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Agenda

- Current Threats overview and X-Force value
- ISS ESP overview as a Service Oriented Security Architecture (SOSA)
- Siteprotector ESP Management solution
- Vulnerability Management (Network Scanners)
- Network Protection (IPS, IDS, ADS, UTM)
- Host and Desktop protection (PFW, AV, Anti-X, HIPS, HIDS)
- Content Protection (AS and WF)
- Services Overview (MSS, MPS, Compliance Gap-Analisys)



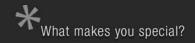
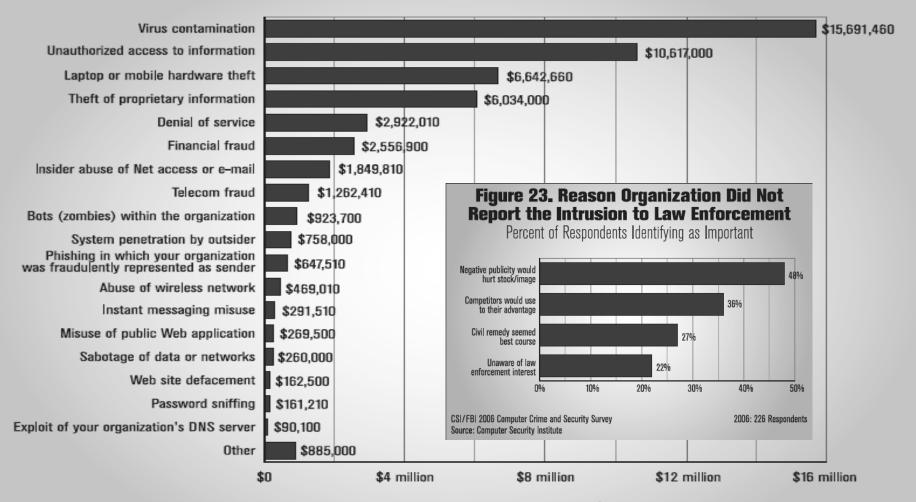






Figure 16. Dollar Amount Losses by Type



Total Losses for 2006 = \$52,494,290

CSI/FBI 2006 Computer Crime and Security Survey Source: Computer Security Institute 2006: 313 Respondents

The Changing Threat Landscape



17



The New Attack Trends...

- Shift from "Glory-Motivated-Vandals" to "Financially-Politically-Motivated-Cyber-Crime"
 - They are more organized and collaborative (They have a *Roadmap*)
- From the "Designer Worm" to the "Designer BOT/Trojan"
 - Patient ZERO *is* the only target, and this implies "Signature engines are no good because of the restricted sample base"
 - Monster.it, Governement Web sites, Banks,...
- New emerging Vectors of Penetration and Infection
 - Content Level Vulnerabilities
 - Virtualization
- The BOT-Networks
 - "Computational Currency"
 - SPAM Relays
 - Spyware/Adware subscriptions
 - Distributed Denial of Service Attacks



...REQUIRES New Protection Trends

- ...Evolving Technologies
 - There are too many possible vectors. There is no one miracle technology to protect you from everything. All existing technologies have a space and purpose
 - Protocol Analisys
 - Buffer Overflow Exploitation Prevention
 - Shell Code Heuristic
 - Behavioural Virus Prevention System
 - ...more to come!!!



...REQUIRES New Protection Trends

...Holistic Approach

 There is not one location where all technologies can be deployed in order to protect the entire environment.
 Some simple examples:

Host Protection

- Mobile Computers need to be protected locally.
- Javascripts can be analysed and identified once dowloaded completely.

Server Protection

- Encrypted traffic to servers can be inspected after decryption.
- Analysis of log files to monitor the activity on the server.

Network Protection

- All clear text traffic inspected in one or more location to protected large IT infrastructures.
- Web Filtering to prevent access to compromised sites.
- Mail Filtering to prevent phishing attacks.
- Anomaly Detection to identify unespected traffic.





...REQUIRES Advanced Research

The mission of IBM Internet Security Systems' X-Force is to:

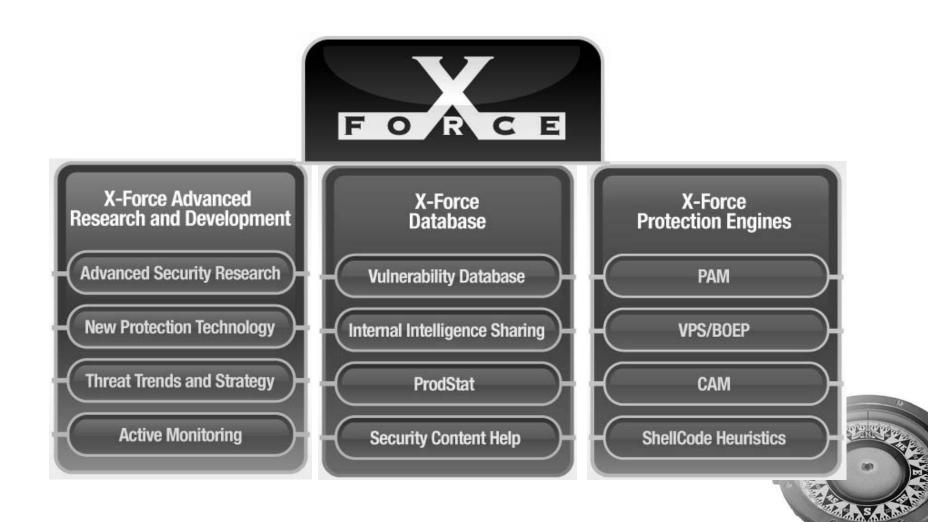
- A 200 team of professionals focused on security
- Research and evaluate threat and protection issues
- Develop assessment and countermeasure technology
- Educate the media and user communities



