



ENPAQ Release 2.5.0

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Key new features in R2.5 [1]

- * Unlimited WAN interfaces (IDC, single loc multi-broadband, BPOs)
 - * Use managed switch to add unlimited number of Broadbands
 - * Get load balancing, failover & inbound load balancing on all connections
 - * Use multiple MPLS links with different VLAN tags
- * Inbound Load Balancing (IDC of Brokerages, Retail, Media, BFSI)
 - * Run reliable services with multiple incoming network connections with smooth and continuous bw
 - * Balance/Fail on Link availability, priority, Tx/Rx Bw usage
- * Chat Room (BFSI, Retail, Distributed Orgs)
 - * Controlled and logged, Internet accessible chat rooms
 - * Reduce phone bills, have easier commn, have broadcast messages

Key new features in R2.5 [2]

- * Wifi Hotspot (Hospitality, Education)
 - * Customized, multiple interfaces, Improved user based logging
 - * API for integration with HMS & College ERP
- * SSL VPN (BFSI, Retail, Distributed Orgs, Franchisee networks)
 - * Full-tunnel for MPLS like controlled branch network
 - * Split-tunnel for reducing bw usage at HQ, great for Franchisee networks
- * Live Network usage & Network meter (All customers)
 - * Spot viruses or worms from their effect on the network
 - * Ensure traffic at DC & HQ is sanity checked
- * IPS (Intrusion Prevention System) (HQ, IDC of Large Enterprises)
 - * Manage and prevent live threats from all over the Internet



Technical details of R2.5

* New features

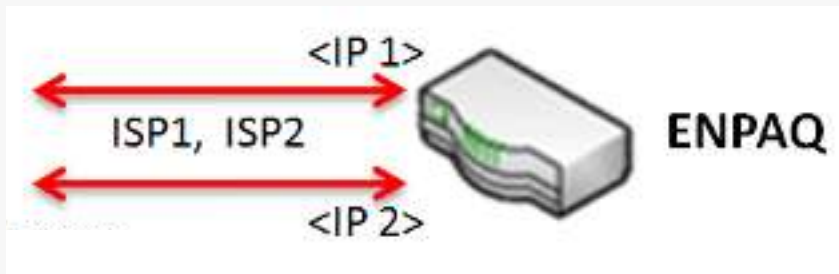
- * Intrusion Prevention System
- * Intelligent DNS (IDNS) support for incoming load balance
- * VLAN support on WAN interfaces
- * SSL VPN server: certificate validity, full/split tunnel support
- * WiFi Hotspot: Multiple login pages, JSON interface, Reporting, SQL access for HMS integration
- * Multi-User Chat room, with external LDAP/ADS support
- * Live network usage and statistics
- * Network usage history
- * Virtual Machine (VM) management
- * Kaspersky AV integration

* Enhancements

- * Inventory management
- * Web proxy: No auth domains and no auth source
- * WiFi Hotspot: Proxy support
- * Daily digest report customization
- * New reports for:
 - * Network usage and statistics
 - * Intrusion detection
 - * Hotspot usage
 - * Viruses detected
- * Search options for configurations
- * Scalability (UI) enhancements

- * VLANs were supported only on LAN side
- * Many ISPs now providing leased lines, with VLAN configuration
- * MPLS and Internet connectivity bundled on same last mile, on different VLANs
- * Requires VLAN support on the WAN side to support these requirements
- * Data centre installations have a similar requirement
- * Multiple VLANs for WAN supported
- * No changes in functions on the VLANed WAN interface – all existing failover, load balance and protocol functions are supported
- * Can be used to avoid explosion of physical interfaces (use an external managed switch if required)

- * Public facing DNS server, for incoming load balance
- * DNS records can change on
 - * Link availability
 - * Priority
 - * TX and RX bandwidth usage
- * Secure setup
 - * DNS server does not accept updates
 - * Rate limit can be setup



