

Cisco 900 Series Integrated Services Routers Data Sheet



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Contact Us

Tel: +1-626-239-8066 (USA) / +852-3050-1066 / +852-3174-6166

Fax: +852-3050-1066 (Hong Kong)

Email: cisco@router-switch.com (Sales Inquiries)

ccie-support@router-switch.com (CCIE Technical Support)

OVERVIEW

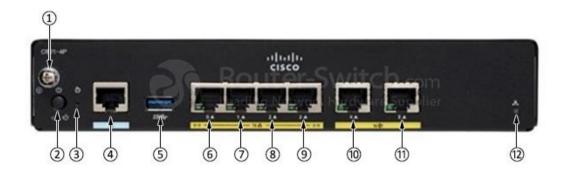
<u>Cisco® 900 Series Integrated Services Routers</u> (ISRs) combine Internet access, comprehensive security, and wireless services in a single high-performance device that is easy to deploy and manage. They are well suited for deployment as Customer Premises Equipment (CPE) in enterprise small branch offices and in service provider managed-service environments.

The Cisco 900 Series ISRs deliver integrated security and threat defense, protecting networks from both known and new Internet vulnerabilities and attacks. These powerful, fixed-configuration routers provide secure broadband and Metro Ethernet connectivity. Service providers offering managed Ethernet WAN services can deploy them in customer locations as CPE. Centralized and remote management capabilities are available through web-based tools and Cisco IOS® Software for full visibility and control of network configurations at the remote site.

The 900 Series ISRs simplify the deployment of Ethernet WAN services, with end-to-end Operations, Administration, and Maintenance (OA&M), Service-Level Agreement (SLA) monitoring and verification, and configuration management.

The Cisco 900 Series ISRs come with a 4-port managed switch, providing LAN ports to connect multiple devices. Figures 1 and 2 show the C921-4P and its ports description.

Figure 1. C921-4P Front Panel.



Note:

1	#6-32 Ground screw	7	GE LAN port
2	Power button	8	GE LAN port
3	Reset button	9	GE LAN port
4	Console Port	10	GE WAN port
(5)	USB2.0 port	11)	GE WAN port
6	GE LAN port	12	VPN LED

Figure 2. C921-4P Rear Panel.



Note: ① Power Connector

FEATURES AND BENEFITS

Table 1. How the Cisco 900 Series ISRs address edge networking challenges

Business need	Features and descriptions
High availability and business continuity	 Redundant WAN connections for failover protection and load balancing Dynamic failover protocols such as Virtual Router Redundancy Protocol (VRRP, RFC 2338), Hot Standby Router Protocol (HSRP), and Multigroup HSRP (MHSRP)
Consistent, high application performance levels	 Can run multiple services simultaneously with no performance degradation High-performance Intel® x86 2.2-GHz CPU
Risk mitigation with multilevel security	 Network perimeter security with integrated application inspection firewall Data privacy through high-speed IP Security (IPsec) Triple Data Encryption Standard (3DES) and Advanced Encryption Standard (AES) encryption Enforced security policy with intrusion prevention Security hardware acceleration FlexVPN Next-generation encryption for secure network communications systems, reliable for the next decade
Feature consolidation for real estate, Capital Expenditures (CapEx), and management savings	Supports LAN connections
Unified control of wired and wireless networks from a common console for streamlined operations	• Simplifies and centralizes configuration and management of wireless and wireline devices
Remote configuration and management to keep local IT staff lean	Supports separate console ports

PLATFORM SUPPORT

Table 2. Platform support

Model	WAN interfaces	LAN interfaces	Integrated USB 2.0
<u>C921-4P</u>	2 ports Gigabit Ethernet (GE)	4-port GE managed switch	Yes
C931-4P	2 ports GE	4-port GE managed switch	Yes
<u>C927-4P</u>	1 port GE and 1 VADSL (Annex A)	4-port GE managed switch	Yes
<u>C926-4P</u>	1 port GE and 1 VADSL (Annex B/J)	4-port GE managed switch	Yes
<u>C927-4PM</u>	1 port GE and 1 VADSL (Annex M)	4-port GE managed switch	Yes

