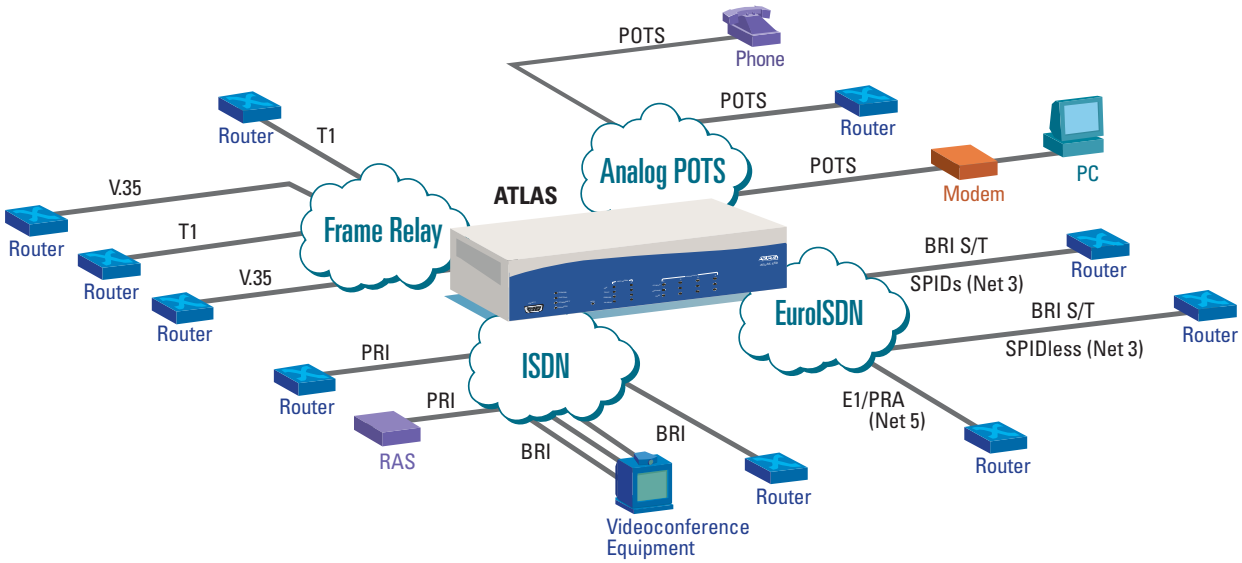
An ADTRAN Quick Start Guide

Cisco Academy ATLAS 550 Configuration Guide

An easy, step-by-step procedure for configuring an ATLAS™ 550 for WAN emulation of ISDN (PRI, E1/PRA, BRI 'U', BRI 'S/T'), analog POTS, and Frame Relay circuits.

Introduction

Acting like a central office switch, the ATLAS 550 can emulate Frame Relay, ISDN and analog circuits. Network engineers, design and test engineers and classroom instructors can easily stage real-world circuits and "what if" scenarios, test new technologies, or configure equipment without purchasing live circuits or incurring toll charges from a carrier.



For Frame Relay WAN emulation, both fully meshed and hub-and-spoke networks can be configured using the RFC 1490/IETF protocol. The ATLAS 550 supports 1–10 Frame Relay circuits (300 DLCIs).

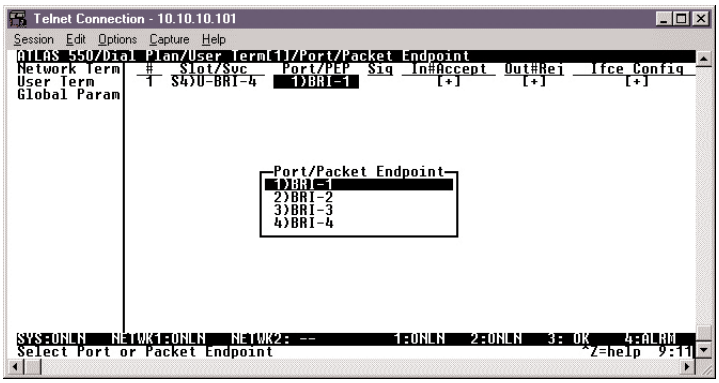
As an ISDN switch, the ATLAS 550 can emulate both BRI and PRI dial-up networks. Both BRI and PRI support multiple switch types like the DMS 100, Lucent 5E and National ISDN, with additional support for the Lucent 4E switch with PRI. The ATLAS 550 can also emulate EuroISDN switches using the Net 5 Protocol for E1/PRA circuits and the Net 3 Protocol for BRI 'S/T' and 'U' circuits.

