Nokia Update Q1 2008

- New platforms
- Nokia IPSO 6.0
- ADP cards
- Nokia Horizon manager
- Sourcefire and Nokia

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Security:
Making it possible for business people to work together

Administration and control

Communicate
- Immediate communication via voice, messaging, IM

Collaborate
- Managing your day-to-day business

Operate
- Interacting with enterprise applications and business information

Protecting your business information and monitoring network activity.

Mobile security
Protecting information on and through mobile devices.

Check Point
We Secure the Internet.

Strengths

- Established leader in firewalls
- Security focus
- Large enterprise installed base
- Service provider relationships
- Specialist distributor coverage
- Channel focus
- Technical support

Opportunities

- Grow client security business
- Target mid-market
- Recruit SMB partners
- Partner with networking vendors
- Streamline licensing
- Move into compliance solutions
- Develop/acquire new technologies

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Enterprise Security Analysis EMEA

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Strengths

- Global brand
- Leading Check Point partner
- Specialist distribution focus
- More aligned with Check Point strategy
- High-end security solutions
- Generous channel margins
- Support infrastructure

Opportunities

- Fixed-mobile convergence
- Converged voice security
- Attack the mid-market
- Go for growth
- Move beyond large enterprise accounts

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expert analysis for the high-tech industry

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Network in changing environment

- Increased used of small packet applications (VoIP, multi-media, streaming video)
- Applications are more sensitive to latency
- Application vulnerabilities and attacks are on the rise
- Increasing demand for remote network connectivity
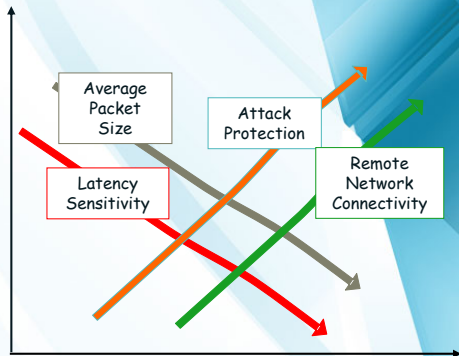
- Provide performance for large and small packet traffic mix
- Make traffic decisions with low latency to ensure applications are not affected
- Handle traffic load and complexity of increasing number of connection points
- Prevent/mitigate network and application-level attacks

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10 Reasons they Resell Nokia Security*

1. Partnerships
2. Technical Support
3. Reliability / Stability
4. Brand / Reputation
5. Security Platforms
6. Performance / Scalability
7. Nokia IPSO™
8. Manageability
9. Channel Support
10. Customer Loyalty

*As written by existing Nokia resellers

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What *is* IPSO?

- **A purpose-built software platform on purpose-built hardware**
- FreeBSD + Nokia IP Stack (L3 & below)
- Open-source routing + major improvements
- High availability features: VRRP, IP Clustering, disk mirroring
- Open-source clients & servers for common networking functions
- Security hardening of all components
- Management infrastructure ("xpand")
- Image management: upgrade/fallback; backup/restore
- Management interfaces:
  - Voyager web GUI
  - IPSO command-line interface (CLI)
  - SNMP MIBs, both standard and enterprise (proprietary)

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Nokia IPSO Highlights

- 10 Years Performance in Demanding Environments
- Installed Base 250,000+
- Hardened Security OS
- Leading Edge Routing Support

- Carrier Class Voltage, Temp
- Hot Swappable Modules, Interfaces
- VRRP, Patented IP Clustering
- Global Support & Service

- SecureXL Acceleration
- PIM Acceleration, Multi-cast Support
- Optional Add-on with Nokia Accelerated Data Path (ADP)

- Back-Up, Restore, Roll-back
- Central Role-Based Admin
- Geographic Interface Naming
- Network Voyager – Secure Remote Management

