

# SECURITY SOLUTIONS ON THE CISCO INTEGRATED SERVICES ROUTERS



Integrated Security Solutions

1



- Security Challenges and the Cisco Self-Defending Network
- Cisco Integrated Services Routers Portfolio and Security Hardware
- Cisco ISR Security Leadership
- Cisco ISR Ease of Deployment, Performance, Certifications
- Summary

#### SECURITY CHALLENGES AND THE CISCO SELF-DEFENDING NETWORK



# **Evolution of Security Challenges**



# **Current Security Challenges**

- **Disruptions to Business Operations** due to Worms, Viruses, and Malicious Attacks
- Challenges and Costs of Deploying and Delivering Multiple Services and Applications to Remote Locations
- Lack of Security Awareness in the Network Fabric
- Compliance with Legal and Regulatory Obligations require more due diligence







#### Cisco Self-Defending Network Strategy Evolving Beyond Point Products

#### SDN "Adaptive Threat Defense"

- Mutual awareness among & between security services & network intelligence
- Increases security effectiveness, enables proactive response
- Consolidates services, improves operations efficiency
- Application recognition and inspection for secure application delivery/optimization

#### SDN "Collaborative Security Systems"

- Security becomes a Network-Wide System: Endpoints + Network + Policies
- Multiple services and devices working in coordination to thwart attacks with active management
- NAC, VoIP, Wireless

#### SDN "Integrated Security"

- Making every network element a point of defense Routers, Switches, Appliances. Endpoints
- Secure Connectivity (V3PN, DMVPN), Threat Defense, Trust & Identity
- Network Foundation Protection

#### www.cisco.com/go/sdn

Multiple

Security Appliances

Point

**Products** 

Integrated Security Solutions

# Adaptive Threat Defense in Action

Services Convergence Enables More Effective Security



#### CISCO INTEGRATED SERVICES ROUTERS – PORTFOLIO, HARDWARE



#### **Cisco Router Security Portfolio** *New Models for Small Business/Small Office*



# **Cisco ISR – Integrated Wireless Access**

**Optimized for Secure Mobility** 



Integrated Wireless Access for 1841, 2800, 3800



#### **Cisco 850 Series**



- Stateful Firewall and VPN
- 4-port 10/100 switch
- 802.11b/g option, single fixed antenna

#### • Higher performance

- Stateful Firewall, VPN, IPS, Antivirus,NAC
- 802.11b/g option, multiple antennas
- Advanced QoS features
- 4-port 10/100 managed switch
- Up to 3 VLANs

# Cisco 1800 Series (Fixed Configuration)

NFW



#### • Wire Speed Performance

- Stateful Firewall, VPN, IPS, Antivirus, NAC
- Integrated back up port for redundant WAN links and load balancing
- 802.11a and 802.11b/g option, multiple antennas
- 8-port 10/100 managed switch, internal power supply, optional internal POE
- Up to 8 VLANs

#### Ease of Deployment with Cisco SDM & Cisco IOS for Remote Management

Integrated Security Solutions

# Cisco 1800 Series Fixed-Configuration Secure, Concurrent Services for BB Access w/WAN HA



• Single Box solution for Small Offices needing:

Advanced Security, Broadband Access Secure Wireless, LAN/WAN Services

• Performance to deliver concurrent data, security and wireless services

#### **Security**

VPN, Firewall, IPS, NAC, DMVPN, URL Filtering; Embedded hardware acceleration

#### **Wireless LAN**

Simultaneous 802.11 a/b/g, Variety of Antenna options

WAN Availability

Integrated ISDN, analog modem, or Ethernet back up port for redundant WAN links and load balancing

Managed 8-port switch offers VLAN, Integrated POE

# Cisco 870 Series ISR Secure, Concurrent Services for Broadband Access





• For Small Offices and Teleworkers needing:

Integrated QoS, Security, Broadband Access, and Secure Wireless

• Performance for broadband access in small offices and secure wireless

#### **Security**

VPN, Firewall, IPS, Antivirus through NAC, Integrated hardware acceleration

Wireless LAN – 802.11 b/g

- Advanced QoS for Network and Application Performance
- Managed 4-port switch offers VLAN, Integrated POE

