



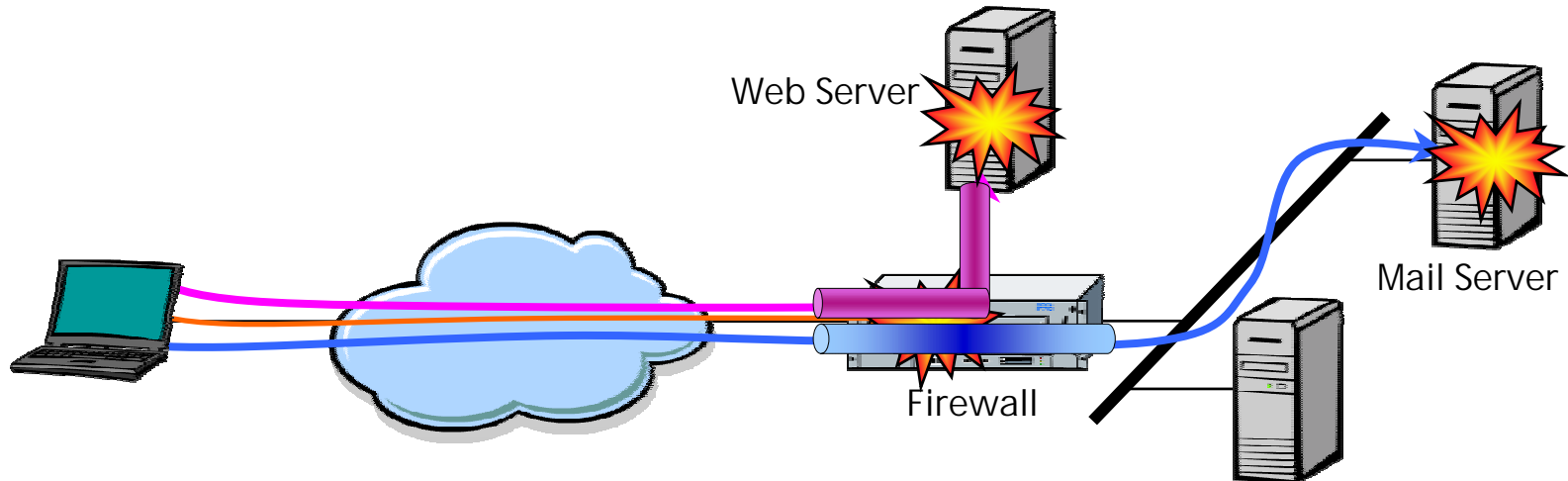
# The Importance of Messaging

- Messaging is the mission critical application
  - Average of 21 billion non-Spam e-mail messages sent per day in 2002
  - 36.6 billion/day average predicted for 2005
  - Instant messaging expected to exceed e-mail in US by 2005
  - Approximately 1 trillion SMS messages predicted for 2005 already exceeds voice messages in parts of Europe
- Messaging can include one or all of;
  - Email, Instant Messaging, Short Message Service, Multi Media Messaging and voice mail/combined solutions
- Messaging services are targeted because they have a mass user base and are vulnerable to attack



# The Nature of the Threat

- Attacks against networks are getting more sophisticated
  - Attacks target all potential vulnerabilities in a network
  - Attackers target protocols that are permitted to traverse enforcement points
- Most networks open ports on a firewall to allow desired traffic through
  - Examples are email and web server traffic (25 & 80)
  - Attackers know this and will target these open ports



# Why Message Protection?

- 2002 saw significant increase in attacks: Blended threats, Hybrid worms, attacks that use:
  - multiple vectors to gain entry to network
  - more than one way to attack same vulnerability
- Increases in
  - Macro and Script viruses
  - Spam
  - Undesirable content
  - Trojan Horses
  - Worms
  - Third Party Mail Relay
- Message protection focuses on the integrity of mail traffic, entering, leaving and flowing within corporate mail networks.

# Industry Trends

- Protection investment shifting from desktop to gateway protection
- Anti-virus alone, is no longer sufficient. Fully configurable content filtering required to address regulatory and policy needs
- A layered security approach can create a defense that is stronger than its individual parts
  - Future of IT security will be a combination of policies, hardware and software products implemented to work together to provide enterprise networks with overall protection
- Recognized need to protect against threats to intellectual property, financial assets, health records, and personal identities
- Secure Content Management will play a key role in helping enterprises lower the cost of administration and increase employee productivity



