



Juniper MIST Routing Assurance (SaaS)

Vijendra Singh, Reseller at Juniper Networks



Juniper Paragon



Juniper MIST Routing Assurance

On-prem

SaaS Only

Multi-vendor

Juniper only

Day -0,1,2

Day 2 AIOPS

Customizable

Recommended settings

New Routing Insights

Ease of operation now available for routing

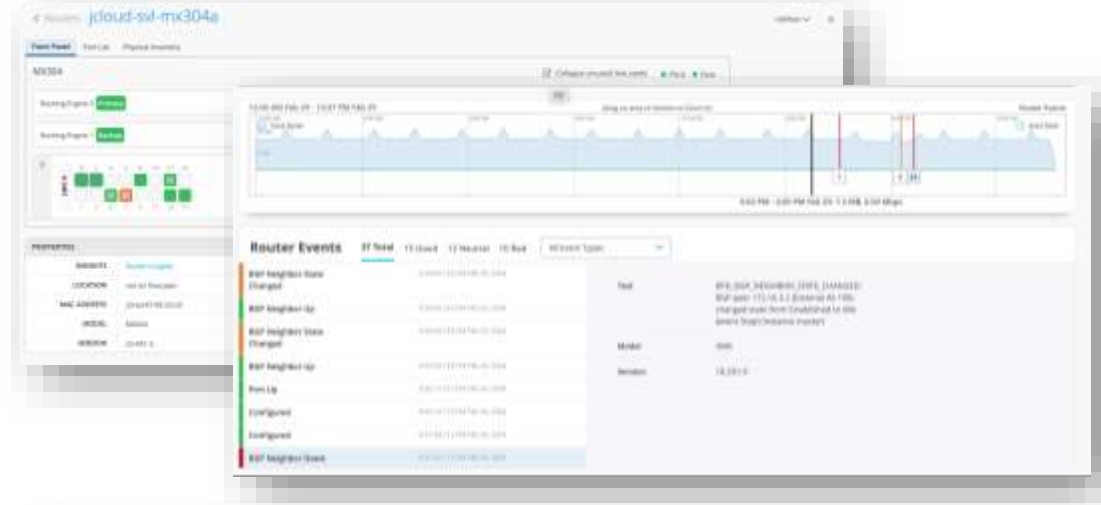
- ✓ Fast Device registration and onboarding
- ✓ Routing Insights (IGP, BGP, CoS, queues, Device health metrics ...)
- ✓ Events / alarms (with Site Aggregation)
- ✓ Service Level Experience metrics



BGP Peers

12 Peers Count, 0 Wash Peers Count, 6 Peer Groups Count

State	Peer	Description	Peer AS	Local AS	Peer Group	Last flap event	Last event	Active Prefixes
Established	10.0.0.1	-	10	10	BGP	-	None	42
Established	10.0.0.2	-	10	10	BGP	-	None	40
Established	10.0.0.4	-	10	10	BGP	-	None	45
Established	10.0.0.5	-	10	10	BGP	-	None	50
Established	172.16.1.2	-	300	10	EBGP-AS300	-	None	45
Established	172.16.3.2	-	100	10	EBGP-AS100	Stop	Cease	150



Router Events 6 Total 0 Good 0 Neutral 6 Bad

Event Type	Time	Status
BGP Neighbor Down	6:51:52 PM Feb 26, 2024	Bad
BGP Neighbor Down	6:51:52 PM Feb 26, 2024	Bad
BGP Neighbor Down	6:49:27 PM Feb 26, 2024	Bad
BGP Neighbor Down	6:49:27 PM Feb 26, 2024	Bad
BGP Neighbor Down	6:50:30 PM Feb 26, 2024	Bad
BGP Neighbor Down	6:50:30 PM Feb 26, 2024	Bad

Root Cause Analysis



Router Onboarding

Status	Name	MAC Address	Model	Site	Serial Number
<input type="checkbox"/> Connect it	access-pe4	2c:6b:f5:02:20:00	VMX	Primary Site	VMX-4059C9D1

- Inventory → Adopt Router

- Copy onboarding commands and apply to the router.

- Not onboarded?

- Check connectivity from device → cloud. Telnet `oe-term.ai.juniper.net` port **2200**
- Already in an Org? Devices can only be onboarded into one Org per deployment.

