

5G

5G Products & Industrial Routers Catalogue

4G/5G Connectivity

5G

4G

5G

Make Sensing Matter

V3.4



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About Milesight Networks

Milesight Networks is the industrial networking division of Milesight, delivering secure, high-performing connectivity solutions for mission-critical applications. We make resilient industrial routers more accessible to surveillance, energy, banking, and smart industries. With high-quality hardware, optimized channel operations, and market-oriented product strategy, we enable partners to compete with better reliability and cost performance. Milesight Networks is committed to strengthening the resilience of critical infrastructure and supporting the continuous evolution of industrial digital transformation.

Milesight Milestone

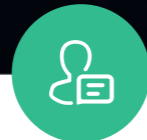


WHY Milesight? Because We Make Sensing Matter



Capturing Meaningful Data Matters

We provide multi-potential sensing products, focusing on the data that adds value, reflects patterns, and assists decision-making.



Responding to Customer Demands Matters

We adapt to evolving customer needs, creating products that are relevant to them and making a significant impact across varied applications, projects, and industries.

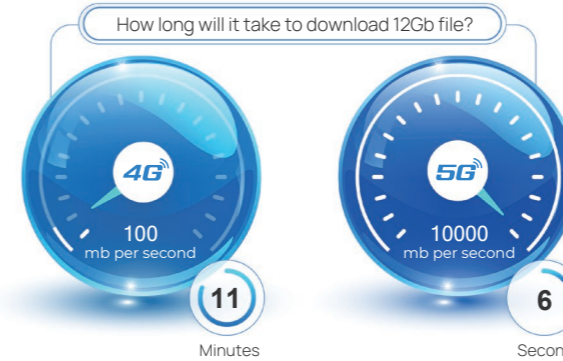


Thriving Together with Partners Matters

Alongside our expanding partner ecosystem, we develop comprehensive solutions, deliver value offerings, and accelerate results for customers.

Why 5G

What Is 5G?



5G's ultra high-speed, which is around 100 times faster than 4G, is designed to connect virtually everyone and everything together including machines, objects and devices.

How Can Milesight Empower Business and Industry?

According to the GSMA, 5G accounted for 8 percent of global mobile connections in 2021, with the share considerably lower in most parts of the world. People remain less convinced 5G will change how they connect to the internet and less likely to pay more for 5G connections. Against that backdrop, Milesight is committed to develop the most universal, pragmatic, and innovative products & solutions to those industries who need 4G to 5G migration solution, as well as boost the 5G adoption.

- Accelerate the Fusion of 5G and AI to Help Industries Development
- Replace Expensive Wired Cable with Reliable 5G Connections
- Lower Latency Enables Business Improvements



Milesight Industrial Cellular and 5G Products



Mini Series Industrial Router

UR41(L) is a compact size 4G router for IoT applications with low-cost and high efficiency.



Overall Features

- Secure 4G Connectivity in a Compact Design
- Equipped with NXP Industrial Grade Processor
- Power Consumption as Low as 78mA in Idle Mode
- Protect Power Sources by Dropping Power Consumption to a Target of 6.3mA in Standby Mode
- Fast Network Response from Standby Mode Triggered by Timers, DI, Cellular, Ethernet or Serial Port
- Support MilesightVPN & Milesight Platform Management for Easy Maintenance
- Support GPS & Multiple Interfaces for Various Applications (UR41)

UR41(L)

