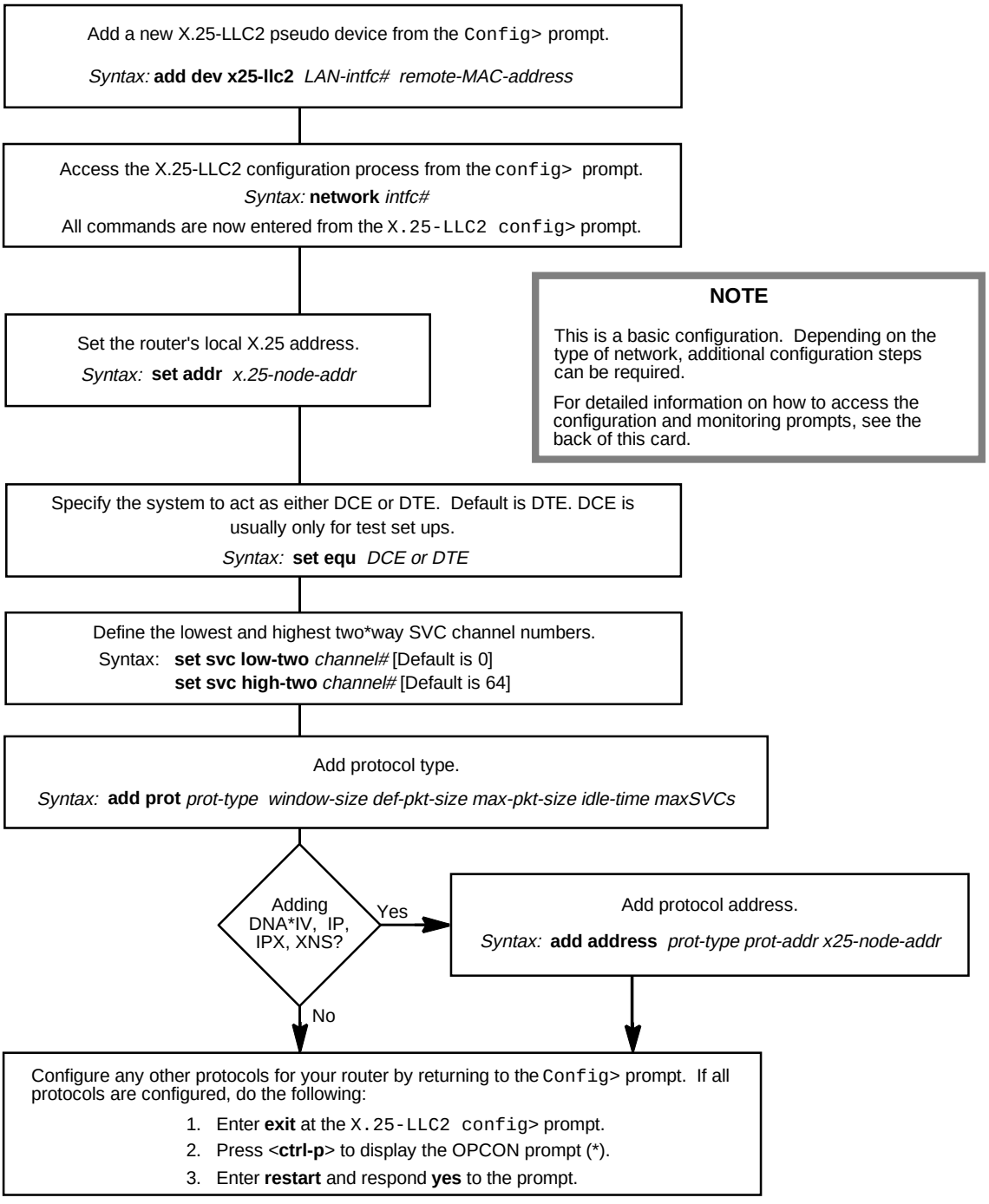
X.25-LLC2 Pseudo-Interface Initial Configuration



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Part Number: AV-R08XA-TE
X.25-LLC2 Pseudo-Interface
Quick Reference Card
Version 2.0
September 1996

X.25-LLC2 Pseudo-Interface Configuration Commands

This quick reference card summarizes the X.25-LLC2 pseudo-Interface configuration and console commands. The front panel of this card provides the initial configuration steps for this protocol. The back panel tells you how to access the CONFIG process.

Enter the following configuration commands at the `X.25-LLC2 config>` prompt. To list the configuration commands and their options, enter a **?**.

