



Cisco Integrated Services Routers Generation 2

Ordering Guide

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1. Cisco Integrated Services Routers Generation 2

Cisco® 3900, 2900, and 1900 Series Integrated Services Routers (ISRs) build on 25 years of innovation and product leadership. Cisco Integrated Services Routers Generation 2 (ISR G2) are architected to enable the next wave of branch-office evolution, enabling richer media experiences with video, and local compute resources for local application flexibility and survivability. Adding to the rich breadth of services available on the original ISRs - security, unified communications, wireless, and application optimization services - the ISR G2 routers enhance the reduction in overall branch-office expenses with the introduction of flexible services “on demand” through software licensing and simplified Cisco IOS® Software packaging.

The ISR G2 portfolio consists of three product families similar to the first generation of ISRs: the Cisco 3900, 2900, and 1900 Series Integrated Services Routers. From the Cisco 1921 through the Cisco 3945E, the portfolio provides increasing performance, module slot density, and features to match the needs of diverse branch offices running varying degrees of rich services.

You can order the platforms as base systems or bundled systems for security, unified communications, or application services. This ordering guide focuses on base system configurations and options, but most of the elements are applicable to bundle ordering as well. For a detailed list of advanced technology bundles on the Cisco ISR G2 routers, please refer to section 4 of this ordering guide.

1.1 Ordering the Cisco 3900 Series Integrated Services Routers

The Cisco 3900 Series Integrated Services Routers offer the highest performance and services density among the ISR portfolio. The series comprises the Cisco 3945E, Cisco 3925E, Cisco 3945, and Cisco 3925 routers, which differ primarily in performance capabilities and service-module slot count.

The Cisco 3900 Series ISRs offer a field-replaceable Cisco Services Performance Engine (SPE), which hosts the system route processor, enhanced high-speed WAN interface card (EHWIC) slots, and onboard Ethernet and digital-signal-processor (DSP) slots - an option available uniquely on the Cisco 3900 Series. The SPE is a modular motherboard that can be upgraded with higher-performance engines developed in the future. The Cisco 3945E ships with the Cisco SPE250, the Cisco 3925E ships with the SPE200, the Cisco 3945 ships with the SPE150, and the Cisco 3925 ships with the SPE100. When ordering SPE spares or upgrading, it is important to note that the SPE250 and SPE150 are supported only on Cisco 3945 platforms, whereas the SPE200 and SPE100 are supported on the Cisco 3925 platforms. Table 1 lists the part numbers for the Cisco 3900 Series platforms and SPEs.

Table 1. Cisco 3900 Series Platforms and Services Performance Engines

Ordering SKU	Description	Technical Service SKU (Cisco SMARTnet 8x5xNBD)
CISCO3945E/K9	Cisco 3945E w/SPE250(4GE,3EHWIC,3DSP,4SM,256MBCF,1GBDRAM,IPB)	CON-SNT-3945E
CISCO3925E/K9	Cisco 3925E w/SPE200(4GE,3EHWIC,3DSP,2SM,256MBCF,1GBDRAM,IPB)	CON-SNT-3925E
CISCO3945/K9	Cisco 3945 w/SPE150(3GE,4EHWIC,4DSP,4SM,256MBCF,1GBDRAM,IPB)	CON-SNT-3945
CISCO3925/K9	Cisco 3925 w/SPE100(3GE,4EHWIC,4DSP,2SM,256MBCF,1GBDRAM,IPB)	CON-SNT-3925
C3900-SPE250/K9=	Cisco Services Performance Engine 250 for Cisco 3945E ISR (Spare)	Not Applicable
C3900-SPE200/K9=	Cisco Services Performance Engine 200 for Cisco 3925E ISR (Spare)	Not Applicable
C3900-SPE150/K9=	Cisco Services Performance Engine 150 for Cisco 3945 ISR (Spare)	Not Applicable
C3900-SPE100/K9=	Cisco Services Performance Engine 100 for Cisco 3925 ISR (Spare)	Not Applicable

You can order each Cisco 3900 Series platform with dual power supplies that you can configure for power-supply redundancy or increased power for Power over Ethernet (PoE). The primary and secondary power supplies can be AC, PoE, DC, or any combination thereof. In order to power PoE ports on a switch module integrated into a router, you must order the router with a PoE power supply.

You can order the power supplies listed in Table 2 with the system or as spares. The PoE power supply on the Cisco 3900 Series ISRs requires a C15 rated power cable to accommodate the higher current rating of these power supplies.

Table 2. Cisco 3900 Series Router Power Supply Options (Offered with the System and as Spares)

Ordering SKU	Description
PWR-3900-AC	Cisco 3925-3945E AC Power Supply (Both system and spare). Spare SKU should be ordered for a Secondary PS of a system already deployed
PWR-3900-AC/2	Cisco 3925-3945E AC Power Supply (Secondary PS) - only as system
PWR-3900-POE	Cisco 3925-3945E AC Power Supply with Power Over Ethernet (Both system and spare)
PWR-3900-POE/2	Cisco 3925-3945E AC Power Supply with Power Over Ethernet (Secondary PS) - only as system
PWR-3900-DC*	Cisco 3925-3945E DC Power Supply (Both system and spare)
PWR-3900-DC/2*	Cisco 3925-3945E DC Power Supply (Secondary PS) - only as system
CAB-C15-ACx	AC Power Cord (country specific SKU), C15, (country-specific plug), (length)

* The DC versions of power supply will be available in 1H'CY10.

The Cisco 3945E, 3925E, 3945, and 3925 ship with a default memory of 1-GB DRAM and 256-MB Compact Flash. The 1-GB DRAM configuration is derived by the installation of 2 symmetrical dual in-line memory modules (DIMMs) of 512 MB in each of the memory slots on the SPE of the Cisco 3900 Series platforms. When upgrading memory to higher densities, both memory slots must be populated with DIMMs of symmetrical type and density for high system performance. The Cisco 3900 Series does not support the use of different DRAM densities in the two available DIMM slots or the use of only one slot. The memory type and part numbers are shared among all Cisco 3900 Series platforms, as listed in Table 3.

Table 3. Cisco 3900 Series Routers DRAM (Factory Upgrades and Spares)

Ordering SKU	Description
MEM-3900-1GU4GB	1GB to 4GB DRAM Upgrade (2GB+2GB) for Cisco 3925/3945 ISR
MEM-3900-1GB-DEF	1GB DRAM (512MB+512MB) for Cisco 3925-3945E ISR (Default)
MEM-3900-1GU2GB	1GB to 2GB DRAM Upgrade (1GB+1GB) for Cisco 3925-3945E ISR
MEM-3900-512MB=	512MB DRAM for Cisco 3925-3945E ISR (only as spare)
MEM-3900-1GB=	1GB DRAM for Cisco 3925-3945E ISR (only as spare)

The Compact Flash part numbers in Table 4 are shared across all the routers in the Cisco ISR G2 portfolio. Compact Flash slot 0 is populated with a 256-MB Compact Flash by default from the factory. There is an additional Compact Flash slot 1 that you can optionally configure and order with another Compact Flash of desired density.

Table 4. Cisco 3900 Series Routers Compact Flash (Factory Upgrades and Spares)

Ordering SKU	Description
MEM-CF-256U4GB	256MB to 4GB Compact Flash Upgrade for Cisco 1900, 2900, 3900 ISR
MEM-CF-256U2GB	256MB to 2GB Compact Flash Upgrade for Cisco 1900, 2900, 3900 ISR
MEM-CF-256U1GB	256MB to 1GB Compact Flash Upgrade for Cisco 1900, 2900, 3900 ISR
MEM-CF-256U512MB	256MB to 512MB CF Upgrade for Cisco 1900, 2900, 3900 ISR
MEM-CF-256MB	256MB Compact Flash for Cisco 1900, 2900, 3900 ISR (Default)
MEM-CF-4GB=	4GB Compact Flash (Spare) for Cisco 1900, 2900, 3900 ISR (only as spare)
MEM-CF-2GB=	2GB Compact Flash (Spare) for Cisco 1900, 2900, 3900 ISR (only as spare)
MEM-CF-1GB=	1GB Compact Flash (Spare) for Cisco 1900, 2900, 3900 ISR (only as spare)
MEM-CF-512MB=	512MB Compact Flash (Spare) for Cisco 1900, 2900, 3900 ISR (only as spare)
MEM-CF-256MB=	256MB Compact Flash (Spare) for Cisco 1900, 2900, 3900 ISR (only as spare)

The Cisco 3900 Series routers ship with a default fan assembly that drives “business-to-bezel” airflow in the router chassis. An alternate, optional fan assembly provides a “bezel-to-business” airflow and includes an air filter appropriate for dusty operation environments or Network Equipment Building System (NEBS) installations. You can configure either fan assembly with the system or order them as spares if needed. You can also order spare air filters to allow for periodic maintenance and replacement. Additionally, the cover for the redundant power supply (RPS) on the Cisco 3900 Series is orderable as a spare. Table 5 lists the part numbers for Cisco 3900 Series fan-related products.

Table 5. Cisco 3900 Series Routers Fan-Related Products

Ordering SKU	Description
3900-FANASSY	Cisco 3925-3945E Fan Assembly (Both system & spare)
3900-FANASSY-NEBS	Cisco 3925/3945 Fan Assembly for NEBS w/3900-FANFLTR-NEBS & Bezel (Both system & spare)
RPS-COVER-3900=	Cover for empty 2nd Power Supply slot on Cisco 3925 - 3945E(only as spare)

1.2 Ordering the Cisco 2900 Series Integrated Services Routers

The Cisco 2900 Series Integrated Service Routers comprise four platforms: the Cisco 2901, Cisco 2911, Cisco 2921, and Cisco 2951 ISRs with part numbers shown in Table 6.