Model		UR41	UR41L
Hardware	Processor	ARM Cortex-A7, 528 MHz	
System	Memory	128 MB DDR3 RAM and 128MB Flash	
Connectivity	Cellular Interface	4G LTE (CAT 4)/WCDMA/GSM (1 x Nano SIM Slot)	4G LTE (CAT 1)(1 x Nano SIM Slot)
	Ethernet Interface	1 x 10/100 Mbps LAN Port [Full or Half Duplex (Auto-Sensing)]	
	GNSS	1 x 50 Ω SMA Connector (Center PIN: SMA Female), GPS/GLONASS/Beidou/Galileo/QZSS	N/A
	Serial Interface	1 x RS232 or 1 x RS485 (Software Switchable)	
	DI/DO	1 x DI + 1 x DO	
Others	Network Protocols	IPv4/IPv6, PPP, PPPoE, SNMP v1/v2c/v3, TCP, UDP, DHCP, RIPv1/v2, OSPF, DDNS, VRRP, HTTP, HTTPS, DNS, ARP, QoS, Sntp, Telnet, SSH, MQTT, TR069, etc.	
	Power Input	① 5-24 VDC, with Surge-Protection and Reverse Polarity Protection ② 5V/1A by USB Type-C Port	
	Ingress Protection	IP30	
	Dimension	70 x 55 x 22 mm (2.76 x 2.17 x 0.87 in) (Antenna Connector Excluded)	
	Installation	Desktop, Wall Mounting, DIN Rail Mounting	



UR41(L) ^{Mini}

Mini Size, Minimal Power Demand



UR32L/UR32S ^{Lite}

Perfectly Aligned with Budget and Needs



UR32 ^{Pro}

Accessible Excellence, Your Prime Choice



UR35 ^{Pro}

Versatile Excellence, All-Purpose Choice



UR75 ^{Ultra}

Empower Industry Applications with Ultra-fast 5G Router



UF51 ^{5G}

Ultra-fast CPE for Outdoor and On-the-Move Applications

Lite Series Industrial Router

UR32L/UR32S is a rugged and secure 4G router designed for IoT applications, delivering reliable performance at a high cost-efficiency.

4G

Overall Features

- Industrial-Grade Design with Rugged Metal Casting
- Equipped with NXP Industrial Grade Processor
- Support Operating Temperature from -40°C to 70°C
- PoE-PSE for Less Wire Connection Option
- Reliable Connectivity with 4G/Ethernet Failover
- Wi-Fi Client & AP Modes (UR32S)
- Support MilesightVPN & Milesight Platform Management for Easy



UR32L
UR32S

Model		UR32S	UR32L
Hardware System	Processor	ARM Cortex-A7, 528 MHz	
	Memory	128 MB DDR3 RAM and 128MB Flash	
Connectivity	Cellular Interface	4G LTE (CAT 4)/WCDMA/GSM (1 x Mini SIM Slot)	
	Cellular Interface	2.4 GHz	N/A
	Ethernet Interface	1 x WAN + 1 x LAN or 2 x LAN (2 x 10/100 Mbps)	
Others	Network Protocols	IPv4/IPv6, PPP, PPPoE, SNMP v1/v2c/v3, TCP, UDP, DHCP, RIPv1/v2, OSPF, DDNS, VRRP, HTTP, HTTPS, DNS, ARP, QoS, SNTP, Telnet, VLAN, SSH, TR069, MQTT, etc.	
	Power Input	9-48 VDC, 2-pin 5.08 mm Terminal Block	
	Power Output	2 x 802.3 af/at PoE PSE on LAN Ports (Optional)	
	Ingress Protection	IP30	
	Dimension	108 x 90 x 26 mm (4.25 x 3.54 x 1.02 in)	
	Installation	Desktop, Wall or DIN Rail Mounting	

Pro Series Industrial Router

UR32/UR35 secures reliable cellular-to-ethernet connectivity for IoT applications, such as kiosk, self-service terminals and process automation equipment.

