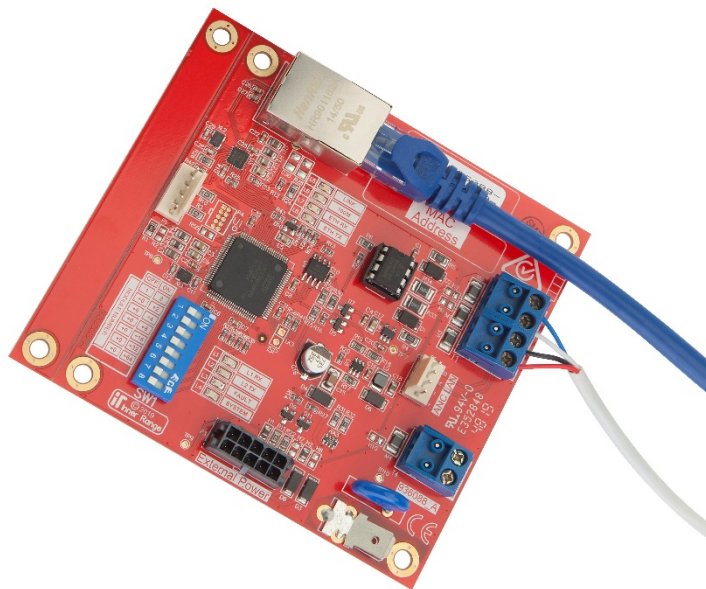




## LAN Ethernet Bridge Module

### Inner Range Product Information Brochure

Product Part Number: 996088



#### Overview

The Inner Range **LAN Ethernet Bridge Module** provides a convenient interface for connecting RS-485 LAN modules to an Integrity, Infiniti or Inception controller via a standard TCP/IP network.

Key Features of the LAN Ethernet Bridge Module:

- Connect RS-485 LAN over TCP/IP Ethernet Network
- Compatible with Infiniti, Integrity and Inception
- Communicates directly with controller – no master / slave configuration
  - Reduces configuration requirements
  - Heavily reduces hardware requirements
- Allows RS-485 expansion via IP infrastructure
- Remote configuration via included Ethernet LAN Configuration Tool

Similar to the well-known CLOE module, the LAN Ethernet Bridge Module is an IP Ethernet to RS-485 LAN converter. However, the key difference between the two, is the way in which they are configured.

Traditionally, CLOE requires a master / slave configuration, which means a minimum of two (2) modules are required to convert at either end of a bridge.

The Ethernet Bridge Module removes the need for master / slave configuration altogether by communicating directly with the controller.

This configuration, combined with the ability to add thirty (30) Ethernet Bridge Modules to a single controller, creates the revolutionary opportunity expand an Integrity, Infiniti or Inception RS-485 LAN via IP Network infrastructure.

### Benefits of RS-485 Expansion via IP Infrastructure

When an IP infrastructure is the only option, customers are no longer forced into designing a “Flat” controller-centric system with minimal RS-485 expansion. This creates a great opportunity for cost-savings when designing and quoting a system or system expansion.

By utilising IP networks to expand an Integrity system’s RS-485 LAN, the Ethernet Bridge Module reduces the requirement to run additional RS-485 cabling to buildings that already have connectivity to the site network – simply install an Ethernet Bridge Module, and utilise the existing IP infrastructure to communicate directly with the Inception or Integrity controller!

### Example scenarios where the LAN Ethernet Bridge Module could be deployed

- Premises with remote buildings with no RS-485 connectivity that have IP connection to the site’s network (e.g. via a fibre link)
- Sites with existing network / IP infrastructure that require RS-485 expansion, where a controller-centric system is excessive / overkill compared to the site’s system requirements

