

Installing an N11 Data Collection Module (DCM) in a BayStack AN

Part No. 111151 Rev. A
October 1995

q w e r t

q w e r t

4401 Great America Parkway
Santa Clara, CA 95054

8 Federal Street
Billerica, MA 01821

Copyright © 1988–1995 Bay Networks, Inc.

All rights reserved. Printed in the USA. October 1995.

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, BCN, BLN, BN, CN, FRE, LN, Optivity, SynOptics, SynOptics Communications, Wellfleet and the Wellfleet logo are registered trademarks and AN, ANH, ASN, BaySIS, BCNX, BLNX, BNX, EZ Internetwork, EZ LAN, FN, PhonePlus, PPX, Quick2Config, RouterMan, SPEX, Bay Networks, 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).

USA Requirements Only

Federal Communications Commission (FCC) Compliance Notice: Radio Frequency Notice

This equipment generates, uses, and can radiate radio-frequency energy. If you do not install and use this equipment according to the instruction manual, this product may interfere with radio communications. This product has been tested and found to comply with the limits for a Class A computing device, pursuant to Subpart J of Part 15 of FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Operating this equipment in a residential area is likely to interfere with radio communications; in which case, the user, at his/her own expense, must correct the interference.

Shielded-compliant cables must be used with this unit to ensure compliance with the Class A limits.

EN 55 022 Declaration of Conformance

This is to certify that the Bay Networks products in this book are shielded against the generation of radio interference in accordance with the application of Council Directive 89/336/EEC, Article 4a. Conformity is declared by the application of EN 55 022:1987 Class A (CISPR 22:1985/BS 6527:1988).

EN 55 022 Declaration of Conformance

This is to certify that the Bay Networks products in this book are shielded against the generation of radio interference in accordance with the application of Council Directive 89/336/EEC, Article 4a. Conformity is declared by the application of EN 55 022:1987 Class B (CISPR 22:1985/BS 6527:1988).

Japan/Nippon Requirements Only

Voluntary Control Council for Interference (VCCI) Statement

この装置は、第一種情報装置（商工業地域において使用されるべき情報装置）で、商工業地域での電波障害防止を目的とした情報処理装置等電波障害自主規制協議会（VCCI）基準に適合しております。

従って、住宅地域、その隣接地域等で使用した場合、ラジオ、テレビ受信機等に障害を与えることがあります。

上記基準に適合する遮蔽ケーブルを使用し、取扱説明書に従って、正しくご使用ください。

Voluntary Control Council for Interference (VCCI) Statement

This equipment is in the 1st category (information equipment to be used in commercial and/or industrial areas) and conforms to the standards set by the Voluntary Control Council for Interference by Data Processing Equipment and Electronic Office Machines that are aimed at preventing radio interference in commercial and/or industrial areas.

Consequently, when this equipment is used in a residential area or in an adjacent area thereto, radio interference may be caused to equipment such as radios and TV receivers.

Compliance with the applicable regulations is dependent upon the use of shielded cables. The user is responsible for procuring the appropriate cables. Read instructions for correct handling.

Canada Requirements Only

Canada CS-03 Rules and Regulations

Note: The Canadian Department of Communications label identifies certified equipment. The certification means that the equipment meets certain telecommunications network protective operations and safety requirements. The Department does not guarantee the equipment will operate to the user's satisfaction.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. In some cases, the company's inside wiring associated with a single line individual service may be extended by means of a certified connector assembly (telephone extension cord). The customer should be aware that compliance with the above conditions may not prevent the degradation of service in some situations.

Repairs to certified equipment should be made by an authorized Canadian maintenance facility designated by the supplier. Any repairs or alterations made by the user to this equipment or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

Users should ensure for their own protection that the electrical ground connections of the power utility, telephone lines and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.

Caution: Users should not attempt to make such connections themselves, but should contact the appropriate electric inspection authority, or electrician, as appropriate.

Canada CS-03 — Règles et règlements

Note: L'étiquette du ministère des Communications du Canada indique que l'appareillage est certifié, c'est-à-dire qu'il respecte certaines exigences de sécurité et de fonctionnement visant les réseaux de télécommunications. Le ministère ne garantit pas que l'appareillage fonctionnera à la satisfaction de l'utilisateur.

Avant d'installer l'appareillage, s'assurer qu'il peut être branché aux installations du service de télécommunications local. L'appareillage doit aussi être raccordé selon des méthodes acceptées. Dans certains cas, le câblage interne du service de télécommunications utilisé pour une ligne individuelle peut être allongé au moyen d'un connecteur certifié (prolongateur téléphonique). Le client doit toutefois prendre note qu'une telle installation n'assure pas un service parfait en tout temps.

Les réparations de l'appareillage certifié devraient être confiées à un service d'entretien canadien désigné par le fournisseur. En cas de réparation ou de modification effectuées par l'utilisateur ou de mauvais fonctionnement de l'appareillage, le service de télécommunications peut demander le débranchement de l'appareillage.

Pour leur propre sécurité, les utilisateurs devraient s'assurer que les mises à la terre des lignes de distribution d'électricité, des lignes téléphoniques et de la tuyauterie métallique interne sont raccordées ensemble. Cette mesure de sécurité est particulièrement importante en milieu rural.

Attention: Les utilisateurs ne doivent pas procéder à ces raccordements eux-mêmes mais doivent plutôt faire appel aux pouvoirs de réglementation en cause ou à un électricien, selon le cas.

Canada Requirements Only *(continued)*

D. O. C. Explanatory Notes: Equipment Attachment Limitations

The Canadian Department of Communications label identifies certified equipment. This certification meets certain telecommunication network protective, operational and safety requirements. The department does not guarantee the equipment will operate to the users satisfaction.

