Connectivity

POTS Transformation

Managed Network

Security

Mobility & IoT

DISA TEM on POTS Transformation

Presented by: MetTel Federal

09/10/2024

connect SMARTER.

MetTel

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Corporate Overview

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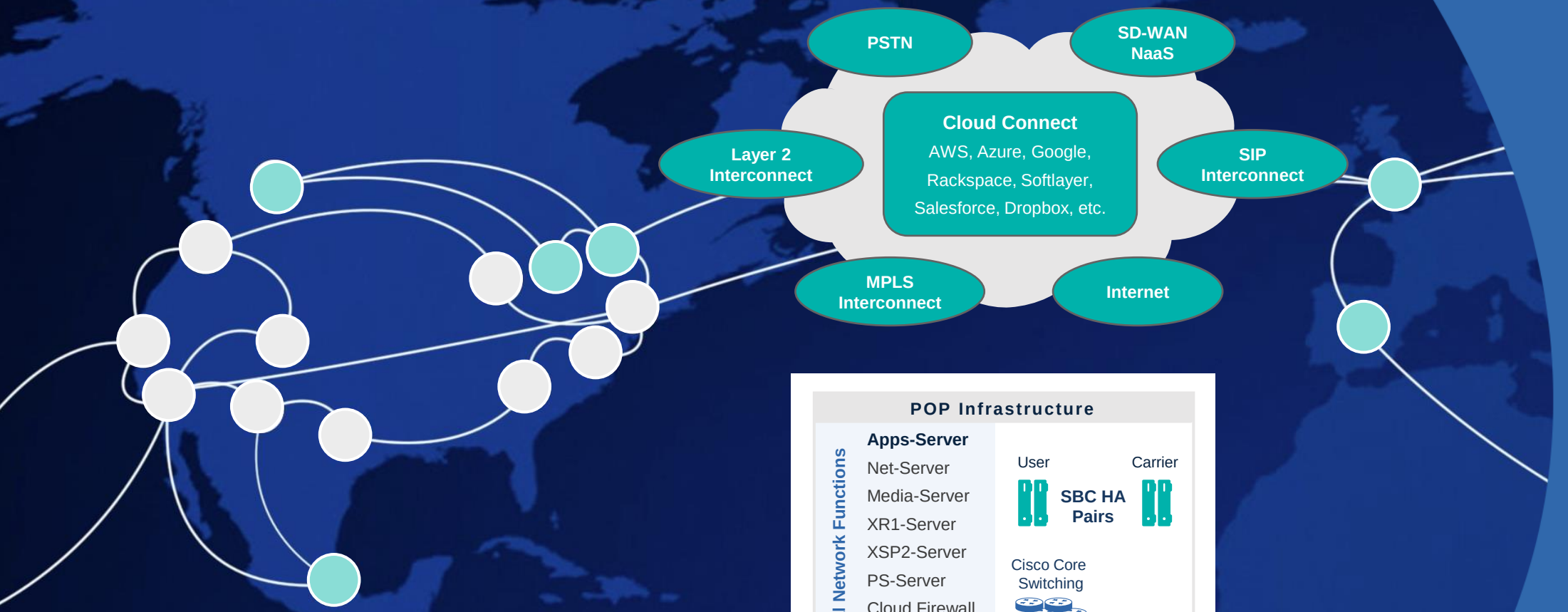
Manhattan Telecommunications Corporation (MetTel)

1996	Founded Privately Held
5,000+	Businesses & Federal Agencies
24/7/365	Care Centers in NJ, NY, UT, & RI
3 NOCs	NJ, NY, & UT
9.5 Years	Average Customer Tenure
1.6 Million+	Mobile Connections
$2 Billion	Government Awarded Contracts (EIS & GSA70)
15 Years	Consecutive Double-Digit Revenue Growth
100,000 sq ft	Warehouse for Staging & Kitting

MetTel's Private Network



POP Infrastructure

Virtual Network Functions

- **Apps-Server**
- Net-Server
- Media-Server
- XR1-Server
- XSP2-Server
- PS-Server
- Cloud Firewall
- Orchestration
- Gateways

User — Carrier

SBC HA Pairs

Cisco Core Switching

Cisco Edge

US POPs

Ashburn, VA
Atlanta, GA
Chicago, IL
Denver, CO
Dallas, TX
New York, NY
Seattle, WA
Santa Clara, CA
San Jose, CA
Phoenix, AZ

INT'L POPs

London
Madrid
Montreal
Toronto
Calgary
Mexico City
Mumbai
Singapore
Tokyo
Sydney

MetTel U.S Distributed Voice Network

Overview

- Over 70 internet based carriers integrated into each pop for shortest path peering to customer premises
- Backbone (DC interconnects), 8 MPLS carriers, each with two 10gig interfaces providing for a 160Gb East to West backbone
- Voice, Cloud Firewall, MPLS VRFs, Managed VPN, and SDWAN gateways configured autonomously to give access to all customers for customized registration based on customer needs.
- Private MPLS ramps to Azure, AWS, and 35 other hosted providers.
- All Co-Lo datacenters with strict physical access, with ISO 27001 certifications
- Diverse inbound PSTN carriers

SEATTLE, WA

Virtual Network Functions
SIP SBC User
SIP SBC Carrier
Cisco Routing
NSX Switching
Broadworks Servers
SDN Orchestration