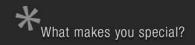




X-Force Advanced Research



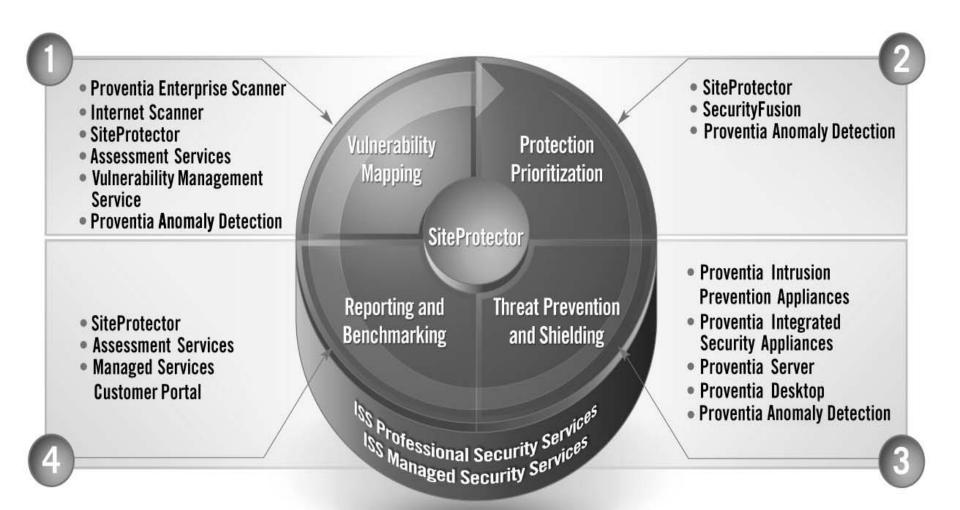




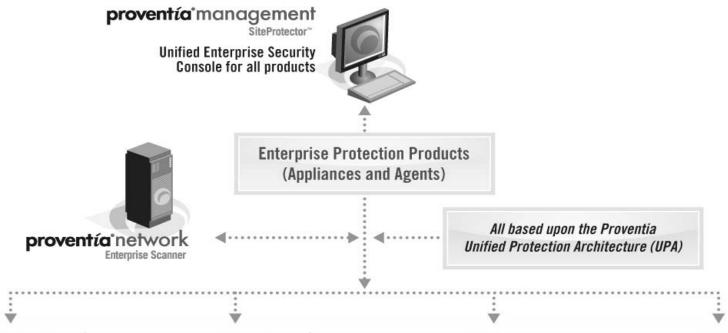
ISS ESP overview as a Service Oriented Security Architecture (SOSA) IBM Governance and Risk Management Maximize Value, Manage Risk



Preemptive Protection For The Entire Enterprise







proventía network

Protection Appliances



Proventia Network MFS M50, M30, M10

"All-in-One" Protection Appliance

- IDS/IPS
- FW/VPN
- AntiVirus (signature & behavioral)
- AntiSpam
- Web Filter
- Spyware

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Protection Appliances



Proventia and Series -"Anomaly/Behavioral" Protection and **Network Visability Appliances**



Proventia Network IPS Preemptive Security for Enterprise Networks GX4002, GX4004, GX5008, GX5108 G400, G2000

proventía° server

Protection Agent

Proventia Server

- "Multi-layered" Protection Agent
- Windows
- Linux

RealSecure Server Sensor

- Windows
- Solaris
- AIX
- HP-UX

proventía desktop

Protection Agent



Proventia Desktop "All-in-One" Protection Agent

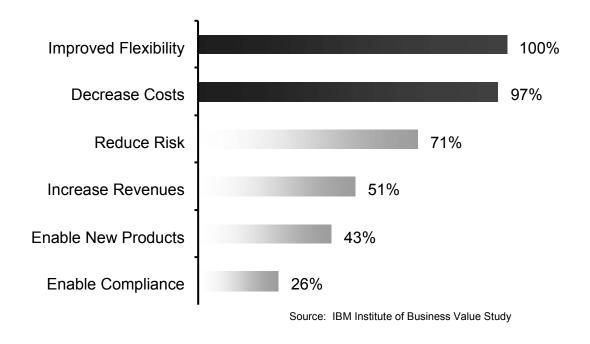
- Firewall
- Virus Prevention System
- Intrusion Protection
- VPN Enforcer
- Buffer Overflow Protection





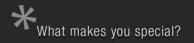
Key Driver: Business Expansion and Security

Benefits resulting from SOSA Solutions

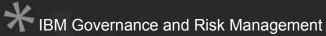






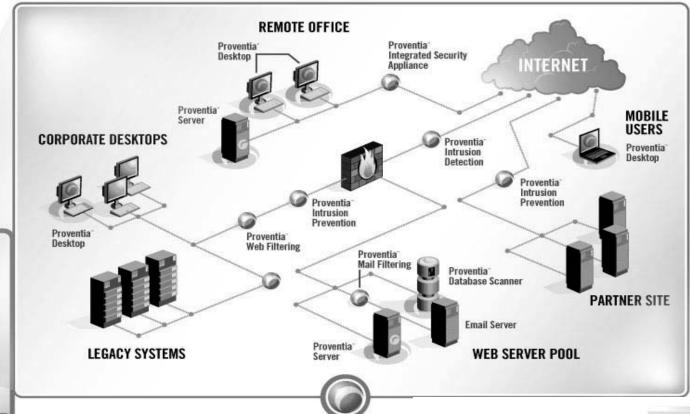








Siteprotector ESP Management





Families of Functionality

Asset Management

- **■** Discovery
- **■** Clarification
- Inventory
- Ownership

Track Improvements to Operational Security

Reporting

Asset, Audit, Attack
 Activity, Management,
 Permissions, and Ticketing
 Categories and more

Broad Agent Support

■ All ISS agents and appliances



SiteProtector[™]



Workflow and Ticketing

- Track Vulnerability Remediation
- Facilitate & Document Incident Response

Command and Control

- Policy Management
- Product, Content Updates
- **■** Content Updates
- Central, Agent Responses

