

The Network for the Modern Cloud Era

The Mist Microservices Advantage

Sujai Hajela
EVP AI-driven Enterprise



“Up” is not the same as “Good”



Experience-First Networking



Automation

Insight

Assurance

Wired LAN

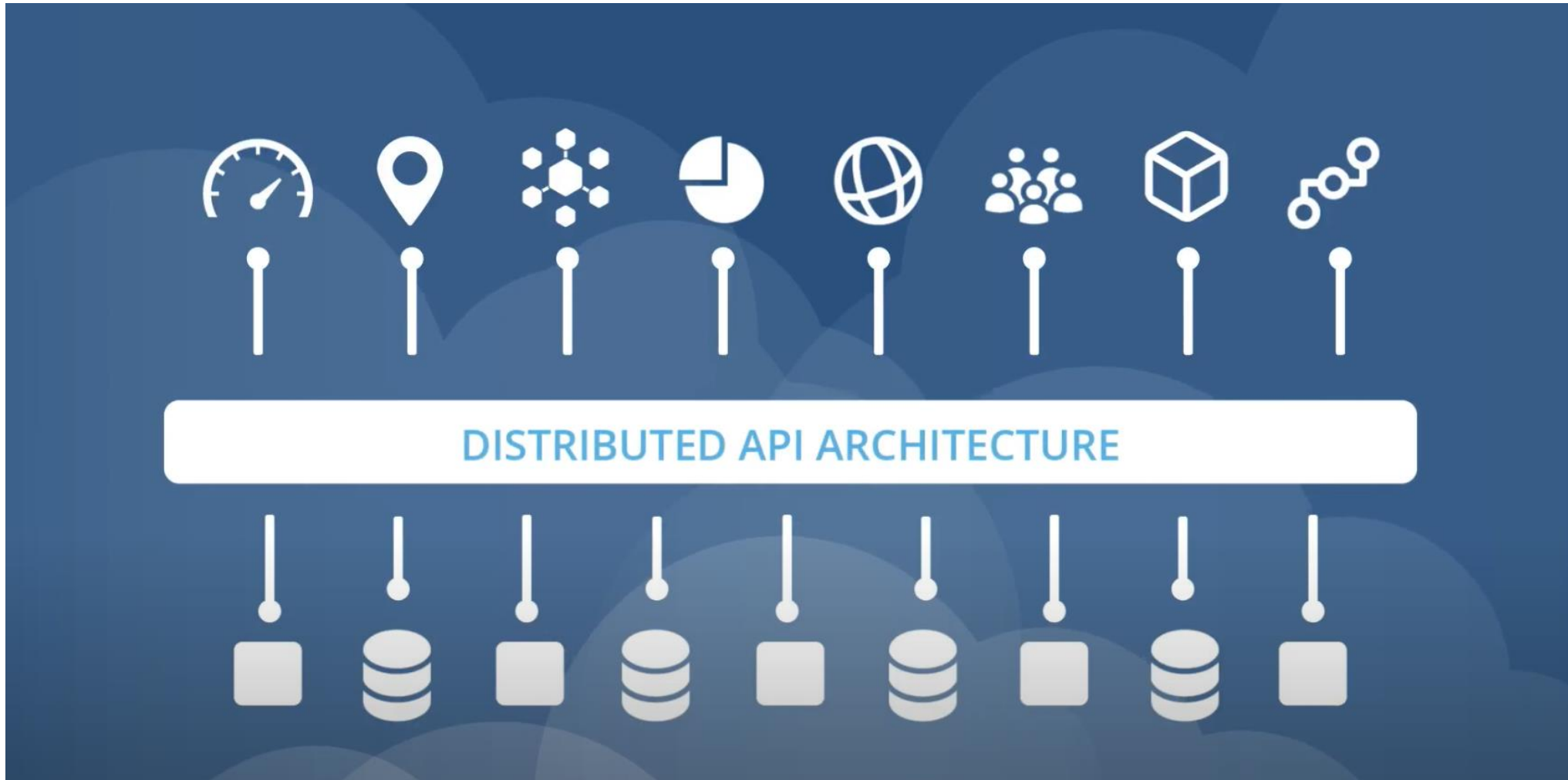
Wireless LAN

WAN

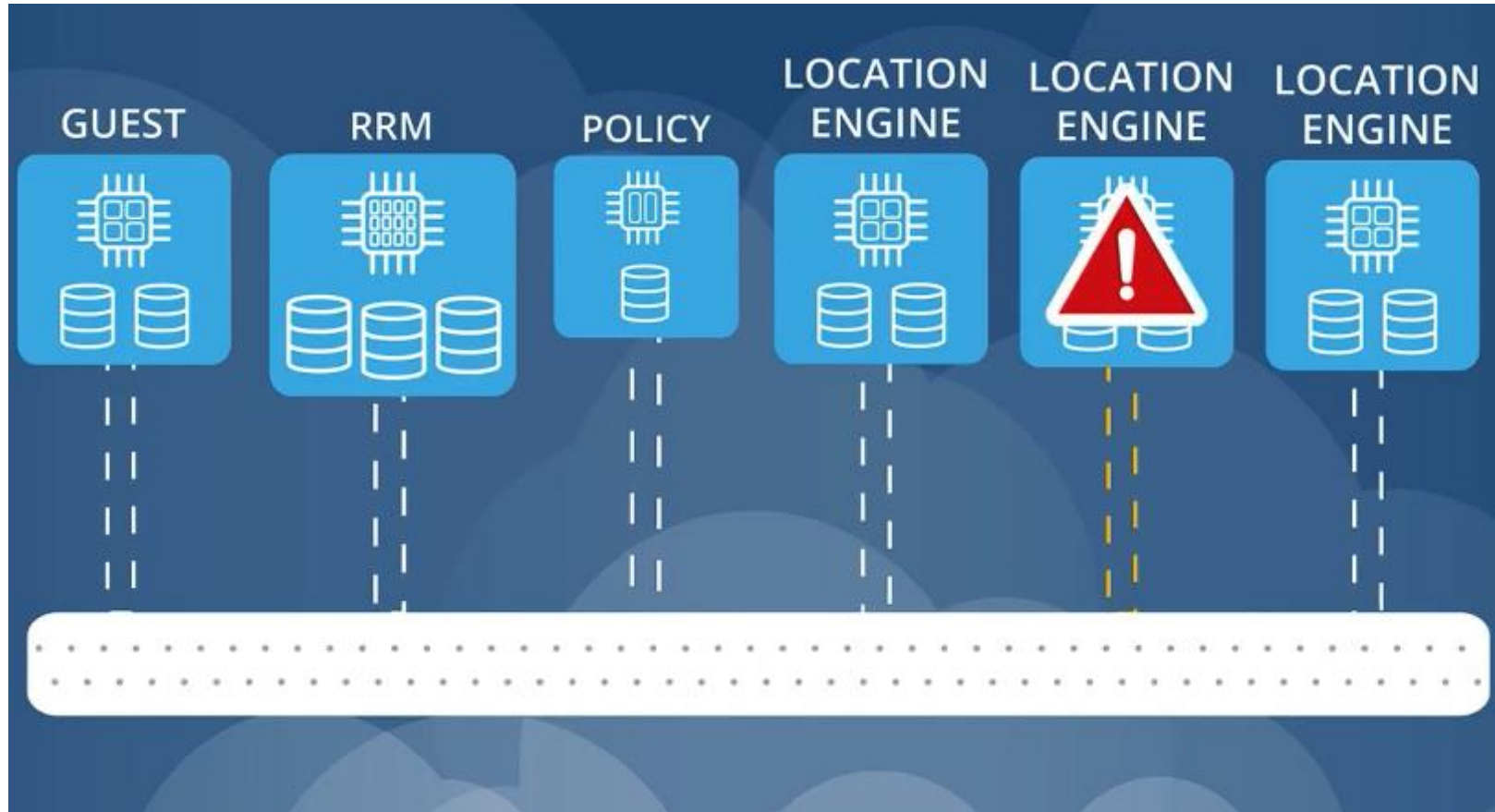
Security

Data Center

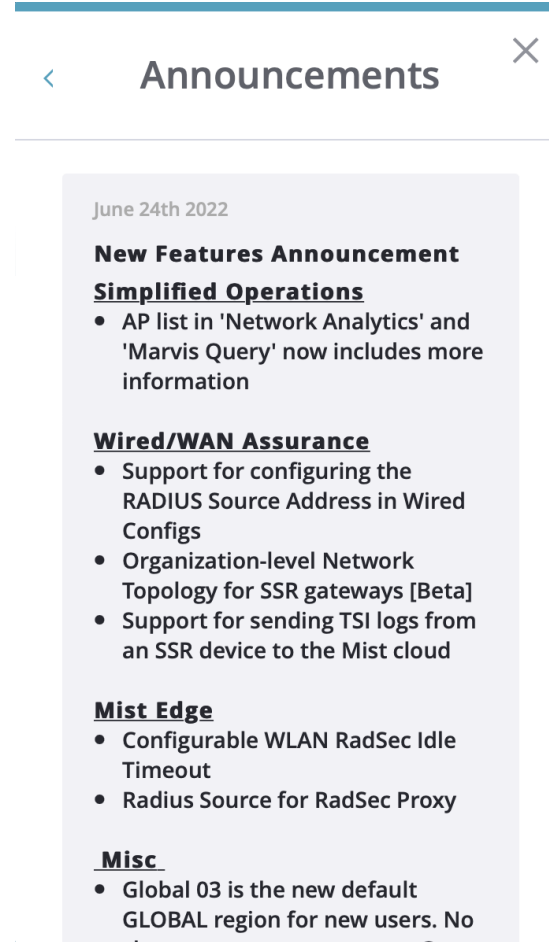
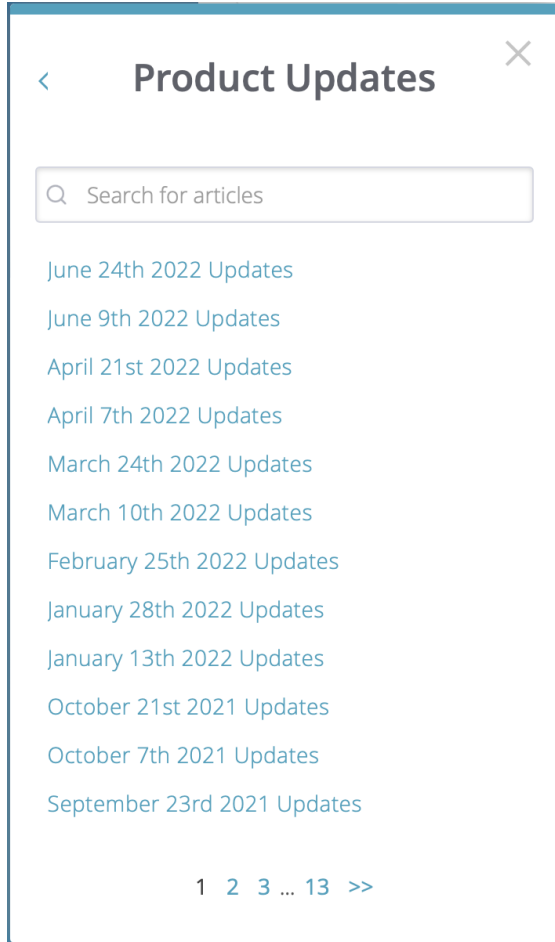
It starts with a modern cloud



Microservices ensure elastic scale, resiliency, and speed



Only Juniper Mist has bi-weekly product enhancements



- No scheduled cloud downtime
- Rapid response to industry issues (eg KRACK)
- Seamless / scalable global updates

