Cisco 880 and 860 Series Integrated Services Routers

Enabling Concurrent Voice, Video, Data, and Mobility for the Small Branch/Teleworker
Bringing the Branch to You

Consistent Branch Experience. Anywhere. Everywhere.

83% of organizations consider their workplace to be virtual.
# Key Branch Issues

## Globalization
- Your business is everywhere
- Your workforce is everywhere

## Collaboration
- Your business depends on collaborative tools
- Your customers expect you to collaborate with them

## Consolidation
- You want to reduce your business IT footprint
- You want all locations to have the same level of service
Basic Needs of the Small Office/Teleworker

Offer rich networking experience like HQ without adding on-site IT personnel

Extend offices without increasing costs
- Use full-featured, converged voice from HQ
- Enable corporate applications and video
- Reduce hidden costs like ISDN backup

Ensure secure communications
- Protect company and customer information
- Meet regulatory guidelines
- Provide a secure network perimeter

Enhance mobile worker productivity
- Offer wireless with greater capability and range
- Enable comprehensive management
- Provide equivalent access to systems/resources

Increase operational efficiency
- Combine multiple services on a single device
- Build on existing network infrastructure
- Simplify management for remote sites
Cisco 800 Series Integrated Services Router
Extending Collaboration to Small Offices/Teleworkers

Voice Support for Small Offices/Teleworkers
- First teleworker device with support for voice, video, survivability, and FXS devices
- Brings reliability to collaboration applications

Secure Remote Collaboration
- Secures voice and data, end to end
- Provides advanced security and content filtering
  - VPN, firewall, intrusion prevention

Unified Wireless Mobility
- 802.11n support
- Fully integrated with Cisco Unified Wireless
- Optional 3G connection for anywhere connectivity

Simplified Operations
- Comprehensive Cisco IOS® Software
  - routing, QoS, and network management
- Graphical voice and data configuration

New
Cisco® 860 ISR
Cisco 880 ISR
Cisco 880 SRST
Cisco Integrated Services Router Portfolio

Performance and Services Density

New Cisco® 880/860

800 Series

1800 Series

1861

2800 Series

3800 Series

High Density and Performance for Concurrent Services

Embedded, Advanced Voice, Video, Data, and Security Services

Embedded Wireless, Security, and Data

The Integrated Services Router Portfolio

Small Office and Teleworker | Small Branch | Medium Branch | Medium to Large Branch
# Cisco 860 and 880 Fixed Router Solution

## Cisco® 860 ISR
- Data, Security, Wireless
- Small Business
  - Entry-level, highly secure routing solution

## Cisco 880 ISR
- Data, Security, Wireless
- Enterprise Teleworker, Small Business, and Small Branch
  - Full-featured, highly secure routing solution

## Cisco 880 SRST
- ISR with Voice
- Enterprise Teleworker and Small Branch
  - Voice with survivability

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<table>
<thead>
<tr>
<th>Optional 802.11n</th>
<th>Standalone</th>
<th>Standalone/unified</th>
<th>Standalone/unified</th>
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<tr>
<td>Redundant WAN links</td>
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<tr>
<td>Security</td>
<td>Basic</td>
<td>Advanced</td>
<td>Advanced</td>
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</tbody>
</table>
Customer Migration

Why Migrate to the New Cisco 860/880 Series?

- Increased performance and memory
- 802.11n wireless LAN
- Unified wireless management
- Voice with survivability
- True WAN backup with 3G
- VDSL2 (future)
- Annex A, B, and M and G.SHDSL

Performance and Services Density
Typical Small Branch Office Deployments

- Secure connection from headquarters
- Security with VPN encryption, firewall, and IPS
- IT managers can centrally manage the remote site to quickly troubleshoot any network issues
- Business resiliency with integrated 3G or ISDN backup
- Voice with survivability
- Integrated secure unified WLAN connectivity
Small Retail/Hospitality Deployments

- Point-of-sale transactions can use a variety of low-cost broadband access
- Advanced security to comply with PCI and other data security requirements
- Multiple services can be combined on a single device for operational efficiency
- Ease of remote management
A Variety of Deployment Options

- Enterprise teleworkers
- Small healthcare offices
- Lottery machines
- Gas stations
- Remote sales offices
- Bank ATMs
- Remote call center agents
- Small retail
- Small hospitality/restaurants
- Wireless hotspots
Security Applications

- Cisco® 880 Integrated Services Router
- Cisco 860 Integrated Services Router
All-in-One Security for the WAN

Only Cisco® Security Routers Deliver All of This

Secure Network Solutions
- Business continuity
- Secure voice
- Secure mobility
- Compliance

