

Pervasive wireless mobility as-a-service

Implement Cisco Ultra-Reliable Wireless
Backhaul connectivity with a proven approach
from HCLTech



Now you can leverage a suite of managed services from HCLTech to optimize your Cisco-powered Ultra-Reliable Wireless Backhaul (Cisco URWB) solution. The solution offers **fiber-like connectivity**, enabling medium- to long-range wireless support for multiple business verticals. It also supports validated and verified **architecture design from Cisco** including

point-to-point, point-to-multi point, mesh and mixed, and mobility.

We offer a suite of services to **manage the complete end-to-end wireless deployment cycle** from assessment, planning and consulting to implementation, integration and optimization.

Wireless connectivity to become pervasive in industrial environment

Wireless connectivity has become an integral part of the industrial transformation, revolutionizing the way industries operate and improving efficiency across various sectors. Wireless connectivity offers seamless network availability and constant communication, allowing industries to be

connected all the time in all types of operating environments. With wireless connectivity, industries can effortlessly integrate new devices and technologies into their existing infrastructures and future-proof their operations.

Wireless connectivity will help in transforming industrial environments

Improving planned downtime

60% of manufacturers will use wireless connectivity to diagnose issues and resolve them autonomously by 2025

Enabling seamless connectivity in OT environment

30% of moving assets in industrial areas by will be connected via wireless networks by 2027

Building intelligent edge network

50% of new enterprise IT infrastructure will be deployed at the edge through wireless connectivity by 2025

Increasing operational productivity

30% of G2000 manufacturers will leverage wireless to improve mobility and optimize supply chain by 2027

Wireless connectivity to become a sizeable opportunity for the industrial sector

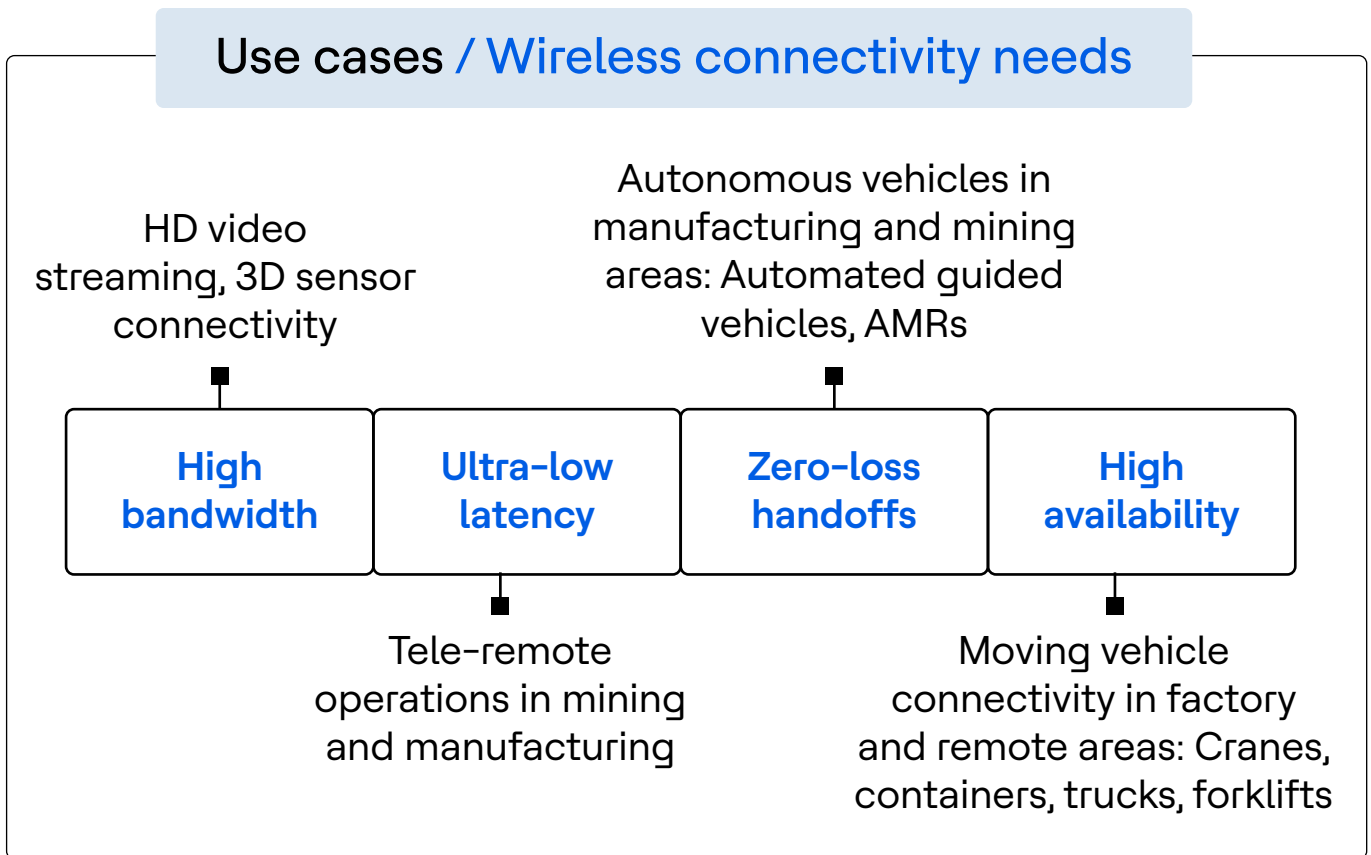
By 2025, more than **60%** of operational equipment will be connected with wireless connectivity.

