

The background image shows two healthcare professionals, a man on the left and a woman on the right, both wearing white lab coats and glasses. They are looking at a large digital display that shows several axial CT scan images of a human head. The woman is pointing at one of the scans. The entire scene is overlaid with a semi-transparent green rectangular area that contains the main text.

# The Changing Role of Connectivity in Delivering First Class Experiences

Matt Roberts – Healthcare Practice Leader

JUNIPER  
NETWORKS

Driven by  
Experience™

# Juniper Networks

## About Us

- Strictly networking and cybersecurity focused company founded in 1996 - headquartered in Sunnyvale, CA.
- Global reach with over 10,000 employees in 120 locations across 50 countries around the world – annual revenue for 2022 was \$5.3B, nearly 12% growth from 2021.
- Develops and markets routers, switches, access points, network management software, network security products and software-defined networking technology.
- Mission is to empower healthcare IT leaders to deliver simplified experiences for those who run networks and the patients, clinicians and staff who depend on them.



# A Modern Foundation for Health & Life-Sciences

## COMPANY HIGHLIGHTS

**TOP 3**

ENTERPRISE VERTICAL



**10+%**

YOY GROWTH (CY18-CY22)



**6 OF THE TOP 10**

LARGEST U.S. HEALTH SYSTEMS RELY ON JUNIPER

## INDUSTRY CHALLENGES and TRENDS



PROTECTING AGAINST CONTINUOUS CYBERTHREATS



IMPROVING PATIENT/ CLINICIAN ENGAGEMENT & EXPERIENCE



LEVERAGING AI, ML, AND RPA TO IMPROVE EFFICIENCIES



BUILDING DISTRIBUTED CLOUD ENVIRONMENTS



CREATING SAFE, SUSTAINED COST SAVINGS PROGRAMS

## SOLUTIONS ALIGNED TO INDUSTRY CHALLENGES



Modernize and Simplify Campus LAN & WLAN



Automate and Provide Visibility into the WAN



Build and Manage Public and Private Clouds



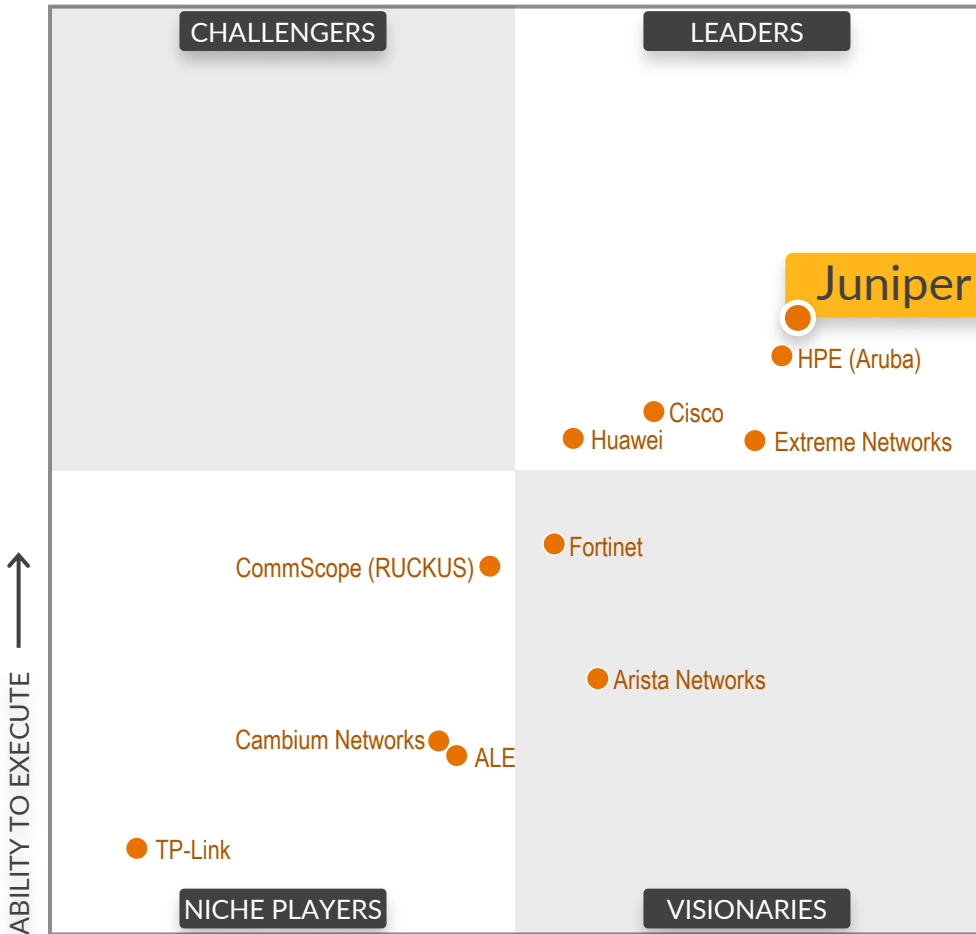
Protect Against Rigorous Cyberthreats

## PROUDLY PARTNERING WITH A GROWING SET OF COMMUNITY PROVIDERS



# Gartner Magic Quadrants – Quick Glance

## Wired and Wireless LAN Infrastructure



## Indoor Location Services



As of September 2022 © Gartner, Inc.

As of November 2022 © Gartner, Inc.

# Harnessing the Power of the Network and AI



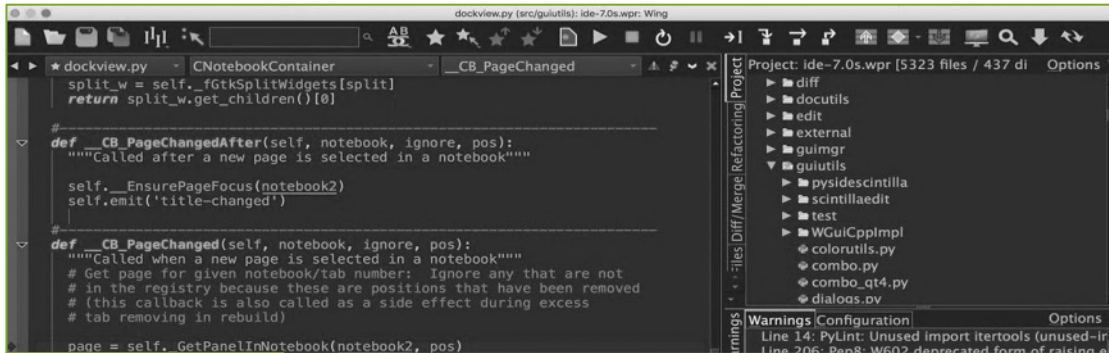
**INSIGHT**

“Up” is not the same as “good”



