Symmetricom®

GoWide 18.4e
User Manual

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FCC Regulatory Notice

According to Federal Communications Commission (FCC) Rules regarding radio frequency emissions, the GoWide complies with FCC Part 15 for Class A computing devices. The following paragraph is required by the FCC.

This equipment generates, uses and can radiate radio frequency energy and if not used in accordance with the instruction manual, may cause interference to radio communications. It has been tested and found to comply with the limits for Class A computing devices pursuant to Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference, in which case the user, at his own expense, will be required to take whatever measures may be necessary to correct the interference.

Canadian D.O.C.

This product conforms with Canadian Class A Emissions Regulations.

Approvals

Safety: EN60950, UL 1950, C/UL to CSA 22.2 No.950

Emissions: FCC Part 15 Class A, EN55022/CISPR2 Class A

Immunity: EN55024

Network Attachment: FCC Part 68

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Introduction and General Information

This chapter provides information of general interest to users of the GoWide 18.4e.

Product Description

Symmetricom's GoWide family of products enable high performance broadband-over-copper voice and data services for businesses and telco providers. These products are based on the worldwide G.shdsl (ITU-T G991.2) standard which provides advantages such as unrivalled rate/reach, excellent tolerance to noise and bridged taps. These advantages enable Service Providers to provide increased end user satisfaction at low system cost. Symmetricom leverages the G.shdsl international standard for widespread interoperablility with major DSLAM manufacturers.

The GoWide 18.4e is a fully configurable customer premise equipment (CPE) device. Release 1.0 can be set up to function as a Bridge device, utilizing Ethernet on the LAN side and RFC 1483 ATM via G.shdsl transport on the WAN side.

The unit includes a single 10/100BaseT auto-sensing Ethernet port on the LAN side, and eight G.shdsl ports on the WAN side. The WAN-side connections can be configured as eight individual G.shdsl links (2-wire mode), four individual G.shdsl links in 4-wire mode (4.6Mbps), an aggregated single link using IMA, or any mix of the above.

GoWide 18.4e Specifications

Refer to the current product data sheet, available from Symmetricom, for the latest specifications.

About this Manual

The *GoWide 18.4e User Manual* is intended for users of the GoWide 18.4e. The primary focus of this manual is on receiving, installing and getting acquainted with the GoWide 18.4e.

The information in this manual is generally grouped as follows:

- Chapter 1 provides general product information, and information about the product's documentation.

- Chapter 2 provides information on receiving, installing, and powering up the GoWide 18.4e.

- Chapter 3 contains information regarding the unit's default configuration.

Note: The current version of the GoWide 18.4e is configurable using a Command Line Interface (CLI). Procedures that explain how to fully configure the unit using the CLI can be found in the *GoWide 18.4e Technical Manual*.

- Chapter 4 contains support and warranty information.

- Appendix A explains how to install the TCP/IP protocol for PCs that might be used for configuration of the unit.

- Appendix B contains troubleshooting information.

- Appendix C provides and example of the parameters that might be provided by the Service Provider (ISP) for configuring LAN equipment or the GoWide, and a worksheet to record the ISP's parameters.

Topics Not Covered in this Manual

This manual does not contain information on how to configure the GoWide, as configuration in this release is via the Command Line Interface. This manual also does not explain how to upgrade the unit's firmware, and does not provide any descriptive information on the various CLI commands that are available. For those topics, refer to the *GoWide 18.4e Technical Manual*.

Installation

This chapter provides installation-related information for the GoWide 18.4e.

Unpacking

Caution: **When handling electronic equipment, use local office procedures regarding electrostatic discharge (ESD) precautions.**

Unpack the equipment carefully. Inspect the equipment for shipping damage, including bent or loose hardware that might have been damaged in transit. If the equipment was damaged in transit, contact the Symmetricom Customer Assistance Center (CAC) and notify the carrier.

Save the packing materials. All equipment returned must be packed in the original packing materials. Contact CAC if additional packing materials are needed.

Note: Refer to *Warranty Information* in this manual for additional warranty and repair information.

Packing List

The following items are included with the GoWide shipment:

Shipments within North America

- One (1) GoWide 18.4e

- One (1) Power Cord

- One (1) Broadband Access product CD

- One (1) Customer Release Notes document

- One (1) 2 meter DSL cable (RJ-45)

- One (1) 2 meter Ethernet cable (RJ-45)

Shipments Outside of North America

- One (1) GoWide 18.4e

- One (1) Power Cord

- One (1) Broadband Access product CD

- One (1) Customer Release Notes document

Rack Mounting

The GoWide 18.4e can be mounted in a 19-inch, 48 cm, rack. Mounting brackets can be positioned to be mounted in a flush or offset position. Attach mounting brackets to the appropriate position for either flush or offset mounting. The GoWide should be rack mounted according to standard company practices.

Note: Mounting brackets are not supplied with the GoWide.

Figure 1 shows how to attach the brackets to the GoWide 18.4e.