Cloud Native HA NFV – DellEMC & VMWare
Compute
Storage

DENVER, CO

Virtual Network Functions
SIP SBC User
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Cisco Routing
NSX Switching
Broadworks Servers
SDN Orchestration

Cloud Native HA NFV – DellEMC & VMWare
Compute
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CHICAGO, IL

Virtual Network Functions: Apps-Server, Net-Server, Media-Server, XR1-Server, XSP2-Server, PS-Server, Cloud Firewall, Orchestration, Gateways
User | Carrier
SBC HA Pairs
Cisco Core Switching | Cisco Edge

NEW YORK, NY

Virtual Network Functions: Apps-Server, Net-Server, Media-Server, XR1-Server, XSP2-Server, PS-Server, Cloud Firewall, Orchestration, Gateways
User | Carrier
SBC HA Pairs
Cisco Core Switching | Cisco Edge

SANTA CLARA, CA

Virtual Network Functions: Apps-Server, Net-Server, Media-Server, XR1-Server, XSP2-Server, PS-Server, Cloud Firewall, Orchestration, Gateways
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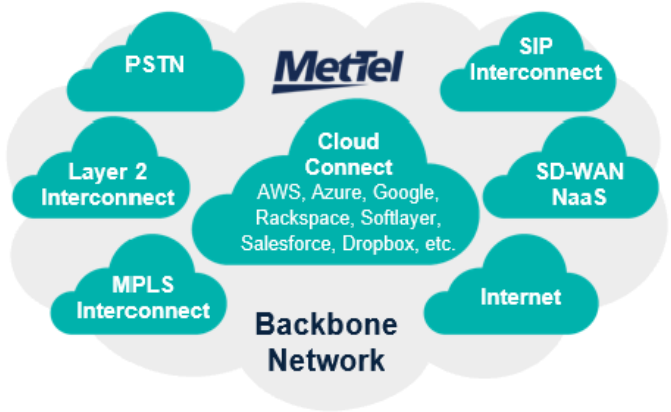

ASHBURN, VA

Virtual Network Functions: Apps-Server, Net-Server, Media-Server, XR1-Server, XSP2-Server, PS-Server, Cloud Firewall, Orchestration, Gateways
User | Carrier
SBC HA Pairs
Cisco Core Switching | Cisco Edge

SAN JOSE, CA

Virtual Network Functions: Apps-Server, Net-Server, Media-Server, XR1-Server, XSP2-Server, PS-Server, Cloud Firewall, Orchestration, Gateways
User | Carrier
SBC HA Pairs
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PHOENIX, AZ

Apps-Server, Net-Server, Media-Server, XR1-Server, XSP2-Server, PS-Server, Cloud Firewall, Orchestration, Gateways
User | Carrier
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DALLAS, TX

Apps-Server, Net-Server, Media-Server, XR1-Server, XSP2-Server, PS-Server, Cloud Firewall, Orchestration, Gateways
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SUWANEE, GA

Virtual Network Functions: Apps-Server, Net-Server, Media-Server, XR1-Server, XSP2-Server, PS-Server, Cloud Firewall, Orchestration, Gateways
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Connectivity

POTS Transformation

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POTS Transformation

POTS In A Box

connect SMARTER.

It’s time to transform copper lines to the digital age.

POTS Transformation allows you to completely transform all traditional phone lines for voice and data services that require an analog dial tone.

Digitally Transform

- Fax
- Security Alarms
- Fire Alarms
- Elevators
- POS Terminals
- Vending Machines
- ATM Machines
- POTS

Voice Transformation

Why we are the right partner

30% estimated cost savings immediately and year to year

Multi-WAN Router

- Access any combination of landline, wireless or WiFi
- Multi-carrier access
- Dual SIM failover available
- Business continuity, even during network outages
- Prequalification of LTE/5G coverage in your area
- Up to 24-hour battery back-up
- TIAA Compliant

Turnkey Installation

- Certified PMP managed deployments including site acceptance testing
- Nationwide, professional installation
- Expert migration team specialized in local number portability
- Inventory to support the largest enterprise deployments

Fully Managed Service

- Supported by 24/7/365 NOC
- AI-powered monitoring, alerts & incident remediation
- Fully managed remote updates
- Break/fix with emergency replacement
- Significantly enhanced service quality and accelerated response intervals
- Comprehensive digital management of the entire lifecycle

Smart Network

- 4 nationwide, diverse & carrier class switching networks
- 22 geo-redundant Specialty Line Session Managers
- Direct access to over 70 carrier voice & data networks
- Local PSAP e-911 integration for voice SIP network

Recognized as an approved MFVN (Managed Facilities-based Voice Network) by the NYC Fire Department

Approved by California State Fire Marshal's Building Materials Listing Program (BML) as analog telecom replacement equipment for use with analog line devices.