Enforce Segregation of Duties

- Default, Custom Roles
- Granular Permissions
- Multiple Consoles

Event Analysis

■ Real-time Monitoring







RealSecure Security Fusion 2.0

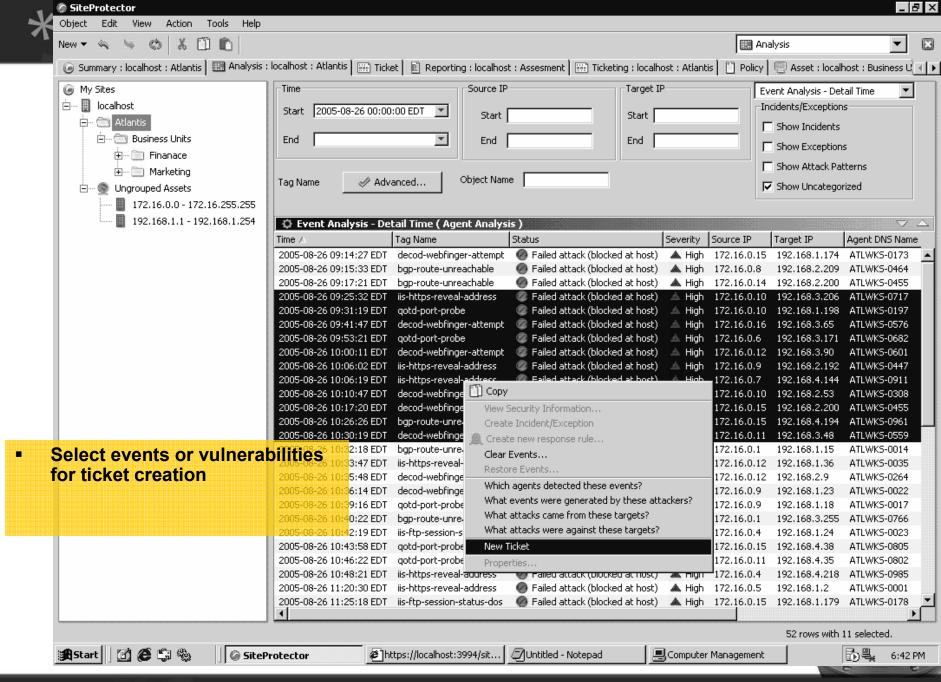
Impact Analysis

- Answers the question, "Was the attack successful?"
- Correlates stored data about the target instantly
- Estimates the impact on the target
- Automatically responds

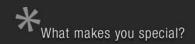
Attack Pattern Analysis

- Answers the question, "Are there patterns of attack activity that indicate malicious intent?"
- Instantly correlates incoming attacks across multiple security agents
- Automatically identifies important security incidents.











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Frost and Sullivan Market Leadership Award



#1 Market Share 6 Consecutive Years

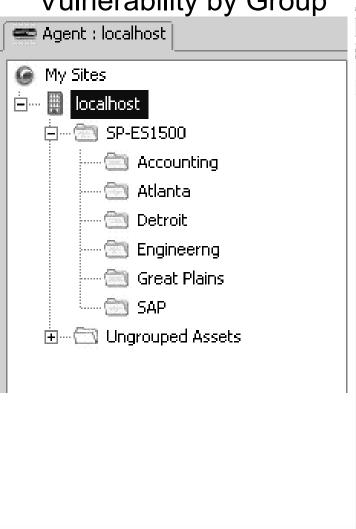
- Workflow and ticket management
- Fully managed by SiteProtector to deliver an integrated vulnerability management solution
- Continuous scanning with scheduled scanning windows
- Definable roles and privileges
- Scalable Speed
- Extensible, scriptable content via EASL, and NASL
- Protects your corporate data by identifying where risk exists, prioritizing and assigning protection activities, and reporting on results.
- **Application Fingerprinting**
- **SSH Support**





Workflow and Remediation - Prioritization

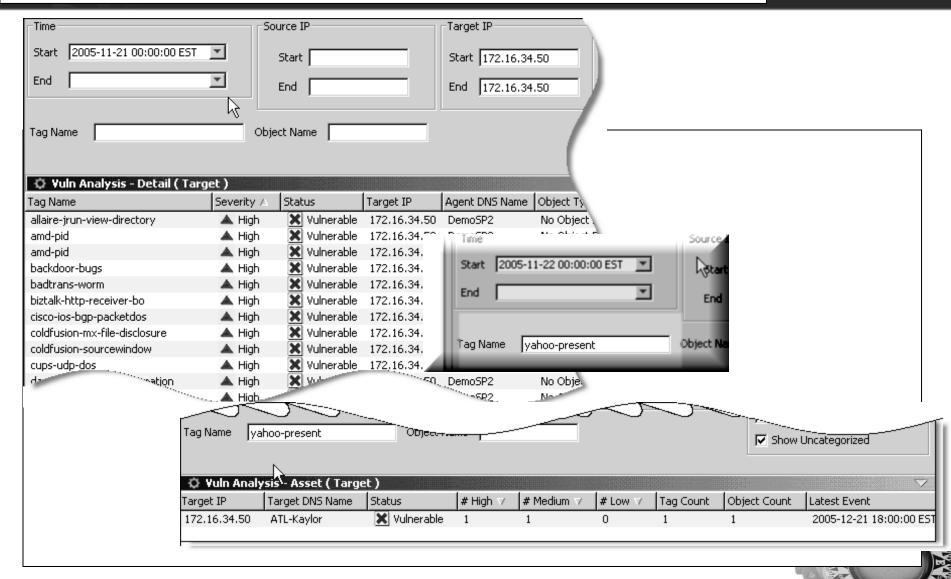






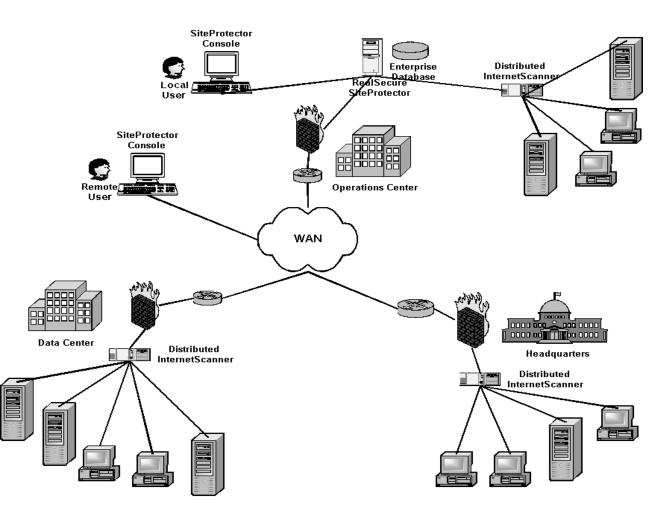
Vulnerability Query





Internet Scanner





Run scans and view data from multiple remote scanners, with or without local users.