Supporting analog FXS circuits, the ATLAS 550 can provide 1–32 loop start lines.

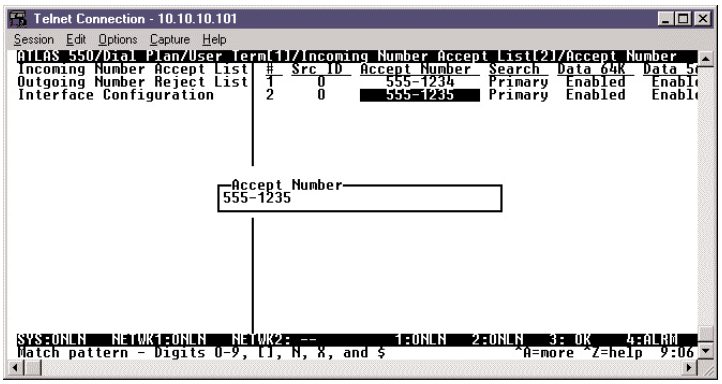
ADTRAN offers CCNA® and CCNP® instructors this guide in configuring the ATLAS 550 for WAN emulation. For more information about the ATLAS product series or additional instructions, call ADTRAN application engineer at 800 615-1176.

ATLAS 550 ISDN BRI Switch Emulation

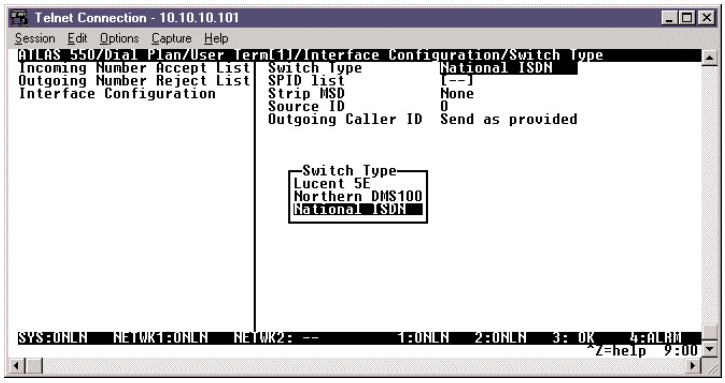
Step 1 – Create the Dial Plan User Termination for the BRI line and select Slot/Port



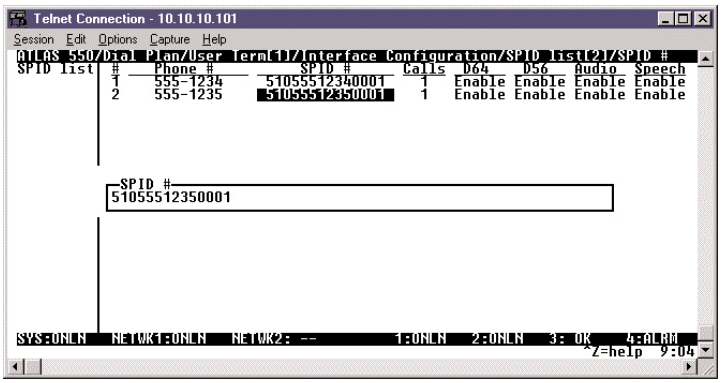
Step 2 – Assign the phone numbers for the BRI line in the "Incoming Number Accept" list