- Assign to Site

- Connectivity and Stats are not available until the device is assigned to a Site.

```
set system services ssh protocol-version v2
set system authentication-order password
set system login user ai-prod class super-user
set system login user ai-prod authentication encrypted-password
$6$brD591mMZDVStQbV$T5I5cmfHjO3rtTDRXLNAM4c1NlgaVuegzotyPc6ldhQg7wfvk64sIZFA4LpVQLonWHXz0hyi2ue0Gur94y1
set system login user ai-prod authentication ssh-rsa "ssh-rsa
AAAAB3NzaC1yc2EAAAADAQABAAQGDwtyGVssuNRGZVlxa0WI/mf1Fc3zCfxbW12bahaX+ptUUScTMjzR5fe+w0ltx1MAGgDs9ZUjy
WdXHjbxTAonCRu6RFJ08elkxv1060TY
/RtCilr5cBaGN60IDff+lojvOdhqPFviN5rkOKRqOfRDYoTav9lXg1MnfcZzKwdnk5xf5nZw2LmcEp48JnfPTS2zxEQGpuh0WBsTpsch9RN
```

INITIAL PLATFORM SUPPORT

Small Size Enterprise Edge, Provider Edge, DC Edge, Peering MX.

MX204, MX304, ACX7024

Shipping

Roadmap



Trio 4



MX204 - 400G



ACX7024 - 360G

MX240, ACX7100 - 2H 2024

MX480, MX960, PTX - 2025



Trio 6



MX304 - 1.6T to 4.8T

Supported in FRS

Marvis VNA Expanded for Enterprise Routing



Juniper MIST
Routing
Assurance

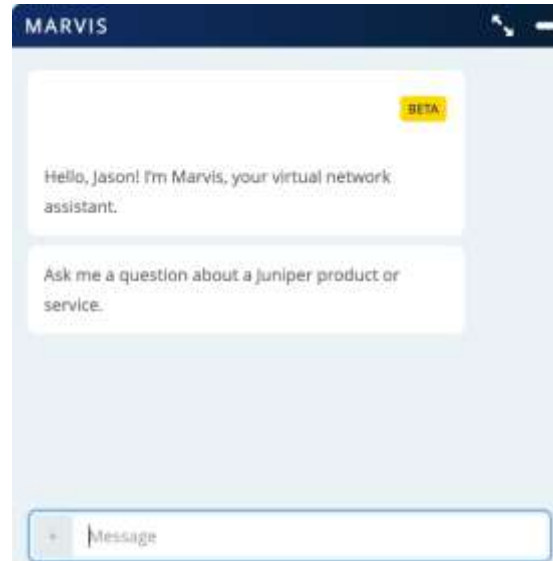
MARVIS VNA across Wired, Wireless, Data Center, SD-WAN and now Enterprise Routing.

Supported at LAUNCH
for Juniper MIST Routing
Assurance

Conversational interface(CI):
*Query network configurations and
ask detailed product questions.*

SOON

Proactive Actions: *Identify and
fix issues before users notice
performance degradations.*



Marvis
VNA

- Natural language questions
- LLM based free text answers from expert data sources
- AI guided troubleshooting and assistance