Antennas

# Cisco 850 Series Integrated Services Router Secure Connectivity for the Small Office





 For Small Offices needing secure connectivity and secure wireless without compromising performance

> Security – IPSec VPN, Stateful Firewall

> **DSL/Cable - ADSL over POTS,** Ethernet

Wireless LAN – 802.11b/g (single fixed antenna)

- 4-port 10/100 switch
- Easy set up & deployment and remote management capabilities through Web-based tools and Cisco IOS Software

# New Services and Modules for Cisco's Modular Integrated Services Routers





Curpulative Data

Current Pates



What you want: the CB is 460 Kbps for this application to achieve no more than 250ms delay & 0.1% loss



- New Serial and Async HWICs Modules Address Common Problems
- New Network Analysis Module NM-NAM Features
- New Application & Content Networking System (ACNS) Software v5.3 For Caching, Streaming
- Corvil Bandwidth feature in Cisco IOS provides the ability to obtain bandwidth values for user-specified QoS targets

Time

# New Modules for Cisco ISR EtherSwitch Service Module

#### Higher Densities and PoE for IP Communications and Wireless Applications

- Four new form factors 16, 24, 48 and 24 + StackWise (HULC) interfaces
- 802.3af POE & Cisco inline power on all ports for IP Phones and Access Points
  - Scaling from 4-96 ports with POE in a single Integrated Services Router
- Security: ACL, port security, MAC address notify, RADIUS/TACAC+, 802.1x, SSH, SNMPv3, IPv6
- Advanced Layer 2-4 QoS

Solutions

• Full feature parity with Catalyst 3750



**New!** 24 and 48-port EtherSwitch modules



**New!** 16 and 24 Port including 2 StackWise interfaces

© 2004, Cisco Systems, Inc. All rights reserved.

#### Head-End Router Security Solutions Cisco 7200 and 7301 Integrated Security

- Comprehensive Integrated Security
  - Routing, switching, VPN (site-to-site and remote access with stateful failover), stateful firewall, In-line IDS, voice, content networking
- New VPN Acceleration Module 2+ (VAM2+)
  - Supports up to 5000 IPSec tunnels and AES wide keys and IPPCP compression
- New VAM2+ Security Bundles

Now includes Firewall, IPS, IPSec, and extra 512MB memory



# **Fixed Configuration ISR Security**

| Security Feature                                       | 1800 (fixed) | 870      | 850          |
|--|--------------|----------|--------------|
| Cisco IOS Firewall                                     | ✓            | ✓        | ✓            |
| Hardware VPN Acceleration                              | ✓            | ✓        | $\checkmark$ |
| VPN Advanced Features<br>DMVPN, EasyVPN, Remote Access | ✓            | ✓        |              |
| Cisco IOS IPS  | ✓            | ✓        |              |
| NAC  | ✓            | ✓        |              |
| 802.1x   | ✓            | ✓        | ✓            |
| USB Port   | 2            | 1 (871)  |              |
| Power-over-Ethernet                                    | ✓            | External |              |

# Cisco 3800, 2800 & 1800 Security Bundles

| <b>New</b>     |   |   |  |
|----------------|---|---|--|
| 2              | Entry Security<br>Bundles   | Enhanced Security<br>Bundles  | V3PN Bundles   |
| 3800<br>Series | Cisco 3825-SEC/K9<br>Cisco 3845-SEC/K9  | Cisco 3825-HSEC/K9<br>Cisco 3845-HSEC/K9  | Cisco 3825-V3PN/K9<br>Cisco 3845-V3PN/K9   |
| 2800<br>Series | Cisco 2801-SEC/K9*<br>Cisco 2811-SEC/K9<br>Cisco 2821-SEC/K9<br>Cisco 2851-SEC/K9 | Cisco 2801-HSEC/K9*<br>Cisco 2811-HSEC/K9<br>Cisco 2821-HSEC/K9<br>Cisco 2851-HSEC/K9 | Cisco 2801-V3PN/K9*<br>Cisco 2811-V3PN/K9<br>Cisco 2821-V3PN/K9<br>Cisco 2851-V3PN/K9    |
| 1800<br>Series | Cisco 1841-SEC/K9*<br>Cisco 1811/K9<br>Cisco 1812/K9                              | Cisco 1841-HSEC/K9*   |  |
| Includes       | Router, Cisco IOS<br>Advanced Security  | AIM-VPNII PLUS,<br>Router, Cisco IOS<br>Advanced IP Services<br>(Voice Ready)         | AIM-VPNII PLUS,<br>Router, Cisco IOS<br>Advanced IP<br>Services , PVDMs,<br>CCME license |