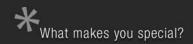


Internet Scanner



- Dynamic Check Assignment
- Checks running concurrently
- Ability to not/limit scan on printers or unknowns
- Support for Windows NT 4.0, 2000 Pro, XP Pro SP1a, 2003 Server
- Pause scanning
- User defined nmap database entries









Network Protection: Proventia® G IPS

Intrusion Prevention Systems

- V-Patch Block malicious and unwanted traffic other technologies cannot recognize.
 - Bots / Trojans / Worms / Spyware / P2P / IM / DoS

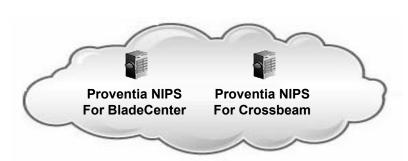
 Compliment patch management by shielding new vulnerabilities.



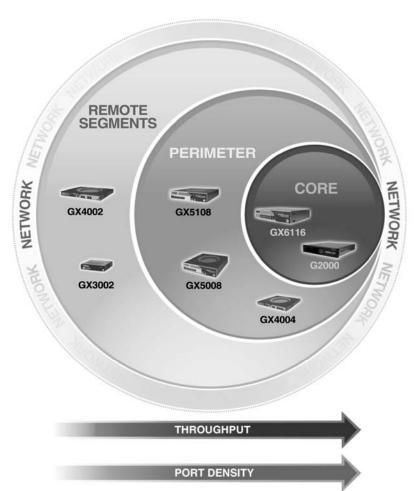
Your Business

At Every Layer of Your Network





Service Provider



A SAN





Proventia Network IPS Continuum:

The Most Complete Portfolio Available



	Network						
	Remote Segments		Perimeter			Core	
Model	GX3002	GX4002	GX4004	GX5008	GX5108	G2000	GX6116
Throughput	10 Mbps	200 Mbps	200 Mbps	400 Mbps	1.2 Gbps	2 Gbps	15 Gbps
Protected Segments	1	1	2	4	4	4	8

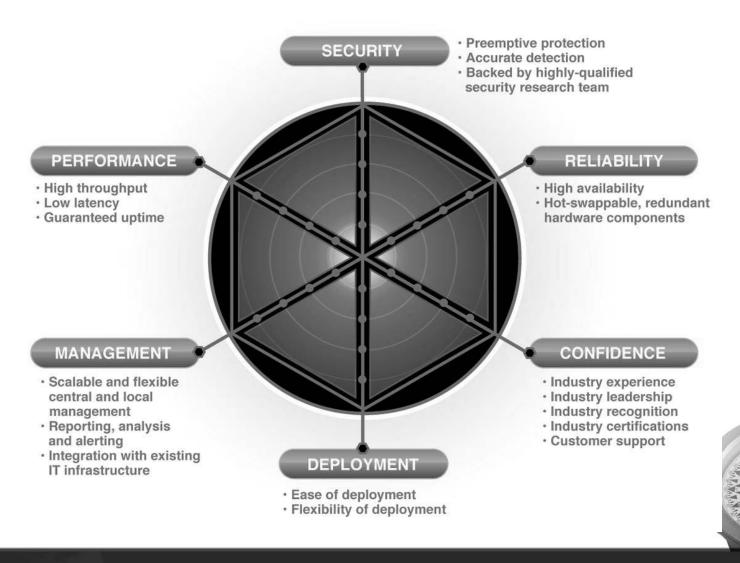
THROUGHPU

PORT DENSITY





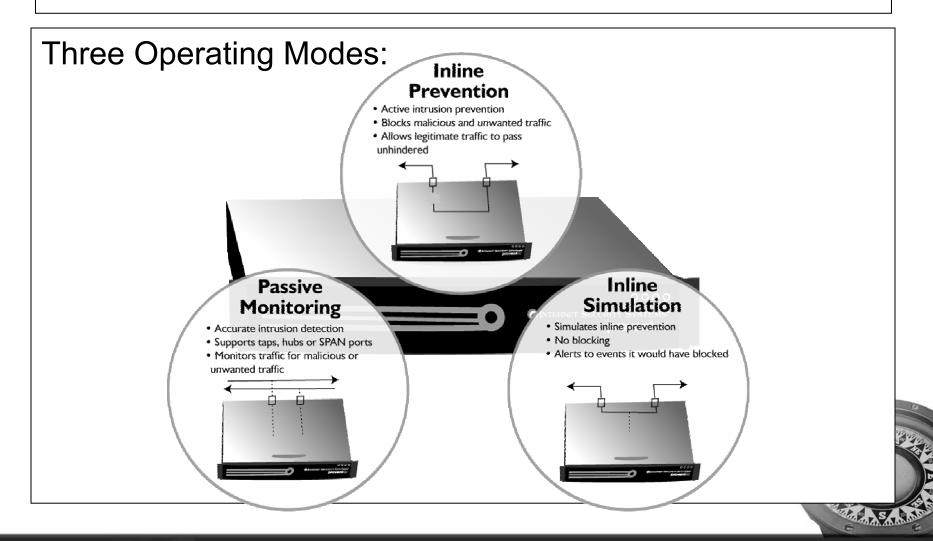
Uncompromising Protection ...



