

NANO SHADOW

TG-FF-U5

Industrial Remote Access

Access, Monitor, Control!!



** Edgemate/Custom Logo supported

Whether you are a machine builder, a system integrator, or an end user, being able to monitor and access your industrial equipment & devices allows monitoring, maintenance, troubleshooting, and making real-time adjustments to optimize operations.

Remote access extends the possibility to gain quick feedback from industrial controllers such as Programmable Logic Controllers (PLCs) and associated peripherals like HMI, JACE, VFD, SCADA, ROBOT, Sensors, and many other controllers.

Edgemate Shadow aims to solve the impediments of the traditional approach by providing remote access to industrial devices in a secure way with the help of a gateway and a cloud subscription.

FEATURES

- **Web-based Remote Access** – Access, monitor, and control your Assets from anywhere with a simple internet connection.
- **Remotely access** – Industrial equipment such as PLC, HMI, SCADA, Gateways, Data loggers, PC, Modbus devices
- **Easy Setup** – Connect in three simple steps.
Connect LAN → Configure IP address and internet → Install helper.
- **Dashboard** – Edge Connect (cloud) allows permission-based user role management, tenancy management, configuring systems, and setting real-time updates.
- **Hardware** – Linux-based OS, Dual Ethernet ports.
- **Highly Secure** – TLS Protected end-to-end encryption and certificate-based authentication.

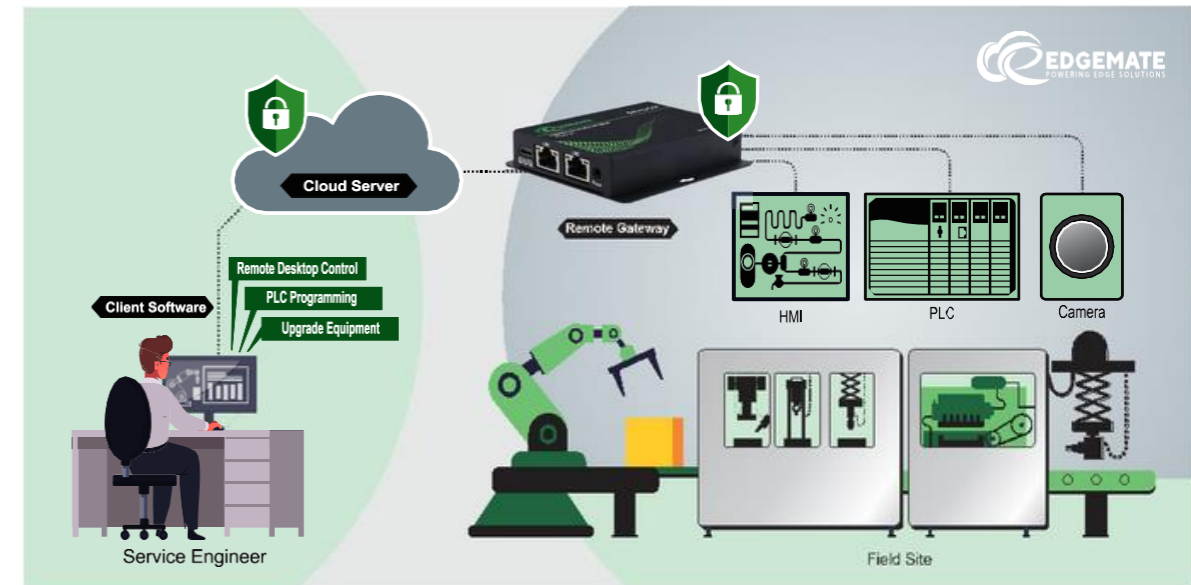
TECHNOLOGY & SECURITY

The Edgemate Shadow technology is based on standard internet technologies such as HTTP and WebSocket. A tunnel connection between the device and the server is created using TLS, leaving a zero direct attack surface as your devices are never directly exposed to the internet.

- An excellent alternative to VPN & Port Forwarding – Addresses many drawbacks of traditional remote access such as legal restrictions, high setup and maintenance cost, separate access for all users, and direct exposure to the internet.
- Security –end-to-end encryption with two-factor authentication (2FA) using time-based one-time passwords (TOTPs) and certificate-based authentication for remote access to the cloud.
- Works behind NAT routers and Firewalls – with its own addressable URL. No public or static IP address is required for the device.

BENEFITS

- **Cost and time** - Eliminates the requirement for engineer site visits for commissioning, programming, and troubleshooting of industrial equipment.
- **Process improvement** – Reduces downtime, set alarms, or creates real-time dashboards for improving and monitoring your (your customer's) machines.
- **Web-based remote access** – No complex VPN or port forwarding is required.
- **Works behind NAT routers and Firewalls** – addressable via own URL. No public or static IP address is required for the device.
- **Low bandwidth** – does not require the entire screen to be duplicated unlike VPN increasing bandwidth costs.
- **Easy setup** - saves having to deal with IT to set up routers, open firewall ports, or custom VPN connections. Just get IT approval for using the cloud.
- **Privacy and data protection** – do not store any data. Transparently forwards HTTPS and TCP connections.



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Specification

CPU	Rockchip RK3308 Quad A35 64bit processor with built-in VAD 256
RAM	M DDR3
Storage	4GB eMMC (4G/8G/16G/32G) Support MicroSD (TF) Card Slot expansion

OS / Software

OS /	Linux
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Orderable Part Number

Wi-Fi Only	TG-FF-U5
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Hardware Features

Connectivity	Dual RJ45 Ethernet ports (100M bps) 2.4GHz WiFi, support 802.11/b/g/n protocol, Bluetooth 4.2
Interface	Type-C×1 (DC IN / OTG), RJ45×2
Temperature	Operating Temperature : 0°C – 60°C
Power	DC 5V (powered by type-C), Comes with external 24 – 5 V convertor for industrial application

Dimensions

Size	42 mm x 42 mm x 33.5 mm
Mounting	DIN RAIL mounting clip included.

INDUSTRIES AND APPLICATIONS

- **Manufacturing** – Factory automation, industrial equipment, and machines
- **Utility** – Meter reading, equipment monitoring, process automation
- **Healthcare** – Medical equipment monitoring, Telemedicine.
- **Agriculture** – irrigation systems, climate conditions
- **Transportation and Logistics** – Fleet and vehicle performance
- **Construction** – Building automation, security, and surveillance systems.

- **Telecommunications** – remote base station and infrastructure monitoring
- **Retail and Inventory Management** – Point of sale management
- **Environmental Monitoring** – Air quality, water quality, weather conditions.
- **Oil and Gas** – Pipelines
- **Mining** – Worker safety

SHADOW SW SUPPORTS

- Programmable Logic Controllers (PLCs)
- Human-Machine Interfaces (HMIs)
- Distributed Control Systems (DCS)
- Java Application Control Engine (JACE)
- Supervisory Control and Data Acquisition (SCADA) Systems
- Sensors and Actuators
- Motors and Drives
- Motors and Drives
- Industrial Robots
- Industrial Cameras
- Energy Management Systems
- Security and Control systems

** 12 GB data included ** request additional data

Works with Leading makes of Automation Hardware (TCP/UDP Based Communication (ask for VPN support under tunnel))



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