MARVIS AI ASSISTANT FOR DATA CENTER DATASHEET

Product overview

Marvis AI Assistant for Data Center is the digital network expert who supports your data center network operations team, providing proactive and prescriptive data center actions and simplifying operations tasks via the Marvis conversational interface.

Product description

Part of Juniper Data Center Assurance, Marvis® AI Assistant for Data Center combines a natural-language interface with a powerful generative AI (GenAI) framework to improve insight, speed, and reliability.

Marvis AI Assistant for Data Center works in conjunction with Apstra Data Center Director's comprehensive data center fabric management and full lifecycle automation to provide proactive intelligence and prescriptive actions. It revolutionizes operational workflows through the intuitive Marvis conversational interface, powered by cutting-edge GenAI, allowing teams to complete many day-to-day tasks simply by talking to Marvis. By combining the power of AI and full lifecycle automation, Marvis AI Assistant and Data Center Director enable data center network operations teams to build private cloud infrastructure with the insight, speed, and reliability they need to meet business demands and deliver great customer experiences.

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 the most critical network issues at an organizational level so that administrators know exactly what they need to prioritize and focus on.

Extending this visibility across your entire enterprise, Marvis AI Assistant for Data Center seamlessly integrates data center insights into the top-level Marvis Actions dashboard. Gain end-to-end awareness of anomalies, from users in campus and branch networks all the way to the applications residing within your data center.
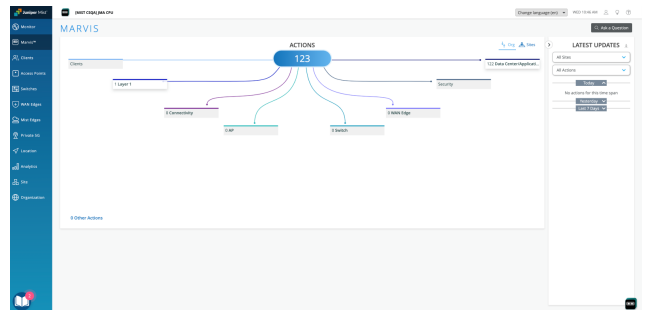

Figure 1: Marvis Actions dashboard, including data center

Marvis AI Assistant for Data Center leverages Data Center Director's rich telemetry data to provide a high-level view of data center network health on the Marvis Actions dashboard. Marvis surfaces critical anomalies and delivers prescriptive, AI-native recommendations for 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 Data Center Director user interface where you can continue troubleshooting.
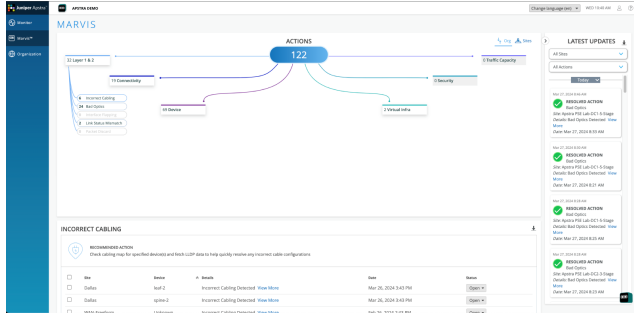

Figure 2: Marvis AI Assistant for Data Center actions dashboard

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 AI Assistant 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

Conversational interface

The Marvis AI Assistant for Data Center's conversational interface uses advanced natural language processing (NLP) and GenAI capabilities of large language models (LLMs) to interpret user intent and goals and provide easily understood responses. Pose natural language inquiries—whether you're actively troubleshooting critical operations or searching through extensive data center documentation—and receive precise, contextually relevant answers, all in natural language.
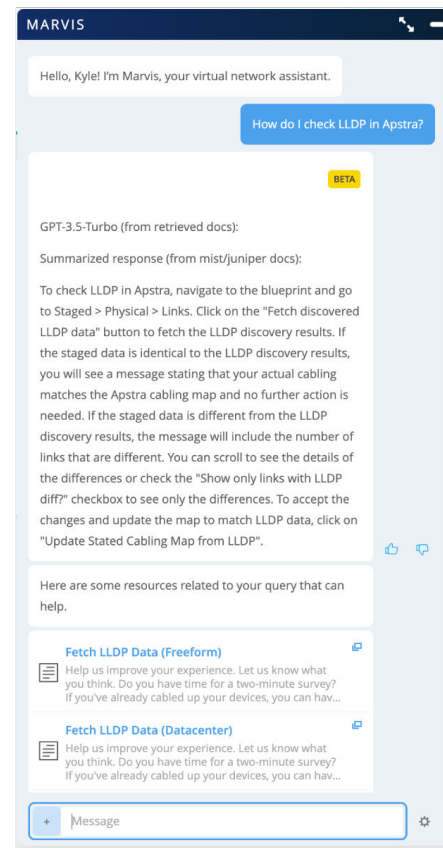

Figure 3: Marvis AI Assistant for Data Center's conversational interface

Multivendor compatibility

Because Data Center Director is inherently multivendor, working with both Juniper and many third-party switching devices, Marvis AI Assistant for Data Center inherits those multivendor properties. Get comprehensive visibility into data center network health, anomaly detection, and AI-native recommended actions, regardless of the underlying switching vendor.

Data Center Director integration

Marvis AI Assistant for Data Center, part of the Juniper Data Center Assurance family, is a cloud-based application while Data Center Director is based on-premises. 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. This intelligent cloud-premises synergy unlocks the advanced AIOps benefits of Marvis AI Assistant for Data Center for your on-premises data center network.
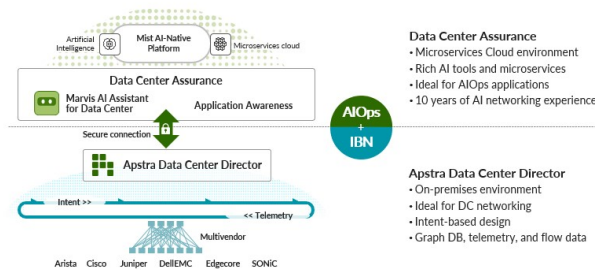

Figure 4: Juniper Data Center Assurance —Juniper Data Center Fabric Director Integration

Marvis AI Assistant for Data Center licensing

Marvis AI Assistant for Data Center is included in the Juniper Data Center Fabric Director "Standard" license tier.

About Juniper Networks

Juniper Networks believes that connectivity is not the same as experiencing a great connection. Mist™, Juniper's AI-native networking platform, is built from the ground up to leverage AI to deliver exceptional, highly secure, and sustainable 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.

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