Figure 1. GoWide 18.4e Rack Mounting

Strain-Relief Crossbar

B

Flush Mounting Position

Offset Mounting Position

B
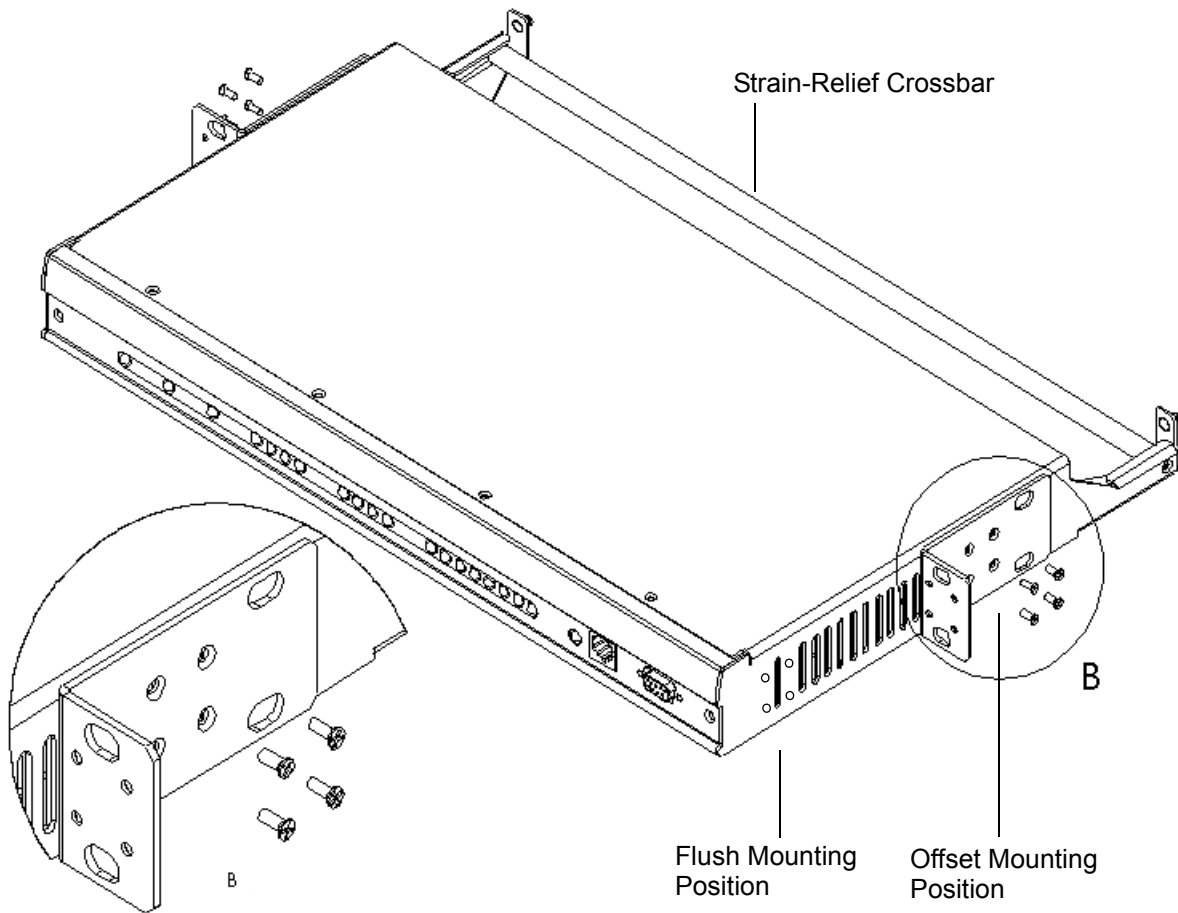
Cabling and Powering Up the GoWide

The GoWide 18.4e supports both *out-of-band* and *in-band* configuration and management, and the type of initial configuration and management used determines some of the cabling requirements:

- Out-of-band configuration and management is accomplished using a terminal or PC containing terminal emulation software, which is connected to the unit via the DB-9 serial CRAFT connector on the front panel of the unit.

- In-band configuration and management is accomplished via Telnet session running on a PC or server, which is connected to the unit via the RJ-45 Ethernet (10/100M) connector on the front panel of the unit.

In addition, site G.shdsl connections to the unit are made via the SHDSL ports on the unit's rear panel.

Procedure A explains the cabling connections that might need to be made to the GoWide 18.4e, and explains how to initially power-up the unit.

Note: The rear panel of the unit contains a strain-relief crossbar (see Figure 1). Cable connections to the unit's rear panel can be run over this crossbar and tied to it for added protection and connection integrity.

Procedure A. GoWide 18.4e Cabling and Power-Up

Step	Procedure
	Perform Step 1 if connecting a terminal or computer to the GoWide 18.4e via the DB-9 serial CRAFT port on the GoWide front panel for out-of-band configuration/management.
1	Connect a serial cable (not supplied) from the GoWide's DB-9 "CRAFT" port to the PC's serial port. The pin assignments for the DB-9 "CRAFT" port are shown in Table A, below.
	Perform Steps 2 and 3 if connecting a computer or server to the GoWide 18.4e via the RJ-45 "10/100M" Ethernet port on the GoWide front panel for in-band configuration/management.
2	Check that an Ethernet (NIC) card and the TCP/IP protocol are installed on the computer/server that will be used for configuration and management. *Note:* If the TCP/IP protocol is not installed, go to Appendix A for the installation procedure.
3	Connect an Ethernet cable from the GoWide's front panel RJ-45 "10/100M" Ethernet port to the console computer's/server's NIC card. The pin assignments for the RJ-45 "10/100M" Ethernet port are shown in Table C, below. *Notes:* 1. If an Ethernet cable is supplied with the GoWide, use it if possible. 2. Use a crossover Ethernet cable for a direct connection from the unit to the computer/server. If the unit and computer/server are connected via a hub, standard (straight-through) Ethernet cables can be used.

