NORTEL NETWORKS™

Task Map - Configuring Routers and Protocols

Before you begin	Read about new features, guidelines, known anomalies, and amendments to the documentation. • *Release Notes for BayRS Version 14.10* • *Release Notes for Site Manager Software Version 14.10* • *BayRS, BCC, and Site Manager 14.10 Known Anomalies* • *BayRS, BCC, and Site Manager 14.10 Fixed Anomalies*
Installing and starting a new router	Unpack, install, and start up the router. • *Installing and Operating the Passport 5430 Multiservice Access Switch* • *Installing and Operating the Passport 2430 Router*
Securing a router	As soon as you connect to the network, you should secure the router. • For an overview of security features, see Chapter 7 of *Quick-Starting Routers.* • For information about RADIUS, see *Configuring RADIUS.* • For information about IPsec, see *Configuring IPsec Services.*
Configuring a router	Use a router configuration tool to: 1. Enable and modify the router's interfaces, circuits, protocols, and services. 2. Save the modified configuration as a test file (for example, *test.cfg*). 3. Boot the router with the test configuration file. 4. Verify that the new configuration works correctly. 5. Save the tested configuration as *config*, the router's default configuration file. For more information, see the tool's online Help and the following guides: • *Using the Bay Command Console (BCC)* - The BCC provides a command-line interface for configuration. • *Configuring and Managing Routers with Site Manager* - Site Manager provides a graphical user interface (GUI) for configuration.
Managing a router	For information about router management features available with your chosen application, see: • *Configuring and Managing Routers with Site Manager* • *Using the Bay Command Console (BCC)* • *Using Technician Interface Software* • *Using Technician Interface Scripts* • *Writing Technician Interface Scripts* • *Managing Routers Using the HTTP Server*

Accessing the MIB	For information about accessing and changing MIB values, see: • *Configuring and Managing Routers with Site Manager* • *Configuring SNMP, BootP, and DHCP Services* • *Using Technician Interface Software* • *Using Technician Interface Scripts*
Modifying router software	For information about using the Image Builder to add or modify the router software image, see *Configuring and Managing Routers with Site Manager*.
Reviewing events and traps	• For a description of all router event messages and SNMP trap messages, go to either the event message database at *http://support.baynetworks.com/library/tpubs/events/* or the BayRS documentation CD. • For instructions on viewing and monitoring event and trap messages with Site Manager, see *Configuring and Managing Routers with Site Manager* and *Configuring SNMP, BootP, and DHCP Services*. • For instructions on viewing and monitoring event messages with the Technician Interface, see *Using Technician Interface Software.* • For instructions on using syslog services to capture and process router event messages on a UNIX-based network management platform, see *Using the Bay Command Console (BCC)*.
Filtering and prioritizing traffic	*Configuring Traffic Filters and Protocol Prioritization*
Displaying statistics	• To display data link layer and network layer statistics, see *Configuring and Managing Routers with Site Manager*. • To display system statistics with the BCC **show** command, see *Using the Bay Command Console (BCC)*. • To display statistics about IP services with the BCC **show** command, see *Reference for BCC IP show Commands*. • To display statistics about interfaces, services, or protocols other than IP, see the appropriate configuration guide. • To display statistics with the Technician Interface **show** command, see *Using Technician Interface Scripts*.
Servicing router hardware	Before beginning any procedure for servicing your router, note the safety guidelines in the following guides: • *Installing and Operating the Passport 5430 Multiservice Access Switch* • *Installing and Operating the Passport 2430 Router*
Selecting cables	*Cable Guide*
Troubleshooting	*Troubleshooting Routers*

Configuring Interfaces and Protocols

The following guides describe network interfaces and protocols and their parameter settings. See these guides for instructions on setting parameter values with your chosen configuration tool. Site Manager and the BCC also have online Help with parameter information.

