

Ascend

Navis CNM Gateway

Ascend's Navis™ Customer Network Management (CNM) Gateway network management software applications let service providers securely share network information with their enterprise customers, carrier partners and internal employees. This allows service providers to provide segregated end-user visibility into their discrete portion of the network. Navis CNM Gateway cost-effectively delivers both view and control access to network configuration, performance, reporting and fault information for Ascend Frame Relay, IP, ATM, SMDS, dedicated and dial networks. This turn-key solution allows the service providers to roll out CNM services quickly and confidently.

Flexible CNM service definitions deliver a host of new capabilities to enterprise users

Precise control over Navis CNM Gateway parameters lets service providers define a wide range of CNM services, such as view-only configuration information; view-only report information; view reports and faults; and view and control configurations. This allows service providers to develop different CNM services targeted to their diverse customer bases, giving end users access to a wide range of network information never before available.

- ▶ Network information for Frame Relay, ATM, IP and SMDS switch services supported by the B-STDX, CBX, GX and SA products
- ▶ Dedicated and dial access services supported by the MAX TNT™ and MAX™ products
- ▶ Sharing of configuration, fault, real-time monitoring, historical trending and reporting
- ▶ Both view (read-only) and control (read/write) settings
- ▶ Ease initial creation of CNM service and user assignments with Web-based interface
- ▶ Delivery of outsourcing and wholesaling services to service provider's customer base

Network partitioning and encrypted transport ensure protected access to network information

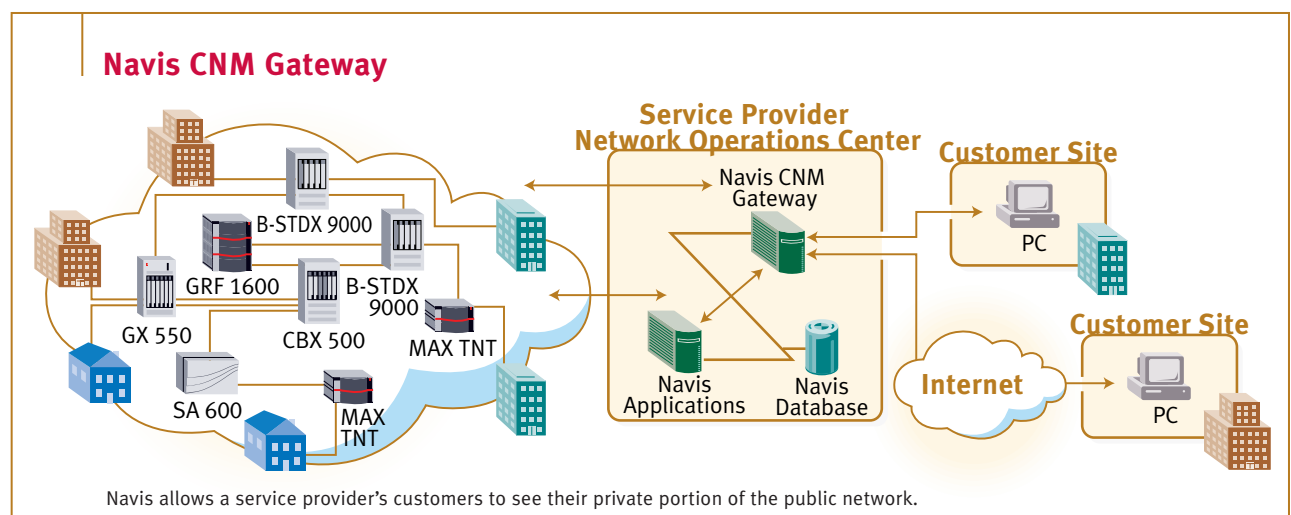
Navis CNM Gateway products let service providers securely open access to valuable network information with Secure Sockets Layer (SSL), encryption and IPSec. Also, network information is partitioned so users can see only their private portion of the public network.

- ▶ User access restricted to authorized services and network components
- ▶ Additional security enforced by switches through use of both physical and bandwidth segmentation
- ▶ Secure transport of user traffic during the CNM session via IPSec, SSL and encryption methods

Scalable client/server architecture supports growth in CNM customers

As network needs grow, the Navis CNM solution scales to accommodate growing user and resource demands.

