

Using the PacketBlaster WAN Adapter in NetWare Environments

This Technical Bulletin describes the procedures you should follow to install and configure the PacketBlaster WAN Adapter in a NetWare environment. It provides last minute information about the PacketBlaster driver software, and describes the error codes which the card may report.

Installation and Configuration

The basic procedure for installing the PacketBlaster and configuring it for use in a NetWare environment is described below.

1 Install the PacketBlaster WAN Adapter

Follow the instructions in the PacketBlaster WAN Adapter Installation Guide to install the card in the PC.

2 Install the PacketBlaster driver

Insert the disk which came with the PacketBlaster WAN Adapter in the PC's disk drive. Start your server and run Novell's INETCFG utility. Select the "Boards" item from the main menu, and press the `Insert` key to add the PacketBlaster driver. At the prompt enter the following:

```
d:PBLAST
```

Where *d*: is the drive letter of the PC's floppy disk drive.

3 Configure the PacketBlaster

After INETCFG has installed the PacketBlaster WAN Adapter driver software, configure the PacketBlaster using INETCFG as directed by the instructions provided with your Novell software.

Software Update

This section provides up-to-date driver information.

Frame Relay Test Mode

To establish a direct Frame Relay connection between two PacketBlaster WAN Adapters (installed in servers using NetWare MultiProtocol Router 3.0 *and* NetWare WAN•Extensions 3.0), the user data size configured on one PacketBlaster must be 10 bytes lower than the other.

X.21 Support

This version of the PacketBlaster WAN Adapter driver does not support X.21. This capability will be provided in a future release.

Asynchronous PPP Support

The maximum line speed supported by asynchronous PPP is 9600 bps.

Source Route Bridging

The following considerations apply when using source route bridging with NetWare MultiProtocol Router 3.0.

X.25. To use source route bridging with X.25 (with MPR 3.0 *and* NetWare WAN•Extensions 3.0), you must set the following parameter:

```
USER DATA SIZE = 1480
```

To access this parameter, start INETCFG and choose “Network Interfaces,” then “PBLAST,” then the port which will carry the X.25 connection, and finally the “X.25 Network Interface” menu.

PPP. To use source route bridging with PPP, you must set the following parameters:

```
MRU OPTIMAL SIZE = 1480  
MRU MAXIMUM SIZE = 1480  
MRU MINIMUM SIZE = 1480
```

To access these parameters, start INETCFG and choose “Network Interfaces,” then “PBLAST,” then the port which will carry the PPP

connection, and finally the “PPP Interface” menu.

Frame Relay. Source route bridging over Frame Relay is not supported in this release.

PCI Bus

When installing the PacketBlaster WAN Adapter in a PC which uses a PCI bus, special care must be taken to avoid I/O address conflicts.

If you are using a Compaq PCI-based PC, set the I/O address to 390h.

If you are using another PCI-based PC and have trouble finding a suitable I/O address, contact Eicon Technology customer services for assistance.

Error Messages

This section describes the fatal and non-fatal error messages which the PacketBlaster driver may return.

If the PacketBlaster encounters a fatal error while loading its configuration file it will return an error message and terminate the initialization. These messages are explained in the table below:

<i>Error Message</i>	<i>Explanation</i>
Maximum number of boards exceeded	Up to six PacketBlasters can be installed and initialized in the same server.
Config file not found, exiting	No "NAME=" parameter was given on the load command line. Use INETCFG to configure the PacketBlaster.
Incorrect major or minor version numbers	The WSM/MSM version number is invalid or the driver, WSM, or MSM is corrupted. Re-install the driver and/or MPR.
TSM port registered error	The board cannot register a port to the TSM (X25TSM, PPPTSM, or FRTSM) because the driver is incompatible with the TSM. Get the latest version of the driver or MPR.
Bad channel/line no param	The "Channel=" parameter is missing from the load command line or the specified parameter is invalid. Use INETCFG to configure the PacketBlaster.
Channel already in use	The specified channel (port 1 or port 2) is in use. Use INETCFG to configure the PacketBlaster.
SNMP registration failed	The driver can't register with the SNMP agent because the driver is incompatible. Get the latest version of the driver or SNMP.
No port addr param	The I/O base address is missing from the load command line. Use INETCFG to configure the Packet Blaster.
Unable to register with WSM	The board cannot register with WSM because the driver is incompatible. Get the latest version of the driver or WSM.
Unable to initialize board	The board is unable to initialize properly due to an invalid I/O base address setting or hardware problem. Check I/O switch settings.
Unable to initialize port	The board is unable to initialize the port due to a hardware problem.*

<i>Error Message</i>	<i>Explanation</i>
Unable to get TSM entries	The port is not registered properly with the TSM because the driver is incompatible or corrupted. Re-install or update the driver or the TSM.
Unable to get resource tag	The driver cannot get and assign the resource tag because it is incompatible with MPR. Get the latest version of the driver or MPR.
Unable to get memory	More RAM must be added to the server. MPR may require more than 16 Mbytes.
Parse driver parameter	The driver parameter is missing in the MSM database because the driver is incompatible with MPR. Get the latest version of the driver or MPR.
Unable to register for event	The driver can't register an event because it is incompatible with MPR. Get the latest version of the driver or MPR.
A null pointer was passed as an initialization parameter	An initialization parameter is NULL. No corrective action is possible.*
The initialization parameter is out of range	Verify configuration settings.
The board is already initialized	The PacketBlaster needs to be initialized only once.
Board RAM failed the memory test	The board's memory test failed.*
The board cannot be found at I/O port	I/O address switch setting on the card doesn't match the configuration file. Verify both.
The board I/O addresses conflict with system I/O addresses	Another device on this server is using the PacketBlaster's I/O base address. Set the PacketBlaster to a different address.
Unable to reset board	The driver is unable to reset the PacketBlaster.
Unable to run SCA	The driver is unable to start the SCA chip.*
Unable to initialize FPGA	The driver is unable to initialize the FPGA.*
Unable to reset FPGA	The driver is unable to reset the FPGA.*
Unable to change FPGA DONE/PROG input line	The driver is unable to change the PROG line of the FPGA.*
Unable to program FPGA	The driver is unable to program the FPGA.*

<i>Error Message</i>	<i>Explanation</i>
Unable to set SCA in bit sync. mode	The driver can't set the SCA to synchronous mode.*
Unable to set bit rate	The driver is unable to set the bit rate.*
Unable to set HDLC mode	The driver is unable to start the synchronous mode.*
Board is installed in an 8-bit slot	Install the PacketBlaster in a 16-bit slot.

* To obtain technical assistance in the USA call (214) 490-3270 or fax (214) 239-8069. In Canada, Central and South America, Asia (excluding the Middle East), Australia, and the Pacific Rim, call (514) 631-5246 or fax (514) 631-3092 (please mark your fax "Attn: Customer Services.") In Europe, Russia, Iceland, the Middle East, and Africa, please contact your local Eicon Technology supplier.

The following non-fatal warnings may also be issued without terminating the PacketBlaster's initialization:

<i>Error Message</i>	<i>Explanation</i>
Config record error, using defaults	The driver could not read the configuration file and is initializing the card with default values.
Config file not found, using defaults	The driver could not find the configuration file and is initializing the card with default values.
Maximum packet size smaller than configured MRU size. Using defaults	The configured MRU size is larger than the maximum packet size. The driver is initializing the card with default values.

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