

SKYX[®] CLIENT/SERVER

Performance-Enhancing System for Satellite Networks

SS10
SS45

The SkyX Client / Server system enhances the performance of Internet and private network access over satellite links. The SkyX Client software, installed on the PCs of end users, works in conjunction with a SkyX Server hardware unit located at the network hub. Through the use of a unique, connection-splitting and protocol-translation system, the SkyX Client / Server system overcomes the deficiencies of TCP/IP in satellite-based networks, while remaining entirely transparent to end-user applications. The SkyX Client is ideal for use with any satellite receiver card or set-top box.

OVERVIEW

SkyX Server
SS10



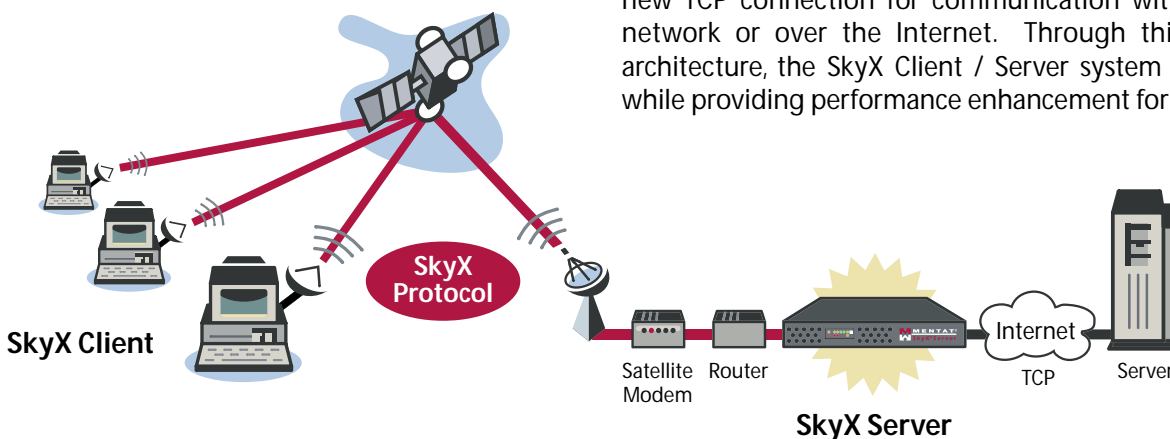
SkyX Server
SS45



OPERATION

The SkyX Client / Server system increases the throughput and efficiency of network access over satellites by transparently replacing TCP with the SkyX Protocol for the satellite segment of the connection. Especially optimized for satellite usage, the SkyX Protocol provides maximum performance under the long latency, high loss, asymmetric bandwidth conditions typical of satellite communications.

SkyX Client / Server Network Integration



The SkyX Client, installed on Microsoft Windows-based computers, transparently intercepts TCP connections from applications running on the PC and transmits the data over the satellite link using the SkyX Protocol. The SkyX Server, installed at the hub of the satellite network, establishes a new TCP connection for communication with any device on the local network or over the Internet. Through this unique, patent-pending architecture, the SkyX Client / Server system requires no proxy settings while providing performance enhancement for all TCP applications.



The SkyX Server is available in two models: the **SS10** and **SS45**. The SS10 provides SkyX enhancement for links of up to 10 Mbps while the SS45 provides SkyX enhancement for links of up to 45 Mbps.

ADVANTAGES

Increase Performance

The addition of the SkyX Client / Server solution to a satellite network allows users to take full advantage of the available bandwidth. For typical satellite conditions, the SkyX Client/Server system increases Web performance by 3 times or more and file transfer speeds up to 10 to 100 times. Integrated data compression functionality can further enhance throughput.

Improve Link Efficiency

The SkyX Client / Server system provides significant cost savings to link operators by efficiently utilizing expensive satellite bandwidth.

- Compression functionality expands the amount of data carried over the link.
- An efficient acknowledgement algorithm reduces reverse channel bandwidth utilization by 75% for Web traffic and up to 99% for file transfers.
- The connection-splitting system eliminates wasting satellite bandwidth retransmitting packets lost on the terrestrial network.
- Efficient error recovery mechanisms reduce the level of FEC required, thereby gaining additional useable bandwidth.

SKYX CLIENT SYSTEM REQUIREMENTS

Operating System	Windows 95, Windows 98, or Windows Me
CPU	Intel Pentium or faster processor
Hard Disk	5 MB of available space

SPECIFICATIONS

Capacity	SS10	Link speeds up to 10 Mbps
	SS45	Link speeds up to 45 Mbps
Warranty		1 year
Mechanical Interfaces		
Network Interface		2 x 10/100BaseT Ethernet
Terminal Interface		RS-232 serial interface
Environmental and Physical Specifications		
AC Input Voltage		Auto ranging 90 V to 264 V RMS
AC Input Frequency		47 to 63 Hz (50 to 60 Hz nominal)
AC Input Current (Max)		3A RMS (115 VAC), 1.5A RMS (230 VAC)
Typical Power Draw	SS10	87 W (110 VAC), 102 W (240 VAC)
	SS45	105 W (110 VAC), 111 W (240 VAC)
Dimensions		16.7" W x 17.25" D x 1.75" H (1 RU) (42.5 cm x 43.8 cm x 4.5 cm)
Weight		16 lbs (7.3 kg)
Operating Temperature		41° to 122° F (5° to 50° C)
Storage Temperature		-40° to 149° F (-40° to 65° C)
Operating Humidity		8% to 95% non-condensing
Storage Humidity		8% to 95% non-condensing
Certifications		FCC Class A, UL Listed, CE Mark

ABOUT MENTAT

The Leader in Performance Networking

Mentat's SkyX products are the leading solution for overcoming the limitations of TCP/IP over satellite. ISPs, corporations, governments, and military organizations around the world all rely on SkyX products to enhance the performance of their satellite networks. As the supplier to Apple, Compaq, Hewlett-Packard, IBM, Lucent, Novell, and Sun for TCP/IP and other high-performance networking software, Mentat has earned its reputation as the leader in performance networking since 1987.

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SS10 SS45

Important Features

Enhances All TCP Applications

The SkyX Client / Server system enhances the performance of all TCP-based applications including Web access, FTP file transfers, e-mail, Windows networking, database connectivity, remote access, groupware, ERP, CRM, and proprietary client-server applications.

Transparent Operation

The SkyX Client transparently intercepts connections from all TCP-based applications running on the computer without requiring any proxy settings.

Easy Installation

The SkyX Server installs transparently between the router and LAN via dual Ethernet ports. The compact 1 RU size makes the SkyX Server convenient to mount into any standard rack. The SkyX Client is easily installed onto end-user personal computers. Configuration requires only input of the SkyX Server IP address.

Link Flexibility

The SkyX Server works with any combination of SkyX Client and SkyX Gateway remote nodes, allowing mixed traffic of single users and local area networks.

FastStart Web Acceleration

FastStart further accelerates Web downloads by reducing the time required to establish each new HTTP connection.

Data Compression

On-the-fly data compression functionality offers compression ratios of up to 5:1, extending the value of your satellite bandwidth.

Redundancy

The SkyX Server comes as a fully redundant, two-unit system. In the event of failure, the back-up unit automatically replaces the primary unit.

2-way Satellite or Hybrid Links

The SkyX Client / Server system works over both 2-way satellite links, and 1-way hybrid satellite links using a dial-up modem, ISDN, or any other type of return channel.

SNMP Management

The SkyX Server can be configured and monitored through standard SNMP management tools, making the SkyX Client / Server easy to install and operate in large-scale, carrier-class networks.