4G verizon

Overall Features

- Support Modbus RTU/TCP & Python Programming
- Industrial-Grade Design with Rugged Metal Casting
- Equipped with NXP Industrial Grade Processor
- Support Operating Temperature from -40°C to 70°C
- PoE-PSE for Less Wire Connection Option
- Reliable Connectivity with 4G/Ethernet/Wi-Fi Failover & Dual SIM Backup
- Support MilesightVPN & Milesight Platform Management for Easy Maintenance
- Verizon Open Development Certification (UR32)



UR32
UR35

Model		UR32	UR35
Hardware System	Processor	ARM Cortex-A7, 528 MHz	
	Memory	128 MB DDR3 RAM and 128MB Flash	
	Extendable Storage	1 x Micro SD Slot	
Connectivity	Cellular Interface	4G LTE (CAT 4)/WCDMA/GSM (2 x Mini SIM Slots)	
	Ethernet Interface	2 x 10/100 Mbps (1 x WAN + 1 x LAN or 2 x LAN)	5 x 10/100 Mbps (1 x WAN + 4 x LAN)
	Wi-Fi Interface (Optional)	IEEE 802.11 b/g/n, 2.4GHz	
	Serial Interface	1 x RS232(1 x RS485 Optional)	1 x RS232 + 1 x RS485
	DI/DO	1 x DI + 1 x DO	
Others	GPS (Optional)	1 x 50 Ω SMA Connector	
	Network Protocols	IPv4/IPv6, PPP, PPPoE, SNMP v1/v2c/v3, TCP, UDP, DHCP, RIPv1/v2, OSPF, DDNS, VRRP, HTTP, HTTPS, DNS, ARP, QoS, SNTP, Telnet, VLAN, SSH, MQTT, TR069, DLMS, etc.	
	Power Input	9-48 VDC, 2-pin 5.08 mm Terminal Block	
	Power Output	2 x 802.3 af/at PoE PSE on LAN Ports (Optional)	4 x 802.3 af/at PoE PSE on LAN Ports (Optional)
	Ingress Protection	IP30	
	Dimension	108 x 90 x 26 mm (4.25 x 3.54 x 1.02 in)	135 x 103 x 45 mm (5.31 x 4.06 x 1.77 in)
Installation	Desktop, Wall or DIN Rail Mounting		

5G Industrial Router

The Milesight Ultra-Series Industrial Cellular Router UR75 delivers 5G connectivity for wireless networking solutions.



Overall Features

- Ultra-Fast 5G Connectivity with Superb Download Speed up to 4.67 Gbps
- Strong Wi-Fi Performance with up to 1.8 Gbps Download Speed
- Equipped with Quad-Core CPU Arm Cortex-A55 for Faster Data Transmission
- Advanced OpenCPU System for More Simplified Yet Efficient Frame Work
- Support Transmission of Data via RS232/RS485/ DI/DO
- Support GPS for Various Applications
- Support MilesightVPN & Milesight Platform Management for Easy Maintenance

UR75

Model		UR75
Hardware	Processor	Quad-core ARM Cortex-A55, 2 GHz
	Memory	1 GB LPDDR4x RAM and 1 GB NAND Flash
	Extendable Storage	1 x M.2 NVMe SSD Interface
	Button	1 x Reset Button
	GNSS	1 x 50 Ω SMA Connector
Connectivity	Cellular Interface	5G NR SA & NSA/4G LTE/WCDMA
	Ethernet Interface	1 x WAN + 4 x LAN (5 x 10/100/1000 Mbps)
	Wi-Fi Interface	IEEE 802.11b/g/n/ax 2 x 2 MIMO, 2.4 GHz IEEE 802.11a/n/ac/ax 2 x 2 MIMO, 5 GHz
	Serial Port	1 x RS232 + 1 x RS485
	DI/DO	1 x DI + 1 x DO
Others	Ingress Protection	IP30
	Dimension	135 x 115 x 36.4 mm (5.31 x 4.53 x 1.43 in)
	Installation	Desktop, Wall or DIN Rail Mounting

5G CPE

UF51 features aesthetic design and outstanding performance with IP67 rating to deliver fast 5G connectivity, higher bandwidth, and low latency to more business.



