Logistics

• Streaming audio broadcast via PC
• Attendees muted upon entry
• Questions can be asked in Q&A panel
• Complete *survey and participate for rewards*
• Event recordings & slides on Learning Express website
To **Participate**, Use:

Instant Feedback Toolbar

To **Ask a Question**, Use:

Q&A Panel

For Technical Issues, please post your questions in the chat panel, and the facilitators will assist.
Cisco’s Small Business Focus
The Customer’s Value Proposition

Cisco Enterprise Architecture
Fits Small Business

Cisco SMB Architecture
Built for Small Business

Designed for Extensible Networks Regardless of Size

Designed for Small Businesses

© 2013-2014 Cisco and/or its affiliates. All rights reserved.
Cisco’s Small Business Focus
The Partner Perspective

Differences in experience to consider

**Built for Small Business**
Drivers: Simplicity, Price

- Business-class
- Cisco IP in software
- Simple configuration

**Small Business Support Options**

**Fit Small Business**
Drivers: Sophistication, Scalability

- Best-in-class
- Cisco software
- Cisco ASICs
- Customizable configuration
- Flexible, scalable, new features

TAC, SMARTnet

Willingness to Invest
SMB Routing Portfolio
One Portfolio—A Spectrum of Choices

From SoHo to Enterprise

Price, Performance

- Cisco RV110W, RV120W, and RV215W
- Cisco RV130 and RV130W
- Cisco RV220W
- Cisco RV000 Series (RV0XX, RV320, RV325, RV350, RV355, RV360, RV365, RV370, RV375)

Function, Flexibility, Scalability

- Cisco 800 ISR
- Cisco 1900 ISR
- Cisco 2900 ISR

Enterprise

- Cisco 3900 ISR
- Cisco 4451-X ISR
- ASR1000

© 2013-2014 Cisco and/or its affiliates. All rights reserved.
Small Business Key Technologies

**VPN (Client)**
Secure remote client access

- Flexible work environment
- Productive mobile employees

**VPN (Site to site)**
Multiple locations securely, virtually connected

- Eliminates the need for separate servers per site
- Seamless access to shared resources
- Works over standard Internet connection

**VLANs**
Separate networks running on a single device

- Isolates voice/video data to maximize quality
- Prevents normal users from access secure resources (i.e. video surveillance systems)

**Load balancing**
Utilizing 2 or more connections to Internet

- Increased WAN speed
- Adds resiliency in case of link failure
3G-4G Connectivity

- Redundancy in case fixed line fails – continue to be in business
- Ideal solution for places where fixed line services are not available, e.g. Construction sites, ....
Target market: Small-to Medium Branch/Office customers

- 5 to 50 Employees
- VPN site to site
- LAN / WLAN / WAN in one box
- No need IOS features
- Static routing and dynamic (RIP v1 and v2)
- GUI and SNMP enough for management
- Easy-to-use on-box management and software updates
- One year warranty
## Cisco RV Routers - Overview

### Wired

<table>
<thead>
<tr>
<th>Model</th>
<th>LAN Ports</th>
<th>WAN Ports</th>
</tr>
</thead>
<tbody>
<tr>
<td>RV130</td>
<td>4 10/1000</td>
<td>1 10/1000</td>
</tr>
<tr>
<td>RV042</td>
<td>4 10/100</td>
<td>2 10/100</td>
</tr>
<tr>
<td>RV042G</td>
<td>4 10/100/1000</td>
<td>2 10/100/1000</td>
</tr>
<tr>
<td>RV082</td>
<td>8 10/100</td>
<td>2 10/100</td>
</tr>
<tr>
<td>RV016</td>
<td>13 10/100</td>
<td>7 10/100</td>
</tr>
<tr>
<td>RV320</td>
<td>4 10/100/1000</td>
<td>2 10/100/1000</td>
</tr>
<tr>
<td>RV325</td>
<td>14 10/100/1000</td>
<td>2 10/100/1000</td>
</tr>
</tbody>
</table>

### Wireless

<table>
<thead>
<tr>
<th>Model</th>
<th>LAN Ports</th>
<th>WAN Ports</th>
<th>Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>RV110W</td>
<td>4 10/100</td>
<td>1 10/100</td>
<td>Wireless N</td>
</tr>
<tr>
<td>RV120W</td>
<td>4 10/100</td>
<td>1 10/100</td>
<td>Wireless N</td>
</tr>
<tr>
<td>RV130W</td>
<td>4 10/100/1000</td>
<td>1 10/100/1000</td>
<td>Wireless N</td>
</tr>
<tr>
<td>RV130W</td>
<td>4 10/100/1000</td>
<td>1 10/100/1000</td>
<td>Wireless N and 3G/4G via USB</td>
</tr>
<tr>
<td>RV215W</td>
<td>4 10/100</td>
<td>1 10/100</td>
<td>Wireless N and 3G/4G via USB</td>
</tr>
<tr>
<td>RV220W</td>
<td>4 10/100/1000</td>
<td>1 10/100/1000</td>
<td>Wireless N</td>
</tr>
</tbody>
</table>
## Non-wireless RV Routers Feature Comparison

