



Connecting to a Modem to Setup a DECserver Serial Port

Overview

If a computer is configured to use remote serial ports on a DECserver or other Terminal Server, one of these ports may be used to setup a modem. This User Note describes how to find an empty serial port to use for modem setup, set the port to enable a session on the modem, establish this session, and quit the session when finished.

To connect a modem to a serial port, use a “straight-through” cable (i.e., TxD to TxD, etc.) TxD, RxD, SG, DTR, DSR, RTS, and CTS should be connected. Pre-manufactured modem cables are readily available, at least in common configurations (i.e., DE9F for the computer end and DB25B for the modem end).

MISER computers that use terminal server serial ports have “virtual terminal devices” mapped to those serial ports. In order to deploy a serial port in this way, a particular setup step must be performed/verified on the terminal device. Also, port setup must be done in a session on the terminal server itself – this is the majority of the setup, including the baud rate, etc.

Please refer to the [Mapping Terminal Devices to Serial Ports](#) User Note for instructions on how to map terminal devices to remote serial ports.

To use an empty serial port for connecting a modem and setting it up, logon to the workstation using the port. If there are a hot-standby pair of workstations, logon to the one that is currently *online*. Next, check the terminal. In the following example, terminal LTA4 is being used by NCCFAC, but LTA47 is open.

Examples

```

DEMVSA$
DEMVSA$ sh term LTA46
Terminal:  _LTA46:           Device_Type: Unknown           Owner: NCCFAC
                                           Username: SYSTEM

      Input:    9600      LFfill:  0      Width: 255      Parity: None
      Output:   9600      CRfill:  0      Page:   24

Terminal Characteristics:
  Passall           No Echo           Type_ahead        No Escape
  No Hostsync      No TTsync        Lowercase         No Tab
  No Wrap          Scope            No Remote         Eightbit
  No Broadcast     No Readsycn     No Form           Fulldup
  No Modem         No Local_echo   No Autobaud       No Hangup
  Not Brdcstmbx   No DMA           Altypeahd         Set_speed
  No Commsync     No Line Editing Overstrike editing No Fallback
  No Dialup       No Secure server No Disconnect      Psthru
  No Syspassword  No SIXEL Graphics No Soft Characters No Printer
  Numeric Keypad  No ANSI_CRT     No Regis          No Block_mo
  No Advanced_video No Edit_mode    No DEC_CRT        No DEC_CRT2
  No DEC_CRT3     No DEC_CRT4    No DEC CRT5       No Ansi_Col
  VMS Style Input

DEMVSA$
DEMVSA$ sh term lta47
Terminal:  _LTA47:           Device_Type: Unknown           Owner: No Owner

      Input:    9600      LFfill:  0      Width:  80      Parity: None
      Output:   9600      CRfill:  0      Page:   24

Terminal Characteristics:
  Interactive      Echo             Type_ahead        No Escape
  No Hostsync     TTsync          Lowercase         No Tab
  Wrap            Scope            No Remote         No Eightbit
  Broadcast       No Readsycn     No Form           Fulldup
  No Modem        No Local_echo   Autobaud          No Hangup
  Not Brdcstmbx   No DMA           No Altypeahd     Set_speed
  No Commsync    Line Editing    Overstrike editing No Fallback
  No Dialup      No Secure server No Disconnect      No Psthru
  No Syspassword  No SIXEL Graphics No Soft Characters No Printer
  Numeric Keypad  No ANSI_CRT     No Regis          No Block_mo
  No Advanced_video No Edit_mode    No DEC_CRT        No DEC_CRT2
  No DEC_CRT3     No DEC_CRT4    No DEC CRT5       No Ansi_Col
  VMS Style Input

DEMVSA$

```

On the terminal being used, set the **Type_ahead** characteristic. Otherwise, new lines in the modem session will overwrite old lines instead of advancing down the screen.

NOTE: It is typically not necessary to change this setting on DEMVSA::LTA47:.

CONNECTING A MODEM TO A DEC SERVER

If it is necessary, use the following command:

```
DEMVSA$ set term LTA47: /perm /typeAhead
```

Next, establish a session on the terminal server to perform the port setup. Refer to the [Connecting to a DECserver](#) User Note (or the equivalent if using a non-HSQ terminal server).

In the example, connect to DECserver DEMSR4 and set Port 7 to enable it to do a modem session.

- The assigned port speed must be the same port speed the modem will use when it is in service – the telephone line speed may vary but the serial port speed will be fixed. Typical port speeds are 115200 baud for maintenance dial-in modems and 9600 or 1200 baud for RTU communication via PSTN or leased line.
- *Access Remote* makes the port “invisible” so that bytes from either end pass through it.
- *Autobaud Disable* turns off various features.
- *Modem Control Disable* prevents the modem setup session from pausing or locking up.

```
DEMVSA$ mc ncp connect node demsr4
Console connected (press CTRL/D when finished)

# access          (THIS WORD IS NOT REALLY ECHOED BACK.)

Network Access SW V3.2 BL01 for DS700-08

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Please type HELP if you need assistance

Enter username> system

Local>
Local> set priv
Password>
Local> sh port 7

Port 7:          Server: HSQSR4

Character Size:      8          Input Speed:          9600
Flow Control:       None       Output Speed:         9600
Parity:             None       Modem Control:       Enabled
Stop Bits:         Dynamic

Access:            Local       Local Switch:        None
Backwards Switch:  None       Name                 PORT_7
Break:            Local       Session Limit:       4
Forwards Switch:  None       Type:               Ansi
Default Protocol:  LAT       Default Menu:       None
Autolink Timer One: 10 Two:10  Dialer Script:      None
```

CONNECTING A MODEM TO A DECSERVER

```
Preferred Service: None
Authorized Groups: 0
(Current) Groups: 0
Enabled Characteristics:
Autobaud, Autoprompt, Message Codes

Local> define port 7 speed 115200
Local> def port 7 access remote autobaud dis autoprompt dis mes cod dis
Local> def port 7 modem control dis
Local> logout port 7
Local> show port 7

Port 7:                               Server: DEMSR4

Character Size:                        8          Input Speed:                115200
Flow Control:                          None       Output Speed:               115200
Parity:                                  None       Modem Control:              Disabled
Stop Bits:                              Dynamic

Access:                                 Remote     Local Switch:               None
Backwards Switch:                       None       Name:                        PORT_7
Break:                                   Local     Session Limit:               4
Forwards Switch:                         None      Type:                         Ansi
Default Protocol:                        LAT       Default Menu:                 None
Autolink Timer One:10 Two:10            Dialer Script:                 None

Preferred Service: None
Authorized Groups: 0
(Current) Groups: 0
Enabled Characteristics:

Local> (PRESS CTRL-D TO DISCONNECT.)
```

Lastly, connect to the port as follows. In the example, an AT is also issued to the modem, which responds with OK.

```
DEMVSAS$ set h/dte ttb0

%REM-I-TOQUIT, connection established

Press Ctrl/\ to quit, Ctrl/@ for command mode

at
OK
```

Now the modem setup string may be entered. Please refer to the appropriate modem setup document for the setup string.

If the modem does not respond to commands, please refer to the HSQ User Note, [Troubleshooting an Unresponsive Modem](#).

To exit the modem setup session, hold down <Ctrl> and press <\>.