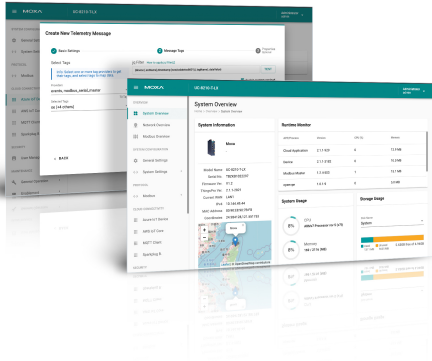


ThingsPro Edge Series

IloT gateways software for device-to-cloud connectivity



Features and Benefits

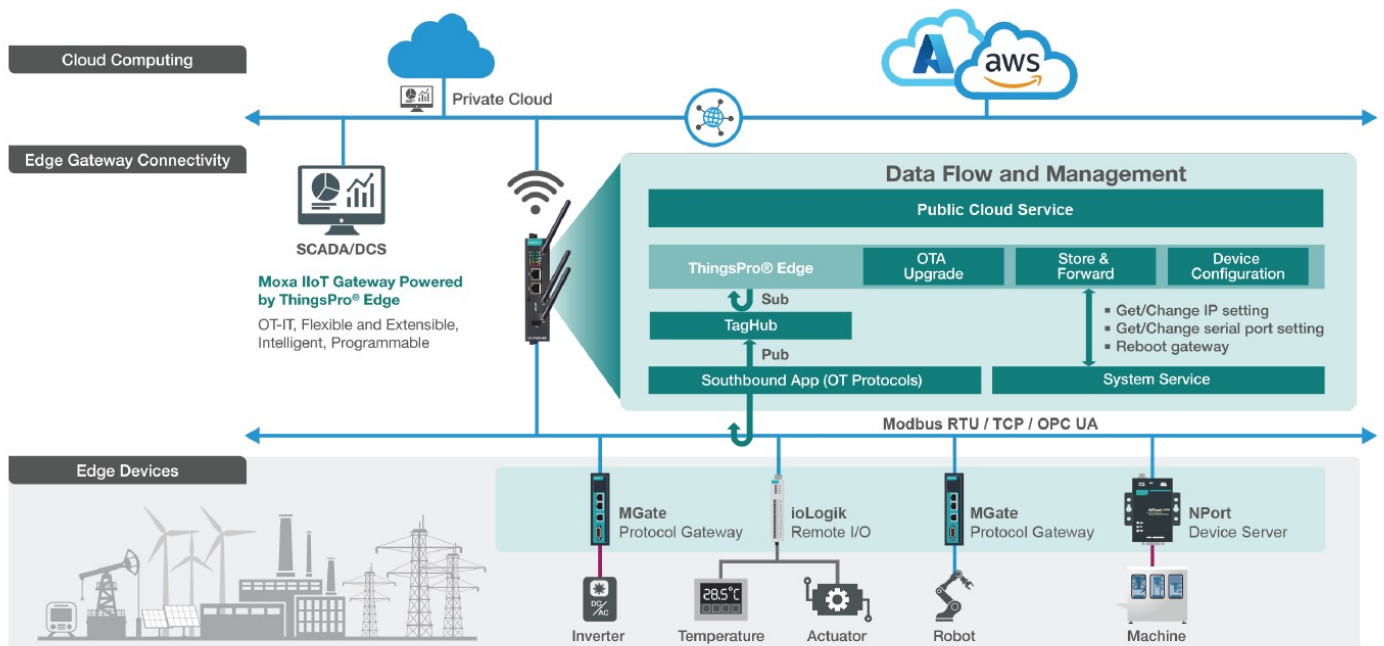
- Comprehensive device data processing to prepare field data for cloud platforms
- Built-in SDK for popular cloud platforms Azure, AWS, and Sparkplug
- Web-based GUI for remotely monitoring device configuration and data visualization
- Secure and robust OTA design to ensure continuous connectivity to IloT gateways
- RESTful APIs for extending the existing functionalities and integrating them with IT services
- Provisioning tool for batch configuration of Moxa IloT gateways
- Trigger edge-computing actions using predefined conditions such as a change in the value of tags or a specific event

Introduction

ThingsPro Edge is an IloT gateway software that helps transform your edge computer into a secure and reliable IloT gateway to suit your business needs. System administrators on the operation technology (OT) side can use its intuitive web GUI to ensure continuous operation while IT developers can use RESTful APIs to configure, monitor, and effectively control IloT gateway devices. ThingsPro Edge also provides:

- Modbus polling engine with easy-to-use web-based UI for data acquisition from end devices deployed in industrial field sites
- Simplified transfer of Modbus device data to a MQTT broker in cloud applications
- Supports configurable data transmission for telemetry data upload to cloud. Leverages message groups, custom payload, and JSON-based configurable scheme, to meet the demands of cloud applications.
- A network manager that handles field device connectivity to a WAN

System Architecture



Integration With Public and Private Cloud Platforms

- Supports Azure IoT Device, AWS IoT Core, Sparkplug, and MQTT client
- Supports remote device management via cloud portals such as Azure Direct Method, enabling device reboots and configuration updates

- Supports MQTT input and output topics for invoking RESTful APIs

Streamlined Sensor-to-cloud Data Transportation

- Modbus master to acquire data from edge devices and publish tagged data to cloud connectivity applications
- Caching of device-to-cloud messages in a specified location and sending the messages to the cloud based on predefined policies
- Customized message formats to publish acquired data to cloud platforms based on the needs of your applications and systems

Device Management

- Dashboard overview to monitor tag data, hardware resource consumption, and device configurations such as GPS settings and cellular strength signal
- Supports keep-alive check and default route priority to ensure continuous network connectivity
- Supports the Wi-Fi access point mode¹ to remotely connect to devices for troubleshooting
- Supports Network Address Translation (NAT) for connected devices to access the Internet via the IIoT gateway
- Supports import and export of system configuration to create backups and golden samples

Secure Design and Robust OTA Upgrade

- Over-the-air (OTA) upgrades to keep software and device firmware up-to-date
- Resume capability that ensures the integrity of the upgrade packs and a roll-back mechanism to recover the gateway from failed installations
- Firewall to manage inbound traffic based on predefined rules

Batch Provisioning

ThingsPro Proxy (TPP) for batch configuring and provisioning of IIoT gateways. TPP is a Windows-based utility, which can be download from the Moxa website and install in a Windows 10 environment.

- Supports ThingsPro Edge installation
- Effortless provisioning of devices including software upgrade, cloud enrollment, running Linux scripts, and device configuration update.

Specifications

System Requirements

Supported Devices	Series	Model	Revision	Firmware Version	Supported TPE Version
	UC-8200 Series	UC-8210-T-LX	1.0.2	1.5	2.3.0-3571
		UC-8210-T-LX-S	1.0.2	1.5	2.3.0-3571
		UC-8220-T-LX	1.0.2	1.5	2.3.0-3571
		UC-8220-T-LX-US-S	1.0.2	1.5	2.3.0-3571
		UC-8220-T-LX-EU-S	1.0.2	1.5	2.3.0-3571
		UC-8220-T-LX-AP-S	1.0.2	1.5	2.3.0-3571
	UC-8100A-ME-T	UC-8112A-ME-T-LX	1.0.3	1.6	2.3.0-3571
		UC-8112A-ME-T-LX-AP	1.0.3	1.6	2.3.0-3571
		UC-8112A-ME-T-LX-US	1.0.3	1.6	2.3.0-3571
		UC-8112A-ME-T-LX-EU	1.0.3	1.6	2.3.0-3571
	UC-3100	UC-3101-T-US-LX	3.0.0	1.5	2.3.0-3571
		UC-3101-T-EU-LX	3.0.0	1.5	2.3.0-3571
		UC-3101-T-AP-LX	3.0.0	1.5	2.3.0-3571
		UC-3111-T-US-LX	3.0.0	1.5	2.3.0-3571
		UC-3111-T-EU-LX	3.0.0	1.5	2.3.0-3571
		UC-3111-T-AP-LX	3.0.0	1.5	2.3.0-3571
		UC-3121-T-US-LX	3.0.0	1.5	2.3.0-3571
		UC-3121-T-EU-LX	3.0.0	1.5	2.3.0-3571

1. Only for 2.4 GHz

Series	Model	Revision	Firmware Version	Supported TPE Version
	UC-3121-T-AP-LX	3.0.0	1.5	2.3.0-3571
UC-2100	UC-2112-LX	1.1.0	1.11	2.3.0-3571
	UC-2112-T-LX	1.1.0	1.11	2.3.0-3571
UC-8100	UC-8112-LX	3.1.1	3.5	2.3.0-3571

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