Overall Features

- IP67 Rated and UV Resistance
- Ultra-Fast 5G Connectivity with SA & NSA Modes
- Dual Band Wi-Fi 6 with up to 3.6 Gbps Download Speed
- Equipped with Qualcomm Quad-Core Processor
- Aesthetic Design with Flexible Installation Ways
- Support DeviceHub Management for Easy Maintenance

UF51

Model		UF51
Hardware	Processor	Quad-core ARM Cortex-A55, 2 GHz
	Memory	1 GB LPDDR4X RAM and 1 GB NAND Flash
Connectivity	Cellular Interface	5G NR SA&NSA/4G LTE/WCDMA (1 x Micro-3FF SIM Slot)
	Ethernet Interface	1 x 10/100/1000/ Mbps (LAN2) 1 x 10/100/1000/2500 Mbps (LAN1/WAN)
	Wi-Fi Interface (Optional)	IEEE 802.11b/g/n/ax 4 x 4 MIMO, 2.4 GHz IEEE 802.11a/n/ac/ax 4 x 4 MIMO, 5 GHz
	Serial Interface	1 x RS485 (RS232 Hardware Optional)
	DI/DO	1 x DI+ 1 x DO, Galvanic Isolation
Others	Network Protocols	IPv4/IPv6, TCP, UDP, DHCP, HTTP, HTTPS, ARP, NTP, DNS, ARP, SSH, etc.
	Ingress Protection	IP67
	Dimension	No Waterproof Connector: φ105 x 110 x 187 mm (φ4.13 x 4.33 x 7.36 in) With Waterproof Connector: φ105 x 110 x 218 mm (φ4.13 x 4.33 x 8.58 in)
	Installation	Desktop, Pole Mounting, Wall Mounting, Bottom Screw Mounting

*DC and PoE supply cannot be used at the same time.

Model	UR41L	UR41	UR32L	UR32S	UR32	UR35
Performance	CPU	528 MHz, ARM Cortex-A7				
	Storage Technologies	Memory: 128 MB DDR3 RAM Flash: 128MB		Memory: 128 MB DDR3 RAM Flash: 128MB Extended Memory: 1 x Micro SD Slot		
	Python	NA			√	
Backhaul	4G	1 x SIM Slot			2 x SIM Slot	
	Ethernet	1 x 10/100 Mbps(LAN)		2 x 10/100 Mbps		5 x 10/100 Mbps
	Wi-Fi	N/A		2.4 GHz	2.4 GHz (Optional)	
	VRRP	√				
	WAN Fail-over	N/A		√		
Communication Ability	Network Protocol	IPv4/IPv6, PPPoE, TCP, UDP, DHCP, HTTP, HTTPS, ARP, NTP, DNS, ARP, SSH, VLAN, etc.				
	MQTT	√		N/A	√	
	Modbus	√		N/A	√	
Communication Security & Quality	QoS	√				
	VPN	OpenVPN / IPsec / L2TP / PPTP / GRE / DMVPN Client, OpenVPN / IPsec Server		ZeroTier / OpenVPN / IPsec / L2TP / PPTP / GRE / DMVPN Client, OpenVPN / IPsec Server		
	Firewall	Access Control (ACL), DMZ, Port Mapping (DNAT), MAC Binding, SPI Firewalls, DoS&DDoS Protection, Filtering(IP&Domain), custom iptables rules				
	IP Passthrough	√				
	AAA	Radius, TACACS+, LDAP, Local Authentication				
	Multi-interfaces	Serial Ports	1 x RS232 or RS485 (Software Switchable)		N/A	1 x RS232 or RS485 (Hardware Optional)
DI/DO		1 x DI + 1 x DO		N/A	1 x DI + 1 x DO	
USB 2.0		√		N/A		
GNSS		N/A	√	N/A	Optional	
Power	Power Input	5-24 VDC or 5V/1A by USB		9-48 VDC		
	PoE PSE	N/A		Optional		
	Power Consumption	Idle: 70mA@12V Data link: 157mA (peak)@12V	Idle: 78mA@12V Data link: 226mA (peak)@12V	Standby mode: 6.3 mA@12V	Typical 1.8 W, Max 2.2 W	Typical 1.9 W, Max 2.4 W
Management	CLI	√				
	SMS Control	√				
	SNMP	√				
	TR069	√		N/A	√	
	DeviceHub	√				
	MilesightVPN	√				
	Milesight Development Platform	√				
Strucal Design	Size	70 x 55 x 22 mm		108 x 90 x 26 mm		135 x 103x 45 mm
	Protection	IP30				
Application Features	In small embedded and require low power consumption scenario such as solar Powered monitoring,smart street light system, track and retail monitoring...			In small embedded scenario and compatible to Milesight VMS platform directly	In small embedded and require low power consumption scenario such as solar Powered monitoring,smart street light system, track and retail monitoring...	With more interfaces and stronger performance for the industries and business buildings

