

NBase-Xyplex Release Notes
X.25 Gateway, Version 1.4
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NOTE

**V1.4 of the X.25 Gateway software is NOT supported on the MX6025 standalone gateway.
Please use V1.3.2 S 34 for that platform.**

Overview

The NBase-Xyplex X.25 Gateway links devices on an Ethernet™ local area network (LAN) to an X.25 packet-switched network (PSN). It converts data from a TCP/IP or LAT® session into X.25 packets and converts X.25 packets into data for a TCP/IP or LAT session. These *Release Notes* cover NBase-Xyplex X.25 Gateway Software, Version 1.4 (hereafter referred to as V1.4).

These Release Notes provide the following information about V1.4:

Notes and Restrictions

Warning

Save the old parameter file. Version 1.4 of the X.25 Gateway is NOT backward compatible with previous versions. Because of this, NBase-Xyplex recommends that you back up your current parameter file, in the event that you need to revert to your earlier version.

When upgrading the X.25 Gateway software from a previous version, the software automatically converts the parameter file from the old version to the new version. *You cannot use converted parameter files with previous releases of X.25 Gateway software.* For this reason, Xyplex recommends that you make a backup copy of the your previous version compatible parameter files prior to installing V1.4 so that you can revert to the previous release if necessary. For example, use the COPY utility to copy parameter files stored at a VMS host system.

This example uses an X.25 Gateway named X00A699.

1. Make sure that the X.25 Gateway is up and running with the current software.
2. Rename the .bck and .prm files. You could use the names .prm.old and .bck.old, for example.
3. Copy the default parameter file to the original filename (x00a699.prm and x00a699.bck)
4. Issue a CHECK PARAMETER SERVER command on the X.25 Gateway. The parameters will be written over the default parameter file.

New Features in V1.4

PPP Keepalive Timer Settings

You can specify a TCP keepalive timer, which functions like the LAT keepalive timer. When this feature is enabled, the access server periodically transmits a null message to the partner of a session. If the Telnet partner does not respond during the length of time you specify, the access server disconnects the session.

You assign the keepalive timer to one or more ports. The value you set also specifies how often the server will attempt to reconnect a session when there is a connection failure, for ports that are also enabled for AUTOCONNECT. Use the SHOW/LIST PORTS ALTERNATE CHARACTERISTICS command to display the current setting of the TCP keepalive timer.

As you increase the size of the *timer-value*, you will lengthen the time for the server to determine when the connection partner has gone down. However, as you decrease the size of this value, you increase the amount of network traffic.

You cannot modify the keepalive timer while there is an active session on the port.

Syntax

```
DEFINE/SET PORT [port-list] PPP KEEPALIVE TIMER [timer-value]
```

Where

Means

timer-value

The number of minutes that the access server will wait for a response from the Telnet partner after transmitting the null message before terminating the session. Valid values are 0 through 30 minutes. The default is 0, which specifies that the keepalive timer is disabled.

Example

```
DEFINE PORT 5 PPP TCP KEEPALIVE TIMER 20
```

PPP Keepalive Timeout Settings

Use this privileged command to set how long the PPP link will wait for an LCP echo reply before closing the link.

Syntax

```
DEFINE PORT [port-list] PPP KEEPALIVE TIMEOUT [seconds]
```

Where

Means

<i>port-list</i>	List the ports that will use this keepalive timeout value
<i>seconds</i>	The number of seconds the PPP link will wait for a reply before closing the link. The valid values are 0 - 65535 seconds. The default is 6 seconds.

Example

```
DEFINE PORT 4,6,8 PPP KEEPALIVE TIMEOUT 10
```

Idle Timer Setting

Use this privileged command to define or change the length of time before an inactive session (for example, a queued connection request or a session initiated by a user) will be disconnected. Ports that have a connection queue, are free to accept the next connection request in the connection queue after the inactive session is disconnected. Typically, this setting is used to prevent a "hung" printer ports, and also to free up access to resources when users forget to logout. This setting applies to Telnet/LAT sessions received by a port on the access server as well as sessions made from the server to a host or other resource out on the LAN.