<table>
<thead>
<tr>
<th>Feature</th>
<th>RV320</th>
<th>RV325</th>
<th>RV042</th>
<th>RV042G</th>
<th>RV082</th>
<th>RV016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical interfaces</td>
<td>2 x GbE WAN 4 x GbE LAN</td>
<td>2 x GbE WAN 14 x GbE LAN</td>
<td>2 x FE WAN 4 x FE LAN</td>
<td>2 x GbE WAN 4 x GbE LAN</td>
<td>2 x FE WAN 8 x FE LAN</td>
<td>16 FE (Assignable)</td>
</tr>
<tr>
<td>WAN Load balance w/ redundancy</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>IPSec VPN throughput</td>
<td>100 Mbps</td>
<td>100 Mbps</td>
<td>59 Mbps</td>
<td>75 Mbps</td>
<td>97 Mbps</td>
<td>97 Mbps</td>
</tr>
<tr>
<td>IPSec VPN connections</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>PPTP VPN connections</td>
<td>10</td>
<td>10</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>Concurrent connections</td>
<td>20,000</td>
<td>20,000</td>
<td>12,000</td>
<td>12,000</td>
<td>20,000</td>
<td>40,000</td>
</tr>
<tr>
<td>IPv6 Ready - Gold</td>
<td>in progress</td>
<td>In progress</td>
<td>Yes</td>
<td>in progress</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>
## Some USB dongle supported

<table>
<thead>
<tr>
<th>Vendor</th>
<th>Model</th>
<th>Signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pantech / UTStarcom</td>
<td>UML290VW</td>
<td>LTE/EVDO</td>
</tr>
<tr>
<td>Pantech / UTStarcom</td>
<td>UM175VW</td>
<td>EVDO</td>
</tr>
<tr>
<td>Huawei</td>
<td>USBConnect Force 4G (E366)</td>
<td>HSPA+</td>
</tr>
<tr>
<td>Huawei</td>
<td>Vodafone K4505</td>
<td>HSPA+</td>
</tr>
<tr>
<td>Huawei</td>
<td>E160</td>
<td>HSDPA</td>
</tr>
<tr>
<td>Huawei</td>
<td>E172</td>
<td>HSPA</td>
</tr>
<tr>
<td>Huawei</td>
<td>E176</td>
<td>HSPA</td>
</tr>
<tr>
<td>Huawei</td>
<td>E180</td>
<td>HSPA</td>
</tr>
<tr>
<td>Huawei</td>
<td>E220</td>
<td>HSDPA</td>
</tr>
<tr>
<td>Huawei</td>
<td>E270</td>
<td>HSPA</td>
</tr>
<tr>
<td>Huawei</td>
<td>E272</td>
<td>HSPA</td>
</tr>
<tr>
<td>Huawei</td>
<td>E226</td>
<td>HSDPA</td>
</tr>
<tr>
<td>Huawei</td>
<td>E182E</td>
<td>HSPA+</td>
</tr>
<tr>
<td>Huawei</td>
<td>EC1260</td>
<td>EVDO</td>
</tr>
<tr>
<td>Huawei</td>
<td>EC1261</td>
<td>EVDO</td>
</tr>
<tr>
<td>Huawei</td>
<td>EC168</td>
<td>EVDO</td>
</tr>
<tr>
<td>Huawei</td>
<td>K3565</td>
<td>HSDPA</td>
</tr>
<tr>
<td>Huawei</td>
<td>K3765</td>
<td>HSPA</td>
</tr>
<tr>
<td>AnyData</td>
<td>ADU500A</td>
<td>EVDO</td>
</tr>
<tr>
<td>AnyData</td>
<td>ADU510A</td>
<td>EVDO</td>
</tr>
<tr>
<td>Huawei</td>
<td>EC156 (tata photon+)</td>
<td>EVDO</td>
</tr>
<tr>
<td>Huawei</td>
<td>Telekom Speedstick LTE (E398u-15)</td>
<td>LTE/HSPA+</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Vendor</th>
<th>Model</th>
<th>Signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sierra Wireless</td>
<td>306 (USB 306)</td>
<td>HSPA+</td>
</tr>
<tr>
<td>Sierra Wireless</td>
<td>308 (USB 308)</td>
<td>HSPA+</td>
</tr>
<tr>
<td>Sierra Wireless</td>
<td>AirCard 312U</td>
<td>HSPA+</td>
</tr>
<tr>
<td>Sierra Wireless</td>
<td>AirCard 595U</td>
<td>EVDO</td>
</tr>
<tr>
<td>Sierra Wireless</td>
<td>Compass 597</td>
<td>EVDO</td>
</tr>
<tr>
<td>Sierra Wireless</td>
<td>598U/599 (AirCard USB 598)</td>
<td>EVDO</td>
</tr>
<tr>
<td>Sierra Wireless</td>
<td>AirCard 875U</td>
<td>HSPA</td>
</tr>
<tr>
<td>Sierra Wireless</td>
<td>AirCard 880U</td>
<td>HSPA</td>
</tr>
<tr>
<td>Sierra Wireless</td>
<td>AirCard 881U</td>
<td>HSPA</td>
</tr>
<tr>
<td>Sierra Wireless</td>
<td>Compass C888</td>
<td>HSPA</td>
</tr>
<tr>
<td>Novatel</td>
<td>U720</td>
<td>EVDO</td>
</tr>
<tr>
<td>Novatel</td>
<td>U727</td>
<td>EVDO</td>
</tr>
<tr>
<td>Novatel</td>
<td>U760</td>
<td>EVDO</td>
</tr>
<tr>
<td>Novatel</td>
<td>Ovation MC950D</td>
<td>EVDO</td>
</tr>
<tr>
<td>Option</td>
<td>iCON 322</td>
<td>HSPA</td>
</tr>
<tr>
<td>Pantech / UTStarcom</td>
<td>UM175 (UML175VW)</td>
<td>EVDO</td>
</tr>
<tr>
<td>Huawei</td>
<td>EC156 (tata photon+)</td>
<td>EVDO</td>
</tr>
<tr>
<td>AnyData</td>
<td>ADU500A</td>
<td>EVDO</td>
</tr>
<tr>
<td>AnyData</td>
<td>ADU510A</td>
<td>EVDO</td>
</tr>
<tr>
<td>Huawei</td>
<td>EC156 (tata photon+)</td>
<td>EVDO</td>
</tr>
<tr>
<td>Huawei</td>
<td>Telekom Speedstick LTE (E398u-15)</td>
<td>LTE/HSPA+</td>
</tr>
<tr>
<td>ZTE</td>
<td>MF636</td>
<td>HSUPA</td>
</tr>
<tr>
<td>ZTE</td>
<td>MF626</td>
<td>HSUPA</td>
</tr>
<tr>
<td>ZTE</td>
<td>K3571-Z</td>
<td>HSDPA</td>
</tr>
<tr>
<td>TATA</td>
<td>EPiValley</td>
<td>EVDO</td>
</tr>
</tbody>
</table>
RV130 VPN Router