Table 6. Cisco 2900 Series Integrated Services Routers

Ordering SKU	Description	Technical Service SKU (SMARTnet 8x5XNBD)
CISCO2951/K9	Cisco 2951 w/3 GE,4 EHWIC,3 DSP,2 SM,256MB CF,512MB DRAM,IPB	CON-SNT-2951
CISCO2921/K9	Cisco 2921 w/3 GE,4 EHWIC,3 DSP,1 SM,256MB CF,512MB DRAM,IPB	CON-SNT-2921
CISCO2911/K9	Cisco 2911 w/3 GE,4 EHWIC,2 DSP,1 SM,256MB CF,512MB DRAM,IPB	CON-SNT-2911
CISCO2901/K9	Cisco 2901 w/2 GE,4 EHWIC,2 DSP,256MB CF,512MB DRAM,IPB	CON-SNT-2901

You can order Cisco 2911, 2921, and 2951 with a power supply that is AC, PoE, or DC. During product configuration you must select the type of power supply and the power-supply cable you need for use in a particular country. These platforms also offer power redundancy with the use of an external RPS device (Cisco RPS 2300). A RPS adapter is needed in order to connect a Cisco 2911, 2921, or 2951 to the external RPS device. You can order the Cisco 2901 with an AC or PoE power supply. The Cisco 2901 does not offer a DC version of power supply and it does not support an external RPS.

You can order the power supply and RPS adapter part numbers in Table 7 with the router or as spares. In order to power ports on a switch module plugged into a router, it is important to order the router with PoE power supply. Note that the Cisco 2921 and Cisco 2951 have the same part numbers.

Table 7. Cisco 2900 Series Router Power Supply and RPS Adapter Options (Factory Options and Spares)

Ordering SKU	Description
PWR-2921-51-AC	Cisco 2921/2951 AC Power Supply (Both system & spare)
PWR-2911-AC	Cisco 2911 AC Power Supply (Both system & spare)
PWR-2901-AC	Cisco 2901 AC Power Supply (Both system & spare)
PWR-2921-51-POE	Cisco 2921/2951 AC Power Supply with Power Over Ethernet (Both system & spare)
PWR-2911-POE	Cisco 2911 AC Power Supply with Power Over Ethernet (Both system & spare)
PWR-2901-POE	Cisco 2901 AC Power Supply with Power Over Ethernet (Both system & spare)
PWR-2921-51-DC**	Cisco 2921/2951 DC Power Supply (Both system & spare)
PWR-2911-DC*	Cisco 2911 DC Power Supply (Both system & spare)

Ordering SKU	Description
RPS-ADPTR-2921-51	Cisco 2921/2951 RPS Adapter for use with External RPS (Both system & spare)
RPS-ADPTR-2911	Cisco 2911 RPS Adapter for use with External RPS (Both system & spare)

* The DC versions of power supply for the Cisco 2911 will be available in 1H'CY10

** The DC versions of power supply for the Cisco 2951 and 2921 will be available in CY10

All the Cisco 2900 Series base platforms ship with a default memory of 512-MB DRAM and 256-MB Compact Flash. The default Cisco 2951 has a unique memory configuration, whereby a 512-MB DIMM is installed in one of the two memory slots on the router. Memory upgrades on the Cisco 2951 can involve an increase in the density of that single DIMM or a combination of DIMMs with both slots populated. The Cisco 2951 allows the use of asymmetric densities of DRAM in both slots. On the Cisco 2921, 2911, and 2901, the default DRAM of 512 MB is soldered onto the motherboard. Hence, memory upgrades will populate the remaining memory slot in densities of 512 MB, 1 GB, and 2 GB. DRAM part numbers are shared across the Cisco 2921, 2911, and 2901, and you cannot use them on a Cisco 2951. Likewise, you cannot use the Cisco 2951 DRAM memory on other Cisco 2900 Series platforms. Table 8 gives DRAM information about the Cisco 2900 Series routers.

Table 8. Cisco 2900 Series Routers DRAM (Factory Upgrades and Spares)

Ordering SKU	Description
MEM-3900-1GU4GB	1GB to 4GB DRAM Upgrade (2GB+2GB) for Cisco 3925/3945 ISR
MEM-2951-512MB-DEF	512MB DRAM (1 512MB DIMM) for Cisco 2951 ISR (Default)
MEM-2951-512U2GB	512MB to 2GB DRAM Upgrade (1 2GB DIMM) for Cisco 2951 ISR
MEM-2951-512U1.5GB	512MB to 1.5GB DRAM Upgrade (1GB+512MB) for Cisco 2951 ISR
MEM-2951-512U1GB	512MB to 1GB DRAM Upgrade (1 1GB DIMM) for Cisco 2951 ISR
MEM-2951-2GB=	2GB DRAM for Cisco 2951 ISR (only as spare)
MEM-2951-1GB=	1GB DRAM for Cisco 2951 ISR (only as spare)
MEM-2951-512MB=	512MB DRAM for Cisco 2951 ISR (only as spare)
MEM-2900-512MB-DEF	512MB DRAM for Cisco 2901-2921 ISR (Default)
MEM-2900-512U2.5GB	512MB to 2.5GB DRAM Upgrade (2GB+512MB) for Cisco 2901-2921
MEM-2900-512U1.5GB	512MB to 1.5GB DRAM Upgrade (1GB+512MB) for Cisco 2901-2921
MEM-2900-512U1GB	512MB to 1GB DRAM Upgrade (512MB+512MB) for Cisco 2901-2921
MEM-2900-2GB=	2GB DRAM for Cisco 2901, 2911, 2921 ISR (only as spare)
MEM-2900-1GB=	1 GB DRAM for Cisco 2901, 2911, 2921 ISR (only as spare)
MEM-2900-512MB=	512MB DRAM for Cisco 2901, 2911, 2921 ISR (only as spare)

The Compact Flash part numbers in Table 9 are shared across all the platforms in the Cisco ISR G2 portfolio. Compact Flash slot 0 is populated with a 256-MB Compact Flash by default from the factory. You can optionally configure and order an additional Compact Flash slot 1 with another Compact Flash of desired density.

Table 9. Cisco 2900 Series Routers Compact Flash (Factory Upgrades and Spares)

Ordering SKU	Description
MEM-CF-256U4GB	256MB to 4GB Compact Flash Upgrade for Cisco 1900, 2900, 3900 ISR
MEM-CF-256U2GB	256MB to 2GB Compact Flash Upgrade for Cisco 1900, 2900, 3900 ISR
MEM-CF-256U1GB	256MB to 1GB Compact Flash Upgrade for Cisco 1900, 2900, 3900 ISR
MEM-CF-256U512MB	256MB to 512MB CF Upgrade for Cisco 1900, 2900, 3900 ISR
MEM-CF-256MB	256MB Compact Flash for Cisco 1900, 2900, 3900 ISR (Default)
MEM-CF-4GB=	4GB Compact Flash (Spare) for Cisco 1900, 2900, 3900 ISR (only as spare)
MEM-CF-2GB=	2GB Compact Flash (Spare) for Cisco 1900, 2900, 3900 ISR (only as spare)
MEM-CF-1GB=	1GB Compact Flash (Spare) for Cisco 1900, 2900, 3900 ISR (only as spare)

Ordering SKU	Description
MEM-CF-512MB=	512MB Compact Flash (Spare) for Cisco 1900, 2900, 3900 ISR (only as spare)
MEM-CF-256MB=	256MB Compact Flash (Spare) for Cisco 1900, 2900, 3900 ISR (only as spare)

You can order the fan assemblies on all the Cisco 2900 Series as spares if needed. An air filter is offered on the Cisco 2911 for dusty environments or NEBS deployments. You can order the filters along with the system or as spares for periodic maintenance and replacement. You can order the cover for the RPS slot on the Cisco 2951, 2921, and 2911 as spares. The same fan assembly is shared between the Cisco 2951 and 2921. Similarly, a fan blower assembly is shared between the Cisco 2901 and 1941 routers. Table 10 lists the fan-related products for the Cisco 2900 Series routers.

Table 10. Cisco 2900 Series Routers Fan-Related Products

Ordering SKU	Description
2921-51-FANASSY=	Cisco 2921/2951 Fan Assembly and Bezel (only as spare)
2911-FANASSY=	Cisco 2911 Fan Assembly (no Bezel included) (only as spare)
2911-FANFLTR-NEBS	Cisco 2911 Fan Filter for NEBS environment (Both system & spare)
2911-AIRCVTR-NEBS=	Cisco 2911 Front-to-Back Air Flow Converter for NEBS use (only as spare)
1941-2901-FANBLWR=	Cisco 1941/2901 Fan Blower Assembly (only as spare)
RPS-COVER-2921-51=	Cover for empty RPS Adapter slot on Cisco 2921/2951 (only as spare)
RPS-COVER-2911=	Cover for empty RPS Adapter slot on Cisco 2911 (only as spare)

1.3 Ordering the Cisco 1900 Series Integrated Services Routers

The Cisco 1900 Integrated Services Routers have primarily two series, the Cisco 1941 and Cisco 1921. With five times the performance of the Cisco 1841, the Cisco 1941 is positioned for high-performance security, Metro Ethernet, high-density switching, and integrated wireless solutions. The Cisco 1921 Series, with three times the performance of the Cisco 1841, is targeted at the broad range of broadband solutions - Serial, T1/E1, xDSL - currently offered by Cisco 1841.

