MARVIS VIRTUAL NETWORK ASSISTANT (VNA) FOR DATA CENTER DATASHEET

Product overview

Marvis Virtual Network Assistant (VNA) for Data Center is the digital network expert that supports your data center network operations team, providing proactive and prescriptive data center actions and simplifying operations tasks via the Marvis conversational interface.

Marvis VNA for Data Center is part of the Apstra Cloud Services product suite for data center AI operations (AIOps). Combining the power of AIOps and intent-based networking creates an unbeatable operational experience for data center networking teams.

Marvis VNA for Data Center works in conjunction with Juniper Apstra, the industry-leading multivendor intent-based networking platform, to provide proactive and prescriptive data center actions. It also simplifies operations tasks via the Marvis conversational interface, powered by generative AI. By combining the power of AI and intent-based networking, Marvis VNA and Apstra enable data center network operations teams to save time and money and increase network uptime by accelerating problem resolution.

Marvis Actions

Marvis Actions drives operational simplicity and transforms IT from reactive troubleshooting to proactive remediation. It offers a "morning cup of coffee" view, that delivers visibility into high-impact network issues at an organizational level so that administrators know exactly what they need to prioritize and focus on.

Marvis VNA for Data Center adds a data center component to the top-level Marvis Actions view, allowing end-to-end visibility of anomalies across the entire enterprise network, from users in campus and branch networks to applications in the data center.
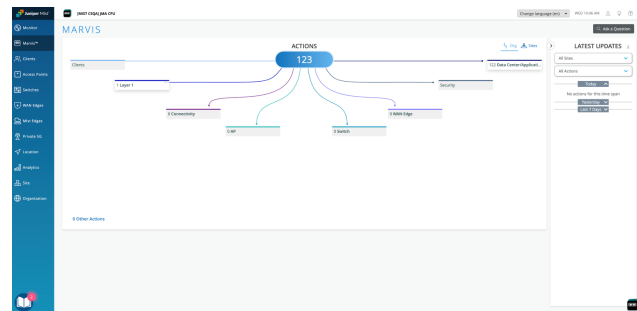

Figure 1: Marvis Actions dashboard, including data center

Marvis VNA for Data Center leverages Apstra's rich telemetry data to provide a high-level view of data center network health on the Marvis Actions dashboard. Marvis highlights anomalies and recommended actions in data center switching devices, virtual infrastructure, physical and logical connectivity, and security. AI-Native insights lead to faster root cause identification and issue resolution. If more detailed information is required, a single click opens the relevant screen in the Apstra user interface where you can continue troubleshooting.
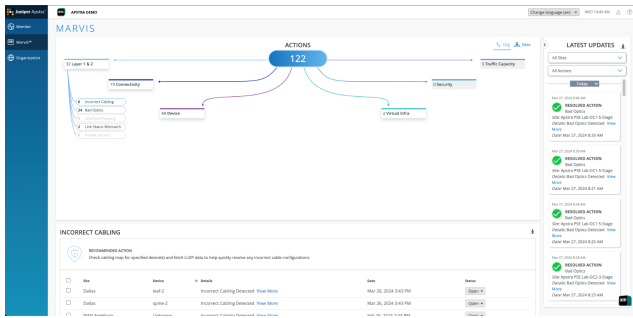
Figure 2: Marvis VNA for Data Center actions dashboard

From the data center dashboard, you can select a category to see more detail about a specific metric, such as incorrect cabling or MTU issues. Table 1 shows the full list of data center action categories and metrics.

Table 1: Marvis VNA for Data Center action categories and metrics

Layer 1 & 2
Incorrect cabling
Bad optics
Interface flapping
Link status mismatch
Packet discard
Connectivity
Missing routes
BGP mismatch
LAG imbalance
MLAG imbalance
BGP flapping
EVPN host flapping
Type-3 missing routes
Type-5 missing routes
VXLAN flow lists mismatch
Device
Config deviation
Deployment status mismatch
Resource health issues
Environment health issues
Virtual infrastructure
Configuration mismatch
Missing VLANs
MTU issues
Non-redundant hosts
Security
802.1x issues
Traffic capacity
Spine faults
Critical services alerts
Hot/cold interface warning

Marvis Actions: Marvis VNA for Data Center Conversational Assistant

Marvis' Conversational Assistant uses advanced natural language processing (NLP) and Generative AI (GenAI) to understand user intent and goals and contextualize natural language inquiries to provide specific answers, whether you're troubleshooting operations or searching for data center documentation.
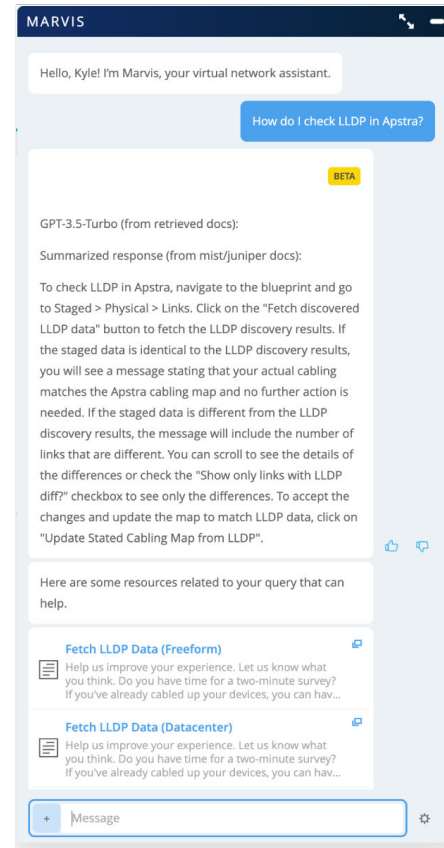

Figure 3: Marvis VNA for Data Center conversational interface

Multivendor compatibility

Because Apstra is inherently multivendor, working with both Juniper and many third-party switching devices, Marvis VNA for Data Center inherits those multivendor properties, enabling the same visibility of data center network health, anomaly detection, and recommended actions, regardless of which switching vendors are deployed.

Apstra integration

Marvis VNA for Data Center, part of the Apstra Cloud Services family, is a cloud-based application, while Apstra is premises-based. Connectivity between the two applications is enabled over a secure WebSocket connection that supports REST API requests, responses, and the streaming of telemetry data and alerts.
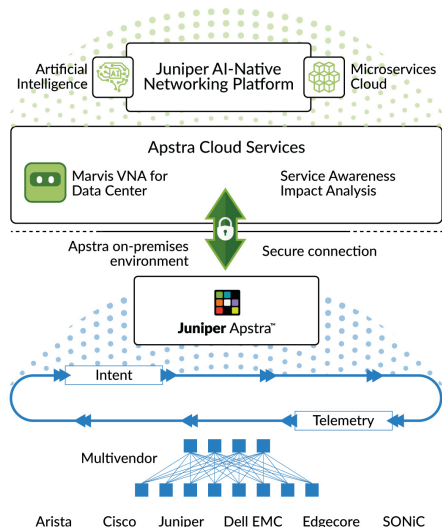
Figure 4: ACS—Apstra Integration

Marvis VNA for Data Center licensing

Marvis VNA for Data Center is included in the Apstra "Standard" license tier.

About Juniper Networks

Juniper Networks believes that connectivity is not the same as experiencing a great connection. Juniper's AI-Native Networking Platform is built from the ground up to leverage AI to deliver the best and most secure user experiences from the edge to the data center and cloud. Additional information can be found at Juniper Networks (www.juniper.net) or connect with Juniper on X (Twitter), LinkedIn, and Facebook.