Before installing the equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. In some cases, the company's inside wiring associated with a single line individual service may be extended by means of a certified connector assembly (telephone extension cord). The customer should be aware that compliance with the above condition may not prevent degradation of service in some situations.

Repairs to certified equipment should be made by an authorized Canadian maintenance facility designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

Users should ensure for their own protection that the electrical ground connections of the power utility, telephone lines and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.

Caution: Users should not attempt to make such connections themselves, but should contact the appropriate electrical inspection authority, or electrician, as appropriate.

Notes explicatives du ministère des Communications: limites visant les accessoires

L'étiquette du ministère des Communications du Canada indique que l'appareillage est certifié, c'est-à-dire qu'il respecte certaines exigences de sécurité et de fonctionnement visant les réseaux de télécommunications. Le ministère ne garantit pas que l'appareillage fonctionnera à la satisfaction de l'utilisateur.

Avant d'installer l'appareillage, s'assurer qu'il peut être branché aux installations du service de télécommunications local. L'appareillage doit aussi être raccordé selon des méthodes acceptées. Dans certains cas, le câblage interne du service de télécommunications utilisé pour une ligne individuelle peut être allongé au moyen d'un connecteur certifié (prolongateur téléphonique). Le client doit toutefois prendre note qu'une telle installation n'assure pas un service parfait en tout temps.

Les réparations de l'appareillage certifié devraient être confiées à un service d'entretien canadien désigné par le fournisseur. En cas de réparation ou de modification effectuées par l'utilisateur ou de mauvais fonctionnement de l'appareillage, le service de télécommunications peut demander le débranchement de l'appareillage.

Pour leur propre sécurité, les utilisateurs devraient s'assurer que les mises à la terre des lignes de distribution d'électricité, des lignes téléphoniques et de la tuyauterie métallique interne sont raccordées ensemble. Cette mesure de sécurité est particulièrement importante en milieu rural.

Attention: Les utilisateurs ne doivent pas procéder à ces raccordements eux-mêmes mais doivent plutôt faire appel aux pouvoirs de réglementation en cause ou à un électricien, selon le cas.

Canada Requirements Only *(continued)*

Canadian Department of Communications Radio Interference Regulations

This digital apparatus (Access Feeder Node, Access Link Node, Access Node, Access Stack Node, Backbone Concentrator Node, Backbone Concentrator Node Switch, Backbone Link Node, Backbone Link Node Switch, Concentrator Node, Feeder Node, Link Node) does not exceed the Class A limits for radio-noise emissions from digital apparatus as set out in the Radio Interference Regulations of the Canadian Department of Communications.

Règlement sur le brouillage radioélectrique du ministère des Communications

Cet appareil numérique (Access Feeder Node, Access Link Node, Access Node, Access Stack Node, Backbone Concentrator Node, Backbone Concentrator Node Switch, Backbone Link Node, Backbone Link Node Switch, Concentrator Node, Feeder Node, Link Node) respecte les limites de bruits radioélectriques visant les appareils numériques de classe A prescrites dans le Règlement sur le brouillage radioélectrique du ministère des Communications du Canada.

T1 Service Compliance Statements

T1 Service

NOTE: This T1 Service notice applies to you only if you have received a single or dual port Multi-Channel T1 (MCT1) Link Module (which provides an internal CSU).

This equipment complies with Part 68 of FCC Rules. Please note the following:

1. You are required to request T1 service from the telephone company before you connect the CSU to a T1 network. When you request T1 service, you must provide the telephone company with the following data:
 - The Facility Interface Code
Provide the telephone company with both codes below:
 - 04DU9-B (1.544 MB D4 framing format)
 - 04DU9-C (1.544 MB ESF format)The telephone company will select the code it has available.
 - The Service Order Code: 6.0F
 - The required USOC jack: RJ48C
 - The make, model number, and FCC Registration number of the CSU.
2. Your telephone company may make changes to its facilities, equipment, operations, or procedures that could affect the proper functioning of your equipment. The telephone company will notify you in advance of such changes to give you an opportunity to maintain uninterrupted telephone service.
3. If your CSU causes harm to the telephone network, the telephone company may temporarily discontinue your service. If possible, they will notify you in advance, but if advance notice is not practical, you will be notified as soon as possible and will be informed of your right to file a complaint with the FCC.
4. If you experience trouble with the CSU, please contact Bay Networks Technical Response Center in your area for service or repairs. Repairs should be performed only by service personnel authorized by Bay Networks, Inc.

United States	1-800-2LAN-WAN
Valbonne, France	(33) 92-966-968
Sydney, Australia	(61) 2-903-5800
Tokyo, Japan	(81) 3-328-0052
5. You are required to notify the telephone company when you disconnect the CSU from the network and when you disconnect the BCNX or BLNX from the network.

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

About This Guide

- Bay Networks Customer Support i
- CompuServe ii
- InfoFACTS iii
- World Wide Web iii
- How to Get Help iii
- Ordering Bay Networks Publications iii

Chapter 1

Installing the DCM Upgrade

- Verifying Shipping Contents 6
- Attaching an Antistatic Wrist Strap 6
- Opening the AN 7
- Installing the DCM Mounting Bracket 9
- Installing the Printed Circuit Boards 10
- Closing the AN 12