Model	UR75 5G	UF51	
Performance	CPU	2GHz, Quad-Core ARM Cortex-A55	
	Storage Technologies	Memory: 1 GB LDDR4x RAM Flash: 1 GB NAND Flash	
Second Development	Node Red	√	
Backhaul	5G NR SA&NSA/4G/3G	2 x SIM Slots	1 x SIM Slots
	Ethernet	10/100/1000 Mbps (1*WAN&4*LAN)	2 x 10/100/1000 Mbps (1*WAN&1*LAN or 2*LAN)
	Wi-Fi 6	√	
Stability Function	VRRP	√	N/A
	WAN Fail-over	√	
Communication Ability	Network Protocol	IPv4/IPv6, PPPoE, TCP, UDP, DHCP, HTTP, HTTPS, ARP, NTP, DNS, ARP, SSH, VLAN, etc.	
	DDNS	√	
	Modbus	√	
Communication Security & Quality	QoS	N/A	
	VPN	OpenVPN/IPsec/L2TP/PPTP Client, OpenVPN/IPsec Server	
	Firewall	Access Control (ACL), DMZ, Port Mapping (DNAT), DoS&DDoS Protection, Filtering(IP&Domain), custom iptables rules	
	IP Passthrough	√	
Multi-interfaces	Serial Ports	1 x RS232 + 1 x RS485	1 x RS485 (RS232 Hardware Optional)
	DI/DO	1 x DI + 1 x DO	
	USB 3.0	√	
	GNSS	√	
Power	Power Input	9-48 VDC or 5V/3A by USB	
	PoE PSE	√	N/A
	PoE PD	N/A	√
Management	DeviceHub	√	
	MilesightVPN	√	
	SNMP	√	
Strucal Design	Size	135 x 115 x 36.4 mm	105 x 110 x 218 mm
	Protection	IP30	IP67
Application Features	5G Routers for ultra-fast 5G communication in industrial applications	Fix and ultra-fast connection for outdoor deployment and moving vehicles	

