

Using the CN2610 for UNIX reverse terminal application

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In this Technical Note, we cover the following topics:

1. Using the CN2610 with multiport serial board for Ethernet terminal access
2. Configuring the CN2610 for reverse terminal operation

1. Using the CN2610 with multiport serial board for Ethernet terminal access

In a MOXA UNIX terminal project, the client's UNIX server relied on a multiport serial board for multiple terminal connections. For access to the server over the network, terminals needed to initiate getty sessions from an Ethernet connection while the server provided access from a serial connection. This is opposite of the serial terminal-to-Ethernet server access usually provided by terminal servers. Port numbers needed to be assigned sequentially as terminal connections were requested.

The CN2610 was used to handle the connection between the UNIX's multiple serial ports and the Ethernet network. The following diagram shows the type of architecture that was used.

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The MOXA Group manufactures one of the world's leading brands of device networking solutions. Products include serial boards, USB-to-serial Hubs, media converters, device servers, embedded computers, Ethernet I/O servers, terminal servers, Modbus gateways, industrial switches, and Ethernet-to-fiber converters. Our products are key components of many networking applications, including industrial automation, manufacturing, POS, and medical treatment facilities.

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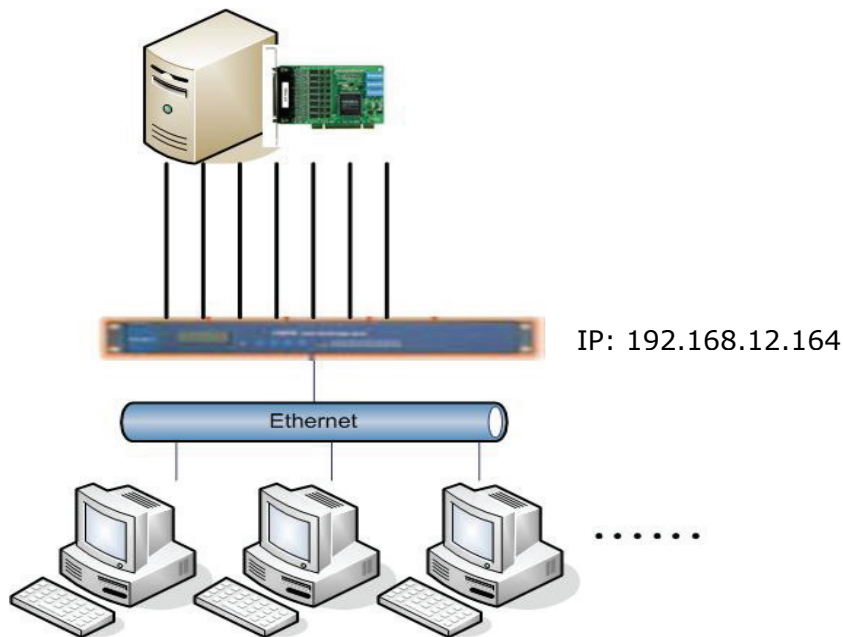
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In this paper, we will explain how to configure the CN2610 for terminal connections that are initiated over Ethernet, as required by the client for this architecture. This may be used as a starting reference point for other similar systems.

The following related products are also suitable for this kind of application: CN2510-8/16, CN2610-8/16, NPort 5610-8/16, NPort 6000 Series.

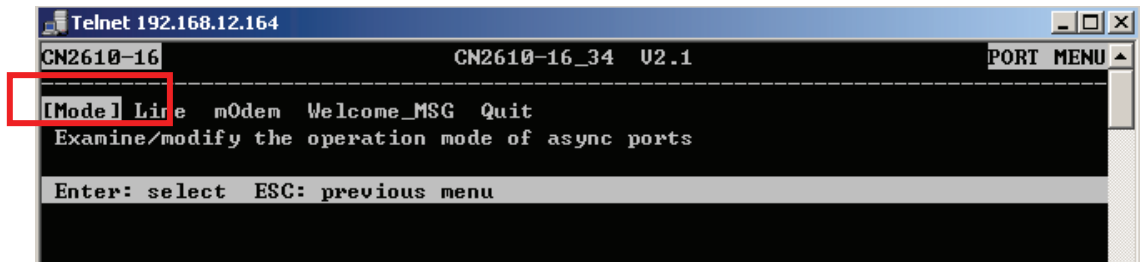
2. Configuring the CN2610 for reverse terminal operation

2.1 Telnet to the CN2610 console.

```
Telnet 192.168.12.164
CN2610-16          CN2610-16_34 U2.1          MAIN MENU ^
-----
[Server] Port seLting sAve Utility Restart Exit
Exam:ne/modify async server node/table configuration_
Enter: select  ESC: previous menu
```

