Das neue Netzwerk – Grenzenlos, Performant, Sicher

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Director of Systems Engineering DACH
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Extreme Networks At a Glance



Founded in 1996 in SILICON VALLEY, CA







More Than
50,000
Customers



More Than

80

Countries





DIGITAL TRANSFORMATION



NOVELTY BECAME NECESSITY







ORGANIZATIONS MUST COMPLETE THEIR TRANSFORMATION.

Real-world Enterprise Needs



5 years to digitize or fail

Biz leaders: Those who don't digitalize quickly are doomed¹



54%

IT environments are more complex than two years ago²



82%

Of biz leaders will continue employee remote work³

IT skills shortage:



Mid-market, global orgs have IT skills shortage²



Say digital capabilities helped with pandemic challenges¹



1/3

Of all workers worldwide will work remotely at times in 2022⁴

Deloitte, April 2021 https://www2.deloitte.com/us/en/insights/topics/digital-transformation/digital-acceleration-in-a-changing-world.html

²ESG, August 2021 https://www.esg-global.com/research/esg-master-survey-results-network-modernization-trends
¹Deloitte, April 2021 https://www2.deloitte.com/us/en/insights/topics/digital-transformation/digital-acceleration-in-a-changing-world.html



INFINITE ENTERPRISE

Customer **OUTCOMES**

Our **NORTH STAR**

OUR SUCCESS STARTS WITH EMPATHY





"... I have unique constraints – talent, time and money"

"... I must reach my **workers**... my **patients**... my **students**... my **customers** wherever they are ..."



"... too much technology, too confusing"



".. I must scale my **team**... my **network**... my **resources**... !"



"... is it safe to deploy"

"... I must close the gap between in **office**... in **hospital**... in **school**... in **store** experience and remote experience..."

AND CONTINUES WITH RELENTLESS EXECUTION



Extreme's Commitment to Customers



Reduce Complexity

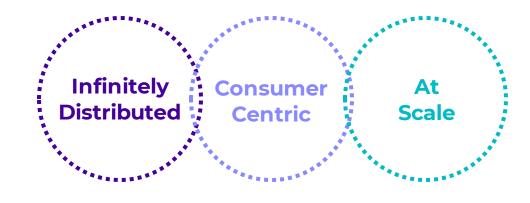


Deliver Trust



Your way, at your pace

Extreme's Vision for the Enterprise





THREE TENETS OF THE INFINITE ENTERPRISE



Organizations must meet users wherever they are; services must come to the consumer.

Organizations must provide technology still tens that revolve and evolve around how consumers want to engage.

Infinitely

Consumer

Organizations must scale services, technology, and even people to provide reliable and secure experiences for everyone, anywhere.

WHO ARE INFINITE ENTERPRISES?









HEALTHCARE

GOVERNMENT

EDUCATION









BANKING AND FINANCE

TODAY, NETWORK TEAMS STRUGGLE WITH:





SUPPORT FOR HYBRID WORK ENVIRONMENTS

Supporting remote workers is the organization's biggest networking challenge today.¹

INFINITELY DISTRIBUTED



GLOBAL IT STAFF SHORTAGES

21% of organizations say they have a problematic shortage of IT network admin.²

AT SCALE



OPERATING WITH AGILITY AND INTELLIGENCE

24% of organizations see a lack of AI/ML technology as a network challenge.

AT SCALE



ONGOING ENABLEMENT OF BUSINESS TRANSFORMATION

By 2023, over 60% of enterprises will deem networking as core to their digital strategies.

