

Serial IP as an Ethernet to serial converter

It is possible to use Serial IP as an Ethernet/Serial converter with the Radio Unit in either Basic or Source Routing mode. In this configuration, all data received by the TCP/UDP server configured with Serial IP will be sent over the radio, and all data received from the radio will be sent as TCP/UDP packets.

Example

This example has the following setup:

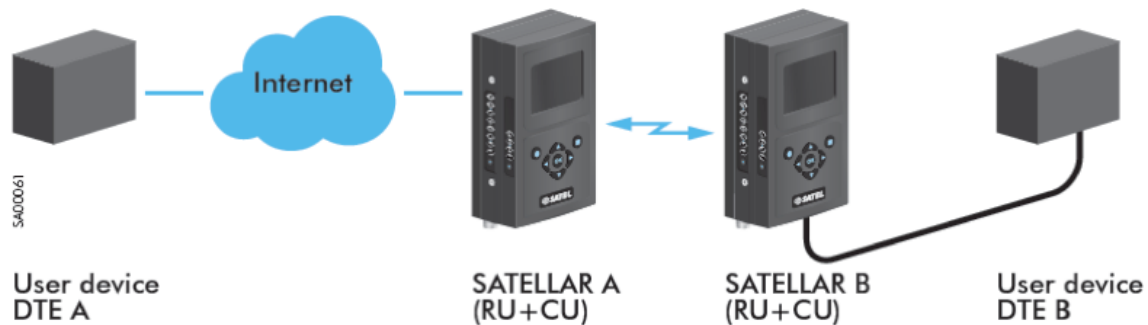


Figure Z: Ethernet to Serial converter example

DTA A: IP Address 192.168.1.1

SATELLAR A: IP Address 192.168.1.2

DTE A is connected to SATELLAR A over the internet, and SATELLAR B is connected to DTE B with a serial cable via the RS-232 connector. The following assumptions are made before starting:

- The radio units SATELLAR A and B are configured to the basic mode
- Other settings have been set as listed in section 7.4.4 (SATELLAR Digital System Part III: radio Unit)

Next, the Serial IP must be configured in SATELLAR A. SATELLAR B needs no serial IP settings, since the conversion only happens at SATELLAR A. The parameters look like this:

Now, if DTE A forms a TCP connection to 192.168.1.2:2005 and writes some data, it will be transmitted as serial over the air and written out of the serial port of SATELLAR B to DTE B. If DTE B replies with some serial

Parameter	SATELLAR A
Serial IP Mode	Server
Protocol	Two-way mode
Listening Port	2005
Destination Port	2006
Destination IP Address	192.168.1.1
Serial Output	Radio

data, it will eventually be sent to DTA A from SATELLAR A via the open TCP connection. If the connection is closed, SATELLAR A will form a TCP connection to 192.168.1.1:2006 and send the data there.