Network VRRP Network Meter

DNS Configuration Domains Conditional Forwarders

Domains **A+** **A+** Domain Name **hq.galaxy.com** Domain TTL **86**

Domains **A+** **A+**

Domain Name*

Domain TTL

Domain NS

Domain IP

Domain TXT

View

DNS Records **A+** **A+**

Name*

Type

TTL

IP Address*

Publish

Link State Configuration

Port

Tx BW Threshold (kbps/min)

Rx BW Threshold (kbps/min)

- * Multi-User Chat room, with external or internal LDAP/ADS support

- * Room control available to administrators
- * Complete log of chat rooms
- * Secure chatting using SSL-encryption
- * LDAP-support for linking to directory services
- * User statistics

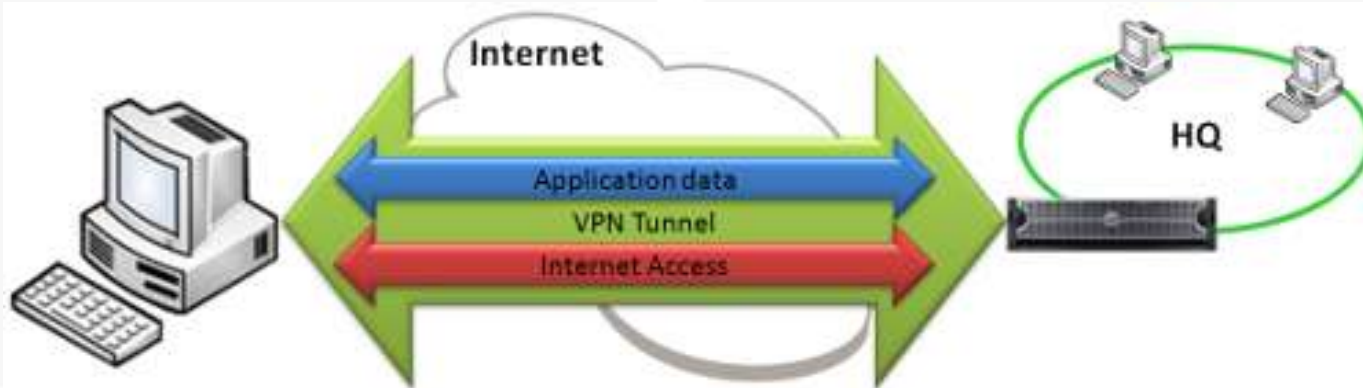
- * Opening private and moderated chatrooms
- * Support for multiple rooms, with locking
- * Sending an invite for a private chat
- * Sending private messages directly to selected users during group chat
- * Creating user profiles
- * Registration and protection of nicknames
- * Managing user rights
- * Temporary or permanent banning of users
- * Start/stop/delete dynamic room protocols

- * Multiple login pages, on a per hotspot interface basis
 - * With VLANs and multiple SSIDs, multiple hotspots with different configurations can be setup
- * JSON interface for login, status and logout
 - * Customizable per hotspot interface
 - * Customizable by customer or Elina

- * Direct SQL access for HMS integration
 - * Allows easy integration of third-party HMS solutions
- * Multiple proxy configurations
 - * Report-only, transparent and non-transparent

- * Full tunnel support for routing all client traffic via VPN
 - * Can be used for traffic filtering when clients are connected via VPN
 - * Tunnel type can be setup on a per client basis
- * Client certificates are dated
 - * When certificate expires, clients can no longer connect

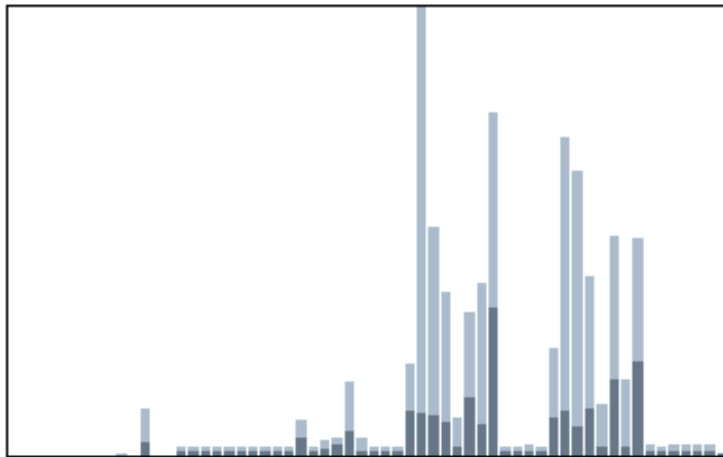
- * Client certificates can be deleted
- * Comments, on a per client basis, can be added
- * Configuration table view, with sort option, for clients
- * Reporting with alert emails for certificate expiry