# Introducing the Nokia Message Protector



# Nokia Message Protector is a full Appliance

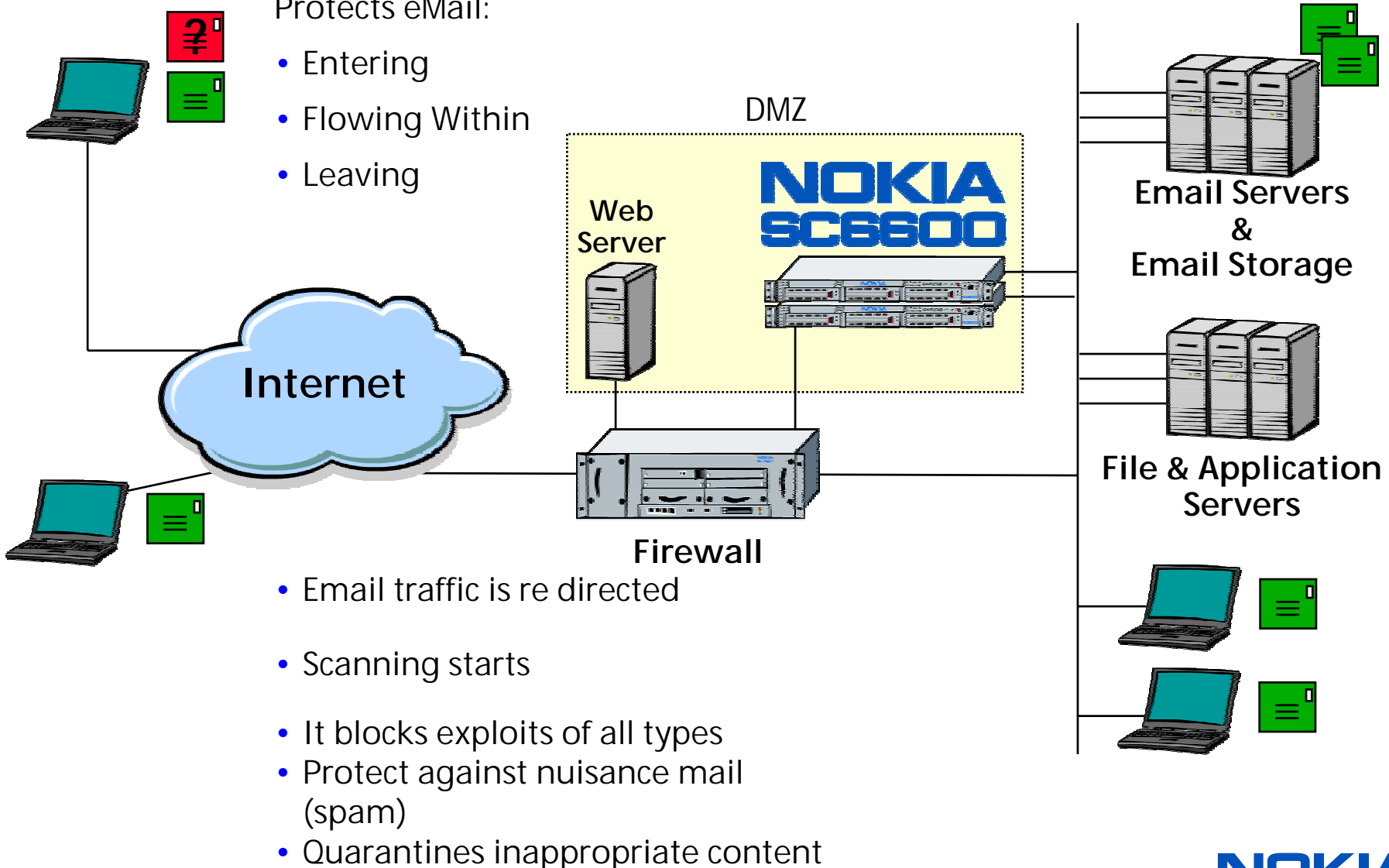
- Ease of deployment
  - Pre Installed
  - Hardened OS
- Ease of management
  - From anywhere on the network
  - Secure communication
  - Voyager configuration
- Maximize productivity
  - Automated maintenance
- Minimize TCO
  - IT staff efficiency
  - Reduced IT cost
  - Easy to Implement
  - ROTI (Return on time investment)



# Nokia Message Protector

Protects eMail:

- Entering
- Flowing Within
- Leaving

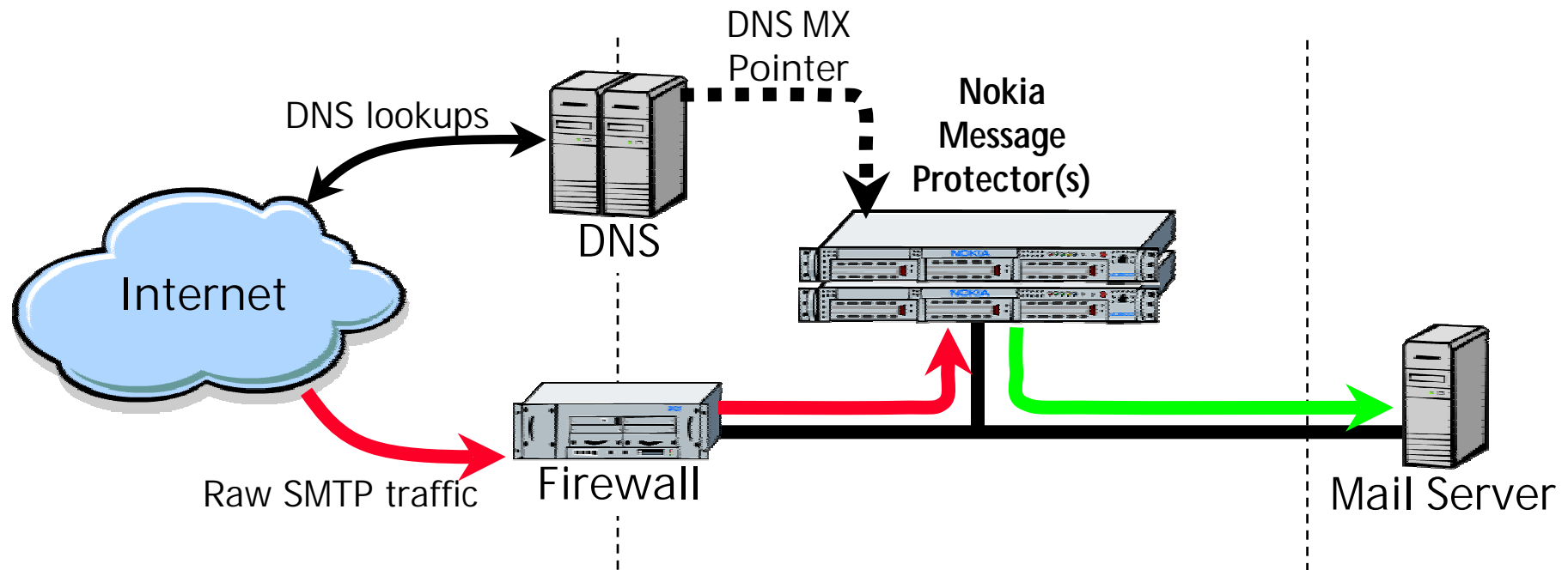


- Email traffic is re directed
- Scanning starts
- It blocks exploits of all types
- Protect against nuisance mail (spam)
- Quarantines inappropriate content