Step 3 – Assign the ISDN switch type for the BRI line

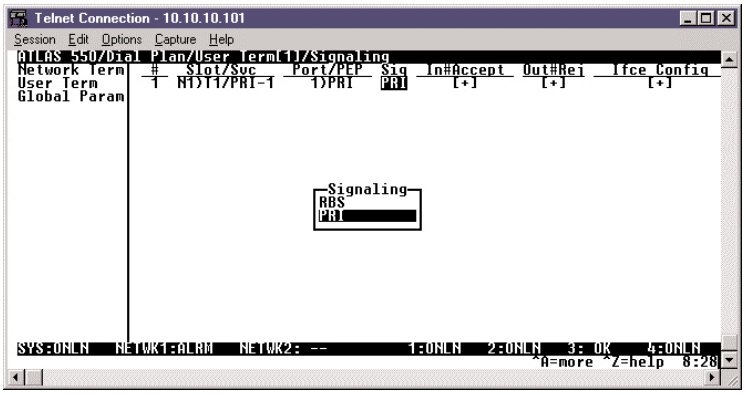


Step 4 – Assign the LDNs (phone numbers) and SPIDs for the BRI line

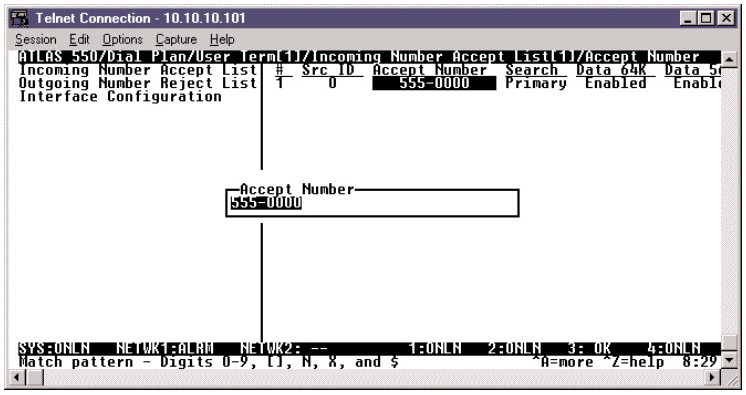


ATLAS 550 ISDN PRI Switch Emulation

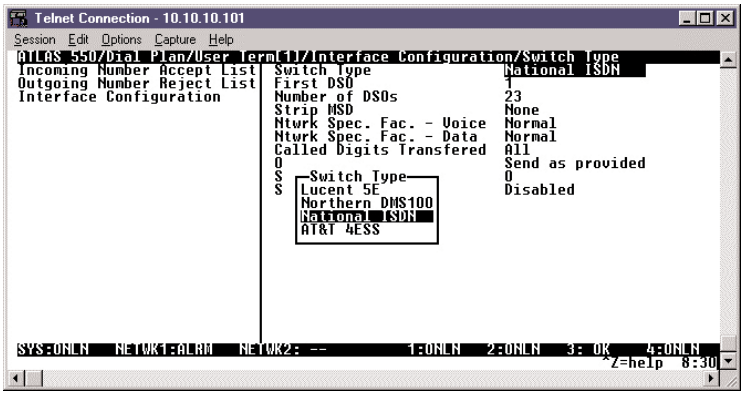
Step 1 – Create the Dial Plan User Termination, select Slot/Port, and PRI Signaling



Step 2 – Assign the phone number(s) for the PRI line in the "Incoming Number Accept" list