High-performance Gigabit Ethernet ports rapidly transfer large files supporting multiple users

Stateful packet inspection (SPI) firewall and hardware encryption

IPv6 Ready (Gold)

USB port for storage and 3G/4G modem failover

IP Security IPSec/PPTP VPN enable secure remote access

Easy-to-use wizard-based configuration tools

Granular QoS, VLAN Segmentation (802.1q), DHCP v6

Cisco Small Business Support Service
3YR, 24x7, NBD replacement (CON-SBS-SVC2) $69USD List

TR-069 Support

Quality, Secure Access, Firewall & Performance
High-performance Gigabit Ethernet ports rapidly transfer large files supporting multiple users

Stateful packet inspection (SPI) firewall and hardware encryption

Granular QoS, VLAN Segmentation (802.1q), DHCP v6

Cisco Small Business Support Service 3YR, 24x7, NBD replacement (CON-SBS-SVC2) $69USD List

IPv6 Ready (Gold)

USB port for storage and 3G/4G modem failover

IP Security IPSec/PPTP VPN enable secure remote access

Easy-to-use wizard-based configuration tools

TR-069 Support

Flexible, Secure Access, Firewall & Performance
RV130W MultiFunction Wireless-N VPN Router
Target Market and Applications

Target market: Small-to Medium Branch/Office customers

- ~25+ Employees
- Require reliable, secure platform to access Internet
- Business-class security (robust firewall)
- Secure remote-access connection between sites (PPTP/IPsec VPN)
- Secure remote access for mobile workers and teleworkers
- Capability to optimize application performance over Internet (QoS and traffic management)
- Easy-to-use on-box management and software updates
- Flexible Broadband Option
Cisco Small Business Support Service

**Key Features**

- Three-year “peace-of-mind” support for Cisco Small Business products
- Unlimited telephone and online chat support, 24 X 7 in English. Local business hours for other languages
- Next business day hardware replacement
- Major & minor software releases
- Open online service requests
- Access certified Cisco engineers and Small Business Support Community

**One Service SKU Per Device**

Based on device complexity
(USD list price, three-year term)

- $19 (CON-SBS-SVC1)
- $69 (CON-SBS-SVC2)
- $149 (CON-SBS-SVC3)
- $499 (CON-SBS-SVC4)

**Focus on Your Business, Not the Network, with Cisco Services**
Important URLs

• Cisco Small Business Routers

• Partner Central Small Business Routing

• Cisco Small Business Support Community
  www.cisco.com/go/smallbizzsupport

• Cisco RV Series Routers Warranty
  http://www.Cisco.com/go/warranty

• Cisco Small Business Service
  www.cisco.com/go/smbservices

• Cisco Small Business Online Device Emulators

• USB supported Modems
Integrated Service Routers
ISR G2 Services Portfolio

Network and Security Services
- Cisco Wide Area Application Services (WAAS)
- Cisco Wireless LAN Controller (WLC)
- Cisco Network Analysis Module (AVC)
- Secure, Protect, Compliance
  - VPN
  - Cisco Intrusion Prevention System
  - Cisco Web Security (cloud connector)
- Unified Communications
  - Cisco Unity® Express (Voicemail, IVR)
  - Call control
- IP TRUNK
  - SIP Trunk: Customized Vertical Solutions
  - Demarcation Point
  - Toll fraud
  - Hidden topology
  - Rich Media
  - Transcoding & Interworking
- Compute Services and Applications
  - Consolidate Servers and Applications
    - Cisco Application Extension Platform (AXP)
    - Cisco Integrated Storage System
    - Industry standard virtualization
    - Windows Server