The Cisco 1941 ISR supports two models: the Cisco 1941 and the Cisco 1941 Wireless. The wireless version of the Cisco 1941 is delivered from Cisco with an internal module for an 802.11 a/b/g/n WLAN access point. Because the radio settings are country- and region-specific, the Cisco 1941 Wireless has part-number variants that offer these region-specific solutions; part numbers are listed in Table 11.

Table 11. Cisco 1900 Series Integrated Services Routers

Cisco 1941 Ordering SKU	Description	Technical Service SKU (SMARTnet 8x5xNBD)
CISCO1941W-A/K9	Cisco 1941 Router w/ 802.11 a/b/g/n FCC Compliant WLAN ISM	CON-SNT-1941WA
CISCO1941W-C/K9	Cisco 1941 Router w/ 802.11 a/b/g/n China Compliant WLAN ISM	CON-SNT-1941WC
CISCO1941W-E/K9	Cisco 1941 Router w/ 802.11 a/b/g/n ETSI Compliant WLAN ISM	CON-SNT-1941WE
CISCO1941W-P/K9	Cisco 1941 Router w/ 802.11 a/b/g/n Japan Compliant WLAN ISM	CON-SNT-1941WP
CISCO1941W-N/K9	Cisco 1941 Router w/ 802.11 a/b/g/n Aus, NZ Compliant WLAN ISM	CON-SNT-1941WN
CISCO1941/K9	Cisco 1941 w/2 GE,2 EHWIC slots,256MB CF,512MB DRAM,IP Base	CON-SNT-1941
CISCO1921/K9	CISCO 1921 Modular Router, 2 GE, 2 EHWIC slots, 256F/512D, IP Base Lic	CON-SNT-1921
CISCO1921-ADSL2/K9	Cisco 1921 ADSL2+ Bundle, HWIC-1ADSL, 256F/512D, IP Base Lic	CON-SNT-1921DSL2
C1921-ADSL2-M/K9	Cisco 1921 ADSL2 Annex M Bundle, HWIC-1ADSL-M, 256F/512D, IP Base Lic	CON-SNT-1921AD2M
C1921-4SHDSL/K9	Cisco 1921 4-pair G.SHDSL Bundle, HWIC-4SHDSL, 256F/512D, IP Base Lic	CON-SNT-19214DSL

You can order the Cisco 1941 with an AC or PoE type of power supply. The Cisco 1941 does not offer a DC version of the power supply, and it does not support an external RPS.

The Cisco 1921 ships with an integrated AC power supply by default, and you do not need to select the AC power supply. In order to power ports on a switch module in a Cisco 1921 or 1941, you must order the router with a PoE power supply. For the Cisco 1921, the PoE power supply is external to the router. Table 12 lists the part numbers for the Cisco 1900 Series power supplies.

Table 12. Cisco 1900 Series Router Power-Supply Options

Cisco 1941 Ordering SKU	Description
PWR-1941-AC	Cisco 1941 AC Power Supply (Both system & spare)
PWR-1941-POE	Cisco 1941 AC Power Supply with Power Over Ethernet (Both system & spare)
CISCO 1921 AC Power Supply	Included by default and does not require user selection
PWR-1900-POE	Cisco 1905, Cisco 1921 Power Over Ethernet Power Supply

The Cisco 1921 ISRs are offered in a fixed-memory configuration, whereas the Cisco 1941 ISRs are offered in an expandable memory configuration. Cisco 1921 ISRs support an internal 256-MB embedded USB (eUSB) flash and an internal soldered 512-MB DRAM memory. On Cisco 1941 and 1941 Wireless routers, the default DRAM of 512 MB is also soldered onto the motherboard. Memory upgrades on the Cisco 1941 are available as modular DIMMs in densities of 512 MB, 1 GB, and 2 GB. Table 13 lists part numbers for Cisco 1900 Series DRAM.

Table 13. Cisco 1900 Series Routers DRAM

Cisco 1941 Ordering SKU	Description
MEM-1900-512MB-DEF	512MB DRAM for Cisco 1941 ISR (Default)
MEM-1900-512U2.5GB	512MB to 2.5GB DRAM Upgrade (2GB+512MB) for Cisco 1941 ISR
MEM-1900-512U1.5GB	512MB to 1.5GB DRAM Upgrade (1GB+512MB) for Cisco 1941 ISR
MEM-1900-512U1GB	512MB to 1GB DRAM Upgrade (512MB+512MB) for Cisco 1941 ISR
MEM-1900-2GB=	2GB DRAM for Cisco 1941/1941W ISR (only as spare)
MEM-1900-1GB=	1GB DRAM for Cisco 1941/1941W ISR (only as spare)
MEM-1900-512MB=	512MB DRAM for Cisco 1941/1941W ISR (only as spare)
DRAM memory upgrade	None available; Fixed 512MB DRAM only

The Compact Flash part numbers in Table 14 are shared across all the routers in the Cisco ISR G2 portfolio. Compact Flash slot 0 is populated with a 256-MB Compact Flash by default from the factory. You can order an additional Compact Flash slot 1 that you can configure with another Compact Flash of desired density.

Table 14. Cisco 1900 Series Routers Compact Flash

Cisco 1941 Ordering SKU	Description
MEM-CF-256U4GB	256MB to 4GB Compact Flash Upgrade for Cisco 1900, 2900, 3900 ISR
MEM-CF-256U2GB	256MB to 2GB Compact Flash Upgrade for Cisco 1900, 2900, 3900 ISR
MEM-CF-256U1GB	256MB to 1GB Compact Flash Upgrade for Cisco 1900, 2900, 3900 ISR
MEM-CF-256U512MB	256MB to 512MB CF Upgrade for Cisco 1900, 2900, 3900 ISR
MEM-CF-256MB	256MB Compact Flash for Cisco 1900, 2900, 3900 ISR (Default)
MEM-CF-4GB=	4GB Compact Flash (Spare) for Cisco 1900, 2900, 3900 ISR (only as spare)
MEM-CF-2GB=	2GB Compact Flash (Spare) for Cisco 1900, 2900, 3900 ISR (only as spare)
MEM-CF-1GB=	1GB Compact Flash (Spare) for Cisco 1900, 2900, 3900 ISR (only as spare)
MEM-CF-512MB=	512MB Compact Flash (Spare) for Cisco 1900, 2900, 3900 ISR (only as spare)
MEM-CF-256MB=	256MB Compact Flash (Spare) for Cisco 1900, 2900, 3900 ISR (only as spare)

Flash memory upgrade	None available; Fixed internal 256MB eUSB Flash only
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You can order a spare of the fan blower on the Cisco 1941 if needed (Table 15).

Table 15. Cisco 1900 Series Routers Fan-Related Products

Ordering SKU	Description
1941-2901-FANBLWR=	Cisco 1941/2901 Fan Blower Assembly (only as spare)

1.4 Ordering Common Items Across Cisco 3900, 2900, and 1900 Series Routers

Each of the routers in the Cisco ISR G2 portfolio (except the Cisco 1921) ships with a default accessory kit consisting of:

- 19-inch rack-mount brackets (for the Cisco 1921, you must order the rack-mount kit because it does not ship by default)
- Regulatory & Compliance Safety Information (RCSI) guide

The default accessory kit does not include any Category 5 RJ-45 Ethernet cables or cables for the router console or auxiliary port. You can order the console and auxiliary cables as an option during router configuration or as spares. The Cisco ISR G2 routers offer an innovative USB-based console port, which needs a separate console cable.

You can order the 23-inch rack-mount brackets, the blank faceplates for module slots, and slot dividers as spares (Table 16). There is a blank faceplate spare for the service-module slot (SM-BLANK-KIT=) that is unique to the Cisco 2921 and 3925 to cover the gap left behind on removal of doublewide service modules. This part number is a combination of the service-module blank attached to the service-module slot divider to create an L-shaped piece. Under normal usage with singlewide service modules, this area is covered by a blank faceplate and does not allow for insertion of any singlewide service module. Similarly, for the Cisco 1941, there is a high-speed WAN interface card (HWIC) blank faceplate spare (HWIC-BLANK-KIT=) to cover the gap left behind from the removal of doublewide HWICs. This part number is a combination of the HWIC blank attached to the HWIC slot divider to form an L-shaped piece.

Opacity shields are also available on the Cisco 1921, 2900, and 3900 ISRs that meet the Federal Information Processing Standards Publications (FIPS) 140-3 Level 2 opacity requirement. Opacity shields are not required for the Cisco 1941 because the router ships with a solid cover and the router interior is not exposed. Table 16 lists the part numbers for cables, rack-mount brackets, blank faceplates, and FIPS shields for the Cisco 3900, 2900, and 1900 Series ISRs.

