Cisco 1900 Series Integrated Services Routers

Cisco 1900 Series Integrated Services Routers Data Sheet

Product names.

Hierarchical Navigation

Downloads

- Cisco 1900 Series Integrated Services Routers Data Sheet

CISCO1941/K9, CISCO1941W-A/K9, CISCO1941W-E/K9, CISCO1941W-P/K9, CISCO1941W-N/K9, CISCO1941W-C/K9

Cisco® 1900 Series Integrated Services Routers build on 25 years of Cisco innovation and product leadership. The new platforms are architected to enable the next phase of branch-office evolution, providing rich media collaboration and virtualization to the branch while maximizing operational cost savings The Integrated Services Routers Generation 2 platforms are future-enabled with multi-core CPUs, Gigabit Ethernet switching with enhanced POE, and new energy monitoring and control capabilities while enhancing overall system performance. Additionally, a new Cisco IOS® Software Universal image and Services Ready Engine module enable you to decouple the deployment of hardware and software, providing a stable technology foundation which can quickly adapt to evolving network requirements. Overall, the Cisco 1900 Series offer unparalleled total cost of ownership savings and network agility through the intelligent integration of market leading security, unified communications, wireless, and application services.

Product Overview

Cisco® 1941 builds on the best-in-class offering of the existing Cisco 1841 Integrated Services Routers by offering 2 models-Cisco 1941 and Cisco 1941W. In addition to the support of a wide range of wireless and wired connectivity options supported on Cisco 1941 Series, Cisco 1941W offers integration of IEEE 802.11n access point which is backwards compatible with IEEE 802.11a/b/g access points.

All Cisco 1900 Series Integrated Services Routers offer embedded hardware encryption acceleration, optional firewall, intrusion prevention, and application services. In addition, the platforms support the industries widest range of wired and wireless connectivity options such as T1/E1, xDSL, 3G, and GE.

Figure 1. Cisco 1941 Integrated Services Router

fig01

Key Business Benefits

The Integrated Services Routers Generation 2 (ISR G2) provide superior services integration and agility. Designed for scalability, the modular architecture of these platforms enables you to grow and adapt with your business needs. Table 1 lists the business benefits of the Cisco 1900.

Table 1. Key features and benefits of the Cisco 1941 Integrated Services Router Series

Benefits	Description
Service Integration	• The Cisco 1941 Series offer increased levels of services integration with data, security, wireless and mobility services enabling greater efficiencies cost savings.
Services on Demand	• A single Cisco IOS® Software Universal image is installed on each ISR G2. The Universal image contains all of the Cisco IOS technology sets which can be activated with a software license. This allows your business to quickly deploy advanced features without downloading a new IOS image. Additionally, larger default memory is included to support the new capabilities. • The Cisco Services Ready Engine (SRE) enables a new operational model which allows you to reduce capital expenditures (CapEx) and deploy a variety of application services as needed on a single integrated compute services module.
High Performance with Integrated Services	• The Cisco 1900 Series enables deployment in high speed WAN environments with concurrent services enabled up to 25 Mbps. • Multi-Gigabit Fabric enables high bandwidth module to module communication without compromising routing performance
Network Agility	• Designed to address customer business requirements, Cisco 1941 Series with the modular architecture, offers performance range of modular interfaces and services as your network needs grow. • Modular interfaces offer increased bandwidth, a diversity of connection options, and network resiliency.
Energy Efficiency	• The Cisco 1941 Series architecture provides energy savings features that include the following: • The Cisco 1900 Series offers intelligent power management and allows the

	customer to control power to the modules based on the time of day. Cisco EnergyWise technology will be supported in the future. • Services integration and modularity on a single platform performing multiple functions, optimizes raw materials consumption and energy usage. • Platform flexibility and ongoing development of both hardware and software capabilities lead to a longer product lifecycle, lowering all aspects of the total cost of ownership, including materials and energy use. • High efficiency power supplies are provided with each platform.
Investment Protection	• The Cisco 1941 Series maximizes investment protection by supporting: • Reuse of a broad array of existing modules supported on the original Integrated Services Routers provides a lower cost of ownership • Rich set of Cisco IOS Software features carried forward from the original Integrated Services Routers and delivered in the universal image. • Flexibility to grow as your business needs evolve