Proud member of the ESA

Specifications of CDS 90XX

- Connect with broadband, 4G LTE, and/or Wi-Fi
- Cellular can be the primary connectivity if Wi-Fi or broadband are not available, or act as a backup in the event of primary circuit failure
- Dual SIMs provides added fail-over protection
- Handles up to 8 lines including voice, fax, elevator and alarm lines
- Up to 24-hour battery backup
- UL 60950-1 & UL 2054 certified

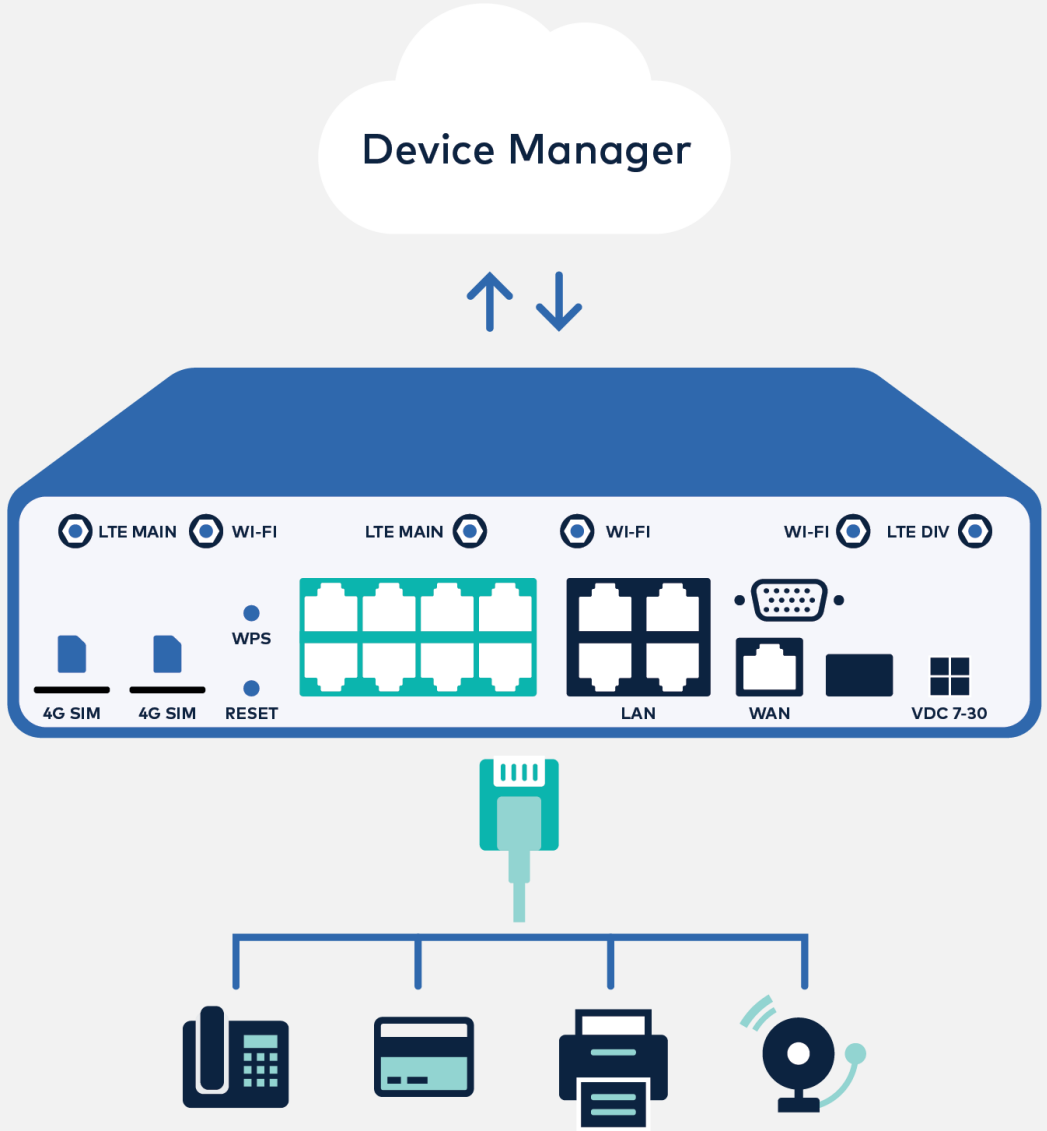
Voice Calling Features

Basic Features

- Call logs
- Caller ID
- Series completion (hunting)
- Call waiting
- Call ID blocking
- E911

Add-on Features

- Auto-attendant
- True hunting
- Voicemail
- Three-way calling
- Flash call hold



Custom Turn-Key Implementation

Staging & Kitting

- Fully assembled in MetTel's warehouse
- Preconfigured and tested
- Fire protective coating on the board

Installation by MetTel Includes:

- Site survey
- Tag and locate
- Installation of the board
- 4G antenna for optimal 4coverage
- Testing connectivity to internet
- Testing failover to 4G
- Testing failover between the SIM cards
- Cross connect into existing 66 Block
- Testing and confirm all voice and safety lines
- Porting numbers if needed

Dual SIM PIAB Copper replacement w/ 24-hour battery backup

Full Office in a Box: SD-WAN, 8-line analog key system and Data Switch, PIAB Copper replacement w/ 24-hour battery backup

