SP-35 Ethernet Remote Terminal Unit (RTU-E)
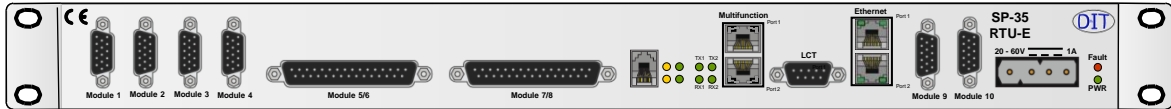

- **1U Compact Construction**

- **Cable Theft PIM supported**

- **Local alarm monitoring and Control**

- **Monitor up to a maximum of 72 Voltage or contact closure inputs**

- **Supports additional plug in modules (PIMs) for alarm inputs, control outputs, analogue, 4-20 mA, Cable Theft and serial interfaces**

- **Serial Data management interface to associated Third-Party equipment**

- **Access via Ethernet, Modem or Serial Ports**

- **Local or Remotely Manageable**

- **Managed by D&ITs NMS PC-Gx**
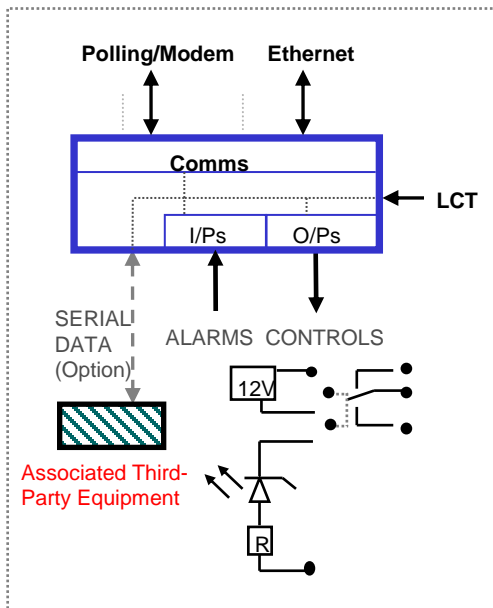
Data and Information Technology's SP-35 Ethernet Remote Terminal Unit (RTU-E) expands network monitoring capabilities quickly and efficiently without the need for custom programming.

The SP-35 RTU-E addresses the need for a cost effective solution to integrate Third-Party equipment(s) with proprietary protocols into a common management solution - PC-Gx. Additionally, a configurable number of control outputs and alarm inputs can be accommodated.

This unit has been specifically designed for those installations where Ethernet networking is supported at the end user site (The unit also supports low rate polling or integral dial up modem, offering a migration path to Ethernet working). The system is managed by D&IT's PC-Gx NMS.

Product Overview

The SP-35 RTU-E primarily operates as an intelligent alarm gatherer and control element within a Network Management System (NMS). Its ability to operate with a variety of communication protocols enables it to be installed in a wide range of locations.
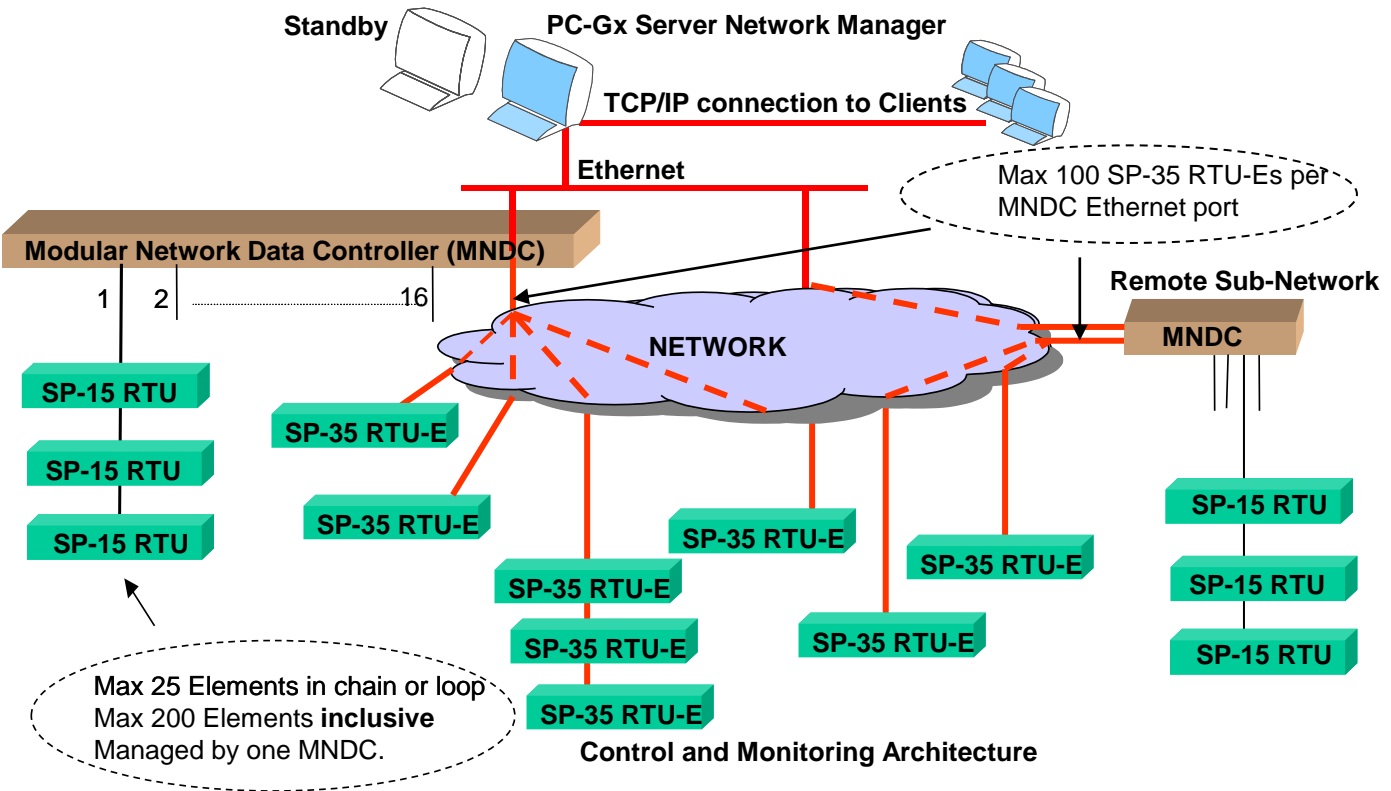
The SP-35 RTU-E has a dedicated number of alarm/event inputs and control outputs (Twenty Four inputs and four outputs). Should additional interfaces be required, Six slots for plug-in modules are provided. These can be equipped with Input, Output, Analogue, 4-20 mA or Serial PIMs (Plug In Modules) or Cable Theft double slot PIM. See separate Data sheet for summary details of Plug-in-Modules (PIMs)