Ports that do not have a connection queue cause the inactivity timer to start (controlled by the SERVER INACTIVITY TIMER setting) after the sessions have been disconnected. When there have been no sessions at the port, for the period of time specified by the SERVER INACTIVITY TIMER, the user will be logged off the server port.

Syntax

```
SET PORT port-list IDLE TIMER time
```

Where **Means**

<i>time</i>	The length of time after which an inactive session will be disconnected. The valid values are between 0 and 480 minutes. Setting this value to 0 disables this setting and the session will not be disconnected for being inactive. The default value is 0.
-------------	---

Example

```
DEFINE PORT 5 IDLE TIMEOUT 10
```

TN3270 Device Type Command

A new TN3270 Device command has been added in V1.4. which eliminates having to set or define the device type on the port. This command lets you enter the host name or IP address to display a menu of currently defined terminal types.

Syntax

```
XYPLEX>> TN3270 [ip-address/host-name]
```

After you enter the command and press RETURN, the following menu displays:

```
Select TN3270 Device Type

1. ANSI
2. VT100
3. VT220-7
4. VT220-8

Enter number of selection and press <RETURN>
```

Select the device type. The X.25 gateway will then automatically attempt to connect to the named host or IP address using the selected device type.

TN3270 Alternate Keymaps

Use this new feature to add entries to the TN3270 keymap. This command lets you add additional key mappings for several device types.

Use the SHOW KEYMAP and SHOWKEYS commands to display the defined keymaps.

The PREFIX1 and PREFIX2 function keys allow you to define hex sequences that get prepended to other function keys hex values. The maximum size of the prefix function (1 or 2) is 8 bytes. You can combine 3 keys into the prefix and have those 3 keys prefix the "main" key. When the operator then keys the "main" key, (the one with the FF or FE beginning the hex string), the entire prefix string plus the "main" key is sent to the host.

Syntax

```
DEFINE SERVER TN3270 DEVICE [device-name] [CREATE] [device-type]
                                     [KEYMAP] [PREFIX1] [bytes]
                                     [KEYMAP] [PREFIX2] [bytes]
                                     [KEYMAP] [PF1] [bytes]
                                     [KEYMAP] [PF2] [bytes]
```

Where	Means
CREATE	The device type the keymap will apply to. The valid values are: ANSI VT100 VT220-7 VT220-8
KEYMAP	You are creating a Keymap.

PREFIX1	This function is prepended to the TN3270 function key that begins with the hex sequence ff.
PREFIX2	This function is prepended to the TN3270 function key that begins with the hex sequence fe.
PF1	The TN3270 function key that is mapped to a hex sequence
PF2	The TN3270 function key that is mapped to a hex sequence
<i>bytes</i>	The hex sequence the TN3270 function is mapped to.

Examples

```
DEFINE SERVER TN3270 DEV NAME KEYMAP prefix1 "1b 75"  
DEFINE SERVER TN3270 DEV NAME KEYMAP prefix2 "1b 74"  
DEFINE SERVER TN3270 DEV NAME KEYMAP PA1 "fe 1b 31"  
DEFINE SERVER TN3270 DEV NAME KEYMAP PA2 "ff 1b 32"
```

Telnet TN3270 Default Command

Use this new privileged command to assign a default port number for the gateway to use when forming a TN3270 session. If you do not specify a default, the gateway uses the default port for a Telnet session, which is 23.

Syntax

```
DEFINE/SET PORT [port-list] TELNET TN3270 DEFAULT PORT [port number]
```

Where	Means
<i>port number</i>	The number of the port used by the gateway when forming a TN3270 session. Valid values are 1 through 32767. The default value is 23.

Example

```
DEFINE PORT 5 TELNET TN3270 DEFAULT PORT 987
```

IP Rotary Table Entries

You can now display and change the previously hidden rotary table entry that mapped all of the physical ports to the gateway's IP address. Although the default is still hidden, you can use the following command to change the first entry to Port 0:

NOTE: The term "rotary" refers to the ability to assign the same internet address or domain name to multiple ports that offer the same type of service.