# Configuration Options In The Network

- Located in NOC, just behind firewall
- Replace or located behind existing MTA
- Enterprise DNS entries for mail hosts point to Nokia Message Protector



# Nokia Complete System Approach



Support Layer

Management Layer

Application Layer

Platform Layer



# Nokia and Trend Partnership



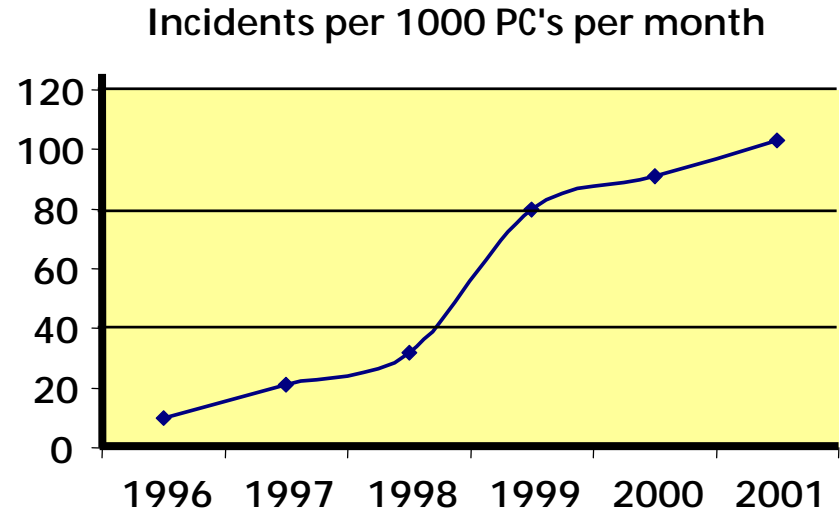
- Appliance characteristics
    - Fast deployment
    - IPSO
    - Network Voyager
    - MTA
    - First call, Final resolution
  - Performance
    - SMTP
    - Dual processors
    - Fast disk I/O
    - RAID 1
  - Statistical protection
    - Behavioral filtering
    - Macro stripping
    - Content scanning
    - Spam protection
    - Multiple virus protection technologies
    - Automatic signature generation
  - Secure automated update service
- Best of Breed Content Security
  - Established market leadership - 41% Internet gateway market share
  - Ongoing Content Security Innovations
  - Rapid Response to Exploits
  - Outbreak Prevention and Consulting



# Complimentary Network Protection & Performance

Desktop AV is not sufficient

- Despite 90% coverage\*
  - Average of 103 infections per 1000 PC's for 2001
  - 83% of infections from email attachments
- Located in DMZ
  - Focused solely on the SMTP messaging protocol, Message Protector processes 120,000+ emails per hour
    - 15kb message size
    - 24 appliances for Nokia-like co.



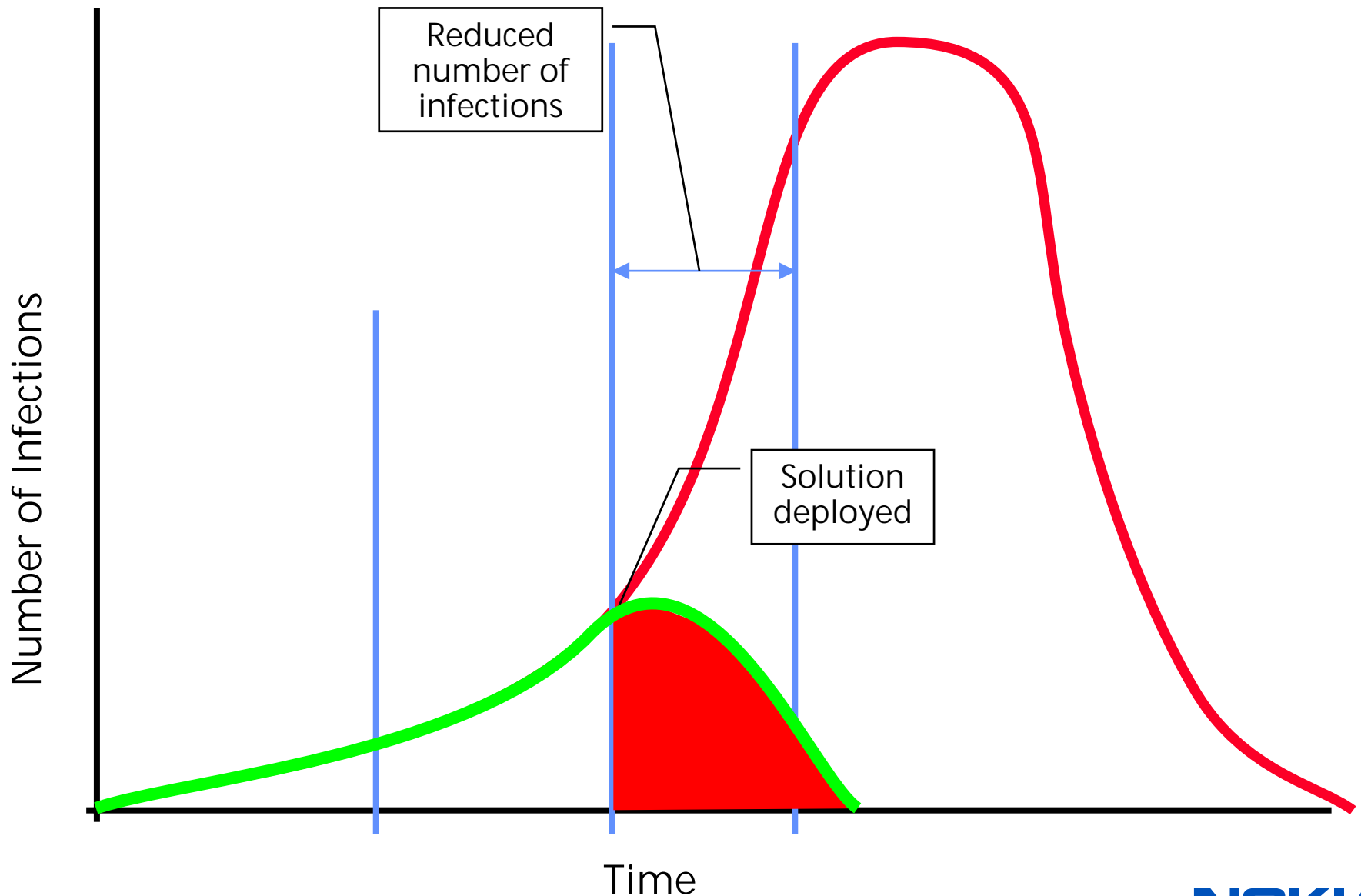
\*Source ICSA 7<sup>th</sup> Annual Computer Virus Prevalence Survey 2001