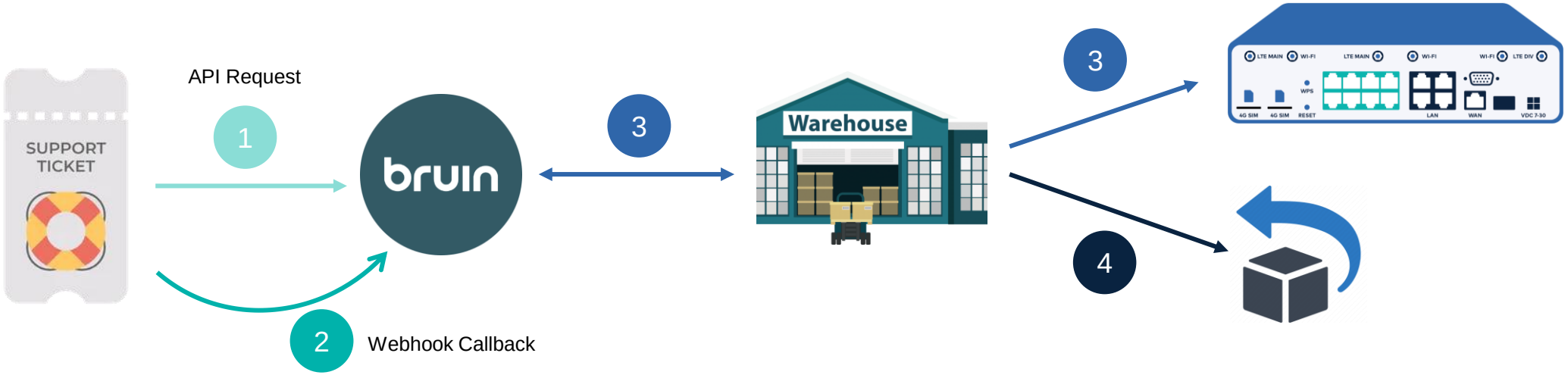
SD-WAN, w/ Broadband modem, LTE Backup, PIAB Copper replacement w/ 24-hour battery backup, Emergency Phone

SD-WAN, 24-line analog key system w/ 8-hour battery backup, Sierra LTE backup modem

Device Lifecycle Management

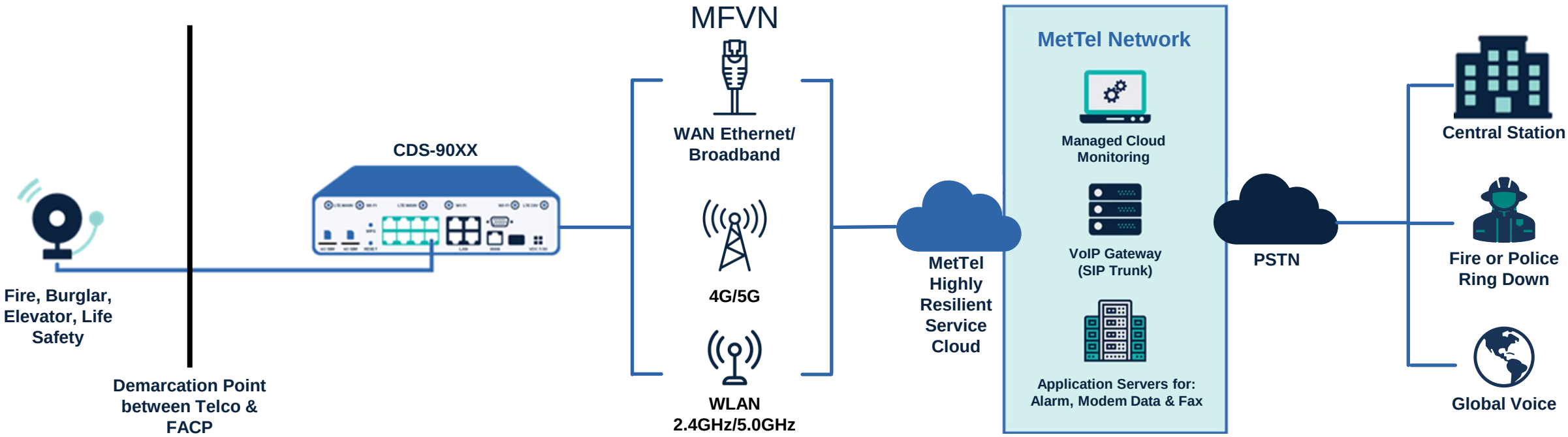
Integration & Automation

1. Automate ordering edge devices with an API integration to Bruin from your support ticketing system
2. We automatically alert you regarding the status of ordered devices and their shipment dates.
3. You can leverage next-day shipment for new and replacement devices with the “push of a button” from your support ticketing system interface and integration with Bruin’s ordering system.
4. Improved security compliance and streamline device replacement by auto-generating electronic shipping labels for device returns and providing real-time updates and visibility on return status.



POTS Transformation Regulatory Compliance

Solution Illustration



- NFPA 72
- UL 864
- UL 60950
- UL 2054

- UN 38.3
- UUL 62368-1
- ASME A17.1
- ISO 27001

- HIPAA
- PCI
- SSAE16
- TAA

- City of New York Fire Compliant
- Approved by California State Fire Marshal's Building Materials Listing Program (BML)

POTS Transformation
Fire Code Compliant Solution

Under NFPA 72 fire alarm systems must be connected to the PSTN or an MFVN. An NFPA 72 compliant MFVN requires a loop start telephone circuit, proactive support by the provider, and 8 hours of standby power. POTS Transformation supplies all of these features and more, providing a NFPA 72 compliant-ready solution for your copper replacement.

Similarly, because POTS Transformation is a component of the carrier network MFVN, and not part of the alarm system, POTS Transformation is not subject to UL 864 requirements (UL 864 applies exclusively to control units and accessories for Fire Alarm Systems and not the MFVN).

