



KLASROUTER

The One-Stop Router for the First-In Communicator



Introduction

KlasRouter is the world's only fully-featured router that combines the capabilities of a Secure Voice multiplexer, a TCP Acceleration/IP Compression device and a Virtual Private Network (VPN) Gateway into a single compact form factor. KlasRouter has been designed around the needs of First-In Communicators and the IT Staffs that support them, so it has everything a deployed team needs to set up a remote office and access network resources from anywhere in the world. A result of over a decade of remote communications experience, KlasRouter is ready for the next generation of classified or secure deployable communications.



Smallest Form Factor with Highest Port Density

KlasRouter has no equal when it comes to the incredible number of physical ports it fits in a package that is an amazing 8.9" x 1.6" x 7.2" and weighs only 1.6 lbs. Included in that form factor is an 8-port 10/100 Ethernet Switch with embedded Power over Ethernet and a 4-port Voice over IP (VoIP) package for a complete Local Area Network infrastructure. Additionally, KlasRouter offers versatile Wide Area Network (WAN) access with one Ethernet port and an RS-530 Serial port. Lastly, there is a 4-port Secure Voice multiplexer completing this world-class combination of form and functionality.

Interoperable VPN Solution

One of the most crucial functions of any First-In Communication Router is its ability to encrypt classified data through a VPN session. KlasRouter fully supports all VPN protocols in order to double-encrypt Type-1 traffic or protect sensitive material to and from your home network. Using a hotel broadband Internet connection, KlasRouter automatically establishes a VPN tunnel, giving secure access to network resources over the Internet. Our solution is fully compatible with Cisco-based network infrastructures, so there will never be a problem with interoperability with your home network.

Secure Voice for FNBBDT and STU-III

No First-In Communication package is complete without Secure Voice. With KlasRouter, you can use a STE or any FNBBDT-capable device to establish an encrypted voice call with any of the four embedded Secure Voice ports. KlasRouter supports a standards-based Modem over IP solution for easy integration with existing equipment. Each call uses a minimal 6 Kb/s of bandwidth per call, so KlasRouter can easily handle all four secure calls simultaneously. Finally, KlasRouter also provides support for legacy STU-III terminals using one of the four standard VoIP ports.

Built for Integration and Customization

Klas networking products often need to be integrated into a hardened or streamlined deployable case. For that reason, KlasRouter is a completely modular package. All of the circuit boards, LEDs and power supplies can be remoted however an integration team finds necessary. In addition, Klas has an entire in-house engineering team ready to provide custom solutions, if necessary.

Practical Menu-Driven CLI for Easy Configuration

KlasRouter is not only the most compact router for the First-In Communicator, it is also the easiest to use. With its menu-based configuration, there is no time lost conducting training to learn complicated commands or confusing syntax. All of the most important and often-used functions are available from the Main Menu and can be accessed through a HyperTerminal or Telnet session. Once the configuration is done, you can save it using a stored profile where it can be re-loaded later or even emailed to another user.

Standards-Based IP Routing

Of course, true to its name, KlasRouter is a fully functional IP Router. It supports static routing and all standards-based routing protocols, such as OSPF and RIPv1/v2. For enterprise networks that run proprietary routing protocols like EIGRP, routes from KlasRouter can be incorporated into any network using redistribution.

Works with any WAN Infrastructure

For the First-In Communicator, nothing is more valuable than flexibility. KlasRouter delivers exactly that by supporting any WAN infrastructure, whether it is VSAT, BGAN, ISDN or broadband IP. Through the Serial or Ethernet WAN ports, KlasRouter is also compatible with any Type 1 encryption device. This flexibility not only offers redundancy, it allows users to migrate to more modern WAN technologies while still protecting the investment of their legacy equipment.