Chapter 2

Installing a SIMM on the DCM

- Recommended SIMMs 15
- Replacing a SIMM 17

Figures

Figure 1-2. Accessing the Component Tray 1-4

Figure 1-3. Installing the DCM Mounting Bracket on the AN Base Board 1-5

Figure 1-4. DCM Base Board Connector (Installed Bracket Not Shown) 1-6

Figure 1-5. Mounting Bracket, Extender Card, and DCM Assembly 1-7

Figure 1-6. Closing the AN 1-8

Figure 2-1. Location of SIMM on DCM Board 2-3

Figure 2-2. Ejecting the Installed SIMM 2-4

Figure 2-3. Removing the SIMM 2-4

Figure 2-4. Location of SIMM Connector Guide Notch 2-5

Figure 2-5. Inserting a New SIMM 2-5

Figure 2-6. Securing the New SIMM 2-6

Tables

Table 1-1. Model N11 DCM Shipment Contents 1-2

Table 2-1. Recommended SIMMs 2-1

Figure 1-2.	Accessing the Component Tray	24
Figure 1-3.	Installing the DCM Mounting Bracket on the AN Base Board	25
Figure 1-4.	DCM Base Board Connector (Installed Bracket Not Shown)	26
Figure 1-5.	Mounting Bracket, Extender Card, and DCM Assembly	27
Figure 1-6.	Closing the AN	28
Figure 2-1.	Location of SIMM on DCM Board	33
Figure 2-2.	Ejecting the Installed SIMM	34
Figure 2-3.	Removing the SIMM	34
Figure 2-4.	Location of SIMM Connector Guide Notch	35
Figure 2-5.	Inserting a New SIMM	35
Figure 2-6.	Securing the New SIMM	36

Table 1-1. Model N11 DCM Shipment Contents 22

Table 2-1. Recommended SIMMs 31

About This Guide

If you are responsible for maintaining a Bay Networks™ BayStack™ Access Node (AN™), read this guide to

- Physically install an N11 Data Collection Module (DCM) upgrade (see Chapter 1)
- Upgrade the memory on an N11 DCM (see Chapter 2)



Note: *When replacing a previously installed DCM that contains more than 2 MB of memory, be sure to upgrade the SIMM on the replacement DCM as described in Chapter 2 before completing the steps in Chapter 1.*

Bay Networks Customer Support

Bay Networks provides live telephone technical support to our distributors, resellers, and service-contracted customers from two U.S. and three international support centers. If you have purchased your Bay Networks product from a distributor or authorized reseller, contact the technical support staff of that distributor or reseller for assistance with installation, configuration, troubleshooting, or integration issues.

Customers also have the option of purchasing direct support from Bay Networks through a variety of service programs. The programs include priority access telephone support, on-site engineering assistance, software subscription, hardware replacement, and other programs designed to protect your investment.

To purchase any of these support programs, including PhonePlus™ for 24-hour telephone technical support, call 1-800-2LANWAN. Outside the U.S. and Canada, call (408) 764-1000. You can also receive information on support programs from your local Bay Networks field sales office, or purchase Bay Networks support directly from your reseller. Bay Networks provides several methods of receiving support and information on a nonpriority basis through the following automated systems.

CompuServe

Bay Networks maintains an active forum on CompuServe. All you need to join us online is a computer, a modem, and a CompuServe account. We also recommend using the CompuServe Information Manager software, available from CompuServe.

The Bay Networks forum contains libraries of technical and product documents designed to help you manage and troubleshoot your Bay Networks products. Software agents and patches are available, and the message boards are monitored by technical staff and can be a source for problem solving and shared experiences.

Customers and resellers holding Bay Networks service contracts can visit the special libraries to acquire advanced levels of support documentation and software.

To open an account and receive a local dial-up number, call CompuServe at 1-800-524-3388 and ask for Representative No. 591.

- In the United Kingdom, call Freephone 0800-289378.
- In Germany, call 0130-37-32.
- In Europe (except for the United Kingdom and Germany), call (44) 272-760681.
- Outside the U.S., Canada, and Europe, call (614) 529-1349 and ask for Representative No. 591, or consult your listings for an office near you.

Once you are online, you can reach our forum by typing the command GO BAYNETWORKS at any ! prompt.

InfoFACTS

InfoFACTS is the Bay Networks free 24-hour fax-on-demand service. This automated system contains libraries of technical and product documents designed to help you manage and troubleshoot your Bay Networks products. The system can return a fax copy to the caller or to a third party within minutes of being accessed.

World Wide Web

The World Wide Web (WWW) is a global information system for file distribution and online document viewing via the Internet. You need a direct connection to the Internet and a Web Browser (such as Mosaic or Netscape).

Bay Networks maintains a WWW Home Page that you can access at <http://www.baynetworks.com>. One of the menu items on the Home Page is the Customer Support Web Server, which offers technical documents, software agents, and an E-mail capability for communicating with our technical support engineers.

How to Get Help

For additional information or advice, contact the Bay Networks Technical Response Center in your area:

United States	1-800-2LAN-WAN
Valbonne, France	(33) 92-966-968
Sydney, Australia	(61) 2-903-5800
Tokyo, Japan	(81) 3-328-005

Ordering Bay Networks Publications

To purchase additional copies of this document or other Bay Networks publications, order by part number from Bay Networks Press™ at the following numbers. You may also request a free catalog of Bay Networks Press product publications.

Phone:	1-800-845-9523
FAX - U.S./Canada:	1-800-582-8000
FAX - International:	1-916-939-1010

Chapter 1

Installing the DCM Upgrade

The Model N11 Data Collection Module (DCM) gathers statistics for Ethernet remote monitoring (RMON) support.



Note: *The N11 DCM does not support the monitoring of Token Ring networks.*

You install the DCM printed circuit board on the BayStack AN base board with a mounting bracket and an extender board assembly.



Note: *The 12-Port ANH™ does not support the N11 DCM. The 8-Port ANH requires a different*

To install the N11 DCM upgrade, you

- Verify the Upgrade Kit contents
- Attach an antistatic wrist strap
- Open the AN unit
- Install the DCM mounting bracket
- Install the DCM extender and printed circuit boards
- Close the AN

Verifying Shipping Contents

[Table 1-1](#) lists the shipping contents of the N11 DCM Upgrade Kit, Order No. AE0011015. Make sure you received everything you need for the installation before you begin. You will need a #1 Phillips screwdriver to install the upgrade.

