



GeNUCrypt Feature Sheet



Virtual Private Network (VPN)

General

IPsec	Network layer VPN
NAT-Traversal (NAT-T)	Supports connections between NATed devices
High availability (sasync)	Synchronize security associations between multiple appliances to minimize failover outage

Topology

Fully meshed	Easy setup of a meshed VPN (even easier with GeNUCenter)
Hub and spokes	Centralized star topology
Point-to-point	Simple VPN between two partners
User-defined	Any combination of the above types

Operation Modes

Tunnel mode	Entire IP packet is encrypted and encapsulated
Transport mode	Only the payload is encrypted
Policy based bridging mode	Encryption decision based on source/destination IP addresses
Network mode	Supports routing protocols such as OSPF over VPN connections

Authentication

RSA	De facto public-key standard for easy key exchange
Preshared keys	Manually exchange secret pair of keys
PKI (X.509)	Use a certificate authority (CA) to verify keys

Algorithms

Encryption	AES, 3DES, Blowfish, CAST
Hashes	MD5, SHA1, SHA2

VPN Firewall

Stateful packet filtering	State of the art firewall for manageable rulesets
Bridging firewall	Invisible firewall on the data link layer
Network Address Translation (NAT)	Masquerade networks behind one address
Quality of Service (QoS)	Guarantee service priorities
Filter criteria	Filtering decision can be based on IP address, network protocol, port, interface, flags and state
Filter action	Choice of packet handling: pass, block or drop
Spoofing protection	Block forged packets

High Availability

Active-active with load balancing	Distribute load on several appliances depending on the source/destination IP addresses
Switch trunking	Easy integration in a redundant/high-performance switch setup
Hot standby	Reserve appliance for automatic failover



Networking

General

NTP client	Obtain time from NTP servers
DHCP relay	Forward DHCP queries to central DHCP server
VLAN	Supports virtual LANs to separate networks
Trunking	Aggregate multiple network interfaces on one virtual interface
PPPoE	DSL uplinks
Modem support	Backup uplink via modem available

Routing

Policy based routing	Based on IP addresses/networks
Static Routes	For small and easy setups

Monitoring

System	System status (memory, load)
VPN	Supervise VPN connection status
NetFlow export	Monitor network traffic with the proprietary NetFlow protocol
SNMP	Retrieve information via SNMP GET requests, or send SNMP TRAPS

Administration

General

Web GUI	Powerful web-based user interface secured with TLS/SSL (HTTPS)
Online help	Instant help in the user interface
Console	Serial interface/SSH for shell access
Cronjobs	Schedule jobs at specific times
Flexible file configuration	Easily modify/add files to the system

Patch Management

GUI	Get and install patches via GUI
Automatic updates	Automate the process of fetching updates for the appliance
Patch rollback	Return to previous patch level

Logging

Syslog	Use a third party syslog server to store logs
Hard drive	Use appliance hard drive for storage, if available
Local cache	Local cache is used if no hard drive is present
Central	Use GeNUCenter to concentrate the logs on one system

Debugging

Network	Powerful commandline-tools: tcpdump, traceroute, ping etc.
Firewall	Monitor firewall state, rules and logs
VPN	VPN connection status overview and problem analysis

Central Management with GeNUCenter

Configuration	Easy management of several (hundred) systems
Monitoring	See the health of your systems at a glance
Logging	Easily collect and analyse logs
Software (patches / updates)	Distribute the latest software revision
Rollout management	Freely define when to update/upgrade which system