Step	Procedure
Perform the remaining steps to make site LAN and WAN connections to the GoWide 18.4e, and power up the unit.	
4	Connect DSL cables from the DSL jacks that were installed by the Service Provider's technician to the RJ-45 "SHDSL" ports on the back of the GoWide that will be used. The pin assignments for the RJ-45 "SHDSL" ports are shown in Table B, below. *Note:* Use a minimum of 26AWG CAT-3 type cable for the DSL connections.
5	Connect an Ethernet cable from the GoWide's front panel RJ-45 "10/100M" Ethernet port to the site LAN connection using an appropriate cable type (standard (straight-through) or crossover). The pin assignments for the RJ-45 "10/100M" Ethernet port are shown in Table C, below. *Note:* If an Ethernet cable is supplied with the GoWide, use it if possible.
6	Ensure that the GoWide's power Switch is set to the off (O) position. *Note:* The Power Switch is located on the Power Module on the rear panel of the GoWide (see Figure 3).
7	Insert the supplied power cord into the receptacle in the Power Module. *Note:* The rating of the unit's fuse, located within the Power Module, is 2 Amps (2A).
8	Connect the other end of the power cord to mains power.
9	Set the GoWide's Power Switch to the On (—) position. After the Power Switch is turned on, the indicators on the unit's front panel flash as the unit's power-up sequence takes place. After several seconds, the indicators begin reporting the status of the unit. Refer to Table D for a description of the various operational states of the indicators.

End of Procedure

Interface Pin Assignments

The CRAFT and Ethernet port connections are made at the front panel of the GoWide 18.4e. The SHDSL and power connections are made at the rear panel.

CRAFT Interface (DB-9)

The CRAFT port is a DB-9 RS-232 link that allows local access to the Command Line Interface (CLI). Interface pin assignments for the CRAFT port are listed in Table A.

Table A. Console Port (DB-9) Interface Pin Assignments

Signal Name	Pin
TXD	2
RXD	3
GND	5

SHDSL Interface (RJ-45)

There are eight RJ-45 SHDSL ports on the rear panel of the GoWide 18.4e. The cabling used for these connections should be minimum CAT-3 type cable. The interface pin assignments for SHDSL ports 1 through 8 are listed in Table B. *Pins that are not included in the table are not connected (NC).*

Table B. Digital Subscriber Line (RJ-45) Interface Pin Assignments

Signal Name	Pin
Tip	4
Ring	5

ETHERNET 10/100M Interface (RJ-45)

The Ethernet port is an RJ-45 port that is the LAN connection to the unit, and allows remote access to the CLI via Telnet. The Ethernet interface pin assignments are listed in Table C.

Note: Pins 4, 5, 7, and 8 are AC-terminated to ground.

Table C. Ethernet (RJ-45) Interface Pin Assignments

Signal Name	Pin
RD +	1
RD −	2
TD +	3
TD −	6

Panel Indicators and Features

The following figures and tables show and explain the various indicators and other features on the GoWide 18.4e front and rear panels.

GoWide 18.4e Front Panel

Figure 2 shows the GoWide 18.4e front panel.

Figure 2. GoWide 18.4e Front Panel
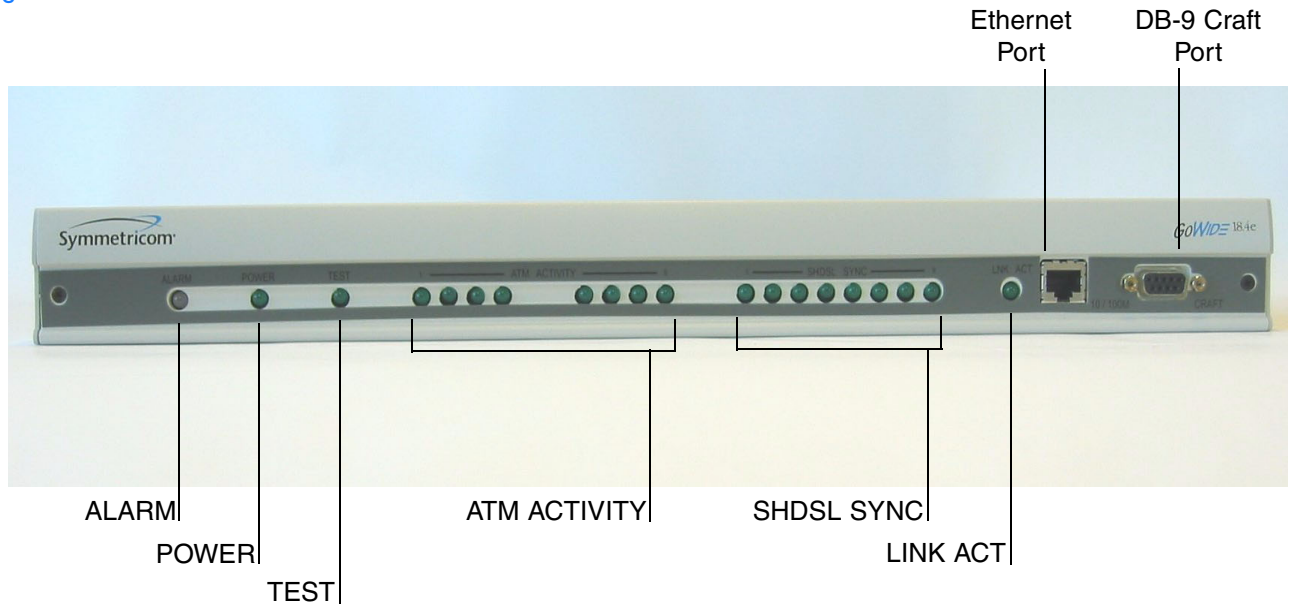
The GoWide 18.4e front panel includes the status indicators described in Table D.

