

Solutions for always up networks, and popup networks

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Cradlepoint Solutions are All Around You



Secure Access



Anywhere WiFi



Nonstop Networks



Smart Cities



Digital Signage



Mobile Networks



SD-WAN Branch Routing



Internet of Things



Machine-to-Machine

Leader in Enterprise Wireless WAN



Open locations on schedule

Reliable Networks

- Reliable network connectivity is required for:
 - Keeping customers and employees healthy in the recovery phase
 - Helping the retail industry adapt
 - Automate and enable smart retail using IoT
 - Market-ready solutions



Buy Online, Pick Up In Store

- Connectivity is required to confirm highly accurate inventory in store with:
 - Applications
 - IoT (inventory robots) for improved accuracy
- Curbside delivery requires connectivity:
 - Outside of the store or possibly around the block
 - Must be secure, highly available, and easy to manage



Not All Emergencies Can Be Planned For

So reaction time is critical



Instant remote networking with cellular can improve reaction time by providing

- Real-time access to critical resources at temporary sites
- Network access to displaced professionals and students
- Command center network access for police and military personnel
- Temporary security surveillance

The Cost of Network Downtime

- In today's retail environment, connectivity is required for business operations and digital transformation:
 - Temperature sensors for employees pre-shift
 - Reliable POS systems
 - Kiosks for contactless service
 - Constant communication from the store to headquarters
 - Security cameras
 - Alerts to management to monitor cleanliness and proximity