SPECIFICATION

Table 3. Cisco IOS Software features and system specifications

Feature	Specification
Cisco IOS Software	
IP and IP services	 Routing Information Protocol Versions 1 and 2 (RIPv1 and RIPv2)
	Generic Routing Encapsulation (GRE) and Multipoint GRE (MGRE)
	Cisco Express Forwarding
	Standard 802.1d Spanning Tree Protocol
	Layer 2 Tunneling Protocol (L2TP)
	• L2TP Version 3 (L2TPv3)
	Network Address Translation (NAT)
	 Dynamic Host Configuration Protocol (DHCP) server, relay, and client
	Dynamic DNS
	• DNS Proxy
	DNS Spoofing
	• Access Control Lists (ACLs)
	IPv4 and IPv6 multicast
	Open Shortest Path First (OSPF)
	Border Gateway Protocol (BGP)
	Performance Routing (PfR)
	Enhanced Interior Gateway Routing Protocol (EIGRP)
	Virtual Route Forwarding (VRF) Lite
	Next Hop Resolution Protocol (NHRP)
	Bidirectional Forwarding Detection (BFD)
	Web Cache Communication Protocol (WCCP)
xDSL	• True Multimode VDSL2 and ADSL2+ over Annex A, B, J, and M, including traditional G.DMT
	and T1.413
	• World-class interoperability with industry-standard DSL Access Multiplexer (DSLAM) chipsets
	• Highest field reliability with Impulse Noise Protection (INP) over Repetitive Electrical Impulse
	Noise (REIN) and single isolated impulse noise (SHINE), extended INP delay, G.INP, physical layer
	retransmission, Seamless Rate Adaptation (SRA), and Bitswap
	• VDSL2 Persistent Storage Device (PSD) profiles up to 17a/b with support for spectral shaping
	 VDSL2 vectoring to offer blazing fiber speeds over copper

	Remote management with TR069 and CWMP
	Investment protection with Gigabit Ethernet
Switch features	Auto Media Device In/Media Device Cross Over (MDI-MDX)
	• 25 802.1Q VLANs
	MAC filtering
	Switched Port Analyzer (SPAN)
	Storm control
	Smart ports
	Secure MAC address
	 Internet Group Management Protocol Version 3 (IGMPv3) snooping
	• 802.1X
Security features	Secure connectivity:
	Secure Sockets Layer (SSL) VPN for secure remote access
	Hardware-accelerated DES, 3DES, AES 128, AES 192, and AES 256
	Public-Key-Infrastructure (PKI) support
	• 50 IPsec tunnels
	Cisco Easy VPN client and server
	NAT transparency
	Dynamic Multipoint VPN (DMVPN)
	Tunnel-less Group Encrypted Transport VPN (GET VPN)
	VRF-aware IPsec
	IPsec over IPv6
	Adaptive control technology
	Session Initiation Protocol (SIP) application-layer gateway
	Cisco IOS Firewall:
	Zone-based policy firewall
	VRF-aware stateful inspection routing firewall
	Stateful inspection transparent firewall
	Advanced application inspection and control
	HTTPS, FTP, and Telnet Authentication Proxy
	Dynamic and static port security
	Firewall stateful failover
	VRF-aware firewall
	Cisco IOS Software black and white lists
	Integrated threat control:
	Intrusion Prevention System (IPS)
	Control plane policing
	Flexible packet matching
	Network foundation protection
Quality of Service	Low-Latency Queuing (LLQ)
(QoS)	Weighted Fair Queuing (WFQ)
	Class-Based WFQ (CBWFQ)
	Class-Based Traffic Shaping (CBTS)

