Read Me First Router Software 11.01 Site Manager 5.01

Router Software Version 11.01

Part No. 114092 Rev. B February 1997





4401 Great America Parkway Santa Clara, CA 95054 8 Federal Street Billerica, MA 01821

Copyright © 1988-1997 Bay Networks, Inc.

All rights reserved. Printed in the USA. February 1997.

The information in this document is subject to change without notice. The statements, configurations, technical data, and recommendations in this document are believed to be accurate and reliable, but are presented without express or implied warranty. Users must take full responsibility for their applications of any products specified in this document. The information in this document is proprietary to Bay Networks, Inc.

The software described in this document is furnished under a license agreement and may only be used in accordance with the terms of that license. A summary of the Software License is included in this document.

Restricted Rights Legend

Use, duplication, or disclosure by the United States Government is subject to restrictions as set forth in subparagraph (c)(1)(ii) of the Rights in Technical Data and Computer Software clause at DFARS 252.227-7013.

Notice for All Other Executive Agencies

Notwithstanding any other license agreement that may pertain to, or accompany the delivery of, this computer software, the rights of the United States Government regarding its use, reproduction, and disclosure are as set forth in the Commercial Computer Software-Restricted Rights clause at FAR 52.227-19.

Trademarks of Bay Networks, Inc.

ACE, AFN, AN, Bay Networks, BCN, BLN, BN, BNX, CN, FN, FRE, GAME, LN, Optivity, PPX, SynOptics, SynOptics Communications, Wellfleet and the Wellfleet logo are registered trademarks and ANH, ASN, Bay•SIS, BayStack, BCNX, BLNX, EZ Install, EZ Internetwork, EZ LAN, PathMan, PhonePlus, Quick2Config, RouterMan, SPEX, Bay Networks Press, the Bay Networks logo and the SynOptics logo are trademarks of Bay Networks, Inc.

Third-Party Trademarks

All other trademarks and registered trademarks are the property of their respective owners.

Statement of Conditions

In the interest of improving internal design, operational function, and/or reliability, Bay Networks, Inc. reserves the right to make changes to the products described in this document without notice.

Bay Networks, Inc. does not assume any liability that may occur due to the use or application of the product(s) or circuit layout(s) described herein.

Portions of the code in this software product are Copyright © 1988, Regents of the University of California. All rights reserved. Redistribution and use in source and binary forms of such portions are permitted, provided that the above copyright notice and this paragraph are duplicated in all such forms and that any documentation, advertising materials, and other materials related to such distribution and use acknowledge that such portions of the software were developed by the University of California, Berkeley. The name of the University may not be used to endorse or promote products derived from such portions of the software without specific prior written permission.

SUCH PORTIONS OF THE SOFTWARE ARE PROVIDED "AS IS" AND WITHOUT ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

In addition, the program and information contained herein are licensed only pursuant to a license agreement that contains restrictions on use and disclosure (that may incorporate by reference certain limitations and notices imposed by third parties).

ii 114092 Rev. B

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.
- 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.

iv 114092 Rev. B

Contents

Read Me First

Disk Space Requirements	2
Using the Online Library CD Version 11.01	
Software Data Encryption	2
Installing Encryption Software	2
Installing Software Encryption on an HP Platform	4
Data Encryption and Dial Services	4
Image Builder	
ARN Software Image	4
Using the Packet Capture Script on an ARN	5
X.25 Services: QLLC Service Type	5
ISDN Callback	6

Read Me First

This document supplements the *Release Notes for Router Software Version 11.01*, *Release Notes for Site Manager Software Version 5.01*, and *Known Anomalies: Router Software 11.01 and Site Manager 5.01*.

It contains information about

- Disk space requirements
- Online Library CD Version 11.01
- Software data encryption
- Image Builder
- ARN software image
- Packet Capture scripts from an ARN
- X.25 Services: QLLC Service Type
- ISDN callback

Disk Space Requirements

Table 1 summarizes the minimum free disk space requirements for Site Manager Version 5.01.

Table 1. Minimum Disk Space Requirements

Platform	11.01/5.01
Sparcstation	72 MB
HP-UX	81 MB
IBM	65 MB
PC	38 MB

Using the Online Library CD Version 11.01

You can now search for information on this version of the Online Library CD from an IBM RS/6000 workstation. You can also view and print PDF files as you would on any other platform.

Software Data Encryption

Software data encryption is a new feature in Release 11.01/5.01.It is available for purchase as a separate CD ROM in one of two versions, 40-bit or 56-bit. Each version requires a special version of Site Manager, which is included on the appropriate CD.