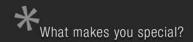




Proventia Network IPS Deployment









Network Protection: Proventia® ADS



CRUMBLING PERIMETER

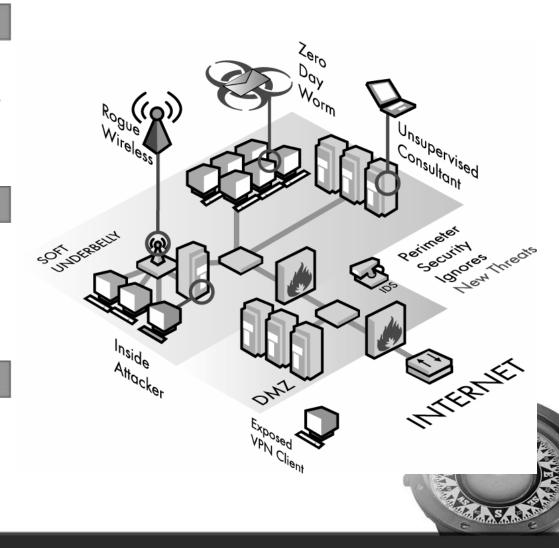
- VPN's, Wireless, Walk-In Vector
- Contractors, partners, customers
- Automated attacks, zero-day worms

CONSTANT TURMOIL

- New business, new applications
- Mergers and acquisitions
- Internal visibility is poor

REGULATION

- HIPAA, SOX, GLBA
- Financial Penalties
- Brand Damage, Liability

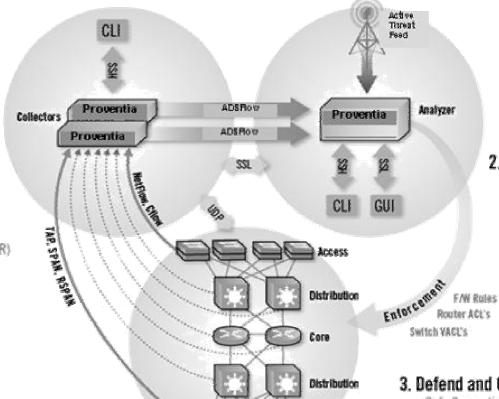


Proventia ADS – Solution Architecture





- · Collect flow/packet data
- · De-duplicate flows
- . Turn unidirectional flows into bidirectional conversations
- . Stateful Flow Reassembly (SFR)



2. Correlate, Analyze & Identify

- . Generate ADS relational Models
- Stateful Flow Reassembly (SFR)
- . Provide visibility into user, network and application conversations
- · Behavioral Analysis
- . Multi-Dimensional Detection

3. Defend and Quarantine

· Safe Quarantine

Bata Center

- * Malware Vaccination
- · Generate switch and firewall policy





KNOW YOUR NETWORK

INSTANTLY IDENTIFY THREATS

DISRUPT ATTACKERS

DEMONSTRATE PROTECTION

Visibility

- Identify assets
- Resource pivoting
- Monitor AUP
- Hardening and segmentation

Detection

- · Anomaly-based
- Multi-Dimensional Detection
- Active Threat Feed
- Virtual perimeters

Quarantine

- Safe Quarantine
- Worm Vaccination
- Generate switch and firewall policy

Reporting

- Internal accounting
- Log violations
- Simplify compliance
- Identify top-talkers

Patent Pending Relational Modeling

Who Talks to Who, How?

PACKET INSPECTION

STATEFUL FLOW REASSEMBLY (SFR)



Proventia ADS continually develops new algorithms to accurately detect uniquely internal threats:



Worm Detection

Detects propagating patterns of abnormal behavior: **the SQL Slammer worm**.



Active Threat Feed (ATF)

Detects traffic that violates a behavioral fingerprint: **malware**, **phishing**, **botnet traffic**, **etc**.



Rate-Based Anomaly Detection

Detects sudden shifts from baselined traffic levels over time: a **DoS attack on a trading feed.**



Recon Detection

Detects slow scans, fast scans, "stealth" scans, and host sweeps.



Insider Misuse

Detects behavioral violations of specified security policy: helpdesk worker improperly talking to/accessing payroll database



Availability Outages

Detects drops in traffic on critical servers and links.

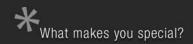


Deployment Guidelines

		Flow	Capture	Up to
Model	Description	Sources	Ports	Mbps
AD5003	Analyzer	3	2	200
AD3000	Packet Collector	0	4	1,000
AD3007	Flow/Packet Collector	7	4	1,000
AD3014	Flow/Packet Collector	14	4	1,000
AD3020	Flow/Packet Collector	20	4	1,000

Small Deployment	Medium Deployment	Large Deployment
Analyzer (3 flows, 200 mbs)	Analyzer	Analyzer
Andryzer (5 nows, 200 mbs)	12 flow sources, 1gbps	40 flow sources
	12 11011 3041003, 19553	









Network Protection: Proventia® M

Layer 2/3 Firewall/VPN

OSPF Routing

Intrusion Prevention

Antivirus

Virus Prevention

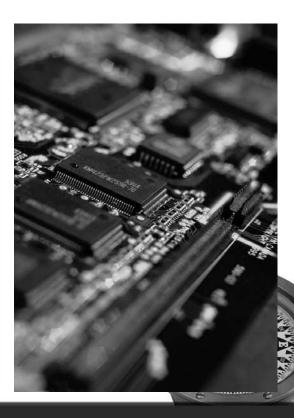
Web Filter

Antispam











Who is M ideally suited for?

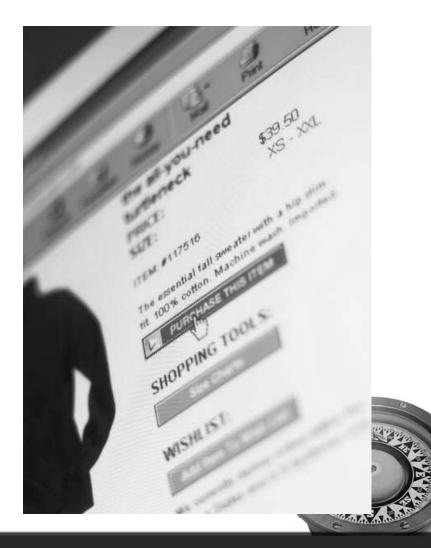
- Franchise Customers and other customers with many remote offices
 - Exclusive Multi-site management features
 - Excellent all-in-one Protection
 - Low price for the performance
- Alternative Corporate Gateways
 - VPN gateways
 - Partner gateways
 - Places where protection valuable, but speed, latency and fail-open are not driving factors





...Ahead of the threats...

