# XipLink IPSec VPN

IPsec VPN Software Option
Accelerate, Optimize and Encrypt Data

Securing data communications over satellite links often presents the challenge of limited throughput or the need to introduce an acceleration solution before implementing encryption. XipLink's IPsec VPN software addresses this challenge, when enabled on an existing accelerator or optimizer appliance, reducing operating costs without compromising performance.

XipOS's optional IPsec software can terminate multiple IPsec sessions, making global VPN deployments simple and cost-effective. Users can take full advantage of XipOS's comprehensive optimization features which include acceleration, compression and QoS. This integrated approach ensures end-to-end security by extending protection all the way to the enterprise edge.

XipOS's IPSec support includes compatibility with X.509 based certificates and the CMPv2 certificate management solution. IPSec sessions can be supported over both the WAN and the LAN. The XipOS Decrypt-Optimize-Encrypt (DOE) feature provides support for optimization even within a fully encrypted end-to-end environment, utilizing customer-specific X.509 certificates, making it particularly valuable in scenarios such as those found in 4G and 5G networks.
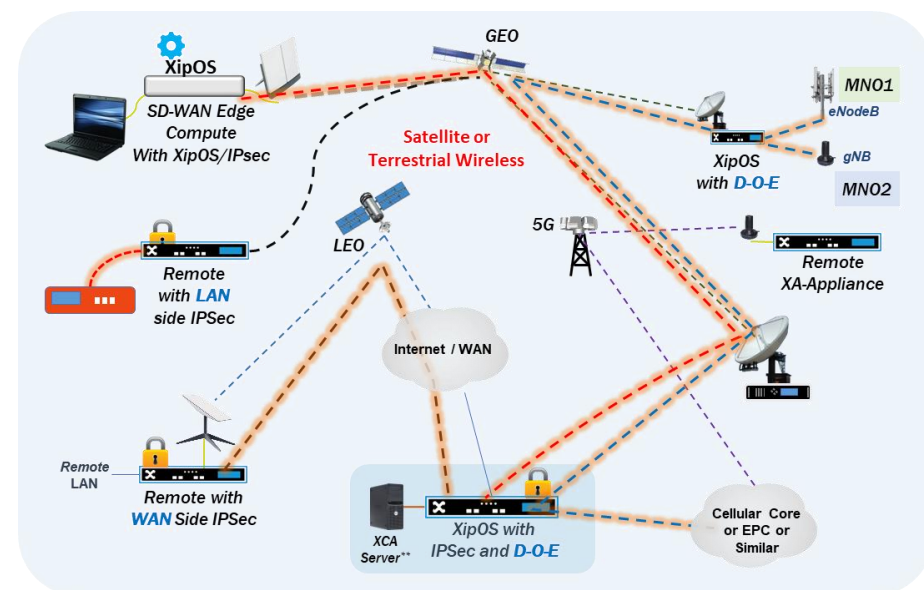
VPN Software Features

Optimize and encrypt any network
- VSAT – Star Topologies
- Mesh topologies
- Dedicated SCPC links
- Terrestrial point-to-point links
- Terrestrial point-to-multipoint links

Works with all other XipOS features
- Native SCPS-TP TCP Acceleration
- Advanced user configurable hierarchical QoS
- SNACK and ACK Frequency Reduction (AFR)
- XipLink Real Time (XRT):
    - Header compression for IP, UDP, RTP
    - Packet coalescing to reduce packet rate
- TCP stream compression & IP packet compression
- Byte caching (deduplication)

IPsec Specifications
- IETF IPsec:
    - 256-bit AES
    - Various Hash Algorithms – SHA512
- ESP tunnel mode:
    - Security Associations (SA) expiration control
    - Easy keep-alive control
- Authentication and key exchange:
    - IKEv1 or IKEv2 (RFC 7296)
    - Pre-shared secrets or X.509 certificates
    - Certificate support for multiple MNOs
    - Diffie-Hellman (8192-bits)
- Compatible with mobile devices supporting IPsec
- CMPv2 client support included
- XipLink Certificate Authority (XCA) option available**
- Encrypt over WAN, LAN, or D-O-E (Decrypt, Optimize, Encrypt)
- Supporting IPv4 and IPv6
- NAT-traversal via UDP encapsulation

XipLink Appliance Compatibility
- Available up to 1 Gbps via a single XV- VM or Appliance
- XV Virtual Machine on a 3rd party hardware*

* Performance will vary based on hardware
** Paid Option

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