CUSTOMER CENTRIC

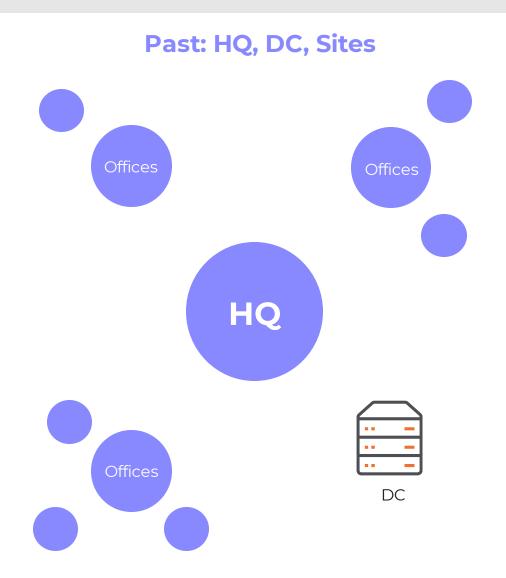
3 FSG

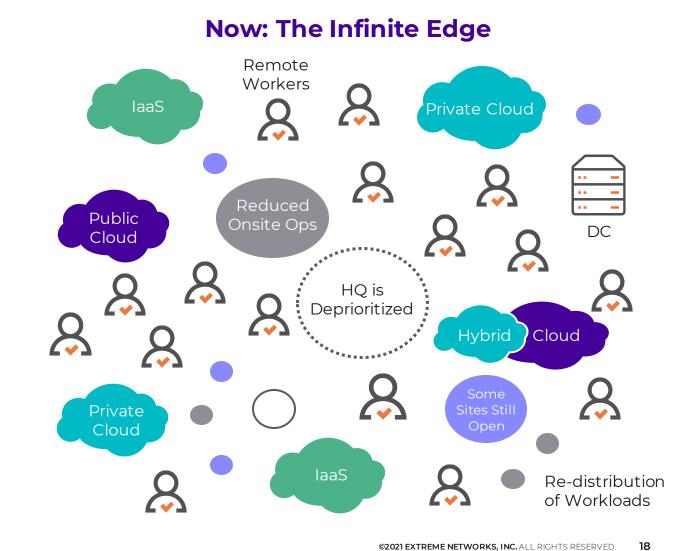
WHAT DOES "INFINITELY DISTRIBUTED" MEAN?

The Infinite Enterprise

Where is the perimeter?







THE INFINITELY DISTRIBUTED VISION





CONSISTENT EXPERIENCES



ALWAYS AVAILABLE PRODUCTIVITY



SEAMLESS CONNECTION FLEXIBILITY



GOING BEYOND CONNECTIVITY

→ DIFFICULT TO ACHIEVE WITHOUT MODERN NETWORK INFRASTRUCTURE

MODERN ORGANIZATIONS BRING THE NETWORK TO THE USER.