Syntax

```
DEFINE/SET SERVER IP ROTARY SERVER [ip-address] PORT 0
```

Where**Means***internet-address*

The internet address that will be assigned to port 0. Now attempted sessions to a busy Port 0 will return a refusal to the host..

You can remove the ports that you do not want displayed. In the following example, only Port 0 is mapped to the gateway IP address, while asynchronous ports are mapped to their own IP address.

Example

```
DEFINE SERVER IP ROTARY 140.179.192.22 PORT 0
```

Kerberos Version 5

Kerberos Version 5 is now supported on the X.25 Gateway Software for V1.4. Refer to the *Access Server Commands Reference Guide* and the Security Features section of the *Advanced Configuration Guide* for details on Kerberos Version 5. The X.25 Gateway Version of Kerberos 5 offers the same functionality as the Access Server version with the following exceptions:

- Use the following command to enable Kerberos Version 5 on the X.25 Gateway software, instead of the Access Server command:

```
DEFINE SERVER KERBEROS FIVE ENABLED
```

Kerberos 5 uses UDP port 88 ONLY! By default, the SHOW SERVER KERBEROS screen will still show port 750 (Kerberos 4), but the code will use port 88. To change the Kerberos Port number field display, use the DEFINE/SET SERVER KERBEROS PORT 88 command

The UDP/TCP default port numbers -The UDP port number the host listens on for Kerberos Authentication on password change..

SHOW X25 PORT STATUS Screen

The Calling Addr: field was added to the SHOW X25PORT STATUS screen to display the source's X.25 address. If there is no connection, the field displays "No connection up."

Fixed Problems

Problem Calculating Leap Year (Year 2000)

Problem: Previous software versions did not calculate the leap year 2000 time correctly when receiving it from a time server.

Solution: This release has corrected the problem, and the date correctly advances from February 28 to February 29 in the year 2000.

ZMODEM over RLOGIN or Telnet

Problem: File transfers were stopping when using ZMODEM over RLOGIN with the X.25 gateway.

Solution: The following command was added to solve this problem:

```
SET PORT [port-list] RLOGIN TRANSPARENT MODE [ENABLED]
                                           [DISABLED]
```

Enable this command when using ZMODEM and RLOGIN together. Also use the following settings:

```
SET PORT TYPEAHEAD SIZE 1024
SET PORT IP TCP WINDOW SIZE 1024
SET PORT TELNET CSI ESCAPE ENABLED
SET PORT TELNET NEWLINE FILTERING STANDARD
```

Disable the following switches:

```
SET PORT BACKWARD SWITCH NONE
SET PORT FORWARD SWITCH NONE
SET PORT LOCAL SWITCH NONE
```

NOTE: Use the CC_TSP (transparent)profile on the X.25 side.

Problem: ZMODEM/RLOGIN - A Carriage Return terminated an Escape Sequence.

Solution: Fixed in V1.4

BROADCAST Command

Problem: The BROADCAST command was not working properly for the gateway.

Solution: The command syntax was corrected as follows:

```
BROADCAST PORT [port-list] "broadcast string"
```

NOTE: This command is restricted to Ports 0 and 1.

Virtual Ports

Problem: Virtual ports on the gateway were becoming hung in the LAN to X.25 Call Waiting State. This would occur when Parameter 6:0 (PAD service signals) and greater than 256 characters were received from the LAN. The Characters Rejected field on the SHOW X25 PORT STATUS screen would then start incrementing. At this point, the virtual port was hung in Call Waiting State. Disconnecting the LAN session or logging out the port would not clear this condition. The port state on the SHOW X25 PORT STATUS screen would show the state as WAIT SESSION DONE.

Solution: The LAN session disconnects to logout the port if the virtual port was in the Wait for X25 State and there is outstanding data to send to the PAD.

X.21 Links

Problem: The X.21 link would go down and the SNMP message received was "Link Up."

Solution: The DSR signal is now used instead of the DCD signal.

Telnet Password

Problem: An LAT password was required when defining enabling the Telnet protocol.