IT Requirements

Revenue-critical transactions

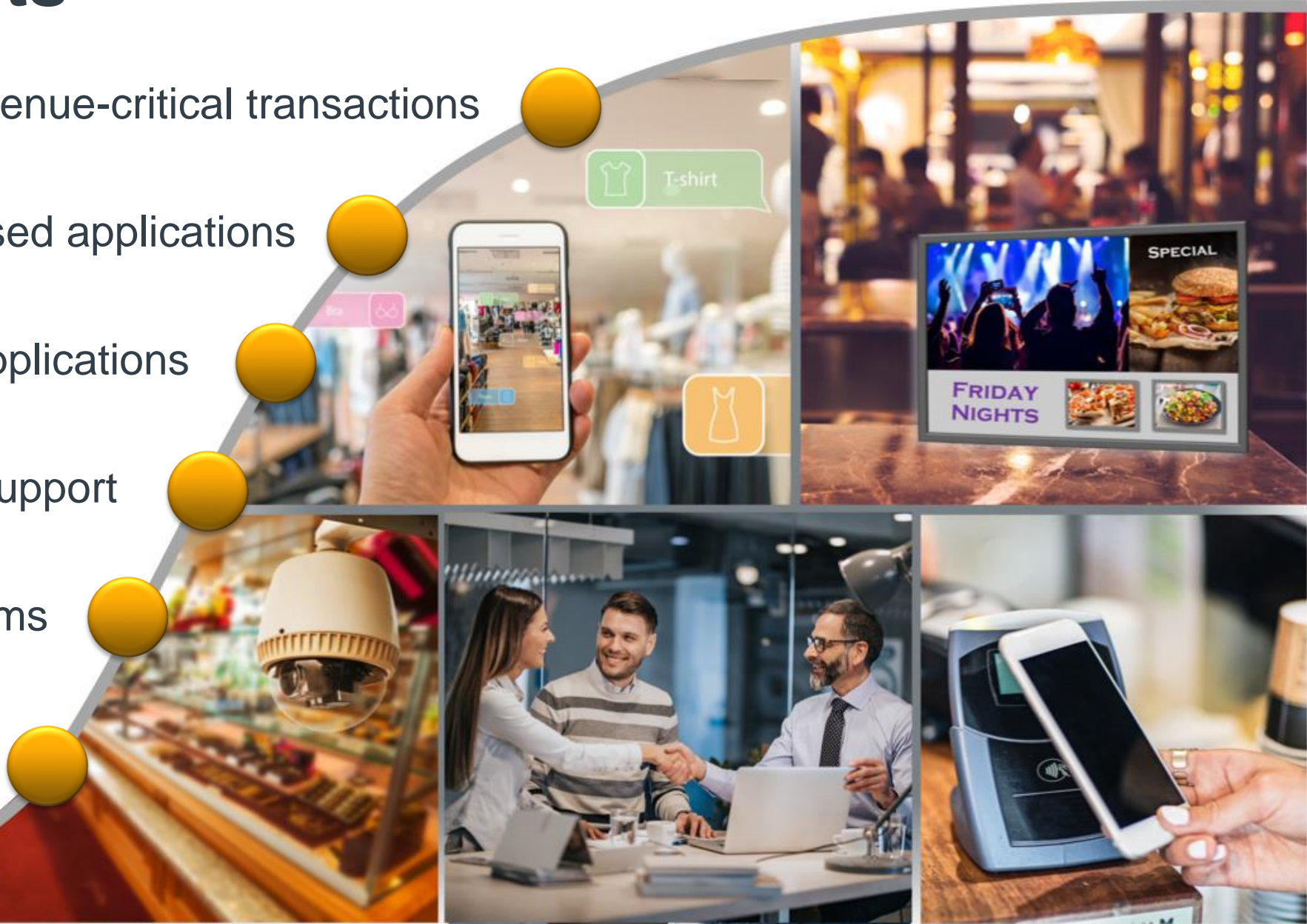
Experience-based applications

Direct-to-cloud applications

Scalability - lean IT support

In-branch IoT systems

Expanded wireless connections



Multi-WAN for High Availability & Efficiency



What Matters

Speed

Reduce Network deployment cycles from months or days to mere hours

Scalability

Everything included, no IT staff needed on location and cloud control



Simplicity

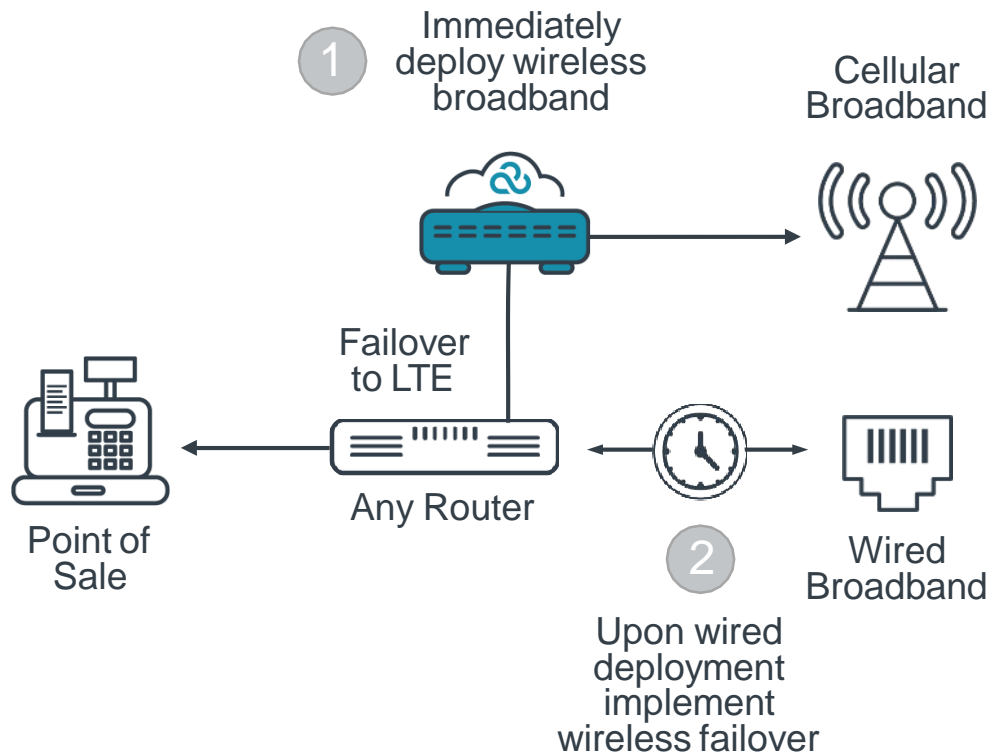
Consolidate multiple technologies into a single platform

Security

Integrated security with VPN capability protects data and users

Day-1 Connectivity

Ideal for time-critical deployments



Problem

Land-line services can take months to deploy missing the site opening date.

