Cisco Integrated Services Routers Generation 2

Transforming the Next Generation Branch Office Experience—Any Service, Any Branch, Anywhere

Cisco Integrated Service Routers Generation 2 Overview

Transform your branch office experience with the new Cisco® Integrated Services Routers Generation 2 (ISR G2) Family, Cisco's latest addition to the tremendously successful integrated services router portfolio. The Cisco ISR G2s are part of the Cisco Borderless Network Architecture that enables business innovation and growth across all remote sites. The next generation architecture delivers a new workspace experience by meeting the performance requirements for the next generation of WAN and network services, enabling the cost-effective delivery of high-definition collaboration at the branch office, and providing the secure transition to the next generation of cloud and virtualized network services. Designed for optimal service delivery on a single platform, the new Cisco ISR G2 routers give businesses greater power to deliver a superior customer experience, deploy services "on demand" as business needs dictate—while reducing overall operating costs.

What Problems Do Cisco ISR G2s Help Solve?

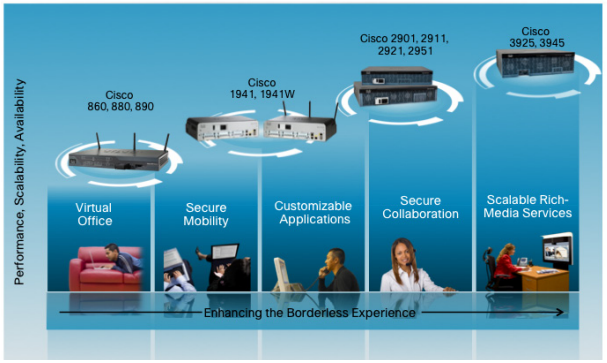
With of the number of employees growing at the branch, IT teams are challenged to securely and efficiently connect remote locations at minimal cost. While the ISR G2 addresses critical branch challenges like the first generation, it also introduces revolutionary ways to make the remote office more productive, more collaborative and more operationally efficiency. These new innovations enable branch offices to:

- Deliver next generation WAN and network service requirements
- Become more productive through increased video-based collaboration and rich media services
- Securely transition to cloud and virtualized network services
- Minimize energy consumption and costs to support corporate sustainability
- Enable small IT teams to scale services worldwide

Cisco ISR G2 Positioning

The Cisco ISR G2 provides a highly secure and reliable platform for scalable multi-service integration at enterprise and commercial branch offices of all sizes and small-to-medium businesses. The excellent service delivery on a single platform, now up to 5x greater performance, delivers the ultimate user experience with the architectural scalability and investment protection needed to minimize overall deployment costs.

Figure 1 Cisco Integrated Services Routers Generation 2 Portfolio



What's new on Cisco ISR G2?

	Cisco ISR	Cisco ISR G2
WAN Performance	Up to 45 Mbps with services	Up to 150 Mbps with services
Network Processor	Single	Multi-core with future expandability
Service Module Performance and Capacity	X with 160GB	Up to 7X with Dual Core and 1TB storage
Onboard DSPs	Voice only	Voice + Video-ready DSPs
Switch Modules	FE with PoE. Based on Catalyst 3750	FE/Gigabit Ethernet with POE+ Based on Catalyst 3560E/2950
IOS Image	Multiple images	Single Universal IOS Image
Services Delivery	Hardware-coupled	Services On-demand
Redundancy	Single motherboard	Field-upgradeable motherboard
Energy Efficiency	EnergyWise	EnergyWise with slot-based controls

Why Upgrade Your Existing Access Router to a Cisco ISR G2 Router?

The Cisco ISR G2 portfolio builds upon the market success of the first generation of integrated services routers with new enhancements that deliver greater value to your business with new enhancements for service virtualization, video-ready capabilities and operational excellence. Our exciting new innovations deliver:

- **Video-Ready Branch for a superior customer** experience with new services that transform the branch office workspace:
  - Media engines enable business-grade video applications based on high density video-ready DSPs that deliver the Medianet high definition experience
  - Bandwidth-optimized and scalable video services include media-rich video conferencing, video surveillance, video streaming and digital signage
  - High-performance (up to 5x), nonstop branch office experience to meet your future WAN and services requirements
  - TelePresence to your midsize branch offices with T1/E1 links
- **Service Virtualization to deliver high impact Business Innovation** that achieves unparalleled service
  - Cloud extensibility and services virtualization for mission-critical application survivability to remote sites
  - Broadest services offering to all branch sites, including security, unified communications, WAN optimization, application integration as well as customizable virtual services
  - Provides a revolutionary "on-demand" services delivery model enabled by the innovative Services Ready Engine (SRE)
- **Deliver Operational Excellence to provide the lowest TCO** with scalability, operational flexibility, and simplicity based on best-in-class service integration, innovative pay-as-you-grow model, and optimized energy efficiency:
  - Superior business flexibility for on-demand service delivery with minimal truck rolls
  - Increased branch office uptime with enhanced availability features
  - Greater energy efficiency with slot-based controls to decrease costs and support sustainability
  - Simplified deployment with a single Cisco IOS® Software image
  - Investment protection with support for the majority of the prior generation of ISR interfaces