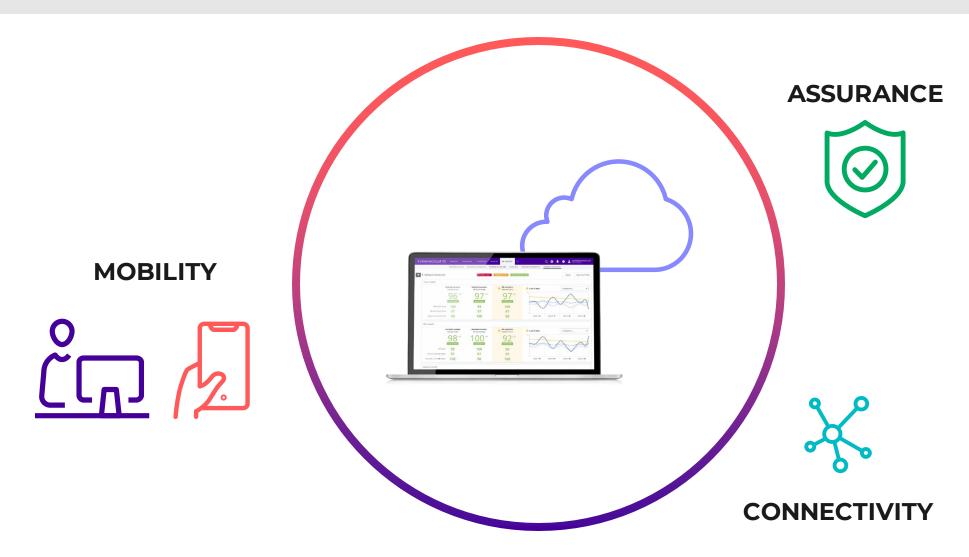
ENRICH THE EXPERIENCE OF USERS WHEREVER THEY ARE



PAST FUTURE Users go to the The network is network delivered to the user

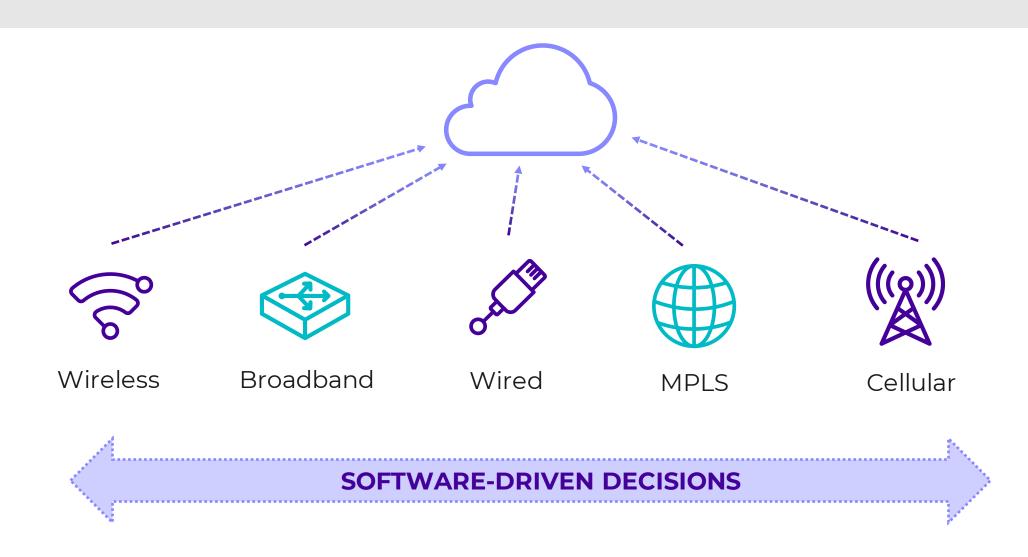
MODERN NETWORK INFRASTRUCTURE DRIVEN BY SOFTWARE





SUPPORTING ALL TYPES OF CONNECTIVITY





SIMPLIFIED AND AUTOMATED ASSURANCES





SECURITY

Control users and devices across networks with granular visibility and in-depth control



PERFORMANCE

Proactively assure reliable and consistent experiences for users with rich analytics and AI/ML efficiency

THE VALUE OF SOFTWARE-DRIVEN INFRASTRUCTURE





INCREASED PRODUCTIVITY



REAL-TIME ASSURANCES



DATA INSIGHTS



FLEXIBILITY AND AGILITY



REDUCED RISK

WHAT DOES "CONSUMER CENTRIC" MEAN?