Cause

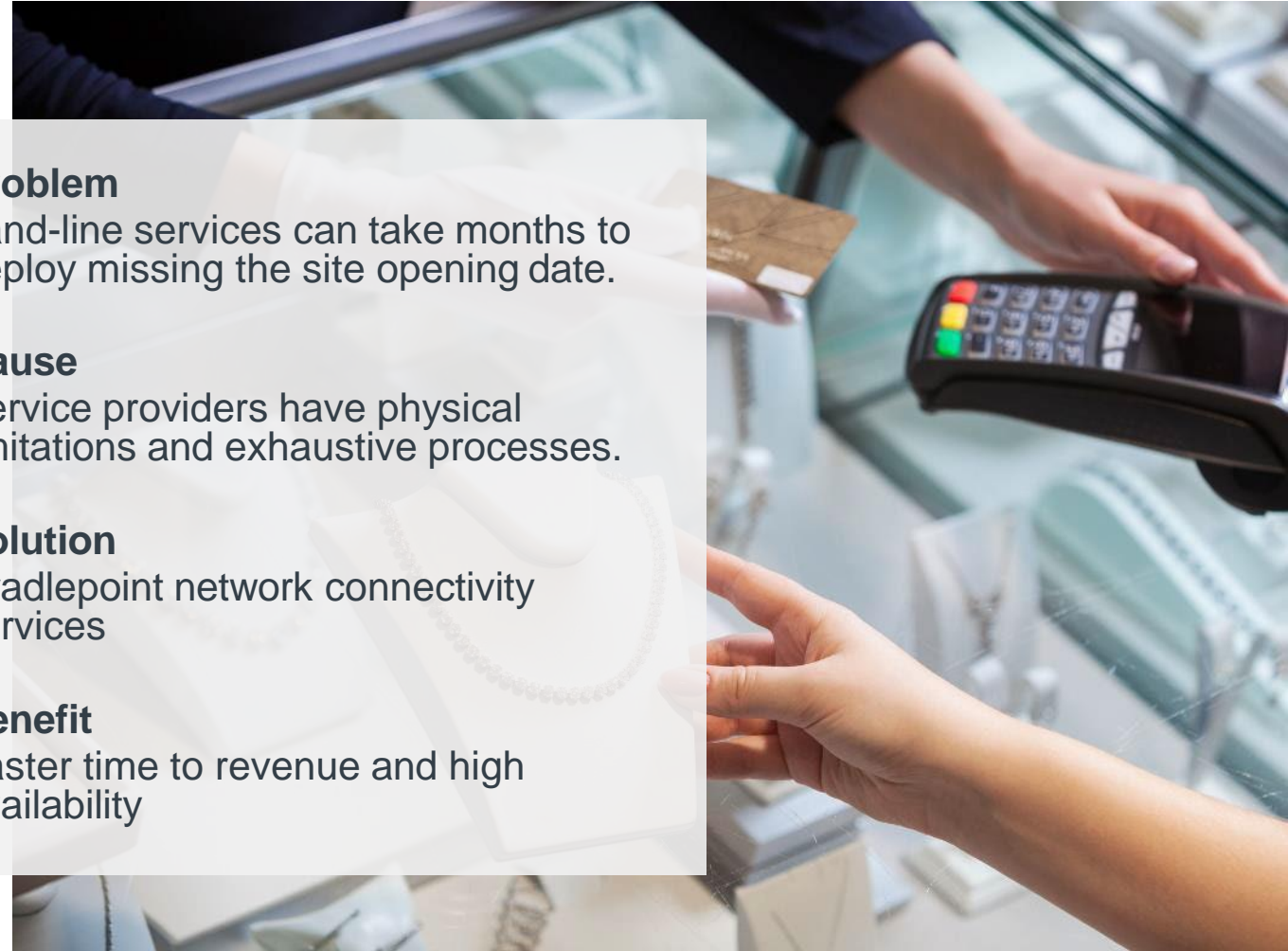
Service providers have physical limitations and exhaustive processes.