© 2013-2014 Cisco and/or its affiliates. All rights reserved.
800 Series – Portfolio View

<table>
<thead>
<tr>
<th>Price</th>
<th>Features</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Users</td>
</tr>
<tr>
<td>890</td>
<td>Ethernet</td>
</tr>
<tr>
<td>860</td>
<td>Ethernet</td>
</tr>
<tr>
<td>880</td>
<td>Ethernet</td>
</tr>
<tr>
<td>810</td>
<td>Ethernet</td>
</tr>
<tr>
<td></td>
<td>WiFi</td>
</tr>
<tr>
<td>880 Mobility</td>
<td>810</td>
</tr>
<tr>
<td>860 Mobility</td>
<td>860</td>
</tr>
</tbody>
</table>

© 2013-2014 Cisco and/or its affiliates. All rights reserved.
Wireless Broadband
Mobility without limits and secure wireless connection

ISR G2: “Secure Mobility Lives Here”

Uptake Rápido de conectividad 3G WAN en ISR: Más rápido que DSL/Cable
Certificado con 70+ Proveedores de Servicio y creciendo…
Enviado sobre 200K unidades con captación fuerte en NA, la UE y los mercados emergentes
Más de 15 SPs Ofrecen Servicios Gestionados Wireless

3G HSPA/EVDO Rev A

Banda Ancha Inalámbrica en cualquier lugar y a cualquier hora
• Enterprise-class 3G wireless WAN
• Secure management, scalable and remote monitoring
• AP as part of Unified Architecture
• WAN optimization with WAAS express

Small Branch/Rural Untethered Wireless Enabled

Multipath, Nonterrestrial wide band redundant connectivity for Enterprise Branches

Digital Signage y NG Vending Machines Streaming Video y WLAN Hotspot plus Credit Card Transaction sobre 3G Wireless WAN

Remote ATMs, POS, y Kiosks Transacción Financial over 3G Wireless WAN

© 2013-2014 Cisco and/or its affiliates. All rights reserved.
## Cisco 800 Series Selection Criteria

<table>
<thead>
<tr>
<th>Primary WAN</th>
<th>Family</th>
<th>LAN Ports</th>
<th>3G/4G</th>
<th>WiFi</th>
<th>3G/4G+WiFi</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WAN</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethernet</td>
<td>881</td>
<td>4 FE</td>
<td>881G</td>
<td>881W(D)</td>
<td>881GW</td>
</tr>
<tr>
<td>V/ADSL</td>
<td>88xVA</td>
<td>2 POE</td>
<td>88xVAG</td>
<td>88xVAW(D)</td>
<td>88xVAGW</td>
</tr>
<tr>
<td>G.SHDSL</td>
<td>888(EA)</td>
<td></td>
<td>888(E)G</td>
<td>888(E)W</td>
<td>888GW</td>
</tr>
<tr>
<td>Eth or V/ADSL</td>
<td>86xVAE</td>
<td>1 POE</td>
<td></td>
<td>86xVAE-W</td>
<td></td>
</tr>
<tr>
<td>Dual</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WAN</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eth + Eth</td>
<td>89x</td>
<td></td>
<td>891W</td>
<td>892W</td>
<td></td>
</tr>
<tr>
<td>Eth + V/ADSL</td>
<td>89xVA</td>
<td>8 GE</td>
<td></td>
<td>89xVA-W</td>
<td></td>
</tr>
<tr>
<td>Eth + G.SHDSL</td>
<td>89xEA</td>
<td>4 POE</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*“D” represents dual WiFi radio with both 2.4Ghz and 5.0Ghz. “W” by itself signifies single 2.4Ghz radio. “G” represents 3G/LTE.*

*“E” represents Ethernet; “VA” represents option of VDSL or ADSL; xx6 is for ISDN, xx7 is for POTS, xx8 is for G.SHDSL.*

*Note: This overview is not comprehensive, e.g. does not include SFP options. Please see the detailed 800 data sheet for comprehensive information.*
# Cisco 800 Series Mobility Routers

## Wired WAN Options

<table>
<thead>
<tr>
<th>WAN</th>
<th>Async + Ethernet</th>
<th>Ethernet</th>
<th>V/ADSL</th>
<th>G.SHDSL</th>
<th>Ethernet/ PoE Powered</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.7G/ HSPA+</td>
<td>819(H)G</td>
<td>881G</td>
<td>88xVAG</td>
<td>888(E)G</td>
<td>812G</td>
</tr>
<tr>
<td>4G LTE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LAN Ports</td>
<td>819(H)G-4G</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4 FE</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WiFi</td>
<td>819HGW</td>
<td>881GW</td>
<td>88xVAGW</td>
<td>888(E)GW</td>
<td>812G-CiFi</td>
</tr>
<tr>
<td>(Dual Concurrent 2.4/5.0GHz)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PoE</td>
<td>2 POE</td>
<td></td>
<td></td>
<td></td>
<td>1 POE</td>
</tr>
</tbody>
</table>