Table 16. Cables, Rack-Mount Brackets, Blank Faceplates, and FIPS Shields for Cisco 3900, 2900, and 1900 Series Routers

Ordering SKU	Description
CAB-CONSOLE-RJ45	Console Cable 6ft with RJ45 and DB9F (Both system and spare)
CAB-AUX-RJ45	Auxiliary Cable 8ft with RJ45 and DB25M (Both system and spare)
CAB-CONSOLE-USB	Console Cable 6 ft with USB Type A and mini-B connectors (Both system and spare)
ACS-3900-RM-23=	23 inch rack mount kit for Cisco 3925 - 3945EISR (only as spare)
ACS-2900-RM-23=	23 inch rack mount kit for Cisco 2911/2921/2951 ISR (only as spare)
ACS-2901-RM-23=	23 inch rack mount kit for Cisco 2901 ISR (only as spare)
SM-S-BLANK=	Removable faceplate for SM slot on Cisco 2900, 3900 ISR (only as spare)
SM-BLANK-KIT=	Blank faceplate for SM slot with divider on Cisco 2951 & 3925 (only as spare)
HWIC-BLANK=	Blank faceplate for HWIC/EHWIC slot on Cisco ISR (only as spare)
HWIC-BLANK-KIT=	Blank faceplate for HWIC slot with divider for Cisco1941 ISR (only as spare)
HWIC-SLOT-DIVIDER=	HWIC/EHWIC Slot Divider (Guide) for Cisco 1900, 2900, 3900 ISR (only as spare)
SM-SLOT-DIVIDER=	SM Slot Divider (Guide) for Cisco 2900, 3900 ISR (only as spare)

Ordering SKU	Description
ACS-CF-COVER=	Compact Flash Cover (Guard) for Cisco 1900, 2900, 3900 ISR (only as spare)
FIPS-SHIELD-3900=	FIPS opacity shield for Cisco 3925 - 3945EISR
FIPS-SHIELD-2921=	FIPS opacity shield for Cisco 2921 ISR
FIPS-SHIELD-2951=	FIPS opacity shield for Cisco 2951 ISR
FIPS-SHIELD-2911=	FIPS opacity shield for Cisco 2911 ISR
FIPS-SHIELD-2901=	FIPS opacity shield for Cisco 2901 ISR
FIPS-SHIELD-1900=	FIPS opacity shield for Cisco 1905, Cisco 1921 ISR

Cisco Configuration Professional is a device-configuration application that supports configuration of the Cisco ISR G2s. By default, the platforms ship with Cisco Configuration Professional Express installed on the Compact Flash in slot 0 (ISR-CCP-EXP). A full version of Cisco Configuration Professional is available as a free download on Cisco.com, or you can order a CD with a new ISR system. To order a full copy of the Cisco Configuration Professional software, select one of the CD option part numbers during router configuration or order it as a spare later (Table 17).

Table 17. Cisco Configuration Professional for Cisco 3900, 2900, and 1900 Series Routers

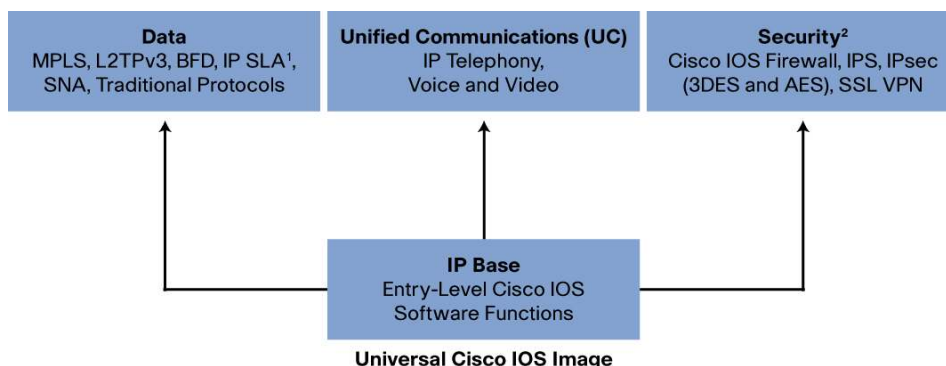
Ordering SKU	Description
ISR-CCP-EXP	Cisco Config Pro Express on Router Flash
ISR-CCP-EXP-NOCONF	Cisco Config Pro Express on Router Flash w/o default config
ISR-CCP-CD	Cisco Config Professional on CD, CCP-Express on Router Flash (Both system and spare)
ISR-CCP-CD-NOCONF	Cisco Config Pro on CD, CCP-Express on CF w/o default config

2. Ordering Cisco IOS Software Images and Licenses

Cisco ISRs deliver innovative technologies running on the industry-leading Cisco IOS Software.

Cisco ISR G2 routers ship with a universal Cisco IOS Software image that contains all the features available for use on the routers. A specific feature set is activated by using technology package licenses such as Security, Unified Communications, and Data. Figure 1 shows the Cisco IOS Software packaging model for the Cisco 3900, 2900, and 1900 Series Integrated Services Routers.

Figure 1. IOS Packaging Model for 3900, 2900 and 1900 Series Integrated Services Routers



¹IP SLA Responder is available with IP Base. Most other IP SLA features are available in all the three higher packages (Data, UC, Security) with these exceptions:
 1. IP SLAs RTP Based VoIP Operation - UC only
 2. IP SLA VoIP Gatekeeper Delay Monitoring - UC only
 3. IP SLAs LSP Health Monitor - DATA only

²Security license is also offered in NPE version that maps to the universal image with No Payload Encryption

Two types of universal images are supported on Cisco ISR G2 routers:

- **Universal images with the *universalk9* in the image name:** This universal image offers all the Cisco IOS Software features, including strong payload cryptography features such as IP Security VPN (IPsec VPN), Secure Sockets Layer VPN (SSL VPN), and Secure Unified Communications.
- **Universal images with the *universalk9_npe* in the image name:** The strong control of encryption capabilities by Cisco Software Activation helps meet U.S. export control requirements for cryptography. However, some countries have import requirements that require that the platform does not support any strong payload cryptography. To satisfy the import requirements of those countries, Cisco allows you to order the router with an “npe” universal image that does not support any strong payload encryption. The npe image does support security features such as zone-based firewall and intrusion prevention through the SECNPE-K9 license.

For a given type and version of universal Cisco IOS Software image, both the Cisco 3945E and 3925 share the same Cisco IOS Software image; the Cisco 3945 and 3925 share another Cisco IOS Software image. Similarly, the Cisco 1921 and 1941 and Cisco 1941 Wireless routers share the same universal Cisco IOS Software image. Within the Cisco 2900 Series product family, the Cisco 2901, 2911, and 2921 share the universal Cisco IOS Software images for a given type and version. The Cisco 2951 has its own unique Cisco IOS Software image different from the rest of the Cisco 2900 Series images. Table 18 lists part numbers for universal Cisco IOS Software images for the Cisco 3900, 2900, and 1900 Series ISRs.

Table 18. Part Numbers for universal Cisco IOS Software Image for Cisco 3900, 2900, and 1900 Series Routers (for Releases 15.1(4)M)

Ordering SKU	Description
S39EUK9-15014M	Cisco IOS universal Image for 3945E/3925E
S39UK9-15014M	Cisco IOS universal Image for 3945/3925
S2951UK9-15014M	Cisco IOS universal Image for 2951
S29UK9-15014M	Cisco IOS universal Image for 2901-2921
S19UK9-15014M	Cisco IOS universal Image for 1941, 1921
S39ENPEK9-15014M	Cisco IOS univ. Image (No Payload Encryption) for 3945E/3925E
S39NPEK9-15014M	Cisco IOS univ. Image (No Payload Encryption) for 3945/3925
S2951NPEK9-15014M	Cisco IOS universal Image (No Payload Encryption) for 2951
S29NPEK9-15014M	Cisco IOS univ. Image (No Payload Encryption) for 2901-2921
S19NPEK9-15014M	Cisco IOS universal Image (No Payload Encryption) for 1941, 1921

By default, all the routers ship with an IP Base license. You can order the routers from the factory with technology licenses preinstalled using the paper license part numbers (start with the keyword “SL”). Alternately, if you plan to deploy the advanced technology features later, you can order the required licenses as spares. You can order spares for technology licenses as paper licenses or e-delivery licenses (start with keyword “L-SL”).

For a given technology, the license product part numbers are common for routers in a particular product family; for example, the IP Base license part number is common across the Cisco 2901, 2911, 2921, and 2951. The part numbers vary across the platform family, as listed in Table 19.

Table 19. IP Base Licenses for Cisco 3900, 2900, and 1900 Series Routers - Maps to both types of universal Images

Ordering SKU	Description
SL-39-IPB-K9	IP Base License (Paper) for Cisco 3945E-3925
SL-29-IPB-K9	IP Base License (Paper) for Cisco 2951-3901
SL-19-IPB-K9	IP Base License (Paper) for Cisco 1941, 1921

You can use the security licenses in Table 20 to activate the advanced security features offered on the Cisco 3900, 2900, and 1900 Series platforms. You can order these part numbers only for the universal image that supports payload cryptography.

Table 20. Security Licenses for Cisco 3900, 2900, and 1900 Series Routers - Maps to universalk9 Image

Ordering SKU	Description
SL-39-SEC-K9	Security License (Paper) for Cisco 3945E-3925 (Both system & spare)
SL-29-SEC-K9	Security License (Paper) for Cisco 2951-2901 (Both system & spare)
SL-19-SEC-K9	Security License (Paper) for Cisco 1941, 1921 (Both system & spare)
L-SL-39-SEC-K9=	Security PAK (E-Delivery) for Cisco 3945E-3925 (only as spare)
L-SL-29-SEC-K9=	Security PAK (E-Delivery) for Cisco 2951-2901 (only as spare)
L-SL-19-SEC-K9=	Security PAK (E-Delivery) for Cisco 1941,1921 (only as spare)

For activating security features on the universal image with no payload encryption, the security license part numbers are unique, as listed in Table 21.

