

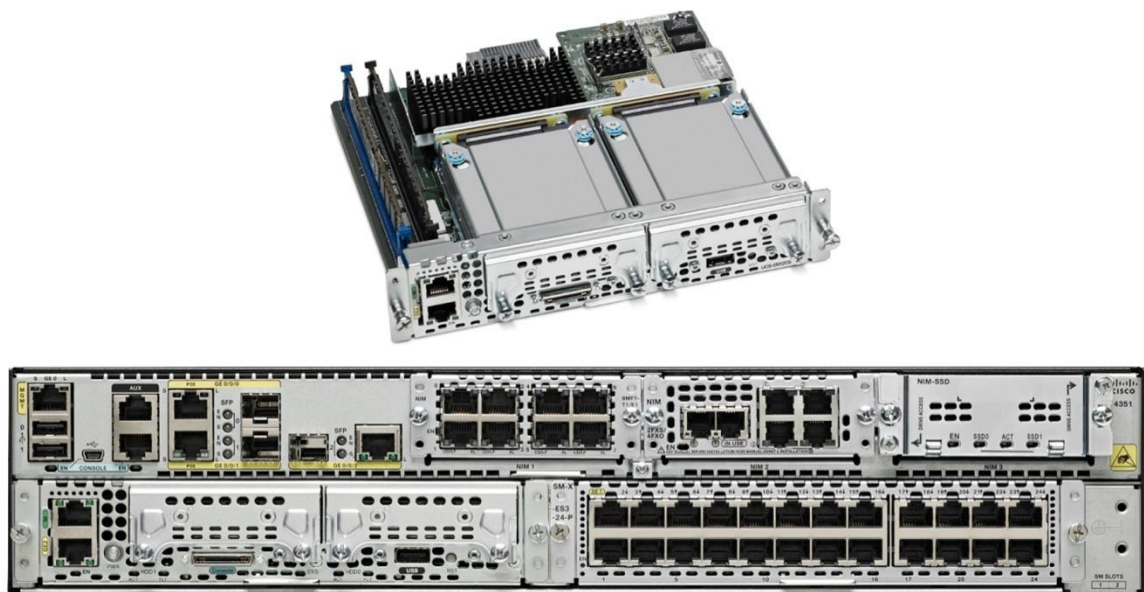
Cisco UCS E-Series M3 Servers

With powerful data center-class servers that are virtualization-ready, you can host business applications and network services right in your branch-office router.

Product Overview

Cisco UCS[®] E-Series Servers bring data center-class blade servers to the branch office. These powerful, small-form-factor, x86 64-bit blade servers reside in Cisco[®] branch-office routers: the Cisco 4000 Series Integrated Services Routers (ISRs) networking platforms. The blades are virtualization-ready and host essential infrastructure services and mission-critical business applications, all while you maintain a lean branch-office environment (Figure 1).

Figure 1. Cisco UCS E-Series Servers with Cisco 4351 ISR



Product Details

Cisco UCS E-Series Servers


The Cisco Unified Computing System[™] (Cisco UCS[®]) E M3 Series Server is available in one form factor: a singlewide module. This singlewide version includes an Intel Xeon processor and occupies a single service-module slot in the Cisco 4000 Series ISR.

All Cisco UCS E-Series Servers are high-density, single-socket blade servers. They balance simplicity, performance, and application density while operating in an energy-efficient environment. The servers deliver next-generation Intel Xeon processor technology in combination with integrated remote lights-out management. They support multiple cores and threads in a reduced-power envelope, providing improved performance and better energy efficiency than preceding models.

They thus provide an excellent platform for introducing virtualization into the branch office and supporting mission-critical business applications. The innovative, zero-footprint form factor of the Cisco UCS E-Series Servers in conjunction with the lower total cost of ownership (TCO) of the Intel Xeon processor increases business agility and enhances reliability when compared to standalone rack-mount and tower servers.

Table 1 lists the top-level part numbers for the E-Series servers.