"H" represents Hardened – factory option, All WiFi SKUs are now Dual & Concurrent 2.4/5.0 GHz with CleanAir, ClientLink, DFS
"E" represents Ethernet ; "VA" represents option of VDSL or ADSL ; xx6 is for ISDN, xx7 is for POTS, xx8 is for G.SHDSL
Note: This overview is not comprehensive. Please see the detailed 800 data sheet for comprehensive information.

© 2013-2014 Cisco and/or its affiliates. All rights reserved.
# Cisco 800 Series

## Integrated Services Routers

<table>
<thead>
<tr>
<th></th>
<th>890</th>
<th>880</th>
<th>860VAE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enterprise Small Branch</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Cisco Virtual Office (CVO)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Teleworker</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Small Box Retail</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Small Business</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Micro Branch/Office</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Performance with Services</td>
<td>&gt;20 Mbps</td>
<td>15 Mbps</td>
<td>10 Mbps</td>
</tr>
</tbody>
</table>

## Secure Broadband and Mobility Platform

- Enterprise small branch, Cisco Virtual Office (teleworkers), Small Box Retail, Small Business, Managed Services
- 10-100 Mbps WAN access with security
- Fixed configurations; pick your:
  1. WAN interface(s)
  2. Backup interface
  3. 802.11 wireless (Y/N)
  4. Voice *

*Requires Voice SKU and available with FE or Multi-Mode DSL WAN

---

© 2013-2014 Cisco and/or its affiliates. All rights reserved.
## Cisco 800 Series Overview

<table>
<thead>
<tr>
<th>Feature</th>
<th>860VAE</th>
<th>880/880G</th>
<th>880V</th>
<th>890</th>
</tr>
</thead>
<tbody>
<tr>
<td>GE WAN</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>SFP</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes (892F/892F-SP)</td>
</tr>
<tr>
<td>FE WAN</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>VDSL2</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>ADSL2/2+</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>G.SHDSL</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Data Backup</td>
<td>No</td>
<td>ISDN BRI, HSPA+</td>
<td>No</td>
<td>ISDN BRI, V.92</td>
</tr>
<tr>
<td>PSTN Interconnect</td>
<td>No</td>
<td>No</td>
<td>FXO or BRI Voice</td>
<td>No</td>
</tr>
<tr>
<td>FXS Ports</td>
<td>No</td>
<td>No</td>
<td>4</td>
<td>No</td>
</tr>
<tr>
<td>802.11n</td>
<td>2.4 GHz (Future)</td>
<td>2.4 GHz, 5 GHz</td>
<td>2.4 GHz</td>
<td>2.4 GHz, 5 GHz</td>
</tr>
<tr>
<td>SRST, CUBE, CUCME</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>
Cisco 880 Voice

For SMB, Branch Offices, Enterprise Teleworker and Remote Call Center Agent

Desktop form factor
- WAN Interfaces - FE, VDSL2/ADSL2+
- PSTN Fallback – FXO
- Voice Ports - 4 FXS and 2 BRI ports
- 4 Port FE Managed Switch with POE
- Voice Protocols-H.323, SIP, MGCP, SCCP
- Software: Advanced IP Services

Offers Voice Gateway upgradeable to IP PBX, Survivability or CUBE Features
Best-in-class integration of data & toll-quality analog/digital voice services for Branch offices/Enterprise Teleworker

- New WAN/LAN Technologies
  - VDSL2/ADSL2+
  - 802.11b/g/n WLAN

- Comprehensive security
  - IPSec VPN acceleration
  - Firewall, IPS, URL Filtering, SSL-VPN, GET VPN

- Comprehensive Routing and QoS
- Ease of Management
  Cisco Configuration Professional
  Unified Wireless Management
C890 Series

**C892F-SP C898EA**

- Universal data CPE
- Multi-mode ATM and EFM WAN
- SFP/GE WAN for GPON
- 4 + 4 GE LAN ports (4 port PoE)

**C896VA C897VAW**

- Universal data CPE
- Multi-mode VDSL2/ADSL2 + Annex A, B, M
- SFP/GE WAN for GPON
- 4 + 4 GE LAN ports (4 port PoE)
- Dual concurrent WiFi 802.11n
- Clean Air features

100 Mbps with minimal services
Multi-WAN Capable

© 2013-2014 Cisco and/or its affiliates. All rights reserved.
800 series routers perfect for…

**Target market**: Small-to Medium Branch/Office customers

- 5 to 50 Employees
- Reliable connection for branches and teleworkers
- Interop solution for xDSL
- Need IOS feature set
- Dynamic routing
- Management via GUI, SNMP and CLI
- Easy-to-use on-box management and software updates
- One year warranty
Cisco Branch Platform Portfolio

