

Cisco 4G LTE for Cisco Integrated Services Routers Generation 2

Ordering Guide

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Contents

1. Introduction	3
Cisco 4G LTE ISR Product Description	3
Using the Ordering and Quoting Tool	4
Orderability and First Customer Shipment	4
2. General Guidelines	4
3. Ordering Cisco 4G LTE Products	5
Ordering Through Cisco Commerce Workspace	5
Ordering Through a Reseller or Online	8
Other Ordering Options and Tools	8
4. Cisco Services	8
Cisco Service Contract Center	8
5. Cisco Capital Financing	9

1. Introduction

This document describes the packaging structure and ordering steps for Cisco® Integrated Services Routers Generation 2 (ISR G2) with 4G Long-Term Evolution (LTE) wireless WAN (WWAN) connections:

- Cisco 1900, 2900, and 3900 ISRs with Extended High-Speed WAN Interface Cards (EHWICs)
- Cisco 819 ISR (hardened and nonhardened)

Cisco 4G LTE ISR Product Description

Cisco 800 Series and Cisco 1900, 2900, and 3900 Series ISRs have been enhanced with 4G Long-Term Evolution (LTE) cellular WAN interface options. These flexible WAN routing configurations let businesses deploy reliable wireless WAN connectivity to branch offices, whether those sites are fixed, temporary, or mobile. Customers can use Cisco 4G LTE products to quickly provision wireless last-mile connections as:

- A primary link in branch offices
- A secondary or backup connection to a landline link
- A dedicated transport for machine-to-machine (M2M) networking for Internet of Everything/Internet of Things (IoE/IoT) applications

Cisco network-layer routing enhancements, including security, QoS, and WAN optimization, can now be extended across the 4G LTE WWAN access link. Known for providing high-quality user experiences over landline networks, Cisco IOS® Software features now also work across multimegabit-per-second cellular connections. This IOS extension is especially valuable, because service providers are increasing 4G LTE coverage worldwide, and mobile links are becoming more widely used as primary WAN connections, not just for WAN backup.

With Cisco 4G LTE, organizations can:

- Roll out branches faster, and expand coverage without compromising network security, reliability, and performance
- Serve customers more effectively, deploy new business models, and capture new market opportunities
- Reduce operating expenses (OpEx) through centralized remote management
- Grow their businesses beyond the traditional branch to places where landlines don't reach

Cisco 4G LTE ISR G2 routers feature Wi-Fi connections on the LAN side of the router in various configurations. They provide:

1. Deployment flexibility for wired and wireless LAN and WAN connectivity
2. Enterprise-class security
3. High-performance, transparent integration with Cisco routers
4. Cost-effective technology
5. Wired-like user experiences

Specifications for all the Cisco ISR G2 routers with 4G LTE connections can be found in the 4G LTE data sheets. For Cisco 1900, 2900, and 3900 Series Routers with EHWICs, visit:

http://www.cisco.com/c/en/us/products/collateral/interfaces-modules/4g-lte-wireless-wan-enhanced-high-speed-wan-interface-card/datasheet_c78-710314.html.

For Cisco 819 ISRs, hardened and nonhardened, visit:

http://www.cisco.com/c/en/us/products/collateral/routers/819-integrated-services-router-isr/data_sheet_c78-678459.html.

Using the Ordering and Quoting Tool

Cisco Commerce Workspace helps Cisco specialized channel partners design and quote solutions. This tool provides easy-to-access incentives and promotions. For additional information about Cisco Enterprise Networking ordering, go to: <http://cisco.com/go/ccw>. Details can be found in Section 3, "Ordering Cisco 4G LTE Products".

Orderability and First Customer Shipment

The following products and applications in Cisco Enterprise Networking are now enabled:

- Cisco 4G LTE EHWIC for all modular ISR G2 routers (Cisco 1900, 2900, and 3900 Series) served by mobile operators in the United States, Canada, and Japan, and in European and non-European countries that use European 4G LTE frequency bands
- Cisco 819 ISRs, hardened and nonhardened models, served by mobile operators in the United States and in European and non-European countries that use European 4G LTE frequency bands

2. General Guidelines

You need to consider several factors before placing your 4G LTE router order. The most important considerations follow:

1. What size is your installation (number of users you need to support on the LAN side)?
2. Do you need a standalone router?
3. What are the physical conditions of your deployment environment: Do you need a hardened or non-hardened router?
4. Do you need a fixed or modular router based on your criteria for performance and multiple WAN interfaces?
5. If modular, which ISR models are you currently running? Or are you starting from scratch?
6. Are you upgrading from 3G to 4G?
7. Which WAN and LAN interfaces (wired and wireless) do you need?
8. Which geographic regions and countries are you covering?
9. Which service provider(s) are you choosing?
10. Which 4G LTE frequency band(s) and fallback frequency band(s) does the operator(s) you use support?