Whilst two Ethernet ports are provided to be used for Network access, the unit also includes multi-function (serial data) ports, that can be utilised to connect locally to Third-Party equipment(s).

The equipment may then be remotely managed by using D&IT's PC-Gx Management System.

RTU-E communications to the PC-Gx NMS utilises a LAN extended via D&IT's Modular Network Data Controller (MNDC).

LCT access is via a 'D' type connector on the front panel of the SP-35 RTU-E.

Standby **PC-Gx Server Network Manager**

TCP/IP connection to Clients

Ethernet

Max 100 SP-35 RTU-Es per MNDC Ethernet port

Modular Network Data Controller (MNDC)

1 2 16

Remote Sub-Network

MNDC

NETWORK

SP-15 RTU

SP-15 RTU

SP-15 RTU

SP-35 RTU-E

SP-35 RTU-E

SP-35 RTU-E

SP-35 RTU-E

SP-35 RTU-E

SP-35 RTU-E

SP-35 RTU-E

SP-15 RTU

SP-15 RTU

SP-15 RTU

Max 25 Elements in chain or loop
Max 200 Elements **inclusive**
Managed by one MNDC.

Control and Monitoring Architecture

Application Profile

The above drawing shows how it is possible to provide a mixed network of SP-35 RTU-Es and SP-15 RTUs all managed using PC-Gx and Polling MNDCs. SP-15s are polled via serial data ports, SP-35 RTU-Es are polled via Ethernet ports.

A single Ethernet port on an MNDC can support up to a maximum of 100 remote SP-35 RTU-Es.

Full details of the various I/O modules supported (input, output) are available on request.

SPECIFICATION

Enclosure	1U (1.75") ventilated enclosure
Rack Practice	19" – alternative brackets available. The front of the brackets is 30mm forward of unit front
Depth	200 mm
Weight	Approximately 2.5 kg
Connectors	
LCT	1 x 9-way 'D' male
Ethernet	2 x RJ45
Serial	2 x RJ45 supporting RS422/RS232 options and up to 2 x PIM D Types (RHS) supporting RS422/RS232 Options
D Type	Up to 6 x D Type (I/P, O/P and Serial are15 way HD D type, Analogue is 9 way D Type)
Power	4-way Trident allowing unit to be powered from 2 separate power sources (Diode OR'd on unit)
Power Supply	24V or 48V nominal (20 V DC to 60 V DC), positive or negative ground permitted
Power Consumption	12W Maximum
Status Indication	Four LEDs indicate serial data port status
Power	Green=OK, Red=Unit Fault
Interface Modules (PIMS)	Physical provision for 6 additional modules - Choice of Input, Output, 4-20 mA, Analogue or Serial (RS422/RS232 options)
Environmental	Meets the appropriate requirements of EN300-019
EMC	Meets the appropriate requirements of R&TTE under Directive 1999/5/EC and EMC Directive 89/336/EEC
Safety	Meets the requirements of LVD 73/23/ECC (EN 60950-1)