Architecture & Modularity

The Cisco 1941 Series is architected to meet the application demands of today's branch offices with design flexibility for future applications. The modular architecture is designed to support expanding customer requirements, increased bandwidth, and fully integrated power distribution to modules supporting 802.3af Power over Ethernet (PoE) and Cisco Enhanced PoE (ePoE). Table 2 lists the architectural features and benefits of the Cisco 1941 Series

Table 2. Architectural Features and Benefits

Architectural Feature	**Benefits**
Modular Platform	• The Cisco 1941 Series ISR are highly modular platforms with multiple module slots to provide connectivity and services for varied branch network requirements. • The ISRs offer an industry-leading breadth of LAN and WAN connectivity options through modules to accommodate field upgrades to future technologies without requiring replacement of the platform.
Processors	• The Cisco 1941 Series is powered by high-performance multi-core processors that support growing demands of branch office networks by supporting high throughput WAN requirements.

MultiGigabit Fabric	• The Cisco 1941 introduces an innovative MultiGigabit Fabric (MGF) which allows for efficient module to module communication, enabling direct services interactions across modules while reducing the overhead on the router processor.
Embedded IPSec/SSL VPN Hardware Acceleration	• Embedded hardware encryption acceleration is enhanced to provide higher scalability, which, combined with an optional Cisco IOS Security license, enables WAN link security and VPN services (Both IPSec and SSL acceleration). • The onboard encryption hardware out-performs the Advanced Integration Modules of previous generations.
Integrated Gigabit Ethernet Ports	• All onboard WAN ports are 10/100/1000 Gigabit Ethernet WAN routed ports.
Innovative universal -serial-bus (USB)-based console access	• A new, innovative, mini-B USB console port supports management connectivity when traditional serial ports are not available. • The traditional console and auxiliary ports are also available. Either the USB-based console or the RJ-45-based console port can be used to configure the router.
Optional Integrated Power Supply for Distribution of Power Over Ethernet (PoE)	• An optional upgrade to the internal power supply provides in-line power (802.3af-compliant Power-over-Ethernet [PoE] and Cisco standard inline power) to optional integrated switch modules.
Integrated Wireless LAN	• The Cisco 1941 offers a secure integrated access point in a single device. • Integrated access point is based on the IEEE 802.11n draft 2.0 standard that uses MIMO (Multi-Input, Multiple-output) to improve coverage for existing 802.11a/ b/g clients and new 802.11n clients. • The Cisco 1941 supports dual radios-802.11 b/g/n and 802.11a/n and is capable of operating in both autonomous and unified modes.

Modularity Features and Benefits

The Cisco 1941 provides significantly enhanced modular capabilities (refer to Table 2) offering investment protection for customers. Most of the modules available on previous generations of Cisco routers, such as the Cisco 1841 ISR, are supported on the Cisco 1941. Additionally, modules used on the Cisco 1941 can easily be interchanged with other Cisco routers to provide maximum investment protection. Taking advantage of common interface cards across a network greatly reduces the complexity of managing inventory requirements,

implementing large network rollouts, and maintaining configurations across a variety of branch-office sizes.

A complete list of supported modules is available at http://www.cisco.com/go/1941.

Table 3. Modularity-Features and Benefits

Feature	Benefits
Cisco Enhanced High Speed WAN Interface Card (EHWIC) fig02	• The EHWIC slot replaces the high-speed WAN interface card (HWIC) slot and can natively support HWICs, WAN interface cards (WICs), voice interface cards (VICs), and voice/WAN interface cards (VWICs) • Two integrated EHWIC slots are available on the Cisco 1941 for flexible configurations for support of two modules: One double wide HWIC-D or single wide EHWIC/HWIC module and a second single wide E-HIC/HWIC module are supported • Each HWIC Slot offers high data throughput capability • Up to 1.6 Gbps aggregate towards the router processor • Up to 2 Gbps aggregate to other module slots over MultiGigabit Fabric (MGF)
Cisco Internal Services Module (ISM) fig03	• A single ISM Slot provides flexibility to integrate intelligent services modules that do not require interface ports. • ISM replaces the Advanced Integration Module (AIM) slot, existing AIM modules are not supported in the ISM slot • Each ISM Slot offers high data throughput capability • Up to 4 Gbps aggregate towards the router processor • Up to 2 Gbps aggregate to other module slots over MultiGigabit Fabric (MGF) • Power to ISM slots can be managed by extensions similar to the Cisco EnergyWise framework, allowing organizations to reduce energy consumption in their network infrastructure. Full EnergyWise support will be available in future software releases. Note: The Cisco 1941 cannot have ISM and WLAN on the same chassis. Please refer to ordering information for WLAN SKUs.