The 56-bit encryption option is generally available only in the United States and Canada. U.S. law allows export of 56-bit encryption only with a U.S. export license. For more information on the export, import, and use of encryption outside the United States and Canada, refer to the software license agreement.

Installing Encryption Software

These directions for installing encryption software are the same as the directions on the CD ROM inserts.

2 114092 Rev. B

To install software encryption, you must already be running the 11.01 version of Bay Networks router software, and you must install

Site Manager + DES Version 5.01 from this CD. **Encryption will work with this version of Site Manager only.** For instructions on installing Site Manager from this CD, refer to *Quick-Starting Routers and BNX Platforms*.

After you install Site Manager, follow these directions to install the software.

- 1. Start Image Builder, and open the directory for the appropriate hardware platform.
- 2. Click on **Details** below the Current Components box.
- 3. Click on wep.exe under Baseline Router Software, and click on Remove.

This *wep.exe* file is a placeholder with no functionality. Note that the Component Information box shows its size as less than one KB.

- 4. Select File > Save to save the new image.
- 5. Exit Image Builder.
- 6. Insert this encryption software CD and copy rtr_1101/<router_platform>/wep.exe from this CD to the Image Builder directory.

The default directory on a PC is wf\builder.dir\rel1101
The default directory on a UNIX platform is ~ .builder/rel1101

- 7. Start Image Builder again, and open the image from which you removed wep.exe.
- 8. Click on Details in the Available Components box, select *wep.exe*, and click on Add.
- 9. Check the size of the *wep.exe* file.

If it is less than one KB, you have *not* loaded encryption software. Repeat this procedure, or call the Bay Networks Technical Response Center for assistance.

- 10. Save the image that includes encryption, and exit Image Builder.
- 11. FTP the new image to the router, and reboot the router, following the directions in *Modifying Software Images for Routers*.

You can now use software encryption on this router.

For further information about using Image Builder, refer to *Modifying Software Images for Routers*.

Installing Software Encryption on an HP Platform

When you copy the *wep.exe* file to an HP platform, it is automatically renamed *WEP.EXE*; 1. You must rename the file back to *wep.exe*. You can do this by issuing the following command:

mv "WEP.EXE;1" wep.exe

Note that you must use quotation marks before and after WEP.EXE; 1.

Data Encryption and Dial Services

You can configure PPP dial backup for a Frame Relay circuit that uses data encryption. Be aware, however, that if the primary circuit fails, data that travels over the backup circuit is unencrypted.

Image Builder

When you open an image with Image Builder, the partial component feature does not support suites other than the corp suite. The partial component symbol (*) will appear when you open an image from any of the alternative suites. This occurs because the feature is designed for the corp suite, and because other suites are a subset of the corp suite, the image appears incomplete to Site Manager. This does not mean, however, that the image you have opened is incomplete; it is valid.

ARN Software Image

The *Modifying Software Images* guide omits the name and location of the software image for the ARN platform. Table 1-1 in *Modifying Software Images* should include the following information:

Router	Router Software Image	Device the Image Runs On
ARN®	arn.exe	Flash Single Inline Memory Module (SIMM)

4 114092 Rev. B

Information in the manual on using the Image Builder applies to the ARN as to any other router platform.

Using the Packet Capture Script on an ARN

The Technician Interface Packet Capture script (*packet.bat*) now prompts for the module number on some BayStack ARN interfaces.

Enter the appropriate module number from <u>Table 2</u>.

Table 2. ARN Module Numbers for packet.bat

ARN Interface	Technician Interface Module Number
Base board (XCVR1 or TOKEN1)	1
First WAN adapter module interface (COM1 or ISDN1)	2
Second WAN adapter module interface (COM2 or ISDN2)	3
Expansion module interface (XCVR2, TOKEN2, COM3-5)	4

X.25 Services: QLLC Service Type

The X.25 Network Service Record parameter Max Idle specifies the maximum number of minutes that a virtual circuit can remain idle. Once the Max Idle timer expires, X.25 Services clears the circuit. The default value is 2 minutes, except when QLLC Service is selected.

For QLLC Service the default value is 0, which specifies that the circuit can remain idle indefinitely. You may want to consider the cost impact of staying connected to their X.25 backbone network while your QLLC sessions remain idle for an extended period.

ISDN Callback

Call setup messages from ISDN contain a 10-digit number. If the callback server needs more than 10 digits for an outgoing call, for example, the call requires a special prefix, such as 1, 9, 0, or 10288(10att), you should not use callback CallID mode. You should use either Server One Charge or Server mode instead.

6 114092 Rev. B