	Class-Based Traffic Policing (CBTP)
	Policy-Based Routing (PBR)
	Class-Based QoS MIB
	 Class of Service (CoS)-to-Differentiated Services Code Point (DSCP) mapping
	Class-Based Weighted Random Early Detection (CBWRED)
	Network-Based Application Recognition (NBAR)
	Link Fragmentation and Interleaving (LFI)
	Resource Reservation Protocol (RSVP) Deal Time Transport Protocol (RTP) beader compression (cRTP)
	Real-Time Transport Protocol (RTP) header compression (cRTP) Differentiated Considers (Different)
	Differentiated Services (DiffServ)
	QoS preclassify and prefragmentation
	Hierarchical QoS (HQoS)
Management	Cisco Configuration Professional
	Cisco Configuration Express
	Cisco Configuration Engine support
	Cisco AutoInstall
	Cisco IP Service-Level Agreement (IP SLA)
	Cisco IOS Embedded Event Manager (EEM)
	CiscoWorks
	Cisco Security Manager
	• Telnet, Simple Network Management Protocol Version 3 (SNMPv3), Secure Shell (SSH)
	Protocol, Command-Line Interface (CLI), and HTTP management
	RADIUS and TACACS+
	Cisco Next Generation Plug-and-Play (NG PnP) Protocol
High availability	Virtual Router Redundancy Protocol (VRRP) (RFC 2338)
	• HSRP
	• MHSRP
Metro Ethernet	Ethernet OA&M
	Ethernet Local Management Interface (E-LMI)
	IP SLA for Ethernet
IPv6	IPv6 addressing architecture
	IPv6 name resolution
	IPv6 statistics
	• IPv6 translation: Transport packets between IPv6-only and IPv4-only endpoints (NAT-Protocol
	Translation)
	 Internet Control Message Protocol Version 6 (ICMPv6)
	 IPv6 DHCP OSPFv3 BGP4+ IPv6 Path Maximum Transmission Unit (PMTU) IPv6 neighbor discovery IPv6 stateless address autoconfiguration (SLAAC) IPv6 multicast routing

Application visibility	NBAR2	
and control	Flexible NetFlow (FNF)	
	Performance Agent	
Number of	• 50	
recommended users		
Default and maximum	Default 1 GB	
DRAM		
Default and maximum	• 2 GB on all Cisco 900 Series ISR models; not upgradable	
flash memory		
WAN	Refer to Table 2 for details	
LAN switch	Refer to Table 2 for details	
Separate console ports	• RJ-45	
USB 2.0	One USB 2.0 Type A port	
Physical dimensions	Weight: 2.65 lb (1.20 kg) maximum	
and weight	Dimensions:	
	• C921-4P and C931-4P	
	 H x W x D = 1.70 x 9.0 x 9.5 in. (4.32 x 22.86 x 24.13 cm) (includes rubber feet) 	
	• C927-4P, C927-4PM, and C926-4P	
	 H x W x D = 1.10 x 10.20 x 7.00 in. (2.80 x 25.91 x 17.78 cm) (includes rubber feet) 	
Power supply	Power specifications:	
	AC input voltage: Universal 100 to 240 VAC	
	Frequency: 50 to 60 Hz	
	Internal power supply (C921-4P and C931-4P only)	
	• External power adapter (C927-4P, C927-4PM, and C926-4P only): 12 VDC; 30 W	
Approvals and	Safety:	
compliance	• IEC 60950-1	
	• UL 60950-1	
	• CAN/CSA C22.2 No. 60950-1	
	• EN 60950-1	
	• AS/NZS 60950.1	
	Class I Equipment (C921-4P and C931-4P only)	
	• Class III Equipment (C927-4P, C927-4PM, and C926-4P only)	
	Emissions:	
	• 47 CFR Part 15: 2006	
	CISPR22: Edition 6.0: 2008	
	。 CNS13438: 2006	
	EN 300 386 V1.6.1	
	• EN 55032	
	EN61000-3-2: 2006 [+ amd 1 & 2]	
	• EN61000-3-3: 2008	
	o ICES-003 Issue 5: 2012	
	。 KN 22: 2009	
	• TCVN 7189: 2009	