If any parts are damaged or missing, call the Bay Networks Technical Response Center as described in the “How to Get Help” section earlier in this guide.

Table 1-1. Model N11 DCM Shipment Contents

Part No.	Item	Quantity
920-394-A	Data Collection Module	1
111095	Extender card	1
111103	Bracket assembly	1
111126	Plastic rivets	3
101050-08	4-40 x 0.50 panhead screws	3
104962	Antistatic bag and mat	1
107906	Antistatic wrist strap	1
111151	Upgrade instructions (this document)	1

Attaching an Antistatic Wrist Strap

An antistatic wrist strap ships with the upgrade kit. The wrist strap directs the discharge of static electricity from your body to the chassis of the AN, thereby avoiding damage to sensitive electronic components.

You must wear the antistatic strap whenever you remove, install, and handle printed circuit boards and whenever you remove the BayStack AN cover.



Caution: *Electrostatic discharge can damage hardware. Follow the procedure in this section to protect your equipment from damage.*

Attach the antistatic wrist strap by completing the following steps.

- 1. Remove the strap from the upgrade kit.**
- 2. Unwrap the first two folds of the band.**

3. **Wrap the exposed adhesive side of the band firmly around your wrist.**
4. **Unroll the rest of the band and peel the liner from the copper foil at the opposite end.**
5. **Attach the copper foil to the back metal panel on the AN, or any other nonpainted and grounded metal surface.**

You can now safely perform the upgrade procedure.

Opening the AN

Follow these steps to open the BayStack AN.

1. **If your AN has a power switch, turn off the power.**
2. **Disconnect the power cable.**
3. **Loosen the two captive thumbscrews on the back panel ([Figure 1-1](#)).**

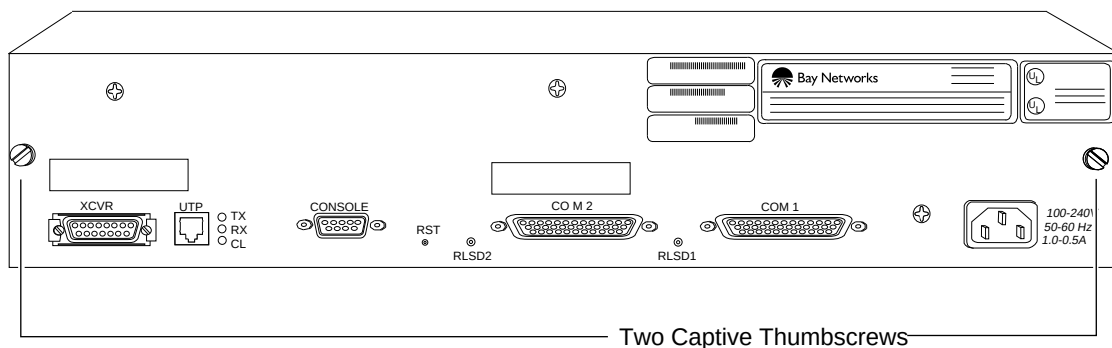


Figure 1-1. Removing the Back Panel Screws

4. Pull the back panel out of the AN enclosure ([Figure 1-2](#)) until the component tray is accessible.

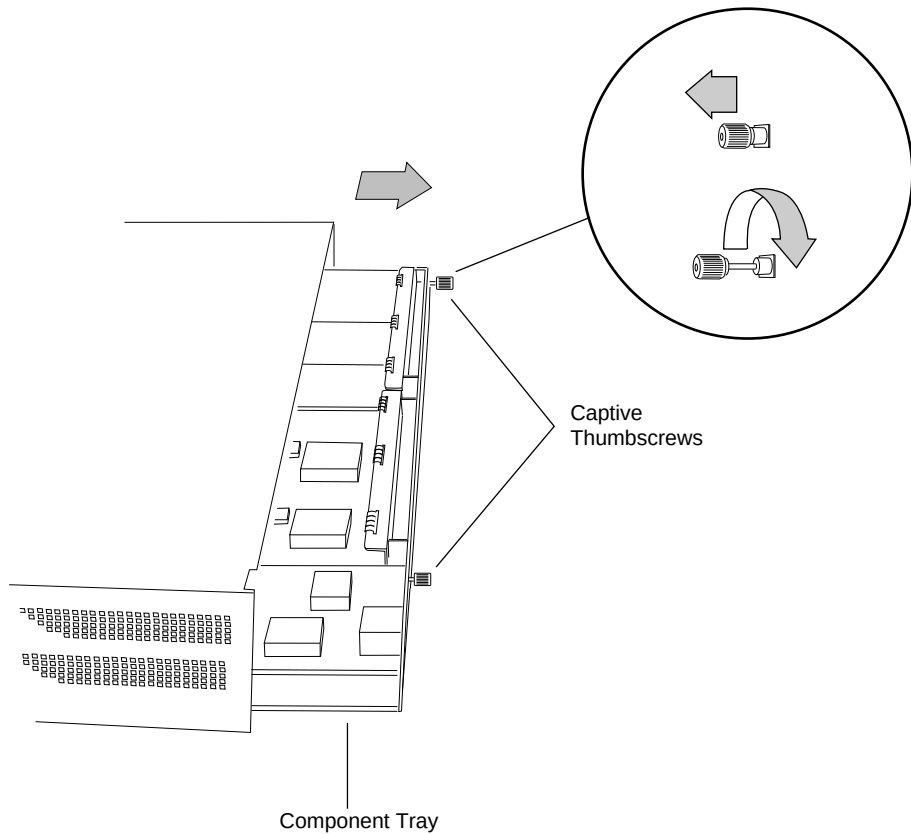


Figure 1-2. Accessing the Component Tray

Installing the DCM Mounting Bracket

Follow these steps to install the DCM mounting bracket.