For help with your configuration, please consult Table 1.

Table 1. Specifications for the Cisco 4G LTE EHWICs and 4G LTE-Connected Cisco 819 Integrated Services Router

Region Theaters	EHWIC-4G-LTE-V	EHWIC-4G-LTE-A	EHWIC-4G-LTE-G	EHWIC-4G-LTE-BE	EHWIC-4G-LTE-JP	C819(H)G-4G-V-K9	C819(H)G-4G-A-K9	C819(H)G-4G-G-K9
Bands	LTE band 13 (700 MHz)	LTE band 17 (700 MHz)	LTE bands 1, 3, 7, 8, 20 (800(B20), 900(B8), 1800(B3), 2100(B1), and 2600(B7) MHz)	LTE AWS band 4 (1700 and 2100 MHz)	LTE band 1 (2100 MHz)	LTE band 13 (700 MHz)	LTE band 17 (700 MHz)	LTE bands 1, 3, 7, 8, 20 (800(B20), 900(B8), 1800(B3), 2100 (B1, and 2600(B7) MHz)
Downlink and Uplink Speeds	100 and 50 Mbps	100 and 50 Mbps	100 and 50 Mbps	100 and 50 Mbps	100 and 50 Mbps	100 and 50 Mbps	100 and 50 Mbps	100 and 50 Mbps
Europe	X	X	√	X	X	X	X	√
United States	Verizon Wireless	AT&T Mobility	X	X	X	Verizon Wireless	AT&T Mobility	X
Canada	X	X	X	Bell Canada	X	-	-	-
Japan	X	X	X	X	NTT Docomo	-	-	-

3. Ordering Cisco 4G LTE Products

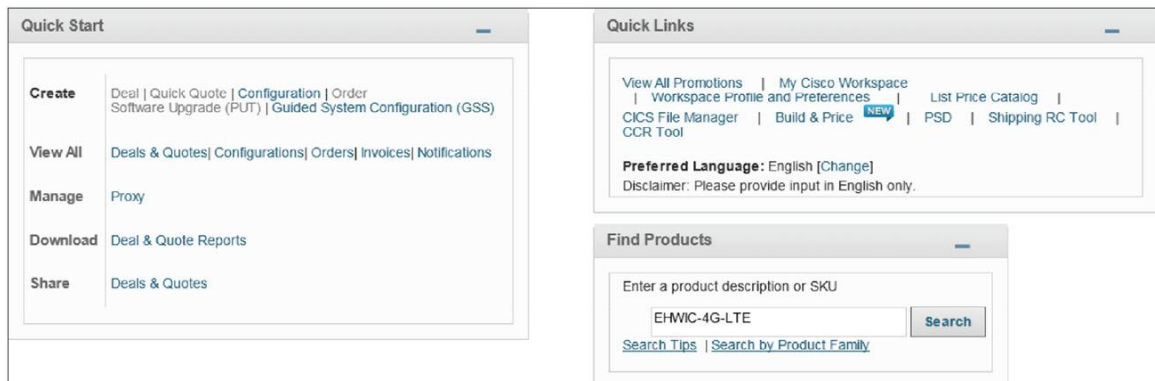
This ordering guide will help you configure and order Cisco 4G LTE products and associated components, including antennas and cables.

Ordering Through Cisco Commerce Workspace

The Cisco Commerce Workspace Tool (Figure 1) can be accessed through <https://cisco-apps.cisco.com/cisco/psn/commerce> (requires a CEC account).

Step 1. Log onto Cisco Commerce Workspace; then click “Configuration” from the list of options under “Quick Start”.

Figure 1. Cisco Commerce Workspace Screen



Step 2. Consult the General Guidelines list provided earlier, and then enter the part number for the required configuration in the **Add a SKU to Your Configuration Set** field. Table 2 lists valid Cisco 4G LTE part numbers, and Table 3 gives ordering information for Verizon 4G LTE and Cisco 1900 and 2900 Integrated Services Router bundles.