Further, for additional security the CDS 90XX has been certified compliant with UL 60950-1 and the battery is certified for UL 2054 product safety standards.

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Voice Portal

connect SMARTER.

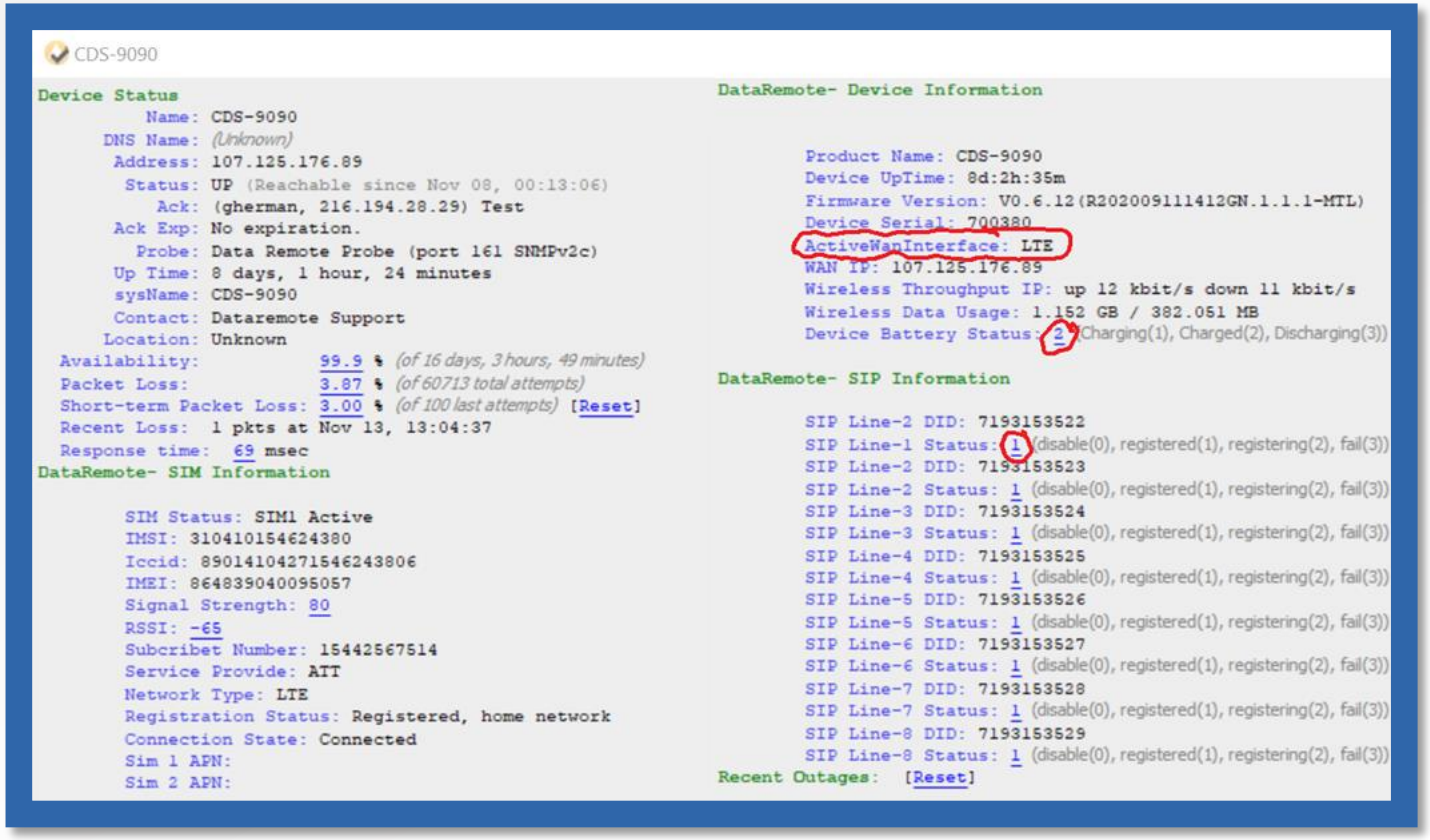
Enhanced SNMP Views

Available analytics through MetTel Provided SNMP monitoring platform

Example SNMP Monitoring

- Primary WAN status (Ethernet/WiFi/LTE)
- LTE state and signal levels
- Data consumption
- IP Address
- LTE Throughput