1. **Align the three holes in the mounting bracket with the appropriate base board holes ([Figure 1-3](#)).**

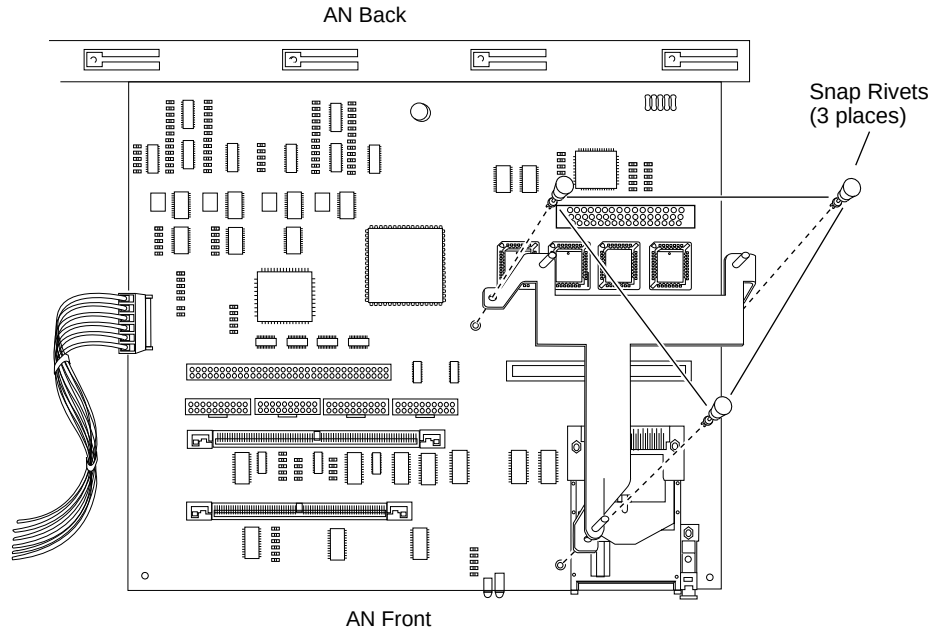


Figure 1-3. Installing the DCM Mounting Bracket on the AN Base Board

2. **Holding the bracket in place, insert a plastic rivet through one of the holes on the bracket.**

Use your thumb to depress the rivet further into place on the base board.

3. **Repeat Step [2](#) for the other two rivets.**

Installing the Printed Circuit Boards

Follow these steps to install the DCM extender card and printed circuit board.

1. **Locate the 130-pin DCM connector on the base board ([Figure 1-4](#))**

The connector is directly beneath the installed mounting bracket.

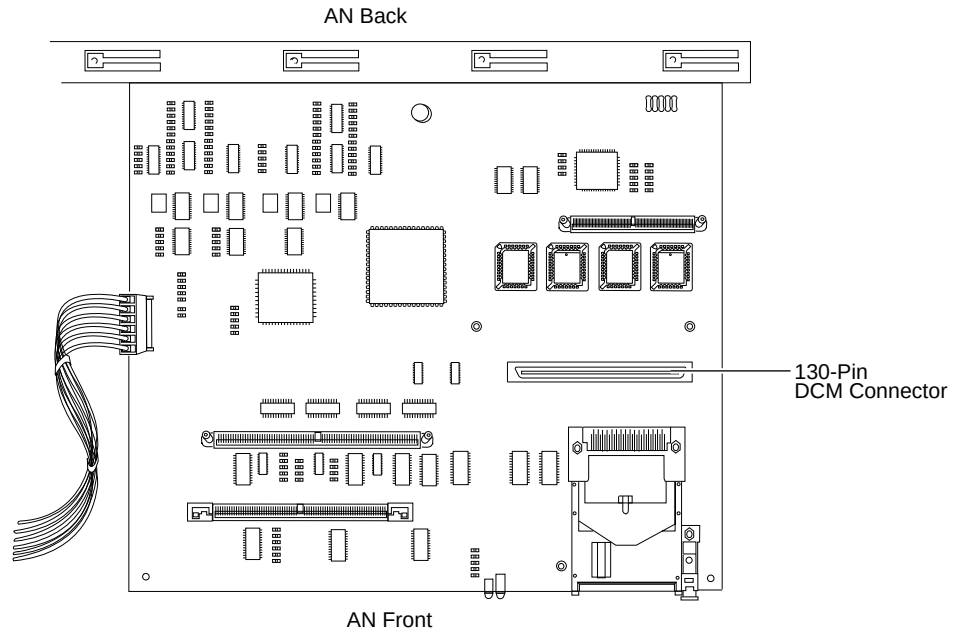


Figure 1-4. DCM Base Board Connector (Installed Bracket Not Shown)

2. **Hold the extender card vertically so you can read the text “This Side Up” printed on its side (see callout in [Figure 1-5](#)).**
3. **Press the bottom edge of the extender card into the connector.**

4. Align the DCM connector with the extender card connector and the DCM screw holes with the bracket's standoffs ([Figure 1-5](#)).