Compact Flash Slots	• Two external Compact Flash slots are available on the Cisco 1941. Each slot can support high-speed storage densities upgradeable to 4GB in density.
USB 2.0 Ports	• Two high-speed USB 2.0 ports are supported. The USB ports enable another mechanism secure token capabilities and storage.

Cisco IOS Software

The Cisco 1941 Series Integrated Services Routers deliver innovative technologies running on industry-leading Cisco IOS Software. Developed for wide deployment in the world's most demanding enterprise, access, and service provider networks, Cisco IOS Software Release 15 M & T provides support for a comprehensive portfolio of Cisco technologies, including new functionality and features delivered in Releases 12.4 and 12.4T, and new innovations that span multiple technology areas, including security, voice, high availability, IP Routing and Multicast, quality of service (QoS), IP Mobility, Multiprotocol Label Switching (MPLS), VPNs, and embedded management.

Cisco IOS Software Licensing and Packaging

A single Cisco IOS Universal image encompassing all functions is delivered with the platforms. You can enable advanced features by activating a software license on the Universal image. In previous generations of access routers, these feature sets required you to download a new software image. Technology packages and feature licenses, enabled through the Cisco software licensing infrastructure, simplify software delivery and decrease the operational costs of deploying new features.

Four major technology licenses are available on the Cisco 1941 Series Integrated Services Routers; you can activate the licenses through the Cisco software activation process identified at http://www.cisco.com/go/sa.

• IP Base: This technology package is available as default.

• Data

• Security (SEC) or Security with No Payload Encryption (SEC-NPE)

For additional information and details about Cisco IOS Software licensing and packaging on Cisco 1941 Series Integrated Services Routers, please visit http://www.cisco.com/go/1941.

Key Branch Office Services

The Cisco Integrated Services Routers are industry-leading routers that offer unprecedented levels of services integration. Designed to meet the requirements of the branch office, these platforms provide a complete solution with voice, security, mobility and data services. Businesses enjoy the benefit by deploying a single device that meets all their needs and save on capital and operational expenses.

Integrated Network Security for Data and Mobility

Security is essential to protect a business' intellectual property while also ensuring business continuity and providing the ability to extend the corporate workplace to employees who need anytime, anywhere access to company resources. As part of the Cisco' SAFE architectural framework that allows organizations to identify, prevent, and adapt to network security threats-the Cisco 1900 Series Integrated Services Routers facilitate secure business transactions and collaboration

The Cisco IOS Software Security technology package license for the Cisco 1900 Series offers a wide array of common security features such as advanced application inspection and control, threat protection, and encryption architectures for enabling more scalable and manageable VPN networks in one solution set. The Cisco 1941 Series offers native hardware-based encryption acceleration to provide greater IPSec throughput with less overhead for the

router processor when compared with software-based encryption solutions. Cisco Integrated Services Routers offer a comprehensive and adaptable security solution for branch-office routers that include features such as:

• **Secure connectivity:** Secure collaborative communications with Group Encrypted Transport VPN (GETVPN), Dynamic Multipoint VPN (DMVPN), or Enhanced Easy VPN.

• **Integrated threat control:** Respond to sophisticated network attacks and threats using Cisco IOS Firewall, Cisco IOS Zone-Based Firewall, IOS IPS, IOS Content Filtering and Flexible Packet Matching (FPM).

• **Identity Management:** Intelligently protecting endpoints using technologies such as authentication, authorization, and accounting (AAA) and public key infrastructure (PKI).

Detailed information on the security features and solutions supported on the Cisco 1900 Series routers can be found at http://www.cisco.com/go/routersecurity.