**ASSURANCE**

Critical services require more predictable, reliable, and measurable networks



**AUTOMATION**

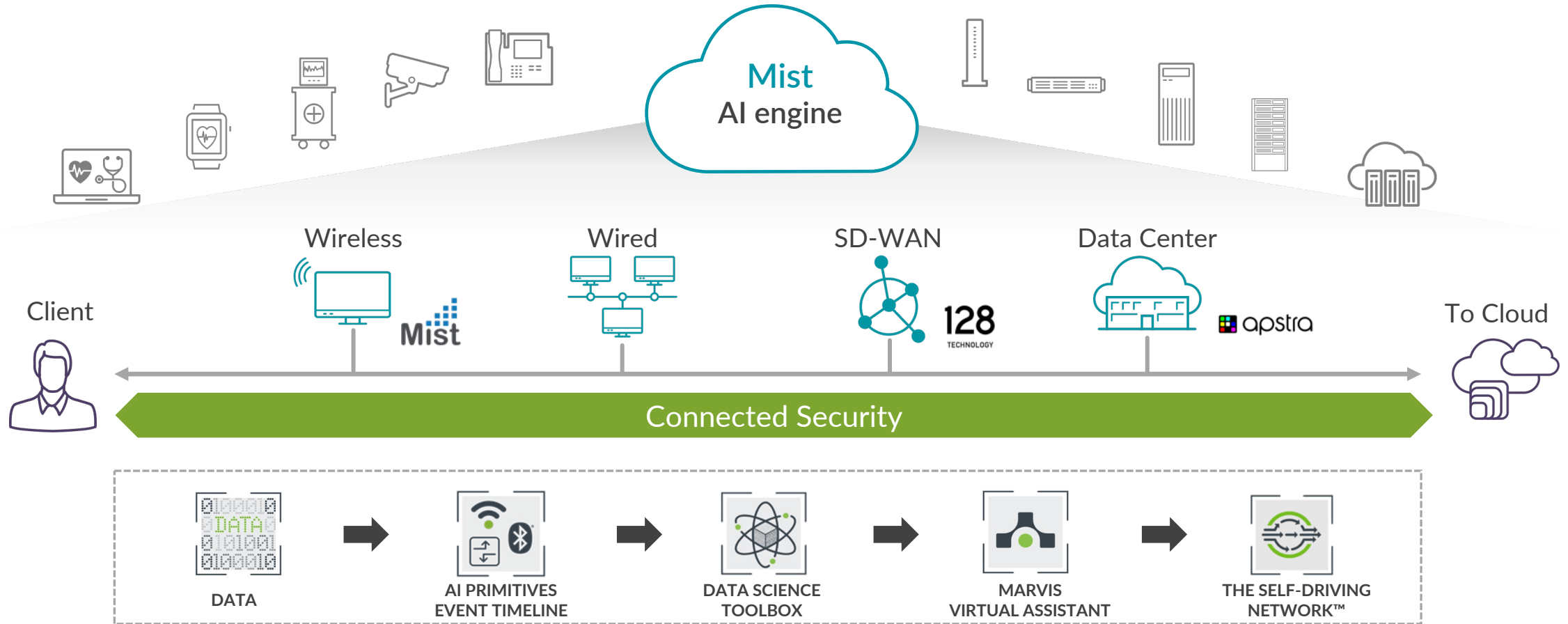
Machines should configure machines



**RELEVANCE**

Deliver personalized experiences based on location, integrate with IoT

# Delivering Insight, Automation, and Action



# Experience First Networking, From Client to Cloud



Marvis



NAC

Client

To cloud

Why is my network experience bad?



Wi-Fi Assurance



Wired Assurance

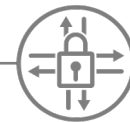
WAN Assurance



Wireless LAN



Wired LAN



SD-WAN + Secure Edge



CLIENT TO CLOUD - AI DRIVEN, CLOUD NATIVE, SESSION SMART, SECURE

# A Transition is Taking Place...

## USER EXPERIENCE

The only vendor in the industry with a cloud built to measure and improve user level visibility.

## DIGITAL ENGAGEMENT

Engage patients, guests, and staff digitally without overlay systems; vBLE becomes the art of possibility.

## MICROSERVICES CLOUD

A modern microservices architecture ensures a network that is easy to operate and agile; updates weekly with no disruption.

## ARTIFICIAL INTELLIGENCE

The industry's only Self-Driving Network; means fewer tickets, more visibility, and much happier users.

## VIRTUAL NETWORK ASSISTANT

A conversational interface provides real-time answers about the network; say goodbye to memorizing CLI commands or shuffling between multiple dashboards.





# And Experience is the Driving Force...



## Enhanced Patient Engagement

- Provide easy step-by-step navigation
- Streamline check-in process
- Deliver concierge-like services
- Engage and deliver personalized touch