Solution

Cradlepoint network connectivity services

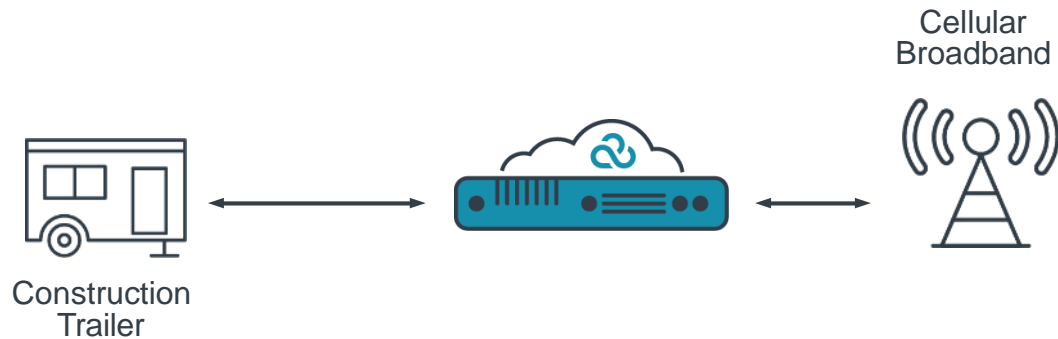
Benefit

Faster time to revenue and high availability



Temporary Networks

Ideal for sites that are temporary or move frequently



Problem

Land-line services can take months to deploy missing the site opening date.

Cause

Service providers have physical limitations and exhaustive processes.

