Securing Your Enterprise

Realizing the SDN Vision

April 3rd, 2008 Vienna

Connected World with Complex Security Challenges

Collaboration and Communication

- TelePresence/ Video / IM / Email
- Mobility
- Web 2.0 / Web Services / SOA

The New Threat Environment

- The Eroding Perimeter
- SPAM / Malware / Profit Driven Hacking
- Data Loss and Theft

The Business Impact of Security

- IT Risk Management
- Regulatory Compliance
- Security as Business Enabler

The Growing Need for Security Solutions

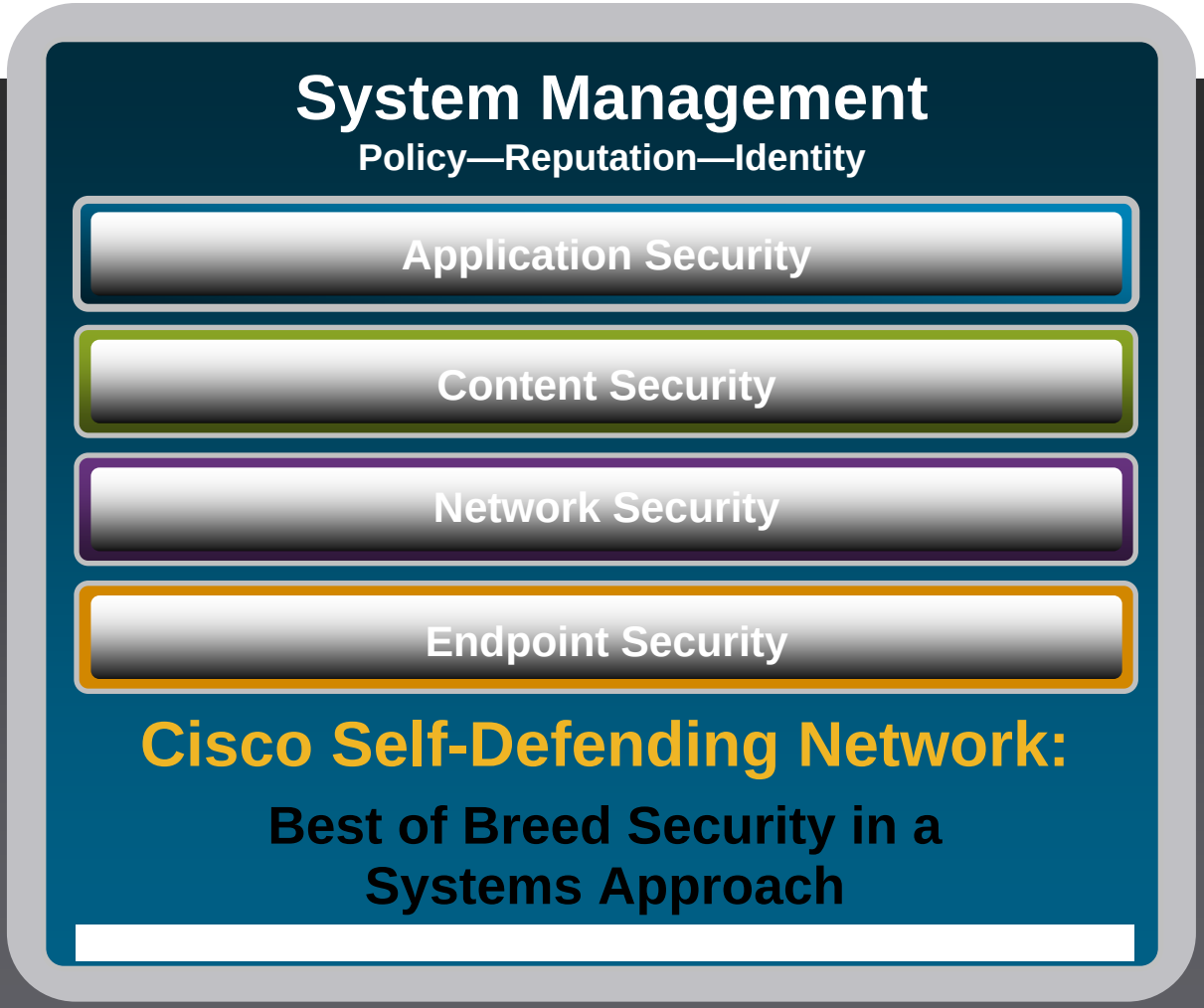
Regulatory Compliance

Data Loss

A Systems Approach to Streamline IT Risk Management for Security and Compliance

