



## MAP SERIAL PORTS

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# Mapping Terminal Devices to Serial Ports

## Overview

This document describes the MISER standard for mapping VMS terminal devices to remote serial ports. It is for when a VMS MISER computer uses serial ports on a Terminal Server, Port Server, or Serial Server that is connected on the network.

For each serial port on the network-connected Terminal Server, VMS needs a Terminal Device, a virtual port that acts like a physical serial port built into the VMS computer.

There are two different protocols that are commonly used to connect to remote serial ports:

- The LAT (Local Area Transport) protocol is used to connect serial port(s) on a Terminal Server. The Terminal Device on the VMS computer for each serial port is called **LTAnn** (where *nn* is an integer).
- The Reverse Telnet protocol is used when there is a router on the network, between the computer and the terminal server, and the router does not support LAT. When using Reverse Telnet, each Terminal Device is called **TNAnn**.

## Determining the Serial Port Number

HSQ uses a standard for numbering Terminal Devices and mapping them to Terminal Server serial ports. When the standard was first implemented, there were only 8-port Terminal Servers in use. Therefore, the standard states that LTA11 should be Serial Port 1 on Terminal Server xxxSR1 (xxx is the job acronym, like FTW for Fort Worth). For example, LTA18 is xxxSR1 Port 8 and LTA74 is port 4 on xxxSR7.

When 16-port Terminal Servers came into use, the standard was preserved at the cost of a little complexity. If xxxSR1 is a 16-port Terminal Server, then there can be no xxxSR2. The second Terminal Server must be xxxSR3. Consequently, xxxSR1 gets Terminal Devices LTA11 through LTA26 and 16-port xxxSR3 gets LTA31 through LTA46.

Now that 32-port Terminal Server are in use, xxxSR1 gets LTA11 through LTA42 and then a 32-port xxxSR5 would get LTA51 through LTA82.

At some sites various sizes of Terminal Server exist, this makes it not immediately obvious whether LTA21 is xxxSR2 port 1 or xxxSR1 port 11. The best way to determine this is to enter the following on the MISER computer that is using the remote serial ports.

```
SHOW DEV LTA
```

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If LTA11 through LTA26 are shown as contiguous, then xxxSR1 is a 16-port Terminal Server. If the display shows LTA11 through LTA18 and LTA21 through LTA28, then xxxSR1 and xxxSR2 are both 8-port Terminal Servers.

The preceding examples all assume the LAT protocol is in use. At many sites Reverse Telnet is used. Therefore, you should also enter the following on the MISER computer that is using the remote serial ports:

```
SHOW DEV TNA
```

**NOTE:** For LAT, the numbering standard is part of the MISER setup program (**SETUP\_LAT.COM**), which is called from **CONFIGURE\_GENERIC.COM**. Reverse Telnet connections are set individually “by-hand” in **CONFIGURE\_GENERIC.COM**, but HSQ engineers have continued to follow the standard for TNA devices.