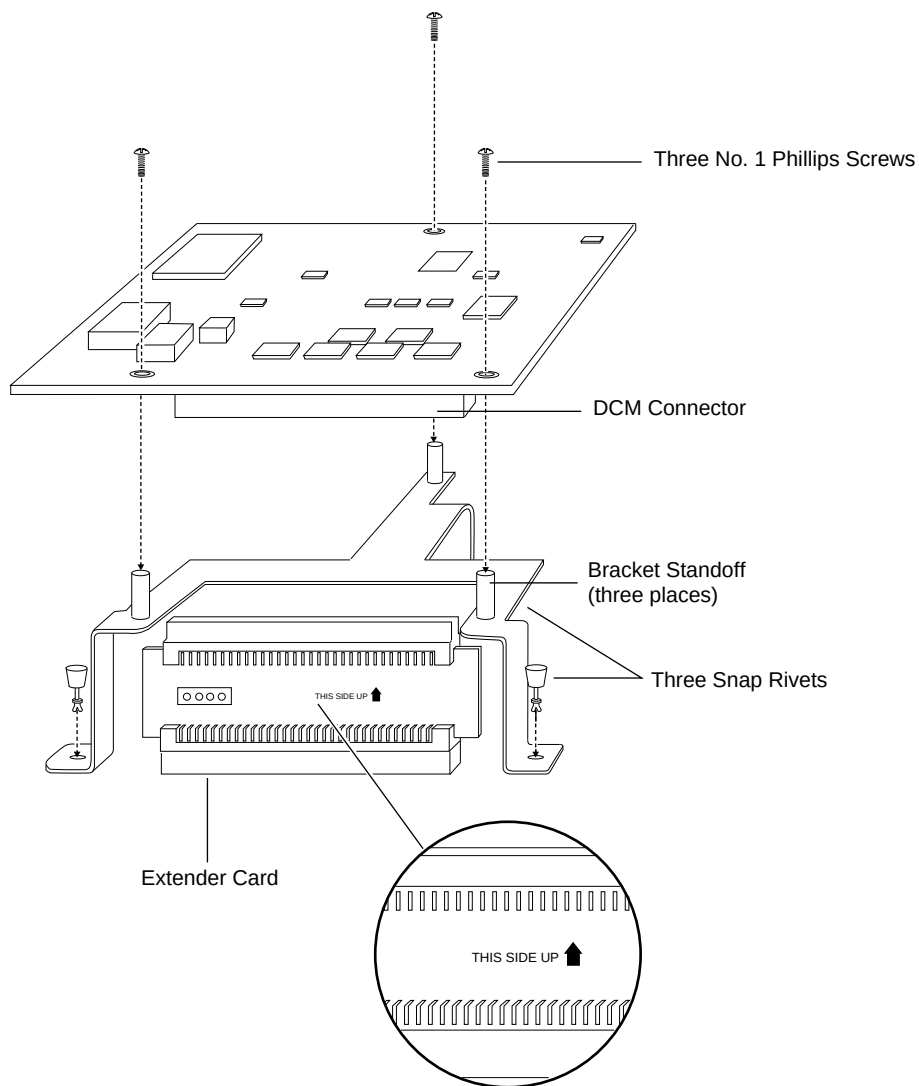


Figure 1-5. Mounting Bracket, Extender Card, and DCM Assembly

5. Press down on the DCM at each end of the connector to seat the module securely in the extender card.

6. Insert the three Phillips panhead screws through the plated-through holes on the DCM and into the bracket standoffs.



Note: To accommodate standoffs on different base boards, the Model N11 DCM has two plated-through holes at one side of the module. Use the hole that matches the standoff on the AN mounting bracket.

7. Use the #1 Phillips screwdriver to tighten the screws

Closing the AN

1. Slide the base board assembly back into the enclosure ([Figure 1-6](#)) until the back panel sets flush against the enclosure end.

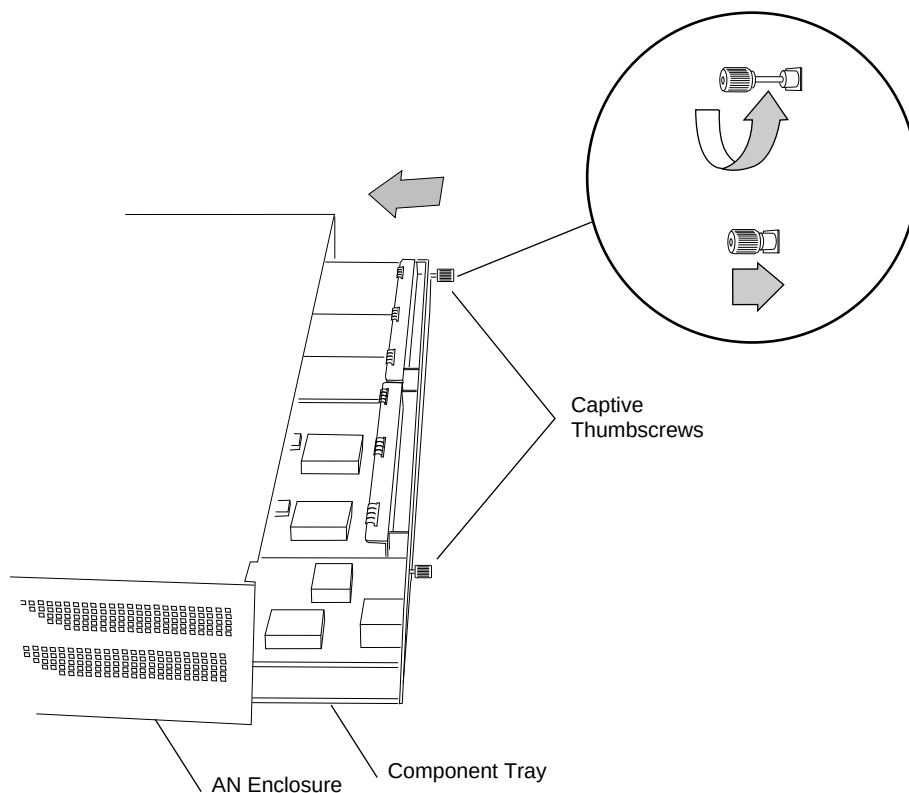


Figure 1-6. Closing the AN



Note: *Be sure that the component tray slides into place in the metal cutouts on the bottom of the AN enclosure.*

2. **Tighten the two captive thumbscrews on the back panel.**
3. **Connect the power cable and turn on the power to the unit.**
4. **See *Connecting AN and ANH Systems to a Network to enable the DCM.***

The DCM board will not function in the AN until you set it up using Site Manager software.