Solution

Cradlepoint network connectivity services

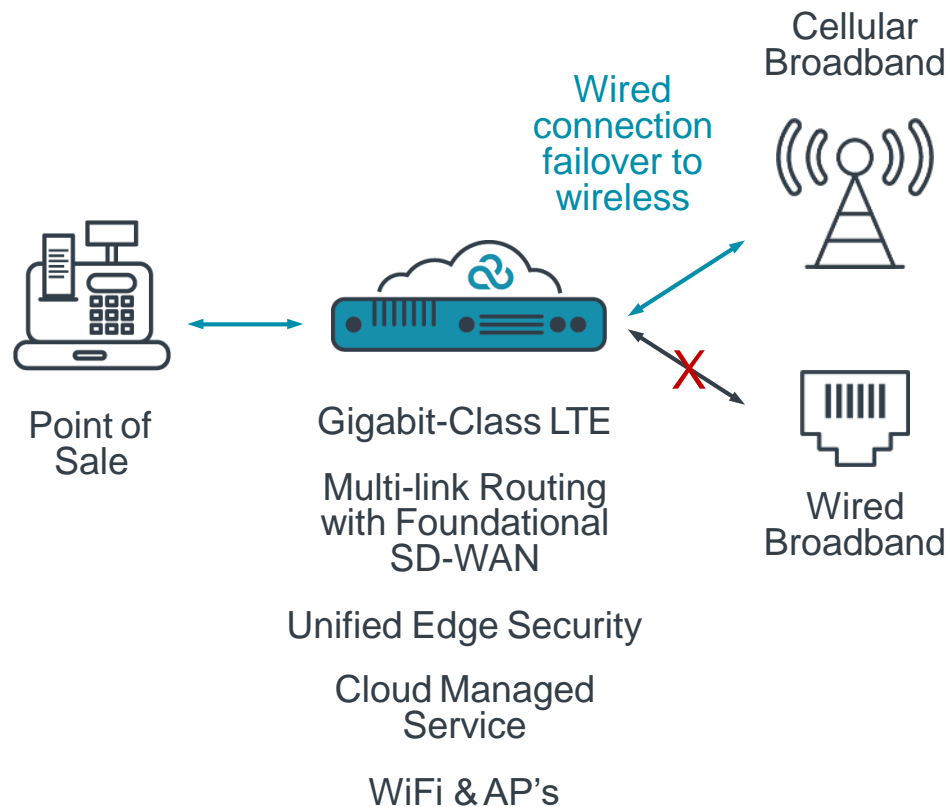
Benefit

Immediate deployment and faster time-to-revenue



All-in-One Branch Connectivity

Ideal for small footprint branch routing that requires high availability across thousands of sites



Problem

Complicated high availability routing across thousands of sites

Cause

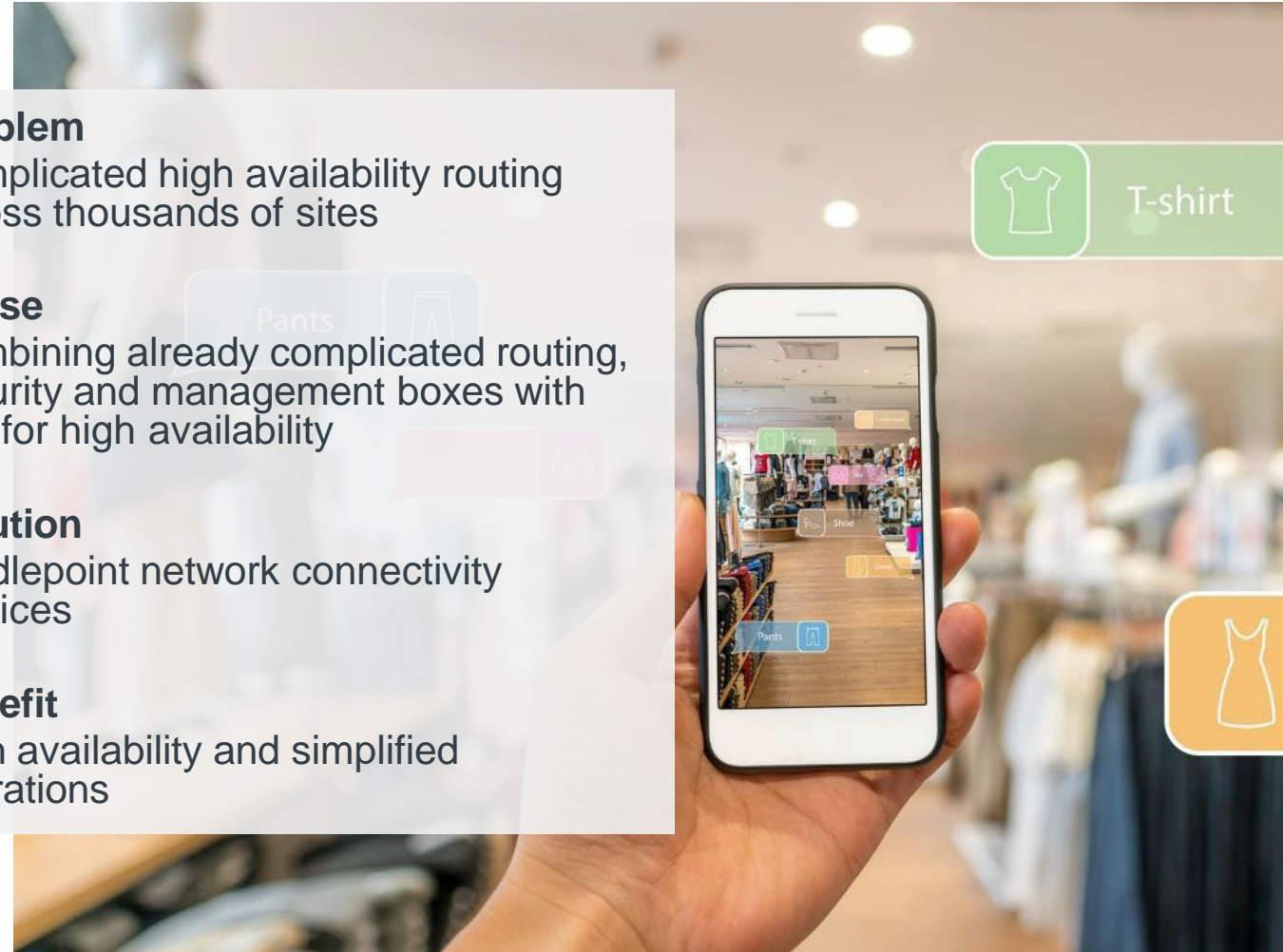
Combining already complicated routing, security and management boxes with LTE for high availability