IPSO 6.0 At A Glance

- IPSO 6.0 based on **FreeBSD 6.1** and **IPSO 4.1** (not IPSO 4.2)
- Runs on IP690 and IP2450 platforms
- Supports Check Point VPN/1 R65 for IPSO 6.0 (no UTM)
- IPSO 6.0 provides:
  - Support for multiple CPUs on IP690 and IP2450 platforms
  - Improved scheduling, memory management and interrupt delivery
  - Improved disk mirroring, using FreeBSD's GEOM, with impacts on disk naming
  - Updated services, utilities and monitoring tools from FreeBSD 6.1
  - Updated filesystem (FFS2), upwards compatible from IPSO 4 (FFS1).
  - Latent support for Universal Serial Bus (USB)
- Upgrade supported from IPSO 4.2, running R55p, R60, R61, R62 or R65
  - See Getting Started Guide for restrictions and upgrade procedures.
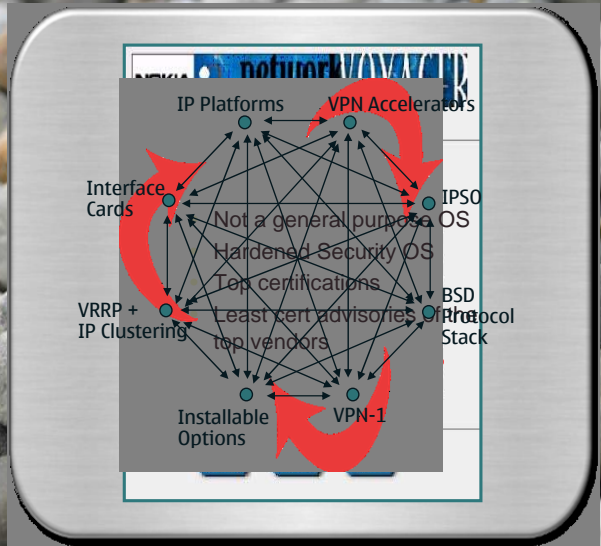
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Features in IPSO 4.2 but not in IPSO 6.0

Feature	IPSO 4.2	IPSO 6.0	Comments
LACP	✓	✗	Link aggregation ports are configured as in IPSO 4.1
LRG	✓	✗	Not supported
IGMPv3	✓	✗	No static and local groups
PIM-SSM	✓	✗	PIM-SSM and PIM-DM state refresh not available
PIM-Acceleration	✓	✗	No SXL support for multicast data
QOS	✓	✗	Not supported, IPSO 4.1 feature not present
UTM	✓	✗	R65 different versions for 4.2 and 6.0
VRRP HDD Failure	✓	✗	Not ported in 6.0

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Nokia IPSO: Foundation for Robust Security

Optimized

Reliable

Proven

IP Platforms

VPN Accelerators

Interface Cards

IPSO OS

BSD Protocol Stack

VRRP + IP Clustering

Installable Options

VPN-1

Not a general purpose OS
Hardened Security OS
Top certifications
Least cert advisories of top vendors

Frequently Used Nokia IPSO Features

Legend:
- VRRP
- VLAN
- SNMP
- IP Clustering
- Role Based Administration
- NTP client
- Radius/TACACS+
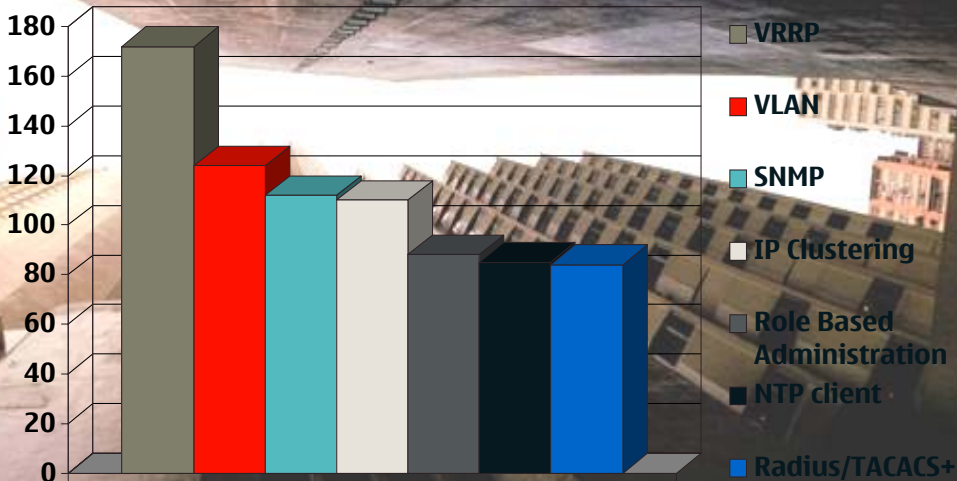
Based on IPSO Customer Survey, May 2007, # of users (total = 234)

