Read Me First
Router Software 9.00 and Site Manager 3.00

Router Software Version 9.00
Site Manager Software Version 3.00

Part No. 111228 Rev. A
August 1995

Bay Networks

The Merged Company of SynOptics and Wellfleet

Bay Networks
The Merged Company of SynOptics and Wellfleet

4401 Great America Parkway
Santa Clara, CA 95054

8 Federal Street
Billerica, MA 01821

Bay Networks Software License

Note: *This is Bay Networks basic license document. In the absence of a software license agreement specifying varying terms, this license — or the license included with the particular product — shall govern licensee's use of Bay Networks software.*

This Software License shall govern the licensing of all software provided to licensee by Bay Networks ("Software"). Bay Networks will provide licensee with Software in machine-readable form and related documentation ("Documentation"). The Software provided under this license is proprietary to Bay Networks and to third parties from whom Bay Networks has acquired license rights. Bay Networks will not grant any Software license whatsoever, either explicitly or implicitly, except by acceptance of an order for either Software or for a Bay Networks product ("Equipment") that is packaged with Software. Each such license is subject to the following restrictions:

1. Upon delivery of the Software, Bay Networks grants to licensee a personal, nontransferable, nonexclusive license to use the Software with the Equipment with which or for which it was originally acquired, including use at any of licensee's facilities to which the Equipment may be transferred, for the useful life of the Equipment unless earlier terminated by default or cancellation. Use of the Software shall be limited to such Equipment and to such facility. Software which is licensed for use on hardware not offered by Bay Networks is not subject to restricted use on any Equipment, however, unless otherwise specified on the Documentation, each licensed copy of such Software may only be installed on one hardware item at any time.
2. Licensee may use the Software with backup Equipment only if the Equipment with which or for which it was acquired is inoperative.
3. Licensee may make a single copy of the Software (but not firmware) for safekeeping (archives) or backup purposes.
4. Licensee may modify Software (but not firmware), or combine it with other software, subject to the provision that those portions of the resulting software which incorporate Software are subject to the restrictions of this license. Licensee shall not make the resulting software available for use by any third party.
5. Neither title nor ownership to Software passes to licensee.
6. Licensee shall not provide, or otherwise make available, any Software, in whole or in part, in any form, to any third party. Third parties do not include consultants, subcontractors, or agents of licensee who have licensee's permission to use the Software at licensee's facility, and who have agreed in writing to use the Software only in accordance with the restrictions of this license.
7. Third-party owners from whom Bay Networks has acquired license rights to software that is incorporated into Bay Networks products shall have the right to enforce the provisions of this license against licensee.
8. Licensee shall not remove or obscure any copyright, patent, trademark, trade secret, or similar intellectual property or restricted rights notice within or affixed to any Software and shall reproduce and affix such notice on any backup copy of Software or copies of software resulting from modification or combination performed by licensee as permitted by this license.

Bay Networks Software License *(continued)*

9. Licensee shall not reverse assemble, reverse compile, or in any way reverse engineer the Software. [Note: For licensees in the European Community, the Software Directive dated 14 May 1991 (as may be amended from time to time) shall apply for interoperability purposes. Licensee must notify Bay Networks in writing of any such intended examination of the Software and Bay Networks may provide review and assistance.]
10. Notwithstanding any foregoing terms to the contrary, if licensee licenses the Bay Networks product "Site Manager," licensee may duplicate and install the Site Manager product as specified in the Documentation. This right is granted solely as necessary for use of Site Manager on hardware installed with licensee's network.
11. This license will automatically terminate upon improper handling of Software, such as by disclosure, or Bay Networks may terminate this license by written notice to licensee if licensee fails to comply with any of the material provisions of this license and fails to cure such failure within thirty (30) days after the receipt of written notice from Bay Networks. Upon termination of this license, licensee shall discontinue all use of the Software and return the Software and Documentation, including all copies, to Bay Networks.
12. Licensee's obligations under this license shall survive expiration or termination of this license.

Contents

Read Me First

This document supplements the *Release Notes for Router Software Version 9.00*, *Release Notes for Site Manager Software Version 3.00*, and *Known Anomalies: Router Software Version 9.00 and Site Manager Version 3.00*. It contains information about the following:

- Known anomalies in Version 9.00
- Interface redundancy effects on MAC address usage
- Configuring the NetBIOS Query Cache
- Using the *install.bat* script with network management tools
- IPX enhancements
- Guidelines for working with Version 9.00
- CRs we have identified and resolved in the Version 8.11 fix 4 software integration

Known Anomalies in Version 9.00

These known anomalies supplement those included in *Known Anomalies: Router Software Version 9.00 and Site Manager Version 3.00*.