Note: *When using an N11 DCM in the BayStack AN, the AN requires Router Software Version 9.00 or higher and Site Manager Software Version 3.00 or higher.*

Chapter 2

Installing a SIMM on the DCM

The N11 DCM is shipped with 2 MB of memory in a single in-line memory module (SIMM). You can increase the memory by replacing the installed SIMM with one that provides more memory as described in this chapter.



Note: *If you replace an installed DCM that contains more than 2 MB of memory, be sure to remove the SIMM from the older module and install it on the replacement DCM as described in this chapter.*

Recommended SIMMs

Table 2-1 lists the SIMMs that are recommended for the N11 DCM.



Note: *All SIMMs for the Model N11 DCM must operate at 70 ns or faster and must have gold-plated contacts.*

Table 2-1. Recommended SIMMs

SIMM Capacity	Manufacturer	Manufacturer's Part No.
2 MB (512 Kb x 32)	Micron	MT4D51232G-7
	Motorola	MCM32512SG70
	NEC	MC-42512A32F-70
	Texas Instruments	TM512CBK32-70
	Toshiba	THM325120ASG-70

(continued)

Table 2-1. Recommended SIMMs *(continued)*

SIMM Capacity	Manufacturer	Manufacturer's Part No.
4 MB (1 Mb x 32)	Hitachi	HB56D132BA-7A
	Micron	MT8D132G-7
	Mitsubishi Electric	MH1M32ADJ-7
	Motorola	MCM32130SHG70
	NEC	MC-421000A32F-70
	Texas Instruments	TM124BBK32-70
	Toshiba	THM321000ASG-70
8 MB (2 Mb x 32)	Hitachi	HB56D232BS-7A
	Micron	MT16D232G-7
	Mitsubishi Electric	MH2M32EJ-7
	Motorola	MCM32230SHG70
	NEC	MC-422000A32F-70
	Texas Instruments	TM248CBK32B-70
16 MB (4 Mb x 32)	Hundai	HYM532410MG-70
	Micron	MT8D432G-7
	Mitsubishi Electric	MH4M32AATJ-7
	NEC	MC-424000A32F-70
	Samsung	KMM5324100VG-7
	Toshiba	THM324000SG-70

Replacing a SIMM

Complete the steps in this section to remove an existing SIMM and install a new SIMM.

1. **Look at the connector side of the DCM and identify the SIMM connector and installed SIMM near the edge of the board ([Figure 2-1](#)).**

Note the spring latch at each end of the SIMM connector.

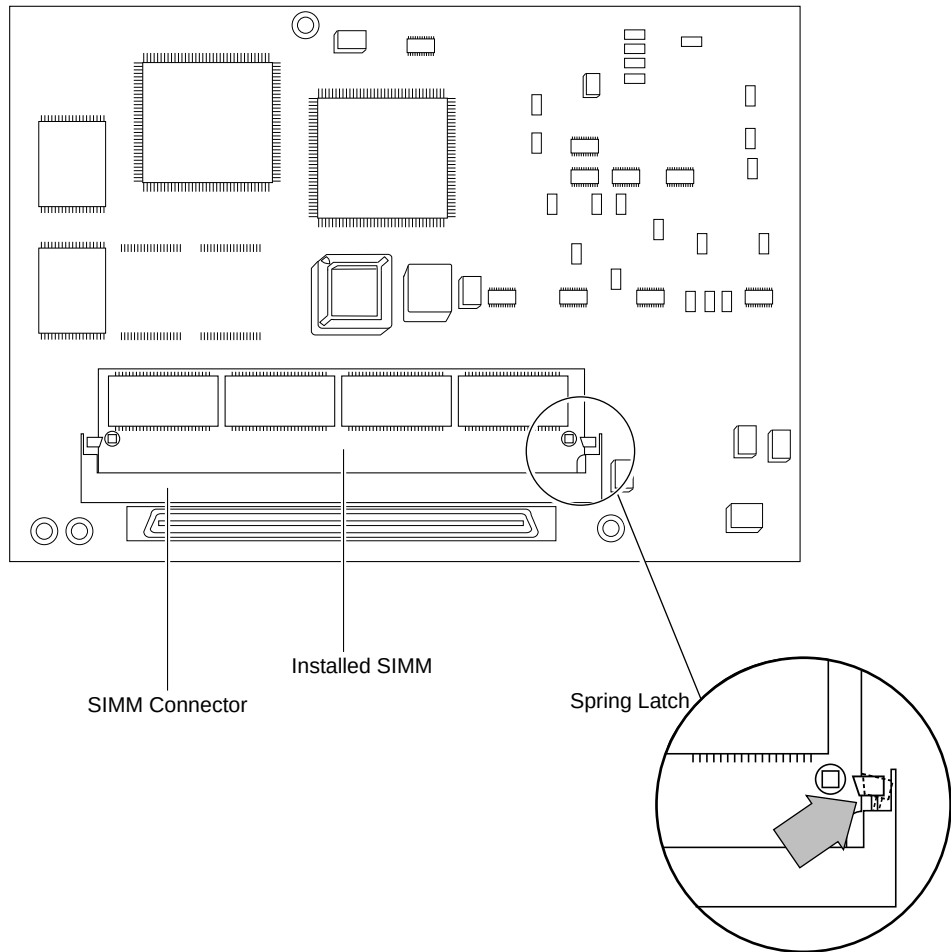


Figure 2-1. Location of SIMM on DCM Board

2. **Carefully press outward on the two spring latches until the SIMM ejects from the locking studs** ([Figure 2-2](#)).