Table 21. Security Licenses (No Payload Encryption) for Cisco 3900, 2900, 1900 Series Routers - Maps to universalk9_npe Image

Ordering SKU	Description
SL-39-SECNPE-K9	Security No Payload Encryption (Paper) License for Cisco 3945E-3925 (System & spare).
SL-29-SECNPE-K9	Security No Payload Encryption (Paper) License for Cisco 2951-2901 (System & spare).
SL-19-SECNPE-K9	Security No Payload Encryption (Paper) License for Cisco 1941, 1921 (System & spare).
L-SL-39-SECNPE-K9=	Security No Payload Encryption PAK (E-Delivery) for Cisco 3945E-3925 (only as spare)
L-SL-29-SECNPE-K9=	Security No Payload Encryption PAK (E-Delivery) for Cisco 2951-2901 (only as spare)
L-SL-19-SECNPE-K9=	Security No Payload Encryption PAK (E-Delivery) for Cisco 1941, 1921 (only as spare)

For activating unified communications features on the Cisco 2900 and 3900 Series routers, the Unified Communications license part numbers are listed in Table 22.

Table 22. Unified Communications License for Cisco 3900 and 2900 Series Routers - Maps to Both Images

Ordering SKU	Description
SL-39-UC-K9	Unified Commn. License (Paper) for Cisco 3945E-3925 (Both system & spare)
SL-29-UC-K9	Unified Commn. License (Paper) for Cisco 2951-2901 (Both system & spare)
L-SL-39-UC-K9=	Unified Commn. PAK (E-Delivery) for Cisco 3945E-3925 (only as spare)
L-SL-29-UC-K9=	Unified Commn. PAK (E-Delivery) for Cisco 2951-2901 (only as spare)

You can use the Data license in Table 23 to activate the data features offered on the Cisco 3900, 2900, and 1900 Series routers.

Table 23. Data Licenses for Cisco 3900 and 2900 Series Routers - Maps to Both universal Images

Ordering SKU	Description
SL-39-DATA-K9	Data License (Paper) for Cisco 3945E-3925 (Both system & spare)
SL-29-DATA-K9	Data License (Paper) for Cisco 2951-2901 (Both system & spare)
SL-19-DATA-K9	Data License (Paper) for Cisco 1941, 1921 (Both system & spare)
L-SL-39-DATA-K9=	Data PAK (E-Delivery) for Cisco 3945E-3925 (only as spare)
L-SL-29-DATA-K9=	Data PAK (E-Delivery) for Cisco 2951-2901 (only as spare)
L-SL-19-DATA-K9=	Data PAK (E-Delivery) for Cisco 1941, 1921 (only as spare)

The Cisco 3900, 2900, and 1900 Series routers also offer a wide variety of feature and subscription licenses for advanced security and unified communications functions such as Cisco Unified Communications Manager Express (Unified CME), Survivable Remote Site Telephony (SRST), Cisco Unified Border Element, SSL VPN, and Cisco IOS IPS. You need these licenses in addition to the technology license for a given solution deployment. Please refer to the Licensing Deployment Guide for a complete list of feature and subscription licenses.

<http://www.cisco.com/en/US/products/ps10616/index.html>.

3. Ordering Modules for Cisco Integrated Services Routers Generation 2

Most of the existing modules from the original Cisco ISRs are supported on the Cisco ISR G2 portfolio. For a complete list of supported and unsupported modules, please refer to the Cisco Relevant Modules and Interfaces document for each product family.

Cisco 3900 Series Relevant Modules and Interfaces

http://www.cisco.com/en/US/products/ps10536/products_relevant_interfaces_and_modules.html.

Cisco 2900 Series Relevant Modules and Interfaces

http://www.cisco.com/en/US/products/ps10537/products_relevant_interfaces_and_modules.html.

Cisco 1900 Series Relevant Modules and Interfaces

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

You need a network module adapter to integrate existing network modules (NMs) or enhanced network modules NMEs) or extended voice modules (EVMs) into the service-module (SM) slot on the Cisco ISR G2 routers. Similarly, you need a PVDM adapter to insert existing packet voice digital modules (PVDM2s) into the PVDM3 slot of the Cisco 3900 or 2900 Series routers. You need one adapter for each module that needs to be plugged in; you can order it during system configuration in the Cisco Dynamic Configuration tool. You can also order these adapters as spares in order to insert any existing modules from original ISRs in use. Part numbers for the module adapters are listed in Table 24.

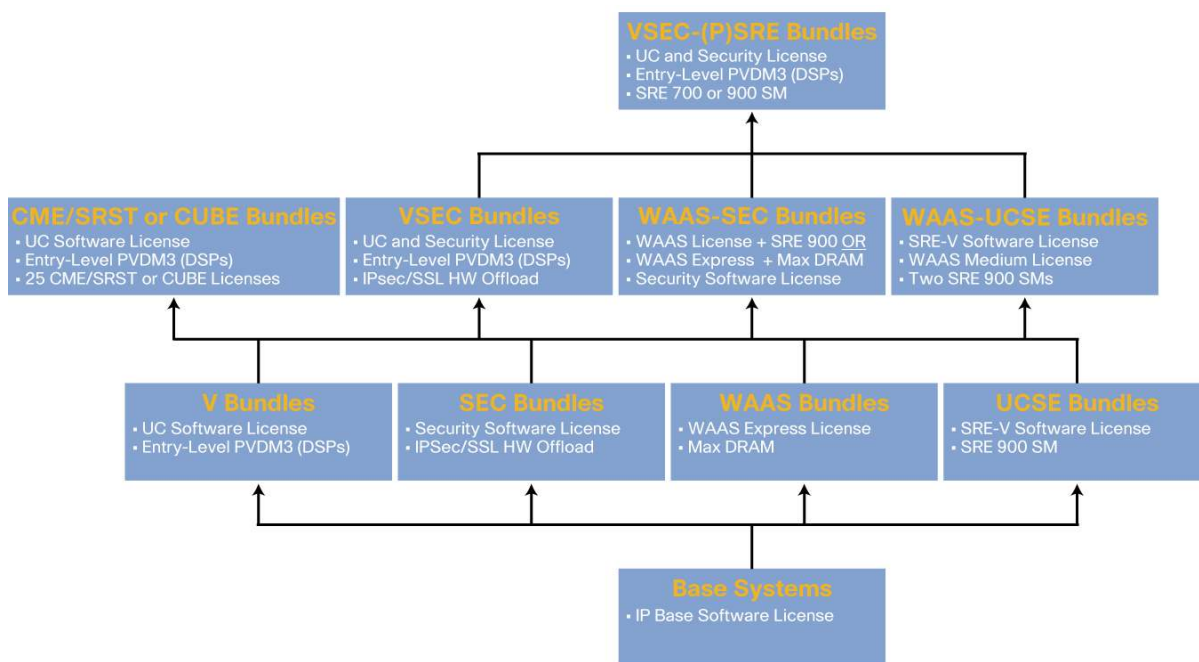
Table 24. Module Adapters for Cisco 2900 and 3900 Series Routers (Factory Option and Spares)

Ordering SKU	Description
SM-NM-ADPTR	Network Module Adapter for SM Slot on Cisco 2900, 3900 ISR (Both system & spare)
PVDM2-ADPTR	PVDM2 Adapter for PVDM Slot on Cisco 2900, 3900 Series ISR (Both system & spare)

4. Bundled Systems for Integrated Services Routers Generation 2

You can also order the Cisco ISR G2 portfolio products as prepackaged bundled systems for deploying advanced technologies such as security, unified communications, and application services in the branch office. Many of the bundled systems are being preserved from the first-generation ISRs and are being updated for the ISR G2 routers, as illustrated in Figure 2.

Figure 2. Bundled System Offerings for Cisco 3900, 2900, and 1900 Series Integrated Services Routers*



4.1 Security Bundles

Cisco router security bundles deliver security features such as Cisco IOS Software-based intrusion prevention systems (IPs), firewall, VPN, content filtering, and infrastructure security services over numerous WAN access technologies, offering high levels of performance, scalability, and availability to meet today’s growing business requirements. Table 25 lists the Cisco ISR G2 security bundles for the Cisco 3900, 2900, and 1900 Series routers that come with the Security technology license activated and the advanced security features available for use. By default, these bundles ship with the universal Cisco IOS Software image that supports payload cryptography.