Live interface statistics

Graphs (wan1)

Running for 55 secs, since 2010-01-22 10:50:21 UTC+0000.
Total 683,499 bytes, in 1,440 packets. (0 captured, 0 dropped)



in ■ min: 0.1 KB/s, avg: 2.9 KB/s, max: 27.8 KB/s
out ■ min: 0.1 KB/s, avg: 8.1 KB/s, max: 76.4 KB/s
last 60 seconds

reload graphs

- automatic reload is:

off

Was available on command line
(iptraf)

Live per-host statistics

Live Traffic 1.0

graphs

hosts

about

close

192.168.2.15

Hostname: (Unknown host)

MAC Address: 00:19:db:ac:31:c1

Last seen: 2010-01-22 10:52:39 UTC+0000 (0 secs ago) [Refresh](#)

In: 214,588

Out: 544,812

Total: 759,400

TCP ports

(1-3 of 3)

Port	Service	In	Out	Total	SYNs
80	www	169,399	477,468	646,867	15
666		42,278	65,203	107,481	59
22	ssh	376	772	1,148	0

UDP ports

(1-12 of 12)

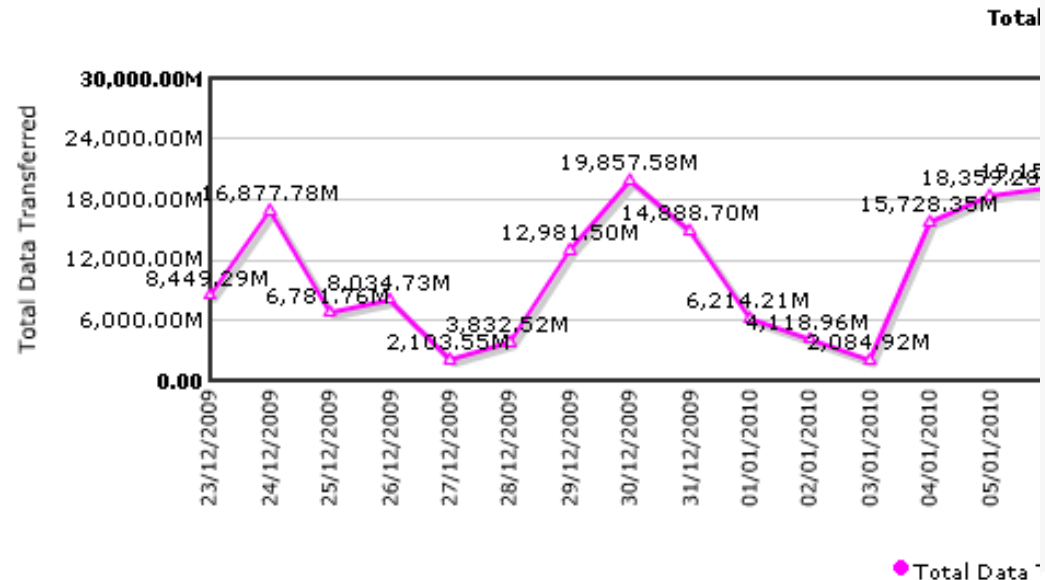
Port	Service	In	Out	Total
41627		947	80	1,027
23571		185	85	270
5195		142	85	227
15003		142	85	227