Anomaly:	**Outbound SAP filter cost parameter does not work properly**
Number:	19199
Description:	If you configure an outbound SAP network or name level filter to advertise a particular service or group of services with a specific cost (hop), the cost defined will be advertised in all services of a particular type; that is, 0x0004, if the filter matches one of the services in this particular type. For example, if one type 0x0004 service matches the filter with a cost of 10, all type 0x0004 services will be advertised with a cost of 10 even though they do not match the filter.
Workaround:	A possible workaround is to configure another outbound SAP filter with a lower priority to advertise services of a particular type or all types with a cost of 0. SAP inbound filters may also be used.

Anomaly:	**New IPX MIB not easily seen using Quick Get facility**
Number:	19139
Description:	When you select the Quick Get facility from the Statistics Manager, Site Manager displays the former IPX MIB followed by the new IPX MIB. If you do not scroll down the MIB beyond the former IPX MIB, you might be led to believe that you cannot access the new IPX MIB through the Quick Get facility and the Screen Builder facility.

Anomaly:	**Configuring trap exceptions in Site Manager causes GPF fault**
Number:	19236
Description:	When you enter Protocols➔IP ➔SNMP➔Trap Configuration➔Exceptions, then add the exceptions and press OK, Site Manager attempts to configure trap exceptions on the Windows version but generates a GPF fault instead. This condition applies only to the PC platform. The UNIX platform remains unaffected.
Workaround:	From the Technician Interface, enter the MIB variable **wfSnmpTrapEventEntry**. A list of MIB variables displays. Add an exception configuration by entering the following command: **setwfSnmpTrapEvent Entry.2.<entity code>.<event code> <always/never traps>;commit**

where:

- entity code= 0 through 61
- event code= 0 through 255
- always/never traps= 1 (always) and 2 (never)

Anomaly: **Enhancement to give control over who initiates the call for X.25 PTOP**

Number: 14609

Description: Bay Networks has enhanced the X.25 PTOP software to enable you to configure a X.25 PTOP link to determine who initiates the call request on a Point-to-Point link, regardless of the router's X.121 address. You can configure a PTOP link by setting wfX25ServiceEntry.wfX25ServicePtopCallRequest to one of the following interface options:

- 1: NORMAL – Use the largest X.121 address (default)
- 2: LOCAL – The local side will initiate the call
- 3: REMOTE – The remote side will initiate the call

Anomaly: **Protocol Prioritization does not work over an ISDN PRI circuit**

Number: 19096

Description: Protocol Prioritization/Outbound filtering does not work properly (filters fail to increment) when used over ISDN PRI demand circuits on MCT1/E1 cards. Similar filters that operate over ISDN BRI and Switched Services circuits using modems/TA (COM ports) work properly, as do non-PRI circuits configured on MCT1/E1 cards.

Anomaly: **ANH router with X10 will not work with Optivity D and A if the Ethernet is not configured as circuit 1**

Number: 18808

Description: An ANH router with X10 will not work with Optivity D and A if you have not configured the Ethernet interface that supports the X10 as the first circuit.

Anomaly: **OSPF does not send default summary into stub area when Import Summaries is set to No**

Number: 19127

Description: An Area Boundary Router (ABR) should generate a default summary into a stub area (if it has a default) regardless of whether you have set the Import Summaries switch for stub areas to Yes or No. However, an ABR does not generate a default summary into a stub area unless you set the Import Summaries switch to Yes.

Workaround: Set the Import Summaries switch for stub areas to Yes.

Interface Redundancy Effects on MAC Address Usage

When you configure interface redundancy, the active interface uses the following a MAC address in hexadecimal radix:

0x2000 A2*xx xxxx*

- 0x20 indicates that the address is locally administered by Bay Networks
- 00A2 identifies the Bay Networks OUI
- *xx xxxx* identifies the unique router identification

The active interface in an interface redundancy group uses the MAC address for all traffic, including Breath of Life (BOFL). The MAC address switches among interfaces in the interface redundancy group so that it always represents the active interface.