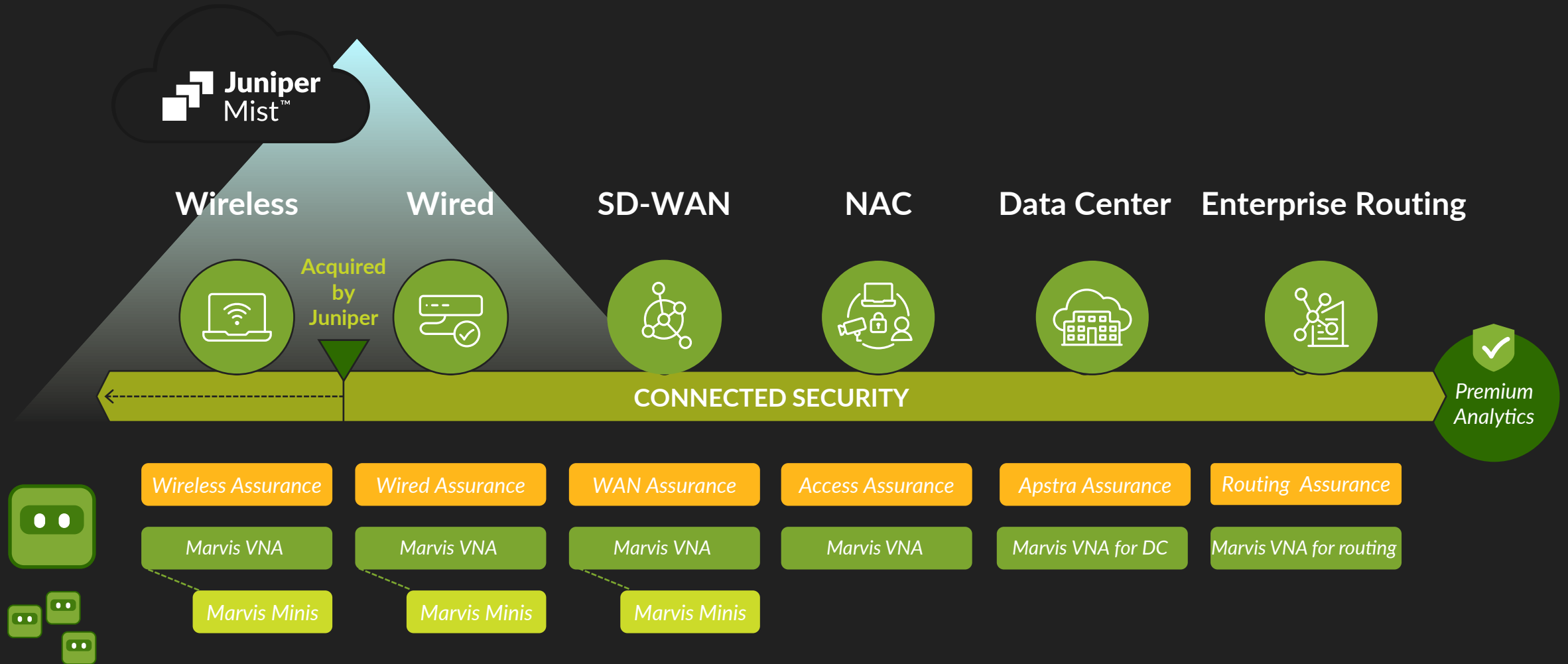


Juniper MIST Full Stack Portfolio

Vijendra Singh, Reseller at Juniper Networks

Enterprise Blueprint:

Extending common cloud and VNA across the Juniper portfolio



Why are we better?

USER EXPERIENCE OUTCOMES

Deploy Networks
10x Faster

Get extreme
visibility Client to
Cloud

Reduce Trouble
Tickets by > 80%

Keep Networks
Always up to date

Do more with less
with Industry
leading AIOps

PORTFOLIO DIFFERENTIATION

CLOUD /AIOps

Scalability & Resiliency
Deliver a consistent
experience whether it is a
10 AP - 300K AP

WIRELESS

Dynamic PCAP
Marvis Minis
AI-Driven RRM

WIRED

Day 0 Automation:
Templates & DPC
Dynamic PCAP, Marvis
Minis & Actions

SD-WAN

Tunnel-free
Zero-Trust
Day 2 simplicity with SLE,
Dynamic PCAP,
Application visibility

CLOUD NAC

Eliminate Day 0
Massive improvement in
Day 2 activities over ISE
& Clearpass



Juniper MIST AI-Native Wired Assurance

Vijendra Singh, Reseller at Juniper Networks

Campus and Distributed Branch Architectures



Small/Medium
Campus

Virtual Chassis/ EVPN Multihoming (EZ-LAG)

- Ideal for SMB use cases.
- Ideal for topologies transitioning from legacy/proprietary technologies to EVPN based fabric i.e. STP, MC-LAG.



Campus/HQ

Campus Fabric Core- Distribution

- Ideal for medium to large scale topologies.
- Recommended for use cases where Access layer is L2 with standard LACP.



Campus/HQ

Campus Fabric IP Clos

- Micro segmentation (GBP) use cases.
- Greenfield and L3/VXLAN at the Access Layer.