- * Searchable history of complete network usage
- * Search by protocol, source IP, destination IP or time
- * Complete accounting of all network usage
- * Useful for trend analysis and bandwidth usage by application

Showing 1 - 100 of 1588 1 2 3 4 5 6 7 8 9 10 Next Last
 * Displaying 100 records per page

Source IP	Connection Count	Tx Bytes
10.164.254.165	363582	10.7 G
192.168.1.21	4149043	13.2 G
172.50.50.28	2055	6.03 G
10.164.254.67	728	838.65 M
172.50.50.50	4882	1.41 G
10.164.253.177	60844	364.19 M
172.50.50.52	1150	1.78 G
172.50.50.51	1148	1.76 G
10.164.254.182	18398	498.26 M
10.164.253.211	104516	3.35 G

Daily Snapshot



Intrusion Prevention System (IPS)

- * Snort based IPS module
- * OINK based automatic updates
- * Can work in IDS or IPS modes
- * Strong reporting and alerting functions

The screenshot shows the configuration page for the Intrusion Detection/Prevention System (IDS/IPS) in the Elina management interface. The page is divided into several sections:

- System Navigation:** Includes tabs for System, Network, Security (active), VPN, and Proxy.
- Sub-Section Navigation:** Includes tabs for Firewall and Intrusion (active).
- Search:** A search bar with a 'Search' button and a 'clear' link.
- Intrusion Detection/Prevention System:**
 - Enable:** A checked checkbox.
 - Snort Mode:** A dropdown menu set to 'IPS'.
 - Buttons:** 'IPS' and 'Rule-Set Update' buttons.
- IPS Section:**
 - Network Configurations:** A tab for network-related settings.
 - Intrusion Rule-Set:** A section containing a table of intrusion rule sets.

Intrusion Rule-Set			
Backdoor	<input type="radio"/> Ignore	<input type="radio"/> Block	<input checked="" type="radio"/> Alert
Chat	<input type="radio"/> Ignore	<input type="radio"/> Block	<input checked="" type="radio"/> Alert
Ddos	<input type="radio"/> Ignore	<input type="radio"/> Block	<input checked="" type="radio"/> Alert
Dns	<input type="radio"/> Ignore	<input type="radio"/> Block	<input checked="" type="radio"/> Alert
Dos	<input type="radio"/> Ignore	<input type="radio"/> Block	<input checked="" type="radio"/> Alert

- * Add a new VM
- * Run a VM
- * Stop a running VM
- * Delete or purge an existing VM
- * Restore an existing VM
- * View VM configurations
- * Edit VM configurations
- * Complete logs of tasks
- * Supports tgz, zip file formats for VMs

- * Option to integrate Kaspersky Anti-Virus scanner
- * Integration done on-demand from Elina – no UI option
- * No UI option changes for enable/disable
- * Reports remain exactly the same
- * Customer procures Kaspersky license and downloads “deb” package from Kaspersky
- * Downloaded package provided to Elina for integration
- * Signature updates happen automatically from Kaspersky site



Enhancements in R2.5

- * Completely revamped UI
- * Custom groups, for easy hierarchy and classification
- * Dynamic custom fields
- * Custom fields for group and on a per-system basis
- * Alert on change
 - * Hourly basis
- * Enhanced reports
- * Search option to locate an asset



The screenshot displays the ELINA web interface for system management. It features a navigation menu with tabs for Groups, Network, Search, History, Deploy, and Custom. Below this, there are sub-tabs for All Systems, Unknown, linux, windows, and mac books. The main content area shows a list of systems under the heading 'All systems (5)'. The list includes columns for Status, Name, IP Address, and OS Name. The first system is ELINANET with IP 192.168.2.30 and OS Microsoft Wind. The second is BAGHEERA with IP 192.168.2.71 and OS Microsoft** Wi. The third is ELINAA with IP 192.168.10.10 and OS Microsoft Wind. Below the list, there is an 'Information' section for the selected system, showing details like Name (ELINANET), OS version (5.1.2600), Processor Type (Intel(R) Pentium(R) 4 CPU 3.00GHz), Ip Address (192.168.2.30), Description (Nishant), and Windows Owner (nishant). A 'Custom Fields' section follows, listing fields like abcd, dfgdfgdfgdd, and status with their respective values. At the bottom, there are more tabs for Hardware, DeviceDrives, Network, Softwares, and Mar, and a 'Bios' section with columns for Smanufacturer, Smodel, Ssn, Type, and Bmanuf.