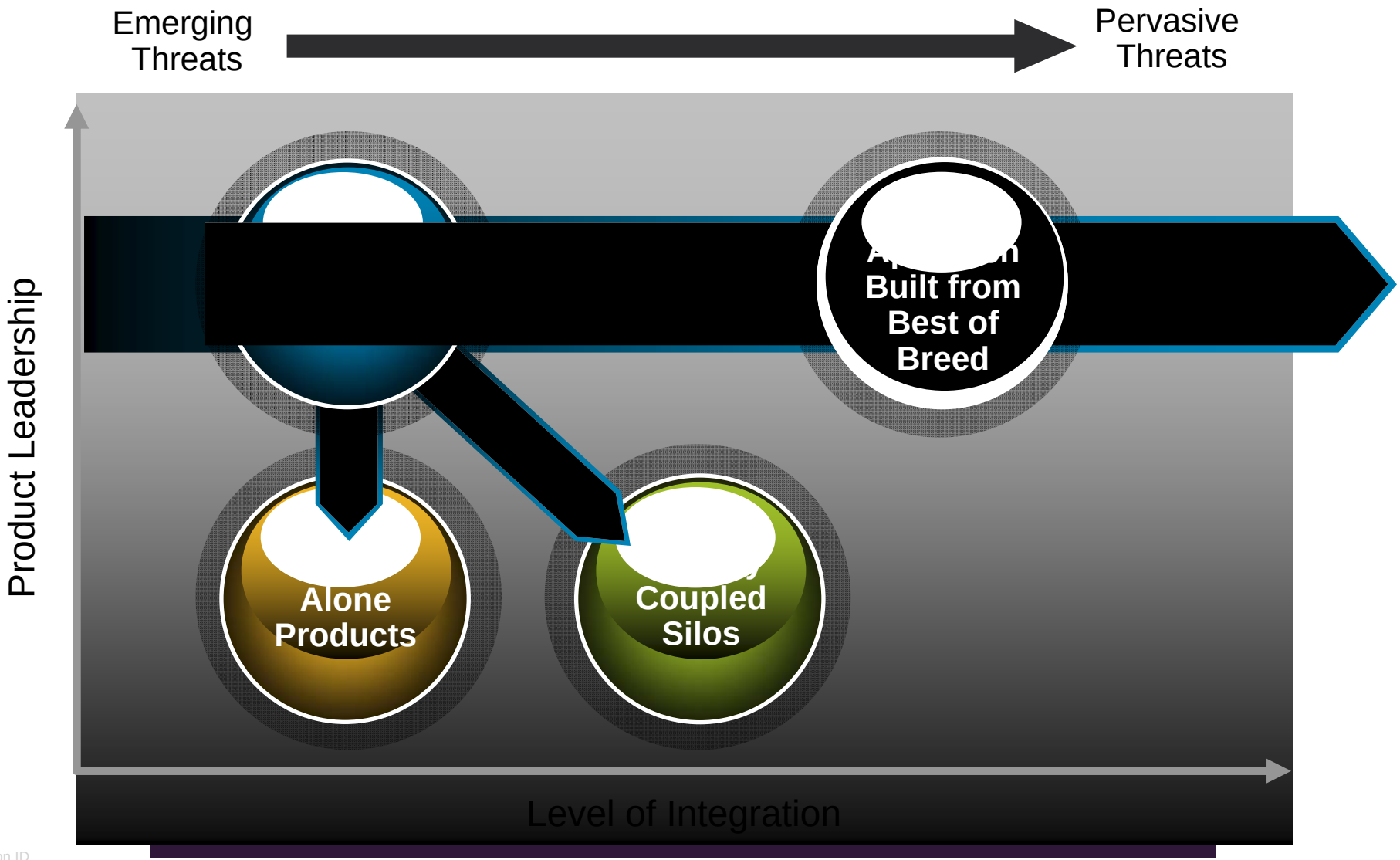
Malware

Solutions for Business Security

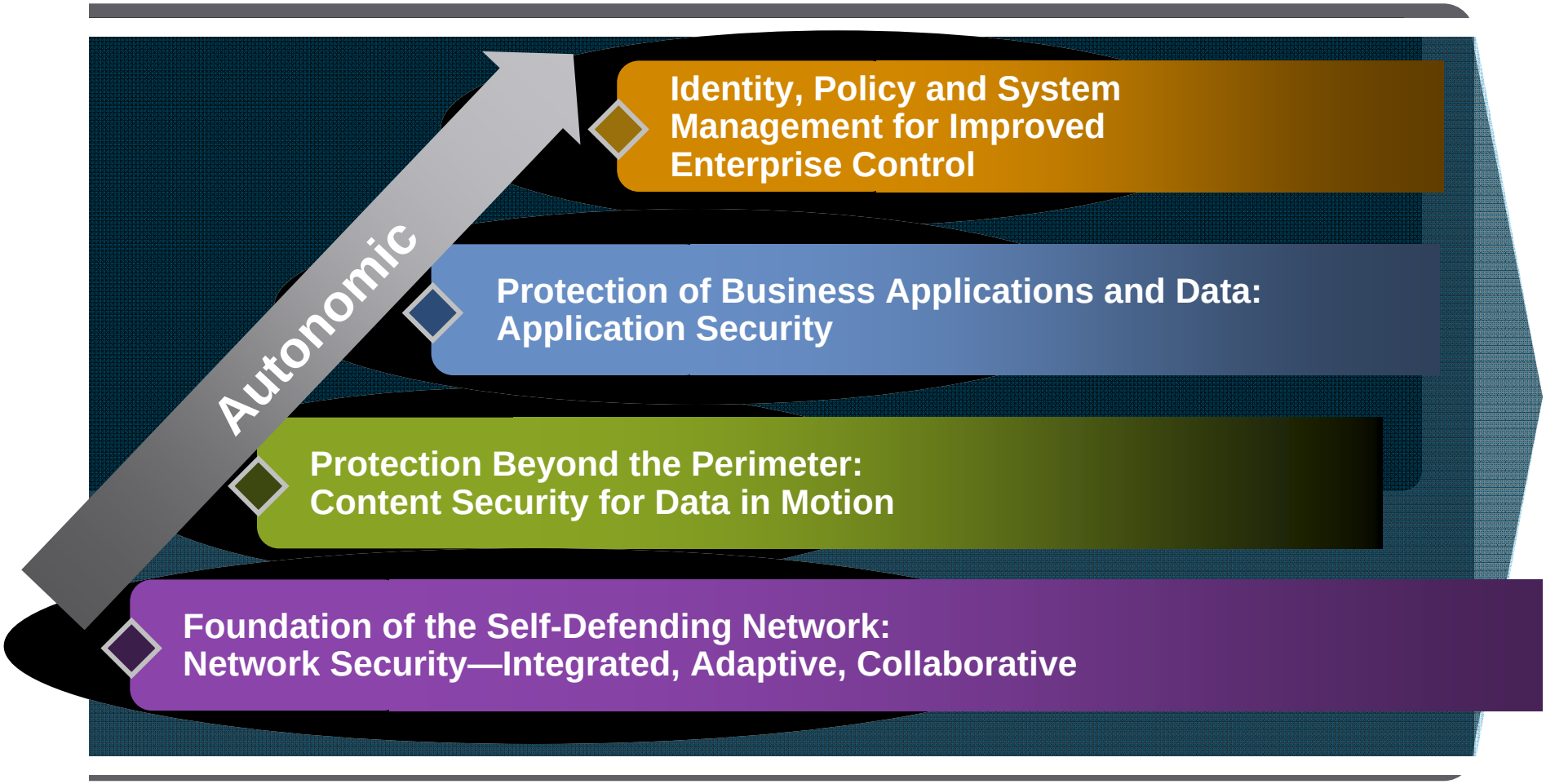


- Enforce business policies and protect critical assets
- Decrease IT administrative burden and reduce TCO
- Reduce security and compliance IT risk

Systems Approach Built From A Leadership Product Portfolio



Building Upon the Self-Defending Network Vision



Foundation of the Self-Defending Network:
Network Security

Integrated
- Firewall, IDS/IPS, and VPN in ASA, ISR and Catalyst 6500
- 1.4M Routers with Integrated Security
- 3M Switches with Integrated Security