Table D. Front Panel Status Indicators

Indicator	Color	Description
ALARM	Red	Flashing: An alarm condition is occurring within the unit. *Note:* The flash rate varies with the severity of the alarm condition. The flash rate is slower for lower severity alarms.
		Off: No alarm condition is occurring
POWER	Green	ON: The unit is powered up.
		OFF: The unit is not powered up.
TEST	Green	*This indicator is not functional.*

Indicator	Color	Description
ATM ACTIVITY (one per G.shdsl port)	Green	Blinking: ATM activity exists on the G.shdsl port.
		OFF: No ATM activity exists on the G.shdsl port.
SHDSL SYNC (one per G.shdsl port)	Green	ON: The G.shdsl port is synchronized.
		Blinking: The G.shdsl port is in handshake mode.
		OFF: The G.shdsl port is disabled.
LNK ACT	Green	ON: An Ethernet link is established on the port, and no data transmission is taking place.
		Blinking: An Ethernet link is established on the port, and data transmission is taking place.
		OFF: No Ethernet link is established on the port.

GoWide 18.4e Rear Panel

Figure 3 shows the GoWide 18.4e rear panel.

Note: The strain-relief crossbar is removed in Figure 3 for clarity.

Figure 3. GoWide 18.4e Rear Panel

SHDSL Ports   Reset Switch   Power Module
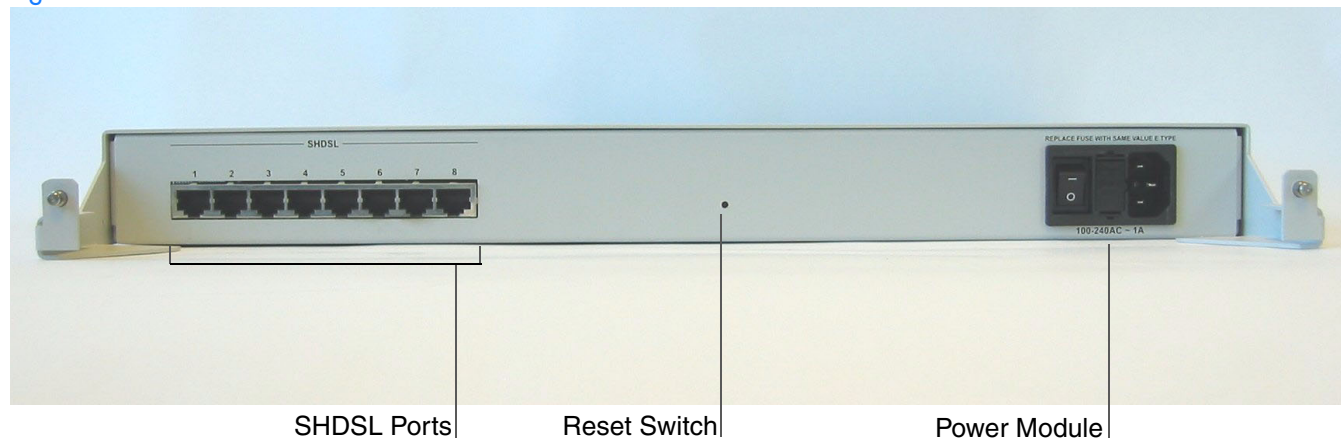
Note: The GoWide 18.4e rear panel contains no status indicators.

Configuring the GoWide 18.4e

This chapter describes how to configure the GoWide using the CLI.

Overview

This chapter explains the GoWide 18.4e's factory default configuration, and explains how to use the GoWide 18.4e for internet access using the default configuration.

Notes:

1. More advanced configuration examples, including how to configure the GoWide 18.4e as an ATM Aggregator and Concentrator, can be found in the *GoWide 18.4e Technical Manual.*

2. The current version of the GoWide 18.4e is configurable using a Command Line Interface (CLI). Procedures that explain how to configure the unit using the CLI, as well as detailed descriptions for each CLI command, can be found in the *GoWide 18.4e Technical Manual.*

Service Parameters

Configuration of the GoWide 18.4e and LAN equipment might require that certain parameters that are specific to your service provider connection be known. Appendix C contains a worksheet which lists the parameters that are typically provided by the service provider, with space to record them. Obtaining these parameters prior to configuring the GoWide will facilitate the configuration process.

The GoWide 18.4e Factory Default Configuration

The GoWide 18.4e is factory configured to function as a Bridge device. Some of the specifics of the factory default configuration are as follows:

- LAN Protocol: Bridged

- WAN Protocol: RFC 1483 bridged

- ATM Virtual Connection: VCI=0, VPI=35

- Encapsulation: LLC

- QoS: Class=UBR, PCR=5434, BT=6

- IMA: One channel passthrough interface to DSL port "SHDSL 1"

- SHDSL: Auto-negotiation for Annex A, Annex B, Annex B_ANFB

In addition, the GoWide 18.4e contains a factory default IP interface which has an IP address of 10.0.0.1 and is attached to the bridge. The purpose of this interface is for in-band configuration and management of the unit.