Table – 1 Message Protector Performance

1k Clean	1K Infected	100k Clean	100k Infected	15k Clean	15k with 2% Infected
155,284 Msgs/hr	147,692 Msgs/hr	90,300 Msgs/hr	121,283 Msgs/hr	120,000 Msgs/hr	112,846 Msgs/hr

Performance improvement increases with density of viruses

# Message Protector Shortens the Viral Timeline



# Key Features of Message Protector

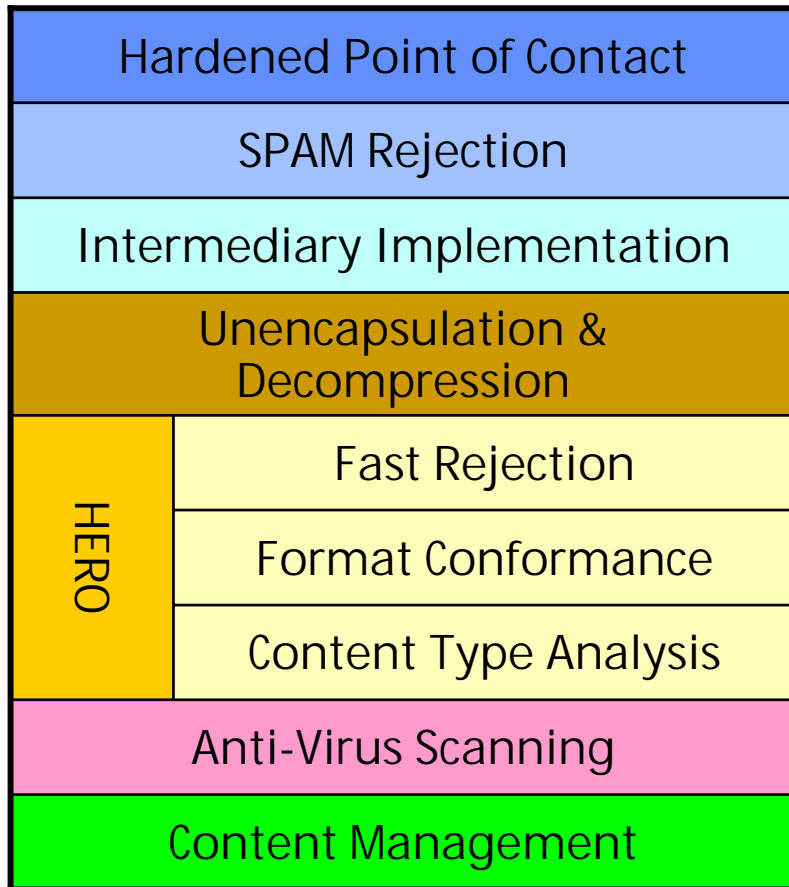
- Hardened IPSO operating system built specifically for messaging gateway appliance
- Heuristic Exploit Rejection Object at appliance
- Decoding and decompression engine
- Header exploit detection
- File type detection
- Content exploit detection
- Macro stripping
- Protects against DoS, buffer overflow, and system resource consumption
- SMTP Daemon
- MTA
- Update security
- Best of Breed partnership



# Statistical Protection and Heuristics

- Systems that use only one scanner are 100% dependent on performance of vendor
- No single vendor technology can be the best all the time
- Statistical protection is all about employing multiple technologies and methodologies
- The best policy is to maximize protection by increasing the chance for the earliest update and use the tools best suited to each function
- Appliance consistency greatly reduces the time to test & deploy new signatures

# What Is Statistical Protection in Detail



Securing message content includes:

