



# GeNUCard Feature Sheet



## Firewall

Stateful packet filtering	State of the art firewall for manageable rulesets
Policy filtering	Filtering decisions based on labeled flows
Quality of service (QoS)	Guarantee service priorities
Queuing (traffic shaping)	Bandwidth management to control traffic volume
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
DDoS protection	Proxy the TCP handshake to protect against TCP SYN floods often used by distributed denial-of-service attacks
Spoofing protection	Block forged packets
Packet normalisation	Reassemble fragmented packets, generate random IP identification, enforce IP header settings such as TTL and MSS

## Virtual Privat Network

### General

IPsec	Network layer VPN
NAT-Traversal (NAT-T)	Supports connections between NATed devices

### Operation Modes

Tunnel mode	Entire IP packet is encrypted and encapsulated
Transport mode	Only the payload is encrypted

### 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
Smart card	For secure key storage (optional)

### Algorithms

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



## Networking

### General

NTP client	Obtain time from NTP servers
DHCP server	Automatically assign IP address to client

### Uplinks

UMTS/GPRS	Cell phone uplink via USB port
Ethernet	10/100 Mbit/s Base-T
WLAN	802.11b/g (optional)
Bluetooth	For cell phone or satellite uplink (optional)
PPPoE	For DSL
Satellite	Performance boost for satellite uplinks (optional)

### Proxies

SIP	Leading signaling protocol for Voice over IP
FTP	Support for File Transfer Protocol
TFTP	Trivial FTP

## Monitoring

System	System status (memory, load)
VPN	Supervise VPN connection status
SNMP	Provide information via SNMP GET requests, or send SNMP TRAPs

## Central Management with GeNUCenter

### General

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/update)	Distribute the latest software revision
Rollout management	Freely define when to update/upgrade which system
Web GUI	Powerful web-based user interface secured with TLS/SSL (HTTPS)
Online help	Instant help in the user interface
Console	SSH for shell access
Cronjobs	Schedule jobs at specific times

### 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
Local cache	For short term logs
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