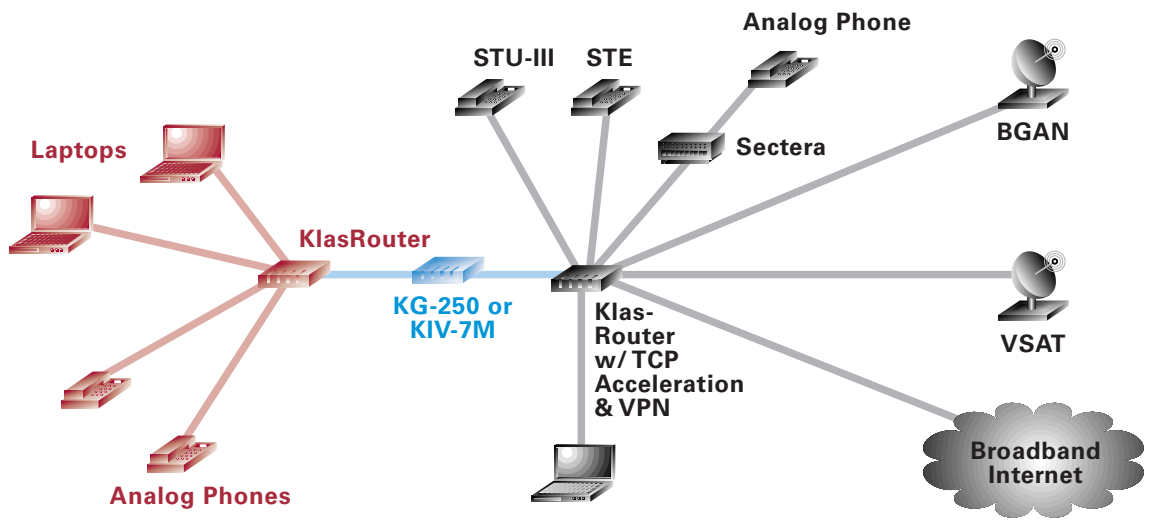
IP Compression and TCP Acceleration

One of our newest features, KlasRouter now has built-in IP Compression and TCP Acceleration. These features help to speed up traffic by either reducing file sizes or minimizing the effects of packet delay. Using compression, users can easily reduce a file to half the size, thereby almost doubling link capacity. Even with compression, satellite communication introduces a latency problem that slows down throughput. KlasRouter implements the SCPS protocol for TCP Acceleration increasing throughput on high latency networks up to 65%. Using both IP Compression and TCP Acceleration at the same time allows users to take advantage of bandwidth hungry applications never before imagined on low-bandwidth WAN links.