- ▶ Reduced network management traffic through efficient query of local databases and other Navis applications
- ▶ Access from multiple simultaneous clients supported by client/server architecture
- ▶ Security of customer traffic from operations network resources via IPSec, SSL and encryption methods



Web and Java-based technologies enable cost-effective access and deployment

Navis CNM Gateway products are Web- and Java-enabled, letting service providers deliver access to network information cost-effectively and easily.

- ▶ Standard browsers for end user access to CNM information
- ▶ Platform independent browsers for support of a wide variety of end user computing platforms
- ▶ Minimized software distribution via Web-based technologies
- ▶ Ease initial creation of CNM service and user assignments with Web-based interface

Turn-key CNM solution allows immediate implementation and service delivery

Navis CNM Gateway products deliver a complete turn-key solution. Service providers can implement the Navis CNM products and immediately begin offering CNM services to their end users.

- ▶ Security and partitioning for CNM delivery without proprietary additions or proxies
- ▶ Configuration, reporting, fault handling and performance monitoring offerings available to service providers for their customer base with a single interface
- ▶ CNM services for any type of network via Navis support for Ascend Frame Relay, ATM, IP, SMDS and dial and dedicated services

NavisAccess™ CNM Gateway Specifications

The NavisAccess CNM Gateway consists of two components: the NavisAccess CNM Server and the NavisAccess CNM Client.

Platform Support: Windows NT, Solaris, HP/UX, AIX,
OpenView on Solaris,
OpenView on HP/UX, NetView on AIX

NavisXtend™ CNM Gateway Specifications

The NavisXtend CNM Gateway consists of two components: the NavisXtend CNM Server and the NavisXtend CNM Client

Hardware Requirements:	Server	Sun UltraSparc 1 or greater 2 GB Hard Disk 128 MB RAM CD ROM drive
Hardware Requirements:	Client	Any platform supporting Netscape
Software Requirements:	Server	Sun Solaris 2.4 or 2.5 Sybase 11 HTTPd secure Web server Netscape NavisXtend servers to support desired functionality: NavisXtend Provisioning Server, NavisXtend Fault Server, NavisXtend Statistics Server and Report Generator, NavisCore
Software Requirements:	Client	Netscape

The Navis CNM Gateway products are members of Ascend's Navis family of network management products: NavisAccess, NavisCore™ and NavisXtend. More information on these network management products is available at www.ascend.com.

Ascend Communications, Inc.

Worldwide and North American Headquarters

One Ascend Plaza
1701 Harbor Bay Parkway
Alameda, CA 94502, United States
Tel: 510.769.6001
Fax: 510.747.2300
E-mail: info@ascend.com
Toll Free: 800.621.9578
Fax Server: 415.688.4343
Web Site: <http://www.ascend.com>

European Headquarters

Rosemount House
Rosemount Avenue, West Byfleet
Surrey KT14 6NP, United Kingdom
Tel: +44 (0) 1932.350.115
Fax: +44 (0) 1932.350.199

Japan Headquarters

Level 19 Shinjuku Daiichi-Seimei Bldg.
2-7-1 Nishi-Shinjuku
Shinjuku-ku, Tokyo 163-07, Japan
Tel: +81.3.5325.7397
Fax: +81.3.5325.7399
Web Site: <http://www.ascend.co.jp>

Asia-Pacific Headquarters

Suite 1419, Central Building
1 Pedder Street
Central, Hong Kong
Tel: +852.2844.7600
Fax: +852.2810.0298

Latin, South America and the Caribbean Headquarters

One Ascend Plaza
1701 Harbor Bay Parkway
Alameda, CA 94502, United States
Tel: 510.769.6001
Fax: 510.747.2669

Ascend Communications, Inc. develops, manufactures and sells wide area networking solutions for telecommunications carriers, Internet service providers, and corporate customers worldwide. For more information about Ascend and its products, please visit the Ascend web site at <http://www.ascend.com>, or e-mail info@ascend.com.

Ascend markets the B-STDx, CBX, GRF, IP, MAX, Multiband, MultiDSL, Navis, Pipeline, SA, SecureConnect and STDx families of products. Ascend products are available in more than 30 countries worldwide.

Ascend and the Ascend logo are registered trademarks and all Ascend product names are trademarks of Ascend Communications, Inc. Other brand and product names are trademarks of their respective holders.

Specifications are subject to change without notice.

© Copyright 1998 Ascend Communications, Inc.

01-114
4/98