Fragmentation of Technology



Devices







Connections









Applications

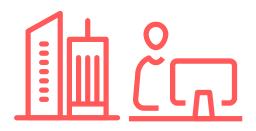






THE USER IS ON A JOURNEY





3 YEARS AGO

On Campus Basic Connectivity



TODAY

Working Remotely Collaboration Apps Cloud Storage Apps



IN 3 YEARS

Hybrid Worker VR/AR Apps Autonomous Apps



THE CONSUMER CENTRIC VISION





DATA-DRIVEN AND PROACTIVE



ADAPT TO USER EXPECTATIONS



CONTINUOUS VALUE DELIVERY



AND PERSONALIZED

→ DIFFICULT TO ACHIEVE WITHOUT MODERN NETWORK INFRASTRUCTURE

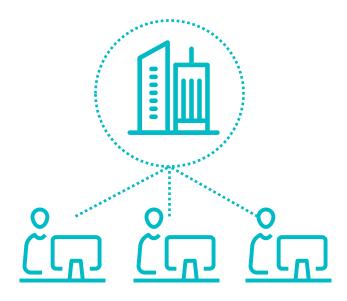
A NEW PARADIGM IN ORGANIZATIONAL FOCUS

USERS WILL NOW DRIVE ORGANIZATIONAL NEEDS



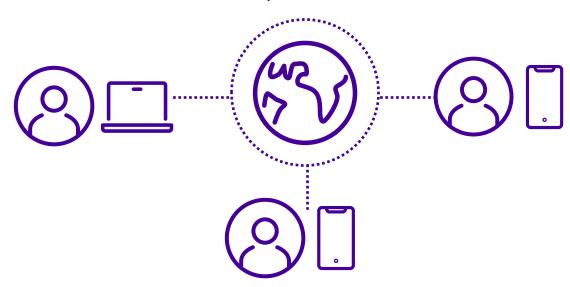
PAST

IT Optimizes a Campus Network



FUTURE

The experience of the user is paramount



'Human' Limitations



Overload



DATA

Volume of data impossible for brain to process and act on

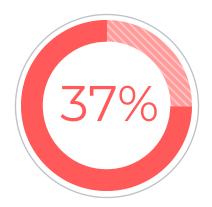
Reactive



ISSUES

Identified by the end user

Error-Prone



DOWNTIME

Is due to human error

Inefficient

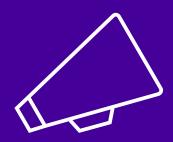


OF TIME

Spent identifying the problem

WHAT ABOUT SECURITY?

De-Perimeterization and its impact



... the way security is organized as a series of walls or layers around an organization's private network perimeters and boundaries will need to change radically



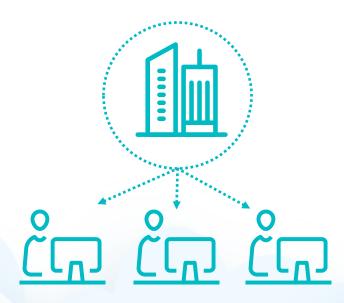
Maintaining Information security at the boundaries of an organization have become unworkable

To solve the challenges, we need to shift our focus



PAST

IT Optimizes a Campus Network



Users **go** to the network

FUTURE

The experience of the user is paramount

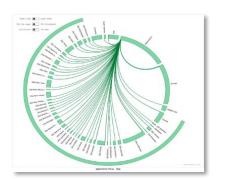


The network is **delivered** to and **follows** the user

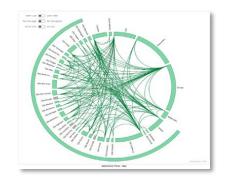
The "Result" - Increased complexity in network & application access



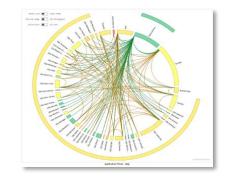




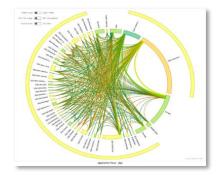


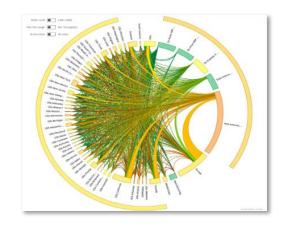












The New Enterprise Edge – Network, Security and Compute





The last 10 years

Shift from datacenter to multi-cloud



The last two years

Shift from Campus/Branch to Distributed users & devices



Now

Distributed Users/Devices accessing Distributed Applications

The Network must evolve to reflect this new reality

79% of respondents say investments in edge computing will require significant changes to our network architectures over the next two years*

The Need for a Zero Trust Architecture





Zero trust moves defenses

to focus on users, assets, and resources

NIST¹

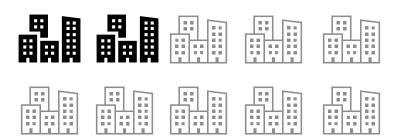
- Zero trust assumes no implicit trust granted to assets or user accounts
- A Zero Trust access architecture creates context-based access control to applications which can 't be discovered by the user unless "published" explicitly to them

Zero Trust, Do I Really Need It?