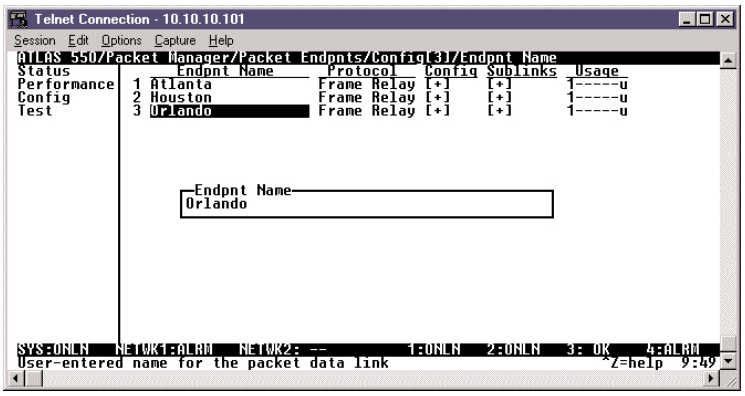


Step 3 – Assign the ISDN switch type for the PRI line

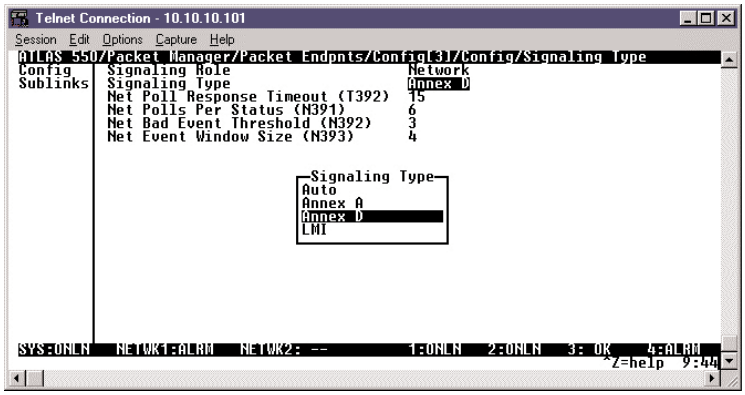


ATLAS 550 Frame Relay Switch Emulation

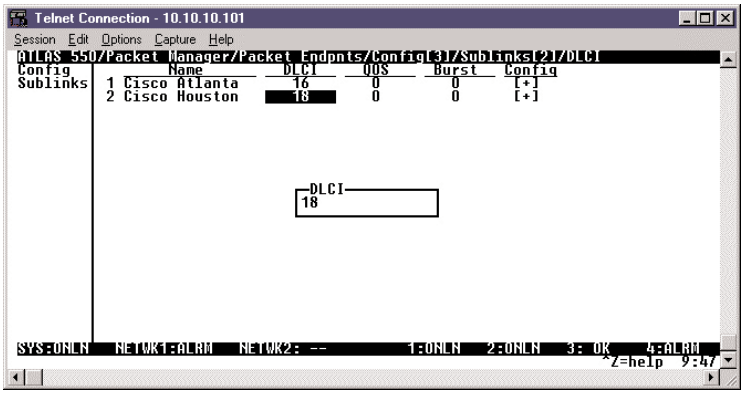
Step 1 – Create Packet Endpoints and select Frame Relay Protocol for each Frame Relay Link



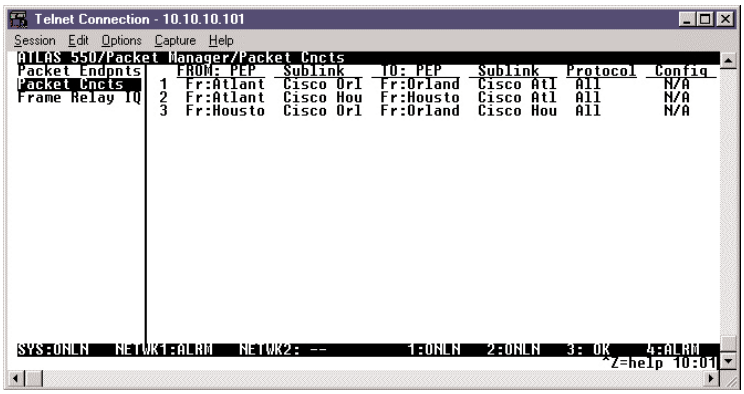
Step 2 – Assign Signaling Role to "Network" and Signaling Type (Annex D)



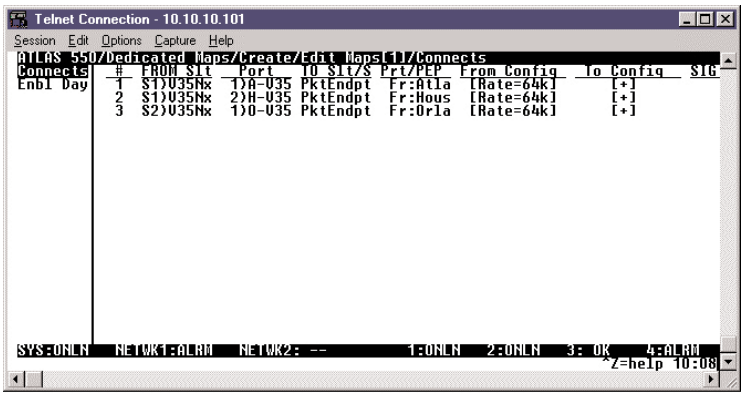
Step 3 – Create DLCIs for the PVCs to other locations (Orlando to Atlanta, Orlando to Houston)