Table 25. Security Bundles for Cisco 3900, 2900, and 1900 Series Routers - Include universalk9 Image and SEC License

Ordering SKU	Description	Technical Service SKU (SMARTnet 8x5xNBD or Cisco Services for IPS 8x5xNBD)
CISCO3945E-SEC/K9	Cisco 3945E Security Bundle w/SEC license PAK	CON-SNT-3945ESEC or CON-SU1-3945ESEC
CISCO3925E-SEC/K9	Cisco 3925E Security Bundle w/SEC license PAK	CON-SNT-3925ESEC or CON-SU1-3925ESEC
CISCO3945-SEC/K9	Cisco 3945 Security Bundle w/SEC license PAK	CON-SNT-3945SEC or CON-SU1-3945SEC
CISCO3925-SEC/K9	Cisco 3925 Security Bundle w/SEC license PAK	CON-SNT-3925SEC or CON-SU1-3925SEC
CISCO2951-SEC/K9	Cisco 2951 Security Bundle w/SEC license PAK	CON-SNT-2951SEC or CON-SU1-2951SEC
CISCO2921-SEC/K9	Cisco 2921 Security Bundle w/SEC license PAK	CON-SNT-2921SEC or CON-SU1-2921SEC
CISCO2911-SEC/K9	Cisco 2911 Security Bundle w/SEC license PAK	CON-SNT-2911SEC or CON-SU1-2911SEC
CISCO2901-SEC/K9	Cisco 2901 Security Bundle w/SEC license PAK	CON-SNT-2901SEC or CON-SU1-2901SEC
CISCO1941-SEC/K9	Cisco 1941 Security Bundle w/SEC license PAK	CON-SNT-1941SEC or CON-SU1-1941SEC
C1941W-A-N-SEC/K9	Cisco 1941 w/2 GE, 2 EHWIC slots,256MB CF,512MB DRAM, FCC Compliant, SEC Lic	CON-SNT-1941WASC

Ordering SKU	Description	Technical Service SKU (SMARTnet 8x5xNBD or Cisco Services for IPS 8x5xNBD)
C1941W-E-N-SEC/K9	Cisco 1941 w/2 GE, 2 EHWIC slots,256MB CF,512MB DRAM, ETSI Compliant, SEC Lic	CON-SNT-1941WESC
CISCO1921-T1SEC/K9	Cisco 1921 T1 Security Bundle w/SEC license PAK	CON-SNT-1921T1SC
CISCO1921-SEC/K9	Cisco 1921 Security Bundle w/SEC license PAK	CON-SNT-1921SEC

* Customers can purchase either the Cisco SMARTnet Service (CON-SNT-XXX) or the Cisco Services for IPS (CON-SU1-XXX) which includes SMARTnet Service and Signature Updates for Intrusion Prevention System (IPS).

4.2 Unified Communications Bundles

Cisco ISR G2 Voice and Voice Security bundles enable unified communications through a rich signaling and media-processing infrastructure, including a variety of protocols, media interworking, signal and media security, transcoding, conferencing, and quality of service (QoS). You can order these bundles with optional licenses for Cisco Unified Communications Manager Express (Unified CME) or Survivable Remote Site Telephony (SRST).

All the Unified Communications bundles on Cisco 3900 and 2900 Series routers include the new PVDM3, which has been optimized for concurrent voice and video support. The PVDM3 modules support all voice-gateway functions of earlier generations of PVDMs, and they add higher density and more processing power to support emerging rich-media applications.

Table 26 lists the Cisco ISR G2 voice bundles for the Cisco 3900 and 2900 Series routers that come with entry-level PVDM3, UC technology license, and the unified communications features available for use. By default, these bundles ship with the universal Cisco IOS Software image that supports payload cryptography.

Table 26. Voice and Video Bundles for Cisco 3900 and 2900 Series Routers - Include universalk9 Image, UC License, and PVDM3

Ordering SKU	Description	Technical Service SKU (SMARTnet 8x5xNBD)
CISCO3945E-V/K9	Cisco 3945E Voice Bundle, PVDM3-64, UC License PAK	CON-SNT-3945EV
CISCO3925E-V/K9	Cisco 3925E Voice Bundle, PVDM3-64, UC License PAK	CON-SNT-3925EV
CISCO3945-V/K9	Cisco 3945 Voice Bundle, PVDM3-64, UC License PAK	CON-SNT-3945V
CISCO3925-V/K9	Cisco 3925 Voice Bundle, PVDM3-64, UC License PAK	CON-SNT-3925V
CISCO2951-V/K9	Cisco 2951 Voice Bundle, PVDM3-32, UC License PAK	CON-SNT-2951V
CISCO2921-V/K9	Cisco 2921 Voice Bundle, PVDM3-32, UC License PAK	CON-SNT-2921V
CISCO2911-V/K9	Cisco 2911 Voice Bundle, PVDM3-16, UC License PAK	CON-SNT-2911V
CISCO2901-V/K9	Cisco 2901 Voice Bundle, PVDM3-16, UC License PAK	CON-SNT-2901V

Table 27 lists the Cisco ISR G2 CME-SRST bundles for the Cisco 3900 and 2900 Series routers that come with the entry-level PVDM3, UC technology license, and right-to-use licenses for 25 seats of Cisco Unified CME or SRST.

Table 27. CME-SRST Bundles for Cisco 3900 and 2900 Series Routers - Include universalk9 Image, UC and CME/SRST Licenses, and PVDM3

Ordering SKU	Description	Technical Service SKU (SMARTnet 8x5xNBD)
C3945E-CME-SRST/K9	3945E Voice Bundle w/ PVDM3-64, FL-CME-SRST-25, UC License PAK	CON-SNT-3945ECST
C3925E-CME-SRST/K9	3925E Voice Bundle w/ PVDM3-64, FL-CME-SRST-25, UC License PAK	CON-SNT-3925ECST
C3945-CME-SRST/K9	3945 Voice Bundle w/ PVDM3-64, FL-CME-SRST-25, UC License PAK	CON-SNT-3945CMST
C3925-CME-SRST/K9	3925 Voice Bundle w/ PVDM3-64, FL-CME-SRST-25, UC License PAK	CON-SNT-3925CMST
C2951-CME-SRST/K9	2951 Voice Bundle w/ PVDM3-32, FL-CME-SRST-25, UC License PAK	CON-SNT-2951CMST
C2921-CME-SRST/K9	2921 Voice Bundle w/ PVDM3-32, FL-CME-SRST-25, UC License PAK	CON-SNT-2921CMST

Ordering SKU	Description	Technical Service SKU (SMARTnet 8x5xNBD)
C2911-CME-SRST/K9	2921 Voice Bundle w/ PVDM3-16, FL-CME-SRST-25, UC License PAK	CON-SNT-2911CMST
C2901-CME-SRST/K9	2901 Voice Bundle w/ PVDM3-16, FL-CME-SRST-25, UC License PAK	CON-SNT-2901CMST

Table 28 lists the Cisco ISR G2 voice and video security bundles for the Cisco 3900 and 2900 Series routers that come with the entry-level PVDM3, Unified Communications, and Security technology license activated. By default, these bundles ship with the universal Cisco IOS Software image that supports payload cryptography.

Table 28. VSEC Bundles for Cisco 3900 and 2900 Series Routers - Include universalk9 Image, UC and SEC License, and PVDM3

Ordering SKU	Description	Technical Service SKU (SMARTnet 8x5xNBD or Cisco Services for IPS 8x5xNBD)
C3945E-VSEC/K9	Cisco 3945E Voice Sec. Bundle, PVDM3-64, UC and SEC License PAK	CON-SNT-3945EVSC or CON-SU1-3945EVSC
C3925E-VSEC/K9	Cisco 3925E Voice Sec. Bundle, PVDM3-64, UC and SEC License PAK	CON-SNT-3925EVSC or CON-SU1-3925EVSC
C3945-VSEC/K9	Cisco 3945 Voice Sec. Bundle, PVDM3-64, UC and SEC License PAK	CON-SNT-3945VSEC or CON-SU1-3945VSEC
C3925-VSEC/K9	Cisco 3925 Voice Sec. Bundle, PVDM3-64, UC and SEC License PAK	CON-SNT-3925VSEC or CON-SU1-3925VSEC
C2951-VSEC/K9	Cisco 2951 Voice Sec. Bundle, PVDM3-32, UC and SEC License PAK	CON-SNT-2951VSEC or CON-SU1-2951VSEC
C2921-VSEC/K9	Cisco 2921 Voice Sec. Bundle, PVDM3-32, UC and SEC License PAK	CON-SNT-2921VSEC or CON-SU1-2921VSEC
C2911-VSEC/K9	Cisco 2911 Voice Sec. Bundle, PVDM3-16, UC and SEC License PAK	CON-SNT-2911VSEC or CON-SU1-2911VSEC
C2901-VSEC/K9	Cisco 2901 Voice Sec. Bundle, PVDM3-16, UC and SEC License PAK	CON-SNT-2901VSEC or CON-SU1-2901VSEC

Table 29 lists the ISR G2 CUBE Bundles for the Cisco 3900 and 2900 Series routers that come with the entry-level PVDM3, Unified Communications and Security technology license activated and also right to use licenses for 25 sessions of CUBE. By default, these bundles will ship with the universal IOS image that supports payload cryptography.