Forwarding Performance with Services

10Gb
5Gb
2Gb
1Gb
500Mb
350Mb
75Mb
1900 (>25M)
2900 (2RU, 35M–75M)
3900(E) (3RU, 100M–350M)
ISR 4451-X (2 RU, 1G–2G)

ASR1001 (2.5G–5G)

ASR1002-X (5G–36G)
Pervasive Security
Provide Secure, Reliable Access to Any Services

• Provide data privacy for accessing services across the WAN
  ✓ GETVPN over MPLS provides any-to-any encryption
  ✓ DMVPN over 3G/4G or Internet provides dynamic spoke-to-spoke tunnel

• Highly scalable WAN aggregation with encryption
  ✓ 4000 DMVPN tunnels per ASR1K
  ✓ Up to 8 Gbps of encryption throughput per ASR1K

• Full interoperation with QoS ensures service performance
Key Benefits:

- Secure Internet access to branch, without the need for additional devices
- Segment network to meet PCI Compliance
- Control threats right at the remote site; conserve WAN bandwidth
- Interoperability with Cloud Web Security
- External and internal protection: internal network is no longer trusted
- Protocol anomaly detection and stateful inspection
- Cisco UC Trusted FW
- Voice Signatures (SIP, SCCP, H323)
- Virtualized UC (VRF aware)
- Call flow awareness
- Prevent DoS attacks
- Split Tunnel-Branch/Remote Office/Store/Clinic
- Internal FW – International or un-trusted locations/segments, addresses regulatory compliances
- Works with IPS, VPN, ISR Web Security w/ScanSafe
- Works with SRE/ISM & WaaS Express
- Supports CLI, SNMP, CCP, and CSM
- Supports Cisco Configuration Engine
Secure Public Cloud Access with ScanSafe
Protect Internet Edge at Enterprise Branches

Key Benefits:
- Avoid expensive backhaul of internet and public cloud traffic through the HQ/Datacenter
- Single policy portal, easy of deployment and management
- Enhanced security for all users

Solution:
- Integrate ScanSafe Connector in ISR
- Router redirects Internet Web traffic to ScanSafe cloud
  - Content analysis, detect/stop malware
  - Web usage control – administrator can control access to websites
- Complement the integrated security (ZBF, IPS) on the router

HQ

ASR1K

WAN

Branch

Branch

Web Filtering

Web Security

Centralized Reporting

Consistent Policy Control
Cisco Application Performance
Maximize user experience, optimize resource utilization, increase reliability

Visibility & Control
- Discovery, Prioritization & Control: AVC
- Performance Monitoring: NAM, PA
- Analytics & Management: NAM, Partners

Acceleration and Optimization
- Application Acceleration: WAAS
- Network Optimization & Utilization: WAAS-Express
- Content Distribution: ECDS

Network & Application Agility
- Application Survivability: UCS-Express
- Adaptability: PfR,
IT Requirements

Visibility into network applications, performance and user experience trending

Intelligently prioritize and control application traffic to maximize user experience

Visibility

Control

Deep Packet Inspection
Visibility, what is happening on the network?

Key Benefits:
What type of applications are running on the network, including the ones running over http port like twitter, facebook, dropbox, P2P, etc.

How it works?: configure Nbar2 & Neflow to known stats and applications

What about these?

Feature
ISR-AX

<table>
<thead>
<tr>
<th>Application</th>
<th>Port</th>
</tr>
</thead>
<tbody>
<tr>
<td>HTTP</td>
<td>80</td>
</tr>
<tr>
<td>FTP</td>
<td>20/21</td>
</tr>
<tr>
<td>POP3</td>
<td>110</td>
</tr>
<tr>
<td>IMAP</td>
<td>143</td>
</tr>
<tr>
<td>HTTPS</td>
<td>443</td>
</tr>
<tr>
<td>SMTP</td>
<td>25</td>
</tr>
</tbody>
</table>
Cisco WAAS
Improves performance and BW utilization for Key business applications

Problem
- Application latency
- WAN Bandwidth inefficiencies

Solution
- Reduce load
  Data Redundancy Elimination, Compression, TCP optimization
- Application Optimization
  fewer protocol messages, Meta data caching, ...

© 2013-2014 Cisco and/or its affiliates. All rights reserved.
# WAAS and WAAS Express feature comparison

<table>
<thead>
<tr>
<th>Feature</th>
<th>Cisco WAAS</th>
<th>Cisco WAAS Express</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auto Discovery of end nodes</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>TFO (Transport Flow Optimization)</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Compression</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>DRE (Data Redundancy Elimination)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Disk based</td>
<td></td>
<td>Memory based</td>
</tr>
<tr>
<td>- Persistent</td>
<td></td>
<td>non-persistent</td>
</tr>
<tr>
<td>Bandwidth Optimization for Secured Web (SSL)</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Application Acceleration</td>
<td>✔️</td>
<td>Selected file/web</td>
</tr>
<tr>
<td>Network Services Integration</td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td>WAAS Central Manager</td>
<td>✔️</td>
<td>WAASx2.0: WCM5.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>WAASx1.0: WCM4.31+</td>
</tr>
<tr>
<td>WAAS Software compatibility</td>
<td>Cisco WAAS backward compatible</td>
<td>WAASx2.0: WAAS4.4.3c</td>
</tr>
</tbody>
</table>
Performance Routing (PfR)

