Save Time on Selecting and Configuring Your Protocol Gateway

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Do you find it difficult and time-consuming to select and configure a protocol gateway?

Our MGate series of protocol gateways offers a variety of industrial protocol conversions and intuitive graphical user interfaces to make them easy for you.

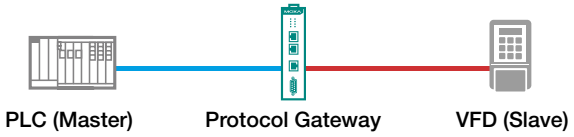
Simply Select the Right Protocol Gateway

In order to integrate heterogeneous systems, it's important to identify the communication protocols and the relationship between two entities (e.g., master-slave, scanner-adapter, etc.) for selecting a protocol conversion gateway.

First, determine the main industrial Ethernet protocol your system uses. Nowadays, modern systems are Ethernet based, and the most commonly seen industrial network protocols are Modbus TCP, EtherNet/IP, and PROFINET.

Second, identify the protocol your device uses. A variety of industrial protocols, such as Modbus RTU/ASCII, PROFIBUS, DNP3, etc., are used in different devices. Some devices are serial based while others are Ethernet based; both types of devices need to be connected to your industrial Ethernet-based system.

Third, clarify the relationship between the two entities in your communication system. For example, let's take a look at a PLC and a variable frequency drive (VFD), as both use different protocols. In order for them to communicate, you need a protocol gateway to convert communications between the PLC, operating as the master, and the VFD, acting as the slave. It's important for engineers to clarify the role for the two entities in their systems.



Once you have finished these actions, you can use our selection guide below to choose a suitable protocol gateway that matches your system.

Modbus TCP-based Systems

Find the gateway based on the protocol your serial-based devices use

MGate Protocol Gateways		Choose the protocol your field devices use								
		Modbus RTU/ASCII Slave	Modbus RTU/ASCII Master	PROFIBUS Slave	PROFIBUS Master	J1939	DNP3 Serial Outstation	DNP3 Serial Master	IEC 60870-5-101 Slave	IEC 60870-5-101 Master
Modbus TCP-based Systems	Modbus TCP Server	5105	MB3000/ W52x8*	5101	5111	5118	-	5109	-	5114
	Modbus TCP Client	MB3000/ W52x8*	5105	5101	5111	5118	5109	5109	5114	-

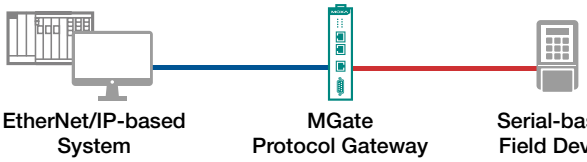
*MB3000: MB3180/MB3280/MB3480, MB3170/MB3270, MB3660 (Ethernet); W5x08: W5108/W5208 (Wi-Fi)

Find the gateway based on the protocol your Ethernet-based devices use

MGate Protocol Gateways		Choose the protocol your field devices use								
		Modbus TCP Client	EtherNet/IP Adapter	EtherNet/IP Scanner	PROFINET Controller	DNP3 TCP Outstation	DNP3 TCP Client	IEC 60870-5-104 Server	IEC 60870-5-104 Client	MQTT Broker
Modbus TCP-based Systems	Modbus TCP Server	-	5105	5105	5103	-	5109	-	5114	5105
	Modbus TCP Client	5109	5105	5105	5103	5109	5109	5114	-	-

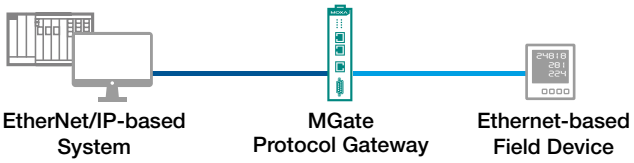
EtherNet/IP-based Systems

Find the gateway based on the protocol your serial-based devices use



MGate Protocol Gateways		Choose the protocol your field devices use				
		Modbus RTU/ ASCII Slave	Modbus RTU/ ASCII Master	PROFIBUS Master	J1939	DF1
EtherNet/IP-based Systems	EtherNet/IP Adapter	5105	5105	-	5118	EIP3170/3270
	EtherNet/IP Scanner	5105	5105	5111	5118	EIP3170/3270

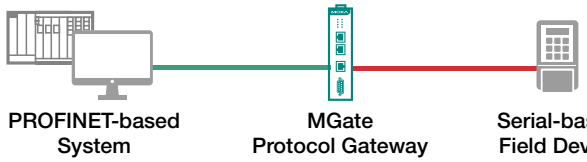
Find the gateway based on the protocol your Ethernet-based devices use



MGate Protocol Gateways		Choose the protocol your field devices use			
		Modbus TCP Server	Modbus TCP Client	PROFINET Controller	MQTT Broker
EtherNet/IP-based Systems	EtherNet/IP Adapter	5105	5105	-	5105
	EtherNet/IP Scanner	5105	5105	5103	-

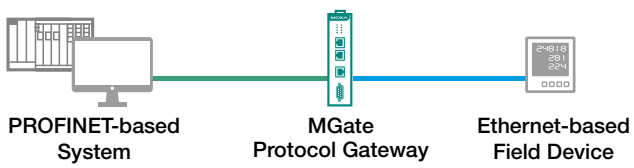
PROFINET-based Systems

Find the gateway based on the protocol your serial-based devices use



MGate Protocol Gateways		Choose the protocol your field devices use				
		Modbus RTU/ ASCII Slave	Modbus RTU/ ASCII Master	PROFIBUS Slave	PROFIBUS Master	J1939
PROFINET-based Systems	PROFINET Controller	5103	5103	5102	5111	5118

Find the gateway based on the protocol your Ethernet-based devices use



MGate Protocol Gateways		Choose the protocol your field devices use		
		Modbus TCP Server	Modbus TCP Client	EtherNet/IP Scanner
PROFINET-based Systems	PROFINET Controller	5103	5103	5103

Easily Configure Various Protocol Gateways

Configuring protocol conversion settings is easier said than done as the initial setup of a gateway is complex. But, rest assured that Moxa can make it easy for you. We offer an intuitive graphical web interface that guides you easily through the configuration within four steps.

Fill in the IP address and netmask settings	Select protocols and roles on each side of the gateway	Fill in the settings based on the different network protocols you choose	Fill in the settings and commands based on the different protocols your field devices or systems use	Goal achieved

Watch our videos to see how easy it is to complete protocol conversions with the MGate.

Convert Modbus RTU to Modbus TCP in 60 seconds

Convert Modbus RTU to EtherNet/IP in 4 steps

Convert Modbus RTU to PROFINET in 4 steps

MGate Product Features

- **Multiple connection interfaces, including serial, Ethernet, and wireless**
- **Easy-to-use user interfaces for effortless configuration**
- **Embedded traffic monitoring/diagnostic information for easy troubleshooting**
- **Security features based on IEC 62443**
- **Industrial-grade design to overcome harsh environments**

Modbus TCP Gateways

EtherNet/IP Gateways

PROFINET Gateways

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