ProtoNode is an external Building and Industrial Automation multi-protocol device server for OEMs wanting to provide protocol translation between Serial-Serial, Serial-Ethernet and Ethernet-Ethernet devices.

The ProtoNode is designed to be used by OEM customers who need to quickly and easily enable their new or legacy devices to interface with other protocols. The extensive FieldServer driver library, coupled with the FieldServer experience in protocol translation gateways provides the OEM customer with confidence that their products will meet the foreign networks requirements for interfacing.

ProtoNode provides the greatest flexibility and versatility available today. It supports virtual nodes which allows multiple OEM controllers to connect to a single ProtoNode and seen as separate controllers on the various field networks.

ProtoNode includes all the hardware and software to enable the customer’s products to interface to various networks. It includes two serial and one Ethernet port. Each ProtoNode is provided with the necessary protocol drivers. Multiple drivers can be installed on a single ProtoNode. FieldServer can provide custom driver support when needed.

### Features/Benefits

- The most flexible and versatile multi-protocol Device Server on the market.
- Supports virtual nodes allowing multiple OEM controllers to connect to a single ProtoNode and seen as separate controllers on the various field networks.
- TRUE protocol translation and not Protocol packet Encapsulation.
- Interfaces to over 85 Building and Industrial Automation Protocols.
- Bridges between Allen Bradley DF1 or Modbus RTU or ASCII to BACnet MSTP/IP or Allen Bradley EtherNet/IP or Allen Bradley CSP.
- Translates between Ethernet to Ethernet Protocols i.e. Modbus TCP to Allen Bradley EtherNet/IP devices.
- Can easily support OEM’s custom host serial or Ethernet protocols.
- Multi-Client and Multi-Server support ensures interoperability between any Industrial and or Building Automation protocols.
- Flash upgradeable.
- RoHS compliant
- Din Rail Mount optional
Specifications

Communications Interface
Serial Interface: Two ports that can be configured as either RS-232 or software RS-485. Independent port configuration of baud rates, data bits, stop bits and parity.
Connectors: RS-232/422/485: DB-9 connector, up to 115.2 Kbps.

Ethernet Interface
LAN Interface: 10/100BaseT Ethernet (auto-sensing)
Connectors: LAN: RJ-45 connector

Operating
Processor Memory: 32 bit ColdFire CPU features 4 MB flash, 16 MB SDRAM, 66 MHz.
Power Requirements: 5 VDC to 30 VDC.
Opt. Power Supply: 110V-230V Switchable power supply that will plug into the DC screw block connector.
LEDs: Diagnostics
Configuration: Software configurable.

Environmental
Operating Temp.: -40°F to 187°F (-40°C to 85°C).
Relative Humidity: 5-90% RH, non-condensing.

Enclosure
Dimensions: 4.55 x 4.50 x 1.35 inches (L x W x H)
(11.56 x 11.68 x 3.43 cm).

Approvals
Regulatory Approvals: FCC Class A, Part 15, ICES-003 EN 55022, EN 55024, CE (EN 55022, EN 55024), UL916.
Surge Suppression: EN61000-4-2 ESD EN61000-4-3 EMC, EN61000-4-4 EFT.

Warranty
Warranty: Two years.

Supported host side protocols:
RS-232 or RS-485 connection to OEM’s device:
- Modbus RTU
- Allen Bradley DF1
- BACnet MSTP
- Metasys N2
- ProtoCessor Simple Protocol (PSP Driver - see www.ProtoCessor.com for the spec on the driver).
- Any OEM’s custom serial protocol.

Ethernet (10/100Base-T) to the OEM’s device:
- Allen Bradley EtherNet/IP
- BACnet IP
- BACnet Ethernet
- Modbus TCP/IP
- OEM’s custom Ethernet protocol.

Supported field protocols: Automation Protocols
Serial (RS-232 or RS-485):
- Allen Bradley DF1
- BACnet MSTP
- Modbus RTU/Modbus ASCII
- Metasys N2
- DNP 3.0
- TL1
- Telnet

Ethernet (10/100BaseT):
- Allen Bradley CSP
- Allen Bradley EtherNet/IP
- BACnet Ethernet
- BACnet IP
- GE-EGD
- GE-SRTP
- Modbus TCP
- OPC
- SNMP

ProtoNodes are also available with LonWorks and RS-485.