Table 2. Valid Cisco 4G LTE Part Numbers

Product/Part No.	Description
Cisco 819HG Hardened 4G LTE Integrated Services Router	
C819HG-4G-V-K9	Compact Hardened 4G LTE Secure IOS Router with MDM9600 for VERIZON, 700 MHz Band 13/CDMA Rev A
C819HG-4G-A-K9	Compact Hardened 4G LTE Secure IOS Router with MDM9200 for AT&T, 700 MHz Band 17, 850/1900/2100 MHz UMTS/HSPA bands
C819HG-4G-G-K9	Compact Hardened 4G LTE Secure IOS Router with MDM9200 for EUROPE, LTE 800/900/1800/2100/2600 MHz, 900/1900/2100 MHz UMTS/HSPA bands
Cisco 819G Nonhardened 4G LTE Integrated Services Router	
C819G-4G-V-K9	Compact 4G LTE Secure IOS Router with MDM9600 for VERIZON, 700 MHz Band 13/CDMA Rev A
C819G-4G-A-K9	Compact 4G LTE Secure IOS Router with MDM9200 for AT&T, 700 MHz Band 17, 850/1900/2100 MHz UMTS/HSPA bands
C819G-4G-G-K9	Compact 4G LTE Secure IOS Router with MDM9200 for EUROPE, LTE 800/900/1800/2100/2600 MHz, 900/2100 MHz UMTS/HSPA bands
819 Accessories (cable and antennas)	Please see Tables 4 and 5 at: http://www.cisco.com/c/en/us/products/collateral/routers/819-integrated-services-router-isr/data_sheet_c78-678459.html
4G LTE EHWIC for Cisco 1900, 2900, and 3900 ISRs	
EHWIC-4G-LTE-V EHWIC-4G-LTE-V= (Spare)	4G LTE EHWIC for Verizon, 700 MHz Band 13/CDMA Rev A
EHWIC-4G-LTE-A EHWIC-4G-LTE-A= (Spare)	4G LTE EHWIC for AT&T, 700 MHz Band 17, 850/1900/2100 MHz UMTS/HSPA bands
EHWIC-4G-LTE-G EHWIC-4G-LTE-G= (Spare)	4G LTE EHWIC for Europe, LTE 800/900/1800/2100/2600 MHz, 900/1900/2100 MHz UMTS/HSPA bands
EHWIC-4G-LTE-BE EHWIC-4G-LTE-BE= (Spare)	4G LTE EHWIC for Bell Canada, 1700/2100 MHz AWS band 4, 850/1900/2100 MHz UMTS/HSPA bands
EHWIC-4G-LTE-JP EHWIC-4G-LTE-JP= (Spare)	4G LTE EHWIC for NTT Docomo Japan, 2100 MHz band 1, 850/1900/2100 MHz UMTS/HSPA bands
EHWIC Accessories (cable and antennas)	Please see Tables 4 and 5 at http://www.cisco.com/c/en/us/products/collateral/interfaces-modules/4g-lte-wireless-wan-enhanced-high-speed-wan-interface-card/datasheet_c78-710314.html

Table 3. Ordering Information for Verizon 4G LTE and Cisco 1900 and 2900 Integrated Services Router Bundles

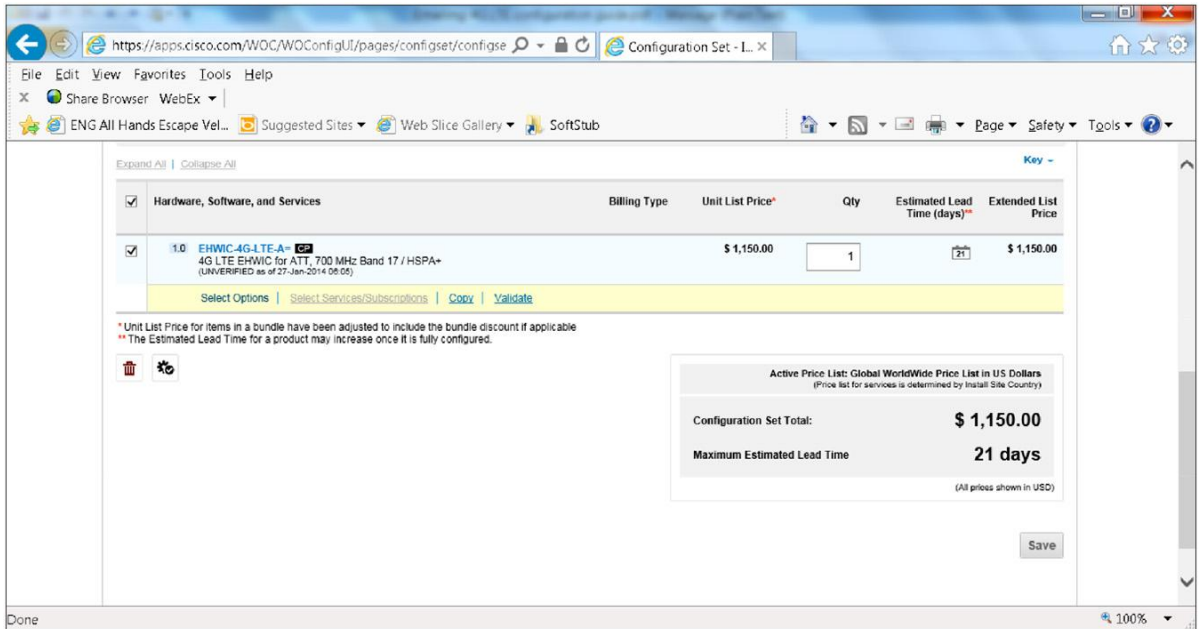
Part Number	Description
C2911-4G-V-SEC/K9¹	CISCO2911 bundle w/EHWIC-4G-LTE-V, Universal Base, 256FL/512DR, Adv Security
C2921-4G-V-SEC/K9¹	CISCO2921 bundle w/EHWIC-4G-LTE-V, Universal Base, 256FL/512DR, Adv Security
C2951-4G-V-SEC/K9¹	CISCO2951 bundle w/EHWIC-4G-LTE-V, Universal Base, 256FL/512DR, Adv Security
C1921-4G-V-SEC/K9¹	CISCO1921 bundle w/EHWIC-4G-LTE-V, Universal Base, 256FL/512DR, Adv Security