Solution: The DEFINE SERVER PROTOCOL TELNET ENABLE LAT command no longer requires a password.

Finger Command

Problem: The FINGER command to gateway returned all the data to the host but did not terminate the connection for 30 seconds.

Solution: This problem has been fixed in V1.4.

MX6800 Flash Cards

Problem: The PARAM.SYS file was being deleted from the flash card after loading.

Solution: The PARAM.SYS file is no longer deleted after loading.

TCP Connections - Subnet Masks

Problem: Incoming TCP connections to a Xyplex unit that was using a complex subnet mask, for example, 255.255.225.224 (subnetted Class C) would not allow a connection from some source IP addresses that should have been allowed.

Solution: The following changes have been made in this release to solve this problem:

- If the source IP address ANDed with the ~ of the destination subnet mask equals 0, and the source and destination IP addresses are on the same network, do not allow the connection.
- If the source IP address ANDed with the ~ of the destination subnet mask equals ~ of the destination subnet mask and the source and destination IP addresses are on the same network, do not allow a connection
- If the source address equals -1 or 0, do not allow a connection.

New Features in V1.3.2

This section lists the features that were added in V1.3.2 X.25 Gateway software.

New PORT DISCONNECT command With this new command, you can specify that the X.25 Gateway disconnect the LAN session when a user clears an X.25 virtual circuit made from the PAD prompt. To specify this feature, use the following command:

```
DEFINE/SET SERVER X25 PORT port-list DISCONNECT ENABLED/DISABLED
```

This feature is disabled by default.

Making calls from the PAD prompt You can make calls to X.25 addresses from the PAD prompt with the X.25 address only, without the CALL command. For example, to call the address 1234567 from the PAD prompt, you can enter either of these command lines:

```
* call 1234567
* 1234567
```

Outbound only Permanent Virtual Circuits (PVCs) PVCs can have an outbound direction. When you define or set a PVC as outbound, the X.25 Gateway ignores any incoming data from the X.25 network until a user on the LAN makes a connection to the virtual port assigned to the PVC. The command that specifies outbound PVCs is the following:

```
DEFINE SERVER X25 PORT port-list PVC DIRECTION OUTBOUND|DISABLED
```

Where OUTBOUND indicates that the ports you specify are outbound PVCs only. If you disable this feature, the ports support PVCs which can initiate and receive calls.

New X.25 Screen A MONITOR SERVER X25 PORT *port-list*|ALL SUMMARY command is available in addition to the SHOW and LIST versions of this command.

New Port Connect Action The X.25 Gateway supports a port connect action which associates an X.25 address with one or more virtual ports. When you connect to the port, the X.25 Gateway automatically calls the X.25 address you associated with the port. Using this port connect action allows you to connect to a virtual port and call an X.25 address directly from a device on the network, rather than through a LAT or Telnet service. The following command specifies this feature:

```
DEFINE/SET SERVER X25 PORT port-list CONNECT ACTION "address"
```

where *address* is a network destination where you want to make a connection. Enclose the address in quotes. (If you specify a connect action in a LAT or Telnet service associated with the ports, it will override the port connect action.)

New Account log formats The status messages for X.25 entries in the account log can include the address of the caller who establishes a virtual circuit and the address of the caller that terminates the virtual circuit. To include these addresses in the log, follow these procedures:

- Enable Verbose accounting mode with the following command:

```
DEFINE SERVER VERBOSE ACCOUNTING ENABLED
```

See the *Access Server Advanced Configuration Guide* for more information about Verbose accounting mode.

- Specify the X.25 address of the X.25 Gateway, if you have not already done so. Most implementations require that you specify an X.25 address other than the default, which is 1. The PSN administration usually assigns this address. The command which specifies the X.25 address is the following:

```
DEFINE SERVER X.25 ADDRESS "address-string"
```

The *Managing the Xyplex X.25 Gateway* describes this command in detail.

- Enable the X.25 Calling Address parameter. This parameter specifies that a call request packet from the X.25 Gateway includes the X.25 address. The command which specifies the Calling Address Parameter is the following:

```
DEFINE SERVER X25 CALLING ADDRESS ENABLED/DISABLED
```

The *Managing the Xyplex X.25 Gateway* describes this command in detail.