Wireless backhaul is ideal for connecting remote, mobile and difficult-to-access applications

Automation of operations is on the rise as a means to increase efficiency and productivity. Advances in wireless technology are enabling more and more industrial automation use cases, though based on its complexity, it is critical to

align the right technology to your use case. Some mission-critical applications involving mobility and remote installations in extreme environments still have challenges due to latency, packet loss, slow handoffs and inadequate

bandwidth. Wireless backhaul connectivity becomes a crucial enabler for connecting remote, mobile and difficult-to-access applications.



Reliable connectivity is increasingly becoming relevant in delivering key business KPIs across industrial environments. Business outcomes increasingly rely on seamlessly connected operational systems to create tangible value propositions. Hence, an orchestrated and managed approach is becoming essential for deploying and implementing wireless connectivity infrastructures. In a digital world, connectivity and modernization efforts must be aligned with and grounded in an automated architecture created around network and security convergence to achieve the target business transformation.



Introducing **Cisco URWB**, delivering seamless and reliable wireless backhaul connectivity

Cisco Ultra-Reliable Wireless Backhaul is a wireless technology that enables you to connect moving assets or extend your network where running fiber isn't feasible or affordable. It delivers a high data rate, 99.995% availability, less than 10-ms latency, and zero packet loss with seamless handoffs. This proven technology operates in unlicensed spectrum, deploys like Wi-Fi and gives you full control of your network. This technology also provides a quick installation, secure and flexible deployment without the concern of trenching or pulling cables from one point to another.



