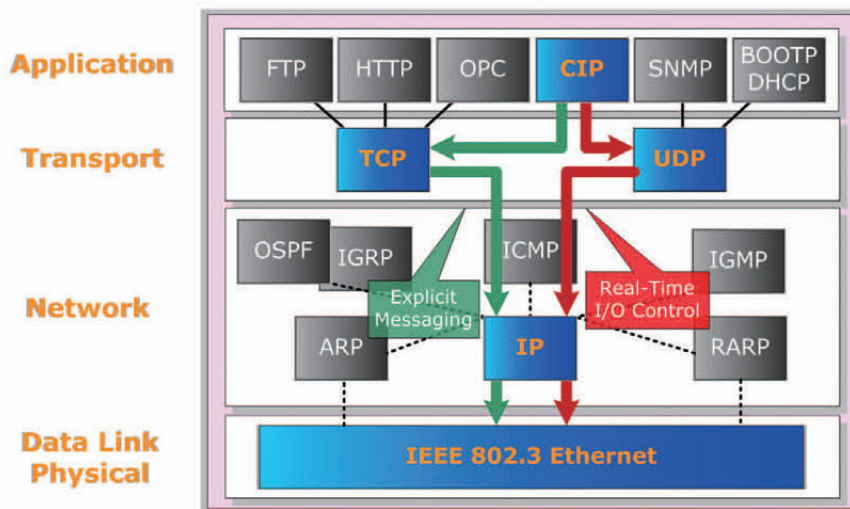


8. EtherNet/IP Introduction & Products

EtherNet/IP is one of the open network standards, like DeviceNet and ControlNet. It is an industrial application layer protocol for industrial automation applications. EtherNet/IP uses all of the protocols of traditional Ethernet including the Transport Control Protocol (TCP), the Internet Protocol (IP) and the media access and signaling technologies. Building on standard Ethernet technologies means that EtherNet/IP will work transparently with all the standard Ethernet devices found today. EtherNet/IP application layer is based on the "Common Industrial Protocol" (CIP) which is used in both DeviceNet and ControlNet. This standard organizes networked devices as a collection of objects. It defines the access, behavior and extensions, which allow vastly different devices to be accessed using a common protocol. Building on these protocols, EtherNet/IP provides a seam-less integrated system from the Industrial floor to the enterprise network.

EtherNet/IP uses all the transport and control protocols of standard Ethernet including the Transport Control Protocol (TCP), the User Datagram Protocol (UDP), the Internet Protocol (IP) and the media access and signaling technologies found in off-the-shelf Ethernet technology. Building on these standard communication technologies means that EtherNet/IP works transparently with all the standard Ethernet devices found in today's market-place.



✿ EtherNet/IP Features

- ✔ Offer Producer-Consumer service that enable users to control, configure and collect data
- ✔ Uses exiting IEEE standards for Ethernet physical layer and data link layer
- ✔ Provide flexible installation options leveraging commercially available industrial infrastructure products, including copper, fiber, fiber ring and wireless solutions
- ✔ Provide robust physical layer options for industrial environments and includes the use of sealed RJ-45 and M12-4 D-coding connector.
- ✔ Compatible with general communication standards, including OPC, TCP/IP, HTTP, FTP, SNMP, DHCP
- ✔ Use TCP port number 44818 for explicit messaging and UDP port number 2222 for implicit messaging
- ✔ Transfer of basic I/O data via UDP-based implicit messaging
- ✔ Uploading and downloading of parameters, programs and recipes via TCP
- ✔ Polled, cyclic and change-of-state monitoring via UDP
- ✔ One-to-one (unicast), one-to-many (multicast), and one-to-all (broadcast) communication via TCP

📁 Selection Guide

Model Name	Description	Page
Ethernet/IP Gateway		
GW-7472	EtherNet/IP to Modbus RTU Gateway	8-2