www.cisco.com/go/securitybundles

\*Include appropriate memory for concurrent service delivery

# **Cisco 800 Security Bundles**

| - MA      | Cisco 830 Bundles | Cisco 850/870<br>Bundles |
|-----------|-------------------|--------------------------|
| Cisco 800 | CISCO831-K9       | CISCO851-K9              |
| Series    | CISCO831-SDM-K9   |                          |
|           | CISCO836-SEC-K9   | CISCO876-SEC-I-K9        |
|           | CISCO836-SEC-I-K9 | CISCO876-SEC-K9          |
|           | CISCO836-SDM-K9   | CISCO877-SEC-K9          |
|           | CISCO837-SEC-K9   | CISCO878-SEC-K9          |
|           | CISCO837-SDM-K9   | CISCO871-K9              |

www.cisco.com/go/securitybundles

\*Include appropriate memory for concurrent service delivery

#### CISCO ISR - SECURITY LEADERSHIP



#### **Cisco Integrated Services Routers (ISRs)** *Meeting Today's Security Challenges*

Cisco.com

- Performance without Compromise
- Ease of Deployment and Management
- Delivering the Cisco Self-Defending Network:

**Integrated Security** *Firewall, Intrusion Prevention, Secure Connectivity* 

**Collaborative Security Services** *NAC, NFP, VoIP, Wireless, Service Virtualization* 

**Adaptive Threat Defense** 

Application Inspection and Control, Real-time Worm, Virus, Spyware Prevention, P2P and IM Control

## Cisco Security Leadership, Innovation Redefining <u>Network Embedded</u> Router Security

#### – FIRST...

Router-embedded security services: Advanced Application Inspection and Control, IPsec VPN, Inline Intrusion Prevention System, Firewall

#### – FIRST...

Seamless integration of IP and security technologies (DMVPN, IPS, FW, Voice)

– **FIRST**...

**Network Admission Control (NAC)** 

– FIRST...

Device manager with *One Touch* lock down and *Security Audit* (SDM)

– FIRST....

Router embedded Web Content Security solution – FIRST...

IPSec VPN Stateful HA for Site-to-Site and Remote Access (Cisco 3800, 7200, 7301)

– FIRST...

Voice and Security Services at Wire Speed (ISR)







# Raising the Bar on Security Leadership

**Cisco Self-Defending Networks Delivered At Wire-Speed!** 

Cisco.com

#### Merging 20 Years of Routing Innovation with Best-of-Breed Security



#### Cisco IOS Security protects routers from the Cisco 800 to the 7301 for pervasive security throughout the network

# **Security Acceleration Hardware**



• On-board VPN Accelerator

3DES and AES (up to 256 bit)

4x faster than previous models

 Digital Signal Processor (DSP) Slots for Voice

> PVDM module support sRTP (Secure RTP) to allow secure communications with IP Phones using AES Encryption

Enables Secure calls from Cisco IP Phones, to CME Call Manager Express

Three New AIM VPN Modules for High Performance DES/3DES/AES

AIM-VPN/BPII-Plus for 1841

AIM-VPN/EPII-Plus for 2800, 3825

AIM-VPN/HPII-Plus for 3845

Up to 10x faster than previous models

#### **Investment Protection with Performance**

# Integrated Wireless Connectivity Optimized for Secure Mobility

Reduce business impacting disruptions

Proactive protection from Worms, Viruses, Spyware, Malicious attacks – IPS

**Enhance user access control - FW** 

 Cost effectively increase productivity, collaboration, responsiveness

Accommodate mobile workforce without expanding infrastructure

- Decrease management burden
  Consolidated management
- Protect confidential information



