# Advanced Network Solutions for a Connected Future

IO by HFCL provides advanced networking technologies to address connectivity challenges and drive digital transformation

IO by HFCL provides network solutions tailored to diverse industry needs. Our portfolio includes enterprise-grade Switches, indoor and outdoor Wi-Fi Access Points, and Unlicensed Band Radios for last-mile connectivity and wireless backhaul. With IO Canvas, our Unified Cloud Network Management System, users gain centralized control and AI-driven network management with role-based access, improving efficiency and simplifying operations. Each product is designed for reliability, scalability, and ease of management, enabling organizations to build and maintain efficient networks.
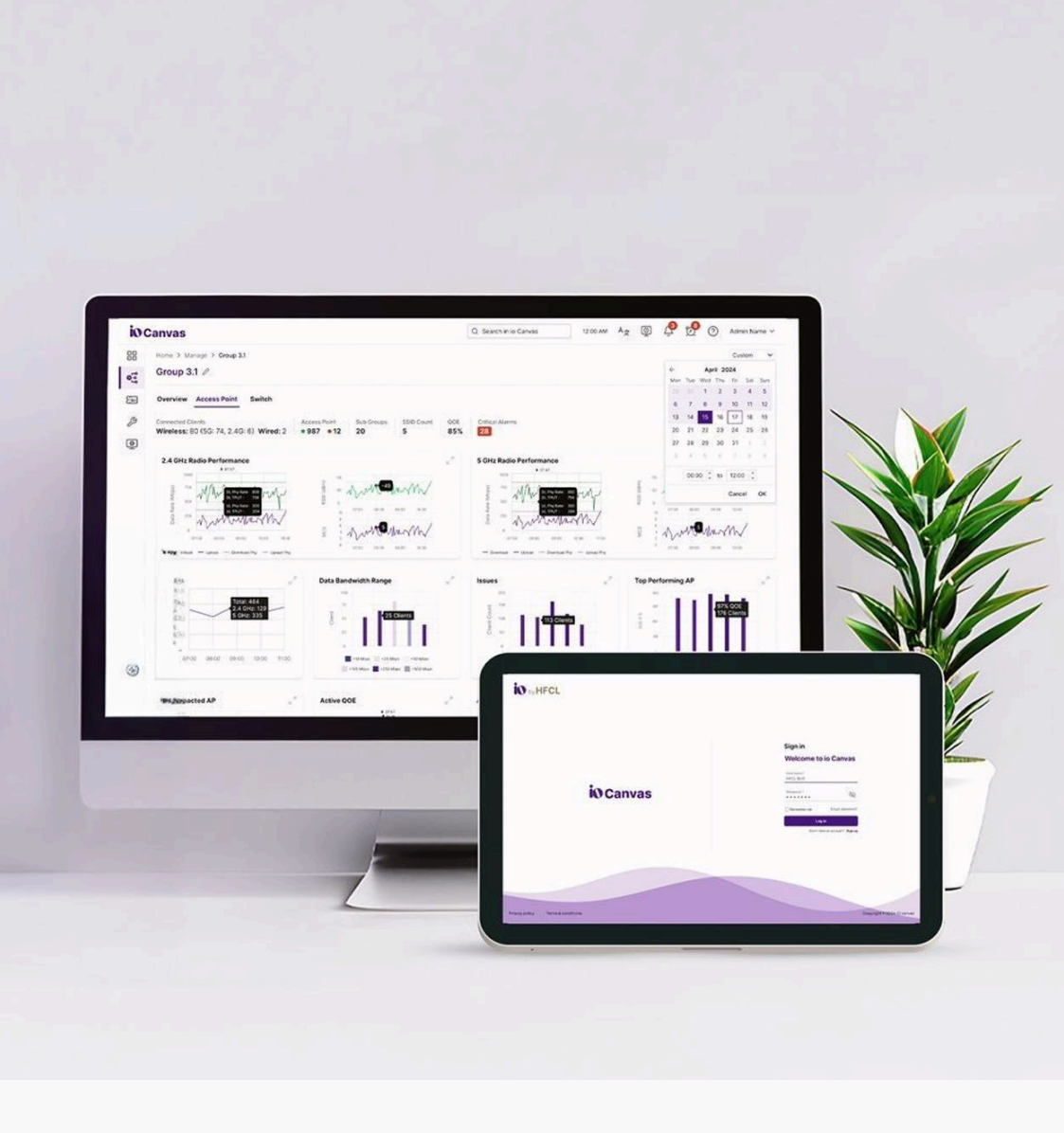
io Canvas: Simplifying Network Management

Centralized Control for Smarter Network Operations

io Canvas, our Unified Cloud Network Management System (UcNMS), simplifies network management with AI-driven intelligence. It enables zero-touch provisioning, centralized control, monitoring, and configuration management for Wi-Fi Access Points, Switches, and Home Mesh Routers.

Smarter, More Efficient Network Management

Unified Network Overview
Manage wired and wireless networks from a single, intuitive dashboard.