## Improved Clinician Workflows

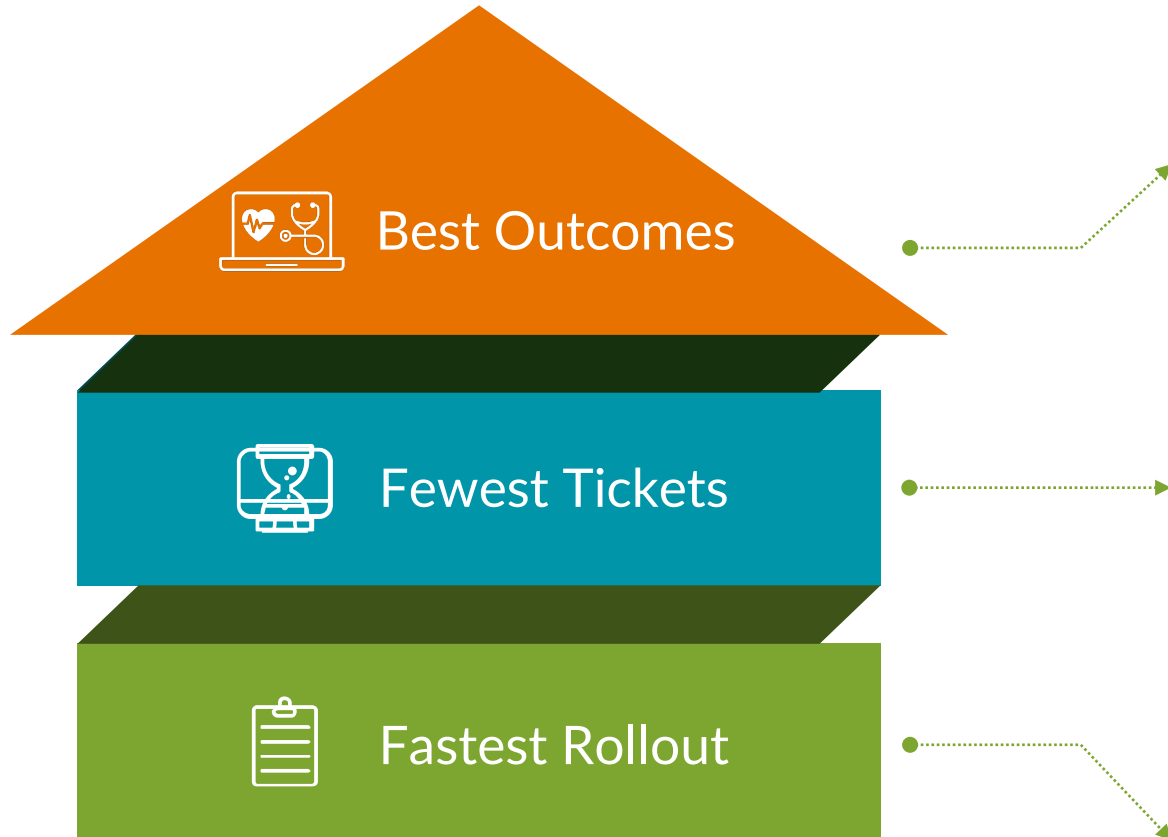
- Utilize resources more effectively
- Track location of critical assets
- Receive priority service levels
- Improve engagement opportunities



## Enriched IT Operations

- Receive fewer support tickets
- Decrease time to resolution
- Eliminate physical beacons & BLE surveys
- Boost visibility, accuracy and performance

# Intelligent Network Platform for Modern Healthcare



## Smart Foundation for Digital Health

- Measure and metric user experience
- Engage with patients, guests & staff with BLE
- Deliver location services for asset tracking, wayfinding, etc.
- Modernize architecture for reliability, growth, and agility
- Future-proofed for strategic, expanding IT functions

## Proactive Network Operations

- Fewer support tickets and faster MTTR – no chasing ghosts
- Updates every other week; no downtime
- Proactive, integrated support, and quickest RCA

## Automated, No Mistakes, Simple

- Single click activation via cloud-ready APs and switches
- Fewer templates, more flexibility
- Automated IoT onboarding
- Compatible with Cisco brackets

# Modern Healthcare Mobility is a Necessity

## Customer



- 12 hospitals in VA and Northeast NC
- 2,735+ beds
- 29,000+ employees

## SUCCESS STORY

## Challenges

- Innovating in a traditional controller-based architecture that was constantly plagued with outages and performance issues due to network saturation
- Supporting the growing number of devices, users, and applications while providing a platform that could drive new engagement opportunities for patients and staff

## Juniper/Mist Solution Delivers

- Wi-Fi 6E for high-density hospital environments, where latency has had a serious impact on clinical workflow, patient care, and satisfaction
- Higher bandwidth spectrum, which means faster connections with less interference (clean airspace) from legacy devices and better service for those devices that can connect to the 6GHz spectrum
- CapEx savings of more than 20% by leveraging cloud-based microservices model
- OpEx savings of 20-30% with AI and Wi-Fi automation features

# A Modern Network Built for Optimal Care Delivery

## Customer



Northeast Georgia Health System



- 4 hospitals in Northeast GA
- 790+ beds
- 7,500+ employees

## SUCCESS STORY

## Challenges

- Modernizing the health system technology platform via a multi-year journey to support growth of applications, mobility, medical images, voice/video, and biomedical data
- Building a bulletproof campus/data center network to ensure uninterrupted operations due to the sensitive nature of patient care