Integrated Threat Control
- Advanced firewall
- Content filtering
- Intrusion prevention
- Flexible packet handling
- Network Admission Control
- 802.1X
- Network foundation validation

Secure Connectivity
- GET VPN
- DMVPN
- Easy VPN
- SSL VPN

Management and Instrumentation
- CCP
- Role-based access
- NetFlow
- IP SLA

Deliver All of This

Flexible packet matching 11110010
Cisco IOS Content Filtering
A Web Security Solution That Protects Organizations from Known and New Internet Threats, While Improving Employee Productivity

- Ideal for schools, retail, and commercial markets
- Blocks malicious sites and enforces corporate policies
- Offers category-based security and productivity ratings
- Regulations such as HIPAA, FISMA, and CIPA (Children’s Internet Protection Act) mandate reliable content filtering.
- Policy is enforced and maintained on the router locally

[Diagram showing URL cache, Trend Micro rating server, and filtering of categories like porn, violence, gambling, sports]
Mobility

- Cisco® 880 Integrated Services Router
- Cisco 860 Integrated Services Router
Cisco 880 Integrated Services Router
Enterprise 3G WWAN Data Market

Cisco 880: 3G WAN
EVDO and UMTS/HSDPA versions available
Sierra Wireless 3G ExpressCard form factor, with EM 597e (EVDO) and EM 880e (UMTS/HSPA*)
External indoor 3G antenna with 4.5/5 feet cable

*At FCS HSDPA, post FCS HSPA.

Benefits of 3G wireless WAN
- Serves as backup or main WAN link
- High availability—true multipath backup
- Broadband speeds
- Rapid deployment
- Ideal for portable businesses
- Operational efficiency
- Cost-effective
Typical 3G Applications

- **Business continuity**: Reliable, resilient WAN backup
  - Network outages
  - Disaster recovery

- **Rapid deployment**: Short install time
  - Instant branch connectivity for temporary or new sites
  - Temporary connectivity for nomadic sites

- **Portable solution**
  - Kiosks, construction trailers, mobile banks

- **“Primary data” connection**
  - Store-in-store, smaller retail stores, ATM connectivity, gas stations, broadband access alternative
Advantages over 3G Modems

- 3G service integrated into Cisco® 880 Series router
  - Service interoperability
    - Works with security, routing, and other features from Cisco integrated services routers
  - Centralized troubleshooting and management
  - Operational efficiency
    - Saves power, maintenance contracts costs, training
- Serviceable worldwide
Cisco 802.11n Integrated Wireless Access Point

Delivers next-generation high-bandwidth wireless with Wi-Fi certification for 802.11n draft 2.0f

- Manageable via Cisco® Unified WLAN architecture
- Increased reliability for diversity of wireless data, voice, and video
- Backward compatibility for all devices in the branch (802.11b/g and n)
- Enhanced branch security with integrated wireless intrusion detection

For Cisco integrated services routers
Cisco Unified Wireless LAN: Extending the Cisco Wireless Router Solution

- Hands-free wireless configuration with controller
- Dynamic RF management with Cisco Wireless Control System
- 2.4-GHz 802.11n support
- Extended range and higher throughput

- Mix and match embedded access point with external access points
- H-REAP provides local traffic-switching support for branch office and teleworker solutions
Voice with Survivability

- Cisco® 880 SRST Integrated Services Router
Cisco 880 SRST Integrated Services Router

Small Branch Office Deployment

Cisco® 880—Including:

- Cisco Unified Survivable Remote Site Telephony (SRST) (4 users)
- Cisco IOS® Firewall, IPS, content filtering, and VPN

Integrated 4-port PoE switch with 2-port POE option

Options:
802.11n Wireless LAN

Central office line 1, 2, 3, 4

PSTN/WAN

Employee PC, Cisco IP Phone 7961G, and centralized voicemail

Fax

Printer

Unified communications processed at headquarters

Headquarters

Cisco Unified Communications Manager Cluster
Cisco 880 SRST Integrated Services Router

Cisco® Unified Survivable Remote Site Telephony

Cisco Unified SRST provides:

- Business resiliency through redundant, localized call processing
- Intelligent and automatic failover configuration
- Centralized IP telephony configuration and management

Unified SRST takes over voice communications at the branch
SIP Protection for Secure Unified Communications

Enhance the Integrity and Availability of Cisco Unified Communications

- SIP (RFC 3261) protocol inspection and granular access control for VoIP traffic through Cisco IOS® Firewall
  
  Prevent unauthorized calls, call hijacking, any SIP protocol exploits, and related DoS attacks
  
  Remove malformed packets before they reach Cisco® Unified Communications Manager at the head office
  
  High availability of mission-critical IP telephony calls while upholding high level of call experience