Integrated Security Solutions

# Ease of Deployment, Increased Availability

Integrated USB Ports (Cisco Modular ISR Series) Support for Secure Token and FLASH Memory

- **1. Simplified Provisioning** 
  - Zero-touch Deployment



- 2. Distribution and Storage of VPN credentials
  - Easy to provision and distribute encryption keys
  - Encryption keys are securely stored and removable
- 3. Bulk Flash for image distribution/storage
  - Alternative to Compact Flash deployment





Available from Aladdin

## Integrated, Inline Intrusion Prevention Delivering Adaptive Threat Defense

- Reducing Disruptions to Business by Protecting Remote Sites
- Real-time protection from Worms, Network Viruses (Trend Micro), Spyware/Adware, malicious attacks
- Leverages Cisco IPS Appliance Technology
- Ease of Implementation

Transparent IPS - No IP address renumbering



www.cisco.com/go/iosips

# **Transparent Cisco IOS IPS**

New! 12.4(1<sup>st</sup>)T

- Layer 2 connectivity with Layer 3 IPS support
- Easily add IPS to existing networks no IP subnet renumbering required!
- Support for sub-interfaces and VLAN trunks
- Spanning Tree Protocol support –handles PBDU packets correctly per 802.1d, not just "pass/drop"
- Support for mixing L2 and L3 IPS on the same router
- No need for IP addresses on the interfaces
- All standard management tools supported
- Supports DHCP pass through to assign DHCP addresses on opposite interfaces (bi directional)



## Cisco IOS IPS New Features and Engines – All Inline!

- Leveraging router-based IPS enables broadly-deployed threat mitigation services – even to remote offices
- String Engines enable custom matching of any string in the packet

Customize signatures for quick reaction to new threats

200 worm and attack signatures added – over 1200 total signatures from which to dynamically select



Integrated Security Solutions

### Cisco IOS Firewall Control Access, Protect the Infrastructure

- Feature-rich, stateful Firewall
- Virtual Firewall address the unique security requirements of groups, departments, customers
- Ease of Implementation

**Transparent Firewall – No IP address renumbering** 

- ICSA Certified Firewall
- Leverages PIX Security Appliance Technology
- IPv6 Support
- Application Inspection and Control

Analyze and Protect Applications, including Web and Email services





www.cisco.com/go/firewall

# Cisco IOS Firewall VRF-Aware "Virtual" Firewall

Individually protect departments, users with Cisco IOS Firewall

- VRF aware firewall enables companies to deploy perdepartment Firewall policy.
- Policies can be customized by department, providing Business continuance in accordance with the business value of each department.
- Example: Policy to protect the HR dept. can be made more stringent than the policy to protect a lab



#### **Companies Are Opening Port 80** *Attacks Enter Through Web-enabled Applications*



<sup>32</sup> 

# Advanced Application Inspection and Control **Protection from Hidden Threats**



deep packet inspection, Cisco IOS Firewall can protect key web resources

services

#### Advanced Secure Connectivity Faster Deployment, Reduced Configuration

#### Cost Effectively Ensuring Information Integrity and Privacy

IPSec Dynamic Multipoint VPN (DMVPN) Zero touch provisioning, dynamic mesh VPN tunnels

**GRE/IPSec with Dynamic Routing** Leverage the best routing in the business for maximum control and flexibility

#### V3PN

Best in class QoS with IPSec VPNs for multiservice highquality, jitter-free voice, video and high-priority data

#### **IPSec EasyVPN**

Remote Access hub and spoke VPNs using centralized policy push

#### **Virtualized Services**

Support multiple organizations with overlapping IP addresses while maintaining separation of data, routing, and physical interfaces





#### www.cisco.com/go/ipsec

# **IPSec Virtual Tunnel Interface (VTI)**

- Simplifies VPN configuration by eliminating crypto maps, ACLs, GRE
- Simplifies VPN design:

1:1 relationship between tunnels and sites with a dedicated logical interface

- More scalable alternative to GRE (Generic Router Encapsulation) for VPN tunnel creation
- VTI can support QoS, Multicast, and other routing functions that previously required GRE
- Improves VPN interoperability with other vendors



#### **Integrated Content Security URL Filtering and Content Engine Network Module**

#### **Cisco IOS URL Filtering**

- Integrated with Cisco IOS Firewall
- Supports Websense and N2H2 Web filtering clients
- Works with external Websense and N2H2 servers
- Static "good" list / "bad" list URL filtering in IOS

#### **Content Engine Network Module**



- Internet Proxy Cache
- URL Filtering Application Server
- Pre-loaded OEM Websense and **Smartfilter filtering applications**
- Enforces Application Use Policy
- Traffic logging and reporting
- Anti-Virus Gateway (ICAP) to scan, clean, and cache Web content



#### **Branch Office**
# **Cisco IOS PKI Certificate Server**

- Router can now be Certificate Authority Server (CA) Eliminates complexity of installing separate PKI/CA Server
- Key Rollover for Certificate Renewal

Allows the certificate renewal request to be made before certificate expires

• Easy VPN now works with PKI Certificates

Can use Cisco IOS CA server for enrollment



# Secure Device Provisioning (SDP)

- Simplifies, reduces cost for remote Cisco IOS VPN device deployment
- Remote users are authenticated by AAA
- Custom remote configuration provided by user's AAA profile
- Administrator never touches remote site device
- Configuration may be enhanced by ISC or VMS after initial connection is established



# 802.1x Identity Authentication Support





16 and 36 ports of 10/100 Ethernet

#### Support for 802.1x Authentication

New 4 & 9 Port EtherSwitch HWIC and current 16 and 36 Port NM all Support 802.1x AND Power over Ethernet (POE)

All new router Ethernet ports also support 802.1x

**Survivable Remote User Authentication** 



### Network Admission Control (NAC) Delivering Collaborative Security Systems

NAC Solution: Leverages the network to intelligently enforce access privileges based on endpoint security posture

#### **Coalition of market-leading vendors**



| Cisco Systems |
|---------------|
|               |



Focused on limiting damage from viruses and worms

Limits network access to compliant, trusted endpoints

Restricts network access by noncompliant devices

Supports multiple AV vendors & Cisco Security Agent

The 3800, 2800, and 1800 Security Bundles ship with NAC capability

### Network Foundation Protection (NFP) Secure Business Must be Built on a Secure Fabric



Hardened Devices Connected to Deliver System-Wide Security

Integrated Security Solutions

## NFP - Maintaining Network Availability During DDoS Attacks

#### **Control Plane Policing**

Protects access to control plane, even during DDoS attacks. Monitors packets, increases infrastructure reliability, and availability

Netflow monitoring

- Provides early warning while visibility on traffic flows help you optimize network availability
- Out-of-band management
- Ensures access despite DoS attacks, or congestion

**Network-based Application Recognition (NBAR)** Helps identify worms and other attacks by tracking Layer 4-7 applications and protocols

**Role-based CLI Access** 

Provides partitioned, non-hierarchical, access to CLI commands for secure, logical separation of router users (eg. NetOps and SecOps)