Internet Access Configuration

One use for the GoWide 18.4e is for accessing the Internet from a PC or multiple PCs on the LAN side, using the GoWide as a bridge device. In such a configuration, the factory default setup of the GoWide can be used, with LAN-side PCs receiving their TCP/IP configuration information from the ISP's DHCP Server. Figure 4 shows an example of this type of setup.

Figure 4. Internet Access Configuration

ATM Network Cloud

DSLAM

G.shdsl

GoWide
- Factory Default Configuration
  (RFC 1483 Bridge)

Ethernet

ISP Server
- IP Adrs = 192.168.1.1
- Subnet Mask = 255.255.255.0

Computer
- DHCP Client Enabled
- Default Gateway = 192.168.1.1
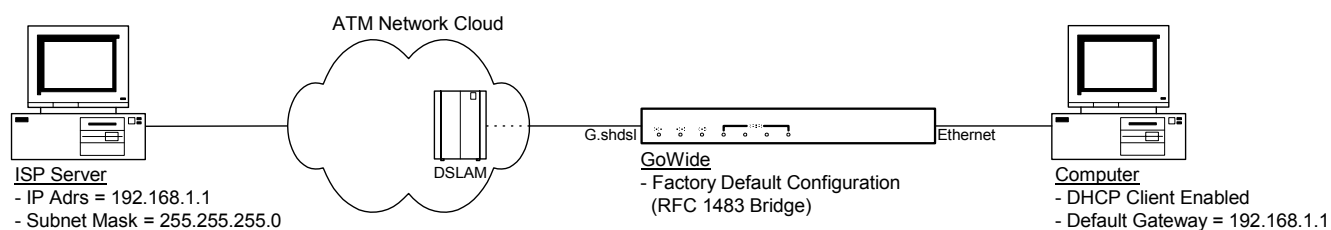
Procedure B describes how to achieve the above setup.

Procedure B. Internet Access Configuration

Step	Procedure
1	Ensure that the TCP/IP protocol is installed on the computer. If not, refer to *Appendix A* in this manual.
2	Enter the ISP Gateway address, and enable DHCP Client mode, on the computer. *Note:* The Gateway IP address is provided by the ISP.
3	Re-start the computer. The computer is now configured for internet access via the GoWide.

End of Procedure

Note: When a computer receives configuration parameters, including an IP address, via DHCP, local Ethernet configuration/management communications between the computer and the GoWide will likely be interrupted. To access the GoWide again, change the computer settings as described in the section entitled *Configuring the Computer* in *Appendix A* of this manual.

3

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Support and Warranty Information

This chapter provides support and warranty information on the GoWide.

Chapter 4

Overview

Symmetricom Global Services (SGS) is the dedicated services division of Symmetricom, Inc. SGS offers a variety of service products to support your GoWide product. Whether you need technical support, installation, maintenance, or other services, Symmetricom can deliver a service product to fit your needs. Call, fax, or e-mail us for detailed coverage information and pricing.

Customer Assistance

For customer assistance, contact the following:

Symmetricom Global Services

U.S.A. Customer Assistance Center

> 1-888-367-7966 (U.S.A. only – toll free)
> 1-408-428-7907 (worldwide)
> Fax: 1-408-428-7998

Europe, Middle East, and Africa (EMEA) Customer Assistance Center

> +44 (0) 1189 699 799
> Fax: +44 (0) 1189 277 520

E-mail: support@symmetricom.com (contract customers only)

Internet: http://www.symmetricom.com (select the Support section of the internet site and register to receive a user ID and password)

4 Technical Support

Telephone technical support is provided through Symmetricom's Customer Assistance Center 24 hours a day. Phone support is available by the hour, in multi-hour blocks, or on a contract basis.

Extended Warranty

Annual or multi-year extended warranty contracts are available for hardware repair and software updates for your GoWide product. Extended warranty coverage can include telephone technical support at your option.

Configuration and Installation Support

Service providers who will be configuring multiple units may consider having that work done in Symmetricom's factory prior to shipment. Symmetricom can pre-

configure units to meet your standard requirement(s). Installation Services are also available.

Maintenance and Spares

Support programs are available to provide you with prompt delivery of spare units and labor to effect replacement in the field. Spares support services, with delivery times matched to your needs, can be provided on a standalone basis, or combined with on-site repair services.

Training

Product training courses are available at Symmetricom's training centers or at the customer site. For some products, CD training programs are available.

Warranty Information

The GoWide product is covered by a Symmetricom return-to-factory warranty that provides for hardware repair. Software upgrades to the latest released version are available for download from Symmetricom during the warranty term. Warranty periods vary depending on the product model and agreements with your company or provider (if applicable). For information regarding your warranty period, call the Customer Assistance Center at 1-408-428-7907.

To request a repair, call your local Symmetricom distributor or Symmetricom's Customer Assistance Center and obtain a Return Material Authorization (RMA) number and shipping address. To reach the Customer Assistance Center dial 1-408-428-7907 (worldwide) or 1-888-367-7966 (toll-free in the USA) and select the Repair Administration option. Repair Administration personnel will provide you with a Data Collection Form to record the information (as defined above) regarding the unit. The form must be completed and returned to Repair Administration or sent in with the unit.