→ Mobile IP Network

Red Side

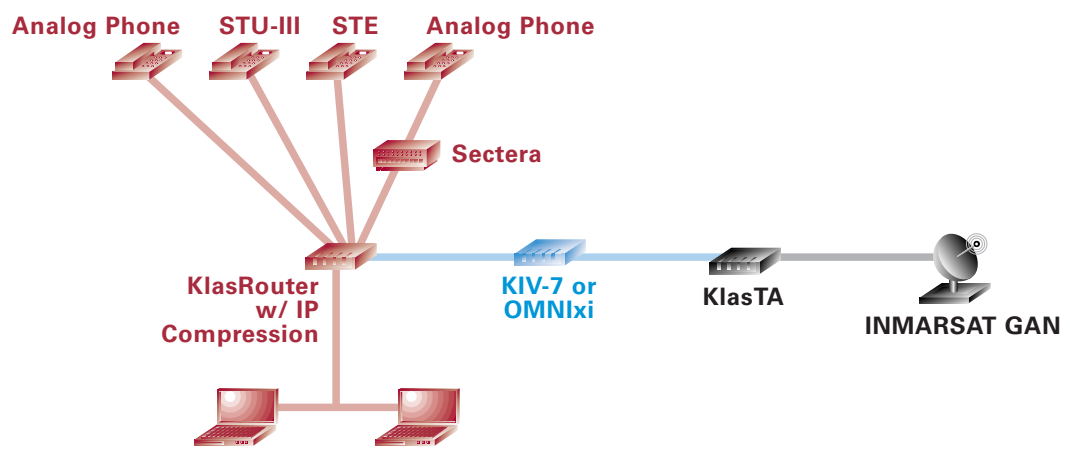
Black Side



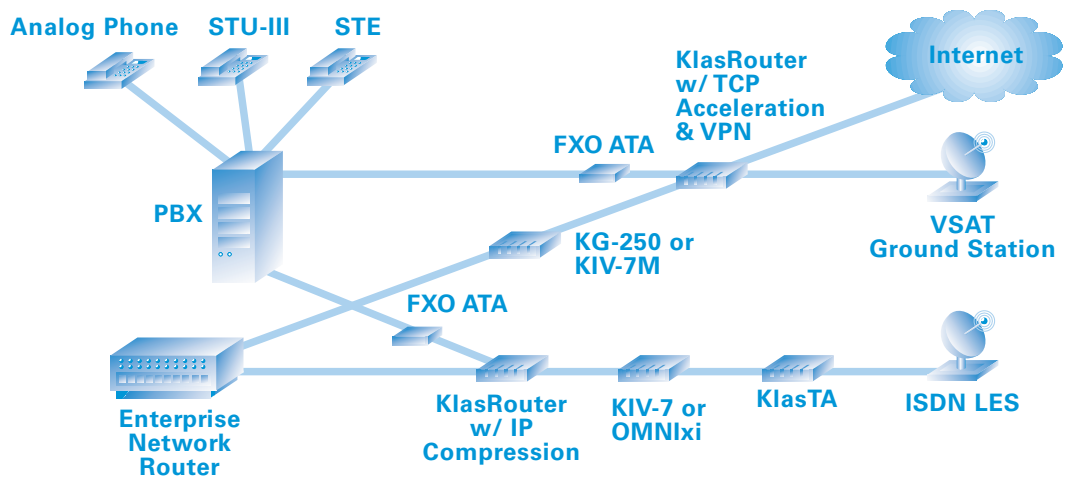
→ Mobile Serial Network

Red Side

Black Side



→ Fixed Site Network





↑ Front of KlasRouter



↑ Back of KlasRouter

KlasRouter Technical Specifications

IP Router

FastEthernet Switch
 8 x 10/100 RJ-45 Ports
 DHCP Server
 VLAN
 Power over Ethernet

VoIP
 4 x FXS RJ-11 Ports
 SIP v2
 Integrated Phone Book
 G.711, G.723.1, G.726, G.729ab Codecs

RS-530 Synchronous Serial WAN Port
 PPP
 HDLC
 PAP, CHAP, MS-CHAP
 Dial-on-Demand Routing

Ethernet WAN Port
 DHCP Client
 DNS Relay
 Broadband Internet-Ready
 Port Address Translation (PAT)

QoS
 Priority Queuing
 Weighted Fair Queuing
 Layer 2 Class of Service (CoS) Support

Routing Protocols
 RIPv1, RIPv2
 OSPF
 Static Routing

Configuration and Management
 Menu Based CLI
 Web-based GUI
 RS-232 Console Port
 SNMPv1, SNMPv2, SNMPv3
 Advanced Debugging and Diagnostics
 Telnet

Physical
 Size: 1.6" x 8.9" x 7.2"
 Power: 12V DC, 4A / 48W
 Weight: 1.6 lbs

Secure Voice Multiplexer

4 x RJ-11 Secure Voice Ports
 FNBTD Modem Relay
 STU-III Pass-Through via G.726 codec
 ITU-T V.150.1
 SIP Call Set-up
 6 K/b/s per call, 4 Simultaneous Calls

Virtual Private Network (VPN) Gateway

IPSec Encapsulating Security Protocol (ESP)
 Internet Key Exchange (IKE) Main Mode
 Perfect Forward Secrecy (PFS) Re-keying
 Diffie-Hellman (DH) Groups 2 and 5
 Encryption Algorithms
 - MD5
 - SHA
 - 3DES
 - AES (128, 192, 256 bit)
 NAT Transparency
 Cisco-Compatible
 Support for IPSec peer by IP Address or Hostname
 Easy Menu-Driven Tunnel Set-up
 Generic Routing Encapsulation (GRE)

IP Compression/TCP Acceleration

IP Compression

DEFLATE compression algorithm
 Easily-achieved 2:1 compression ratio

TCP Acceleration

SCPS-based
 63% bandwidth increase

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