Wireless and Mobility Services

Wireless LAN

The Cisco Integrated Services Routers supporting the Cisco Unified Wireless Network enable deployment of secure, manageable WLANs optimized for remote sites and branch offices, including fast secure mobility, survivable authentication, and simplified management. The Cisco Unified Wireless Network addresses critical points of potential failure and helps enable resiliency and survivability for WLANs at remote locations and branch offices. This solution protects the WLAN by providing fast recovery from a variety of faults that may occur. With Cisco's high availability for remote WLANs, hardware and software work together to enable rapid recovery from disruptions and help ensure fault transparency to users and network applications

The new Cisco 1941W with IEEE 802.11n integrated access point support both unified and autonomous deployments. This integrated Wi-Fi access point offers IEEE 802.11n draft 2.0 standard support for mobile access to high-bandwidth data, voice, and video applications through the use of multiple-input, multiple-output (MIMO) technology that provides increased throughput, reliability, and predictability. IEEE 802.11n wireless networks create a cohesive working environment by combining the mobility of wireless with the performance of wired networks. Cisco has innovative, next-generation wireless solutions that offer greater performance and extended reach for pervasive wireless connectivity. IEEE 802.11n technology delivers outstanding reliability and up to nine times the throughput of current IEEE 802.11 a/b/g networks. It makes wireless networks an integral part of every type of organization by offering the following benefits:

• Data rates of up to 600 Mbps support more users, devices, and mission-critical, bandwidth-intensive applications.

• New MIMO technology provides predictable WLAN coverage and reliable connectivity.

• Next-generation wireless technology provides superior investment protection to support emerging mobile applications.

These routers help extend corporate networks to secure remote sites while giving users access to the same applications found in corporate offices for both data and voice applications. When users require WLAN access, visibility and control of network security are even more critical at the remote site. The new fixed Cisco Integrated Services Routers meet this need with a single device that combines integrated IEEE 802.11a/b/g/n capabilities with security features such as Wi-Fi Protected Access (WPA), including authentication with IEEE 802.1X with the Cisco Light Extensible Authentication Protocol (LEAP) and Protected EAP (PEAP) and encryption with the WPA Temporal Key Integrity Protocol (TKIP).

Wireless WAN

Cisco third-generation (3G) wireless WAN (WWAN) modules combine traditional enterprise router functions, such as remote management, advanced IP services such as voice over IP (VoIP), and security, with mobility capabilities of 3G WAN access. Using high-speed 3G wireless networks, routers can replace or

complement existing landline infrastructure, such as dialup, Frame Relay, and ISDN. Cisco 3G solutions support 3G standards High-Speed Packet Access (HSPA) and Evolution Data Only/Evolution Data Optimized (EVDO) providing you with a true multipath WAN backup and the ability to rapidly deploy primary WAN connectivity. For more information about 3G solutions on Cisco Integrated Services Routers, please refer to www.cisco.com/go/3g.

Integrated LAN Switching

The Cisco 1941 Integrated Services Router Series will support the EHWIC LAN modules when they become available in future. The Cisco 1941 Series support the existing single wide EtherSwitch HWIC and the double wide HWIC -D modules, which greatly expand the router's capabilities by integrating industry leading Layer 2 or Layer 3 switching.

Application Services

As organizations continue to centralize and consolidate their branch IT infrastructure in an effort to reduce cost and complexity in the branch office, they are challenged to provide adequate user experience, ensure continuous service availability, and deliver business-relevant applications when and where they are needed. To address these challenges, the Cisco 1941 Series provides the ability to host Cisco, 3rd party, and custom applications on Cisco Services Ready Engine (SRE) module that seamlessly integrate into the router. The module has its own processor, network interface, and memory that operate independently of the host router resources, helping to ensure maximum concurrent routing and application performance while reducing physical space requirements, lowering power consumption, and consolidating management.

Cisco Services Ready Engine

The Cisco Services Ready Engine solution is available in a Internal Service Module (ISM) form-factor. The Internal Service Module hardware offers up to a seven times performance improvement over the previous-generation Advanced Integration Modules and provides a x86 processor. The Cisco SRE module enables on-demand provisioning of branch-office applications on the Cisco 1900 Series platforms so that you can deploy the right application, at the right time, in the right place. The hardware and software decoupling provided by the service-ready deployment model enables applications to be provisioned on the module at the time of its installation or remotely anytime thereafter. Supported solutions include Cisco Application Extension Platform (AXP), Cisco Wireless LAN Controller (WLC), and other applications under development. The Service Ready Engine enables organizations of various sizes to future-proof their network by allowing them to quickly deploy new branch-office applications without deploying new hardware, reducing the cost of rolling out branch-office services.