- For additional details: www.cisco.com/go/iosfw
Management

- Cisco® 880 Integrated Services Router
- Cisco 860 Integrated Services Router
Cisco Configuration Professional for Cisco IOS Routers

- New graphical tool
  Multidevice management
  Delivered on CD with every ISR
  Up to 10 devices in community
  Up to 255 communities

- Integration configuration of:
  Routing, security
  Cisco® Unified Communications Manager Express
  Cisco Unity® Express

- Smart wizards for:
  LAN, WLAN, and WAN
  Firewall, IPS, and VPN
  QoS, ACLs
  One-step security lockdown
Software Activation Model

- The new Cisco® 800 Series supports software activation, allowing for license key enablement of the enhanced feature sets offered.

- Users can upgrade from Advanced Security to the Advanced IP Services enhanced feature set by purchasing a license key.

- All default feature set licenses are preinstalled for immediate device configuration and activation. If Advanced IP is purchased as a factory upgrade, the license will be preinstalled for immediate customer activation of the features.
Software Activation Management Tool

- Cisco® License Manager is a downloadable license tool that allows users to install licenses on multiple devices in their network, up to 30,000 devices.

- Cisco License Manager offers the following functions and capabilities:
  - Discovers the network
  - Offers per-device license inventory, reporting, and status
  - Obtains and deploys licenses via secure connections
  - Offers integration into the existing license management application

GUI-based wizards to obtain and deploy licenses securely in the network.
Summary

- The new Cisco 860 and 880 Series offer small businesses greater service integration with higher performance
- New services—voice with survivability and true WAN back with 3G—improve productivity and reduce costs for small remote sites
- Cisco IOS® Software provides industry-leading data features, voice expertise, and end-to-end networking solutions
- Ease of management with graphical tools

✓ Platform breadth
✓ Reputation
✓ Investment protection
✓ More services
✓ Higher performance
Cisco 880 Series Integrated Services Routers

For small office, small business, or enterprise teleworker

- Desktop form factor
- WAN interfaces: Fast Ethernet, VDSL2*, G.SHDSL, 3G
- WAN backup: ISDN, 3G
- Four-port Fast Ethernet managed switch; two PoE
- One USB port
- AUX/console ports
- Configuration reset button
- Software: Advanced Security (default), Advanced IP Services

*Future

- Combines Internet access, security, and wireless services on a single device
- WAN/LAN technologies
  - Fast Ethernet, G.SHDSL, 3G, ISDN for primary or backup
  - VDSL2*
  - 802.11n WLAN and unified management
- Comprehensive security
  - IPsec acceleration: DMVPN, GET VPN, Easy VPN
  - Firewall, IPS, SSL-VPN
  - Content filtering (license based)
- Comprehensive Cisco IOS® routing, QoS, and network management
- Ease of management
  - Cisco® Configuration Professional
  - CiscoWorks
  - Cisco Unified Wireless LAN Management

*Future
Cisco 880 SRST Integrated Services Router

For small branch, enterprise teleworker, or remote call center agent

- Desktop form factor
- WAN interfaces: Fast Ethernet, VDSL2*, G.SHDSL
- PSTN fallback: BRI, FXO
- Voice ports: Four FXS
- Four-port Fast Ethernet managed switch with PoE
- Voice protocols: H.323, SIP, MGCP, SCCP
- Software: Advanced IP Services

- Adds voice with survivability features
  - Best-in-class integration of data and toll-quality analog/digital voice services for enterprise teleworker
- WAN/LAN technologies
  - Fast Ethernet, G.SHDSL, VDSL2*
  - 802.11n WLAN and unified management
- Comprehensive security
  - IPsec VPN acceleration: DMVPN, GET VPN, Easy VPN
  - Firewall, IPS, content filtering, SSL-VPN
- Comprehensive routing and QoS
- Ease of management
  - Cisco® Configuration Professional
  - CiscoWorks
  - Cisco Unified Wireless LAN Management

*Future
Cisco 860 Integrated Services Router

For small business

- Desktop form factor
- WAN interfaces: Fast Ethernet, VDSL2*
- Four-port Fast Ethernet managed switch
- AUX/console ports
- Configuration reset button
- Software: Advanced Security

*Future

- Combines Internet access, basic security, and wireless services in a single device
- WAN/LAN technologies
  - Fast Ethernet, VDSL2*
  - 802.11n WLAN
- Security
  - IPsec VPN acceleration
  - Firewall
- Ease of Management
  - Cisco Configuration Professional
  - CiscoWorks
## Cisco 860/880 Product Line Overview

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<th>Feature</th>
<th>860</th>
<th>880</th>
<th>880 SRST</th>
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*Future