2022

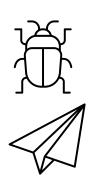
The year supply chain ransomware attacks are going to peak (eSecurity Planet)



20%

of companies faced a security breach because of a remote worker.

(The Malwarebytes)



More than

90%

of cyber attacks begin as spear phishing emails. (Trend Micro)

What Zero Trust Can Do





It reduces your attack surface and "blast" radius



Is more effective than traditional VPN technologies



Implements a least privilege approach

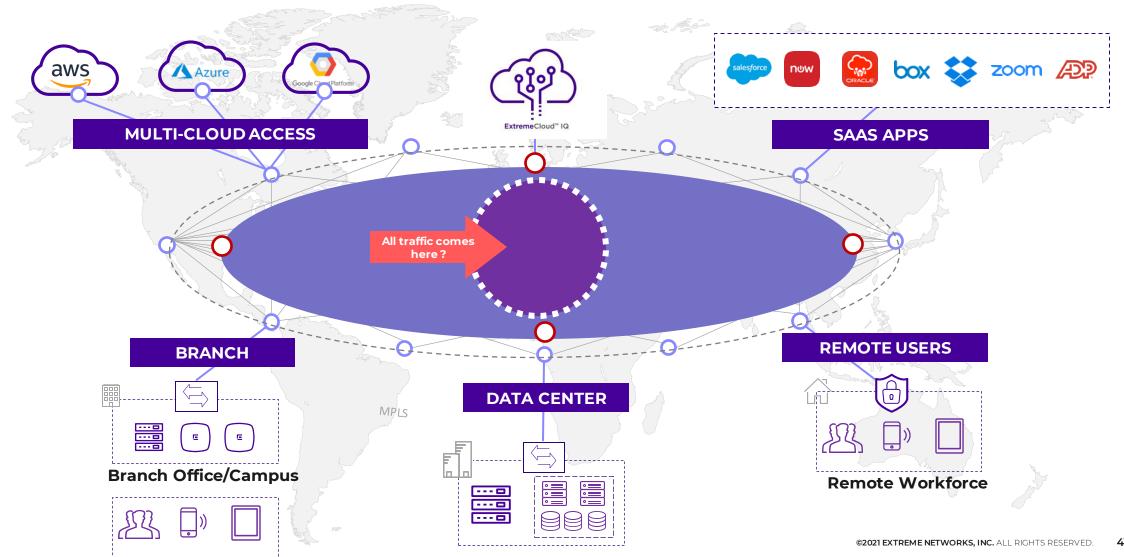


Allows you to get insured

Zero Trust Security: From Anywhere to Anywhere

Office Workforce





A Simple Deployment for VPN Replacement

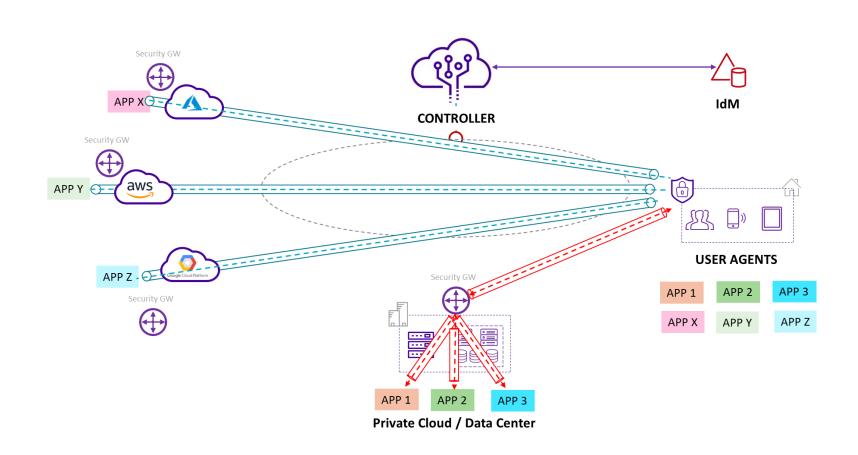


Don't implement it like just another VPN

Assess application architecture, usage and adjust policies

Focus on remote employees and engineering workgroups

Create a Zero Trust overlay for hosted applications



The Human Factor - The weakest link? Or biggest asset?





Automate as much as you can



Leverage the user as last line of defense

OR



Simplify the experience





?





Security is People. Process. Technology

While You Can't Just Buy It - Our Zero Trust goals

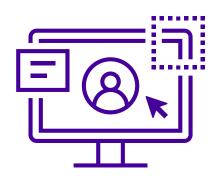




Any Device Any User Any Application Any Location

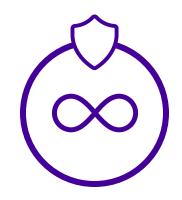


Zero Trust Security needs to be built-in, not bolted on