Table 29. CUBE Bundles for Cisco 3900, 2900 Series routers - include universalk9 image, UC & SEC license and PVDM3

Ordering SKU	Description	Technical Service SKU (SMARTnet 8x5xNBD)
C3945E-VSEC-CUBEK9	Cisco 3945E VSEC CUBE Bundle, PVDM3-64, FL-CUBEE-25, UC and SEC License PAK	CON-OS-C3945EVE
C3925E-VSEC-CUBE/K9	Cisco 3925E VSEC CUBE Bundle, PVDM3-64, FL-CUBEE-25, UC and SEC Lic PAK	CON-OS-C3925EVE
C3945-VSEC-CUBE/K9	Cisco 3945 VSEC CUBE Bundle, PVDM3-64, FL-CUBEE-25, UC and SEC License PAK	CON-OS-C3945VS
C3925-VSEC-CUBE/K9	Cisco 3925 VSEC CUBE Bundle, PVDM3-64, FL-CUBEE-25, UC and SEC Lic PAK	CON-OS-C3925VS
C2951-VSEC-CUBE/K9	Cisco 2951 VSEC CUBE Bundle, PVDM3-32, FL-CUBEE-25, UC and SEC License PAK	CON-OS-2951VSCC
C2921-VSEC-CUBE/K9	Cisco 2921 VSEC CUBE Bundle, PVDM3-32, FL-CUBEE-25, UC and SEC Lic PAK	CON-OS-2921VSCC
C2911-VSEC-CUBE/K9	Cisco 2911 VSEC CUBE Bundle, PVDM3-16, FL-CUBEE-25, UC and SEC License PAK	CON-OS-2911VSCC
C2901-VSEC-CUBE/K9	Cisco 2901 VSEC CUBE Bundle, PVDM3-16, FL-CUBEE-25, UC and SEC License PAK	CON-OS-2901VSCC

4.3 Application Services (SRE) Bundles

The Cisco Services-Ready Engine modules are high-performance router blades for Cisco ISR G2 routers; they provide the capability to host Cisco, third-party, and custom applications. The modules have their own processors, storage, network interfaces, and memory that operate independently of the host router resources, helping ensure maximum concurrent routing and application performance.

The Cisco Services-Ready Engine modules support an on-demand deployment model that enables you to provision integrated services and branch-office applications on the modules at any time. This solution can help your organization reduce the cost of integrated services deployment, help ensure your network will be prepared for new services and versions, and help your organization quickly deploy new branch-office applications when and where they are needed.

Table 29 lists the Cisco ISR G2 SRE bundles for the Cisco 3900, 2900, and 1900 Series routers. The Cisco 1941 SRE bundle includes the ISM-SRE-300-K9 module along with the Security technology license. The Cisco 2900 and 3900 SRE bundles are based on VSEC configurations and hence include the UC and Security technology license and the entry-level PVD3M3 in each router. The Cisco 2901 and 2911 VSEC-SRE bundles include the ISM-SRE-300-K9 module, whereas the Cisco 2921, 2951, 3925, and 3945 SRE bundles include the SM-SRE-700-K9 module for deployment of application services in the branch office. The Cisco 3945E and 3925E SRE bundles include by default the SM-SRE-900-K9. The ISR G2 PSRE bundles for the Cisco 3900 Series routers include by default the SM-SRE-900-K9. By default, all SRE and PSRE bundles ship with the universal Cisco IOS Software image that supports payload cryptography.

Table 30. SRE Bundles for Cisco 3900, 2900, and 1900 Series Routers - Include SRE Module

Ordering SKU	Description	Technical Service SKUs* (SMARTnet 8x5xNBD, Software Application Support with Upgrades (SASU))
C3945E-VSEC-SRE/K9	Cisco 3945E SRE Bundle, SRE 900, PVD3M3-64, UC and SEC License PAK	CON-SNT-3945EVSEC, CON-SAU-SMSRE900
C3925E-VSEC-SRE/K9	Cisco 3925E SRE Bundle, SRE 900, PVD3M3-64, UC and SEC License PAK	CON-SNT-3925EVSEC, CON-SAU-SMSRE900
C3945-VSEC-PSRE/K9	Cisco 3945 PSRE Bundle, SRE 900, PVD3M3-64, UC and SEC License PAK	CON-SNT-3945VSEC, CON-SAU-SMSRE900
C3925-VSEC-PSRE/K9	Cisco 3925 PSRE Bundle, SRE 900, PVD3M3-64, UC and SEC License PAK	CON-SNT-3925VSEC, CON-SAU-SMSRE900
C3945-VSEC-SRE/K9	Cisco 3945 SRE Bundle, SRE 700, PVD3M3-64, UC and SEC License PAK	CON-SNT-3945VSEC, CON-SAU-SMSRE700
C3945-VSEC-PSRE/K9	Cisco 3945 SRE Bundle, SRE 900, PVD3M3-64, UC and SEC License PAK	CON-SNT-3945VSEC, CON-SAU-SMSRE900
C3925-VSEC-SRE/K9	Cisco 3925 SRE Bundle, SRE 700, PVD3M3-64, UC and SEC License PAK	CON-SNT-3925VSEC, CON-SAU-SMSRE700
C3925-VSEC-PSRE/K9	Cisco 3925 SRE Bundle, SRE 900, PVD3M3-64, UC and SEC License PAK	CON-SNT-3925VSEC, CON-SAU-SMSRE900
C2951-VSEC-SRE/K9	Cisco 2951 SRE Bundle, SRE 700, PVD3M3-32, UC and SEC License PAK	CON-SNT-2951VSEC, CON-SAU-SMSRE700
C2921-VSEC-SRE/K9	Cisco 2921 SRE Bundle, SRE 700, PVD3M3-32, UC and SEC License PAK	CON-SNT-2921VSEC, CON-SAU-SMSRE700
C2911-VSEC-SRE/K9	Cisco 2911 SRE Bundle, SRE 300, PVD3M3-16, UC and SEC License PAK	CON-SNT-2911VSEC, CON-SAU-SRE300
C2901-VSEC-SRE/K9	Cisco 2901 SRE Bundle, SRE 300, PVD3M3-16, UC and SEC License PAK	CON-SNT-2901VSEC, CON-SAU-ISRE300
C1941-SEC-SRE/K9	Cisco 1941 SRE Bundle, SRE 300, SEC license PAK	CON-SNT-1941SEC, CON-SAU-ISRE300

* Customers can purchase Cisco SMARTnet Service (CON-SNT-XXX) for technical support on SRE Bundles which covers the router and the modules including the 'blank' SRE module. SASU Service is necessary for the application running on the SRE module if one is being purchased along with the bundle.

4.4 Cisco Unified Computing System Express Bundles

The Cisco Unified Computing System™ Express (Cisco UCS Express) is a converged computing, virtualization, and networking platform for hosting essential infrastructure services and mission-critical business applications in the lean branch office.

It comprises the following:

- Cisco SRE x86 Blade Server computing platform
- Cisco SRE Virtualization (SRE-V) server virtualization platform powered by VMware vSphere Hypervisor (ESXi)
- Cisco ISR G2 networking platform with Multigigabit Fabric (MGF) backplane switch
- Cisco Integrated Management Controller Express (IMC Express) blade-management system

Cisco UCS Express is best suited for multisite organizations with centralized IT infrastructure that need to host applications locally in the branch office because of performance, survivability, or compliance reasons. It enables multiple virtual instances of Microsoft Windows Server to run on dedicated general-purpose x86 blades directly in the Cisco ISR G2 chassis. With Cisco UCS Express, multisite organizations can increase business agility, lower total cost of ownership (TCO), and get more value out of their branch-office infrastructure.

Table 30 lists the Cisco ISR G2 UCSE bundles for the Cisco 3900 and 2900 Series routers. The Cisco 2900 and 3900 UCSE bundles include SM-SRE-900-K9, SRE-V license (VMware vSphere Hypervisor), maximum DRAM for the router, and an additional 256 MB of Compact Flash (768 MB total) required to run Cisco IMC Express on the router. The ISR G2 ES24 UCSE bundles include the Cisco EtherSwitch® Service Module in addition to SM-SRE-900-K9, SRE-V license (VMware vSphere Hypervisor), maximum DRAM for the router, and an additional 256 MB of Compact Flash (768 MB total). The specific capabilities of the Cisco EtherSwitch module vary depending on the router selected. The intent of the ES24 UCSE bundles is to provide a basic “branch-office-in-a-box” function featuring router, switch, and server consolidated into a single device. By default, all UCSE and ES24 UCSE bundles ship with the universal Cisco IOS Software image that supports IP services.

Table 31. UCSE Bundles for Cisco 3900 and 2900 Series Routers

Ordering SKU	Description	Technical Service SKUs* (SMARTnet 8x5xNBD)
C3945-UCSE/K9	Cisco 3945 UCSE Bundle, SRE 900,SRE-V License, 4 GB ISR DRAM, 768 MB Compact Flash	CON-SNT-3945UCSE
C3925-UCSE/K9	Cisco 3925 UCSE Bundle, SRE 900,SRE-V License, 4 GB ISR DRAM, 768 MB Compact Flash	CON-SNT-3925UCSE
C2951-UCSE/K9	Cisco 2951 UCSE Bundle, SRE 900,SRE-V License, 4 GB ISR DRAM, 768 MB Compact Flash	CON-SNT-2951UCSE
C2921-UCSE/K9	Cisco 2921 UCSE Bundle, SRE 900,SRE-V License, 2.5 GB ISR DRAM, 768 MB Compact Flash	CON-SNT-2921UCSE
C2911-UCSE/K9	Cisco 2911 UCSE Bundle, SRE 900,SRE-V License, 2.5 GB ISR DRAM, 768 MB Compact Flash	CON-SNT-2911UCSE
C3945-ES24-UCSE/K9	Cisco 3945 ES24 UCSE Bundle, SRE 900,SRE-V License, 24 port Layer 2 EtherSwitch SM, 4 GB ISR DRAM, 768 MB Compact Flash	CON-SNT-3945UCSE
C3925-ES24-UCSE/K9	Cisco 3925 ES24 UCSE Bundle, SRE 900,SRE-V License, 24 port Layer 2 PoE EtherSwitch SM, PoE Power Supply, 4 GB ISR DRAM, 768 MB Compact Flash	CON-SNT-3925UCSE
C2951-ES24-UCSE/K9	Cisco 2951 ES24 UCSE Bundle, SRE 900,SRE-V License, 24 port Layer 3 PoE EtherSwitch SM, PoE Power Supply, 4 GB ISR DRAM, 768 MB Compact Flash	CON-SNT-2951UCSE

* Customers can purchase Cisco SMARTnet Service (CON-SNT-XXX) for technical support on UCSE Bundles which covers the router and the modules including the SRE module, and the SRE-V software.