Table 1. Cisco UCS E-Series Servers

Cisco UCS E-Series Part Numbers	Picture
<p>Cisco UCS E-Series Single-Wide Servers:</p> <ul style="list-style-type: none"> • UCS-E160S-M3/K9 	

Applications for Cisco UCS E-Series Servers

Cisco UCS E-Series Servers provide excellent performance and value for these and other types of workloads:

- Network applications: Cisco Virtual Wide Area Application Services (vWAAS), Cisco Virtual Wireless LAN Controller (vWLC), Cisco Unity® Connection, Cisco ISR with FirePOWER™ Services, Cisco Energy Management, and other Cisco applications
- Mission-critical business applications: Point-of-sale (POS) systems, bank teller in-office control points (IOCPs), electronic-medical-record (EMR) systems, inventory management systems, and cloud connectors
- Core Microsoft Windows services: Microsoft Active Directory Domain Services (AD DS), Microsoft Windows print services, Dynamic Host Configuration Protocol (DHCP) server services, Domain Name System (DNS) server services, and file services
- Client-management services: Configuration and operations management, monitoring services, update and patching services, backup and recovery services, and terminal server gateways

Features and Benefits

The Cisco UCS E-Series Servers easily extend the Cisco UCS data center portfolio to branch-office environments. By adding virtualization to the servers, you can deploy new services incrementally on a schedule that best meets your timing and budget. Meanwhile, you avoid service-call costs for onsite visits to deploy new hardware or software.

Cisco UCS E-Series Servers address your changing business needs in the following ways:

- Reduced operational burden: Through a consolidated, wire-free infrastructure, Cisco UCS E-Series Servers make the addition of new services and infrastructure quick and easy.
- Simplified system maintenance: Cisco UCS E-Series Servers ease physical server provisioning and system maintenance.
- Enhanced server management: Built-in lights-out server management through the Cisco Integrated Management Controller (IMC) runs on the same dedicated baseboard management controller hardware found in all Cisco UCS products. This feature provides standalone management consistency with Cisco UCS C-Series Rack Servers for both local and remote server monitoring and configuration management.

- Stronger physical security: The blades require no external network cables or physical keyboard, video, or mouse (KVM). They can therefore be easily secured in a wiring closet or other secure location without compromising manageability, a situation that is difficult to achieve with traditional tower and rack-mount servers.
- Small footprint: Cisco UCS E-Series Servers include multicore x86 64-bit Intel Xeon processors. You can reduce your branch-office server footprint by incorporating high-performance, power-optimized blade servers directly into Cisco 4000 Series ISRs in the branch office. All are integrated and housed in a single Cisco ISR chassis, delivering an excellent all-in-one platform for the lean branch office.

Platform Support and Compatibility

Cisco UCS E-Series Servers are designed to support multiple bare-metal operating systems and hypervisors, including:

- Operating systems
 - Microsoft Windows Server
 - Windows Server 2012 R2 Standard 64-bit
 - Red Hat Enterprise Linux (RHEL) Release 6.7 and later
- Hypervisors
 - VMware vSphere 6.0

Product Specifications

Table 2 lists the specifications and Table 3 lists Cisco ISR support for the Cisco UCS E-Series M1 servers. Table 4 lists safety and EMC regulatory standards compliance information.

Table 2. Product Specifications for Singlewide M3 Servers

Feature	Cisco UCS E160S M3 (Singlewide)
CPU	<ul style="list-style-type: none"> • Intel Xeon Broadwell DE processor D-1528 (6-MB cache, 1.90 GHz, and 6 cores)
DRAM	<ul style="list-style-type: none"> • 8 GB default, 32 GB maximum • 2 DIMM slots, each with 8 GB or 16 GB VLP DDR4 RAM
Hard-disk drive (HDD)	<ul style="list-style-type: none"> • Up to 2; refer to the ordering and compatibility guide for more information
RAID options	<ul style="list-style-type: none"> • Hardware RAID 0 and 1 • LSI MegaRAID SAS 3108 controller
Network interface cards (NICs)	<ul style="list-style-type: none"> • 2 internal Gigabit Ethernet ports • 2 external 10 Gigabit Ethernet ports (1000/10000)
Cisco IMC	<ul style="list-style-type: none"> • Integrated Emulex Pilot-3 BMC • IPMI 2.0 compliant for management and control • Command-line interface (CLI) and WebGUI management tool for automated, lights-out management • KVM
eMMC storage	<ul style="list-style-type: none"> • 8-GB partition for Cisco IMC • 8-GB partition for Intel X86 host
Front-panel connectors	<ul style="list-style-type: none"> • 1 KVM console connector (supplies 1 VGA, 1 serial, and 1 USB 2.0 connector) • 1 onboard USB 3.0 connector
Physical dimensions (H x W x D)	<ul style="list-style-type: none"> • 1.58 x 7.44 x 7.5 in. (4 x 18.9 x 19.1 cm)
Maximum weight	<ul style="list-style-type: none"> • 2.5 lb (1.1 kg)