Step 3. Enter a product description or SKU, and then click “Search” (Figure 2).

Figure 2. Search Screen

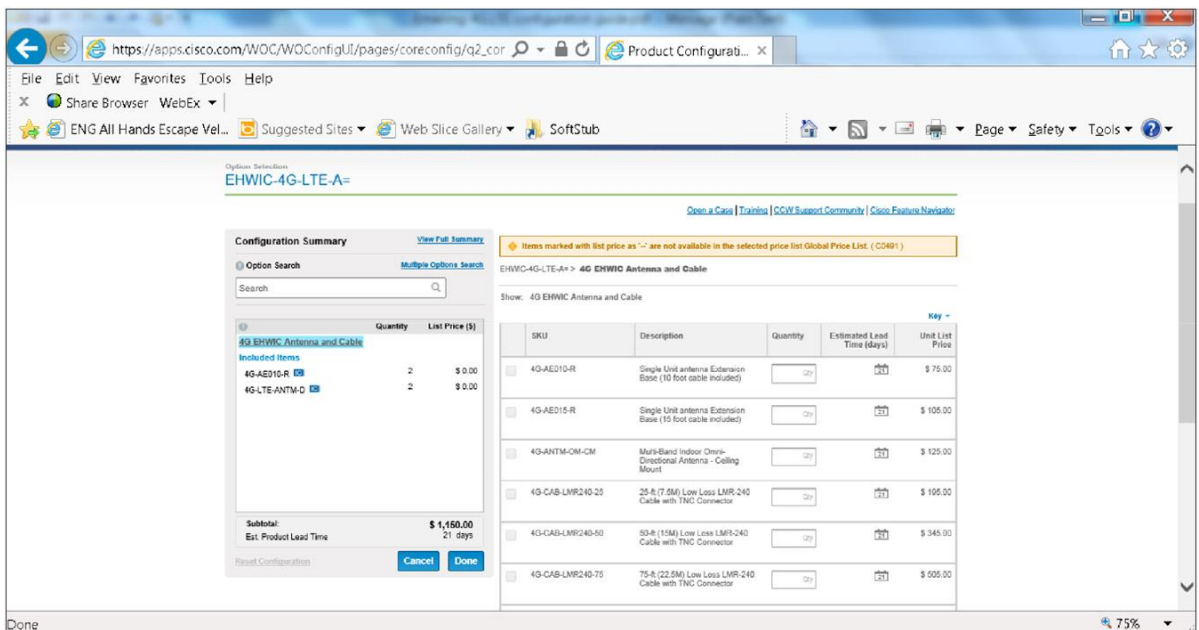
Step 4. You'll now see a **Search and Add** page that shows the product SKU, a description, and its price. Add the SKU to your **Selected Items**. Click "Select Options" below the product name to configure it (Figure 3).

Figure 3. Search and Add Screen



Step 5. At the Product Configuration screen, you'll see a list of options for that product on the left, including licenses, antennas, cables, and other accessories (Figure 4). Clicking one of the options will bring up a list of available products on the right. Click the SKUs and quantities you need. Those products will be displayed in the Options list on the left. Click "Done" when you have finished.