Note: Retain the RMA number for future reference. The RMA number is used by Symmetricom for internal tracking of the unit. Reference the RMA number in all communications with Symmetricom regarding the unit.

Mark the RMA number on the outside of the shipping carton.

Ship the equipment prepaid and insured to Symmetricom factory address provided by the Repair Administration Staff on your RMA Data Collection Form.

Note: Repaired equipment is typically shipped within 30 days of receipt by Symmetricom, or per contract terms. For all "In Warranty" products, shipping costs to Symmetricom are paid by the customer; shipping costs to return the repaired unit to the customer are paid by Symmetricom.

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4

TCP/IP Protocol Installation

This appendix provides information on TCP/IP protocol installation, and how to configure a computer to communicate with the unit.

App. A

TCP/IP Protocol Installation

Before installing the TCP/IP protocol, check that the Ethernet card has been installed in the computer.

Note: Procedure C applies to computers running Windows 95/98. For computers running Windows NT 4.0/2000/XP, Linux, or Macintosh operating systems, please refer to the TCP/IP protocol setup section in the operating system's documentation.

Procedure C. TCP/IP Protocol Installation

Step	Procedure
Note: Steps 1 through 4 in this procedure reference Figure 5. Step 5 references Figure 6. Steps 6 and 7 reference Figure 7. Steps 8 and 9 reference Figure 8.	
1	Click **Start** on the PC task bar. Select **Settings** and **Control Panel**.
2	Double-click the **Network** icon.
3	Select the **Configuration** tab.
4	Click on the **Add** button.
5	Select **Protocol** on the **Select Network Component Type** screen. Click the **Add** button.
6	Select the manufacturer's name in the **Manufacturers:** pane of the **Select Network Protocol** window. Double-click **TCP/IP** in the **Network Protocols:** pane.
7	The PC displays the main network window. Check that **TCP/IP Protocol** is displayed in the list of installed network components.
8	Click the **OK** button. Windows might ask for the Windows 95/98 CD or the original installation files (such as, D:/win95, D:/win98, or c:\windows\options\cabs).
9	Click the **OK** button, then follow the instructions to restart the PC.

End of Procedure

A

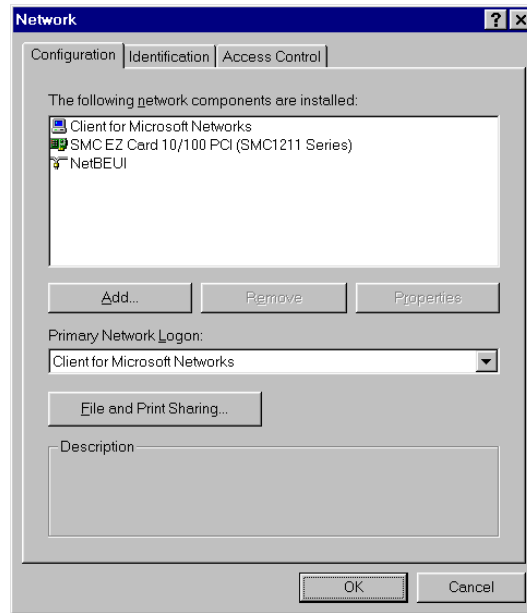**Figure 5. Network Screen**

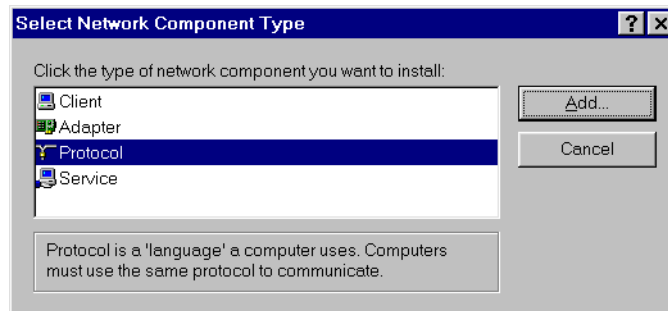**Figure 6. Select Network Component Type Screen**

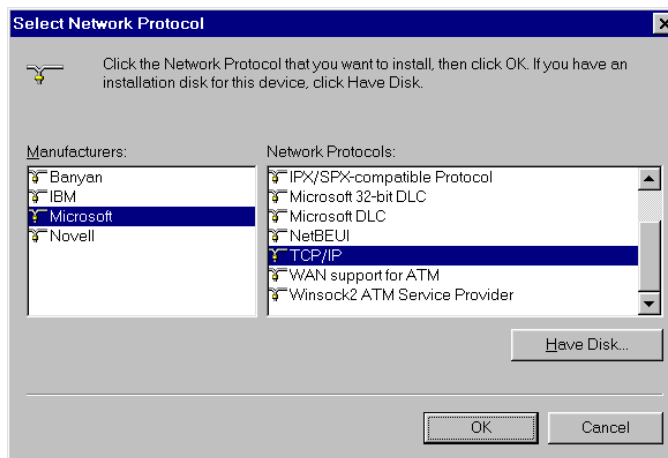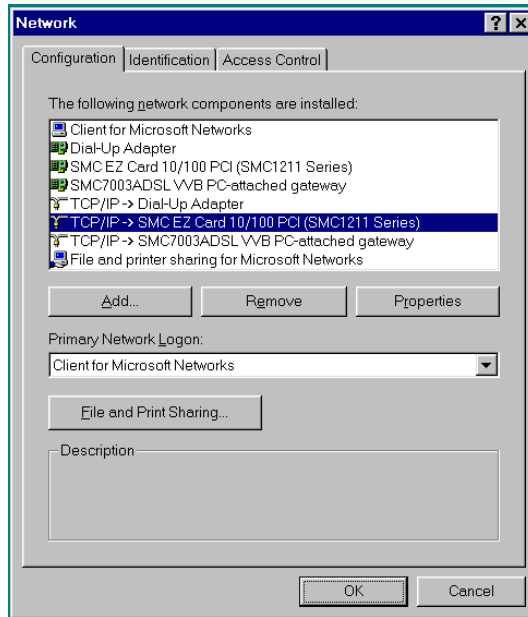**Figure 7. Select Network Protocol Screen**