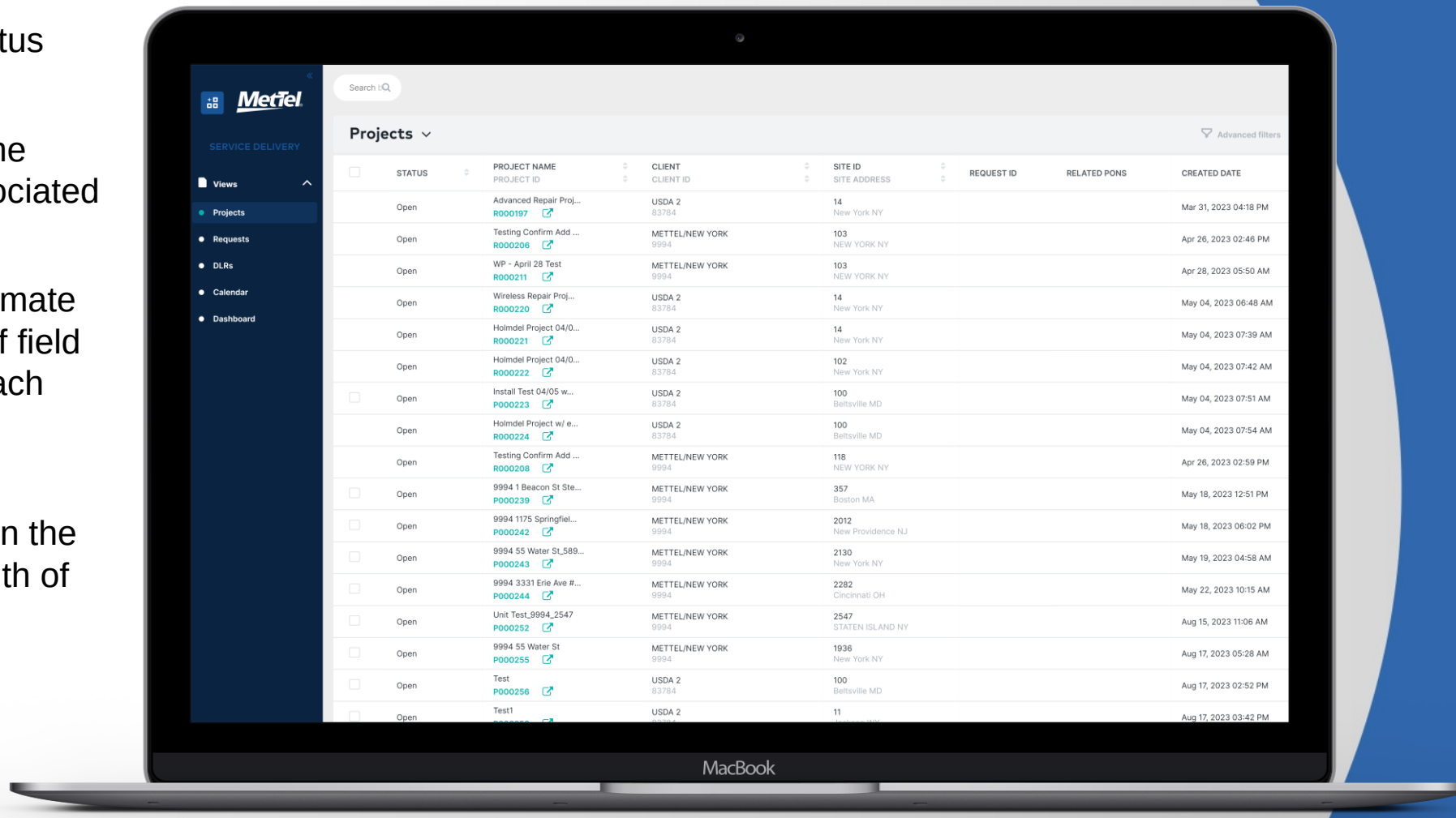
- Battery status and information
- Line registration for each individual line
- All conditions are proactively monitored
- Any change in condition will trigger an alert/ticket automatically



Scaled Service Delivery

MetTel has a purpose-built portal to project manage the service delivery at thousands of remote sites

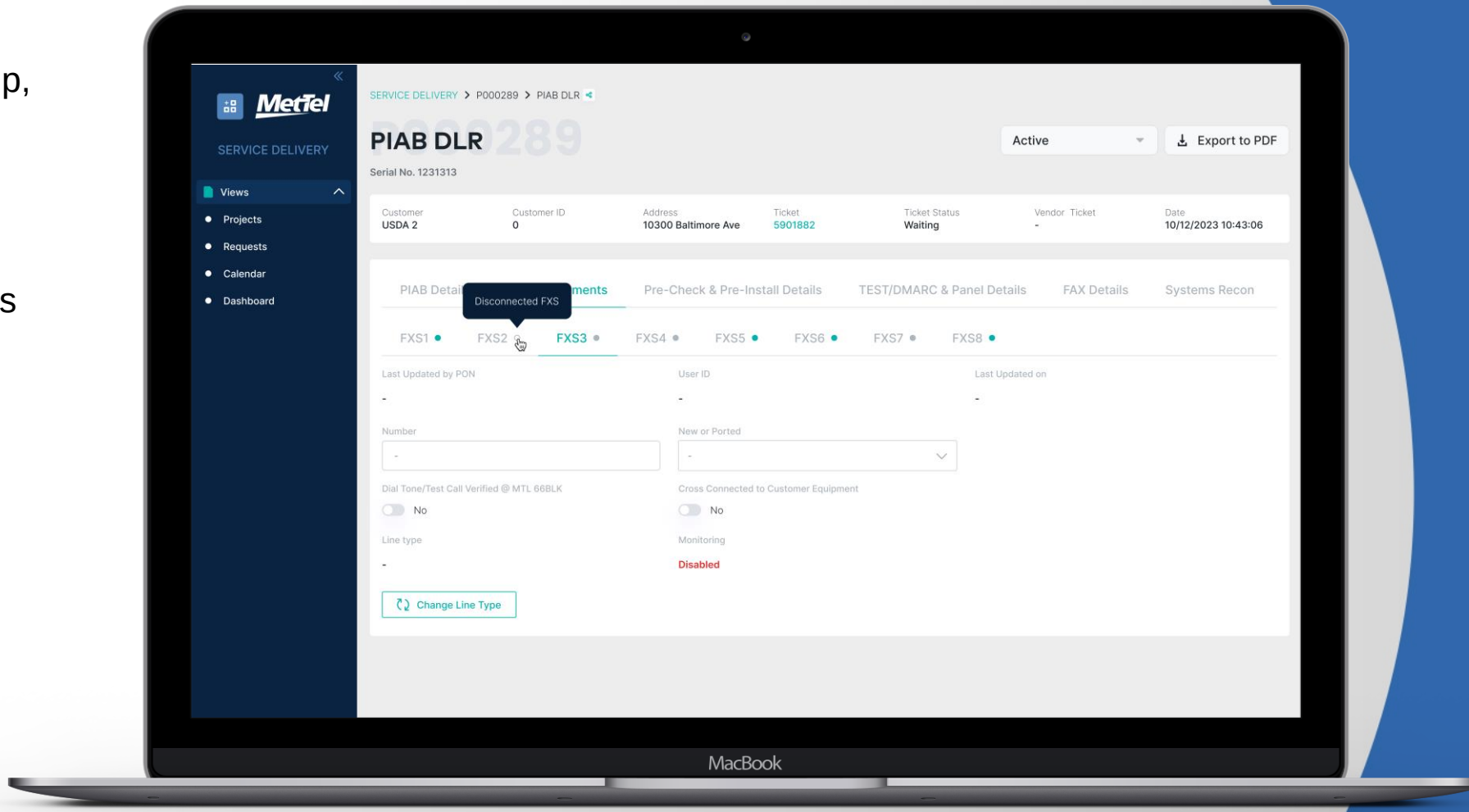
- Project view for managing status and site activity
- Request view to manage all the service delivery requests associated to each project
- Calendar view that helps automate and monitor the dispatching of field engineers and installers for each request
- Equipment layout record to manage, monitor, and maintain the current configuration and health of each edge device