After you have configured all of the protocols, enter **restart** at the OPCON prompt (`*`), and respond **yes** after the following prompt:

```
Are you sure you want to restart the router? (Yes or No): yes
```

add

address *prot-type prot-addr x.25-node-addr*

Adds a public data network (PDN) X.25 address translation for a protocol supported in the router's configuration.

protocol *prot-type window-size def-pkt-size*

max-pkt-size idle-time max-svcs

Adds a supported protocol to the configuration.

change

address *prot-type prot-addr x.25-node-addr*

Modifies a PDN X.25 node address translation for a protocol supported in the router's configuration.

protocol *prot-type window-size def-pkt-size*

max-pkt-size idle-time max-svcs

Modifies a supported protocol in the router's configuration.

delete

address *prot-type prot-addr*

Removes an X.25 address translation.

protocol *prot-type*

Removes a protocol configuration definition.

disable

interface-resets

Disables the router from initiating packet layer restarts (certification purposes).

incoming-calls-barred

Specifies that the router will accept incoming calls.

outgoing-calls-barred

Specifies that the router will allow outgoing calls.

enable

interface-resets

Allows the router to initiate packet layer restarts and frame link establishments.

incoming-calls-barred

Specifies that the router will not accept incoming calls.

outgoing-calls-barred

Specifies that the router will not allow outgoing calls.

list

addresses

Displays all X.25 address translations.

all

Displays all the X.25 addresses, National Personality parameters, and all defined protocols and their values.

detailed

Displays the value of all the default parameters that the **national set** command modifies.

protocols

Displays all the defined protocol configurations.

summary

Displays all the values established by the **set** and **enable** commands.

national disable

accept-reverse-charges

Does not allow accepting of reverse charges during call establishment.

ccitt

Disables the CCITT convention for timer retries.

X.25-LLC2 Pseudo-Interface Configuration Commands *(Continued)*

national disable *(continued)*

clear-w/diag
: Does not allow the clear request packets to include the diagnostic field.

flow-control-negotiation
: Disables the negotiation of packet and window size during call setup of SVCs.

osi-84
: Disables the CCITT OSI facilities defined by the 1984 standard.

osi-88
: Disables the CCITT OSI facilities defined by the 1988 standard.

packet-ext-seq-mode
: Disables the packet layer from using extended sequence numbers 0 to 127. The packet layer then uses 0 to 7.

packet-layer-restarts
: Disables the packet layer from sending a restart packet when the router restarts.

request-reverse-charges
: Disables requesting of reverse charges on all outgoing calls.

reset-w/diag
: Disables the reset request packet from including the diagnostic field.

restart-w/diag
: Disables the restart request packet from including the diagnostic field.

suppress-calling-addresses
: Allows the router to insert the source address in call packets.

suppress-non-zero-cause
: Enables the packets layer cause fields.

throughput-class-negotiation
: Disables the negotiation of throughput class during call set up of SVCs.

national enable

accept-reverse-charges
: Accepts reverse charges during call establishment.

ccitt
: Specifies the use of the CCITT convention, rather than the ISO convention for timer retries.

clear-w/diag
: Allows clear request packets to include the diagnostic field.

flow-control-negotiation
: Enables the negotiation of packet and window size during call setup of SVCs.

osi-84
: Enables the CCITT OSI facilities defined by the 1984 standard.

osi-88
: Enables the CCITT OSI facilities defined by the 1988 standard.

packet-ext-seq-mode
: Specifies the packet layer to use extended sequence numbers 0 to 127.

packet-layer-restarts
: Allows the packet layer to send a restart packet when the router restarts.

request-reverse-charges
: Allows the router to request reverse charges on all outgoing calls.

reset-w/diag
: Allows the reset request packet to include the diagnostic field.

restart-w/diag
: Allows the restart request packet to include the diagnostic field.

suppress-calling-addresses
: Inhibits the inclusion of source addresses in call packets.

suppress-non-zero-cause
: Suppresses the packet layer cause fields.

throughput-class-negotiation
: Allows the negotiation of throughput class during call set up of SVCs.

national restore

all
: Restores all the default values to the National Personality configuration.

accept-reverse-charges
: Restores the accept-reverse-charges feature for calls during call establishment.

X.25-LLC2 Pseudo-Interface Configuration Commands

(Continued)

national restore *(continued)*

call-req
: Restores the default value of 10 second intervals permitted before clearing an unaccepted call.

ccitt
: Restores CCITT convention feature.

clear-req *retries timer*
: Restores the default value for the number of clear requests transmissions (*retries*) and the number of 10 second intervals (*timer*) to wait before retransmission.

clear-w/diag
: Restores the default feature that allows the inclusion of the diagnostic field in clear request packets.

flow-control-negotiation
: Restores the router's capability to negotiate packet size and window size.

osi-84
: Restores the default value for CCITT OSI facilities as defined by the 1984 standard.

osi-88
: Restores the default value for CCITT OSI facilities as defined by the 1988 standard.

packet-size *default-size max-size window-size*
: Restores the default value for the packet layer parameters mentioned above.

packet-ext-seq-mode
: Restores the default value for the packet layer sequence numbering modulus.