Smart Meter

Boosting Efficiency with Smarter Meters Through Advanced Router Connectivity



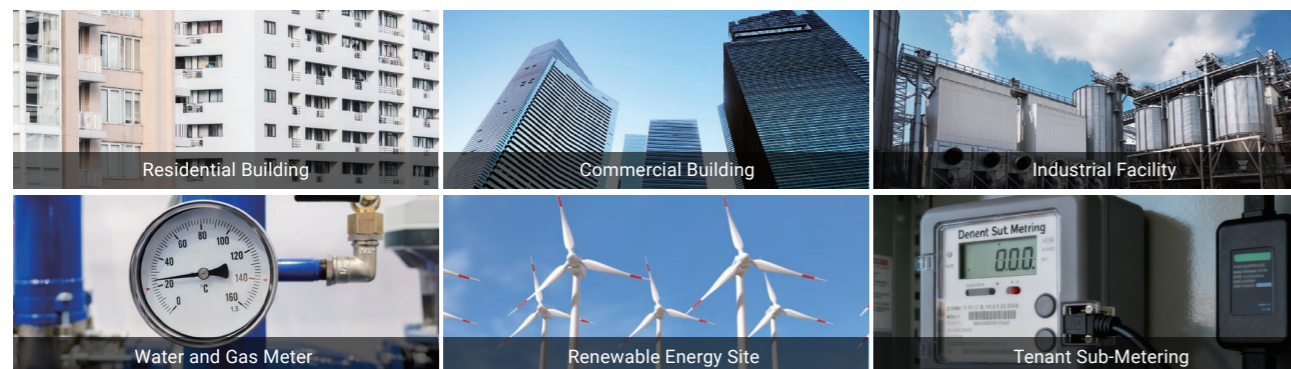
USE CASE

Deploying cellular routers alongside smart meters enables secure and stable data transmission from meters to the central management platform. Through the router, real-time meter readings, usage data, and alerts are seamlessly delivered for efficient monitoring and billing. This ensures continuous connectivity, supports remote management and diagnostics, and greatly enhances the efficiency and accuracy of utility operations.

Solution Topology



Application Scenarios



EV Charging Station

Empowering EV Charging Stations with Reliable Router Connectivity



USE CASE

Deploying industrial routers at EV charging stations ensures secure and reliable network connectivity for charging piles. Through the router, charging data, billing records, and operational status are transmitted in real time to the central management platform. This allows operators to monitor station availability, detect faults, and perform remote maintenance.

Solution Topology



Application Scenarios



Power Distribution Systems

Enhancing Stability, Security, and Scalability in Smart Power Distribution

USE CASE



Milesight Industrial IoT Routers play a critical role in modern power distribution systems. By collecting telemetry data from wells and controlling pump equipment, they eliminate the need for direct Modbus commands and instead receive instructions via REST API, simplifying integration with existing SCADA and control systems. This ensures continuous, reliable connectivity, improves system security, and enables highly flexible and scalable operations for power distribution in oil & gas, petrochemical, and industrial facilities.

Solution Topology



Application Scenarios



OOH Advertising

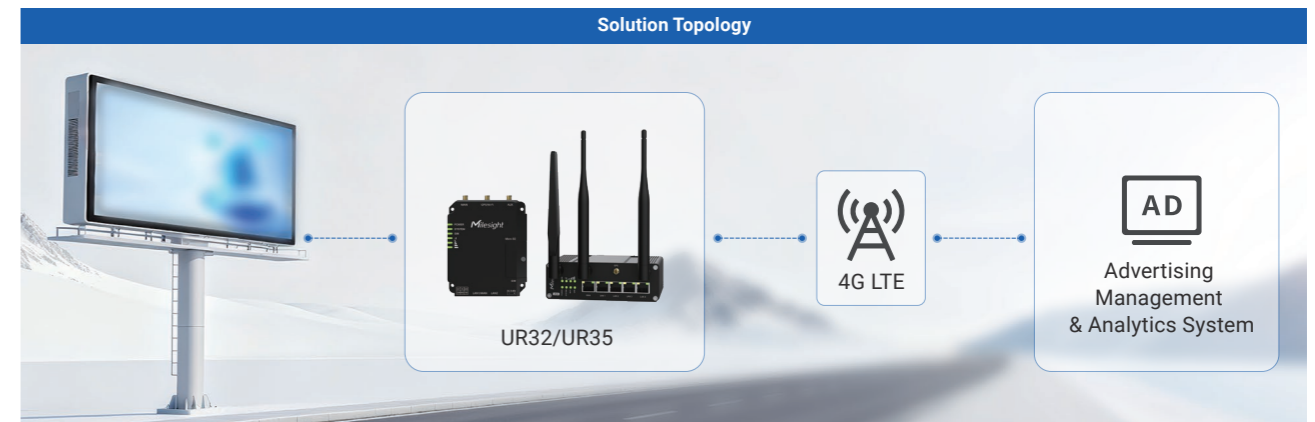
Enhancing Connectivity and Performance in Outdoor Advertising