Equipment Configuration Manager

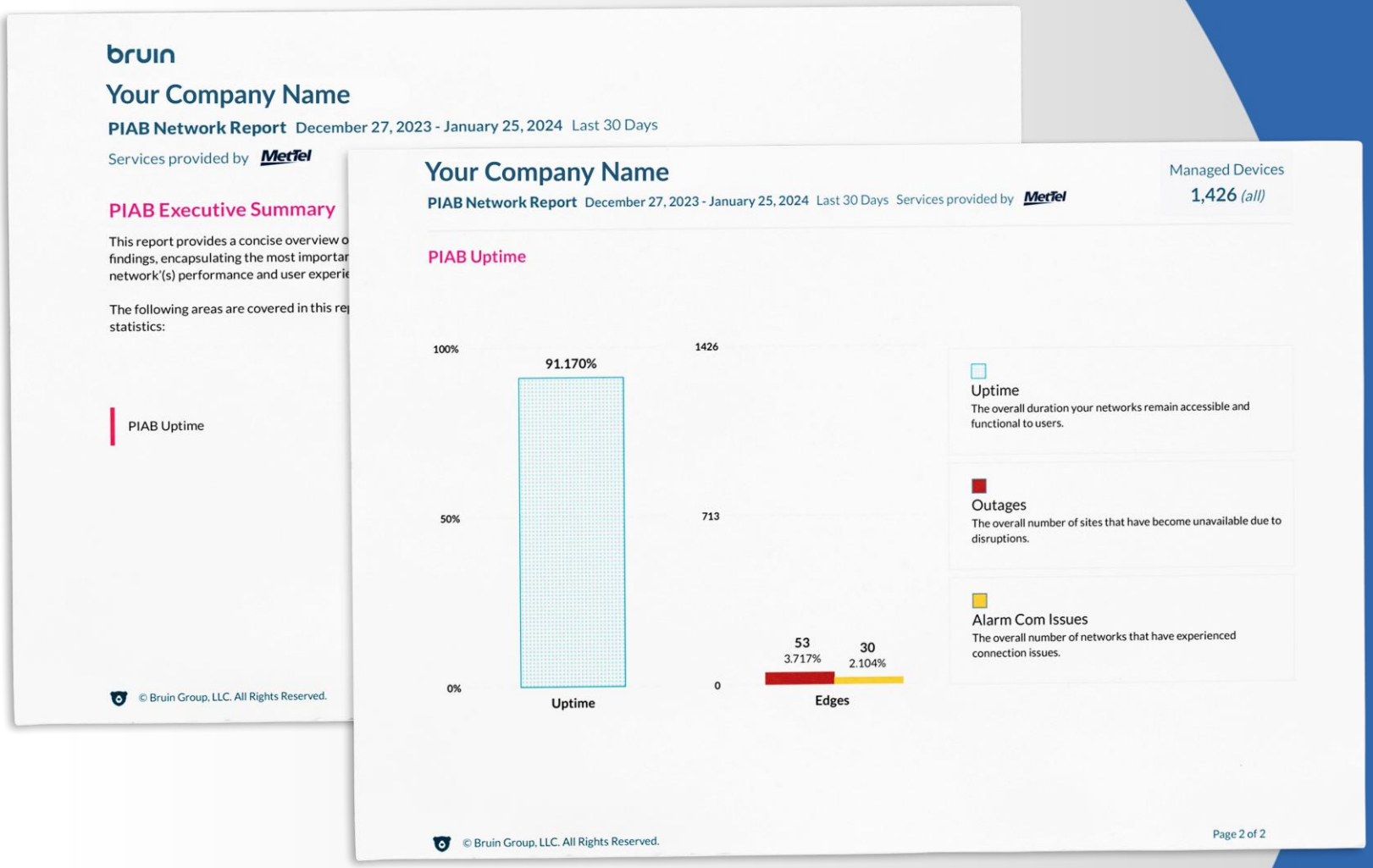
MetTel has a customer friendly equipment layout record to manage edge devices remotely