Status	Name	IP Address	OS Name
	ELINANET	192.168.2.30	Microsoft Wind
	BAGHEERA	192.168.2.71	Microsoft** Wi
	ELINAA	192.168.10.10	Microsoft Wind

Information	
Name	ELINANET
OS version	5.1.2600
Processor Type	Intel(R) Pentium(R) 4 CPU 3.00GHz
Ip Address	192.168.2.30
Description	Nishant
Windows Owner	nishant

Custom Fields	
abcd	adasda
dfgdfgdfgdd	fgdfgdfg
status	warranty

Smanufacturer	Smodel	Ssn	Type	Bmanuf
Kobian	PVM7 Pro	00000000	Desktop	American

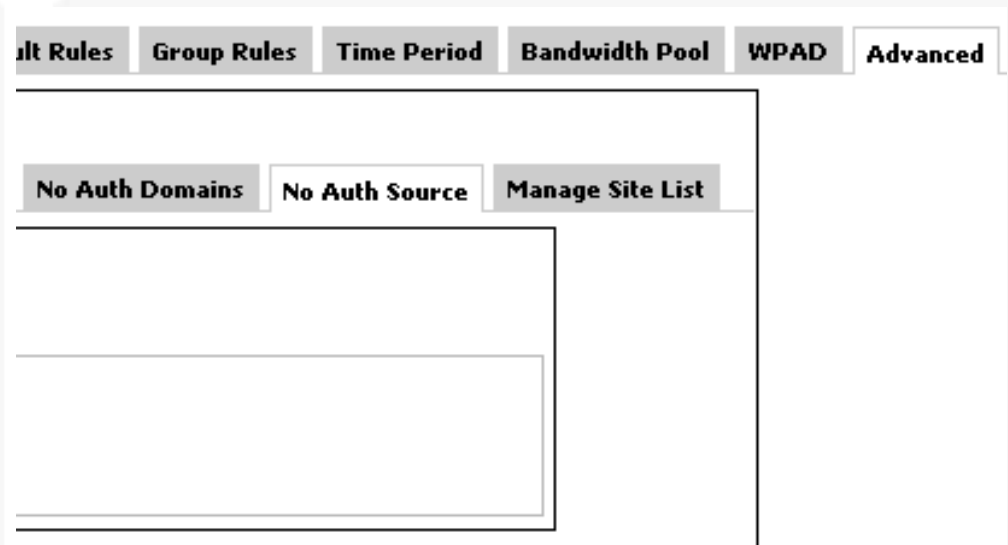
* No auth domain

* Bypasses authentication for certain domains

* No auth source

* Bypasses authentication for certain IP addresses

* Available if authenticated proxy is chosen



WiFi Hotspot: Proxy support

- * 4 different proxy options
 - * Independent proxy for hotspot, with transparent and non-transparent option
 - * Use default system proxy
 - * Options to have two external proxies, with transparent and non-transparent option