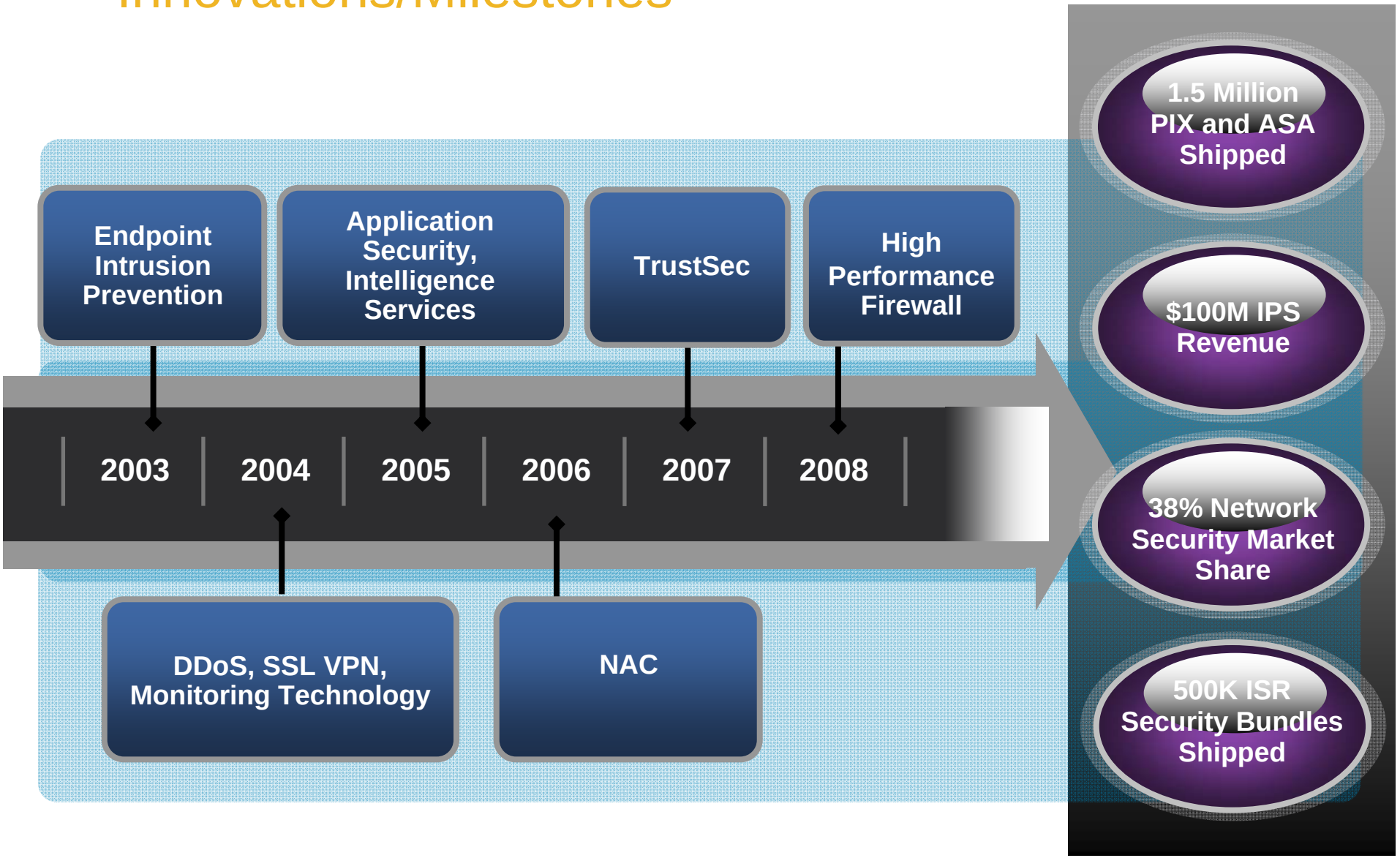
Adaptive
- Cisco Security Agent (CSA)
- IPS and Anomaly Detection
- DOS Guard and NetFlow Event Management

Collaborative
- Cisco Security Agent (CSA), Network IPS and MARS
- Cisco Security Manager
- Secure Wireless
- Secure Unified Communications

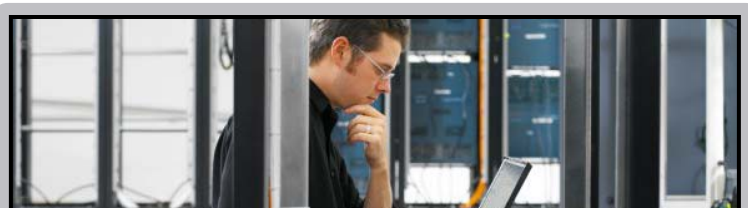
Foundation of the Self-Defending Network:
Network Security—Integrated, Adaptive, Collaborative

Success with Systems Based Architectural Solution

Cisco Network and Endpoint Security
Innovations/Milestones



Realizing the Self-Defending Network Vision
Strategy for Network and Endpoint Security