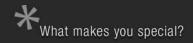
- Latest Security Technologies
 - 830 blocks
 - 120k Viruses blocked
 - 60M URL's
 - 2.4 Billion Websites!
 - 1.5 Billion Images!
 - 95% of Spam Filtered
 - 1 in 10,000 false positives
 - Virus Prevention System
 - Spyware Protection
 - Best Performance at lowest cost

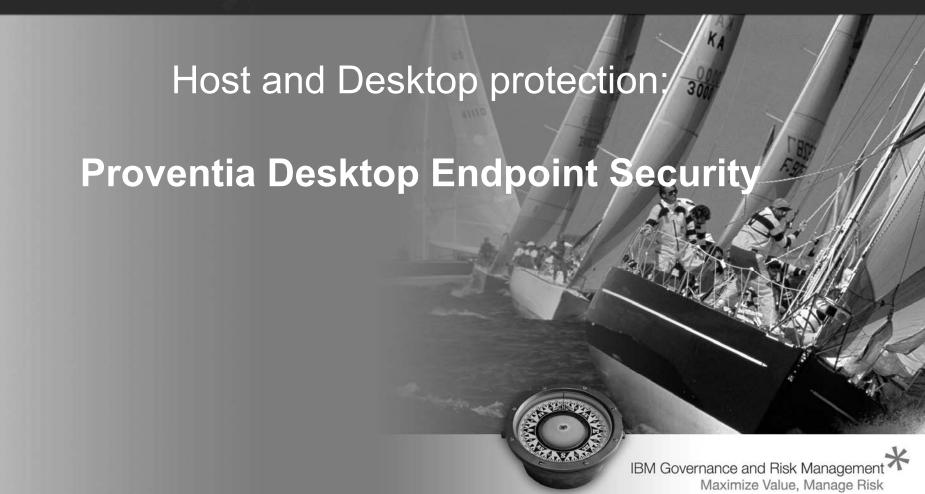


Best Protection Without Compromising Performance

Proventia MX3006 and MX5010 Network Multi-Function Security at a Glance Proventia MX1004 STREET, SEC. IBM Proventia® MX3006 **Multi-Function Security Multi-Function Security** Stateful Throughput Speed (Firewall only) -Protecting 0 vulnerabilities -Blocking 0 viruses -Blocking O Spam -Blocking 0 forbidden websites 100 Mbps 200 Mbps 1600 Mbps **Full Inspection Speed** -Protecting over 700 vulnerabilities -Blocking 0 viruses -Blocking over 95% of spam -Blocking available for over 60M URLs by category 100 Mbps 200 Mbps 800 Mbps **Full Inspection Speed** -Protecting over 700 vulnerabilities -Blocking over 120,000 viruses over SMTP and POP3 -Blocking over 95% of spam -Blocking available for over 60M URLs 200 Mbps 566 Mbps by category 43 Mbps **Full Inspection Speed** -Protecting over 700 vulnerabilities -Blocking over 120,000 viruses over SMTP, POP3, HTTP and FTP -Blocking over 95% of spam -Blocking available for over 60M URLs by category 34 Mbps 94 Mbps 150 Mbps Maximum Connections per second 2,125 4.100 4,100 101,000 **Maximum Concurrent Sessions** 101,000 101,000



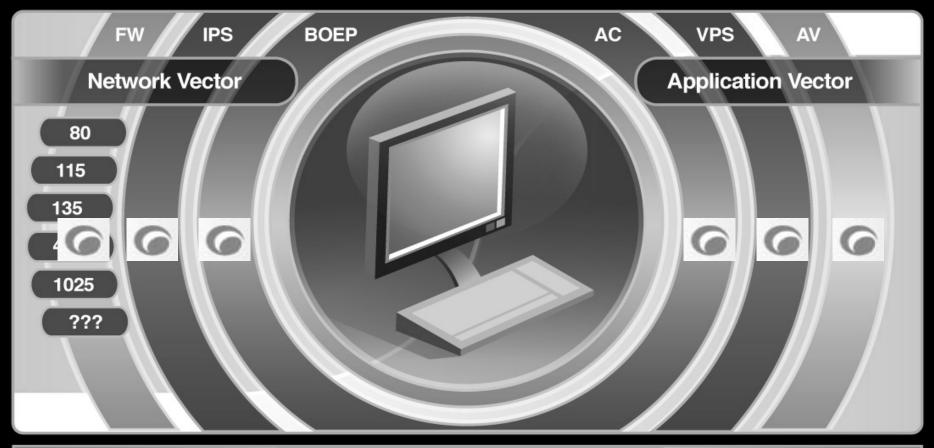




Host and Desktop Protection: Proventia® Desktop

- Firewalls and VPNs are not enough. Firewalls can't block malicious traffic, and VPNs only encrypt traffic. An attacker can use a VPN as a tunnel right into the corporate network
- Users who, unwittingly or intentionally, download potentially dangerous applications or other forms of malicious code
- Customers of all shapes and sizes need protection if they are connected to the Internet
- Products centered around AV signature antivirus are 100% ineffective against new generations of custom, targeted, and designer attacks. Scan & Remove technologies are less effective with Rootkits and Ransomware, where neither detection nor recovery may not be possible.
- Need for a ONE-STOP SHOP SOLUTION for Endpoint Protection.

