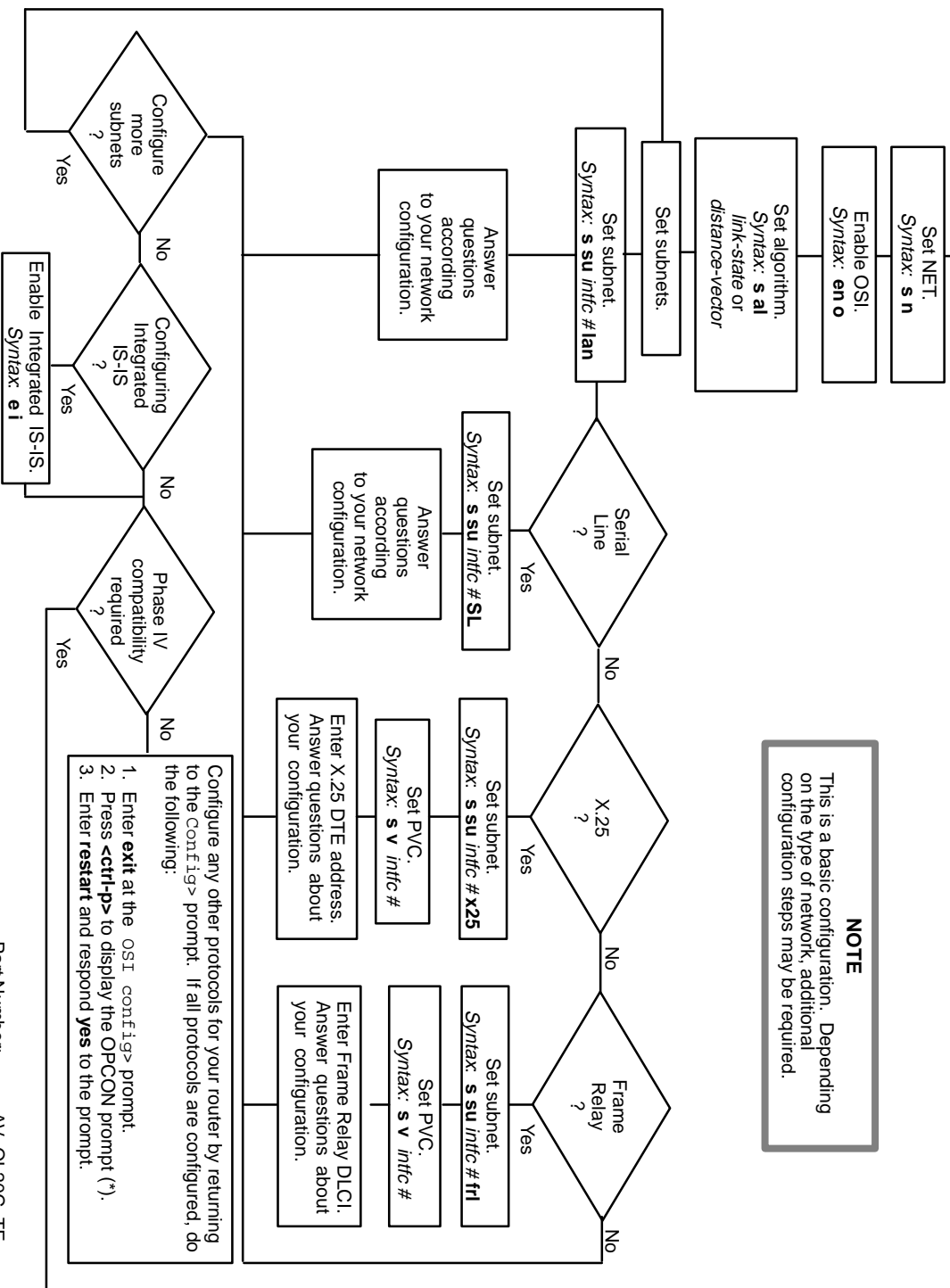# OSI/DNA V Initial Configuration
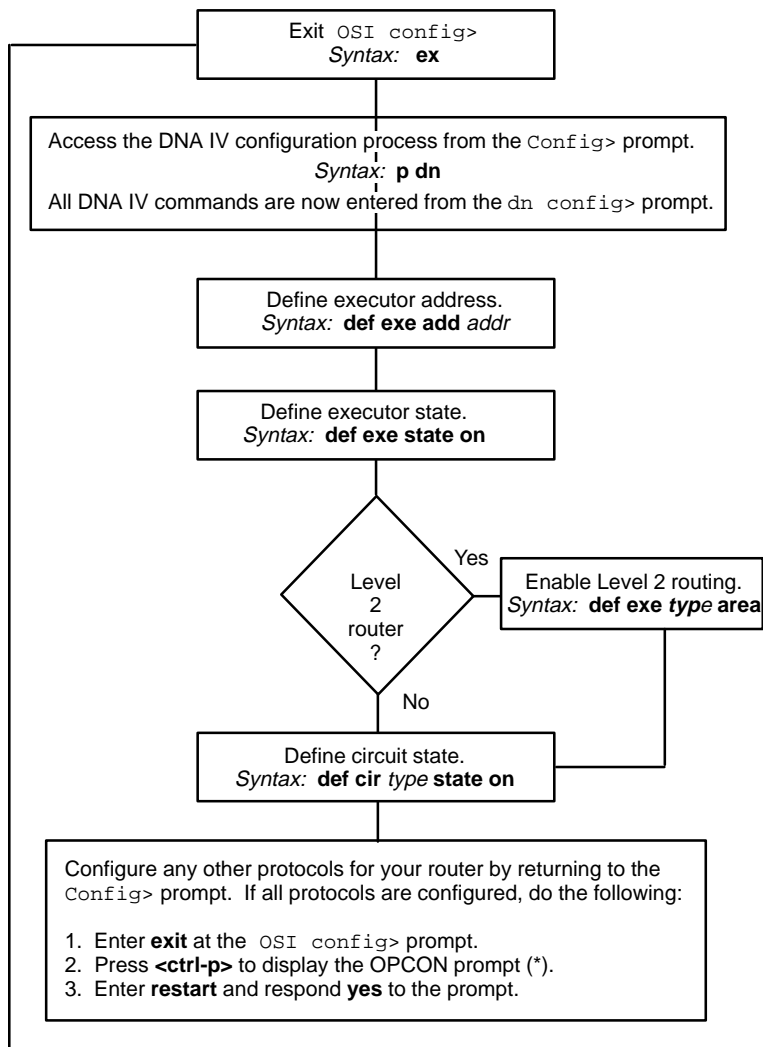
Access the OSI/DNA V configuration process from the `Config>` prompt.
Syntax: **p osi**
All OSI/DNA V commands are now entered from the `OSI config>` prompt.