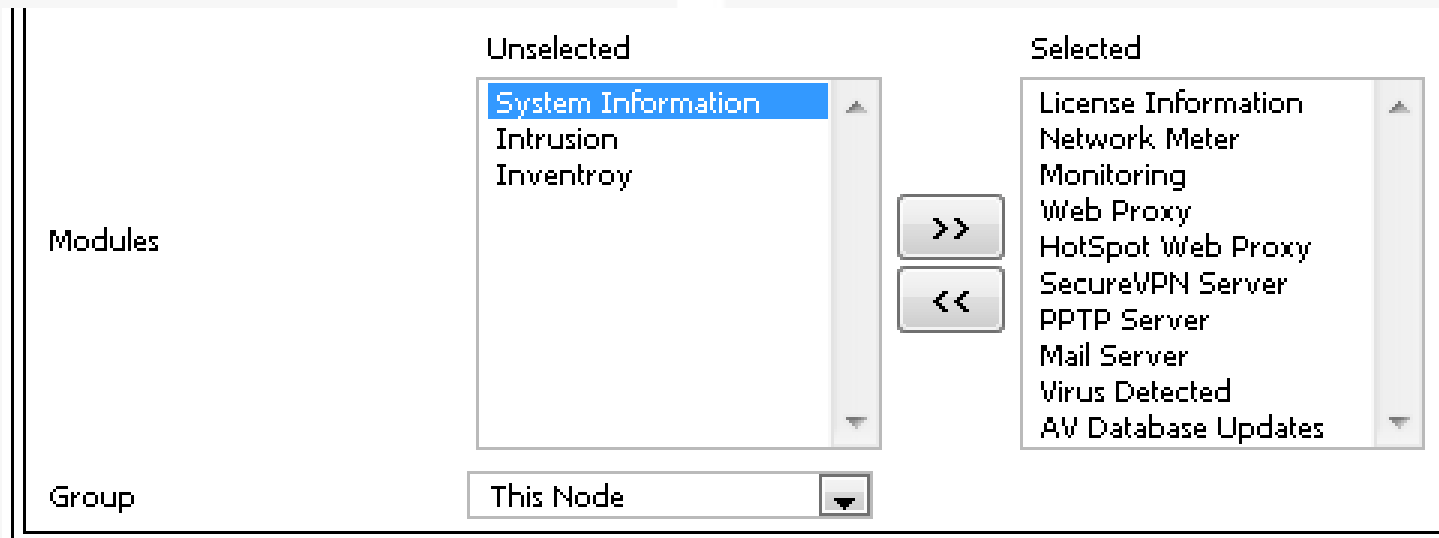
Proxy Profile	
▼ Proxy Profile	
Enable	<input type="checkbox"/>
Name	Builtin Proxy
Description	Hotspot Builtin Proxy
Type	Transparent ▼
Port Number	8000

Proxy Profile	
▼ Proxy Profile	
Enable	<input type="checkbox"/>
Name	Internal Proxy
Description	This System Proxy
Type	Transparent ▼
Port Number	3128

Proxy Profile	
▼ Proxy Profile	
Enable	<input type="checkbox"/>
Name	External Proxy1
Description	
Type	Transparent ▼
IP Address	
Port Number	

- * Customizable report, per module per user
- * Reports available in PDF format

- * New reports for:
 - * Network usage and statistics
 - * Intrusion detection
 - * Hotspot usage
 - * Viruses detected



- * Scalability enhancements
 - * Very large number of users, VPN keys, firewall rules and monitoring nodes tested for UI response
- * Search option in all configuration pages



The screenshot displays the Elinanetworks management interface. At the top, there are tabs for 'Network', 'VRRP', and 'Network Meter'. A search bar contains the text 'galaxy' and a 'Search' button, with a 'clear' link. Below the search bar, a box titled 'Displaying Search Results. (Click to locate)' contains three blue links: 'DNS Configuration -> Domain Name: hq.galaxy.com', 'Domains -> Domain Name: hq.galaxy.com', and 'Domains -> Domain NS: enpaq.hq.galaxy.com'. The main content area is titled 'Physical interfaces and networking parameters' and has sub-tabs for 'Domain', 'Network Interfaces', 'Static Routes', and 'Multicast Routes'. The 'Domain' sub-tab is active, showing further sub-tabs for 'DNS Configuration', 'Domains', and 'Conditional Forwarders'. The 'DNS Configuration' sub-tab is selected, displaying a form with the following fields: 'Domain Name' (with a red asterisk) containing 'hq.galaxy.com', 'Use lan1 IP for Domain Name Resolution' (checked checkbox), and 'Enable Alternate DNS Servers' (unchecked checkbox).