Application aware adaptive routing

- Provides adaptive routing based upon real-time performance data
- Full utilization of expensive WAN resources
  - Efficient distribution of traffic based upon load, circuit cost and path preference
- Improved Application Performance
  - Per application best path based on delay, loss, jitter measurements
- Increased Application Availability
  - Protection from carrier black holes and brownouts
**Simplify Branch Office Infrastructure**

**CHALLENGES**
- **Performance and survivability** require local services & applications
- **Complexity** of disparate servers & appliances

- **Costly truck rolls** to deploy new services or servers
- **Physical space limits** equipment and wiring

**Before**

**After**

**CISCO SOLUTION**
- Host business application and network services on common ‘Service Ready Engine’ blades on ISRG2
- Consolidate servers on VMware hypervisor with ‘Unified Computing System Express’ on SRE
- Remote deployment & changes with no truck roll

**BENEFITS**
- Reduced capital & operational costs
- More flexible branch infrastructure
- Simplified server deployment
UCS Express
Extend Cloud Services into Branch Infrastructure

Platform for WAN Edge Applications
- Microsoft Windows Server-Certified

Server Virtualization
- Cisco SRE virtualization powered by VMware vSphere Hypervisor™ (ESXi)

Dedicated Blade Management
- Cisco integrated management controller
- Consistent management for UCS family

Multipurpose x86 Blades
- Cisco service-ready engine modules
- House up to four server blades in ISR G2

Single-Device Network Integration
- House all devices in ISR G2 chassis
- Multigigabit fabric backplane switch

Support on ISR G2 2911 and above
Branch Office IP Phone High Availability
Survivable Remote Site Telephony (SRST)
Survivable Remote Site VoiceMail (SRSV)

Phones register to SRST in the router when it loses contact with CUCM
Phones automatically home back to their CUCM when WAN contact is restored
Cisco Unity Express (CUE), if SRE is installed in the branch router, provides voice mail and Auto Attendant survivability for the site
User and mailbox configurations are automatically synchronized with central CUCM and Unity configurations
Cisco UBE – Feature Summary

- Network/Topology Hiding for Voice and Video Calls
- Protocol Support - H.323 and SIP
- Voice Codecs – G.711, G.729, G.726, G.723, G.728, Transparent
- Video Codecs – H.261, H.263 and H.264
- Codec Filtering
- Media - Media Flow Through and Media Flow Around
- DTMF Interworking – H.245 Alphanumeric, Signal, RFC2833, SIP NOTIFY
- Fax/Modem – T.38, Passthrough, Cisco Fax Relay, Modem Passthrough
- Security – TLS, IPSec with SRTP
- ENUM

- Signaling Interworking
- Supplementary Services
- Transcoding – G.711 < > G.729
- Transport Mode - TCP, UDP
- Number Translation
- Quality of Service
- Call Admission Control
- Call Detail Records
- TCL/VXML Support
- Rotary Support
Multiple Services
With the Services Module and Integrated Services Module – SRE for Unity Express (32 ports) and AXP

- **Cisco Unified Communications Manager Express**
- **Cisco Unified Survivable Remote Site Telephony**
- **Cisco Unified Border Element**
- **Voice Gateway**
Simplified Software Management
A single IOS Universal Image ships with all ISR G2 platforms
Four IOS licenses enable full suite of functionality that were previously offered in eight images

Less Costly Software Upgrades
IOS feature upgrades can be done by enabling a new license, reducing the need for truck-roll to remote offices

Enable Development of New Software Based Business Models
Services on Demand—purchase upgrades as you need them via Cisco licensing
Introducing Cisco ISR 4451-X

• Unprecedented Performance and Service Scalability with IT Simplicity

• 2 Gbps Forwarding Performance
• Dedicated Resources for Services Resiliency
• Pay-as-you-Grow Model

Cisco ISR 4451-X

Appliance-Level Performance

Simplified Service Integration

• Native WAN Optimization
• New Virtualized Service Framework
• Services Aware Data Plane

Future Proofed the Gigabit Branch
Re-designed Architecture For Branch Agility

Cisco ISR 4000 Series

- 4-10x performance
- Reduced fan noise
- Up to 8 ports in a single NIM
- OIR modules
- Single OS (IOS-XE)
- More power
- Native WAAS
- OIR modules
- 10GE port option
- 8 core compute blade

Service Aware Data Plane
for Efficient traffic handling

Virtualized Services Framework
Flexible virtualized application services

Converged Branch with UCS E-Series
Integrated network, compute, storage

Pay-as-You-Grow
Performance and services on demand

CiscoONE purchase options
Enable app services without a truck roll

Increase performance via license

© 2013-2014 Cisco and/or its affiliates. All rights reserved.
ASIC-Like Experience with New Services
Appliance-Level Performance

Miercom Testing: Cisco® 4451 ISR

- Multicore architecture
- Service-aware data plane
- Multigigabit fabric

Benefits
- Up to 10 times faster performance
- Scalability
- Layer 7 services
- Steady performance curve maintained with new additive services
Services Acceleration in Hardware

- For Performance and Scale

Services Go Native

- 2 Gbps performance with services
- Separated Control, Service, and Data Planes
- Containerized services

Security
- L7: Cloud Web Security
- L4: Zone Based Firewall
- L2/L3: IPSec

App Services
- AVC
- WAN Optimization
- Intelligent Paths, QoS/SLA

Collaboration
- SIP, SBC
- Transcoding
- Voice Quality Mgmt.