Managing Your Integrated Services Routers

Network Management applications are instrumental in lowering Operating Expenditures (OPEX) while improving network availability by simplifying and automating many of the day-to-day tasks associated with managing an end-to-end network. "Day-one-device-support" provides immediate manageability support for the Integrated Services Router enabling quick and easy deployment, monitoring and troubleshooting from Cisco and third party applications.

Organizations rely on Cisco, third-party and in-house developed network management applications to achieve their Opex and productivity goals. Underpinning those applications are the embedded management features available in every ISR. The new ISRs continue a tradition of broad and deep manageability features within the devices. Features such as IPSLA, EEM, Netflow, allow you to know what's going on in your network at all times. These features along with SNMP and SYSLOG support enable your organization's management applications.

Refer to Tables 4, 5 and 6 for details on IOS, Network Management and Manageability support on Cisco 1941 Series Integrated Services Routers.

Table 4. Cisco 1941 with Cisco IOS Software Feature and Protocol High-Level Support

Protocols	IPv4, IPv6, static routes, Open Shortest Path First (OSPF), Enhanced IGRP (EIGRP), Border Gateway Protocol (BGP), BGP Router Reflector, Intermediate System-to-Intermediate System (IS-IS), Multicast Internet Group Management Protocol (IGMPv3) Protocol Independent Multicast sparse mode (PIM SM), PIM Source Specific Multicast (SSM), Distance Vector Multicast Routing Protocol (DVMRP), IPSec, Generic Routing Encapsulation (GRE), Bi-Directional Forwarding Detection (BVD), IPv4-to-IPv6 Multicast, MPLS, L2TPv3, 802.1ag, 802.3ah, L2 and L3 VPN
Encapsulations	Ethernet, 802.1q VLAN, Point-to-Point Protocol (PPP), Multilink Point-to-Point Protocol (MLPPP), Frame Relay, Multilink Frame Relay (MLFR) (FR.15 and FR.16), High-Level Data Link Control (HDLC), Serial (RS-232, RS-449, X.21, V.35, and EIA-530), Point-to-Point Protocol over Ethernet (PPPoE), and ATM
Traffic management	QoS, Class-Based Weighted Fair Queuing (CBWFQ), Weighted Random Early Detection (WRED), Hierarchical QoS, Policy-Based Routing (PBR), Performance Routing (PfR), and Network -Based Advanced Routing (NBAR)

Note: For a more comprehensive list of features supported in Cisco IOS software refer to the Feature Navigator tool at: http://www.cisco.com/go/fn.

Table 5 highlights several integrated services router management capabilities that are available within Cisco IOS Software:

Table 5. Cisco IOS Software Management Capabilities

Feature	Description of Feature Supported by Cisco Integrated Services Routers
WSMA	The Web Services Management Agent (WSMA) defines a mechanism through which you can manage a network device, retrieve configuration data information, and upload and manipulate new configuration data. WSMA uses XML-based data encoding that is transported by the Simple Object Access Protocol (SOAP) for the configuration data and protocol messages.
EEM	Cisco IOS Embedded Event Manager (EEM) is a distributed and customized approach to event detection and recovery offered directly in a Cisco IOS Software device. It offers the ability to monitor events and take informational, corrective, or any desired EEM action when the monitored events occur or when a threshold is reached.
IPSLA	

	Cisco IOS IP Service-Level Agreements (SLAs) enable you to assure new business-critical IP applications, as well as IP services that use data, voice, and video, in an IP network.
SNMP, RMON, Syslog, NetFlow, TR-069	Cisco 1900 Series Integrated Services Routers also support SNMP, Remote Monitoring (RMON), syslog, NetFlow, and TR-069 in addition to the embedded management features previously mentioned.

Cisco Network Management Applications

The applications listed in Table 6 are standalone products that you can purchase or download to manage your Cisco network devices. The applications are built for the different operational phases; you can select the ones that best fit your needs.