Initialize the X.25 Gateway after you have entered DEFINE commands to update the parameter file.

Change in the X.25 Command Interface The keyword SERVER is optional with X.25 commands. For example, prior to V1.3 you needed to enter DEFINE SERVER X25 WELCOME "text-string" to change the welcome message on the X.25 Gateway. You can now enter DEFINE X25 WELCOME "text-string" .

Additional keyword in X25 display commands The commands SHOW/LIST [SERVER] X25 CHARACTERISTICS, SHOW/MONITOR [SERVER] X25 COUNTERS, and SHOW/MONITOR [SERVER] X.25 STATUS have a second occurrence of the keyword SERVER, although both occurrences of the keyword are optional. The syntax for these commands follows this form: SHOW/MONITOR [SERVER] X.25 [SERVER] STATUS. See the *Xyplex X.25 Gateway Commands Reference Guide* for more details about these commands.

New Option for Telnet Echo Mode The DEFINE/SET PORT TELNET ECHO MODE command has two new options in addition to LOCAL and REMOTE. These are CHARACTER and LINE. With the CHARACTER option enabled, the X.25 Gateway initiates remote Echo and Suppress Go Ahead when it makes the connection to the Telnet device. With the LINE option enabled, the Gateway refuses Remote Echo and rejects Suppress Go Ahead when it makes a connection to a Telnet device. See the Telnet documentation for more information about these options.

Improved Performance for rotary domain lists The X.25 Gateway waits 3 seconds between call attempts, rather than 30 seconds, when searching through a rotary domain-name list. This reduces the length of time necessary to make Telnet connections when using an Internet rotary.

PARAM.SYS file for the 6800 X.25 Gateway A 6800 in a Network 9000 chassis with a flash card loads default parameters from the PARAM.SYS file on the card the first time you initialize it, if it cannot find a parameter file on the network. After the 6800 successfully stores a non-default parameter file on any parameter server it stores a non-default parameter file on the local memory card, and creates a non-default parameter file with a name based on its Ethernet address.

Note: This problem has been resolved in V1.4

Enabling the X.25 Protocol on the 6800 X.25 Gateway If you have a 6800 X.25 Gateway, and you have loaded the X.25 Gateway load image for the first time or have upgraded to a V1.3 load image from an earlier version, you must enable the X.25 protocol. It is not enabled by default on the 6800 as it is on the 6625 platforms.

You need a software password or "key" to enable the X.25 protocol on the 6800 X.25 Gateway. Contact your Xyplex sales representative if you do not have a key. The following command enables the X.25 protocol:

```
Xyplex>> define server protocol x25 enabled
X25 Password>> xxxx
```

After you enable the protocol, and the parameter file has been updated, initialize the X.25 Gateway for the change to take effect.

PPP Port limitation. The X.25 Gateway can support up to 40 concurrent Point-to-Point Protocol (PPP) ports. It cannot support more than 40 concurrent PPP ports.

Improving Performance with X.3 PAD Parameters. The settings of certain X.3 parameters can have a significant effect on the performance of the X.25 Gateway. Incorrect parameter settings can also prevent connections. If the performance of the X.25 Gateway appears to be slow, or you cannot make a connection through a virtual port, check the parameter settings of the PAD at that port with the Show Server X25 Port Alternate Characteristics display. The parameters appear at the bottom of the display. The *Managing the Xyplex X.25 Gateway* manual includes information about parameters that can affect performance.

Calls to Remote Printers. If you create a service that calls a remote printer that is attached to another X.25 Gateway, Xyplex recommends that you associate the service with ports that are configured as PVCs or PSVCs. This prevents data loss when the virtual circuit is cleared. The manual *Managing the Xyplex X.25 Gateway* has more information about making calls to remote printers.

Clearing PVCs. If you clear a PVC from the PAD prompt with a CLR command, you cannot reconnect the PVC unless you initialize the X.25 Gateway link.