Nokia ADP Cards

- Nokia Accelerated Data Path (ADP) cards accelerate the firewall and VPN performance of Nokia IP560, Nokia IP690 and Nokia IP12XX platforms without forklift upgrades
- Nokia ADP cards achieve the performance improvement by off-loading and distributing packet processing between the CPU and network processor

Benefits

- Nokia ADP cards provide investment protection by extending the life of Nokia IP560, Nokia IP690 Nokia IP1220 and Nokia IP1260 platforms without forklift upgrades
- Nokia ADP cards present an opportunity for customers to extend the lifecycle of their Nokia IP560, IP690, IP1220, and IP1260 platforms

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Impact on existing Nokia Security Appliances

- Increasing pressure to deliver performance response to the changing traffic pattern across our F/W appliances

  - Deliver best price/performance response to
    - Increasing amount of traffic - Large & Small Packet
    - Increasing amount of data – Improved Throughput
      - HTTP is a big portion of any enterprise traffic now and expected to grow
  - Predominant Applications
    - HTTP
      - Browsing
      - Webified ERP/CRM
  - Email (POP/SMTP), Lotus Notes, Data Backup and Restore, Video
- Improve total # of connections and connections per second
- Reduce latency

Deliver all this without forklift upgrades!

Sample Performance Comparison – IP560

Small Packet Performance

Forwarding (Mbps) — 0, 200, 400, 600, 800, 1000, 1200, 1400

Tests: 2 Port 64B 2x64 strs; 2 Port Mcst 64B; 8 Port 64B 12x64 strs + 4 Port Non-ADP

Legend: IP560 w/ADP; IP 560 w/o ADP
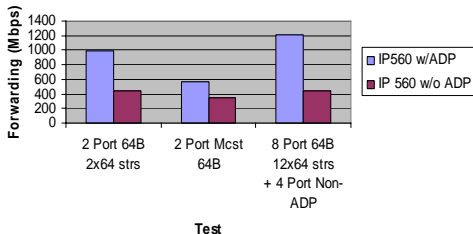
- Almost Triple the Small Packet Performance – best scenario !
- Double the Small Packet Performance – for those skeptics !

- 50% Large Packet Performance improvement over non-ADP based systems

Large Packet Performance
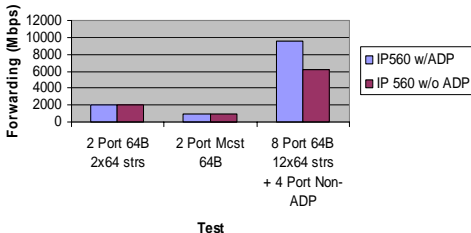
Forwarding (Mbps) — 0, 2000, 4000, 6000, 8000, 10000, 12000

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Legend: IP560 w/ADP; IP 560 w/o ADP

Nokia Horizon Manager

- For mid- to Large-size Enterprises that have standardized on Nokia for their security platform solution
- For IT executives who need to drive business-enhancing IT initiatives and improve productivity and consistency
- Nokia Horizon Manager is an "across-the-enterprise" deployment, maintenance, and recovery solution. It ties together the best-in-class solutions of Nokia IP Security Platforms and security applications.