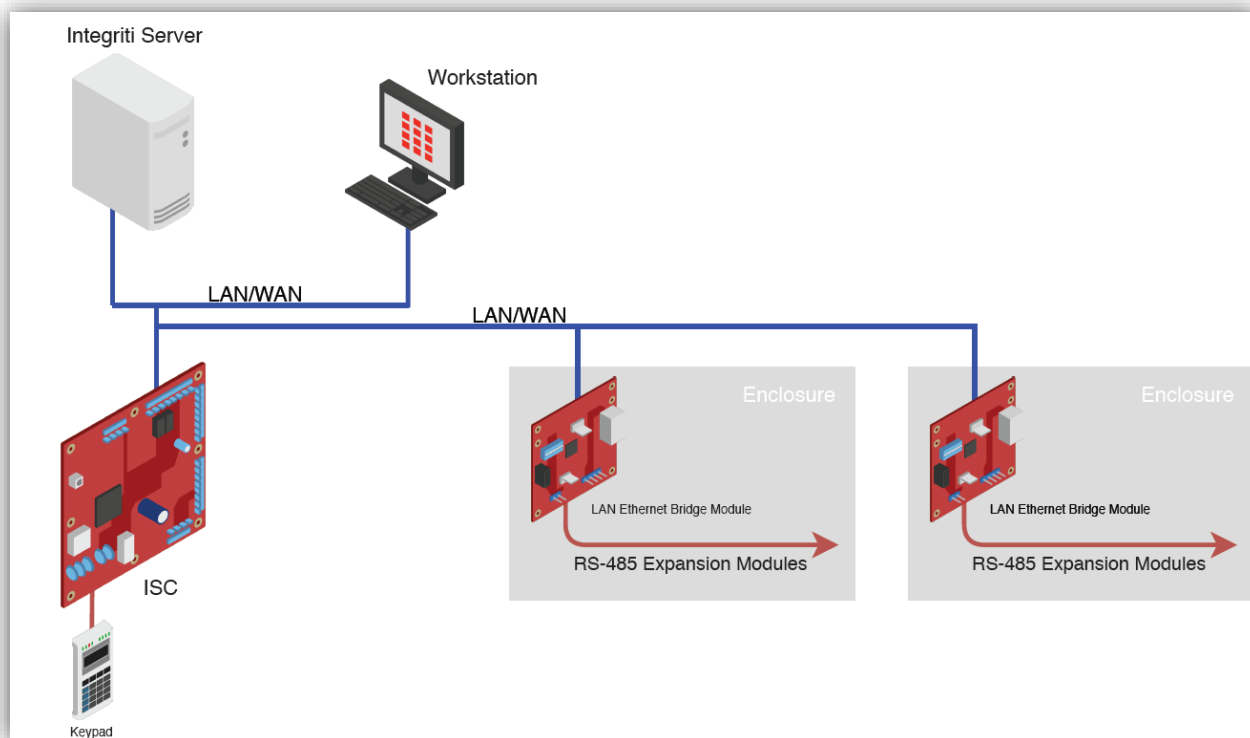
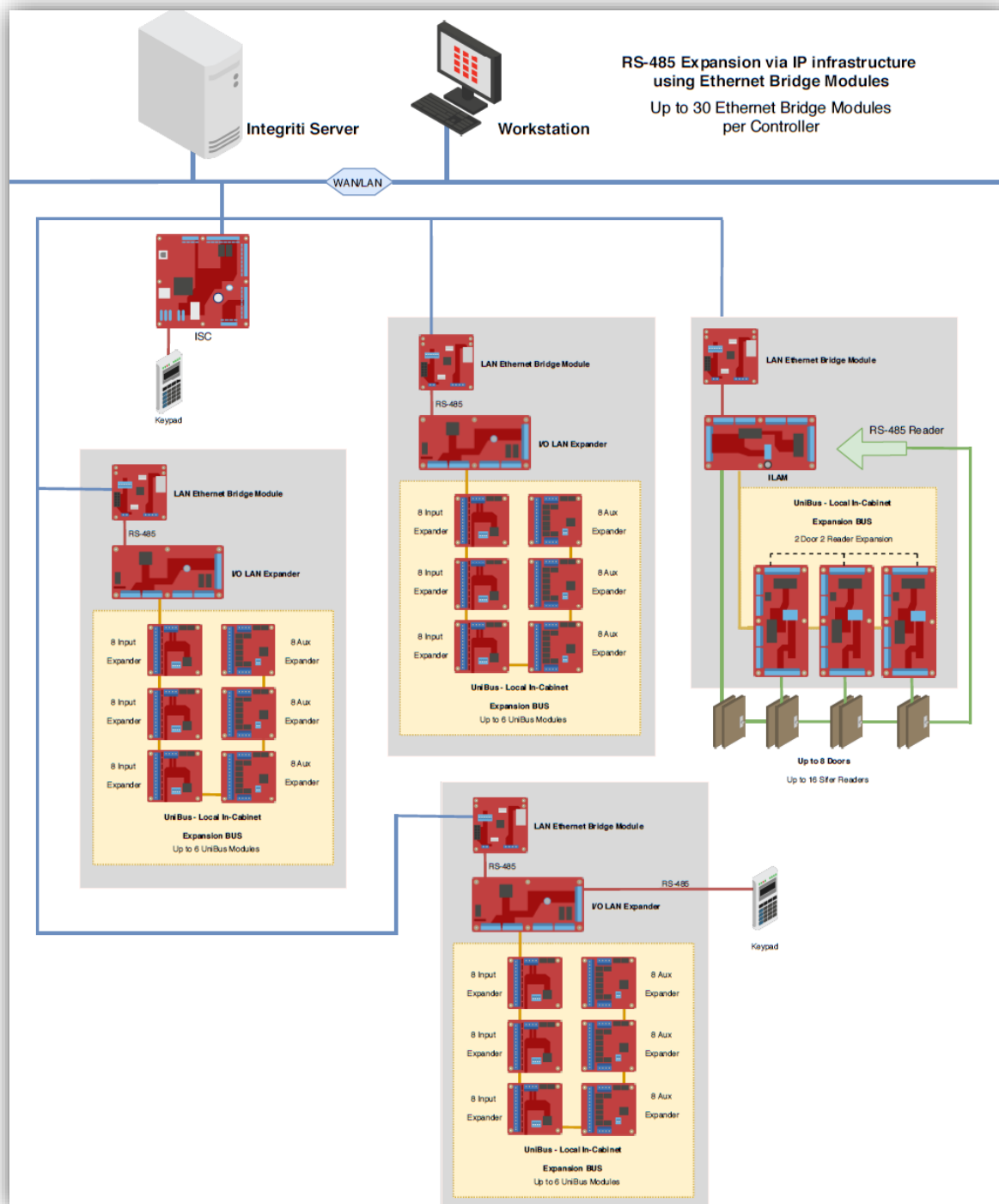