Figure 8. Main Network Screen
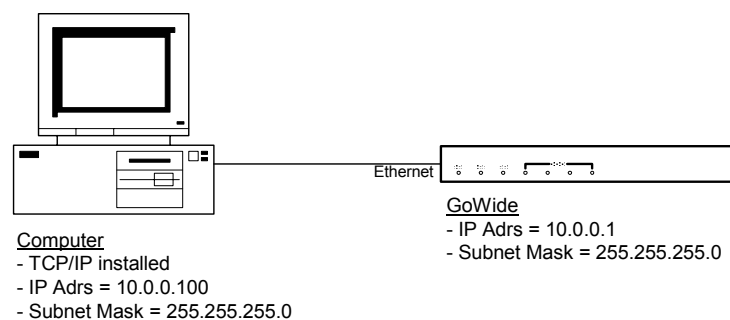
A

Configuring the Computer

In order to use Telnet to configure or manage the unit, an Ethernet connection must exist between the GoWide and the computer or server on which the Telnet session is running. The simplest method of achieving this is via a direct connection between the "10/100M" Ethernet port on the GoWide and the NIC port on the computer/server. This section explains how to ensure that the computer/server and GoWide can properly communicate over such a connection.

Notes:

1. Ensure that an Ethernet card is installed in the computer.

2. Windows 98/NT 4.0/2000/XP, Linux, and Macintosh computer users should refer to their particular operating system's documentation for detailed information on setting up Ethernet communications with an external device.

Figure 9 shows a simple connection between a computer and the GoWide.

Figure 9. Connection to the GoWide

Ethernet

GoWide
- IP Adrs = 10.0.0.1
- Subnet Mask = 255.255.255.0

Computer
- TCP/IP installed
- IP Adrs = 10.0.0.100
- Subnet Mask = 255.255.255.0

Procedures D, E, and F explain how to configure computers with various operating systems to communicate with the GoWide

Windows 95/98/Me

Procedure D explains how to configure a Windows 95, 98, or Me computer to communicate with the GoWide.

Procedure D. Computer Configuration - Windows 95/98/Me

Step	Procedure
1	On the Windows desktop, click the **Start** button, then **Settings**, and then **Control Panel**. The Control Panel window appears.
2	Double-click the **Network** icon. The Network dialog box appears.

Procedure D. Computer Configuration - Windows 95/98/Me (Continued)

Step	Procedure
3	In the Network dialog box, click the **Configuration** tab, then select the **TCP/IP** line for the applicable Ethernet adapter. *Note:* If you do not see a **TCP/IP** line in the Network dialog box, TCP/IP is not installed on your computer. Go to Appendix A, *TCP/IP Protocol Installation,* and install TCP/IP before continuing.
4	Click the **Properties** button to invoke the TCP/IP Properties dialog box.
5	In the TCP/IP Properties dialog box, click the **IP Address** tab, then select the **Use the following IP address** radio button.
6	Enter an address on the same subnet (such as 10.0.0.100) into the **IP address** field, and enter 255.255.255.0 into the **Subnet mask** field.
7	Click the **OK** button to close the TCP/IP Properties dialog box, then click the **OK** button in the Network dialog box. *Note:* A message might appear asking you to insert the Windows installation disk, or to install additional files. Follow the on-screen instructions to install any additional needed files.
8	Restart the computer. The computer is now configured to communicate with the GoWide.

End of Procedure

Windows 2000

Procedure E explains how to configure a Windows 2000 computer to communicate with the GoWide.

Procedure E. Computer Configuration - Windows 2000

Step	Procedure
1	On the Windows desktop, click the **Start** button, then **Settings**, and then **Control Panel**. The Control Panel window appears.
2	Double-click the **Network and Dial-up Connections** icon. The Network and Dial-up Connections dialog box appears.
3	In the Network and Dial-up Connections dialog box, double-click the **Local Area Connection** line for the applicable Ethernet adapter (usually the first one listed). The Local Area Connection Status dialog box appears.
4	Click the **Properties** button to invoke the Local Area Connection Properties dialog box.
5	In the Local Area Connection Properties dialog box, select the **Internet Protocol (TCP/IP)** line, then click the **Properties** button. The Internet Protocol (TCP/IP) Properties dialog box appears.
6	In the Internet Protocol (TCP/IP) Properties dialog box, select the **Use the following IP address** radio button.
7	Enter an address on the same subnet (such as 10.0.0.100) into the **IP address** field, and enter 255.255.255.0 into the **Subnet mask** field.