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Nokia Mobile VPN Client Solution

- **Nokia Mobile VPN enables users to access corporate intranet services securely from mobile devices**
  - Seamless connectivity for any mobile application
  - Over-the-air provisioning and management of VPN settings and policies
  - Integrates with IT-backend VPN infrastructure and authentication servers
  - Nokia Mobile VPN Client Solution consists of Nokia Mobile VPN Client and VPN client management solutions

Secured pipe

FW / VPN

Intranet　　**Mail**

IP-phone　　**Applications**

IPS sensor
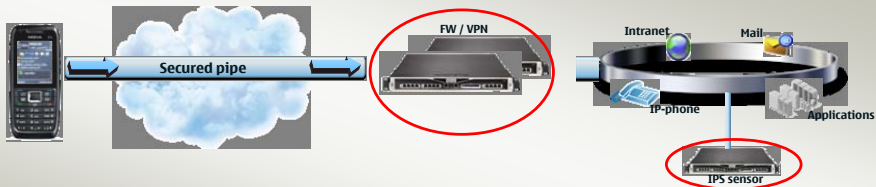
End to End Management – Policy, Provisioning, Configuration and Monitoring

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What's in Nokia Mobile VPN

Feature	Benefits
OMA Device Management	• Manage VPN policies, connection settings, server certificates, and client certificates with a compatible device management solution. • Examples of such solutions: Nokia Intellisync Device Management, Nokia Configuration Tool • Specification will be publicly available
Internet Key Exchange ver. 2 (IKEv2)	• Improved interoperability with more VPN gateways • Possibility for mobile operators to deploy SIM or USIM based authentication for VPN.
Silent VPN tunnel establishment when allowed by the policy	• Connect to a VoIP service over VPN, while the device is in your pocket • Better usability of intranet browsing as no passwords need to be entered • (Silent authentication with client certificates is not supported by the first software release of the Nokia E90 Communicator)
Manual configuration	• Set up the VPN client and import a VPN policy file through the device UI • For trials and customer acceptance cases, as well as deployments where a device management solution is not available

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Nokia Intrusion Prevention

SOURCEfire®
Security for the real world

Core Products	Product Highlights

Intrusion Sensor

- Provides industry standard, **Snort-based** inline IPS or passive IDS
- Leverages Snort rules to offer <u>broad detection capabilities</u>
- Uses powerful and flexible engine

RNA

- Provides network and endpoint intelligence
- Determines the composition and behavior of networked devices through **Network Behavior Analysis (NBA)**
- Uses <u>"Always on"</u> passive network discovery

RUA

- Provides 24x7 passive identity discovery with **comprehensive user identity information capture including e-mail and IP addresses**
- <u>Uses LDAP and Active Directory domains</u> as sources of data
- Leverages the same data collection sensors as Sourcefire IPS and RNA

Defense Center

- **Correlates the attacks with network intelligence**
- Triggers or automates responses to events
- <u>Centrally</u> manages, enforces, and reports on security, policy, and compliance

Nokia Support Strengths

- **Global** footprint
  - Expert resources strategically located

- **TAC 7x24** availability
  - Deep technical expertise on Device, Security & Mobility apps
  - Annually certified through SCP

- **Single Point of Contact**
  - First Call – Final Resolution
  - Collaborative support

- **Nokia Support Web**
  - Ask Nokia - Knowledge Base
  - Documentation & Self help
  - QuoteService

- Expansive labs to **replicate and troubleshoot** customer issues

Services include:

- Technical Support
  - Follow-the-Sun
- Single Point of Contact
- Product-level Support Teams Co-located with R&D
- Solution Experts
- Online Software Updates
- Knowledgebase Access
- Online Case Management
- Advance Hardware Replacement
  - Optional Onsite Support

Check Point
We Secure the Internet

intellisync

SOURCEfire
Security for the real world

SNORT

intel

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grow|your potential

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