Scalable AIOps requires a modern cloud back-end



Conversational AI

Marvis Virtual Network Assistant



Reinforcement Learning

RRM

Neural Network

Time Series Anomaly Detection,
NLP, Geo-Spatial Analysis

Unsupervised Learning

Location

Transformer-based Language Models

Marvis Conversational Assistant

DEEP LEARNING

ARTIFICIAL INTELLIGENCE

MACHINE LEARNING

K-Means Clustering

Environment Learning

Decision Tree

AP / Switch Health, DHCP
Health, Coverage Hole

Online ARIMA

Time Series Anomaly

XGBoost / Decision Tree

Throughput Prediction

Logistic Regression

AP / Switch Health

Probabilistic Graphical Models

Root Cause Analysis

Mutual Information

Feature Discovery

Domain Expertise Classification

Service Level Metrics, Event Timeline

Bayesian Inference

Persistently Failing Clients, Auto Placement of AP

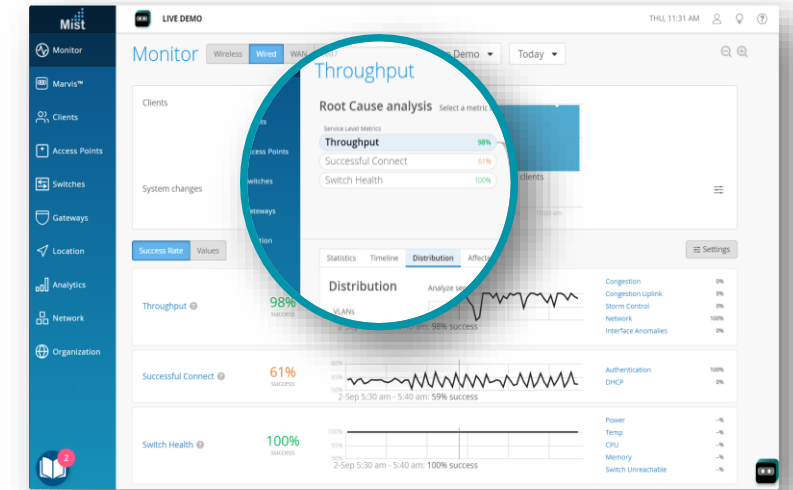
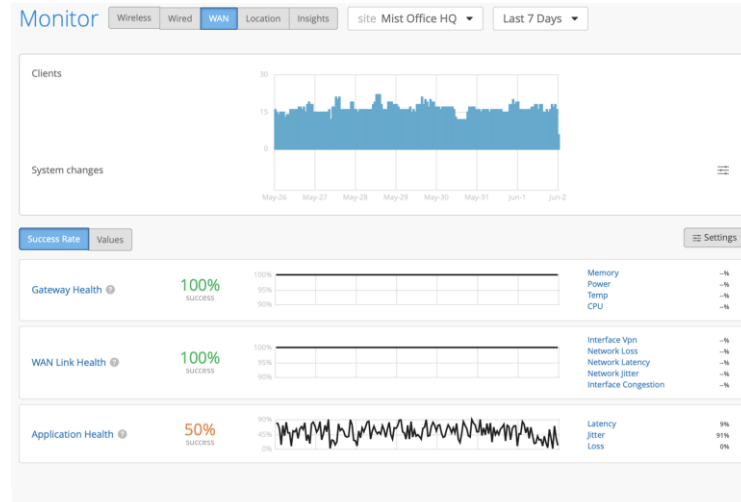
Temporal Correlation

Root Cause Analysis

Real-time insight into user experiences

Data streaming to the cloud provides insight into wired, wireless, and WAN experiences:

- 150 wireless user states for every wireless client sent every few seconds
- Telemetry data from Juniper EX switches and SRX firewalls
- Session smart data (AI-driven SD-WAN)
- Location data (wayfinding, asset location, analytics, etc)



The screenshot shows the Mist HyperLink Network - MSP Interface, displaying a list of 20 organizations. The table lists various sites and their performance metrics, including Throughput, Capacity, Failed to Connect, AP Availability, and Time to Connect.