2.2 From the main menu, select [Port]→ [Mode].

```
Telnet 192.168.12.164
CN2610-16          CN2610-16_34 U2.1          MAIN MENU ^
-----
Server [Port] seLting sAve Utility Restart Exit
Exam:ne/modify async server ports configuration
Enter: select  ESC: previous menu
```



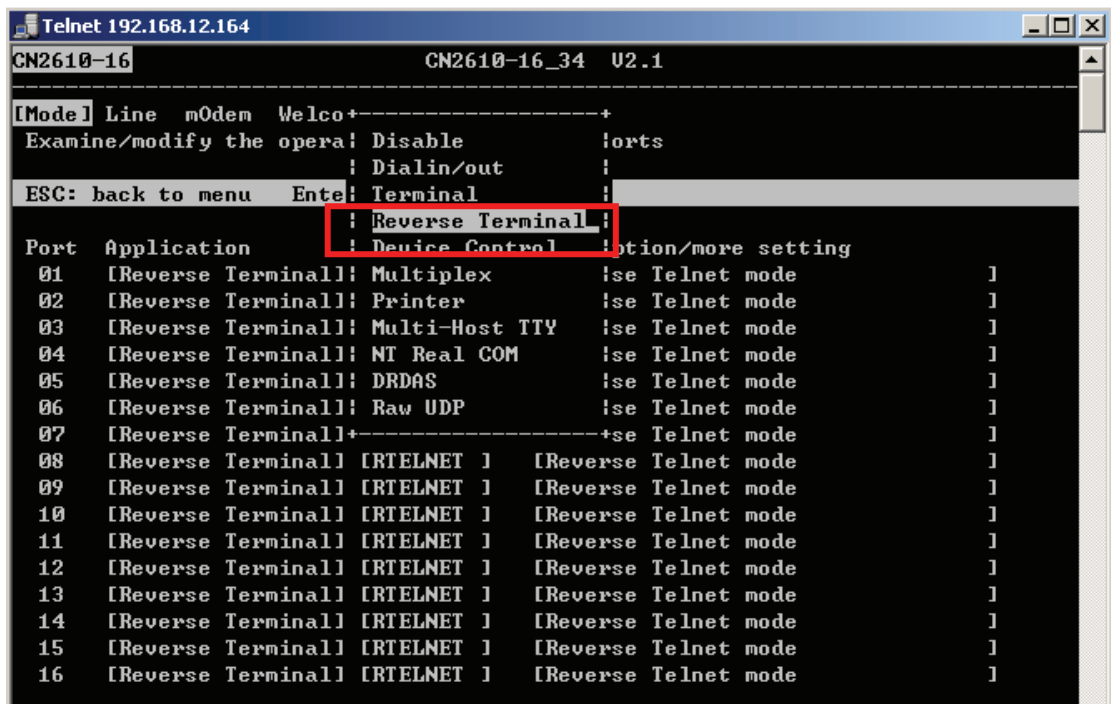
```

Telnet 192.168.12.164
CN2610-16          CN2610-16_34  U2.1          PORT MENU
-----
[Mode] Line  mOdem  WelcoMSG Quit
Examine/modify the operation mode of async ports

Enter: select  ESC: previous menu

```

- 2.3 For each port listed, use the arrow and Enter keys to change the Application to Reverse Terminal. The Mode should automatically change to RTELNET.