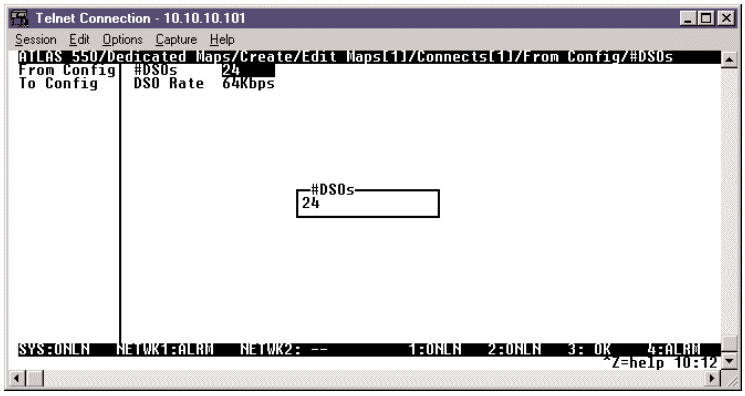
Step 4 – Create the PVCs by connecting Packet Endpoints/ Sublinks together in "Packet Cncts"



Step 5 – Map each Packet Endpoint (Frame Relay Link) to a V.35 Slot/Port

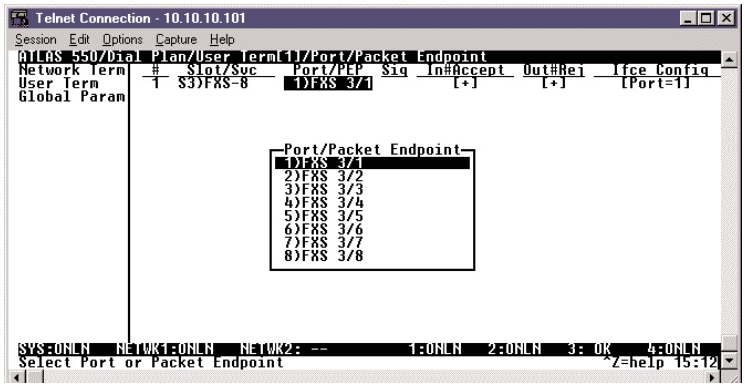


Step 6 – Assign bandwidth to each V.35 Slot/Port for each Frame Relay Link

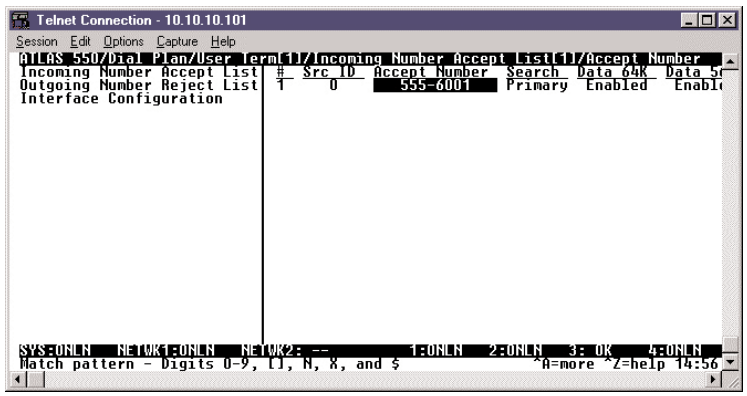


ATLAS 550 Analog POTS Switch Emulation

Step 1 – Create the Dial Plan User Termination for the Analog line and select Slot/Port

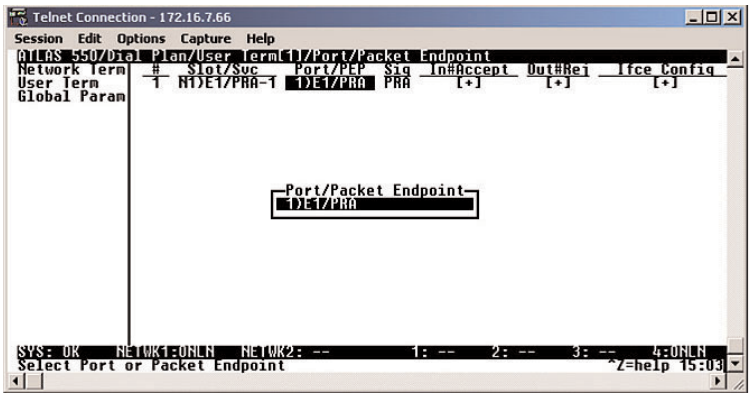


Step 2 – Assign the phone number for the Analog line in the "Incoming Number Accept" list