Table 6. Network Management Solutions

Operational Phase	Application	Description
Device staging and configuration	Cisco Configuration Professional	• Cisco Configuration Professional is a GUI device-management tool for Cisco IOS Software-based access routers. This tool simplifies routing, firewall, IPS, VPN, unified communications, and WAN and LAN configuration through GUI-based easy-to-use wizards.
Networkwide deployment, configuration, monitoring, and troubleshooting	CiscoWorks LMS	• CiscoWorks LAN Management Solution (LMS) is a suite of integrated applications for simplifying day-to-day management of a Cisco end-to-end network, lowering OpEx while increasing network availability. CiscoWorks LMS offers network managers an easy-to-use web-based interface for configuring, administering, and troubleshooting the Cisco integrated services routers, using new instrumentation such as Cisco IOS EEM. • In addition to supporting basic platform services of the integrated services

		router, CiscoWorks also provides added-value support for the Cisco Service Ready Engine, enabling the management and distribution of software images to the SRE, thereby reducing the time and complexities associated with image management.
Networkwide staging, configuration, and compliance	CiscoWorks NCM	• CiscoWorks Network Compliance Manager (NCM) tracks and regulates configuration and software changes throughout a multivendor network infrastructure. It provides superior visibility into network changes and can track compliance with a broad variety of regulatory, IT, corporate governance, and technology requirements.
Security staging, configuration, and monitoring	Cisco Security Manager	• Cisco Security Manager [[don't use acronym for legal reasons]]is a leading enterprise-class application for managing security. It delivers provisioning of firewall, VPN, and intrusion-prevention-system (IPS) services across Cisco routers, security appliances, and switch service modules. The suite also includes the Cisco Security Monitoring, Analysis and Response System (Cisco Security MARS) for monitoring and mitigation.
Configuration and provisioning	Cisco Unified Provisioning Manager	• Cisco Unified Provisioning Manager provides a reliable and scalable web-based solution for managing a company's crucial next-generation communications services. It manages unified communications services in an integrated IP telephony, voicemail,

		and messaging environment.
Staging, deployment, and changes of licenses	Cisco License Manager	• Easily manage Cisco IOS Software activation and license management for a wide range of Cisco platforms running Cisco IOS Software as well as other operating systems with the secure client-server application Cisco License Manager
Staging, deployment, and changes to configuration and image files	Cisco Configuration Engine	• Cisco Configuration Engine is a secure network management product that provides zero-touch image and configuration distribution through centralized, template-based management.

Summary and Conclusion

As businesses strive to lower the total cost of ownership in running their network and increase their overall employee productivity with more centralize and collaborative network applications, more intelligent branch office solutions are required. The Cisco 1941 Series offers these solutions by providing enhanced performance and increased modular density to support multiple services. The Cisco 1941 Series is designed to consolidate the functions of separate devices into a single, compact system that can be remotely managed.

Product Specifications

Table 7. Product Specifications of Cisco 1941 Integrated Services Router

	Cisco1941, Cisco1941W
Services and Slot Density	
Embedded hardware-based crypto acceleration (IPSec + SSL)	Yes
Total Onboard LAN 10/100/1000	2
RJ-45-Based Ports	2
SFP-Based Ports	0
SM Slots	0
Double-Wide SM Slots	0
EHWIC Slots	2
Double-Wide EHWIC slots (use of a double-wide EHWIC slot will consume two EHWIC slots)	1

ISM Slots	1 (0 on the Cisco 1941W)
Memory (DDR2 Error Correction Code [ECC] ECC DRAM) - Default	512 MB
Memory (DDR2 ECC DRAM) - Maximum	2.0 GB
Compact Flash (external) - Default	slot 0: 256 MB slot 1: none
Compact Flash (external) - Maximum	slot 0: 4 GB slot 1: 4 GB
External USB flash memory slots (Type A)	2
USB Console Port (Type B) (up to 115.2 kbps)	1
Serial Console Port (up to 115.2 kbps)	1
Serial Auxiliary Port (up to 115.2 kbps	1
Power Supply Options	AC, POE
Redundant Power Supply Support	No
Power Specifications	
AC Input Voltage	100-240 V ~
AC Input Frequency	47-63 Hz
AC Input Current range AC Power Supply (Max) (Amps)	1.5-0.6
AC Input Surge Current	<50 A
Typical Power (No Modules)	35 W
Maximum Power capacity with AC power supply	110 W
Maximum Power capacity with PoE power supply (platform only)	110 W
Maximum PoE device power capacity with PoE power supply	80 W
Physical Specifications	
Dimensions (H x W x D)	3.5 in x 13.5 in x 11.5 in
Rack Height	2 RU
Rack-mount 19in. (48.3 cm) EIA	Included