Host Requirements for Loading with TFTP. To support loading of Xyplex units with TFTP, a UNIX host must provide support for a home directory for the TFTP daemon.

The Password Feature. You can disable the password feature on port 0. However, certain programs, such as TSM, Scriptor, and ControlPoint, require a password. These programs will not function properly if you disable the password feature on port 0.

SNMP Support. SNMP support is available for Communications Server characteristics on the X.25 Gateway, but not for X.25-specific characteristics.

The primary gateway address. Setting the primary gateway address from SNMP (*ipGatewayAddress1* in the Xyplex Internet MIB), will not return a response. Setting this location clears the arp table, and the return packet cannot find the address of the requesting client.

The Bootstrap Server MIB. Objects in the named table of the Xyplex Bootstrap Server MIB must use Ethernet addresses only. The object ID *namedIdentificationType* can only be "ethernetAddress" and *namedIdentification* must have a length of six bytes.

Experimental Character MIB. Ports described by the experimental character MIB, with values of "dynamic" and "remote" for the Object ID *charAdminOrigin*, show one active session when they are in listening state. This is consistent with the SHOW PORT STATUS display.

SNMP SETs. When you use SNMP SET processing on Xyplex port security objects, you must have the set values for all five objects in the same physical record, and the record cannot contain

any other set values. For example, the following list shows the content of a single physical record that performs SNMP set processing on one entry in the port security table:

```
snmpset -h 123.109.61.12 1.3.6.1.4.1.33.10.9.5.1.3.1 IPAddr 1.1.1.1
\
1.3.6.1.4.1.33.10.9.5.1.4.1 IPAddr 255.0.0.0 \
1.3.6.1.4.1.33.10.9.5.1.5.1 Integer 2 \
1.3.6.1.4.1.33.10.9.5.1.6.1 Integer 1 \
1.4.6.1.4.1.33.10.9.5.1.7.1 OctetString "1111111111111111"
```

Keyboard fields. Keyboard fields that you specify as "none" for the null case, such as the port Backward Switch character, are all set as zero or a null string (not the string "none") when you set them with SNMP.

SNMP GET and SET processing and X.25 Gateway databases. SNMP GET processing reads the operational database, while SNMP SET processing modifies both the operational database and the permanent database. Because of this, you may want to keep all ports Non-privileged or Secure if the unit is managed by SNMP. This reduces the chance that the permanent and operational databases will become unsynchronized. In the case of tables with a variable number of entries, such as local services or domain names, this can be particularly significant.

The port security table and the menu table are accessed by an index number that may or may not point to the same data item in the two databases.

Variable length keys. The domain name table, and the Tn3270 keymap, screenmap, and language translation tables, all use a key of a variable length string followed by a secondary index. To gain access to an object in one of these tables, you must specify the length as the first digit of the primary key. For example, to set the *Cursorright* object in the ANSI TN3270 Keymap table (object ID *Tn3270KeyCharacterSequence*), you would use the following command:

```
snmpset -h dell800 1.2.6.1.33.10.7.5.1.4.4.65.78.83.73.6 OctetString
"12" lgt A N S I
```

New objects in the domain table. To add a new object in the domain name table, use SNMP SET processing on the *nameAddress* object with the value of the new name, *nameName* in the key. The address field of the key must match the new value being set, such as in the following example:

```
snmpset -h del1400 1.3.6.1.4.1.33.10.4.6.1.2.4.97.98.99.100.11.22.33.44 \
IPAddr 11.22.33.44
```

In this example, the new name is abcd (97.98.99.100), and the new address is 11.22.33.44.

IP Routing Table (MIB II). V1.3 does not support GET and SET operations on the IP Routing table of the IP group of MIB II.

Notes on Local and Remote Parameter Loading/Storage

You can use the DEFINE/SET PARAMETER SERVER command to specify the node names and addresses of remote parameter servers, where the X.25 Gateway can store parameters. You cannot DEFINE the local parameter server; you can only SET it. To SET the local parameter server, you specify the X.25 Gateway's node name and its Ethernet address.