4.5 Cisco Wide Area Application Services Bundles

Cisco Wide Area Application Services (WAAS) solutions for Cisco ISR platforms enable the distributed organization to implement application acceleration and WAN optimization with fast return on investment. There are two Cisco WAAS solutions for the Cisco 3900, 2900, and 1900 Series routers. One solution is hosted on the SRE modules (WAAS on SRE) and the other is integrated directly into Cisco IOS Software (WAAS Express).

Cisco WAAS on SRE provides full-feature WAN optimization and on-demand provisioning without a physical visit to the branch office, and it is hosted on a compact, energy-efficient module. Cisco WAAS Express is a cost-effective Cisco IOS Software-based WAN optimization solution that increases the amount of available bandwidth for small to midsize branch offices and remote locations, while accelerating TCP-based applications operating in a WAN environment.

Table 31 lists the ISR G2 WAAS bundles for the Cisco 3900, 2900, and 1900 Series routers. The Cisco 2900 and 3900 WAAS UCSE bundles include two SM-SRE-900-K9 modules, SRE-V license (VMware vSphere Hypervisor), WAAS Enterprise Medium license, maximum DRAM for the router, and an additional 256 MB of Compact Flash (768 MB total). By default, all WAAS UCSE bundles ship with the universal Cisco IOS Software image that supports IP services. The Cisco 2900 and 3900 WAAS SEC bundles include either SM-SRE-700-K9 or SM-SRE-900-K9, depending on the router selected; WAAS Enterprise Small, Medium, or Large software license, depending on the router selected; and the Cisco IOS Security software license. By default, all WAAS SEC bundles ship with the universal Cisco IOS Software image that supports payload cryptography. The WAAS Express SEC bundles include the maximum amount of router DRAM, WAAS Express software license, and a Cisco IOS Security software license. By default, all WAAS Express SEC bundles ship with the universal Cisco IOS Software image that supports payload cryptography. The WAAS Express bundles include the maximum amount of router DRAM and the WAAS Express software license. By default, all WAAS Express bundles ship with the universal Cisco IOS Software image that supports IP services.

Table 32. WAAS Bundles for Cisco 3900 and 2900 Series Routers

Ordering SKU	Description	Technical Service SKUs* (SMARTnet 8x5xNBD, Software Application Support with Upgrades (SASU))
C3945-WAAS-UCSE/K9	Cisco 3945 UCSE Bundle, two SRE 900, SRE-V License, WAAS Enterprise Medium License, 4 GB ISR DRAM, 768 MB Compact Flash	CON-SNT-3945WAAS, CON-SAU-SMSRE900
C3925-WAAS-UCSE/K9	Cisco 3925 UCSE Bundle, two SRE 900, SRE-V License, WAAS Enterprise Medium License, 4 GB ISR DRAM, 768 MB Compact Flash	CON-SNT-3925WAAS, CON-SAU-SMSRE900
C2951-WAAS-UCSE/K9	Cisco 2951 UCSE Bundle, two SRE 900, SRE-V License, WAAS Enterprise Medium License, 4 GB ISR DRAM, 768 MB Compact Flash	CON-SNT-2951WAAS, CON-SAU-SMSRE900
C3945-WAAS-SEC/K9	Cisco 3945 WAAS SEC Bundle, SRE 900, WAAS Enterprise Large License, SEC License PAK	CON-SNT-3945WAAS, CON-SAU-SMSRE900
C3925-WAAS-SEC/K9	Cisco 3925 WAAS SEC Bundle, SRE 900, WAAS Enterprise Large License, SEC License PAK	CON-SNT-3925WAAS, CON-SAU-SMSRE900
C2951-WAAS-SEC/K9	Cisco 2951 WAAS SEC Bundle, SRE 900, WAAS Enterprise Large License, SEC License PAK	CON-SNT-2951WAAS, CON-SAU-SMSRE900
C2921-WAAS-SEC/K9	Cisco 2921 WAAS SEC Bundle, SRE 700, WAAS Enterprise Medium License, SEC License PAK	CON-SNT-2921WAAS, CON-SAU-SMSRE700
C2911-WAAS-SEC/K9	Cisco 3945 WAAS SEC Bundle, SRE 700, WAAS Enterprise Small License, SEC License PAK	CON-SNT-2911WAAS, CON-SAU-SMSRE700
C3945-WAASX-SEC/K9	Cisco 3945, WAAS Express Feature License, IOS Security PAK, 4GB DRAM	CON-SNT-3945WSXS
C3925-WAASX-SEC/K9	Cisco 3925, WAAS Express Feature License, IOS Security PAK, 4GB DRAM	CON-SNT-3925WSXS
C2951-WAASX-SEC/K9	Cisco 2951, WAAS Express Feature License, IOS Security PAK, 4GB DRAM	CON-SNT-2951WSXS
C2921-WAASX-SEC/K9	Cisco 2921, WAAS Express Feature License, IOS Security PAK, 2.5GB DRAM	CON-SNT-2921WXSC
C2911-WAASX-SEC/K9	Cisco 2911, WAAS Express Feature License, IOS Security PAK, 2.5GB DRAM	CON-SNT-2911WXSC

Ordering SKU	Description	Technical Service SKUs* (SMARTnet 8x5xNBD, Software Application Support with Upgrades (SASU))
C2901-WAASX-SEC/K9	Cisco 2901, WAAS Express Feature License, IOS Security PAK, 2.5GB DRAM	CON-SNT-2901WXSC
C1941-WAASX-SEC/K9	Cisco 1941, WAAS Express Feature License, IOS Security PAK, 2.5GB DRAM	CON-SNT-1941WXSC
C3945-WAASX/K9	Cisco 3945, WAAS Express Feature License, 4GB DRAM	CON-SNT-3945WASX
C3925-WAASX/K9	Cisco 3925, WAAS Express Feature License, 4GB DRAM	CON-SNT-3925WASX
C2951-WAASX/K9	Cisco 2951, WAAS Express Feature License, 4GB DRAM	CON-SNT-2951WASX
C2921-WAASX/K9	Cisco 2921, WAAS Express Feature License, 2.5GB DRAM	CON-SNT-2921WXK9
C2911-WAASX/K9	Cisco 2911, WAAS Express Feature License, 2.5GB DRAM	CON-SNT-2911WXK9
C2901-WAASX/K9	Cisco 2901, WAAS Express Feature License, 2.5GB DRAM	CON-SNT-2901WXK9
C1941-WAASX/K9	Cisco 1941, WAAS Express Feature License, 2.5GB DRAM	CON-SNT-1941WXK9

* Customers can purchase Cisco SMARTnet Service (CON-SNT-XXX) for technical support on SRE Bundles which covers the router and the modules including the SRE module, and SRE-V software. SASU Service is necessary for WAAS running on the SRE.

5. Cisco and Partner Services for the Branch Office

Transform the branch-office experience and accelerate business innovation and growth in the Borderless Network using intelligent, personalized services from Cisco and our partners. We have the depth and breadth of expertise to create a clear, replicable, optimized branch-office 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.

5.1 Technical Services Available for Cisco ISR G2 Products

- **Cisco SMARTnet[®] Service:** Provides comprehensive technical support services for the Cisco ISR G2 platforms (both base systems and bundled systems), OS software and feature licenses, and modules, including the SRE module. Cisco SMARTnet Services includes advance hardware replacement, OS updates, online tools and resources, and Cisco Technical Assistance Center (TAC) support.
- **Cisco Application Support plus Upgrades (SASU)** provides technical support services including updates and upgrades for any Cisco software application running on the SRE module. Applications might include Cisco Unity[®] Express, the Cisco Application Extension Platform (AXP), Cisco Wireless LAN Controller (WLC), Cisco WAAS, and Cisco Video Surveillance.
- **Cisco Services for Intrusion Prevention System (IPS)** provides Cisco SMARTnet Service deliverables including hardware support, OS updates, and online tools and resources, and it provides signature updates and additional services for Cisco ISR G2 routers with a security feature set with IPS or an IPS network module.

Table 33. Technical Services Use Cases

If you buy an ISR G2 base or bundled system with:	You need:
Any IOS software including technology or feature licenses for IOS	Cisco SMARTnet Service
Any modules including 'blank' SRE modules	Cisco SMARTnet Service
An application running on an SRE module	Cisco SMARTnet Service + SASU
A security feature set and do not require IPS signature updates	Cisco SMARTnet Service
A security feature set with IPS or a chassis with an IPS network module	Cisco Services for IPS
A security feature set with IPS or a chassis with an IPS network module feature set with an application running on an SRE module	Cisco Services for IPS + SASU

6. Additional Information and Marketing Contacts

To obtain current information about prices for products in the Cisco ISR G2 portfolio, please refer to the Cisco price list.

<http://www.cisco.com/en/US/ordering/index.shtml>.

For more information about the Cisco Integrated Services Routers Generation 2, visit <http://www.cisco.com/go/isrG2>.

For more information about Cisco Technical Services, visit <http://www.cisco.com/go/ts>.



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