E.g.: Big box retail store/Small Campus

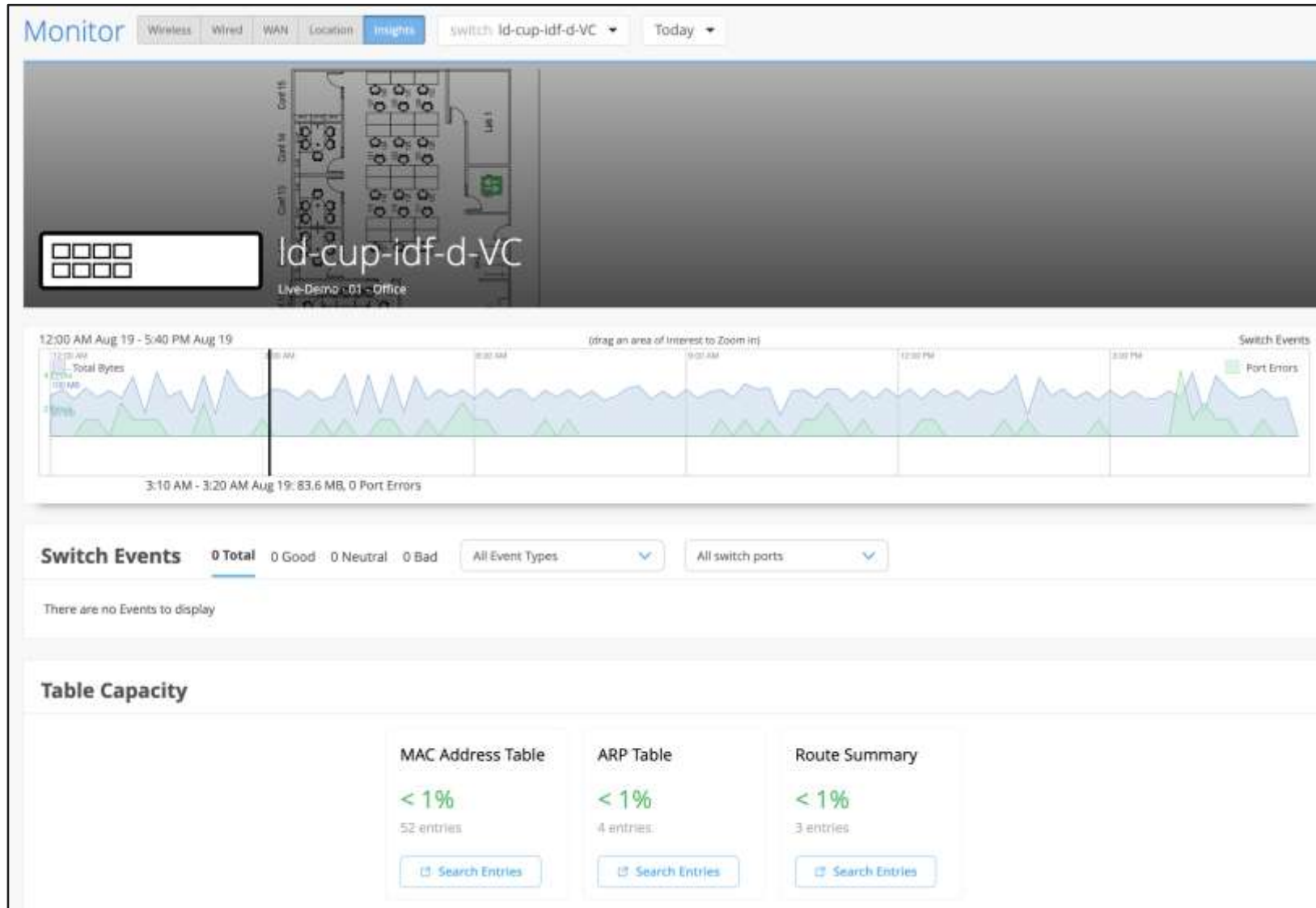


E.g.: University/Large Campus



E.g.: Hospital/Large Enterprise

Switch Capacity



Switch Capacity

Search Entries

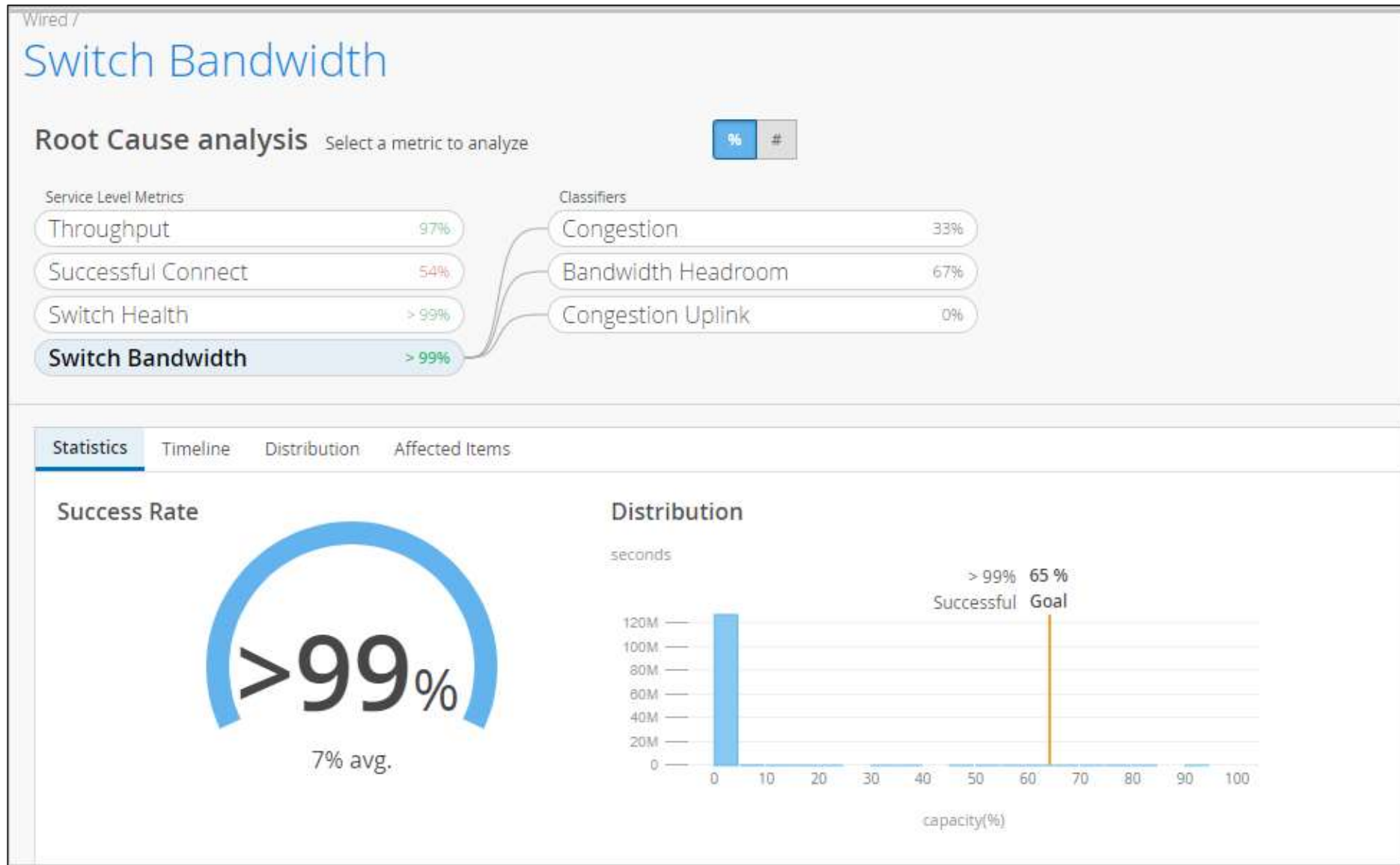
MAC Table **ARP Table** Route Table

IP Address: All VRFs: All Port IDs:

```
-----New Search-----
MAC Address      Address      Interface    Flags
ac:7             :37 10.102.70.252 vme.0        none
fc:3             :53 10.102.70.253 vme.0        none
00:6             :0b 10.102.70.254 vme.0        none
Total entries: 3
```



Bandwidth SLE





Juniper Mist WAN Assurance (SD-WAN)

Vijendra Singh, Reseller at Juniper Networks

WAN Edge SSR Speed Test

WAN Edges : Sunnyvale-Spoke

SSR

ADVANCED SECURITY

URL Filtering

IDP

1 Port Selected ge-0/0/0

STATISTICS

SPEED	1G
POE	Disabled
FULL DUPLEX	Yes
BPS (TX/RX)	0 / 0
PACKETS (TX/RX)	21 M / 22 M
BYTES (TX/RX)	3.5 GB / 6 GB
STP	--
MAC ADDRESS	52:54:00:7b:0f:bb

NETWORKS

Name	Interface	VLAN	IP Address	Address Mode	Bytes (TX/RX)	Packets (TX/RX)	Speed Test
broadband	ge-0/0/0	0	128.128.128.14/29	Dynamic	3.3 GB / 5.8 GB	21.1 M / 21.2 M	Run Test