Do not use the unit's Internet address, since it is not permanent like the Ethernet address. If you attempt to SET a parameter server, using the X.25 Gateway's node name followed by an Internet address, the X.25 Gateway will display an error message.

Clearing/Purging a Parameter Server. If two or more entries in the list of parameter servers have the same name, and you use the CLEAR or PURGE PARAMETER SERVER command to eliminate one, the X.25 Gateway will remove the first one it finds in the list. This is because the CLEAR/PURGE PARAMETER SERVER command uses a name, not an address, to identify the entry to be removed.

Performance Impact of SNMP Getnext Processing. Intense use of SNMP Getnext processing may degrade X.25 Gateway performance under some conditions. This has happened during tests with other Xyplex equipment.

Discarding data on a Telnet device If an X.25 Gateway is configured to translate from X.25 to Telnet, the Telnet device may lose data if the X.25 virtual circuit is cleared. This occurs because the Gateway issues a Reset when it receives the clear, and this can cause the Telnet device to discard the data in its buffers. This is unlikely to occur unless you are using IP printing. This will not occur if you use PVCs or PSVCs.

Tn3270 Transparent Graphics screen mode The X.25 Gateway supports Tn3270 transparent graphics mode. However, Xyplex has not been able to test this feature with all possible applications, and therefore cannot guarantee that it will work with every application. For example, Tn3270 graphics screen mode does not work with Yale's PCTERM application on a PC running the host file transfer program PCTTRANS.

Newline Characters in Scripts You must include a blank space between the #echo and the \n in a script for the Newline character to take effect: Use #echo \n *not* #echo\n. If you do not include the space, the X.25 Gateway ignores the Newline character.

Running Scripts on the X.25 Gateway If you are downloading scripts from a script server through port 1 on the X.25 Gateway, set the baud rate for that port to 9600 bps. Otherwise, this can cause an overrun condition.

The PAD help display The PAD help display, which appears when you enter the HELP command from the PAD prompt, lists several command options that the X.25 Gateway does not support. The help text shows options for the CALL command and the CLEAR command, for

example, that are not available on the X.25 Gateway. See The *Xyplex X.25 Gateway Commands Reference Guide* for information about PAD commands and options.

Known Problems V1.3

Except for the last problem, the following problems affect all X.25 Gateway hardware platforms: the 6625 card, and both the MAXserver and Network 9000 version of the 6800 card.

Problem	Comments/Workaround
<p>Enabling PPP on a Dynamic Port You cannot enable PPP with the SET command on a port if a Permanent Virtual Circuit is established on that port, and the PORT ACCESS is set to DYNAMIC.</p>	<p>You can enable PPP with the DEFINE command on a port under these conditions. Log out the port for the DEFINE command to take effect.</p>
<p>Incorrect X.25 Port State The Port State field of the Monitor X25 Port Status display shows AUTOCONNECTING as the port state after an X.25 to LAN session has been established through an X.25 service associated with the virtual port.</p>	<p>The port state X25 TO LAN SESSION appears after the first data comes across the line.</p>
<p>Failed calls on ports with non default packet sizes If you disable the Level 3 flow control parameter negotiation facility, you cannot make calls through ports where you have specified non default packet sizes. The Gateway does not cause the non default packet sizes to revert back to the default size when you disable this facility.</p>	<p>To avoid this condition, do not disable the Level 3 flow control parameter negotiation facility if you have specified non-default packet sizes on virtual ports, <i>or</i> reset the packet size to the default (128) on all virtual ports if you disable this Level 3 facility. The DEFINE/SET [SERVER] X25 PORT [<i>port-list</i> ALL] [<i>facility value</i>] command specifies per-call facilities on individual virtual ports. The DEFINE [SERVER] X25 LEVEL_3 FLOW CONTROL PARAMETER NEGOTIATION ENABLED/DISABLED command specifies the status of this facility.</p>
<p>Using SET to change the default inbound profile Using the SET command to change the default inbound profile on a virtual port does not change the profile.</p>	<p>Use the DEFINE command: DEFINE X25 PORT <i>port-list</i> DEFAULT INBOUND PROFILE "<i>profile-name</i>."</p>