Configuring interfaces	
Change the default settings for Ethernet, FDDI, and token ring lines.	*Configuring Ethernet, FDDI, and Token Ring Services*
Change the default settings for synchronous, asynchronous, DSU/CSU, E1, T1, FE1, FT1, HSSI, MCT1, and MCE1 lines. Configure multiline services.	*Configuring WAN Line Services*
Configuring WAN protocols	
• Create and modify dial-on-demand lines, pools, and circuits. • Create and modify dial backup lines, pools, and circuits. • Create and modify bandwidth-on-demand lines, pools, and circuits.	*Configuring Dial Services*
Enable and customize frame relay. Add, edit, group, or delete permanent virtual circuits (PVCs) and switched virtual circuits (SVCs).	*Configuring Frame Relay Services*
Enable and customize PPP and asynchronous PPP.	*Configuring PPP Services*
Enable and customize RADIUS for a router acting as a RADIUS client.	*Configuring RADIUS*
Enable and customize SMDS.	*Configuring SMDS*
Enable and customize X.25. Add, edit, or delete X.25 network service records.	*Configuring X.25 Services*
Enable and customize X.25 Gateway.	*Configuring X.25 Gateway Services*

Configuring IP protocols and services	
IP routing protocols (ARP, OSPF, RARP, RIP)	*Configuring IP, ARP, RARP, RIP, and OSPF Services*
IP exterior gateway protocols (BGP and EGP)	*Configuring IP Exterior Gateway Protocols (BGP and EGP)*
GRE, NAT, RIPSO, and Blacker Front End	*Configuring GRE, NAT, RIPSO, and BFE Services*
IP Security (IPsec)	*Configuring IPsec Services*
IPv6	*Configuring IPv6 Services*
IP multicasting protocols (DVMRP, IGMP, IGMP Relay, MOSPF, and PIM)	*Configuring IP Multicasting and Multimedia Services*
RSVP and the Resource Manager	*Configuring IP Multicasting and Multimedia Services*
DNS, FTP, NTP, TCP, Telnet, TFTP, NetBIOS over IP, IP accounting	*Configuring IP Utilities*
Differentiated services over IP	*Configuring Differentiated Services*
Configuring other network protocols and services	
802.1Q tagging	*Configuring Ethernet, FDDI, and Token Ring Services*
AOT (polled asynchronous over TCP/IP)	*Configuring Polled AOT Transport Services*
AppleTalk	*Configuring AppleTalk Services*
APPN	*Configuring APPN Services*
ATM DXI	*Configuring ATM DXI Services*
ATM Half Bridge	*Configuring ATM Half-Bridge Services*
ATM UNI	*Configuring ATM Services*
Bisync over TCP/IP (BOT)	*Configuring BSC Transport Services*
BootP	*Configuring SNMP, BootP, and DHCP Services*
Bridging (transparent bridge, spanning tree, source routing, translation bridge)	*Configuring Bridging Services*
Common Open Policy Service (COPS) protocol	*Configuring Differentiated Services*
Data compression	*Configuring Data Compression Services*
DECnet	*Configuring DECnet Services*

Configuring other network protocols and services *(continued)*	
DHCP	*Configuring SNMP, BootP, and DHCP Services*
Dial VPN	*Configuring and Troubleshooting Bay Dial VPN Services*
DLSw	*Configuring DLSw Services*
Interface redundancy	*Configuring Interface and Router Redundancy*
IPX	*Configuring IPX Services*
L2TP	*Configuring L2TP Services*
LLC	*Configuring LLC Services*
LNM	*Configuring LNM Services*
Multiprotocol Label Switching (MPLS)	*Configuring MPLS Services*
Multi-Protocol over ATM (MPOA)	*Configuring MPOA and NHRP Services*
Next Hop Resolution Protocol (NHRP)	*Configuring MPOA and NHRP Services*
OSI	*Configuring OSI Services*
QLLC	*Configuring X.25 Services*
RARP	*Configuring IP, ARP, RARP, RIP, and OSPF Services*
Router redundancy	*Configuring Interface and Router Redundancy*
SDLC	*Configuring SDLC Services*
SNMP	*Configuring SNMP, BootP, and DHCP Services*
Target ID Address Resolution Protocol (TARP)	*Configuring OSI Services*
VINES	*Configuring VINES Services*
Virtual Router Redundancy Protocol (VRRP)	*Configuring VRRP Services*
XNS	*Configuring XNS Services*