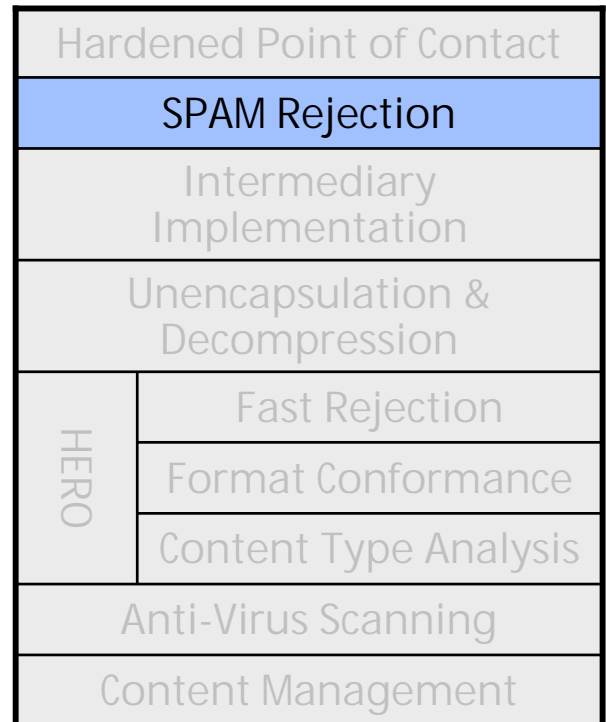
- Exploit filtering — malicious code detection
- SPAM protection
- Format conformance
- Intermediary (mail server/transfer agent) protection
- Content Management



# How It Works

## Nuisance Mail

- SPAM wastes enterprise resources and the productivity of the individual
  - Check source IP against list of known
    - SPAM sources
    - Open relays



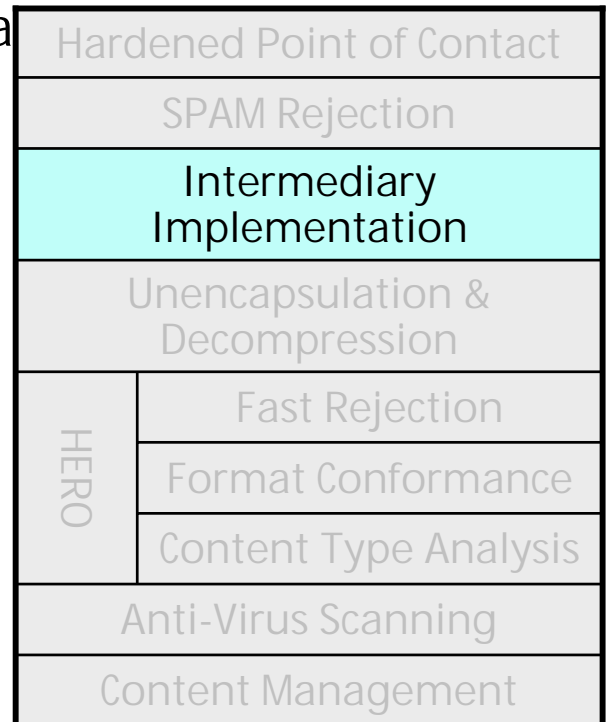
# How It Works

- **Intermediary Implementation**

- A mail proxy may present security risk and is susceptible to denial of service attacks

- **Nokia Message Protector is:**

- A Mail Transfer Agent (MTA) with store and forward characteristics adding another layer of protection.
  - Able to replace existing MTAs with improved performance.
  - Equipped with a Nokia-patented denial-of-service protection



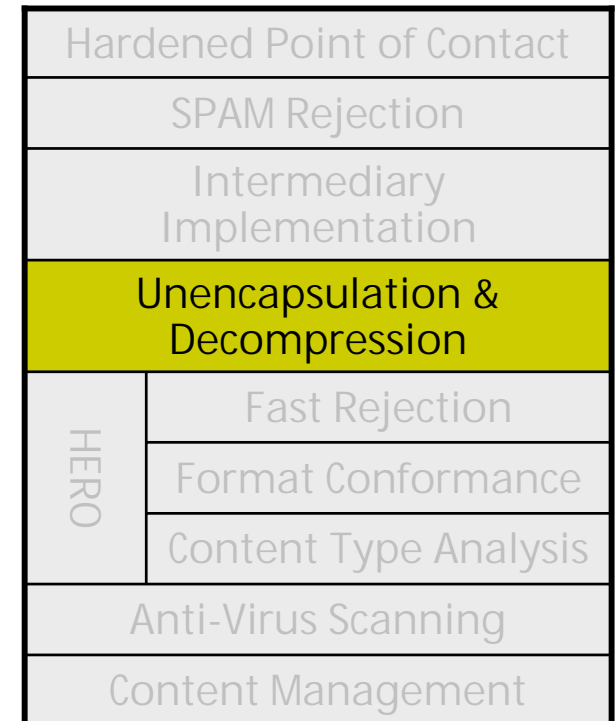
# How It Works

## Unencapsulation and decompression

- Take archive attachments from mail and break them into discreet files for accurate scanning and file type and name validation.
- Identification is based on file signature or content rather than simple extensions.