#### CISCO ISR – EASE OF DEPLOYMENT, PERFORMANCE, CERTIFICATIONS

### Embedded Services Management Cisco Router and Security Device Manager (SDM)

## **Reducing the Complexity of Deploying Multiple Services**

| dit View           | Tools Help                                      |                                   |                            |                             |  |                 |
|--------------------|---|-----------------------------------|----------------------------|-----------------------------|--|-----------------|
| Home               | Configure 😥 Monit                               | or Refresh                        | Save Hel                   | 0                           |  | Cisco Sy        |
| isks               | Monitor Overview                                |                                   |                            |                             |  | Update          |
| 🦚<br>erview        | 🕅 Resource Status                               |                                   |                            |                             |  |                 |
| ce Status          | - CPU Usage:                                    | 0%                                | Memory Usage:<br>vailable: | 4700 AUC                    | ash Usage:<br>illable/Total flash:# (MB) | 40/61           |
|                    | 🖳 Interface Status                              |                                   |                            |                             |  |                 |
| all Status         | Total Interface(s) Up:                          |                                   | 1                          | Total Interface(s) Down:    |  | 7               |
| AH<br>AH<br>Status | Interface<br>FastEthernet0/0<br>FastEthernet0/1 | IP<br>10.10.10.1<br>no ip address | Status                     | Bandwidth Usage<br>0%<br>0% | Description                              | ÷               |
| S Status           |   |                                   |                            |                             |  |                 |
|                    | Firewall Status No. of Attempts Denied:         |                                   | 0                          | Ro. of QoS-enabled Inter    |  | 0               |
| gging              | Firewall Log:                                   | 1                                 | u<br>Not Configured        | NU. UI QUS-enabled inter    | laces.                                   | Ů               |
|                    | 😭 VPN Status                                    |                                   |                            | l                           |  |                 |
|                    | No. of Open IPSec Tunnels                       | :                                 | 0                          | No. of DMVPN Clients:       |  | 0               |
|                    | No. of Open IKE SAs:                            |                                   | 0                          | No. of Active VPN Clients   |  | D               |
|                    | 🗊 Log   |                                   |                            |                             |  |                 |
|                    | Total Log Entries:                              |                                   | 2                          | High Severity:              |  | 0               |
|                    |   |                                   |                            | Warning:<br>Informational:  |  | 0<br>1          |
|                    |   |                                   |                            |                             |  | _               |
| v                  |   |                                   |                            |                             | 16:00:52 PCTime                          | Fri. Jan 28 200 |

## Configure and Troubleshoot

- Inline IPS
- Cisco IOS Firewall
- Secure Connectivity
- Routing
- Switching
- Wireless
- Wizards-based for Ease of Use
- Real-Time and Graphical router and network resource monitoring



www.cisco.com/go/sdm

Integrated Security Solutions

© 2004, Cisco Systems, Inc. All

## Integrated Management: Cisco SDM v2.1.1 *Easier Deployment, Enhanced Visibility*

#### SDM Express

 Consumer-friendly interface for quick router setup

- Supports Cisco 800, 1800, 2800, and 3800 Series – Also ships with Cisco 7200 and 7301
- Integrated Wireless Management
- SDM on PC

 Resellers can manage Cisco routers without SDM image on flash

Easy Provisioning of IPS



| xpress Setup wizard  |   |
|--|---|
| Configuration Steps<br>Overview<br>Basic Configuration<br>LAN IP Address<br>WAN (Internet)<br>Firewall<br>DHCP<br>Security Settings<br>Summary | <ul> <li>Basic Firewall Configuration</li> <li>Express Setup can configure a Basic Firewall for the router by applying rules to the inside '(0)' LAN interface and to the outside '(1)' WAN interface. Inside interfaces are treated as "trusted," and outside interfaces are treated as "untrusted." A basic firewall will do the onlowing: <ul> <li>Apply default access rules to the inside interface and to the outside interface.</li> <li>Apply a default inspection rule to the outside interface.</li> <li>Enable IP unicast reverse-path forwarding on the outside interface.</li> </ul> </li> <li>Would you like to enable a Basic Firewall? <ul> <li>Yes, I want to setup a Basic Firewall</li> <li>No, I will configure it later</li> </ul> </li> </ul> |
|  | < Back Next > Finish Cancel Help  |
| slick so   | om broadly endorses a offware tool for configuring onitoring your Cisco   |

routers. It works, it's free, and it's from Cisco."

- Ed Mier, Miercom

### Miercom 1812 W and SDM 2.1.1 Test Findings Redefining Integrated Services and Ease of Use

### Verified concurrent secure, broadband wireless services

"In our tests, the Cisco 1812 Wireless router ran multiple applications, including Network Admission Control, Firewall, and Intrusion Prevention, as well as NAT, QoS, SLA monitoring, and 3DES encryption over a backup link with DMVPN - all concurrent with routing traffic.