USE CASE

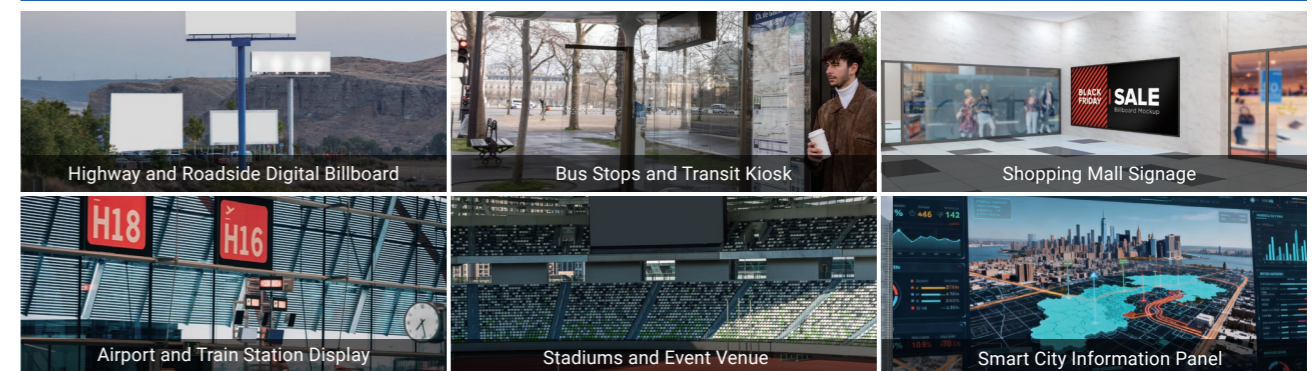


Deploying industrial routers for outdoor advertising ensures continuous and reliable network connectivity for billboards and digital signage. Through the router, display content, audience interaction data, and operational status are transmitted in real time to the advertising management platform.

Solution Topology



Application Scenarios



Outdoor Video Surveillance

Enhancing Connectivity and Performance in Outdoor Advertising

USE CASE

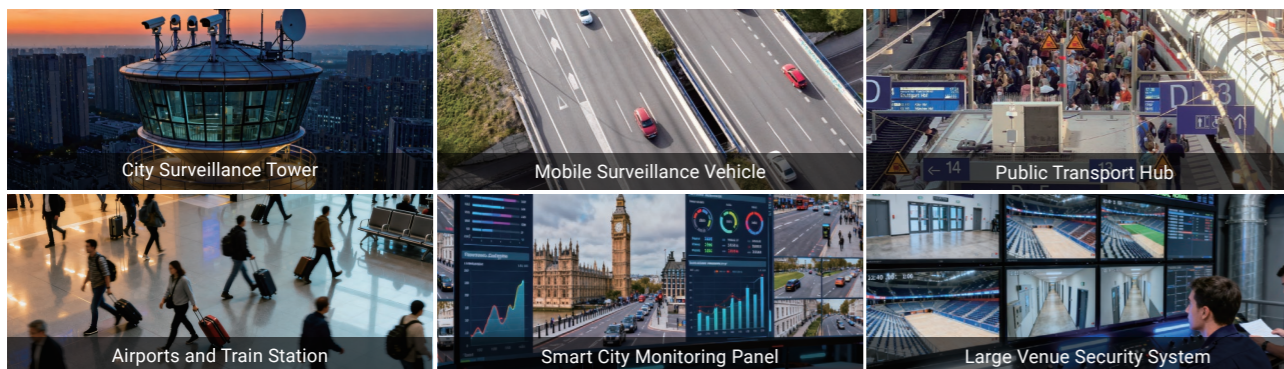


Deploying industrial routers in outdoor video surveillance ensures stable power supply and reliable network connectivity for surveillance towers, mobile cameras, and luggage monitoring systems. Routers like UR32, UR35, and UF51 maintain continuous operation, support GPS tracking, and transmit video and operational data in real time to the central management system. This enables precise location tracking, fault detection, and efficient remote monitoring.

Solution Topology



Application Scenarios



Success Stories



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