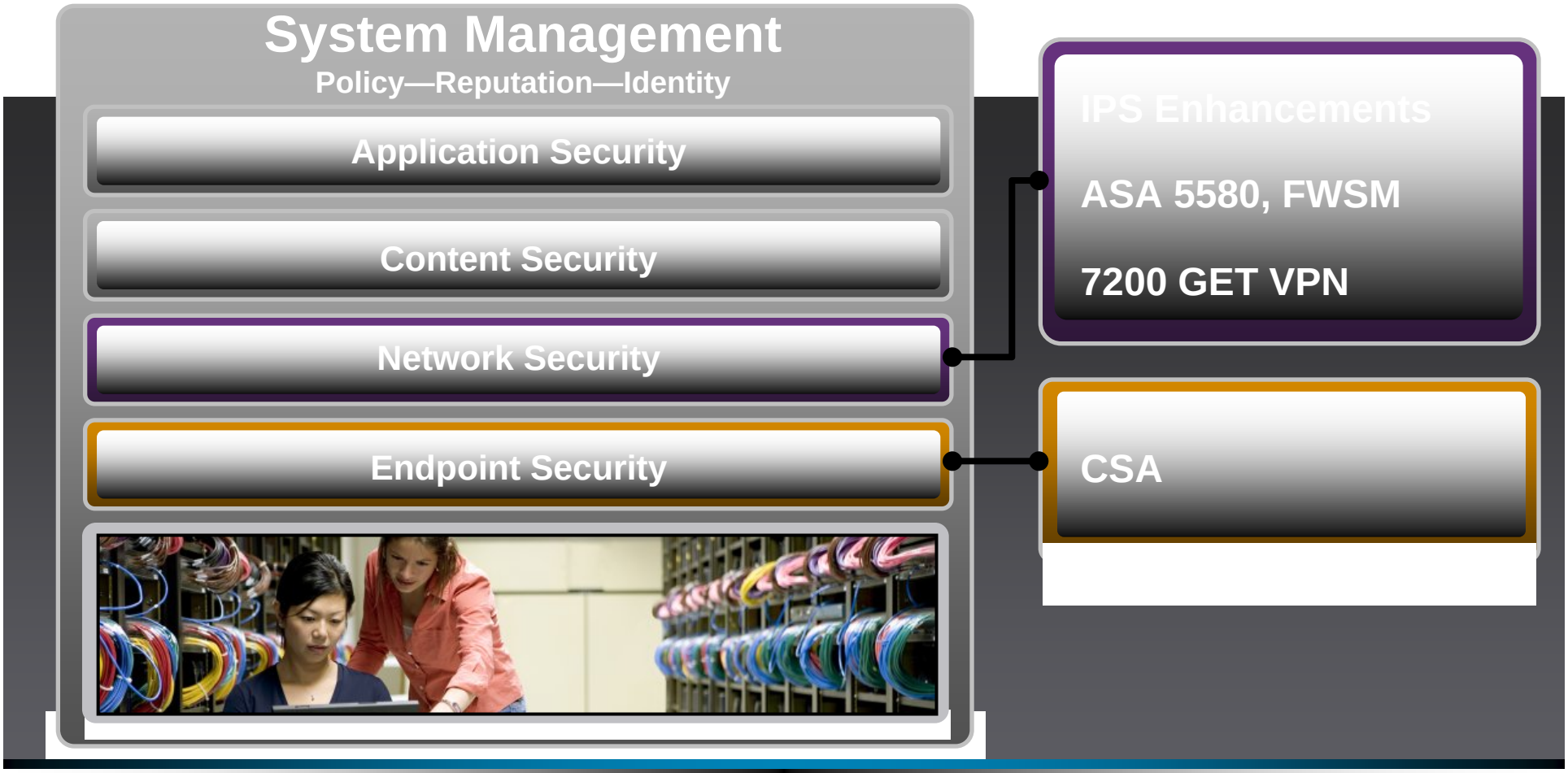
Network Security Strategy

- Integrate security services; seamlessly embed into the network
- Empower security team
  - Less touch points
  - More threat identification granularity
- Scale performance and services to meet real customer deployment needs
- Connect security technology controls to business risk
- Deliver identity networking pervasively

Endpoint Security Strategy

- Endpoint Protection & Control
- Data Loss Protection
- Guest Services
- Endpoint Discovery
- Posture Remediation
- Secure Connectivity Services
- Increased business policy enforcement
- Unify endpoint clients
- Seamless transitions for endpoint

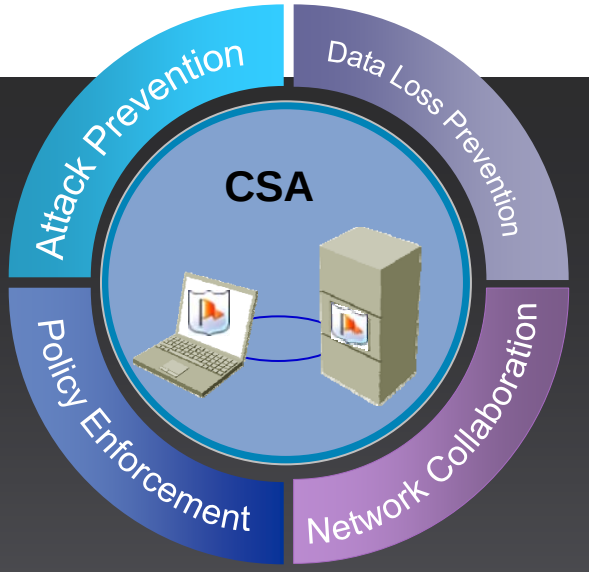
Evolutions for Network and Endpoint Security Portfolio



Enhancements Address PCI, Malware and DLP Solution Needs

Cisco Security Agent: Evolutions

- **Server and desktop endpoint protection**
  - Single client, single management interface, comprehensive security and control
  - Pervasive attack protection with zero-update host intrusion prevention
  - Network collaboration with local threat remediation
- **New Features:**
  - Integrated Anti-virus: Automatic, no-cost updates
  - Data Loss Prevention: Identify and Control Sensitive Information
  - Policy Enforcement: Appropriate use for regulatory compliance

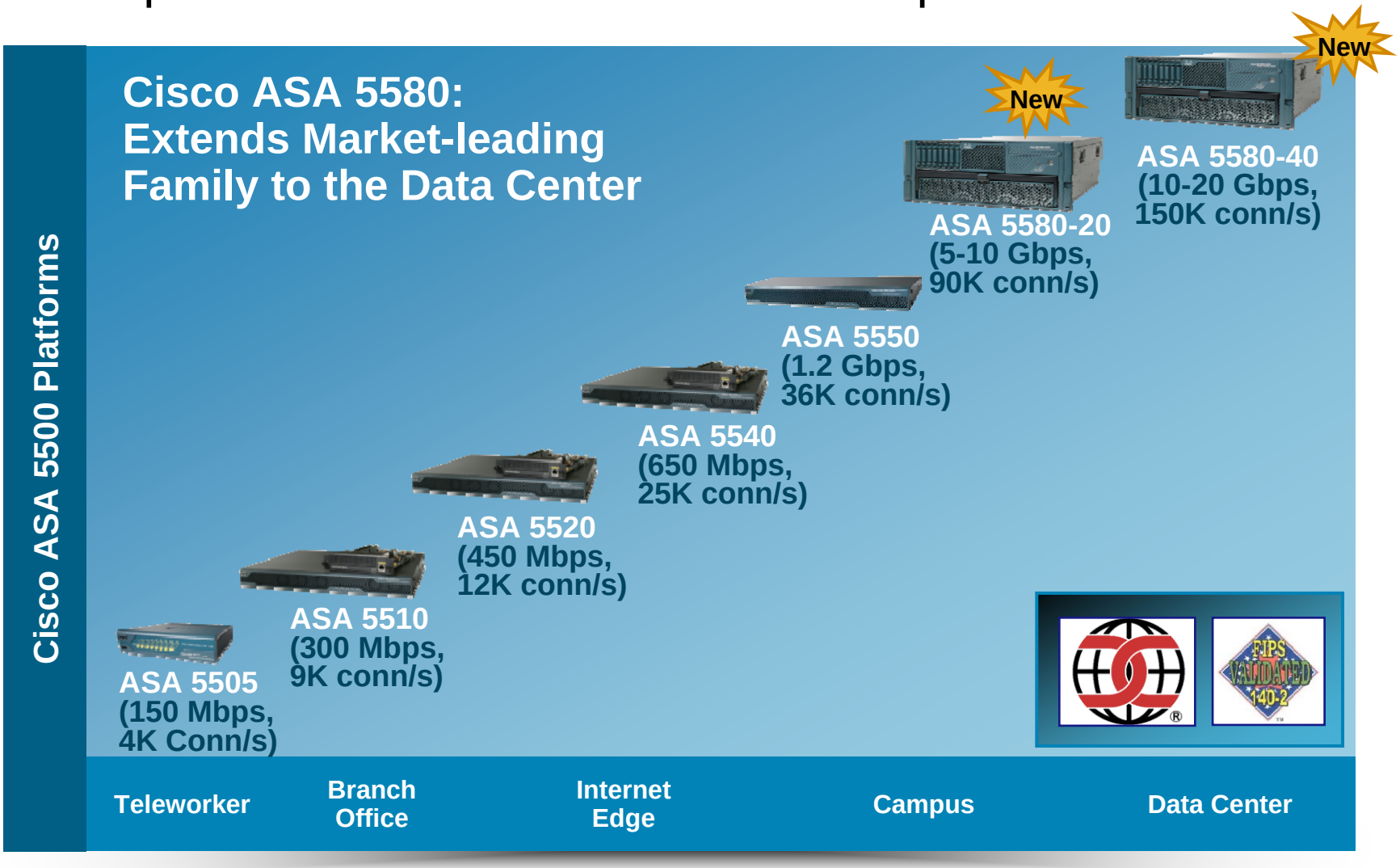


Business Benefits:

- **Protection from persistent and evolving threats**
- **Empower IT to address business risks**
- **Enforce policies and protect business critical assets**
- **Decrease IT administrative burden and reduce expenses**

Cisco ASA 5500 Series Adaptive Security Appliances

Comprehensive Solutions from Desktop to the Data Center



Cisco ASA 5580 Series
Extending the ASA Series into the Data Center

- Provides the **highest connection rates in the industry** to secure high capacity Web 2.0 sites and data centers
- Delivers **massive throughput and low latency** to secure the most demanding applications, such as video, data backup, scientific / grid computing, and financial trading systems
- Enables **scalable auditing and event monitoring** to meet compliance requirements

Cisco ASA 5580 Highlights

- **Industry-leading connection rates**
- **Protects demanding Web 2.0 applications**
- **Enables security auditing of high speed networks**

Cisco ASA 5580: Built for Speed

New Solution Offers Dependable, Scalable Performance

- **Unprecedented Scalability**

  Sustains up to two million connections and 150K connections/second

  Supports up to 750,000 policies, with essentially no performance degradation as the number of firewall policies grow

- **Blazing Fast Performance, Ultra-Low Latency**

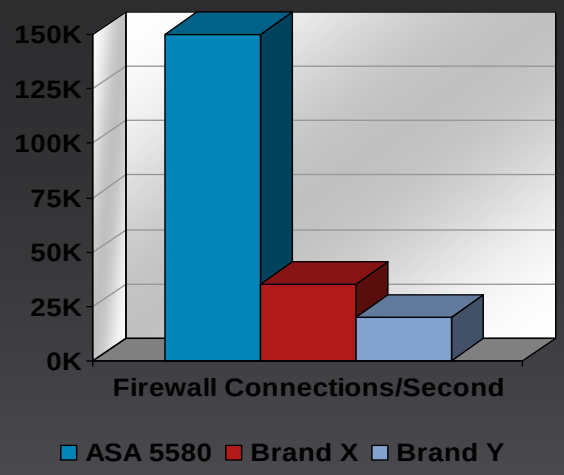
  Delivers up to 10 Gbps of real world Web 2.0 throughput, scaling up to 20 Gbps for data-intensive applications, such as SAN

  Provides strong small packet performance with less than 30 microseconds of latency

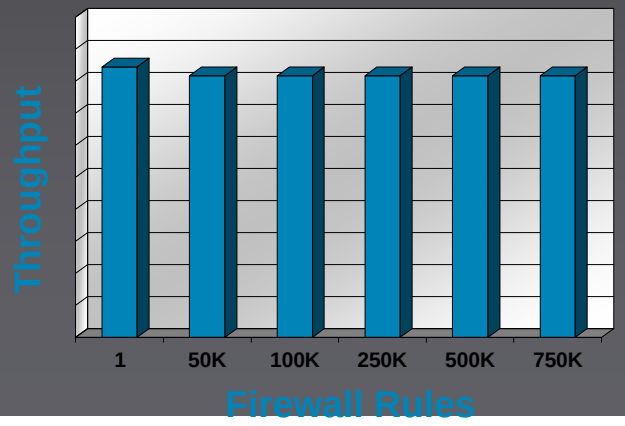
- **Dependable Performance**

  Offers multiple redundancy options, including Active/Active failover, as well as redundant power, fans and network links

Delivers 5 – 7x Scalability of Similarly Priced Solutions



Delivers High Performance, Regardless of the Number of Policies



Cisco IPS for Smaller Businesses: Evolutions

- **IPS for SMB**
  Provisioning, Monitoring, Reporting
- **ASA-IPS Module**
  Integrated ASA IPS – up to 650 Mbps
- **IPS Software**
  Enhancing health data, device protection, auto signature updates
- **Services for IPS – expanded protection**
  UC Protection, MSFT Vulnerabilities, P2P

Business Benefits:

- **Proactive protection of network assets**
- **Maintain resource availability**
- **Decrease IT administrative burden and reduce expenses for SMBs**

Cisco Firewall Service Module: Evolutions
Acceleration of Trusted Flow Inspection

Trusted Flow Acceleration

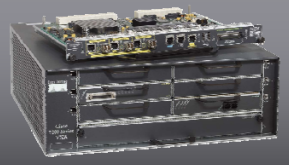
- FWSM establishes secure connection between trusted hosts based on policy
- Cisco Catalyst Switch Supervisor 720 accelerates data flow between connections (20-50 Gbps)
- Cut-through processing for same header packets
- After transaction completes, FWSM closes the connection and reestablishes per-packet analysis

Use Cases

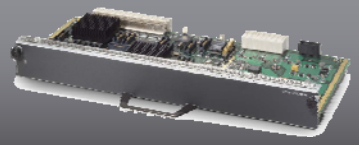
- Routine high-volume data backups
- High bandwidth requirements for clustered and grid computing
- Bulk FTP transfers
- Transactions between “trusted” zones for app-specific processes

Cisco Router Security: GET VPN on Cisco VSA

- A new paradigm for encrypted any-to-any WAN connectivity
- Secure encrypted MPLS
  - Extends GET VPN performance on mid-range routing platforms
  - 300% performance increase over VAM2+
  - Fits in I/O controller slot on the 7204VXR and 7206VXR
  - Ideal for WAN edge deployments at medium and large sites