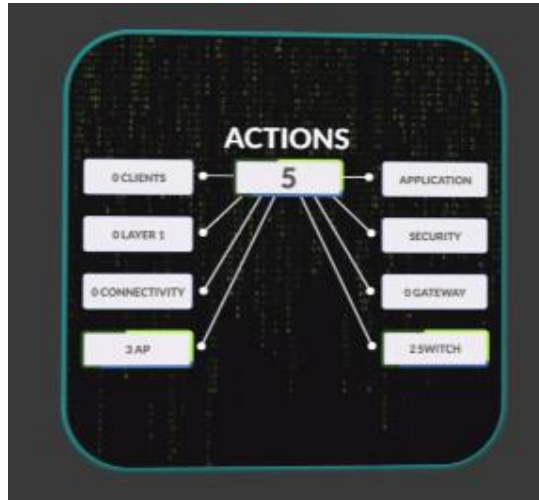
Organization	Site	Throughput	Capacity	Failed to Connect	AP Availability	Time to Connect
Ballgame Shops	2	80 %	100 %	99 %	88 %	100 %
	3	80 %	100 %	99 %	88 %	100 %
Wild One Wings	10	67 %	98 %	98 %	94 %	99 %
	7	67 %	98 %	98 %	94 %	99 %
Hilltop Country Club	1	97 %	82 %	100 %	100 %	100 %
	2	97 %	82 %	100 %	100 %	100 %
Getty Credit Union	3	57 %	89 %	95 %	95 %	100 %
	18	57 %	89 %	95 %	95 %	100 %
Keen County Library	1	89 %	99 %	98 %	86 %	100 %
	5	89 %	99 %	98 %	86 %	100 %
HyperLink Corporate	1	100 %	98 %	66 %	78 %	100 %
	3	100 %	98 %	66 %	78 %	100 %
HyperLink Demo	11	88 %	89 %	98 %	98 %	100 %
	13	88 %	89 %	98 %	98 %	100 %
King George Hotel	2	100 %	34 %	94 %	94 %	97 %
	16	100 %	34 %	94 %	94 %	97 %
Maggio's Pizza	2	91 %	87 %	98 %	98 %	99 %
	5	91 %	87 %	98 %	98 %	99 %
Johnny's Subs & Brews	6	99 %	96 %	96 %	96 %	81 %
	12	99 %	96 %	96 %	96 %	81 %
San Jose Striker Lanes	1	100 %	98 %	89 %	78 %	88 %
	4	100 %	98 %	89 %	78 %	88 %
Super Nachos	2	96 %	100 %	90 %	94 %	100 %
	3	96 %	100 %	90 %	94 %	100 %
Skylar Community Ctr	17	34 %	7 %	9 %	2 %	3 %
	34	34 %	7 %	9 %	2 %	3 %
Acme University Library	7	9 %	2 %	3 %	4 %	23 %
	9	9 %	2 %	3 %	4 %	23 %
Roadrunner Restaurant	2	3 %	4 %	23 %	3 %	18 %
	3	3 %	4 %	23 %	3 %	18 %
Galton Public Library	4	23 %	3 %	18 %	1 %	23 %
	23	23 %	3 %	18 %	1 %	23 %
DeForest Public Library	3	18 %	1 %	23 %	1 %	23 %
	18	18 %	1 %	23 %	1 %	23 %
Stanton Conference Ctr	1	23 %	1 %	23 %	1 %	23 %
	23	23 %	1 %	23 %	1 %	23 %

Meet Marvis – First AI-Driven Network Assistant



Meet Marvis – First AI-Driven Network Assistant

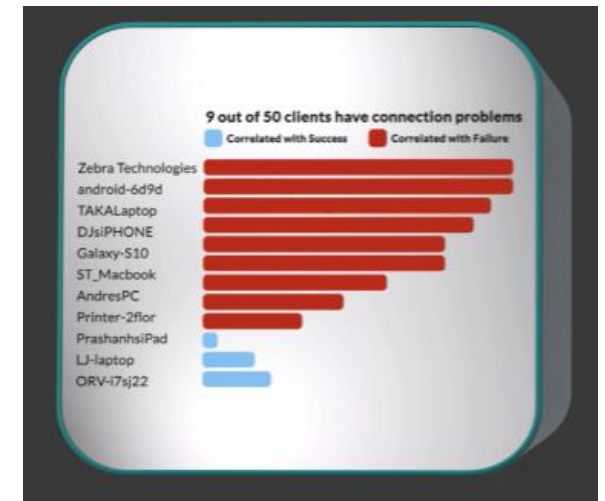
What is wrong with my network today?