Proventia Desktop - Multi-Layered Protection



Proactive Zone



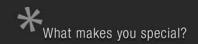
DANGER ZONE



Proactive Zone



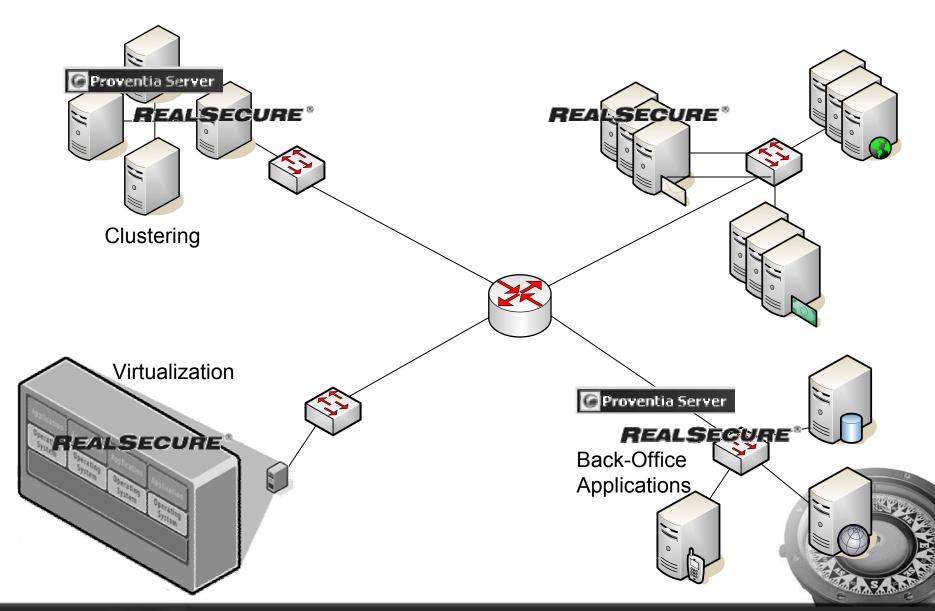






Server Environments





Product Differentiators



- ISS places a high value on comprehensive OS and new version support
 - Support more heterogeneous environments than any other Server HIPS vendor
 - Windows, Linux (RHEL/SLES), Solaris, HP-UX, AIX, VMWare/Virtualization
 - Early to market on supporting the latest versions and platform evolutions
 - RHEL 4.0 support (and Kernel independent design to assure prompt future support)
 - Solaris 10 (unique and efficient support of the Container architecture)
- Leads the market in Gartner's Nine protection styles coverage
- Defense-in-Depth
 - Seamless integration with network and host security products
- Backed by world-leading X-Force research and development
 - VirtualPatch™Technology
 - Protocol Analysis Module (PAM)









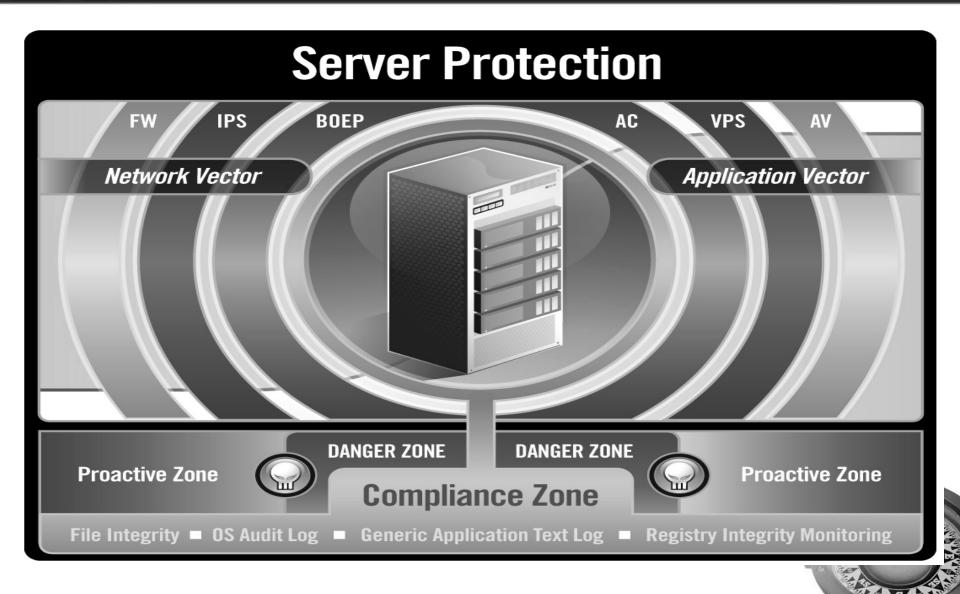












Gartner's Nine Protection Styles of HIPS



	Allow Known Good (Block All Else)	Block Known Bad (Allow All Else)	Unknown
Execution-Level HIPS	7. Application Control INTERNET SECURITY SYSTEMS	8. Resource Shielding INTERNET SECURITY SYSTEMS BOEP (Windows)	9. Behavioral Containment Upcoming
Application-Level HIPS	4. Application and System Hardening	5. Antivirus Upcoming	6. Application Inspection
Network-Level HIPS	1. Host Firewall INTERNET SECURITY SYSTEMS Firewall	2. Attack-Facing Network Inspection INTERNET SECURITY SYSTEMS	3. Vulnerability-Facing Network Inspection INTERNET SECURITY SYSTEMS

Source: Gartner, Inc., "Understanding Strengths and Weaknesses of Host-Based Intrusion Prevention Styles," Neil McDonald, 30 January 2006.



RealSecure Server Sensor



Proventia Server

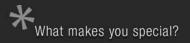




Features

- New OS event signatures for Windows Server 2003 and Active Directory
- Web Application Protection Module for IIS 6 (SSL inspection)
- Driver-level packet trusting (inspection bypass)
- Interface exclusions (Unix only)
- Usability
 - Installation logic for Windows Server Sensor
 - Silent installation for AIX
 - Custom installation path for AIX and HP-UX
- TCP Resegmentation support for AIX customers
- Platform Support
 - Solaris 10 (and Containers)
 - HP-UX 11.23
 - Windows Server 2003 SP2
 - ISA Server 2006
 - AIX 5.4