Wall-mount (refer to installation guide for approved orientation)	Yes
Weight-with AC power supply (no modules)	12 lbs
Weight-with POE power supply (no modules)	12.8 lbs
Maximum Weight-Fully Configured	14 lbs
Airflow	Front to Side
Environmental Specifications	
Operating Condition	
Temperature-5906 feet (1800 m) max. altitude	0-40°C (32-104° F)
Temperature-9843 feet (3000 m) max. altitude	0-25°C (32-77°F)
Altitude	3000 m (10000 ft)
Humidity	10 to 85% RH
Acoustic: Sound Pressure (Typ/Max)	26/46 dBA
Acoustic: Sound Power (Typ/Max)	36/55 dBA
Transporation/Storage Condition	
Temperature	-40 - 70 oC (-40 - 158 oF)
Humidity	5 to 95%RH
Altitude	4570m (15000 ft)
Regulatory Compliance	
Safety	UL 60950-1 CAN/CSA C22.2 No. 60950-1 EN 60950-1 AS/NZS 60950-1 IEC 60950-1
EMC	47 CFR, Part 15 ICES-003 Class A EN55022 Class A CISPR22 Class A AS/NZS 3548 Class A VCCI V-3 CNS 13438 EN 300-386 EN 61000 (Immunity)

	EN 55024, CISPR 24 EN50082-1
Telecom	TIA/EIA/IS-968 CS-03 ANSI T1.101 ITU-T G.823, G.824 IEEE 802.3 RTTE Directive

WLAN Specifications

Table 8. WLAN specifications of the Cisco 1941W

Feature	Description
WLAN hardware	• IEEE 802.11n draft 2.0 standards-based access point with 802.11a/ b/g compatibility • Automatic rate selection for 802.11g/n • Dual Radios for 802.11b/g/n and 802.11a/n modes. • RP-TNC connectors for field-replaceable external antennas • 2-dBi default antenna gain • 2 x 3 multiple input, multiple output (MIMO) radio operation • Wi-Fi 802.11n Draft v2.0 certified
WLAN software features	• Autonomous or unified access point • Cisco WCS support for monitoring of autonomous-mode access points • Option to maximize throughput or maximize range • Software-configurable transmit power • Radio roles, including access point, root bridge, non-root bridge, and workgroup bridge • Wi-Fi Multimedia (WMM) certification • Traffic specifications (TSPEC) Call Admission Control (CAC) to ensure voice quality is maintained • Unscheduled Automatic Power Save Delivery (UPSD) to reduce latency
Unified WLAN management	• Unified access point features: • Supported by wireless LAN controller and Cisco WCS • Configurable local or central switching for HREAP mode • Radio management through Cisco WCS • Transparent roaming with mobility groups
WLAN security features	• Standard 802.11i • Wi-Fi Protected Access (WPA) and AES (WPA2)

	• EAP authentication: Cisco LEAP, PEAP, Extensible Authentication Protocol Transport Layer Security (EAP TLS), Extensible Authentication Protocol -Flexible Authentication via Secure Tunneling (EAP-FAST), Extensible Authentication Protocol-Subscriber Information Module (EAP-SIM), Extensible Authentication Protocol-Message Digest Algorithm 5 (EAP-MD5), and Extensible Authentication Protocol-Tunneled TLS (EAP-TTLS) • Static and dynamic Wired Equivalent Privacy (WEP) • Temporal Key Integrity Protocol/Simple Security Network (TKIP/SSN) encryption • MAC authentication and filter • User database for survivable local authentication using LEAP and EAP-FAST • Configurable limit to the number of wireless clients • Configurable RADIUS accounting for wireless clients • Pre-Shared Keys (PSKs) (WPA-small office or home office [WPA-SOHO])
Certifications	wifi
Service Set Identifiers (SSIDs)	16
Wireless VLANs	16
Encrypted wireless VLANs	16
Multiple Broadcast Service Set Identifiers (MBSSIDs)	16

Supported Modules

Cisco 1941 Series support a wide range of modules that span industry leading breadth of services at the branch. Please refer to the link below for the list of modules supported on the Cisco 1900.

http://www.cisco.com/en/US/products/ps10538/products_relevant_interfaces_and_modules.html

Ordering Information

The Cisco 1941 is orderable at the Cisco Ordering Home Page.