Cisco 7200 Series Routers



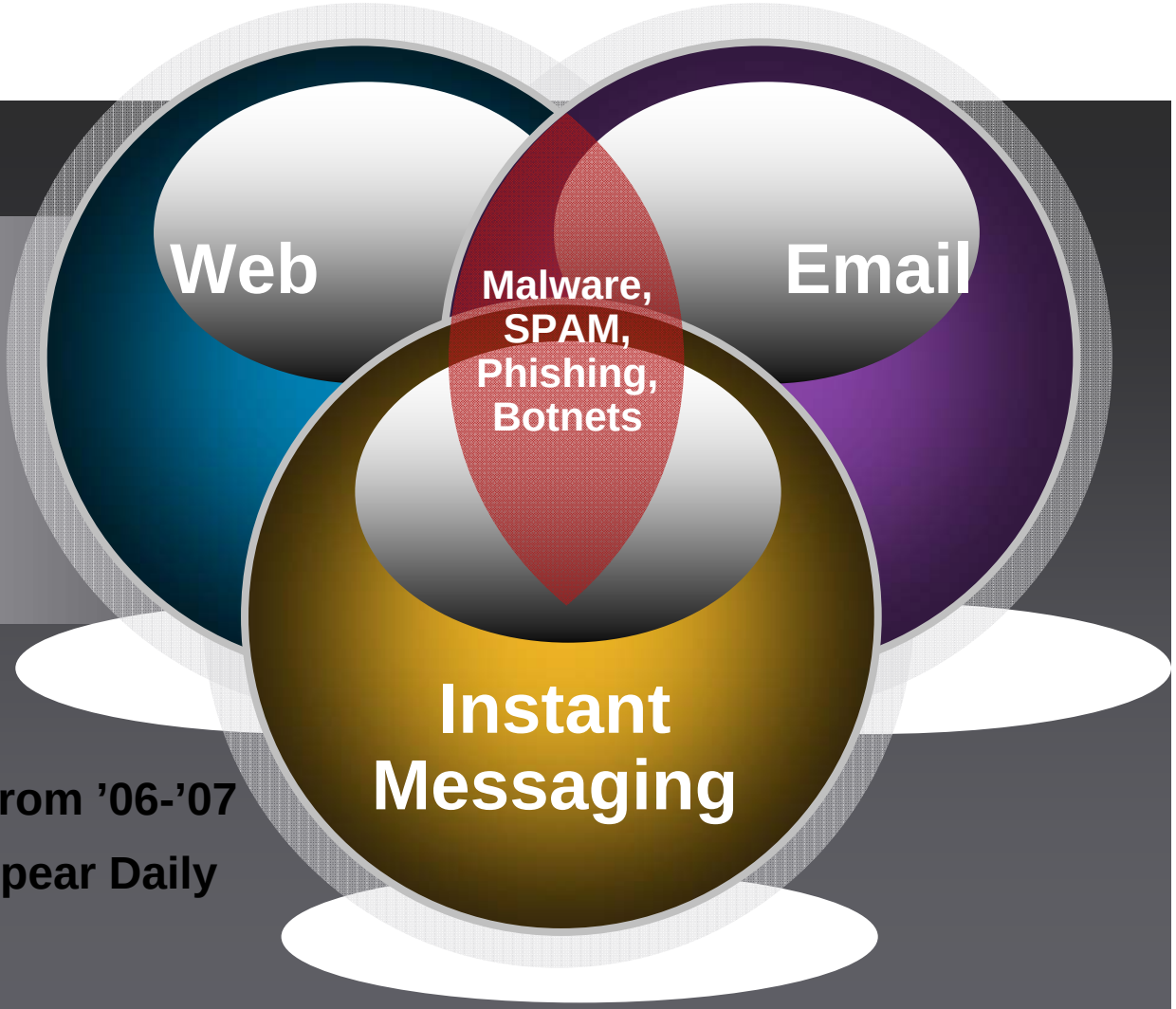
Cisco VSA

Business Benefits:

- **Increase ROI: Leverage underlying transport and routing technology**
- **Reducing OPEX: Simplify administration of overlay VPN tunnels**
- **Enables scalable, multipoint encrypted communications**

Protection Beyond the Perimeter:
Content Security

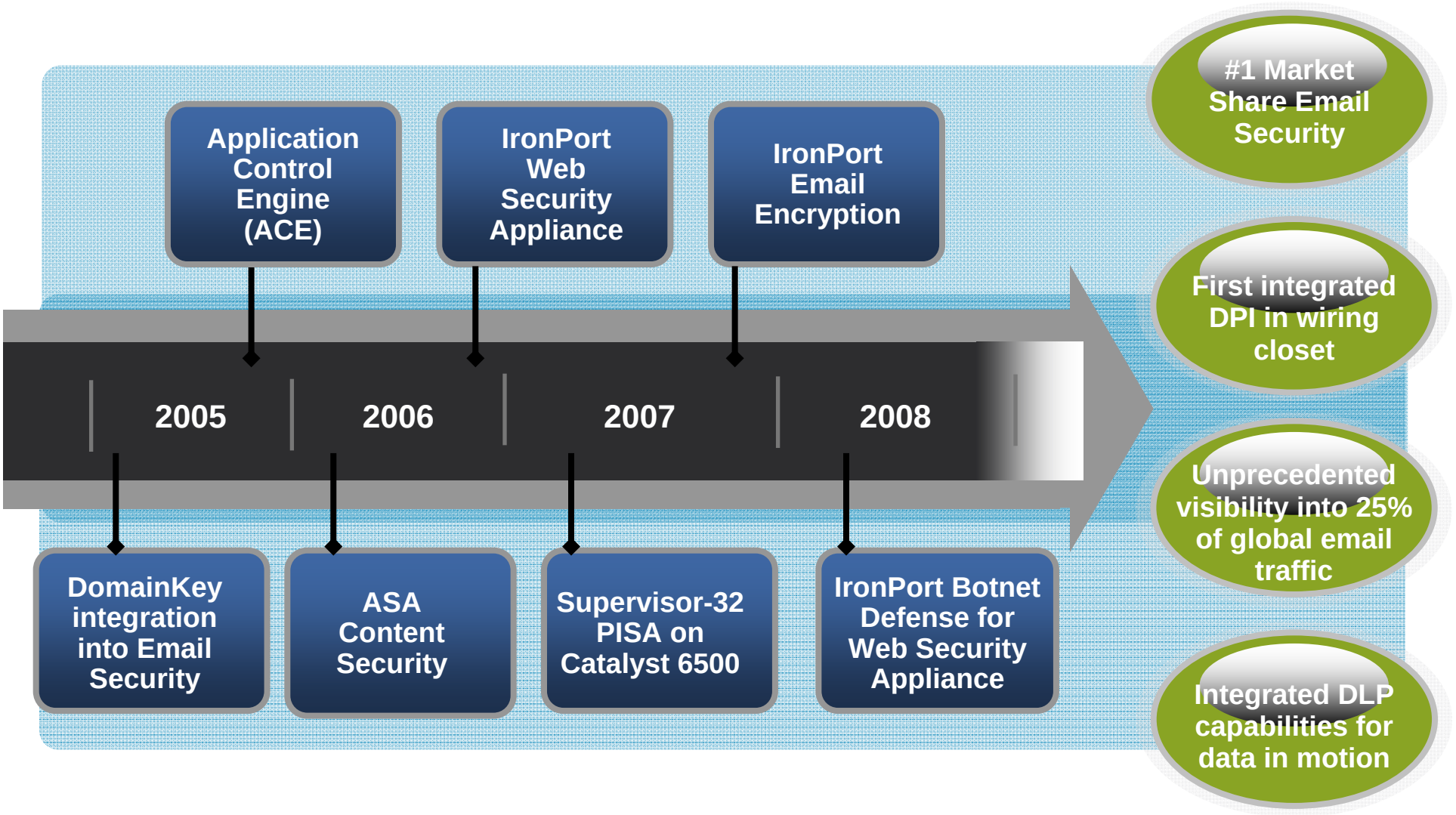
New Forms of Communications and Collaboration Have Become the New Target of Attackers