On-demand Speed test

1. Select WAN interface from front panel
2. View historical tests
3. Select Run Test to begin an on-demand speed test

Scheduled Speed test

1. From Site settings select day/time to run speed test

WAN Speed Test Demo

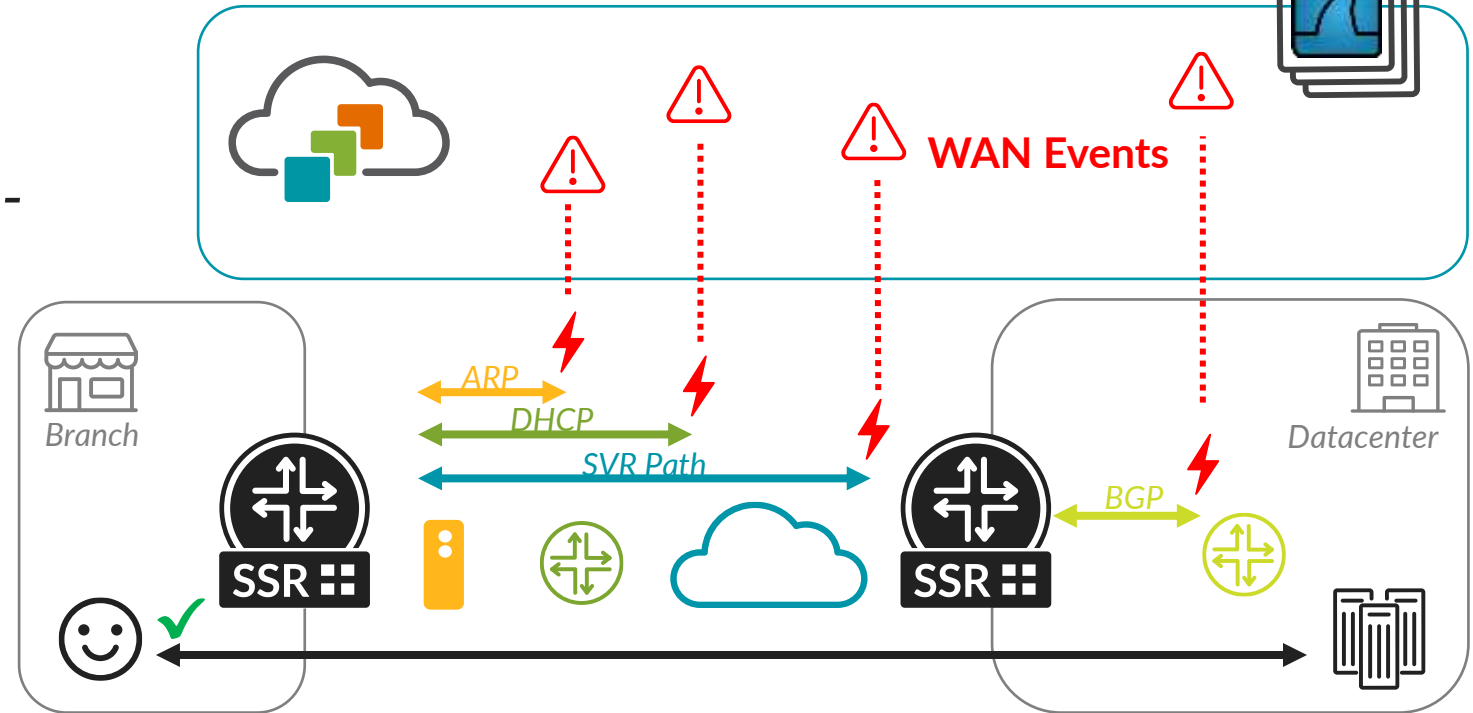
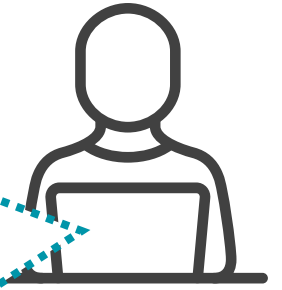
The screenshot displays the Juniper Mist management console for a WAN Edge device named 'Sunnyvale-Spoke'. The interface includes a left-hand navigation menu with options like Monitor, Marvis, Clients, Access Points, Switches, WAN Edges, Mist Edges, Private 5G, Location, Analytics, Site, and Organization. The main content area is titled 'WAN Edges: Sunnyvale-Spoke' and features several sections:

- SSR Status:** Shows three green status icons and interface identifiers (ge-0/0/0, ge-0/0/1, ge-0/0/2). CPU and Memory usage bars are visible.
- ADVANCED SECURITY:** Includes checkboxes for URL Filtering and IDP.
- PROPERTIES:** A table listing device details such as Insights, Location, MAC Address, Model, Version, Hardware Model, Template, and Hub Profile.
- STATISTICS:** A table showing device status (Connected), Uptime (12d 22h 46m), Last Seen, and Last Config.
- DHCP STATISTICS:** A bar chart showing Leased IPs (1.3%) and Available IPs (98.7%), along with a table of DHCP pools.
- SPEED TESTS:** A table showing a recent speed test result.
- TOPOLOGY DETAILS:** A section with a search filter.

WAN Dynamic PCAP

- *SSR gathers packet captures around key triggers*
- *Relevant packets sent to Mist along with event telemetry*
- *PCAP downloads associated with events at your fingertips*
- *Simplify debugging with on-the-wire proof*

“Packets don't lie!”



WAN Dynamic PCAP Demo

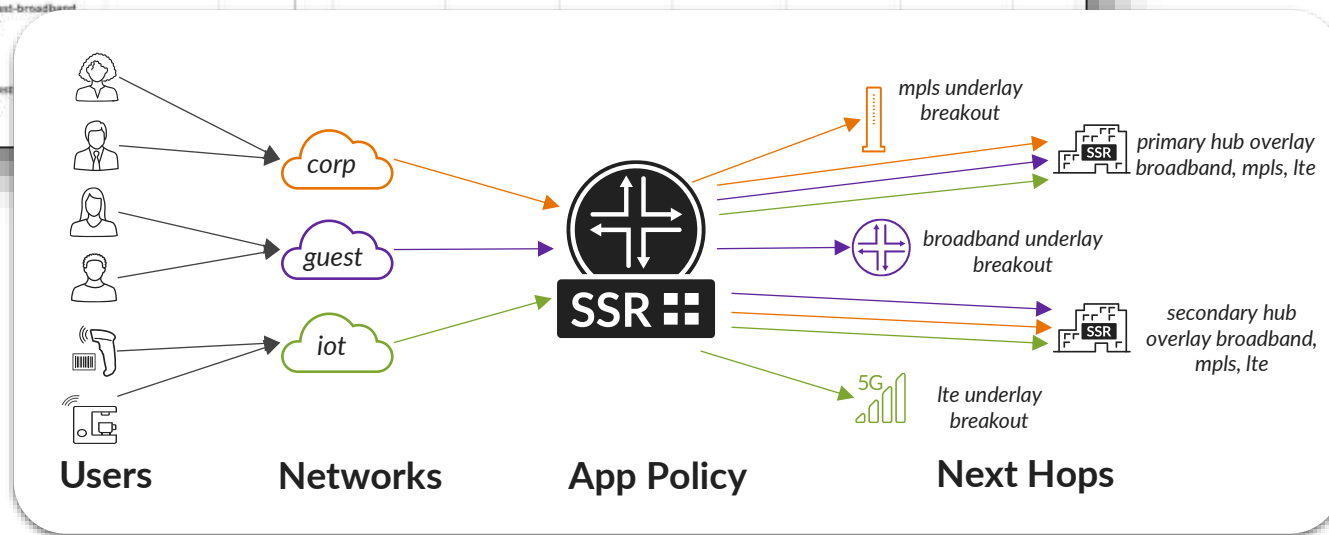
The screenshot displays the Juniper Mist Monitor interface for an organization named 'ACME'. The interface is divided into a left-hand navigation menu and a main content area. The navigation menu includes options for Monitor, Marvis, Clients, Access Points, Switches, WAN Edges, Mist Edges, Private 5G, Location, Analytics, Site, and Organization. The main content area is titled 'Monitor' and features tabs for 'Wireless', 'Wired', 'WAN', 'Location', and 'Insights'. The 'WAN' tab is currently selected. Below the tabs, there are filters for 'org: Entire Org' and 'Today'. A sub-section titled 'Overall Service' has tabs for 'Overall Service', 'WAN Edge Health', 'WAN Link Health', and 'Application Health'. The 'Overall Service' tab is active, and a dropdown menu shows 'All Sites' selected. A table displays the following data:

Site	Avg WAN Edge Count	Avg Client Count	Overall Service	WAN Edge Health	WAN Link Health	Application Health
DC East	2	0	52%	66%	38%	--
DC West	1	0	79%	58%	99%	--
North Bend			--	--	--	--
Cloud Azure West			--	--	--	--
Cloud Azure East			--	--	--	--
Cloud AWS West			--	--	--	--
Cloud AWS East			--	--	--	--
Las Vegas	2	4	78%	67%	68%	100%
Sunnyvale	1	6	92%	99%	76%	100%

App Routing Insights



- ✓ See Session Smart Routing in action!
- ✓ Visibility into user experience being saved over time
- ✓ Key insights into:
 - **How much** traffic is arriving for apps
 - **Who** is it coming from
 - **Where** is the traffic being sent
 - **What** is affecting path selection
 - ARP unresolved
 - No address from DHCP
 - Dynamic routing protocol change
 - SLA not met
 - Path down
 - Probe down
 - Port down
 - Config change

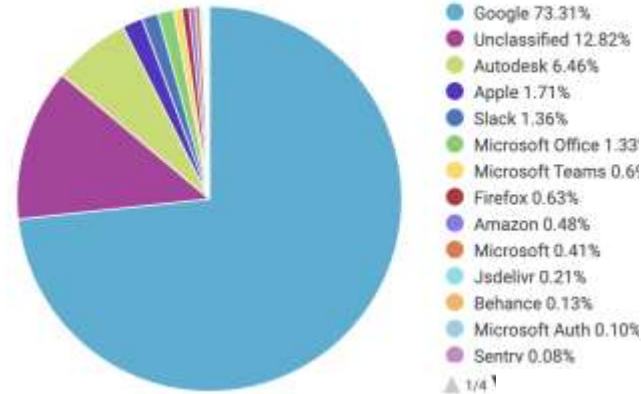


Security Assurance Insights in Premium Analytics

- ✓ *Global Security Insights*
- ✓ *Attack trends and summary*
- ✓ *Detailed IP source/dest info*
- ✓ *Scheduled delivery of PDF/CSV via email*

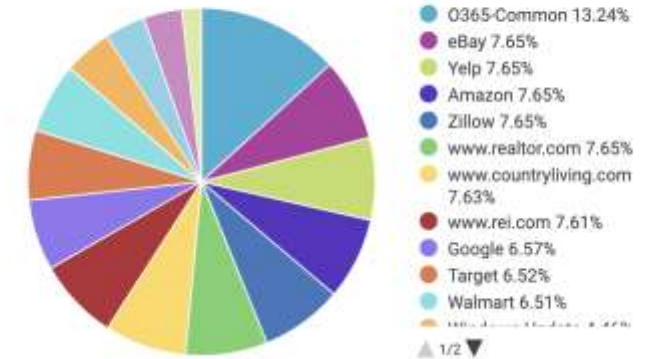
Key differentiator: Living dashboards that may be customized based upon desired filters

Top Business Apps

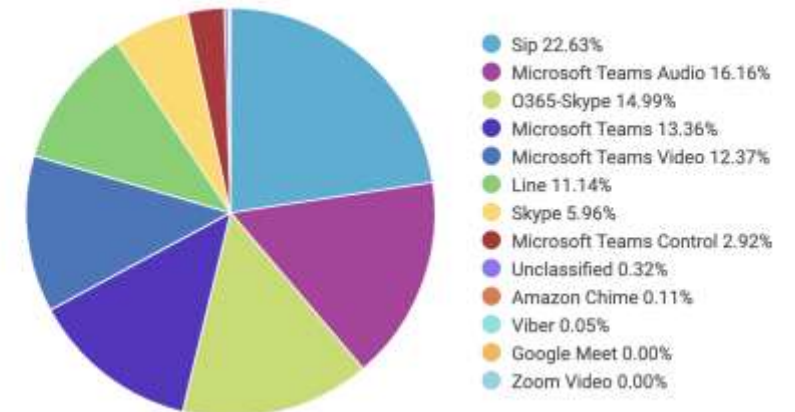


Top URL Blocked Events by Application

Please click on the chart to view additional details



Top Conferencing/Collaboration Apps





Thank you

JUNIPER
NETWORKS

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Experience™