Key features of Cisco URWB

High aggregated data rate

HD video, AGVs, 3D sensors

Ultra low latency

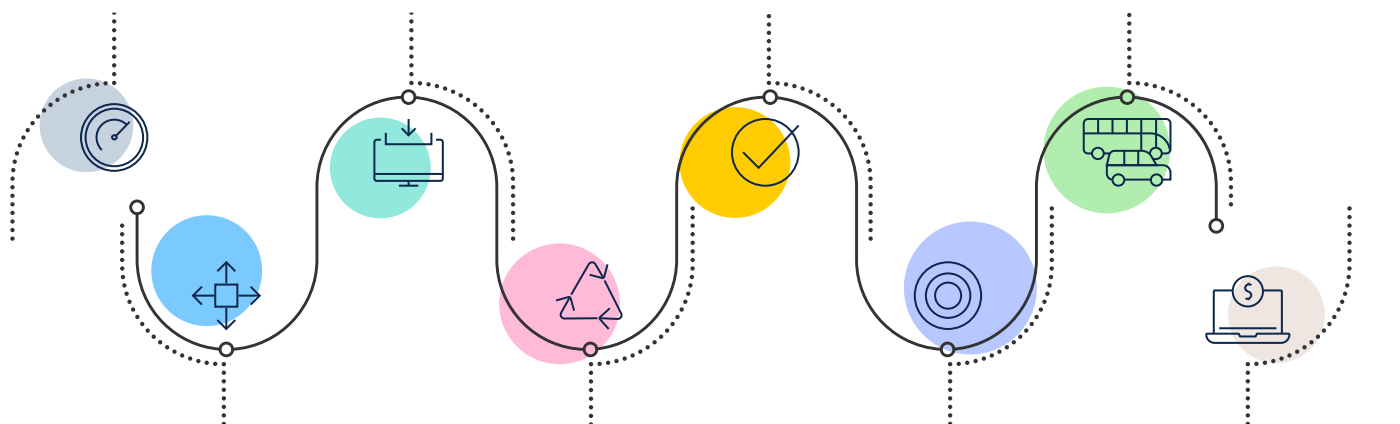
<10 ms

Improved availability

With multipath operations

Zero-loss handoffs

Seamless Hand-offs



Easy to deploy as Wi-Fi

Based on IP and concept of access and client devices

Closed system helps ensure performance

Easier to ensure reliability as radios on access and client are a closed system

Full control of your network

Your team deploys and manages the network, saving service fees

Unlicensed spectrum

No dependence on spectrum approvals

Introducing the HCLTech solution stack

HCLTech Managed Services

Our approach

- Plan/implement/configure – Cisco URWB devices
- Integrate with existing client environment
- Further operate and optimize the client environment

Team model and support

- HCLTech to provide both L1 onsite support with offsite L2 & L3 support
- Central Team – Remote Program and Technical Management Team
- Fully integrated 24*7 center to monitor assets

Management and governance

- End-to-end ownership of program management, hardware procurement and migration activities
- Establish governance council, escalation and communication processes with all partners

Tools



Cisco IoT Operations Dashboard to monitor URWB devices



Cisco Catalyst Center to monitor all the wireless devices in the environment

Gateways



High-performance computing appliance for large-scale Cisco URWB networks

Radios and Antennas



Enabling industrial vehicles to connect to ultra reliable wireless networks



Enabling outdoor and industrial access point connectivity for heavy-duty applications



Enabling wireless backhaul connectivity for fixed and mobile assets



Dual and tri-band antennas



HCLTech approach: Cisco URWB managed services model

Plan, assess and design

- Wireless survey, inventory analysis – endpoints, APs, controllers
- Resource and device optimisation
- PoC/phase-wise implementation– network architecture understanding
- HLD creation/ approval/ sign off

Implement

- Cisco URWB devices install/ deploy/ configure
- Wireless network testing – throughput and resiliency
- Use case testing on pilot sites
- Success criteria validation with customers