Spam Volume Grew 100% from ’06-’07

Millions of New Botnets Appear Daily

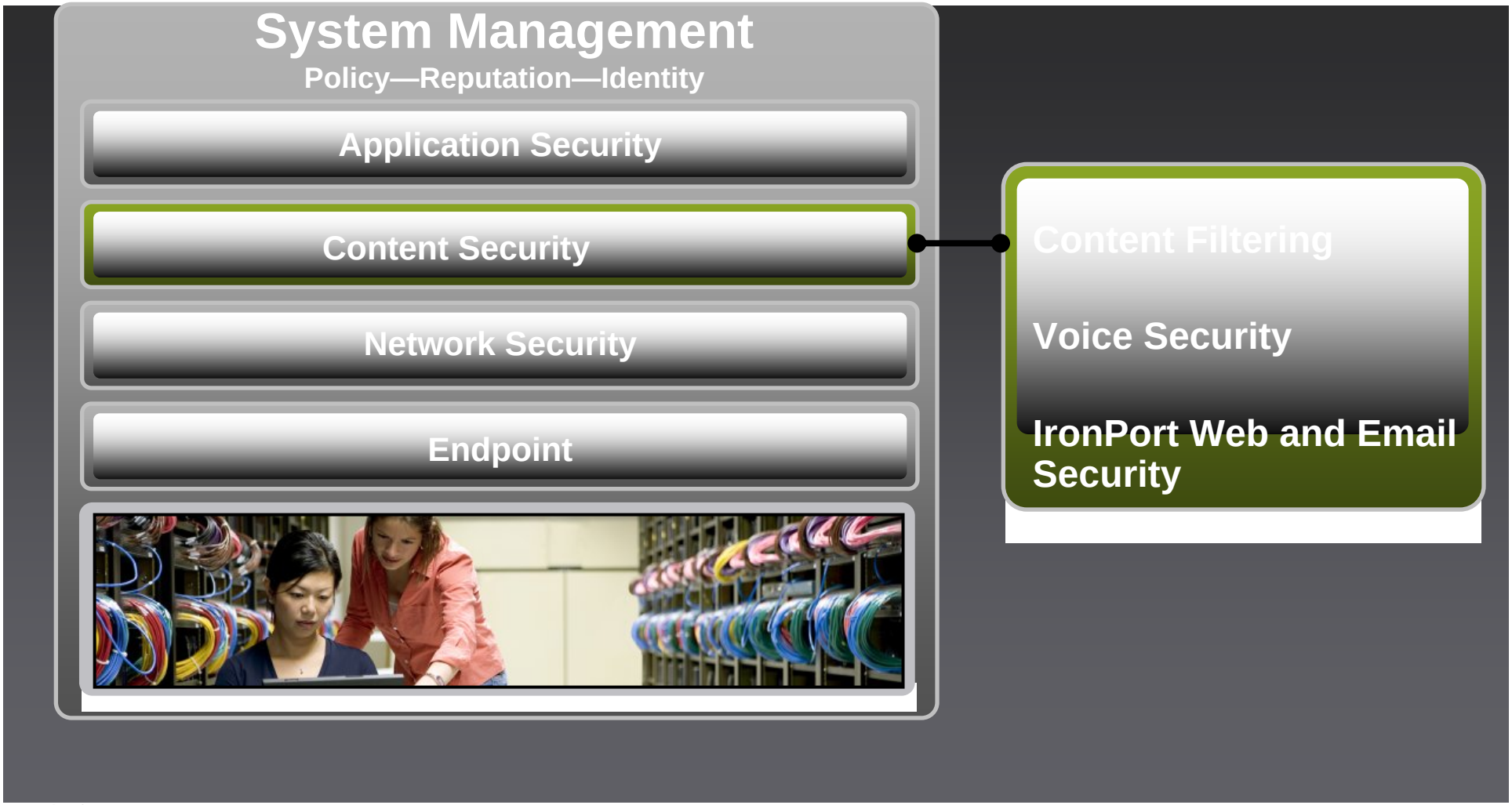
Cisco Content Security
Innovations/Milestones



Realizing the Self-Defending Network Vision: Cisco's Strategy for Content Security

- Develop content security where everything is zero day—first time
  - Reputation based analysis vs. signature based
  - Capability to respond to huge number of variants
- Capability to scale to address a myriad of unique attacks
  - Attacks today are all different—not same attack across a population (ie fraud vs. NIMDA)
- Secure all sources of attack - from collaboration software to Web to email
- Manage evolving attack techniques – from self propagating to user propagating

Evolutions for Content Security Portfolio



Cisco Router Security: UC IOS Voice Firewall

- SIP Application Layer Gateway (ALG) Features:
  - SIP signaling and associated media with IOS Firewall pass through
  - IOS Firewall protecting the WAN uplink and the phones
  - Voice pin holing works for SIP

Business Benefits:

- **Reduce OPEX for telecommuter, small and branch office deployments**
- **Helps meet regulations such as HIPAA, FISMA, CIPA**
- **Protects against new web-based security threats**

Cisco Router Security: Content Filtering

- Cisco Content Filtering
  - Block malicious sites and enforce corporate policies
  - Offers category based security and productivity ratings
  - Leverages existing content security partnerships

Business Benefits:

- **Reduce OPEX for telecommuter, small and branch office deployments**
- **Helps meet regulations such as HIPAA, FISMA, CIPA**
- **Protects against new web-based security threats**