Solution

Cradlepoint network connectivity services

Benefit

High availability and simplified operations



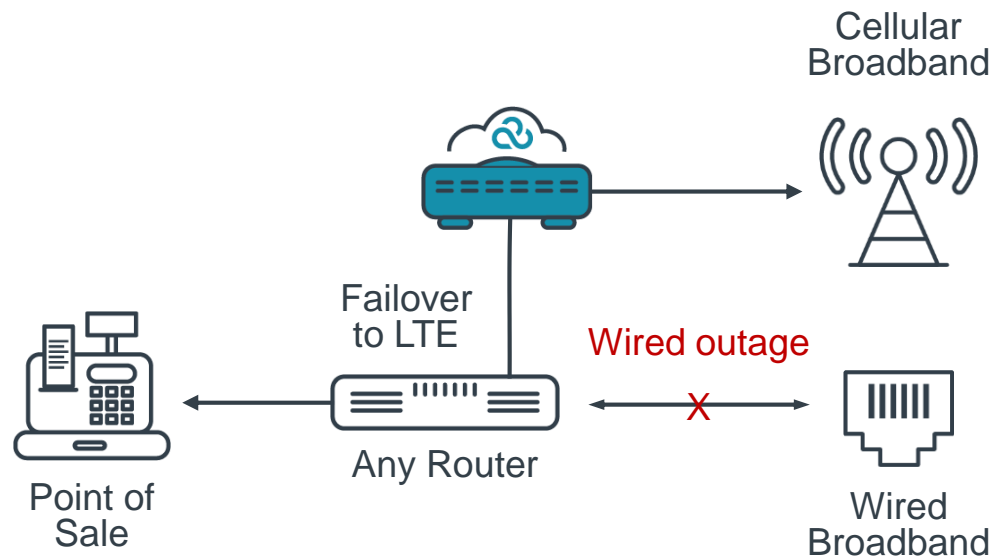
And When Things Get Back to Normal

- Branch endpoints can be deployed as failover devices in other sites
- Branch endpoints can be used to turn up network services in new locations—day-one
- Ruggedized endpoints can be deployed into service vehicles
- Carrier plans can be modified
- Subscriptions can be paused



LTE Failover for Branch Continuity

Ideal for any sites that require critical availability and the use of their current networking or SD-WAN infrastructure



Problem

Network outages

Cause

Wired connection damage or service provider outage.

Solution

Cradlepoint Branch Continuity solution

Benefit

Peace of mind and revenue preservation

Deploy, manage, and troubleshoot from anywhere

Cloud Management Offers Greater Agility

Provision

- Zero-touch deployment
- Device & group configuration

Control

- Out-of-band management
- Extensible customized edge applications / API



NetCloud
MANAGER

Monitor

- Secure remote monitoring & updates
- Custom alert management

Analyze

- Application, network & device visibility
- Health, WAN, LAN, cellular & usage
- Location Services

Best-in-Class LTE is in the Details

Elastic Wideband Technology

“Our Cradlepoint solution ensures we always have the best connection, in terms of quality, speed and price — and it all happens in an automated fashion.”