Set NET.
Syntax: **s n**

Enable OSI.
Syntax: **en o**

Set algorithm.
Syntax: **s al**
link-state or
distance-vector

Set subnets.

Set subnet.
Syntax: **s su** *intfc* **# lan**

Answer questions according to your network configuration.

Serial Line ?
— Yes →
Set subnet.
Syntax: **s su** *intfc* **# SL**
Answer questions according to your network configuration.

— No →
X.25 ?
— Yes →
Set subnet.
Syntax: **s su** *intfc* **# x25**
Set PVC.
Syntax: **s v** *intfc* **#**
Enter X.25 DTE address. Answer questions about your configuration.

— No →
Frame Relay ?
— Yes →
Set subnet.
Syntax: **s su** *intfc* **# frl**
Set PVC.
Syntax: **s v** *intfc* **#**
Enter Frame Relay DLCI. Answer questions about your configuration.

— No →

Configure more subnets ?
— Yes (loops back)
— No →

Configuring Integrated IS-IS ?
— Yes →
Enable Integrated IS-IS.
Syntax: **e i**
— No →

Phase IV compatibility required ?
— Yes (loops)
— No →

Configure any other protocols for your router by returning to the `OSI config>` prompt. If all protocols are configured, do the following:

1. Enter **exit** at the `OSI config>` prompt.
2. Press **<ctrl-p>** to display the OPCON prompt (*).
3. Enter **restart** and respond **yes** to the prompt.

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```
┌─────────────────────────────────────┐
│        Exit OSI config>             │
│        Syntax:  ex                  │
└─────────────────────────────────────┘

┌───────────────────────────────────────────────────────────┐
│ Access the DNA IV configuration process from the Config>   │
│ prompt.                                                    │
│              Syntax:  p dn                                 │
│ All DNA IV commands are now entered from the dn config>    │
│ prompt.                                                    │
└───────────────────────────────────────────────────────────┘

┌─────────────────────────────────────┐
│        Define executor address.    │
│        Syntax:  def exe add addr    │
└─────────────────────────────────────┘

┌─────────────────────────────────────┐
│        Define executor state.      │
│        Syntax:  def exe state on    │
└─────────────────────────────────────┘
```

         Level 2 router ?   — Yes → Enable Level 2 routing.
                                    Syntax: **def exe** *type* **area**

         No

