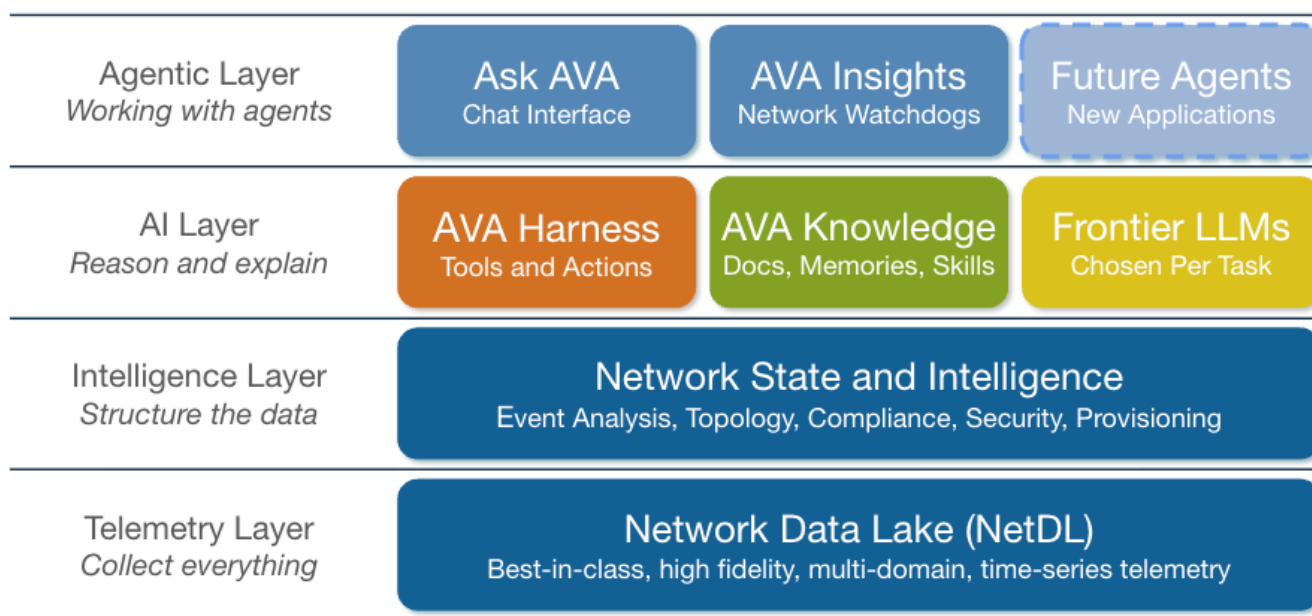


Figure 1: AVA Simplified Architecture

Where you use it

AVA is built on a common architecture designed to bring the same agents, context, and expertise to wherever operators already work. That includes Arista's day-to-day management products, among them CloudVision, CloudVision CV-CUE (Cognitive Unified Edge), VeloCloud Orchestrator (VCO), and Arista Guardian for Network Identity (AGNI), as well as a standalone AVA interface. Because the agentic framework is shared, AVA not only is more powerful with access to a broader set of data but also can be extended broadly across the Arista portfolio.

What your team gets

Faster answers. Ask in plain language and AVA works through the steps an engineer would, across the whole network, then returns something you can act on.

"Is there any congestion in the network?"

AVA inspects traffic patterns and queue/drop indicators across the network at breakneck speed and reports findings.

"Can you tell me about the 3 most critical CVEs I have and why?"

AVA lists the three most critical CVEs, ranked by a combination of severity, confirmed real-world occurrence reports, and breadth of impact.

Safer changes. Ask what a change will affect before you make it.

"What would be the impact if I shut down Ethernet1 on cv-core-rt-3?"

AVA evaluates downstream dependencies before the engineer makes the change.

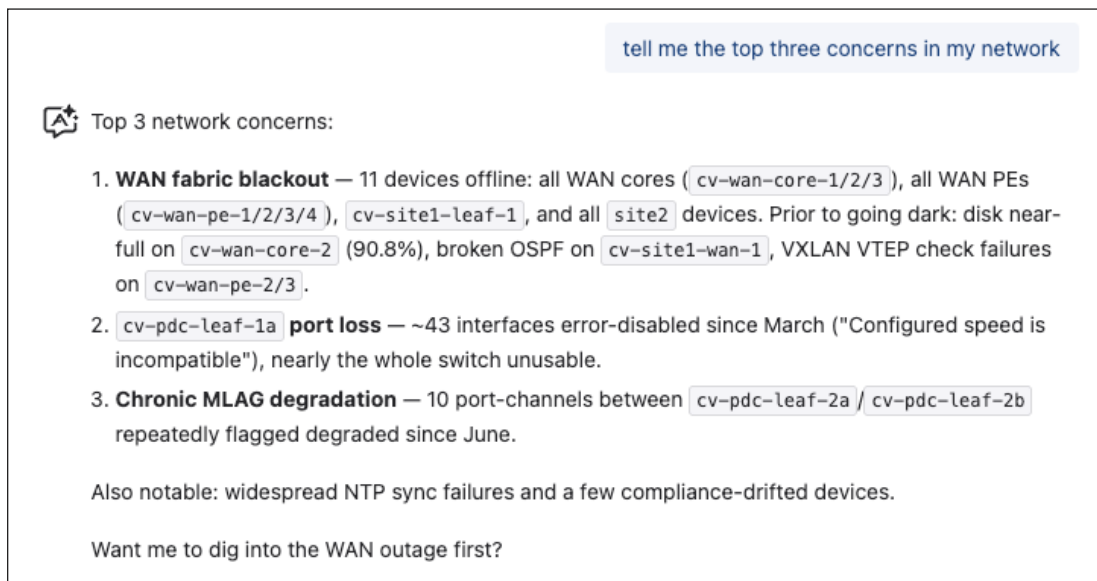


Figure 2: AVA Chat Interface Example

Expertise on every shift. AVA works from skills, step-by-step procedures drawn from real-world troubleshooting. The approach of an experienced engineer is available to the whole team, and AVA can answer product and configuration questions in the same conversation.