- View edge device details like model type, carrier, trunk group, etc.
- Conveniently restart the edge device remotely
- Manage FXS port assignments
- Monitor panel details like fire and burglar alarms



PDF Report Capabilities

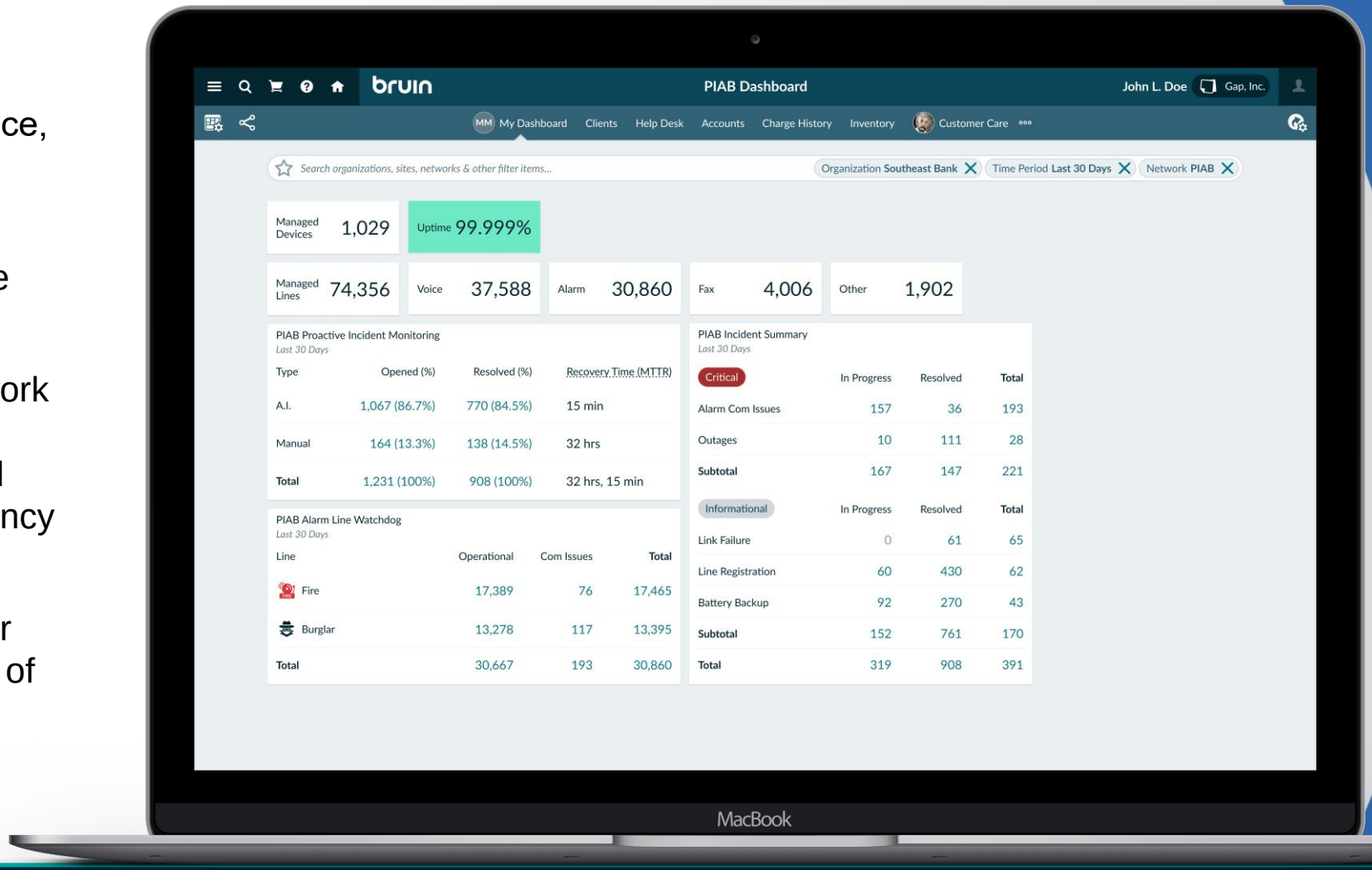
- Professional styled PDF network report delivered directly to your inbox
- Use for summary analysis and your internal presentations regarding the health of your network
- Apply report filters like date range and business hours
- Subscribe daily, weekly, or monthly



Network Dashboard

MetTel's Bruin portal has a near real-time dashboard to monitor all your edge devices

- View the total count of all your edge devices and managed "analog to digital" lines like voice, burglar, and fire alarms
- Quickly identify any sites with outages or critical line (i.e., fire alarm/burglar) failures
- Monitor the trend of your network uptime, outages, and failures. View daily network events and see the benefit of the redundancy built into your edge devices
- Subscribe to a daily, weekly, or monthly executive PDF report of all your network data and analytics



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Questions?

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Thank You!

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