UNLEASH THE POWER OF LIMITLESS CONNECTIVITY
Inventory Network Synchronization

Current State

• Discrepancies between network and inventory continue to accelerate
  • Costing network operators millions in correction and business impacts

• Manual approach to network and Inventory alignment is no longer viable
  • Customer service needs and network evolution are growing in complexity

• Legacy Systems will evolve slowly but new approach needed now
  • New inventory synchronization approach needs to coexist with current processes
Example Operational Flow and Protocol

• Sales Order triggers a Service Request
  • Service request includes non-addressable (Discoverable) resources
• Service is defined end-to-end based on inventory view
  • The “as-stated” inventory view is not aligned with “as-is” network view
• Field work-order is issued to the technician
  • The work-order states the technician to connect fiber to port 2
• Field technician contingency protocol
  • In case a port is already used, select the next available port
  • Document back to the planning team the port used for Inventory update
You Can’t Automate What You Can’t See

- Ports Used but not tracked in Inventory
- Ports Planned but not known in the Field
- Physical Connections Cannot be Removed Without Risk
- Service Fulfillment Task Cannot be Complete as Requested
Introducing Augmented Reality (AR)

Capturing the “As-Is” State of the Network

Example Resource Element

Automatically Capturing Multiple Perspectives
Introducing Artificial Intelligence (AI)

Creating a Digital Device Map

[Diagram showing AI processing data and generating an AR view of a device with ports labeled as follows:
- Port 1: Black (Confirmed Port Used)
- Port 2: Black (Confirmed Port Used)
- Port 3: Red (Port Planned For Use – Skip)
- Port 4: Green (Recommended Port For Use)

Legend:
- Black: Confirmed Port Used
- Red: Port Planned For Use – Skip
- Green: Recommended Port For Use]
Future Mode of Operations (FMO) - Inventory Synchronization and Guided Operations

Inventory Database
- Device Template
- Device “as-planned”
- Discrepancy Report & Recommended actions
- Confirm Corrective Actions

Device Panel
- Device ID
- Ports Available

AR/AI Applications
- Vendor Template
- Geographic Information systems

Imaging Technology
- Image Capture
AI/AR – Solving Network Inventory Synchronization

- Network operators need help with inventory synchronization
  - The current impact on business is great and growing

- AR and AI technology exists today to tackle the problem of large-scale discrepancies
  - Powerful tools to stop and reverse misalignment between network and Inventory

- The proposed approach can co-exist with current systems and tasks
  - Leverages existing tools, new technologies and augments current processes
Thank You!

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