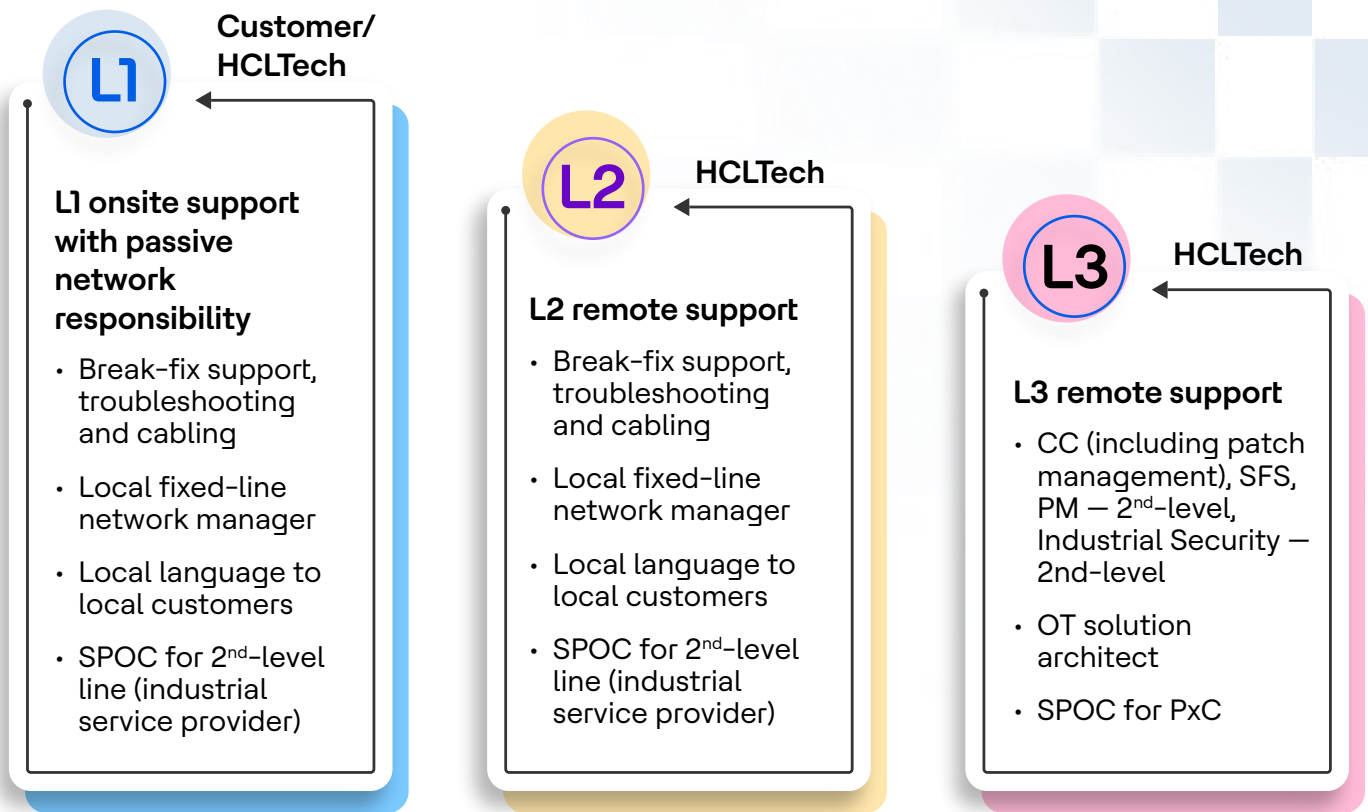
Integrate

- Integration with existing client's wireless infrastructure
- Integration with third party tools (Cisco IoT Operations Dashboard)
- Statement of procedure
- Device monitoring and back up configuration

Operate and optimize

- Operations handover
- UAT and escalation matrix
- Enhanced troubleshooting
- Network intelligence and automation

HCLTech team model and support



HCLTech can deploy, implement and integrate this technology in varied environments

Industry applications





Why HCLTech?



- Competency with OEM wireless technologies will help in varied customer environment
- State-of-the art Network labs for proof case testing
- Experience of implementing in large accounts



- 50+ team size who have tested and implemented several use cases across verticals and regions
- End-to-end understanding of Connectivity technologies (Pvt 5G, LoRAWAN, old version of Wi-Fi as well as new versions of the same), validated design and architecture



- HCLTech is a trusted go-to-market partner to Cisco, having achieved Gold Provider Certification Worldwide.
- Trained workforce on Cisco Enterprise Networking and Cloud (Routing, Switching, Wireless, IoT, DC, Compute & Cloud)

HCLTech | Supercharging Progress™

HCLTech is a global technology company, home to more than 227,000 people across 60 countries, delivering industry-leading capabilities centered around digital, engineering, cloud and AI, powered by a broad portfolio of technology services and products. We work with clients across all major verticals, providing industry solutions for Financial Services, Manufacturing, Life Sciences and Healthcare, Technology and Services, Telecom and Media, Retail and CPG, and Public Services. Consolidated revenues as of 12 months ending March 2024 totaled \$13.3 billion. To learn how we can supercharge progress for you, visit hcltech.com.

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