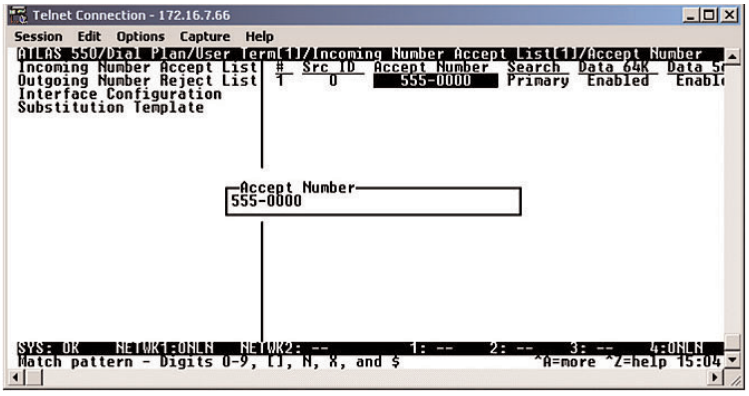


ATLAS 550 E1/PRA (EuroISDN) Switch Emulation

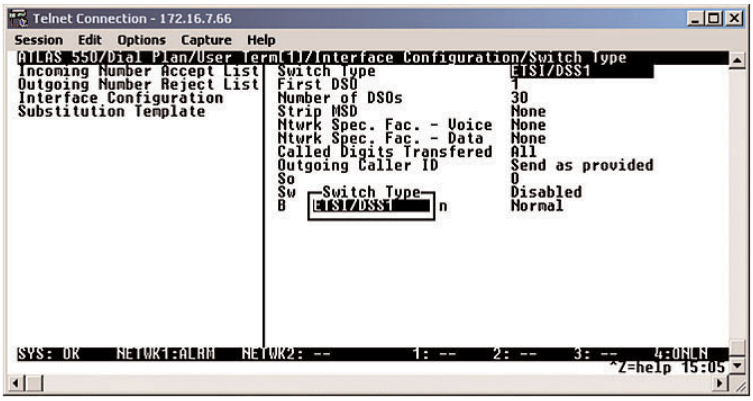
Step 1 – Create the Dial Plan User Termination and select Slot/Port; PRA Signaling is auto-configured



Step 2 – Assign the phone number(s) for the PRA circuit in the "Incoming Number Accept" list