A

Procedure E. Computer Configuration - Windows 2000 (Continued)

Step	Procedure
8	Click the **OK** button to close the Internet Protocol (TCP/IP) Properties dialog box, then click the **OK** button in the Local Area Connection Properties dialog box.
9	Close the Local Area Connection Status dialog box by clicking the **Close** button.
10	Restart the computer, if prompted. The computer is now configured to communicate with the GoWide.

End of Procedure

Windows XP

Procedure F explains how to configure a Windows XP computer to communicate with the GoWide.

Procedure F. Computer Configuration - Windows XP

Step	Procedure
1	On the Windows desktop, click the **Start** button, then **Control Panel**. The Control Panel window appears.
2	Click the **Network and Internet Connections** icon, then the **Network Connections** icon. The Network Connections dialog box appears.
3	In the Network Connections dialog box, double-click the **Local Area Connection** icon for the applicable Ethernet adapter (usually the first one listed). The Local Area Connection Status dialog box appears.
4	Click the **Properties** button to invoke the Local Area Connection Properties dialog box.
5	In the Local Area Connection Properties dialog box, select the **Internet Protocol (TCP/IP)** line, then click the **Properties** button. The Internet Protocol (TCP/IP) Properties dialog box appears.
6	In the Internet Protocol (TCP/IP) Properties dialog box, select the **Use the following IP address** radio button.
7	Enter an address on the same subnet (such as 10.0.0.100) into the **IP address** field, and enter 255.255.255.0 into the **Subnet mask** field.
8	Click the **OK** button to close the Internet Protocol (TCP/IP) Properties dialog box, then click the **OK** button in the Local Area Connection Properties dialog box.
9	Close the Local Area Connection Status dialog box by clicking the **Close** button.
10	Restart the computer, if prompted. The computer is now configured to communicate with the GoWide.

End of Procedure

A

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A

Troubleshooting

This appendix provides troubleshooting information for the GoWide mode configurations.

App. B

Troubleshooting

Information on troubleshooting the GoWide mode configurations is listed in the following table. Many apparent system failures can be easily remedied by the customer. Please refer to the following troubleshooting information before contacting Symmetricom customer support.

Problem	Corrective Action
POWER indicator is off	• Ensure that the power cable is securely plugged into the unit. Also ensure that the other end of the power cable is plugged into a power outlet that is supplied with 90-250V AC. • Try a different power outlet.
SYNC indicators are flashing	• Ensure that the DSL lines are plugged into the SHDSL ports of the GoWide. • Verify that the Service Provider has activated the DSL lines. • Ensure that the DSL line lengths are within the distance specifications. • Ensure that the GoWide is configured as the correct unit type (CO or CPE) for the installation.
SYNC indicator is off	• Ensure that the SHDSL ports in question are enabled (activated).
ALARM indicator is flashing	• Ensure that the DSL lines are plugged into the DSL ports of the GoWide. • Verify that the Service Provider has activated the DSL lines. • Ensure that the DSL line lengths are within the distance specifications. • Ensure that the SHDSL ports in question are enabled (activated). *Note:* The CLI command `al show clog all` is used to display the current alarms.
Cannot access the GoWide via Telnet	• Ensure that the computer is plugged into the GoWide's Ethernet port. • If the computer is connected directly to the GoWide, ensure that a straight-through Ethernet cable is being used (similar to the one that might have been provided with the unit). An illuminated green LNK ACT indicator on the left side of the Ethernet port indicates that a link has been established with the computer. • Since the GoWide's default IP address is 10.0.0.1, the computer must be part of the same subnet and have an IP address between the range of 10.0.0.2 to 10.0.0.254. The computer subnet mask should be 255.255.255.0. • Verify that the computer Internet options are set correctly to access the GoWide.
Lost password	• Reset the GoWide to the original factory defaults. Refer to the section entitled *Restoring Factory Defaults* in the *GoWide 18.4e Technical Manual.*

B

Service Parameters and Worksheet

Parameters from Service Provider

C

The following parameters are an example of what might be provided by the Service Provider (ISP) for configuring the computer or GoWide.

Example shown below:

- IP Address   10 . 10 . 12 . 102
- Subnet Mask Address   255 . 255 . 255 . 0
- Gateway Address   10 . 10 . 12 .   1
- DNS Primary IP Address   202 . 23 . 3 . 75
- DNS Secondary IP Address   202 . 23 . 3 . 85
- Domain Address   10 . 10 . 12 . 40
- VCI value (default: vci=35)   35
- VPI value (default: vpi=0)   0

Worksheet

Obtain the following parameters from your service provider, and record them in the spaces provided, before you proceed with the configuration of the GoWide:

- IP Address   ___ . ___ . ___ . ___
- Subnet Mask Address   ___ . ___ . ___ . ___
- Gateway Address   ___ . ___ . ___ . ___
- DNS Primary IP Address   ___ . ___ . ___ . ___
- DNS Secondary IP Address   ___ . ___ . ___ . ___
- Domain Address   ___ . ___ . ___ . ___
- VCI value (default: vci=35)   ___
- VPI value (default: vpi=0)   ___
- Domain Name   _____
- Host Name   _____

Note: If VCI/VPI values are the same as the default values, no changes are required in bridge mode.