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At-A-Glance

Cisco Services for the Branch Office

Services from Cisco and our certified partners can help you transform the branch office experience and accelerate business innovation and growth with Borderless Networks. We have the depth and breadth of expertise to create a clear, replicable, optimized branch office footprint across technologies that will help you:

- Increase the accuracy, speed, and efficiency of deployment
- Improve operational efficiency, save money, and mitigate risk
- Continuously improve performance

Why Cisco?

Built on 25 years of innovation and product leadership along with broad market acceptance, the new generation of access routers continues to optimize service integration to transform the branch office experience with the speed, scale, and flexibility to deliver tomorrow's services transparently at a low cost of ownership. For more information, please visit: www.cisco.com/go/isrg2.

Table 1 Cisco ISR G2 Model Comparison

	3945	3925	2951	2921	2911	2901	1941/1941W
Form Factor	3 RU	3 RU	2 RU	2 RU	2 RU	1 RU	2 RU
Integrated WAN Ports	3 GE (2 SFP)	3 GE (2 SFP)	3 GE (1 SFP)	3 GE (1 SFP)	3 GE	2 GE	2 GE
Interface Slots (EHWIC)	4	4	4	4	4	4	2
Service Module Slots	4	2	2	1	1	0	0
ISM Slots	1	1	1	1	1	1	1
PVDM Slots	4	4	3	3	2	2	0
USB Ports (v2.0)	2	2	2	2	2	2	2
Default/Max Flash	256 MB 4 GB	256 MB 4GB	256 MB 4 GB	256 MB 4 GB	256 MB 4 GB	256 MB 4 GB	256 MB 4 GB
Default/Max SDRAM	1 GB 4 GB**	1 GB 4 GB**	512 MB 4 GB**	512 MB 2.5 GB	512 MB 2.5 GB	512 MB 2.5 GB	512 MB 2.5 GB
Modular LAN Switchports (with optional POE)	98*	74 *	50*	50*	24*	16*	11*
Advanced Security	**Enabled via Security License for Universal IOS Image. IPS and Content Filtering needs additional subscription licenses**						
Stafeful Firewall	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Onboard Hardware VPN Acceleration (DES, 3DES, AES)	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Intrusion Prevention	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Content Filtering	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Unified Communication	**Enabled via Unified Communications License for Universal IOS Image. CCME/SRST support through separate feature licenses**						
Local Conferencing	Yes, use PVDM3	Yes, use PVDM3	Yes, use PVDM3	Yes, use PVDM3	Yes, use PVDM3	Yes, use PVDM3	n/a
Voice Digital Signal Processor Support	PVDM3 and PVDM2	PVDM3 and PVDM2	PVDM3 and PVDM2	PVDM3 and PVDM2	PVDM3 and PVDM2	PVDM3 and PVDM2	n/a
Survivable Site Telephony Support	Up to 1200	Up to 730	Up to 250	Up to 100	Up to 50	Up to 35	n/a
Cisco CallManager Express Support	Up to 350***	Up to 250***	Up to 150	Up to 100	Up to 50	Up to 35	n/a
Cisco Unity Express (NM, SM or ISM)	32 ports; 300 mailboxes	32 ports; 300 mailboxes	32 ports; 300 mailboxes	32 ports; 300 mailboxes	32 ports; 300 mailboxes	10 ports; 100 mailboxes	n/a
SIP Sessions	1000	800	600	400	200	100	n/a
Digital Voice Support	Up to 720	Up to 480	Up to 400	Up to 240	Up to 150	Up to 100	n/a
Maximum voice support for Analog/BRI	FXS 112 FXO 64 BRI 40	FXS 64 FXO 40 BRI 24	FXS 64 FXO 40 BRI 24	FXS 40 FXO 28 BRI 16	FXS 40 FXO 28 BRI 16	FXS 16 FXO 16 BRI 8	n/a

*LAN Switching counts for 2911 – 3945 based on latest generation of Switch Service Modules (SM)
** Up to 2GB available for use, upgrade to 4GB available in future.
*** Scales to documented phone support in 15.0.1 rebuild.

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