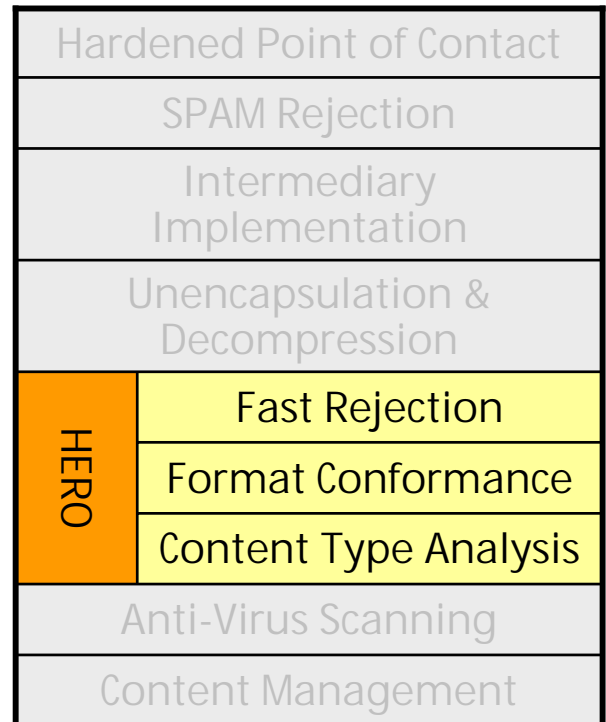
## Macro stripping with InDefense

- Detect and remove harmful macros from MS Office suite applications. A scanning engine records signatures from rejected messages to generate a signature rejection database.



# How It Works

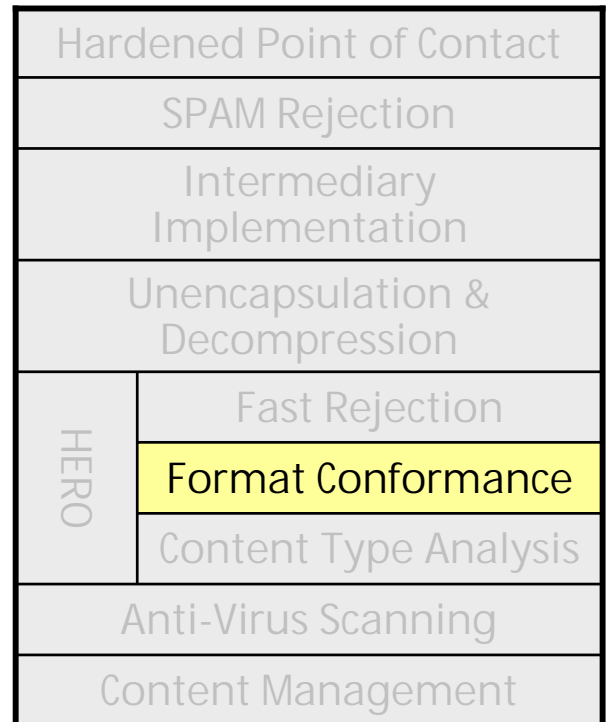
- Patent pending technology from Nokia
- Signature-based scanning
  - traditional virus protection
- Heuristic-driven filtering
  - ability to stop new and derived exploits
- Behavior blocking
  - predictive defense mechanisms
- Learning front-end
  - accelerates rejection of repetitive exploits during outbreaks



# How It Works

## Format Conformance

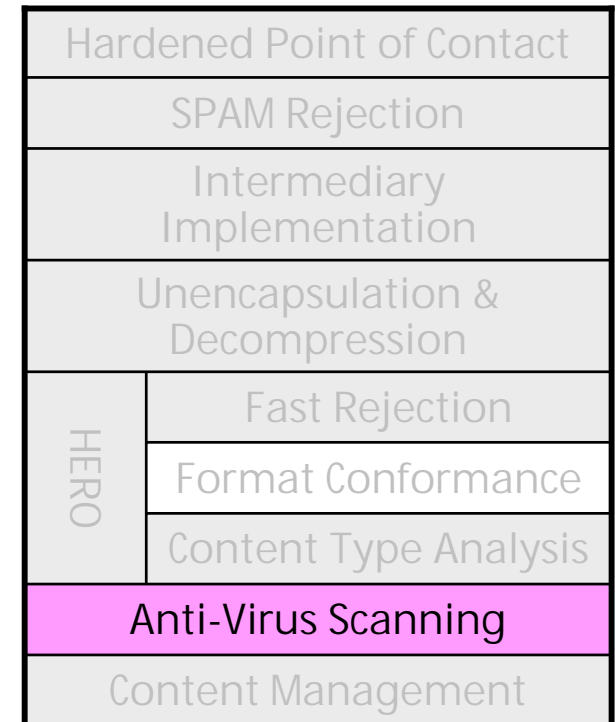
- Malformed messages can take down mail servers—cause may be malicious or accidental
- Eliminated by verifying the format of all messages—don't pass non-conforming content
- Unique to this solution—Nokia intellectual property



# How It Works

## Anti-Virus

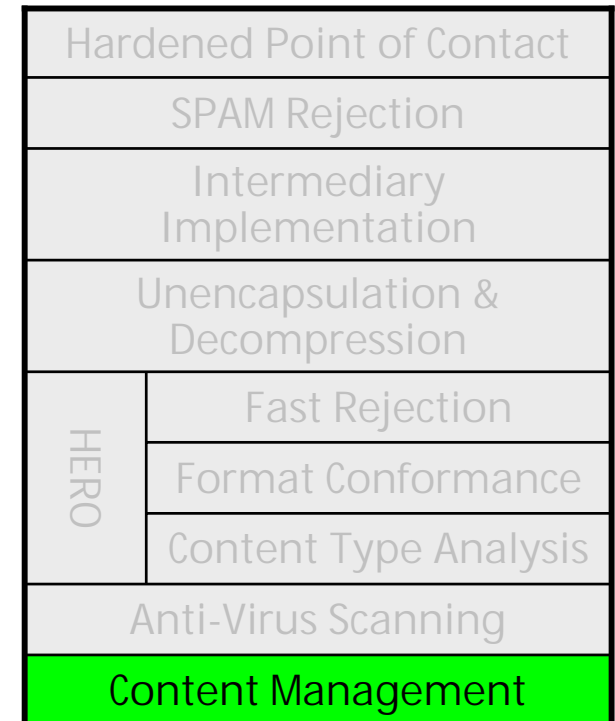
- Trend Micro
  - Leadership in network anti virus technology
  - Proven rapid response to new exploits
  - Consulting service best practice for outbreak prevention
  - Best of Breed partnership to offer fast & comprehensive protection against virus outbreaks
  - Established collaboration on content security innovation