Proactive Monitoring & Troubleshooting
AI-powered insights to detect issues, analyse root causes, and enhance troubleshooting.

Quick & Easy Deployment
Accelerate network setup with zero-touch provisioning and template-based configurations.

Scalable & Flexible Integration
Expand networks effortlessly with our Northbound API framework for third-party integration.

Tailored Solutions for Every Enterprise

UcNMS-SE (Shared Enterprise Edition)
Multi-tenant cloud solution ideal for organizations that need a fully managed, secure, and scalable solution.

[Know more]

UcNMS-PE (Private Enterprise Edition)
On-premise solution designed for businesses requiring customized network control.

UcNMS-LE (Light Enterprise Edition)
Lightweight, easy-to-deploy network management solution for small businesses and startups.

High-Performance Wi-Fi Access Points for Uninterrupted Connectivity

Delivering Reliable Wireless Access Across Diverse Environments

IO by HFCL's Access Points are designed to deliver high-speed wireless connectivity for both indoor and outdoor environments. Engineered to meet the growing demands of modern enterprises, they provide consistent performance across corporate offices, industrial sites, and large outdoor spaces. With robust network coverage, and built-in security features, IO Access Points ensure reliable performance even in challenging environments.

Wider Coverage
Extend network reach and eliminate dead zones with high transmit power, integrated antennas, and advanced Wi-Fi 6 features. Ensure strong and consistent connectivity across indoor and outdoor spaces.

Advanced Security
Secure your network with WPA3 and OWE encryption, built-in Wireless Intrusion Detection and Prevention, and controlled user access for both enterprise and guest networks. Prevent cyber threats and unauthorized access with industry-leading security protocols.

High Throughput
Handle high-density environments efficiently with 2/4/8 stream MIMO, 1024-QAM, and OFDMA. Support more simultaneous connections, reduce latency, and deliver high-speed performance even during peak usage.

Intelligent Traffic Management
Prioritize critical applications with advanced Quality of Service (QoS) controls, ensuring smooth performance for essential services. Maintain consistent network quality and prevent congestion, even under heavy traffic loads.

Access Point Portfolio for Every Use Case

Our diverse range of Access Points leverages the latest Wi-Fi technologies to meet different networking requirements.

Wi-Fi 6 Indoor Access Points

ion4xi
Dual-band, 2x2 MIMO Access Point with a 4 dBi integrated omni-directional antenna, delivering peak data rates up to 1.78 Gbps. Designed for high-performance enterprise networks with flexible wired connectivity options.

[Know more]

ion4xi_WP
Compact wall-plate Access Point with dual-band 2x2 MIMO and a 5 dBi antenna, ideal for hospitality, dormitories, and multi-dwelling units. Offers peak data rates of 1.78 Gbps and additional 4x1GbE LAN ports for wired connectivity.

[Know more]

ion12xi_h2
High-capacity Access Point with 4x4 or 8x8 MIMO configurations and a 6 dBi antenna , supporting peak data rate of 5.95 Gbps. Built-in BLE radio supports IoT integrations.

[Know more]

Wi-Fi 6 Outdoor Access Points

ion4xe
Rugged IP-67 rated outdoor Access Point with 2x2 MIMO and N-type external antenna connectors delivering peak data rates of up to 1.78 Gbps. Designed for outdoor environments such as open malls, stadiums, and transit hubs.

[Know more]

ion4x
IP-67 rated outdoor Access Point with an integrated, directional 8dBi antenna for extended coverage. Ideal for public Wi-Fi deployments and mobile data offloading.

[Know more]

ion12xe_h2
Available in 2x2 or 4x4 MIMO configurations with N-type external antenna connectors for high capacity, outdoor requirements and built-in IoT radio.

[Know more]

Switching Solutions: Strengthening Your Network Infrastructure

Effortless Connectivity, Powerful Performance with Cloud Managed Switches

IO by HFCL's Managed Network Switches deliver high-performance networking, eliminating bottlenecks and ensuring reliable connectivity. From 8-port models to 48-port solutions, our switches cater to enterprises, telecommunications, and large-scale campus networks.

Designed for Reliable Performance and Easy Management

Simple Setup & Performance
Effortless integration with reliable connectivity, ensuring smooth operations from installation to daily management.

Energy-Efficient Design
Optimized for lower power consumption, supporting sustainability without compromising performance.

Flexible Deployment Options
Choose between cloud-based or on-premises management to match your network needs and operational preferences.

Power over Ethernet (PoE)
Simplifies installations by delivering both power and data over a single cable—ideal for security cameras, phones, and access points.

High-Performance Switching Solutions

C1 Series Network Switches

The C1 Series delivers efficient network management with essential Layer-2 features. Designed for flexibility, these switches support both cloud-based and on-premises deployment, offering a perfect balance of affordability and high performance for diverse business needs.