Answers you can check, decisions you keep. AVA shows the steps behind every answer, and the operator makes the decision (human-in-the-loop). Guard rails govern what it's allowed to do, and each step toward more automation is a deliberate choice rather than a default.

Always working. AVA Insights extends AVA from answering questions to watching the network on an operator's behalf, using background agents that monitor for conditions that need attention. When one is found, AVA investigates it and brings the findings to the operator with supporting evidence.

Cloud Staging Cluster

Events

MLAG Interface Degraded on Port-Channel46 on dm3-rack301-10-tor19

• Lasted 34s • Started Sep 23, 2026 03:13:25 (3w ago) • Generated from rule: Default rule

The same event occurred 2 times in the 24-hour period before this event.

Summary Related Events

Event Description

MLAG interface Port-Channel46 has degraded on the peer device of device SSJ18510480 (dm3-rack301-10-tor19).

Investigate with AVA

AVA Insights

Impact

Port-Channel46 on dm3-rack301-10-tor21 (MLAG peer serving server bs430) repeatedly lost its sole local member, Ethernet46, between 02:50 and 04:32 PDT, briefly taking that leg of the MLAG down each time. The tor19-side member stayed continuously up throughout, so bs430 likely retained at least one active path during each flap rather than suffering a full outage; full duration and extent of any traffic loss on the tor21 side remain unconfirmed. Po46 on tor21 is currently up and bundled.

Cause

Ethernet46 on tor21, the only physical member of Po46 to bs430, repeatedly transitioned Down->Connected, aligning with each MLAG Interface Degraded alert, and its lifetime counter shows 17,136 link status changes over 165 days (~100+/day), indicating a chronic physical-layer instability rather than a one-off event. CRC/symbol/input error counts are low (4 each) and LACP partner identity stayed consistent across flaps, ruling out a device swap but not confirming the exact defect (cable, port, or server NIC) without hands-on inspection. No transceiver entry was found, consistent with a copper connection, but this does not conclusively identify the fault mechanism.

Timeline

- Times in PDT. 02:50:05-02:50:30: first Down/Connected flap on tor21 Ethernet46 (Po46 member to bs430); tor19-side member remained up.
- 03:13:25-03:13:59: originally reported MLAG Interface Degraded incident with multiple sub-flaps on

MLAG Port-Channel46 flapping on tor21

dm3-rack301-10-tor19 / tor21 MLAG pair serving server bs430

MLAG domain: server_domain_1

dm3-rack301-10-tor19

dm3-rack301-10-tor21

bs430

Server bs430 is dual-homed via MLAG Port-Channel46 to tor19 and tor21. The tor21-side physical member Ethernet46 repeatedly flapped Down/Connected between 02:50 and 04:32 PDT (17,136 lifetime

Figure 3: AVA Insights Example - Analyzing Events

In Figure 3, AVA Insights has proactively analyzed this event notification and provided a more detailed description and recommendations along with a diagram to further explain the event.

Built to keep up. New AI models arrive every few weeks. AVA is built on off-the-shelf large language models (LLMs) and is not tied to any one of them, so the model underneath can be changed as better ones arrive, without rebuilding the platform around it.

How it all fits together

AVA is designed to fit into the agentic AI environments enterprises are already building. Through support for the Model Context Protocol (MCP), AVA can expose its network tools and data to outside AI agents, so a team's existing assistants and workflows can ask AVA about the network.

Every network will eventually hit a problem that its dashboards can't explain, and what happens next depends on what the platform was watching all along. AVA is built so operators can ask and get an answer grounded in complete history, a clear picture of how the network fits together, and steps they can check. The tools around it will keep changing, but the data underneath is what makes them worth trusting.

Santa Clara—Corporate Headquarters

5453 Great America Parkway,
Santa Clara, CA 95054

Phone: +1-408-547-5500

Fax: +1-408-538-8920

Email: info@arista.com

Ireland—International Headquarters

3130 Atlantic Avenue
Westpark Business Campus
Shannon, Co. Clare
Ireland

Vancouver—R&D Office

9200 Glenlyon Pkwy, Unit 300
Burnaby, British Columbia
Canada V5J 5J8

San Francisco—R&D and Sales Office 1390

Market Street, Suite 800
San Francisco, CA 94102

India—R&D Office

Global Tech Park, Tower A, 11th Floor
Marathahalli Outer Ring Road
Devarabeesanahalli Village, Varthur Hobli
Bangalore, India 560103

Singapore—APAC Administrative Office

9 Temasek Boulevard
#29-01, Suntec Tower Two
Singapore 038989

Nashua—R&D Office

10 Tara Boulevard
Nashua, NH 03062



Copyright © 2026 Arista Networks, Inc. All rights reserved. CloudVision, and EOS are registered trademarks and Arista Networks is a trademark of Arista Networks, Inc. All other company names are trademarks of their respective holders. Information in this document is subject to change without notice. Certain features may not yet be available. Arista Networks, Inc. assumes no responsibility for any errors that may appear in this document. 05-0061-01 October 26, 2026