For more information about the Cisco 1900 Series, visit http://www.cisco.com/go/1900.

Table 9 gives ordering information for the Cisco 1941 Router. For information about how to order the Cisco 1900 Series, please visit the Cisco 1900 Series Ordering Guide. To place an order, visit the Cisco Ordering Home Page and

refer to Table 9, which provides basic ordering information. For additional product numbers, including the Cisco 1900 Series bundle offerings, please check the Cisco 1900 Series Integrated Services Router Price List or contact your local Cisco account representative.

Table 9 Cisco 1941 Series Basic Ordering Information

Product Number	Product Description
Cisco 1941/K9	Cisco 1941 with 2 onboard GE, 2 EHWIC slots, 1 ISM slot, 256MB CF default, 512MB DRAM default, IP Base
Cisco1941W-A/K9	Cisco 1941 Router w/ 802.11 a/b/g/n FCC Compliant, 2 onboard GE, 2 EHWIC slots, 256MB CF default, 512MB DRAM default, IP Base
Cisco1941W-E/K9	Cisco 1941 Router w/ 802.11 a/b/g/n ETSI Compliant, 2 onboard GE, 2 EHWIC slots, 256MB CF default, 512MB DRAM default, IP Base
Cisco1941W-P/K9	Cisco 1941 Router w/ 802.11 a/b/g/n Japan Compliant, 2 onboard GE, 2 EHWIC slots, 256MB CF default, 512MB DRAM default, IP Base
Cisco1941W-N/K9	Cisco 1941 Router w/ 802.11 a/b/g/n Aus and NZ Compliant, 2 onboard GE, 2 EHWIC slots, 256MB CF default, 512MB DRAM default, IP Base
Cisco1941W-C/K9	Cisco 1941 Router w/ 802.11 a/b/g/n China Compliant, 2 onboard GE, 2 EHWIC slots, 256MB CF default, 512MB DRAM default, IP Base

To download the Cisco ISR 1941 Cisco IOS Software release go to Download Software, click "Router Software," and go to Cisco ISR 1941 Integrated Services Router.

ISR Migration Options

Cisco ISR 1900 Series Routers are included in the standard Cisco Technology Migration Program (TMP). Refer to http://www.cisco.com/go/tmp and contact your local Cisco account representative for program details.

Warranty Information

The Cisco 1900 Series Integrated Services Router have a 1 year limited liability warranty.

For More Information

For more information about the Cisco ISR 1900 Series, visit http://www.cisco.com/go/1900 or contact your local Cisco account representative.

Cisco and Partner Services for the Branch

Services from Cisco and our certified partners can help you transform the branch experience and accelerate business innovation and growth in the Borderless Network. We have the depth and breadth of expertise to create a clear, replicable, optimized branch footprint across technologies. Planning and design services align technology with business goals and can increase the accuracy, speed, and efficiency of deployment. Technical services help improve

operational efficiency, save money, and mitigate risk. Optimization services are designed to continuously improve performance and help your team succeed with new technologies. For more information, please visit http://www.cisco.com/go/services.

Cisco SMARTnet® technical support for the Cisco 1900 Series is available on a one-time or annual contract basis. Support options range from help-desk assistance to proactive, onsite consultation. All support contracts include:

• Major Cisco IOS Software updates in protocol, security, bandwidth, and feature improvements

• Full access rights to Cisco.com technical libraries for technical assistance, electronic commerce, and product information

• 24-hour access to the industry's largest dedicated technical support staff

For More Information

For more information about the Cisco 1900 Series, visit http://www.cisco.com/go/1900 or contact your local Cisco account representative.

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