The MAC address affects network layer protocol adjacent host setups on adjacent routers. For example, if you have adjacent routers and the IP adjacent host is defined with its next hop being the active interface in an interface redundancy group, the adjacent host MAC address must be the active MAC address, that is

0x2000 A2*xx xxxx*

You can find the complete active MAC address in the interface MIB (Ethernet, Token Ring, FDDI) of the router on which interface redundancy is configured. For example, if you are configuring Ethernet, you can find the active MAC address in the Ethernet MIB by entering the following command from the Technician Interface:

get wfCSMACDEntry.wfCSMACDMadr.*

Among the entries displayed in the MIB is the MAC address **0x2000 A2xx xxxx,** which is used for interface redundancy. If you configured more than one interface redundancy group on the same router, you will see more than one entry with the same MAC address. This is not a problem because the two redundancy groups are in different subnets.

Configuring the NetBIOS Query Cache

When you configure the NetBIOS Query Cache parameter, which appears in the Source Route Bridge Global Parameters window, you can now globally enable or disable the ability of bridges to cache the NetBIOS source name, MAC address, and RIF path associated with each NetBIOS *name query, add name query,* and *add group name query* handled by the node. To edit the Source Route Bridge global parameters using Site Manager, select Protocols→Source Routing→Global from the Configuration Manager window.

Using the install.bat Script with Network Management Tools

Referring to establishing an initial IP interface with the router, the introduction to the *install.bat* script states: "You perform this procedure so that the router can communicate with the Site Manager workstation." Actually, you do not have to use Site Manager. The IP connection established through *install.bat* lets you configure and manage a router through any SNMP-compliant network management system.

IPX Enhancements

Unnumbered RIP Support

Version 9.00 provides Unnumbered RIP support. Unnumbered RIP operates in a manner similar to RIP, with one notable exception. Unlike RIP, Unnumbered RIP is a numberless protocol that provides a convenient and economical method to assign IPX network numbers. With Unnumbered RIP, you are no longer required to assign an IPX network number to a WAN link using the IPXWAN2 protocol; the router software negotiates between the entities and assigns the IPX network numbers for you.

Configuration Message Enhancement

Due to a parameter name change, the following IPX configuration error message is incorrect:

```
The Circuit Type must have at least 1 item selected if IPXWAN is
enabled
```

The message should now read:

```
The Negotiated Protocols field must have at least 1 item selected
if IPXWAN is enabled
```

IPX Accept and Deliver Parameters

In the *Release Notes for Router Software Version 9.00*, in the subsection entitled "IPX Enhancements," we included incorrect information about configuring IPX NetBIOS Accept and Deliver parameters when upgrading to Router Software Version 9.00.

The IPX configurations from previous releases are converted properly.

Guidelines for Working with Version 9.00

Version 9.00 is generally the equivalent of Version 8.11 fix 4, with a few notable exceptions. The fixes come from Clarify Reports (CRs) sent to the Sustaining Engineering department.

We will incorporate all fixes into Version 9.00 fix 1 as soon as it becomes available.

Table 1 shows the CRs that we have identified and resolved in the Version 8.11 fix 4 software integration. We have not resolved these CRs in Router Software Version 9.00. Apart from these exceptions, Version 8.11 fix 4 and Version 9.00 contain the same fixes.

Table 1. CRs Resolved in Version 8.11 fix 4 Software Integration

CR Number	Brief Description
15726	wfMcT1Entry.wfMcT1State shows incorrect value.
18266	Added Resource Statistics utility.
18115	Source Routing Bridge transmits a SRF destined for any group functional address back out the same interface from which it arrived.
18479	Enhancement request to allow you to display a message before the login banner. The request supports a message up to 2K bytes.
No Cr	A problem occurs when DLS receives a bad TCP packet during network crossover.
17891	An orphaned buffer occurs in AppleTalk resulting from the receipt of an invalid RTMP request packet.
18364	Cannot bring up configuration in Site Manager local mode after using dehconfig/hcon.
18598	Large window sizes with modulo 128 cause RNR traffic congestion.
18513	Incorrect XID processing after disconnection.
7266	wfIpInterfaceEntry.wfIpInterfaceForwDatagrams for a Frame Relay interface starts at over 4 billion and decrements rather than increments.
9383	Resetting a slot on a VME router causes Link Module fail LED to remain on erroneously.