HSP-IO-8GE2S-C1PA
8-port managed L2 switch with PoE+ support, up to 24 Gbps switching capacity

[Know more]

HSP-IO-24GE4XS-C1PA
24-port managed L2 switch with PoE+ support, up to 128 Gbps switching capacity

[Know more]

HSP-IO-48GE4XS-C1PA
48-port managed L2 switch with PoE+ support, up to 176 Gbps switching capacity

[Know more]

Plus Series

Featuring robust Layer-2 functionality, an intuitive GUI, and advanced Layer-3 routing, our switches support complex infrastructures with scalable, high-performance connectivity for networks of all sizes.

HSP-IO-8GE2S-I2PDH+
Rugged 8-port industrial PoE+ L2 managed switch with up to 20 Gbps switching capacity, engineered to endure high temperature.

[Know more]

HSP-IO-8GE2S-C2PA+
Versatile 8-port PoE+ L2 managed switch with flexible mounting options and up to 24 Gbps switching capacity, designed for efficient network deployment.

[Know more]

HSP-IO-24GE4XS-C2A+
24-Port L3 Managed Switch with routing capabilities and up to 128 Gbps switching capacity, built for robust and efficient network management.

[Know more]

HSP-IO-24GE4XS-C3A+
24-Port L3 Managed Switch with routing capabilities and up to 128 Gbps switching capacity, built for robust and efficient network management.

[Know more]

HSP-IO-24GE4XS-C3PA+
Advanced 24-Port PoE+ L3 Managed Switch with up to 128 Gbps switching capacity, ideal for high-performance network environments.

[Know more]

HSP-IO-48GE4XS-C3PA+
Enterprise-grade 48-port PoE+ L3 managed switch up to 176 Gbps switching capacity, designed for large-scale campus deployments

[Know more]

Unlicensed Band Radio (UBR): Bridging the Connectivity Gap

Fiber-Like Performance with Wireless Flexibility

IO by HFCL's Unlicensed Band Radio (UBR) delivers fiber-like speeds without traditional infrastructure constraints. Designed for both Point-to-Point (P2P) backhaul and Point-to-Multipoint (P2MP) access, it provides scalable, high-performance wireless connectivity. AI-powered interference mitigation dynamically optimizes network performance, ensuring seamless connectivity with minimal disruption. Built for durability, UBR features an IP67 rating and 6kV surge protection, ensuring reliable operation in harsh outdoor conditions.

Smart Radios
AI-driven RF optimizations for consistent performance in challenging environments

Flexible Deployment
Supports diverse terrains and short/medium/long links.

Enterprise Security
256-bit AES encryption for secure data transmission.

Scalable Network Growth
Expand network capacity with minimal infrastructure change.

Point-to-Point UBR Solutions: High-Speed Backhaul Connectivity

2 Gbps UBR
ion8xle (External Antenna) /
ion8x1x (Integrated Dish Antenna)
Delivers up to 2 Gbps throughput in the 5.1-5.9 GHz range, featuring 2x2 MIMO and 1024-QAM for enhanced speeds and capacity. Available in 23/25/27 dBi integrated antenna, or a 2 x N-Type external antenna variant.

[Know more]

1 Gbps UBR
ion4xls
(Integrated Flat Panel Antenna)
Compact and easy to deploy, this model delivers up to 1 Gbps peak throughput with an integrated 18 dBi antenna. It includes Bandwidth Notification Messaging (BNM) for multi-band backhaul solutions.

[Know more]

1 Gbps UBR
ion4xle (External Antenna) /
ion4x1x (Integrated Dish Antenna)
Delivers up to 1 Gbps throughput with 2x2 MIMO and 1024-QAM support for efficient, reliable connectivity. Available with integrated and external antenna options for added deployment flexibility.

[Know more]

Point-to-Multipoint UBR Solutions: Scalable Access for High-Speed Connectivity

700 Mbps UBR
ion4le (External Antenna) /
ion4x (Integrated Dish Antenna)
Supports up to 700 Mbps throughput with 2x2 MIMO and 256-QAM, delivering reliable performance for smaller-scale deployments in the 5.1-5.9 GHz range.

[Know more]

700 Mbps UBR
ion4lx_BTS
(Integrated Sector Antenna)
Designed for multi-location connectivity, this solution delivers up to 700 Mbps throughput with 2x2 MIMO and 256-QAM. Integrated 17/19 dBi sector antennas ensure broad and reliable coverage.

[Know more]

Intelligent Network Planning & Management

Element Management System - Lite
EMS Lite is a smart, secure and lightweight Element Management System that delivers enterprise-grade UBR network control on standard hardware. Accessible via a web browser, it simplifies complex network operations into one-click tasks. Featuring full FCAPS functionality and automated workflows, EMS Lite provides powerful management without the cost or complexity of traditional systems.

[Know more]

Element Management System (EMS)
iEon EMS provides a unified, intuitive dashboard for complete UBR network management. With real-time monitoring, centralized configuration, and comprehensive oversight, it simplifies operations while minimizing administrative overhead.

[Know more]

LinkXpert
Our advanced link planning tool enables precise network design and configuration optimization. It analyses terrain, calculate link budgets, and predict network reliability across diverse scenarios.

[Plan your Network]