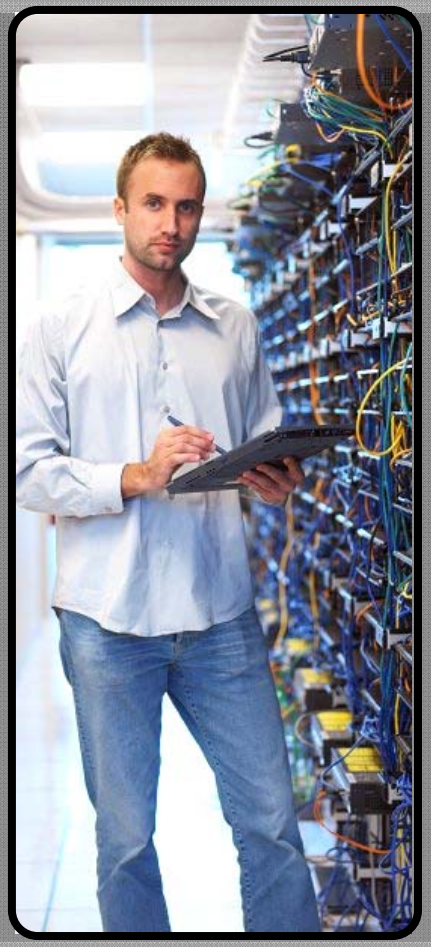
IronPort Enhancements to Email and Web Security

- BITS Security Standard for Email authentication
  - Protection from phishing attacks
  - Point and click SPF and DKIM functionality
  - Integrated TLS connection with IronPort PXE Encryption
- Botsite defense and URL outbreak detection added to web reputation filters

Business Benefits:

- **Eases administration through integrated functionality that enforces corporate policy**
- **Meets compliance requirements: HIPAA, GLB, and other**
- **Reduces employee downtime and desktop clean-up costs**

Realizing the Self-Defending Network Vision: Cisco's Strategy for System Management with Identity, Policy and Reputation



- "Operationalize" security with automation to optimize resources
- Align monitoring and policy for a closed loop system
- Leverage reputation-based information across security services
- Provide comprehensive view for IT Risk Management

Operational Control and Monitoring: Total Security System Management

Reduced complexity for more effective risk analysis and operational control

Monitoring, Analysis & Response (MARS) : Evolutions

- **Device support framework with MARS community enablement**
- **New Cisco and 3rd party device support**
  - **High-Performance security logging for ASA 5580 Netflow v9**
- **Cisco IPS risk and threat rating support**
- **Policy edit linkages with Cisco Security Manager**

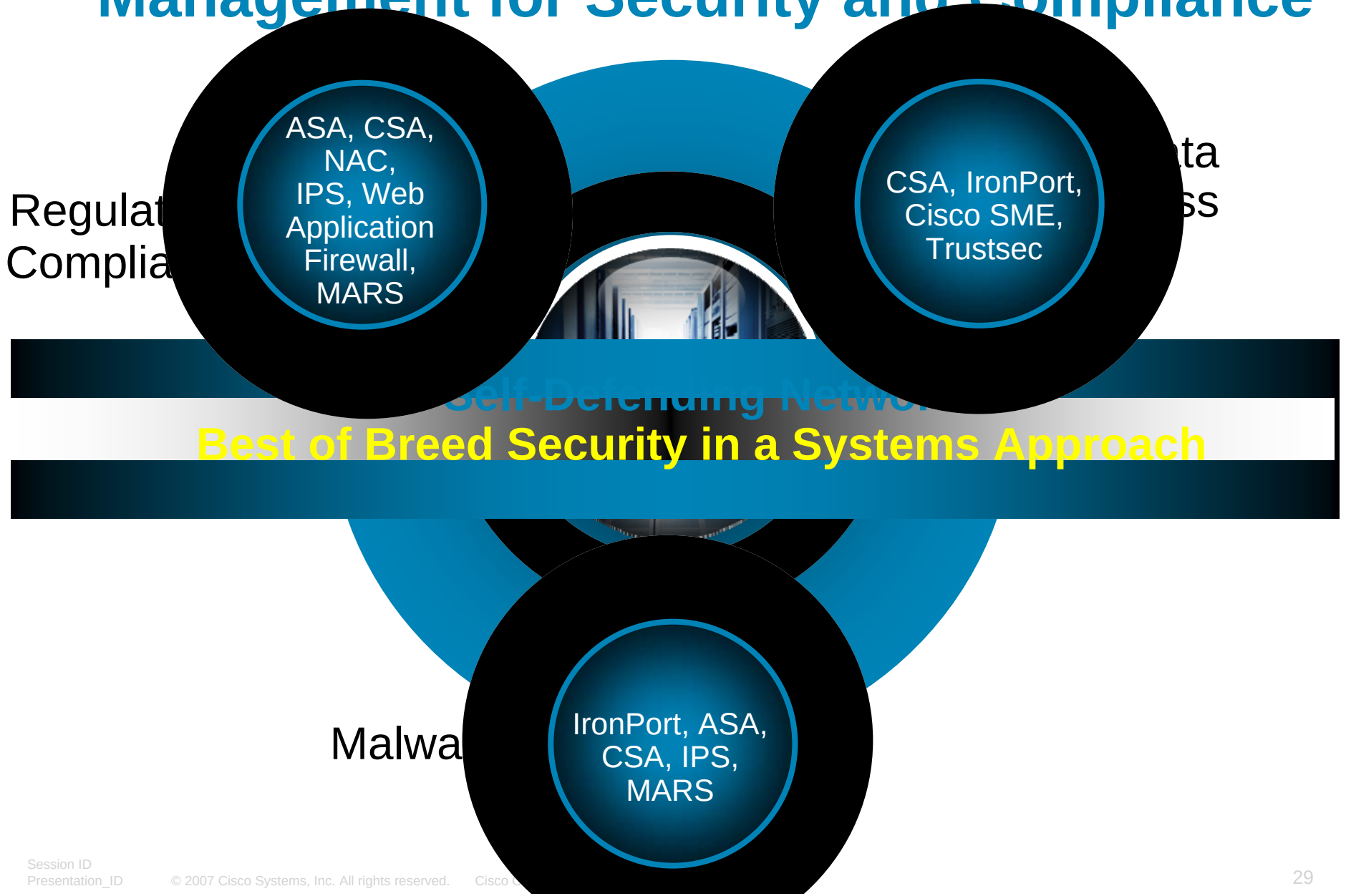
Open schema accelerates new device support for more comprehensive monitoring

Cisco Security Manager: Evolutions

- **CSM – MARS collaboration:**
  Rule/Signature ↔ Event
- **Expanded product support**
  5580, IOS-IPS AIM, 4270, and more
- **Support for desktop switches**
  Cat 35xx, 37xx, 4500, 4900
- **Scheduled deployment**
- **Enhanced workflow notification**

Greatly enhances administrative visibility and control while expanding competitive differentiation

A Systems Approach to Streamline IT Risk Management for Security and Compliance



Q and A