Figure 4. Product Configuration Screenshot



Ordering Through a Reseller or Online

Most of our customers order through Cisco resellers. They can help you find the best products and solutions for your business.

- To find a reseller, use our Partner locator at:
<http://tools.cisco.com/WWChannels/LOCATR/openBasicSearch.do>.
- To order through an online Cisco Partner, visit:
http://www.cisco.com/web/ordering/or13/o30/ordering_online_partners.html.
- To find Product Support Services (Cisco SMARTnet® support), and determine which services are available for your products, go to: <http://www.cisco-servicefinder.com/1/>.
- To view, renew, add, change, register, or upgrade your service contracts, visit:
<http://www.cisco.com/web/services/order-services/index.html>.
- To get products for small businesses online, shop Cisco Small Business at:
http://www.cisco.com/cisco/web/solutions/small_business/shop/index.html.
- To get the support and information you need quickly, contact Cisco at:
<http://www.cisco.com/cisco/web/siteassets/contacts/index.html>.

Other Ordering Options and Tools

- Direct ordering is available for registered direct purchase customers. Log in to access your account and ordering tools at:
<http://www.cisco.com/web/login/index.html?Referrer=/docs/web/ordering/root/index.html&>.
- If you're a new customer or partner, learn about direct ordering by visiting:
http://www.cisco.com/web/ordering/or13/or8/order_customer_help_how_to_order_listing.html.
- To use the Build & Price tool to create your order, go to: <http://apps.cisco.com/ccw/cpc/quest/home.do>.
To order, download, and manage software and software licenses, visit Cisco Software Central at:
<http://software.cisco.com/swcentral/home.html>.
- For more information about how to buy Cisco products, visit:
<http://www.cisco.com/web/ordering/root/index.html>.

4. Cisco Services

Gain an accelerated return on investment for Cisco mobility deployments with a resilient, converged network that meets business needs. Using the Cisco Lifecycle Services approach, Cisco and our channel partners provide a broad portfolio of enterprise network services that address all aspects of network deployment, operation, and optimization.

Information about how to order Cisco 4G LTE professional services can be found in the Cisco Services Ordering Guide at: <http://www.cisco.com/c/en/us/products/routers/service-listing.html>.

Cisco Service Contract Center

Now there's one simple, easy-to-use web solution you can use to quote and book your service orders, and manage and sell your Cisco service contracts and renewal opportunities. Cisco Service Contract Center, the next generation of service management, helps you accelerate your business, increase profitability, and boost efficiency.

With Cisco Service Contract Center, you no longer have to wait for reports, search for information, reconcile prices, reenter quotes, solve problems, and clean up contracts. Instead, you can focus on selling and servicing your customers.

Access the complete portfolio of Cisco Services at: <http://www.cisco.com/web/services/portfolio/index.html>

Access the Cisco Service Contract Center at: <http://www.cisco.com/public/scc/>

5. Cisco Capital Financing

The significant benefits offered by Cisco mobility and M2M equipment make it the natural choice for the converged wired and wireless network. As with any technology investment, the question is the affordability of the new system. The answer is financing from Cisco Capital[®]. Whether through flexible repayments matching expenditure to benefit, mitigating cash flow problems, or negating capital expenditures with an operating lease, we can give you access to the simplified policy and management for your WAN, right when you need it.

Typically, Cisco Capital can help you remove or reduce the barriers that prevent your organization from obtaining the technology that can most benefit your business. Cisco Capital can:

- **Remove cash flow problems**, allowing your company to spread the cost of its investment over a number of years
- **Offer flexible repayment terms matching expenditure to benefits**, meaning that you can time your payments to coincide with business benefits that you may see later in the project, or defer them to meet your company's budget cycle
- **Turn capital expenditures into operating expenses** through an operating lease that enables your company to benefit from the residual value of the technology from the beginning; because no one knows Cisco equipment like Cisco, you can be sure of market-leading residuals
- **Provide a sale and lease-back arrangement** (where available) that softens the initial costs by taking on existing commitments that may be attached to older equipment

For more information about Cisco Capital Financing, visit:

<http://www.cisco.com/web/ordering/ciscocapital/index.html>.

For Channel Partners:

http://www.cisco.com/web/ordering/ciscocapital/or6/order_finance_and_payments_concept_home.html.

For Cisco Field:

<http://wwwin.cisco.com/FinAdm/csc/>.



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