	• VCCI: V-3/2012.04	
	Immunity:	
	• CISPR24: 2010 [+ amd 1 & 2]	
	。 EN300386: V1.6.1	
	。 EN55024: 2010	
	。 EN61000-6-1: 2007	
	。 KN24: 2011	
	• TCVN 7317:2003	
Environmental	Nonoperating temperature: -40° to 158°F (-40° to 70°C)	
operating range	 Nonoperating humidity: 5% to 95% relative humidity (noncondensing) 	
	Nonoperating altitude: 0 to 15,000 ft (0 to 4570 m)	
	Operating temperature:	
	 C921-4P and C931-4P: 0° to 50°C (de-rate 1°C per 1000-ft increase in altitude) 	
	 C927-4P, C926-4P, and C927-4PM: 0° to 45°C (de-rate 1°C per 1000-ft increase in altitude) 	
	Operating humidity: 5% to 95% relative humidity (noncondensing)	
	Operating altitude: 0 to 10,000 ft (0 to 3000 m)	

ORDERING INFORMATION

Table 4. Ordering Information.

Part number	Product description	
Integrated services routers		
<u>C921-4P</u>	Cisco 921 Gigabit Ethernet security router with internal power supply	
<u>C931-4P</u>	Cisco 931 Gigabit Ethernet security router with internal power supply	
C927-4P	Cisco 927 Gigabit Ethernet security router with VDSL/ADSL2+ Annex A	
<u>C927-4PM</u>	Cisco 927 Gigabit Ethernet security router with VDSL/ADSL2+ Annex M	
C926-4P	Cisco 926 Gigabit Ethernet security router with VDSL/ADSL2+ Annex B/J	
• Cisco C921-4P and C93	1-4P are supported only on Cisco IOS Software Release 15.8(3)Mb and later	
• Cisco C927-4P, C927-4F	PM, and C926-4P are supported only on Cisco IOS Software Release 15.8(3)M1 and later	
Mount kits		
ACS-900-RM-19	Rack-mount kit for 900 Series ISRs	
ACS-900-DM	Under-the-desk mount kit for all 900 Series ISRs	
Licenses		
SL-900-IPB	IP Base (default); Routing protocols, ACL, NAT, QoS, BFD, VRF Lite, IP SLA Responder	
SL-900-APP(=)	Application Experience (APP);	
	IP Base + advanced networking protocols: L2TPv3, MPLS	
	Application Experience: PfRv3, NBAR2, AVC, IP SLA Initiator	
	Hybrid Cloud Connectivity: LISP, Virtual Private LAN Services (VPLS), Ethernet over MPLS	
SL-900-SEC(=)	Security (SEC); IP Base + Advanced Security: Zone-based firewall, IPsec VPN, DMVPN,	
SL-900-SECNPE(=)	FlexVPN, GET VPN, SSL VPN	
	Provides up to 250-Mbps IPsec performance	
Router software images		
SISR900UK9-1583MB(=)	C900-universalk9-mz: Universal image for C921-4P, C931-4P, C927-4P, C927-4PM, C926-4P	

SISR900NPEUK9-1583MB(=)

Cisco 900 ISR Universal image and non-payload encryption image

WHERE TO BUY

Want to buy this series of products? please contact:

• Tel: +1-626-239-8066 (USA) +852-3050-1066 / +852-3174-6166

• Fax: +852-3050-1066 (Hong Kong)

• Email: cisco@router-switch.com (Sales Inquiries)

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SOURCES

https://www.cisco.com/c/en/us/products/collateral/routers/900-series-integrated-services-routers-isr/datasheet-c78-741615.html