packet-layer-restarts
: Restores the default value for the packet layer transmission of a restart packet when the router restarts.

request-reverse-charges
: Restores the default value for reverse charges requests for all outgoing calls.

reset *retries timer*
: Restores the default value for the number of reset request transmissions, and the time between transmissions.

reset-w/diag
: Restores the inclusion of diagnostic fields in reset request packet.

restart *retries timer*
: Restores the default value for the number of restart request transmissions and the timeout value between each restart.

standard-version
: Restores the default OSI facilities settings. Options are 1980, 1984, and 1988.

suppress-calling-address
: Restores the inclusion of source addresses in call packets.

suppress-non-zero-cause
: Restores the inclusion of the packet layer's cause fields.

throughput-class-negotiation
: Restores the enabling of throughput negotiation.

national set

call-req
: Specifies the number of 10 second intervals permitted before clearing an unaccepted call.

clear-req *retries timer*
: Specifies the maximum number of clear request re-transmissions and the timeout interval between each of them.

packet-size *default-size max-size window-size*
: Specifies the size of the packet and window used for negotiation.

reset *retries timer*
: Specifies the number of reset request retransmissions and the timeout value between each re-transmission.

national set

restart *retries timer*
: Specifies the number of restart request retransmissions and the timeout value between each re-transmission.

standard-version
: Determines some of the standard default settings. Options are 1980, 1984, and 1988.

X.25-LLC2 Pseudo-Interface Configuration Commands

(Continued)

set

address *x.25-node-addr*
: Sets the local X.25 interface address.

calls-out
: Specifies the maximum number of SVCs for this link.

default-window-size
: Specifies the window size for the packet level. Note that the window is assumed if no window-size facility is present in the Call Setup Packet.

equipment-type *DCE DTE*
: Specifies whether the frame and packet levels act as DCE or DTE.

mtu *value*
: Sets the maximum transmission unit (MTU) size in bytes.

svc low-inbound
: Defines the lowest inbound SVC channel number.

svc low-two-way
: Defines the lowest two-way SVC channel number.

svc low-outbound
: Defines the lowest outbound SVC channel number.

svc high-inbound
: Defines the highest inbound SVC channel number.

svc high-two-way
: Defines the highest two-way SVC channel number.

svc high-outbound
: Defines the highest outbound SVC channel number.

throughput-class *inbound* or *outbound bit-rate*
: Defines the default bit rate between 75 bps and 48,000 bps for an inbound or outbound logical channel.

vc-idle
: Defines the number of seconds that an SVC can be idle before it is cleared.

exit

Returns to the previous prompt level.

X.25-LLC2 Pseudo-Interface Console Commands

Enter these commands after the `X.25-LLC2>` prompt. The back panel of this card tells you how to access the CGWCON process.

To list the X.25-LLC2 console commands and their options, enter a **?** at the `X.25-LLC2>` prompt.

list

svcs

Displays the active SVCs.

parameters

all

Displays the parameters for packet, frame, and physical levels.

frame

Displays the associated LAN interface number and the local and remote MAC addresses.

packet

Displays the parameters for the packet level.

statistics

all

Displays the statistics for the packet, frame, and physical levels.

frame

Displays the statistics for the frame level.Only I-frames are counted.

packet

Displays the statistics for the packet level.

exit

Returns to the previous prompt level.

Accessing the CONFIG Process

Use the CONFIG process to display and change the current configuration in static RAM (SRAM).
To display the CONFIG prompt (`Config>`):

1. After the router boots, the console displays the * prompt. Enter **status** to display the pid (process ID) of CONFIG, which is usually 6.
2. Enter **talk** and the pid (6) for CONFIG. This displays the following information:

   ```
   Gateway user configuration
   Config>
   ```

   If the `Config>` prompt does not appear, press Return again. You can now enter the configuration commands.
3. When you are done entering the configuration commands, do the following to make the new configuration active:

   a. Press **Ctrl/P** after the `Config>` prompt.

   ```
   Config> ^p
   *
   ```

   b. Enter **restart** after the * prompt.

   c. Respond **yes** to the following prompt:

   ```
   Are you sure you want to restart the gateway? (Yes or No): yes
   The new configuration is loaded when the console displays the following information:
   Copyright 1995–1996 Digital Equipment Corp.

   MOS Operator Control
   *
   ```

Accessing the CGWCON Process

Use the CGWCON (also known as GWCON) process to monitor protocols, network interfaces, and system messages. You cannot access the CGWCON process if the router is in configuration–only mode (the prompt is `Config only>`). To display the CGWCON prompt (+):

1. After the router boots, the console displays the * prompt. Enter **status** to display the pid (process ID) of CGWCON, which is usually 5.
2. Enter **talk** and the pid (5) for CGWCON. This displays the CGWCON prompt (+). You can now enter the monitoring commands.

   To return to the * prompt, press Ctrl/P.

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