# How It Works

## Content Management

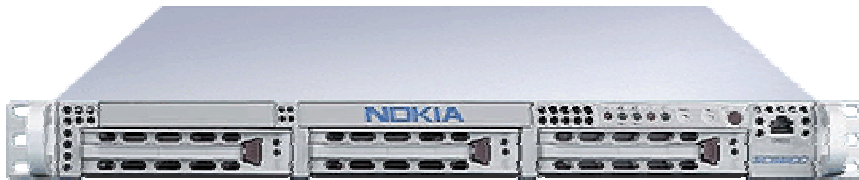
- Filtering by
  - Content
  - Type
  - Component
- Filtering within archives



# Why is Updating Important

*“the primary complaint from enterprises is the cost and difficulties associated with keeping signatures up to date at the desktop” \**

- Value of solution depends upon timely delivery and application of updates
- Nokia Message protector adds value by minimizing latency between availability of fix and deploying it throughout enterprise mail network



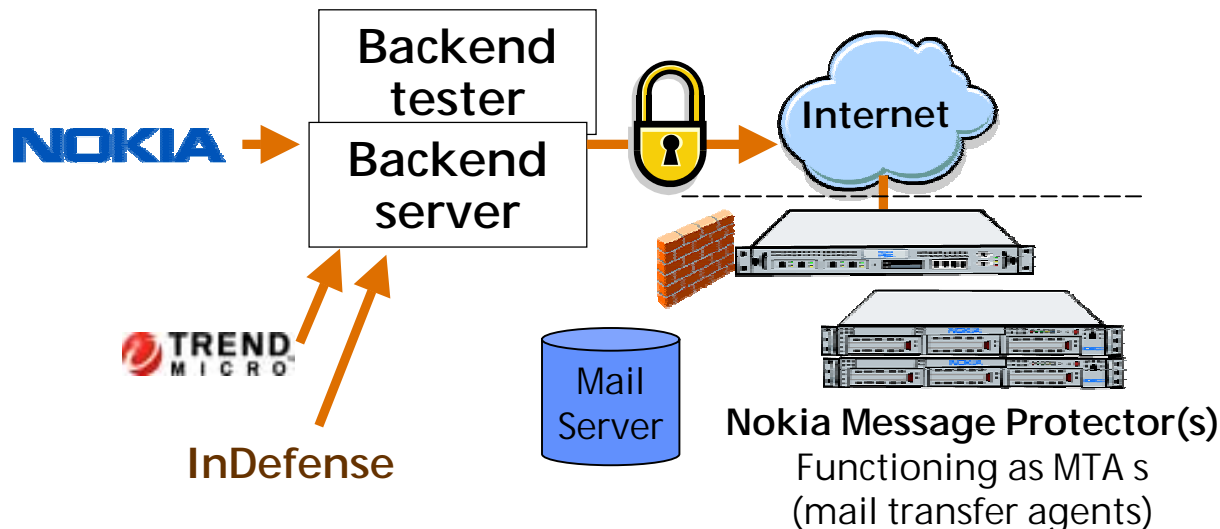
**NOKIA**  
**SC6600**

\* Gartner (June 10, 2002) "Software Security: Change is Imminent"



# Nokia Message Protector Minimizes Version Latency

- Receive updates from Secure Content Management partners
- Automated testing verifies reliability and effectiveness
- Made available for appliance download within minutes
- After receiving an update, the appliance validates its authenticity and integrity prior to deploying
  - AV signature file updates
  - AV engine updates
  - Message Protector application updates



# Benefit Summary

- Dedicated SMTP Appliance
  - Ability to process 120,000 emails per hour means mail servers behind Nokia Message Protector don't skip a heart beat
  - Mail Transfer Agent (MTA) design will not expose mail servers to external network
  - Single, consistent design allows fast deployment, increases reliability and decreases cost of ownership
- Secure and Hardened Appliance
  - Even though the Nokia Message Protector sits in the DMZ, IPSO and Network Voyager protect access during deployment and maintenance
  - First call, final resolution means updates are already tested for customer configurations and can be immediately deployed
- Statistical Protection
  - Conforms to much desired layered approach to policies, hardware and software to provide overall enterprise network protection against blended threats and hybrid worms designed to target multiple vulnerabilities in the network
  - Delivers most robust virus protection technologies available
  - Pseudo-intelligent HERO signature generation at the appliance significantly decreases probability of unknown threat
- Secure Automatic Updates
  - Secured communication path and signed updates eliminate threat to integrity
  - Ability to update entire appliance introduces a maintenance best practice