LAN-Like Experience

App SLA

One Platform

Pervasive Security

SCALABLE

SMART

SIMPLE

SECURE
Applications and Networks Are Mutually Aware

- ISR-AX for the High-Performance Branch

End-to-End App Service Assurance

Best multi-service performance for delivering applications from anywhere
Application-level visibility, control, optimization and security
onePK enables applications to be network aware

- SMART
- App SLA
- SIMPLE
- One Platform
- SECURE
- Pervasive Security
IT Operational Simplicity

All-in-One Simplified Service Integration

On-Demand Deployment

- 1 Gbps
- 2 Gbps

Ease of Mgmt and Provisioning

- CISCO PRIME
- OPEN PLATFORM

Programmable and Automated

- Open APIs
- Network

PAYG Services and Performance
No Service Disruption or Truck Rolls
Standardize on one platform

Simplified Provisioning
App visibility with Cisco or 3rd parties
Visibility for health monitoring and rapid resolution

Ease of Configuration and Deployment via onePK

SCALABLE
LAN-like Experience

SMART
App SLA

SIMPLE
One Platform

SECURE
Pervasive Security
Unified VPN Configuration

- **FlexVPN** unifies multiple VPN frameworks into one
- Simplify deployment
- 1.3 Gbps encryption

Robust Threat Defense

- Threat Control with Firewall; 2 Gbps line rate performance
- Protect infrastructure from network and application attacks, viruses, and worms

Consistent Policy Enforcement

- **TrustSec**—Single Source for Policy Rules
- Context Aware
- 80% reduction in rules and policy

**SCALABLE**
LAN-like Experience

**SMART**
App SLA

**SIMPLE**
One Platform

**SECURE**
Pervasive Security
### Cisco 4451-X

**Integrated Services Routers**

<table>
<thead>
<tr>
<th>Feature</th>
<th>4451-X</th>
</tr>
</thead>
<tbody>
<tr>
<td>Separate processor for Control and Data Plane</td>
<td>Yes</td>
</tr>
<tr>
<td>Onboard WAN</td>
<td>4GE (4 SFP)</td>
</tr>
<tr>
<td>Perf w/ Services</td>
<td>1 or 2 Gbps</td>
</tr>
<tr>
<td>SM Slots</td>
<td>2</td>
</tr>
<tr>
<td>ISC Slots</td>
<td>1</td>
</tr>
<tr>
<td>NIM Slots</td>
<td>3</td>
</tr>
<tr>
<td>OIR</td>
<td>Yes</td>
</tr>
<tr>
<td>Opt Dual PS</td>
<td>Yes</td>
</tr>
<tr>
<td>Default Flash</td>
<td>8GB (&gt;32)</td>
</tr>
<tr>
<td>Default DRAM</td>
<td>4 GB (&gt;16)</td>
</tr>
<tr>
<td>Form Factor</td>
<td>2RU</td>
</tr>
<tr>
<td>POE</td>
<td>Yes</td>
</tr>
</tbody>
</table>

### Scalable High Performance Rich Services Platform

- Up To 2Gbps WAN Access With Services
- 4 GE ports onboard
- Performance License
- Software containers for Cisco services
- Optional integrated redundant power supply
Important URLs

• Cisco Integrated Services Routers
  http://www.cisco.com/go/isrg2

• Cisco Branch-WAN Business Calculator
Thank you.
SMB Programs
30.000ft view

OIP
Opportunity Incentive Program
• Rewards Partners who actively initiate, develop, and close new business opportunities
• Up to 8% incremental discount provided to the first partner to register an opportunity
• Open to all Select and above

www.cisco.com/go/oip

NFR
Not For Resale
• Rewards Cisco Partners with generous discounts on products used in non-revenue generating activities for their labs, demo and infrastructure
• Up to 70% discount
• Products can’t be re-sold
• Open to all Registered partners
• Including Small Business products

www.cisco.com/go/nfr

AIP
Assessment Incentive Program
• Rewards Partners that registers a new opportunity that is a direct result of a Network assessment
• Up to 12% discount. Up to 20% discount if/when combined with TMP
• Open to all Select and above

www.cisco.com/go/aip

TMP
Technology Migration Program
• Discounts for Partners who upgrade Customers’ networks: one-off price-concession, green solution for decommission-ing old products, Residual value for written-off products, Faster technology adoption
• Up to 20% upfront discount Open to all Registered and above

www.cisco.com/go/tmp