What is wrong with Jeff's laptop?

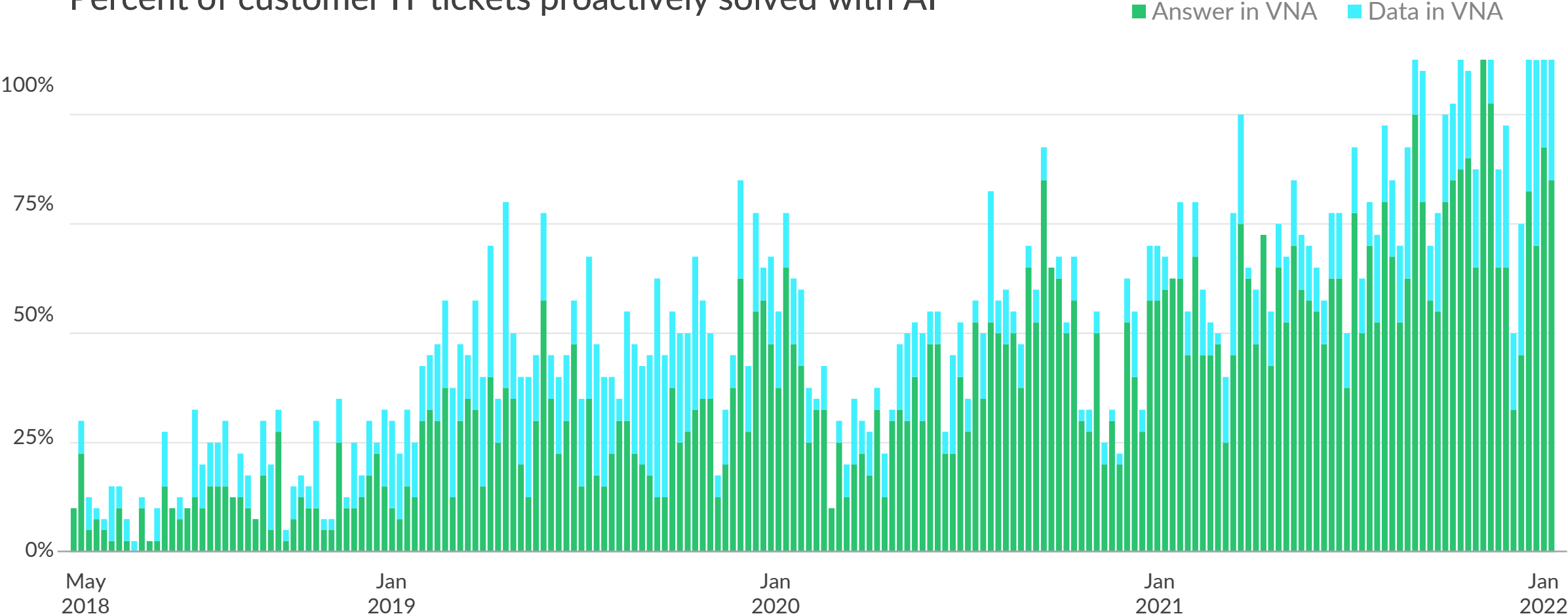


Show me all unhappy users

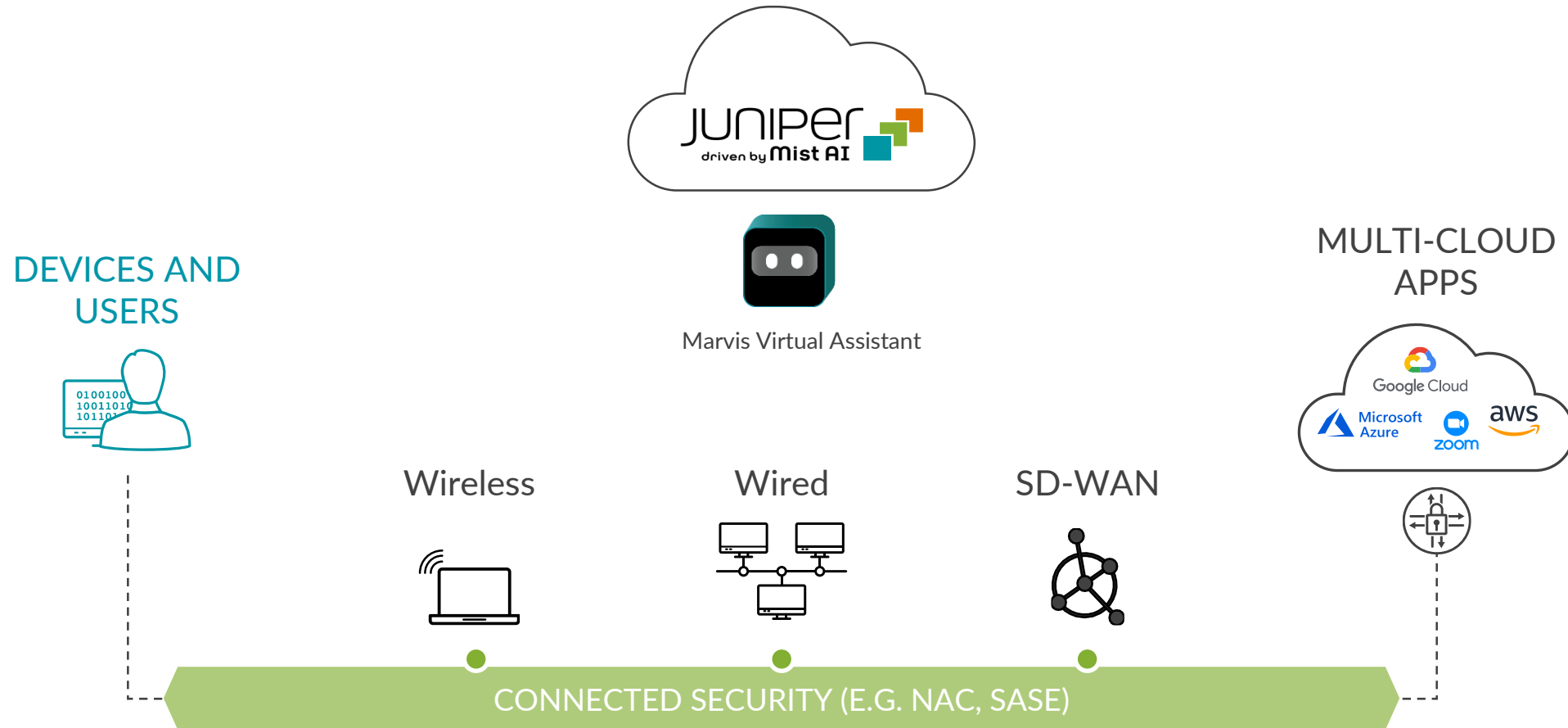


AI-DRIVEN SUPPORT: IT KEEPS GETTING BETTER WITH TIME

Percent of customer IT tickets proactively solved with AI



Only Juniper has a proven, full-stack solution AVAILABLE NOW



Cloud Native, AI-Driven, Session Smart

Better User Experiences; Better IT Outcomes

**Juniper Mist is
Fundamentally Different**

Global Logistics Company

“...MTTR down 96% on average per ticket”

Fortune 10

“...dramatically decreased rollout time”

GAP

“...85% reduced site visits”

servicenow

“...over 90% reduction in user opened support tickets”

MIT

“...it’s like we woke up from a dream, watching Mist roll out”

Chick-fil-A

“...best technology we have ever deployed in restaurants”

Dartmouth

“...since Marvis, escalated tickets are down by factor of 10”

Juniper is first in wired/wireless access

Figure 1. Magic Quadrant for Enterprise Wired and Wireless LAN Infrastructure



Customers' Choice 2022

4.9 ★★★★★ 432 Ratings

5 Star

85%

4 Star

13%

3 Star

1%

2 Star

0%

1 Star

0%

2 Years a Leader
Positioned Furthest in Execution & Vision

Figure 1: Magic Quadrant for Indoor Location Services, Global



The Only Networking company Leading in the
Location Services MQ



Thank you

JUNIPER[®]
NETWORKS

Driven by
Experience™