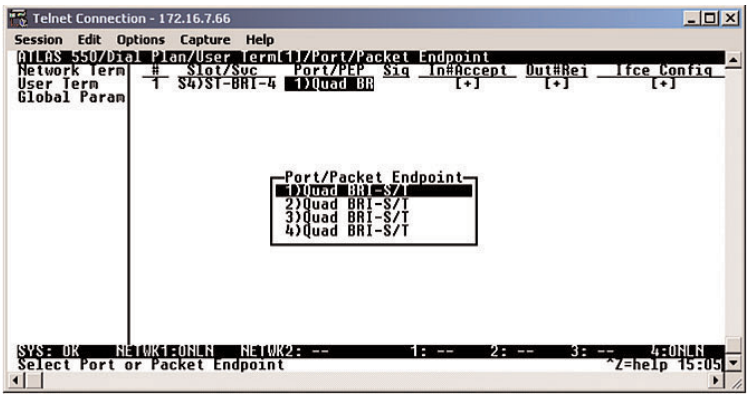


Step 3 – Note the ISDN Switch Type of "TSI/DSS1" is automatically configured

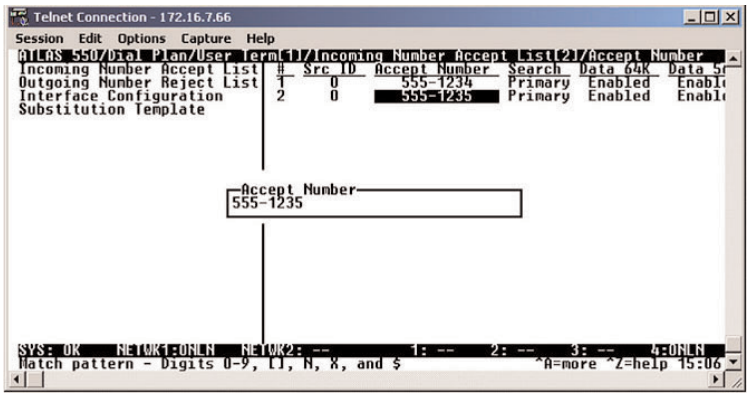


ATLAS 550 ISDN BRI S/T (EuroISDN) Switch Emulation

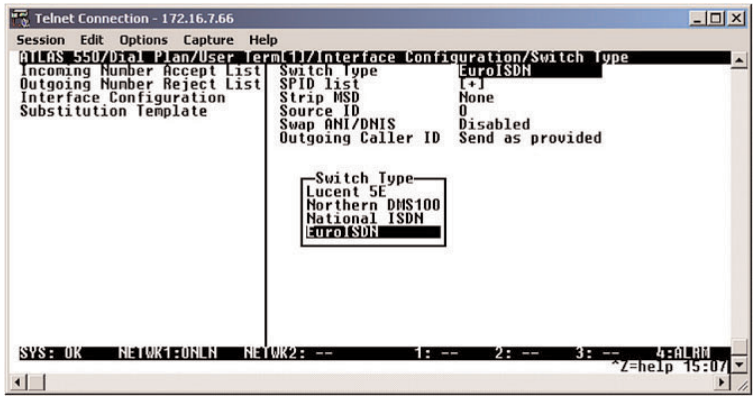
Step 1 – Create the Dial Plan User Termination for the BRI circuit and select Slot/Port



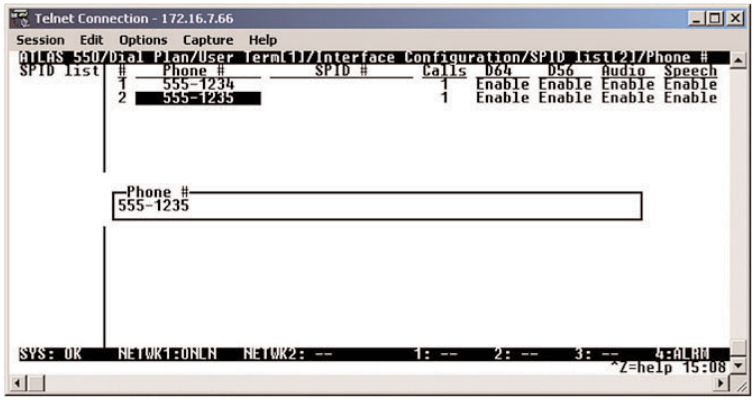
Step 2 – Assign the phone numbers for the BRI circuit in the "Incoming Number Accept" list