Feature	Cisco UCS E160S M3 (Singlewide)
Temperature: Operating	<ul style="list-style-type: none"> According to operating requirements of deployable platform: <ul style="list-style-type: none"> 32 to 104°F (0 to 40°C) normal
Temperature: Nonoperating	<ul style="list-style-type: none"> -4 to 149°F (-20 to 65°C)
Humidity: Operating	<ul style="list-style-type: none"> According to operating requirements of deployable platform: <ul style="list-style-type: none"> 10 to 85% operating
Humidity: Nonoperating	<ul style="list-style-type: none"> 5 to 95%
Altitude: Operating	<ul style="list-style-type: none"> 104°F (40°C) at sea level to 10,000 ft (0 to 3,000m); maximum ambient temperature decreases by 1°C per 300m
Altitude: Nonoperating	<ul style="list-style-type: none"> 15,000 ft (4600m)

Table 3. Cisco ISR G2 and 4000 Series ISRs Support for Cisco UCS E M3 Series

ISR Platform	Cisco UCS E160S-M3
1921	No
1941	No
2901	No
2911	No
2921	No
2951	No
3925	No
3945	No
3925E	No
3945E	No
4321	No
4331	1
4351	2
4431	No
4451	2

Table 4. Regulatory Standards Compliance: Safety and EMC

Specification	Description
Safety	<ul style="list-style-type: none"> UL 60950-1 Second Edition CAN/CSA-C22.2 No. 60950-1 IEC 60950-1 Second Edition EN 60950-1 Second Edition AS/NZS 60950-1
EMC: Emissions	<ul style="list-style-type: none"> 47CFR Part 15 (CFR 47) Class A AS/NZS CISPR22 Class A CISPR2 2 Class A EN55022 Class A ICES003 Class A VCCI V-3 Class I EN61000-3-2 EN61000-3-3 EN300386 Class A CNS13438, Class A
EMC: Immunity	<ul style="list-style-type: none"> EN55024 CISPR24 EN300386 EN50082-1 Part 1 EN 61000 6-1

System Requirements

For Cisco UCS E-Series M3 Servers, Cisco IOS® XE Software Release 3.16.2S, 3.17.2S, or 16.2.1S is required for the Cisco 4000 Series ISR platform.

Warranty Information

Cisco UCS-E Series Servers are covered by a 90-day warranty. Find warranty information on Cisco.com on the [Product Warranties](#) page.

Ordering Information

Table 1 contains the top-level part numbers for the Cisco UCS E-Series modules. Review the ordering guide for the complete list of part numbers and ordering examples.

To place an order, visit the [Cisco Ordering homepage](#). To download software, visit the [Cisco Software Center](#).

Cisco Services

Cisco UCS E-Series Servers hardware support is covered by the Cisco Smart Net Total Care™ contract for the router in which the module resides. Cisco Smart Net Total Care support 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 for protocol, security, bandwidth, and feature improvements
- Full access rights to Cisco.com technical libraries for technical assistance, electronic commerce, and product information
- Access to the industry's largest dedicated technical support staff 24 hours a day

For more information about Cisco services, refer to Cisco [Technical Support Services](#) or [Cisco Advanced Services](#).

Cisco and Partner Services for the Branch Office

Services from Cisco and our certified partners can help you transform the branch-office experience and accelerate business innovation and growth. Cisco has 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 operation 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 Capital

Financing to Help You Achieve Your Objectives

Cisco Capital® can help you acquire the technology you need to achieve your objectives and stay competitive. We can help you reduce CapEx. Accelerate your growth. Optimize your investment dollars and ROI. Cisco Capital financing gives you flexibility in acquiring hardware, software, services, and complementary third-party equipment. And there's just one predictable payment. Cisco Capital is available in more than 100 countries. [Learn more](#).

For More Information

For more information about Cisco UCS E-Series Servers, visit <http://www.cisco.com/go/ucse/> or contact your local Cisco account representative.




Americas Headquarters
Cisco Systems, Inc.
San Jose, CA

Asia Pacific Headquarters
Cisco Systems (USA) Pte. Ltd.
Singapore

Europe Headquarters
Cisco Systems International BV Amsterdam,
The Netherlands

Cisco has more than 200 offices worldwide. Addresses, phone numbers, and fax numbers are listed on the Cisco Website at www.cisco.com/go/offices.

 Cisco and the Cisco logo are trademarks or registered trademarks of Cisco and/or its affiliates in the U.S. and other countries. To view a list of Cisco trademarks, go to this URL: www.cisco.com/go/trademarks. Third party trademarks mentioned are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (1110R)