## Juniper/Mist Solution Delivers

- Proactive insights, PCAPs, and taking action to reduce support tickets and chasing down staff to recreate issues
- RF reliability in a noisy environment, while auto-enabled RRM and AI continuously fine tunes the device experience
- Support for more than 50K devices and designed to scale to many more
- Reduced network provisioning time by more than 50%
- Over 30X faster to provision back-up connectivity to admin buildings
- IoT and BLE technology integration with solutions such as infant protection, hand hygiene, staff duress, humidity/temperature sensors, etc.

# Optimizing the Veteran Experience

## Customer



U.S. Department  
of Veterans Affairs

Orlando VA Medical Center at Lake Nona



- 65-acre campus
- 314 beds (inpatient, domiciliary, living)
- Serves region's 400,000 veterans

## SUCCESS STORY

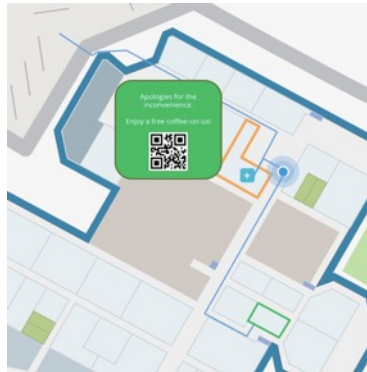
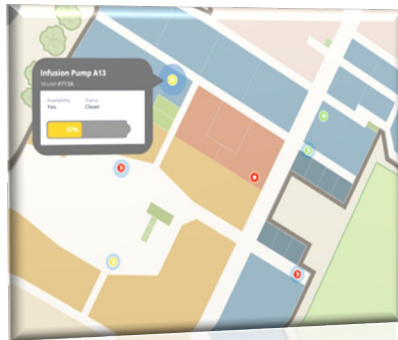
## Challenges

- Large 1.2M sq. ft. medical center was difficult for patients and staff to navigate and find medical assets
- Executive team wanted to boost patient experience for the 400,000 veterans served annually and look for innovative ways to deliver a high-touch engagement

## Juniper/Mist Solution Delivers

- Indoor navigation, push notifications, patient check-in with mobile app
- Guest Wi-Fi delivered by over 8,000 Mist APs across multiple VISN hospitals
- Launched asset visibility program where 3<sup>rd</sup> party tags integrate with Mist vBLE for locating critical medical assets such as wheelchairs, pumps, vents, carts, etc.
- IoT and BLE technologies integrated with Stanley door locks to prevent patient elopement in areas for risk
- User experience boosted while streamlining help desk operations

# Making the 'Art of the Possible' a Reality



## Use Cases and Outcomes:

- Improve communication with patients from appointment planning through hospital visit
- Provide visibility into delayed and/or missed appointments
- Deliver turn-by-turn navigation
- Offer concierge service for “Uber-like” experience
- Monitor the location of key assets, including people and medical equipment
- Elevate safety profile by controlling door systems via IOT port connectivity

# Outcomes You Will Experience

1	<b>FASTEST MEAN TIME TO RESOLUTION</b>	All data resides in the cloud so engineers can find the root cause and solve the issue in minutes, not days. Over 150 state changes are captured for each device every few secs.
2	<b>FEWEST TICKETS EVER EXPERIENCED</b>	When every patient and caregiver experience matters, visibility and action need to be at the user and device level. With AI, allow the network to work for YOU.
3	<b>EASIEST NETWORK TO OPERATE</b>	Stop chasing ghosts, bugging clinicians to recreate issues, and let AI proactively resolve issues before anyone notices. Dynamic PCAPs help eliminate most onsite visits.
4	<b>FASTEST DEPLOYMENT EVER EXPERIENCED</b>	Cloud-ready APs and switches have ZTP capabilities, and once connected, will phone home to the Mist cloud and will automatically be configured.
5	<b>GREATEST PLATFORM FOR INNOVATION</b>	Cloud is the future for modern healthcare delivery. Controller-based architectures are aging, and a cloud-driven architecture has the agility to keep up.

# THANK YOU

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Experience<sup>™</sup>