# Nokia Message Protector

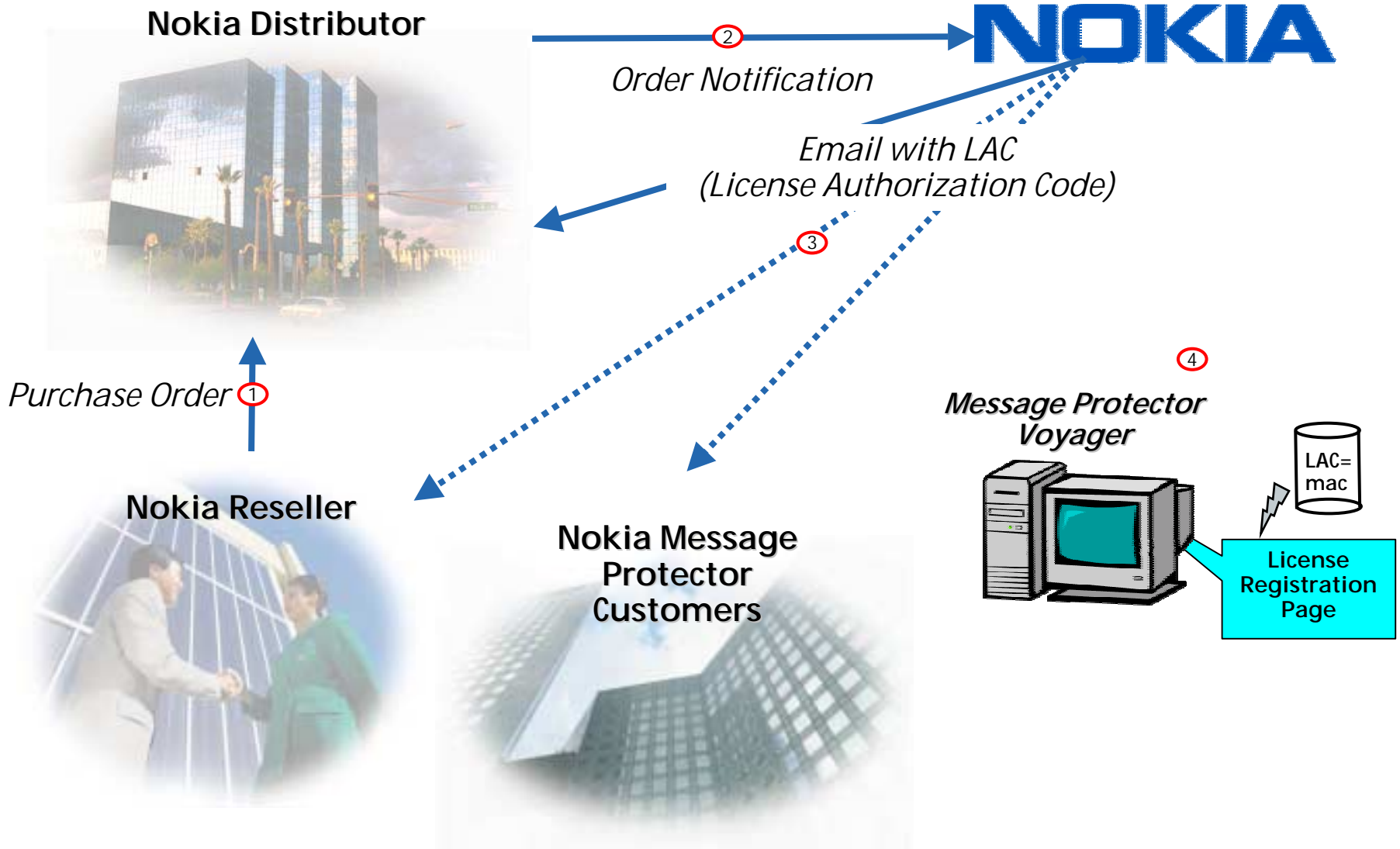
- Nokia is the single source for Message Protector hardware, software & services
  - Nokia Message Protector Appliance
  - Nokia M-Protect 1,000 seat licenses and above
  - Subscription Service

	Year 1	Year 2
Nokia Message Protector (x 2)	\$US 31,990	
Nokia M Protect (5K seats)	\$US 70,400	\$US 21,120
Nokia Message Protector Basic <sub>(per box)</sub> *	\$US 8,000	\$US 8,000

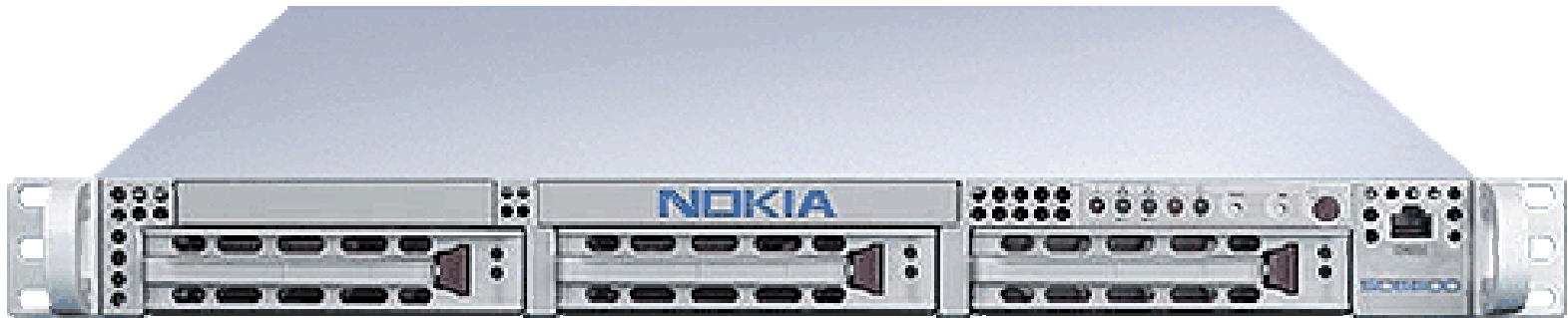
Note: Prices above are for Americas and EMEA

**\*Also available in Access, Essential and Premier Support & Service Offerings**

# How Licensing Works



# Questions



# NOKIA

CONNECTING PEOPLE