Step 3 – Assign the ISDN Switch Type (such as EuroISDN) for the BRI circuit

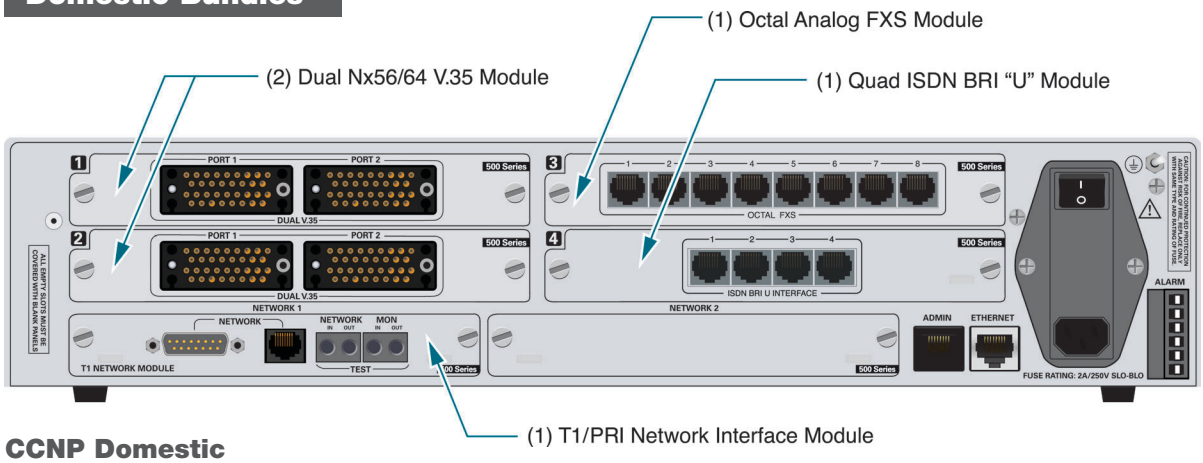


Step 4 – Assign the phone numbers for the BRI circuit

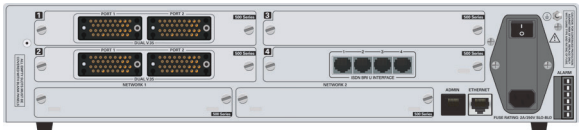


ATLAS 550 – WAN Emulation Configuration Options

Domestic Bundles

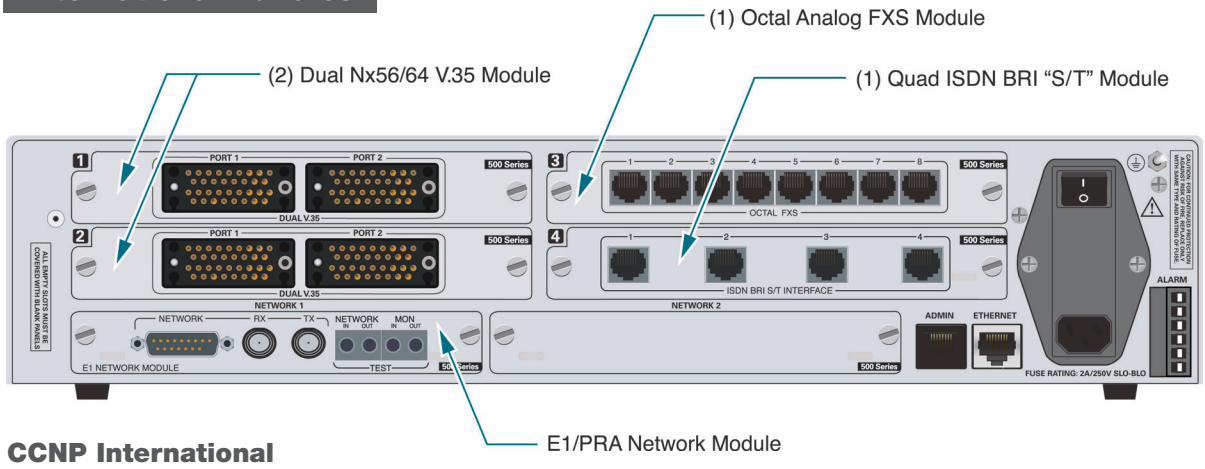


CCNP Domestic

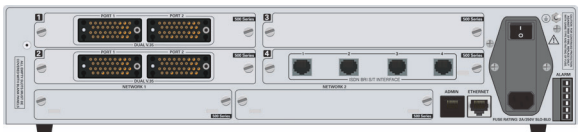


CCNA Domestic: Same as CCNP bundle without the T1/PRI Network Interface Module and Octal Analog FXS Module.

International Bundles



CCNP International



CCNA International: Same as CCNP bundle without the E1/PRA Network Interface Module and Octal Analog FXS Module.

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ATLAS 550

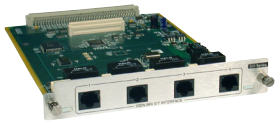
ATLAS 550 T1/PRI Network Interface Module

ATLAS 550 E1/PRA Network Interface Module

ATLAS 550 Dual Nx56/64 V.35 Module

ATLAS 550 Octal FXS Module

ATLAS 550 Quad BRI "U" Module



ATLAS 550 Quad BRI "S/T" Module

For any additional ADTRAN parts, please contact:

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About ADTRAN

ADTRAN, Inc. is one of the world's most successful telecom equipment suppliers, with a 17-year history of profitability and a portfolio of more than 1,000 solutions for use in the last mile of today's telecommunications networks. Widely deployed by both carriers and enterprises alike, ADTRAN solutions enable voice, data, video, and Internet communications across copper, fiber, and wireless network infrastructures. ADTRAN solutions are currently in use by every major domestic service provider and many international ones, as well as by thousands of public, private and government organizations worldwide.

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