User experience first

– Adoption increases
security



Zero Trust is a key cornerstone for the Infinite Enterprise

BUT WHAT DO WE REALLY MEAN BY "AT SCALE?"

THE CLOUD GIVES US SCALE.

BENEFITS OF CLOUD MANAGED NETWORKING



- 1. Efficient On-boarding and Configuration
- 2. Smarter, Faster Troubleshooting
- 3. Application Visibility and Control
- 4. Smart Data Collection and Simplified Reporting
- 5. Manage Anywhere on Single Pane of Glass
- **6.** Better Support and Continuous Delivery
- 7. Containerized Microservices
- 8. Security Without Complexity
- 9. Grow as You go

THE VALUE OF CLOUD MANAGED NETWORKING





NEW REVENUE STREAMS



PROACTIVE RESOURCING



DATA INSIGHTS



LOCATION BASED SERVICES



RESILIENCY AND RELIABILITY

YOU CAN ACCESS THESE CAPABILITIES TODAY.

EXTREMECLOUD IQ CONNECT

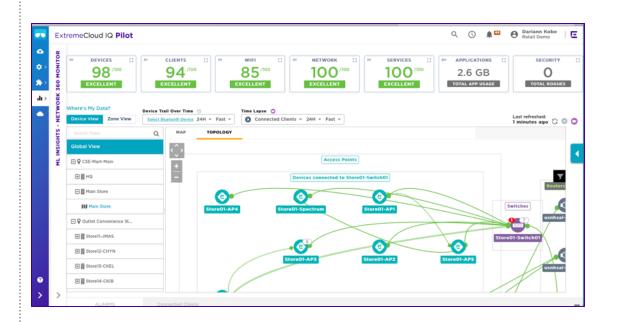




REDUCE THE TIME SPENT ON INEFFICIENT TASKS

Increased operational efficiency and operation of multiple sites and devices.

- Automation of device onboarding, network policy configuration and deployment
- Remote troubleshooting and identification of poor service experiences
- Flexibility to scale to meet fluid operating environments



EXTREMECLOUD IQ PILOT





EXTEND YOUR REACH WITHOUT LEAVING THE OFFICE

Benefit from full visibility of network and traffic across all wired and wireless users, clients, devices and applications.