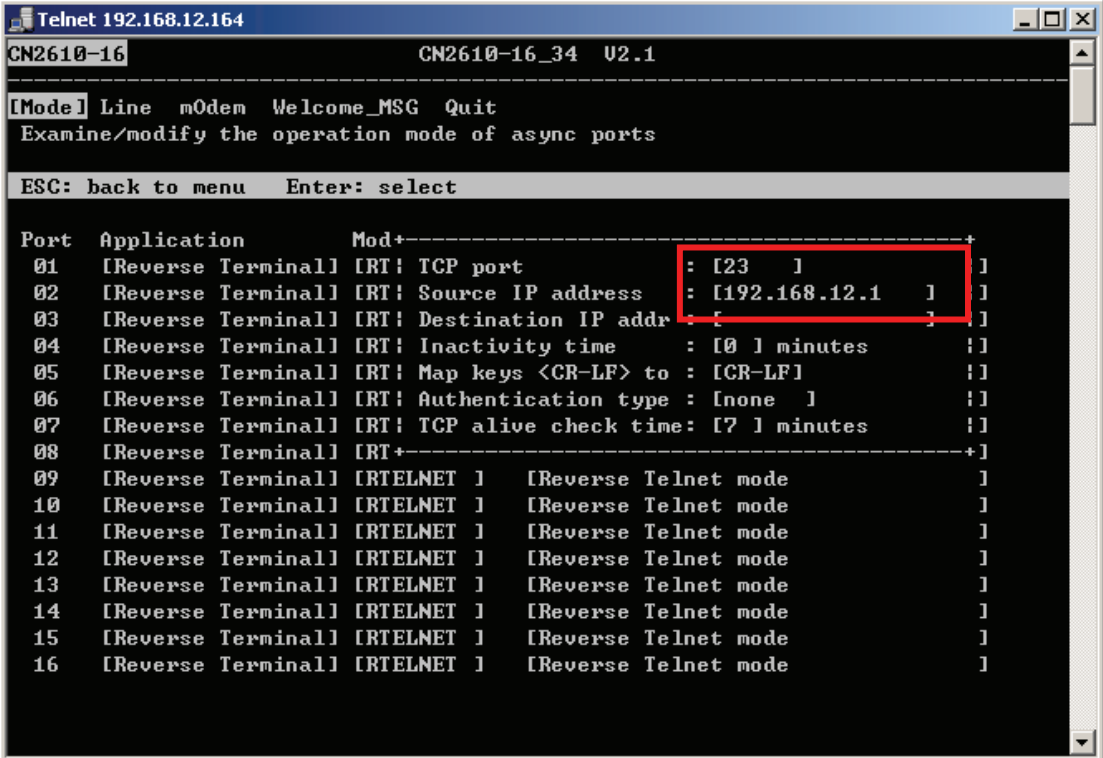


```

Telnet 192.168.12.164
CN2610-16          CN2610-16_34  U2.1          PORT MENU
-----
[Mode] Line  mOdem  Welco+-----+
Examine/modify the opera! Disable      :orts
                        : Dialin/out  :
ESC: back to menu      Ente! Terminal  :
                        : Reverse Terminal!
                        : Device Control :
Port  Application
01 [Reverse Terminal] Multiplex      ise Telnet mode  ]
02 [Reverse Terminal] Printer        ise Telnet mode  ]
03 [Reverse Terminal] Multi-Host TTY   ise Telnet mode  ]
04 [Reverse Terminal] NT Real COM      ise Telnet mode  ]
05 [Reverse Terminal] DRDAS            ise Telnet mode  ]
06 [Reverse Terminal] Raw UDP          ise Telnet mode  ]
07 [Reverse Terminal]+-----+se Telnet mode  ]
08 [Reverse Terminal] [RTELNET] ] [Reverse Telnet mode  ]
09 [Reverse Terminal] [RTELNET] ] [Reverse Telnet mode  ]
10 [Reverse Terminal] [RTELNET] ] [Reverse Telnet mode  ]
11 [Reverse Terminal] [RTELNET] ] [Reverse Telnet mode  ]
12 [Reverse Terminal] [RTELNET] ] [Reverse Telnet mode  ]
13 [Reverse Terminal] [RTELNET] ] [Reverse Telnet mode  ]
14 [Reverse Terminal] [RTELNET] ] [Reverse Telnet mode  ]
15 [Reverse Terminal] [RTELNET] ] [Reverse Telnet mode  ]
16 [Reverse Terminal] [RTELNET] ] [Reverse Telnet mode  ]

```

- 2.4 For each port listed, use the arrow and Enter keys to update the "Description/more setting". Set the TCP port to 23 and the Source IP to a free IP address. Use the same settings here for every serial port.



```
Telnet 192.168.12.164
CN2610-16                      CN2610-16_34 U2.1
-----
[Mode] Line m0dem Welcome_MSG Quit
Examine/modify the operation mode of async ports
ESC: back to menu  Enter: select
-----
Port  Application          Mod+-----+
01  [Reverse Terminal] [RT: TCP port          : [23  ] ]
02  [Reverse Terminal] [RT: Source IP address : [192.168.12.1  ] ]
03  [Reverse Terminal] [RT: Destination IP addr : [  ] ]
04  [Reverse Terminal] [RT: Inactivity time   : [0 ] minutes ]
05  [Reverse Terminal] [RT: Map keys <CR-LF> to : [CR-LF] ]
06  [Reverse Terminal] [RT: Authentication type : [none  ] ]
07  [Reverse Terminal] [RT: TCP alive check time: [7 ] minutes ]
08  [Reverse Terminal] [RT+-----+ ]
09  [Reverse Terminal] [RTELNET 1  [Reverse Telnet mode ]
10  [Reverse Terminal] [RTELNET 1  [Reverse Telnet mode ]
11  [Reverse Terminal] [RTELNET 1  [Reverse Telnet mode ]
12  [Reverse Terminal] [RTELNET 1  [Reverse Telnet mode ]
13  [Reverse Terminal] [RTELNET 1  [Reverse Telnet mode ]
14  [Reverse Terminal] [RTELNET 1  [Reverse Telnet mode ]
15  [Reverse Terminal] [RTELNET 1  [Reverse Telnet mode ]
16  [Reverse Terminal] [RTELNET 1  [Reverse Telnet mode ]
```

- 2.5 After configuration is completed, the CN2610 will automatically assign port 01 for the first getty login, and port numbers will be assigned sequentially after that.