Diagram: Example Deployment of Ethernet Bridge Module

## Example System Architecture

Using Ethernet Bridge Modules to allow for deep RS-485 expansion via site network infrastructure



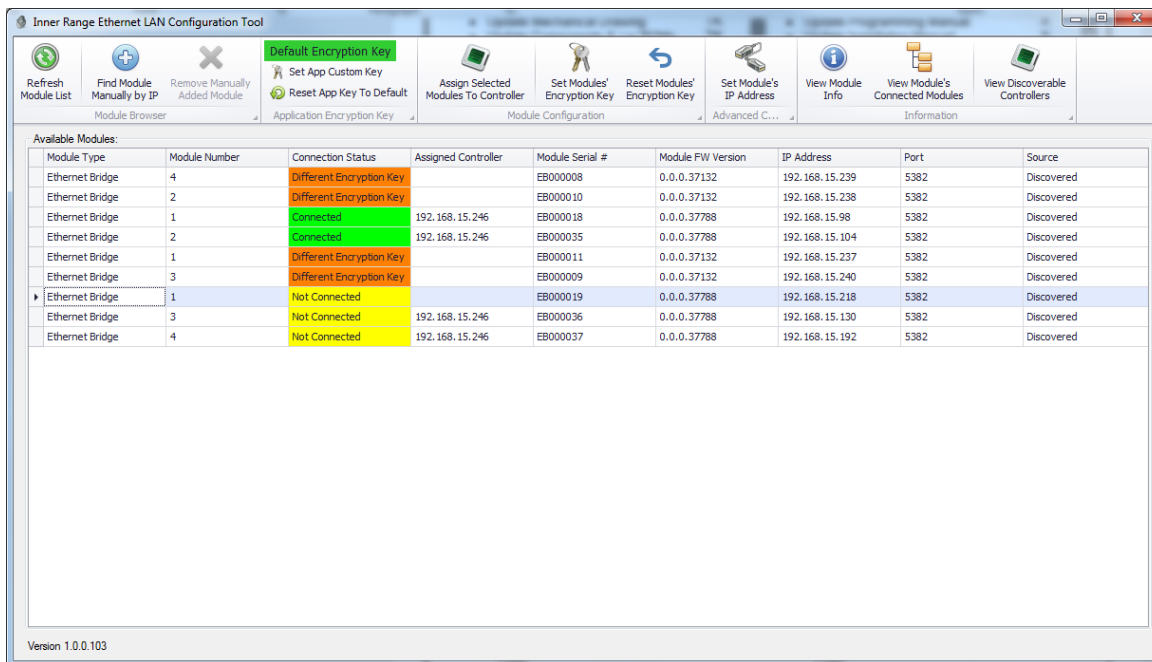
### Point-to-Point Installations

While the Ethernet Bridge Module does share some similarities to CLOE, it is not a direct replacement for it. For situations that require direct point-to-point bridge configurations separate to a sites network, it may still be appropriate to deploy CLOE instead of the Ethernet Bridge Module.

## Ethernet Bridge Module Technical Features

- Up to 30 Ethernet Bridge Modules per controller
- Up to 30 RS-485 LAN modules downstream from Ethernet Bridge Module
- Allows TCP or UDP connections
- Remote configuration via Ethernet LAN Configuration Tool
- Over-The-Wire firmware upgradeable
- AES 128-Bit Encryption
- External Integrity power supply connection
- Full monitoring of external Integrity SMART power supply
- Dedicated cabinet tamper input

## Inner Range Ethernet LAN Configuration Tool



The Ethernet LAN Configuration Tool is the interface for configuring the connection between Ethernet Bridge Modules and Integrity / Inception controllers. Using this software, integrators can remotely configure multiple Ethernet bridges that are connected to the same network.

This software displays Ethernet Bridge Module information, such as:

- Module Number (DIPswitch Address)
- Connection Status
- Assigned Controller
- Serial Number
- Firmware Version
- IP Address

From within this software, System Integrators have the ability to:

- Discover Ethernet Bridge Modules on the network
- Assign modules to a controller
- Set encryption key / passphrase
- Change module IP addresses

## Module Limitations:

The number of LAN modules a Controller can support via LAN Ethernet Bridges is limited depending on the types of modules being deployed, and the Ethernet Protocol being used (TCP or UDP). Refer module limitations table below:

Module Type	TCP	UDP
Intruder Alarm Only	90	135
Simple Access Control or Integrated System	60	90
Access Control System with Intelligent LAN Access Modules	30	45

More details on module limitations can be found in the LAN Ethernet Bridge installation manual.