Bay Networks

Part No. 301152-A Rev. 00

Task Map - Configuring Routers and Protocols

Before you begin	Read about new features, guidelines, known anomalies, and amendments to the Bay Networks® documentation. If you are upgrading, also review the upgrade prerequisites. • *Release Notes for BayRS Version 12.10* • *Release Notes for Site Manager Software Version 6.10* • *BayRS Version 12.10 Document Change Notice* • *Known Anomalies: BayRS 12.10 and Site Manager 6.10* • *Upgrading Routers from Version 7-11.xx to Version 12.00*
Installing a new router	Unpack and install the router, as described in the installation guide that came with the router: • *Installing and Maintaining BN Routers* • *Installing and Maintaining ASN Routers* • *Installing and Operating BayStack AN and ANH Routers* • *Installing and Operating BayStack ARN Routers* • *Quick Installation and Reference for the System 5000 Net Modules*
Quick-starting a router's first network connection	To connect your router to the network: 1. See *Quick-Starting Routers* for prerequisites. 2. Connect to the router's Technician Interface. 3. Boot the router with the initial boot file, *ti.cfg*. 4. Configure the router's initial IP interface by running the installation script, *install.bat*, or by entering commands using the Bay Command Console (BCC™). 5. Save your initial configuration as *startup.cfg*. Alternatively, you can perform remote boots for BayStack™ and ASN™ routers. For general information about connecting and configuring routers, see *Quick-Starting Routers.* For information about routers with specific local or remote booting requirements, see: • *Configuring BayStack Remote Access* • *Connecting ASN Routers to a Network* • *Using Model 5380 Ethernet and Model 5580 Token Ring Routers* • *Using the Model 5782 ATM Virtual Network Router*
Securing a router	As soon as you connect to a network, you should secure the router. • For an overview of security features, see *Quick-Starting Routers.* • For information about FireWall-1, see *Configuring BaySecure FireWall-1*.

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Configuring a router	Use a router configuration tool to: • Enable and modify the router's interfaces, circuits, protocols, and services. • Save the modified configuration as a test file (for example, *test.cfg*). • Boot the router with the test configuration file. • Verify that the new configuration works correctly. • 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 (AN/BN Routers)* - The BCC provides a command-line interface for configuration. You can edit BCC configurations online or offline with a text editor. • *Configuring and Managing Routers with Site Manager* - Site Manager provides a graphical user interface (GUI) for configuration. • *Configuring and Maintaining Networks with the NETarchitect System* - NETarchitect integrates Site Manager's Configuration Manager with file management to help you store, distribute, and boot with multiple router files. The NETarchitect guide is part of the Optivity Enterprise™ documentation set. • *Configuring Your Router Using the Quick2Config Tool* - Quick2Config® provides an easy-to-use GUI for AN®, ANH™, and ASN routers. The Quick2Config guide is part of the Optivity Workgroup™ documentation set.
Upgrading a router	See *Upgrading Routers from Version 7-11.xx to Version 12.00* and the *BayRS Version 12.10 Document Change Notice* to: • Check prerequisites. • Upgrade Site Manager. • Customize the router software image. • Back up the existing router files. • Transfer a customized software image to the router. • Upgrade PROMs. • Boot the router with a customized software image. • Upgrade configuration files.
Managing a router	For information about router management features available with your chosen application, see: • *Configuring and Managing Routers with Site Manager* • *Using Technician Interface Software* • *Writing Technician Interface Scripts* • *Using Technician Interface Scripts* • *Using the Bay Command Console (AN/BN Routers)* • *Managing Your Network Using the HTTP Server*
Accessing the MIB	For information about accessing and changing MIB values, see: • *Configuring and Managing Routers with Site Manager* • *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.* • For information about modifying router software for upgrades, see *Upgrading Routers from Version 7-11.xx to Version 12.00.*

Reviewing events and traps	• For a description of all router event messages and SNMP trap messages, see *Event Messages for Routers.* • For instructions on viewing and monitoring event and trap messages with Site Manager, see *Configuring and Managing Routers with Site Manager.* • For instructions on viewing and monitoring event messages with the Technician Interface, see *Using Technician Interface Software.*
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 statistics with the **show** command, see *Using Technician Interface Scripts*.
Servicing router hardware	Note the safety guidelines before beginning any procedure for servicing your router in the following guides: • *Installing and Maintaining BN Routers* • *Installing and Maintaining ASN Routers* • *Installing and Operating BayStack AN and ANH Routers* • *Installing and Operating BayStack ARN Routers* • System 5000™ net module guides
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, E1, T1, FT1, asynchronous, SMT, ATM DXI, 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).	*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, BGP, EGP, OSPF, RIP, NAT)	*Configuring IP Services*
IPv6	*Configuring IPv6 Services*
IP multicasting protocols (DVMRP, MOSPF, RSVP, MTM, IGMP)	*Configuring IP Multicasting and Multimedia Services*
IPX	*Configuring IPX Services*
Resource Manager	*Configuring IP Multicasting and Multimedia Services*
TCP, Telnet, FTP, TFTP, NetBIOS over IP, NTP, IP Accounting	*Configuring IP Utilities*
Configuring other network protocols and 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, DHCP, and RARP Services*
Bridging (transparent bridge, spanning tree, source routing, translation bridge)	*Configuring Bridging Services*
Data compression	*Configuring Data Compression Services*
Data encryption	*Configuring Data Encryption Services*
DECnet	*Configuring DECnet Services*
DHCP	*Configuring SNMP, BootP, DHCP, and RARP Services*
DLSw	*Configuring DLSw Services*
Interface redundancy	*Configuring Interface and Router Redundancy*
L2TP	*Configuring L2TP Services*
LLC	*Configuring LLC Services*
LNM	*Configuring LNM Services*
OSI	*Configuring OSI Services*
QLLC	*Configuring X.25 Services*
RARP	*Configuring SNMP, BootP, DHCP, and RARP Services*

Configuring other network protocols and services *(continued)*	
RMON	*Configuring RMON and RMON2*
Router redundancy	*Configuring Interface and Router Redundancy*
SDLC	*Configuring SDLC Services*
SNMP	*Configuring SNMP, BootP, DHCP, and RARP Services*
VINES	*Configuring VINES Services*
XNS	*Configuring XNS Services*