```
┌─────────────────────────────────────┐
│        Define circuit state.       │
│        Syntax:  def cir type state on │
└─────────────────────────────────────┘
```

Configure any other protocols for your router by returning to the Config> prompt. If all protocols are configured, do the following:

1. Enter **exit** at the OSI config> prompt.
2. Press **<ctrl-p>** to display the OPCON prompt (*).
3. Enter **restart** and respond **yes** to the prompt.

OSI/DNA V Configuration Commands

This quick reference card summarizes the Open Systems Interconnection (OSI) configuration and console commands. The front panel of this card provides initial configuration steps for this protocol and also tells you how to access the CONFIG process.

Enter the following configuration commands at the `OSI 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

alias

Adds an ASCII string that designates a particular address or system ID.

area

Adds additional area addresses that the node supports.

prefix-address

Adds static routes to destinations external to the IS-IS domain.

receive-password

Adds an ASCII character string (8 characters maximum) that authenticates all incoming packets.

summary-address

Adds a summary address for abbreviating IP routing information at Level 2.

change

prefix-address

Modifies a static route.

summary-address

Modifies an IP summary address.

clear

receive-password

Erases all configured receive-passwords.

sram

Erases the OSI configuration for SRAM.

transmit-password

Erases the configured transmit-password.

delete

adjacency

Removes statically configured ES adjacency.

alias

Removes a configured alias.

area

Removes the specified configured area address.

prefix-address

Removes a configured prefix-address.

subnet *interface #*

Removes a configured subnet from the specified interface.

virtual-circuit

Removes a configured X.25 or Frame Relay virtual circuit.

summary-address

Removes the specified statically configured IP summary address.

disable

integrated-isis

Disables Integrated IS–IS. Disables capability to route IP traffic in addition to OSI traffic using OSI IS–IS Routing.

osi

Disables the OSI protocol running on the router.

subnet *interface #*

Disables the subnet on the specified interface.

enable

integrated-isis

Enables Integrated IS–IS to use a single routing protocol for routing both OSI and IP packets.

osi

Enables the OSI protocol running on the router.

subnet *interface #*

Enables the subnet on the specified interface.

list

adjacencies

Displays all statically configured ES adjacencies.

algorithm

Displays the routing algorithm when running the DNA V protocol.

alias

Displays the configured aliases and their corresponding address segments.

globals

Displays a summary of the OSI configuration.

integrated-isis

Displays Integrated ISIS configuration parameter settings.

phaseivpfx

Displays the configured DNA IV address prefix.

prefix-addresses

Displays all the SNPAs for statically configured routes.

subnets [detailed | summary] *interface #*

Displays either a summary or detailed report for the specified interface.

summary-addresses

Displays all statically configured IP summary address entries.

timers

Displays the OSI/DNA V timer configuration.

virtual-circuit

Displays all configured X.25 or Frame Relay virtual circuits.

set

adjacency

Adds or changes an ES adjacency.

algorithm

This is a DNA V command that selects the routing algorithm, link-state or distance-vector.

globals

Configures the global parameters required by the OSI protocol.

network-entity-title

Configures the router's NET.

phaseivpfx

Configures the prefix-address of an attached DNA IV network.

subnet

Adds or changes a subnet.

switches

Turns OSI options (ES-IS checksum, ES-IS init, and authentication) on or off.

timers

Configures the OSI timers, excluding any circuit timers.

transmit-password

Sets or changes a transmit password.

virtual-circuit

Configures an X.25 or Frame Relay virtual circuit.

exit

Returns to the previous prompt level.

OSI/DNA V Console Commands

Enter these commands after the `OSI>` prompt. The front panel of this card tells you how to access the CGWCON process.

To list the OSI/DNA V console commands and their options, enter a **?** after the `OSI>` prompt.

addresses

Displays the router's NET and area addresses.

change metric

Modifies the cost of a circuit.

clnp-stats

Displays OSI CLNP information.

designated-router

Displays the designated router for the LAN subnets that are actively running IS-IS.

dnav-info

Displays the Level 1 and Level 2 routing algorithm currently running on the router.

es-adjacencies

Displays all ES adjacencies.

es-is-stats

Displays the statistics for the ES-IS protocol.

is-adjacencies

Displays all IS adjacencies.

is-is-stats

Displays information associated with the IS-IS protocol.

l1-routes

Displays all L1 routes in the L1 database.

l2-routes

Displays all L2 routes in the L2 database.

l1-summary

Displays a summary of the L1 link state database.

l2-summary

Displays a summary of the L2 link state database.

l1-update

Displays a LSP for the specified L1 IS.

l2-update

Displays a LSP for the specified L2 IS.

route

Displays the next hop of a packet.

send

Encodes an echo request message in the CLNP packet to the specified destination NSAP.

subnets

Displays information on all operational subnets.

toggle

Enables or disables the NSAP alias display function.

traceroute

Tracks the path an OSI packet takes to a destination.

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.

2. Enter **talk** and the pid 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 load the new configuration:

   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 Notices:
   Copyright 1996 Digital Equipment Corp.
   Copyright 1985-1994 Proteon, Inc.
   Copyright 1984-1987, 1989 by J. Noel Chiappa

   MOS Operator Control
   *
   ```

Accessing the CGWCON Process

Use the CGWCON 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 GWCON prompt (+):

1. After the router boots, the console displays the * prompt. Enter **status** to display the pid (process ID) of CGWCON.

2. Enter **talk** and the pid 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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