Anthony Stanley, VP of operations and technology at Visio Health



- Software-Defined Modem
- Connection Management
- Carrier Selection Management
- Modem Health Management
- Data Plan Management
- Virtual Remote Modem

Enterprise-Class Routing with Added Agility

Offers the Major:

Routing protocols

Security features

LAN features

WAN features



With Agility of:

Cloud management

Application-aware:
firewall, QoS, & analytics

Remote connect

Foundational SD-WAN

Auto VPN

Connect securely and stay compliant

Security Maturity



- PCI Service Provider Attestation of Compliance (AoC)
 - NetCloud Manager (2018)
 - NetCloud OS (new, 2018)
 - NetCloud Perimeter (new, 2018)



- Cloud Controls Matrix (Cloud Security Alliance – CAIQ in process)
- Developers knowledge in secure coding
 - Understand reverse engineering, scanning, memory scraping, etc.



- Continuous validation with industry leaders in security assessments
 - Annual pen tests – NCM, NCOS, NCP.
 - Several detailed bank audits
 - Major carriers and federal agencies
 - Active engagement with white hat research communities



- Vulnerability Disclosure Process: <https://cradlepoint.com/trust>

NetCloud: Connectivity, Visibility & Security

NetCloud MANAGER

NetCloud Manager (NCM)

- SaaS platform for secure device management

NetCloud PERIMETER

NetCloud Perimeter (NCP)

- Zero trust, cloud-based, secure private network

NetCloud

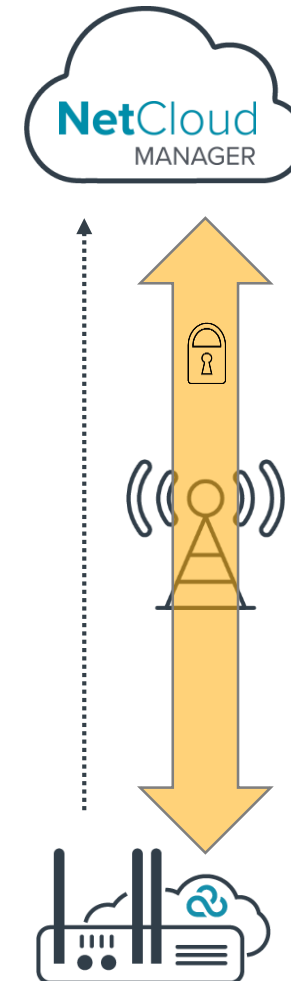
NetCloud OS (NCOS)

- Device firmware with enterprise-grade network and security

Device to NetCloud Manager Connections are Secure

- Proprietary Stream Protocol
 - More efficient, versatile, and secure than SNMP
- Device management traffic ONLY
 - No data payload is sent to NCM
- TLS 1.2 encrypted
 - TLS with server certificate validation mitigates “man-in-the-middle” attacks
- NAT traversable
- Client (device) initiated session
 - No external ports exposed on device WAN
- Bi-directional, bandwidth optimized, long poll and real-time connection
 - Full duplex after session is stabled
 - TCP “keep-alives” sent from both sides to maintain session

- Client initiates session
- Device authenticates to NCM
- TLS secure tunnel established



- Full duplex after session established
- If WAN link changes; client automatically re-initiates session

Endpoints

Platform Overview

Determine the Market Use

Branch Essentials Plan
Mobile Essentials Plan
IoT Essentials Plan

Determine Advanced Functionality Needs

Branch Advanced Add-On Plan
Mobile Advanced Add-On Plan
IoT Advanced Add-On Plan

Determine a Subscription Term

1 Year
3 Year
5 Year

Determine if an Endpoint is Needed



Choose a **NetCloud Service Plan**, or

Choose a **NetCloud Package**

Comprehensive Multi-Touch Support



Phone

24 hours during
week days
Emergency on
weekends



Cradlepoint Connect Community

24/7 online case
management
24/5 Chat



Knowledge Base

24x7 online support
database

Next Steps