We figure that the latest version 2.1.1 of the SDM configuration and management application reduces in half the technical expertise required to properly configure and deploy the router with these services."

Ed Mier President, Mier Communications Inc. View the Test Report at:

www.miercom.com

Integrated Security Solutions

# **Cisco Integrated Services Router Portfolio –**

Performance and Scalability to Meet Requirements



## **Miercom Test Findings – 8/26/04**

Integrating Services without Compromising Performance

### Verified full T3-rate performance for concurrently running services

"Our tests prove the Cisco 3845 simultaneously sustains full T3 WAN rates for multiple applications. Its embedded crypto processor handles both 128 bit AES and IPsec VPNs with ease, concurrently delivering firewall, intrusion prevention, QoS, and data routing at maximum WAN-link speeds. Additionally, an impressive 72 streams of voice traffic, including transcoding, voice mail, auto-attendant, fax, and survivable remote site telephony was handled with no performance degradation in the Cisco 3845."

Ed Mier President, Mier Communications Inc.



Integrated Security Solutions

# **Cisco IOS Security Certifications**

Cisco is dedicated to the ongoing pursuit of FIPS, ICSA, and Common Criteria certifications as a critical component of our integrated security strategy

|                  | FIPS              | ICSA         |              | Common Criteria |                     |
|------------------|-------------------|--------------|--------------|-----------------|---------------------|
|                  | 140-2,<br>Level 2 | IPSec        | Firewall     | IPSec<br>(EAL4) | Firewall<br>(EAL4+) |
| Cisco 800        | $\checkmark$      |              |              |                 |                     |
| Cisco 1700       | $\checkmark$      | $\checkmark$ | $\checkmark$ | $\checkmark$    |                     |
| Cisco 2600       | $\checkmark$      | $\checkmark$ | $\checkmark$ | $\checkmark$    |                     |
| Cisco 3600       | $\checkmark$      | $\checkmark$ | $\checkmark$ | $\checkmark$    |                     |
| Cisco 3700       | $\checkmark$      | $\checkmark$ | $\checkmark$ |                 |                     |
| Cisco 800 (ISR)  | Q1CY06            | Q4CY05       | Q4CY05       | CY06            | CY06                |
| Cisco 1800 (ISR) | Q4CY05            | Q4CY05       | $\checkmark$ | CY06            | CY06                |
| Cisco 2800 (ISR) | Q4CY05            | Q4CY05       | $\checkmark$ | CY06            | CY06                |
| Cisco 3800 (ISR) | Q4CY05            | Q4CY05       | $\checkmark$ | CY06            | CY06                |
| Cisco 7200       | $\checkmark$      | $\checkmark$ | Q4CY05       | CY06            | CY06                |
| Cisco 7301       | Q1CY06            | Q4CY05       | Q4CY05       | CY06            | CY06                |







#### For more information visit: <u>www.cisco.com/go/securitycert</u>



### SUMMARY

#### **Cisco Integrated Services Routers Engineered to Deliver on the Cisco SDN Strategy**

#### **Adaptive Threat Defense**

Security Services + Network Intelligence Proactive Response Secure Application Delivery

Prevent worms, viruses, Spyware URL Filtering, Content Protection, E-mail Inspection

#### Collaborative Security Systems

Security as Network-Wide System: Endpoints + Network + Policies

Service & Device Coordination

Network Admission Control (NAC)

Virtualized Services



#### **Integrated Security**

Every network element is a point of defense Routers, Switches, Appliances. Endpoints

> Secure Connectivity, Intrusion Prevention, Firewall

#### Network Foundation Protection

Prevent, Protect and Police the network infrastructure from attacks

Control Plane Policing, AutoSecure, NBAR

## Integrated Services Routers Addressing Today's Security Challenges!

**Cisco Integrated Services Routers Deliver:** 

- Proactive Protection against Worms, Viruses, and Malicious Attacks to ensure Business Continuity
- Cost-effective, Easy to Deploy Security throughout the Network Fabric
- Defense-in-Depth without Compromising Performance
- Ability to enforce Corporate Security Policies and address Legal/Regulatory concerns