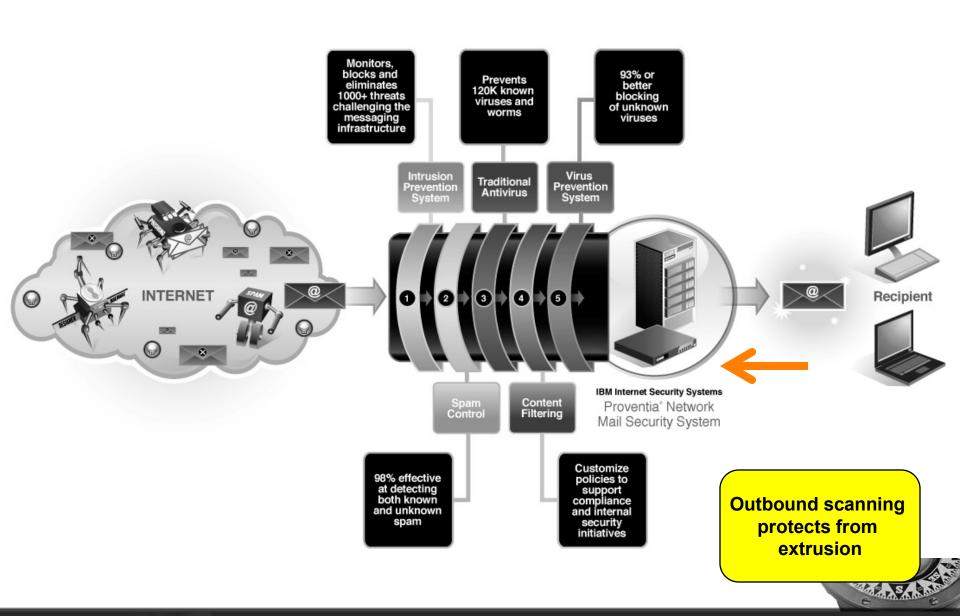
Content Protection: Proventia® Network Mail



Proventia Mail Security

- Scalable enterprise-class solution
- Best-in-breed anti-spam and anti-virus, including VPS
- Clustering support for failover and large-scale deployments
- Highly flexible and scalable rules-based policy management
- Easy to deploy, easy to manage
- Stand-alone or managed thru SiteProtector

Proventia Network Mail: Multi-layered Email Protection



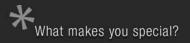


Welcome to Proventia Network Mail

- First and only mail security vendor with VirusPrevention System
- First and only mail security vendor with integrated IPS technology
- Our Proventia Filter
 Database utilizes more than 500 web crawlers and 800 spam collectors, analyzing more than 5.9 billion web pages and images to date second in size only to Google!
- Backed by X-Force and C-Force research and development











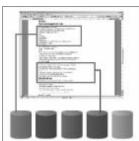
* Core technologies



Text recognition (OCR)



Face recognition



Text classification



Pornography & nudity detection



Digital fingerprint



Object recognition

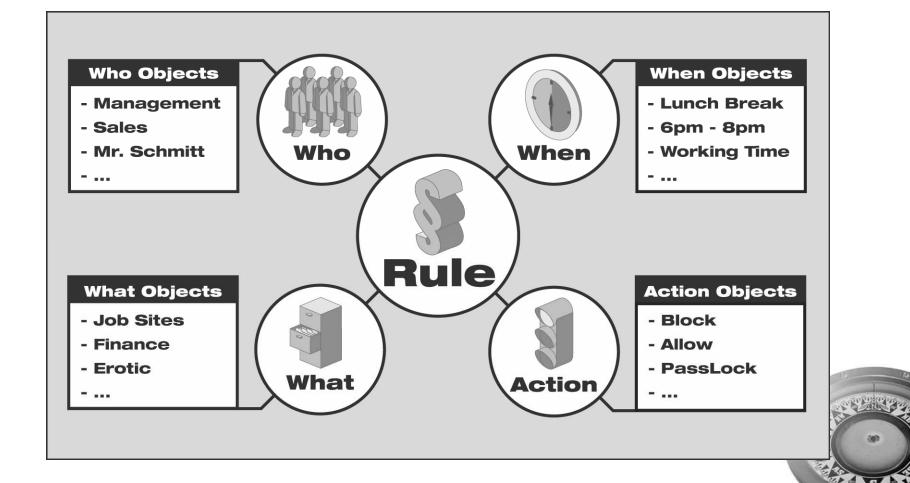


Comparison of similarity and identity





ISS Web Filter – Policy Workflow





Proventia Web Filter – world's largest URL filter

Topicality

- Crawlers collect image and text data from the Internet 24 hours a day on 365 days, which adds up to 120 million pages each month
- Every day, customers receive updates, equaling some 100,000 new categorized sites

Quality

 Largest URL database meets practically every filtering requirement by means of indexed URLs in 60 categories

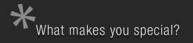
Quantity

- World's largest URL filter list contains
 60 million URLs
- World's largest database with 2.6 billion evaluated web pages and images
- In-house Computer Center with more than 1000 servers.





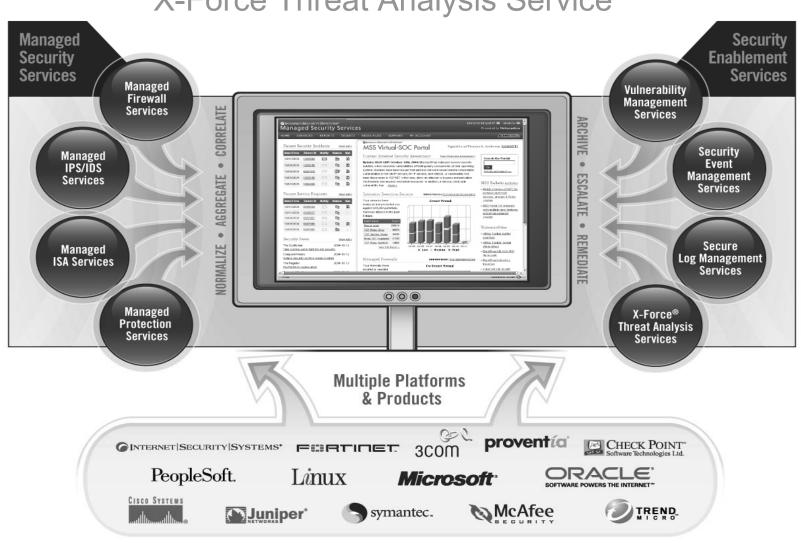




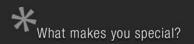




X-Force Threat Analysis Service









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Technical Pre-Sales System Engineer

Questions?

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Maximize Value, Manage Risk

IBM Governance and Risk Management