Apply simultaneous pressure to both spring latches.

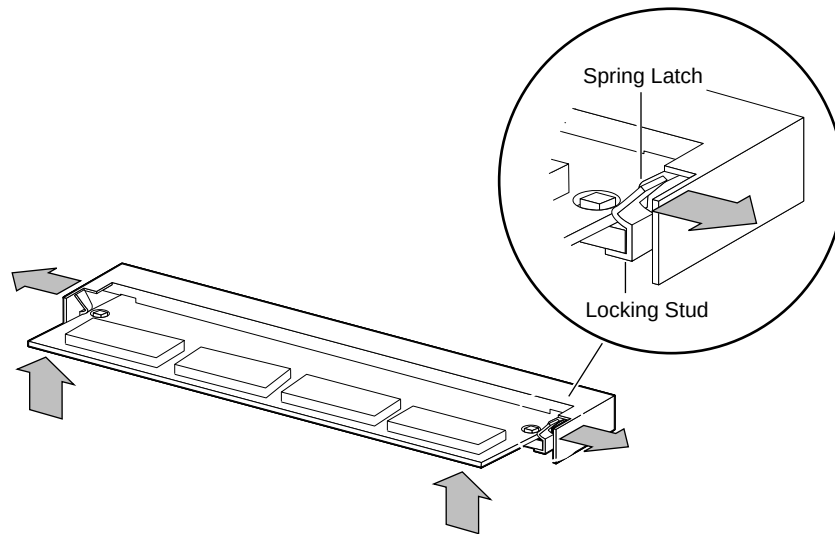


Figure 2-2. Ejecting the Installed SIMM

3. **Rotate the SIMM upward and lift it out of its socket** ([Figure 2-3](#)).

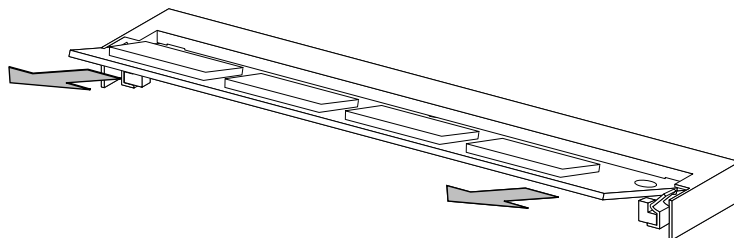


Figure 2-3. Removing the SIMM

4. As you remove the SIMM, note the location and orientation of the SIMM guide notch on one end of the SIMM connector edge ([Figure 2-4](#)).

When you install the replacement SIMM, the guide notch must match the position of the guide notch on the SIMM you just removed.

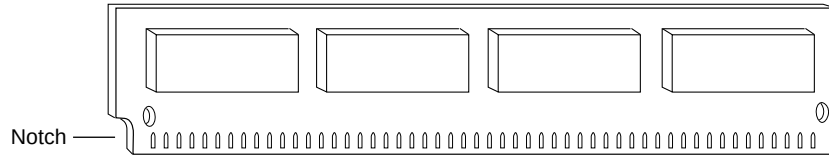


Figure 2-4. Location of SIMM Connector Guide Notch

5. Place the removed SIMM in an antistatic bag, or set it on an antistatic mat.
6. Hold the replacement SIMM by its top corners, away from the connector edge. Orient the guide notch as noted in Step 4.
7. Slip the SIMM into the connector socket and push in gently to seat the SIMM firmly in the socket ([Figure 2-5](#)).



Caution: *The SIMM is keyed with the guide notch to prevent incorrect insertion. Do not force the SIMM if it does not go easily into the socket.*

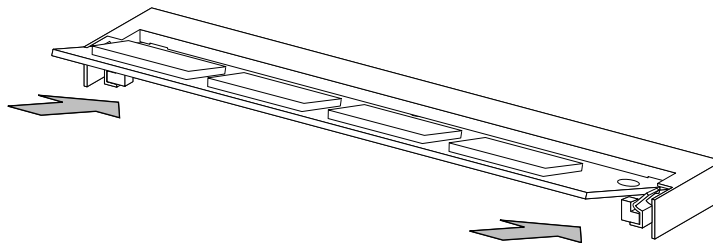


Figure 2-5. Inserting a New SIMM

8. **Tilt the SIMM down into its locked position** ([Figure 2-6](#)).

You may hear a “click” as the spring latches engage the ends of the SIMM.



Caution: *It is normal to feel a slight resistance as the SIMM comes to its locked position, but be careful not to use too much force. It is easy to damage the SIMM socket by forcing it into the locked position.*

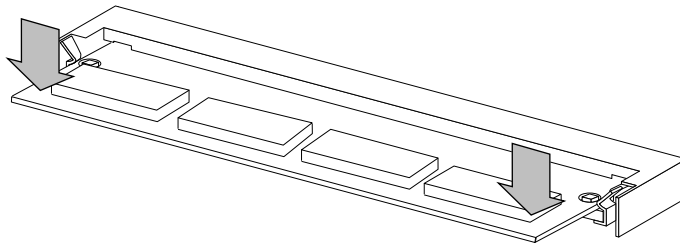


Figure 2-6. Securing the New SIMM

The final SIMM position is horizontal to the DCM printed circuit board.

9. **If the SIMM does not lock, remove the SIMM, check the orientation of the guide notch, reinsert the SIMM, wiggle it gently as you press it into the socket. Then try again to tilt it into its locked position.**