Problems	Comments/Workarounds
Specifying the range of LCNs for PVCs The X.25 Gateway allows you to specify a value for the highest PVC logical channel number that overlaps the range of logical channel numbers for switched virtual circuits. These ranges need to be separate, or calls will fail.	Be sure that the value you specify for the highest LCN does not overlap with the range of LCNs you specified for SVCs. The manual <i>Managing the X.25 Gateway</i> describes how to assign LCN numbers to PVCs and SVCs.
CPU utilization on PPP ports If PPP is enabled on a port, the port utilizes 100 % of the CPU, even when PPP is idle. The SHOW/MONITOR SERVER STATUS screen will show 100 % CPU used in the Current field.	The CPU is available for other functions and processes on the X.25 Gateway even through it appears not to be. This problem does not affect the performance of other features and processes.

Problems Fixed in V1.3

The Xyplex Bootstrap Server MIB The Xyplex Bootstrap server MIB had returned incorrect data for some objects in previous versions, particularly objects in the eventTable. This MIB now returns the correct data.

Using the accounting feature on the X.25 gateway In previous versions, the X.25 Gateway sometimes did not function correctly when sending information to the account log. It now functions normally when sending information to the account log.

Port numbers and entry numbers in the account log The account log for the X.25 Gateway sometimes displayed incorrect port numbers and entry numbers for X.25 sessions. The account log now displays the correct port numbers and entry numbers.

Logging accounting data on a VAX from an X.25 Gateway The last line of the account log disappeared when a user displayed the log on a VAX using the LOGOUT/FULL command. This occurred if the terminal type of the X.25 Gateway virtual port was set to ANSI. The last line of the account log now remains on the screen when a user issues this command.

Specifying a port-list in X.25 commands The command interface required that users enter an individual port number, rather than a port list, in the DEFINE [SERVER] X25 PORT PVC DISABLED, and DEFINE [SERVER] X25 PORT PVC DIRECTION OUTBOUND | DISABLED. Users can now enter a port list in these commands.

PVC outbound direction PVCs remained bi-directional after a user specified that they be outbound-only with the DEFINE [SERVER] X25 PORT *port-list* PVC DIRECTION OUTBOUND command. This command now causes PVCs to be outbound-only.

PVC direction display The Port Characteristics display did not indicate that a PVC was outbound-only if it had been defined this way with the DEFINE [SERVER] X25 PORT PVC DIRECTION OUTBOUND command. The SHOW/LIST [SERVER] X25 PORT CHARACTERISTICS display now indicates that the PVC is outbound in the PVC LCN: field.

CPU utilization display The SHOW/MONITOR SERVER STATUS display showed inaccurate data in the % CPU Used: field. This field now displays the correct percentage of processing time.

SHOW SERVICE CHARACTERISTICS display This display sometimes did not list services which had been defined on both the local X.25 Gateway and on a remote device on the network. This display now lists these services .

Documentation Overview

With the exception of some installation manuals, you can order documentation separately from software and hardware. See the *Software Kit Information* (called kitinfo.pdf on the CD) for a listing of available documentation.

Unsupported V5.1 Access Server Features and Protocols

V1.4 of the X.25 Gateway supports most of the V5.1 of TCP/IP-LAT Communications Server features and protocols on virtual ports and port 1, the asynchronous management port. This section lists the V5.1 features and protocols that the X.25 Gateway does not support on virtual ports, or that it supports on port 1 only.

V5.1 features not supported on virtual ports or port 1: the LPD daemon, Event Log, the APGEN utility, PRT3270, the Xremote protocol, the Xprinter protocol.

V5.1 features supported on port 1 only: Dialback support for modems, Dialup, Script serving, Autobaud, Access control, Character size, DSRWAIT, DSRLOGOUT, DCD timeout, modem control, the Multisessions protocol, Remote modification.

Simultaneous local and remote parameter storage is supported on the 6800 X.25 Gateways; not the 6625 card.

Load Images

See the *Software Kit Information* (called kitinfo.pdf on the CD) for NBase-Xyplex and Load Image names.