- Real-time information on the health of your network
- Automate troubleshooting and diagnostics to respond when it matters
- Measure the overall effectiveness of the network and benchmark it against similar organizations



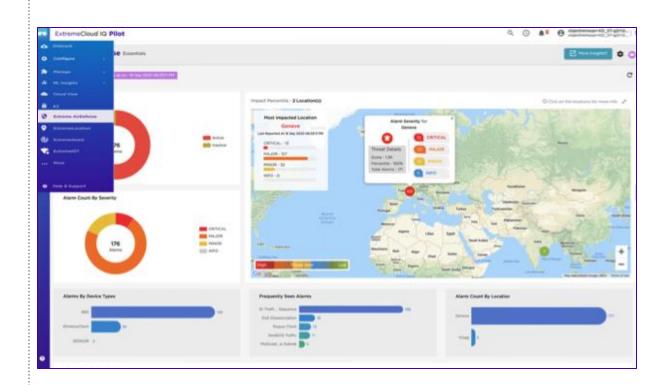
EXTREMECLOUD IQ ESSENTIALS DELIVERS ADDITIONAL VALUE TO PILOT SUBSCRIPTIONS



OPERATE WITH AGILITY AND INTELLIGENCE

Take advantage of advanced functionality without integrating multiple applications, platforms, databases or paying for additional licenses.

- ExtremeGuest™ Essentials to manage, analyze and personalize network access
- ExtremeAirDefense™ Essentials extends wireless security beyond rogue detection and mitigation to include wireless threat detection
- ExtremeloT™ Essentials for device security and self-service on-boarding
- ExtremeLocation[™] Essentials delivers location analytics plus presence, zone and asset tracking



EXTREMECLOUD COPILOT

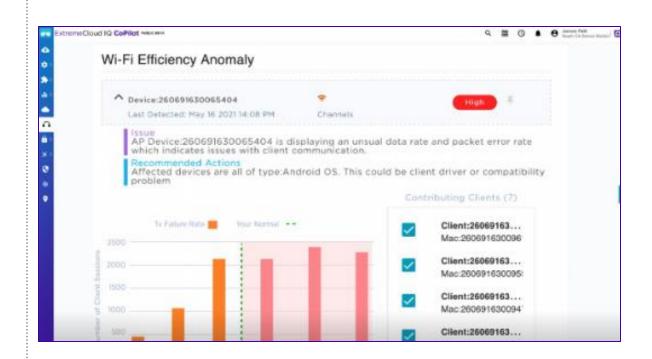




INCREASE YOUR NETWORK MANAGEMENT TALENT BENCH

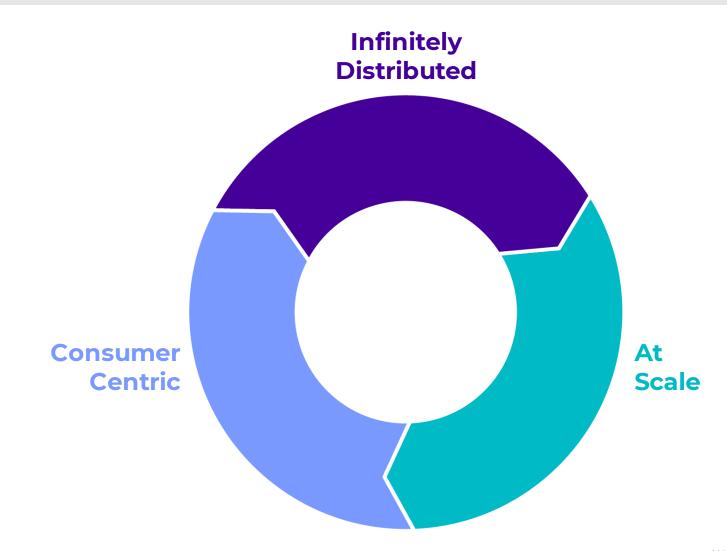
Streamline and prioritize your Wi-Fi network troubleshooting efforts with data driven outcomes

- Proactive anomaly detection
- Recommendation engine to support next best action based on all historical data
- Direct connect to Extreme's support team



THE INFINITE ENTERPRISE, COMPOUNDED





QUESTIONS

INTERNITE ENTERPRISE

Customer **OUTCOMES**

Our **NORTH STAR**