

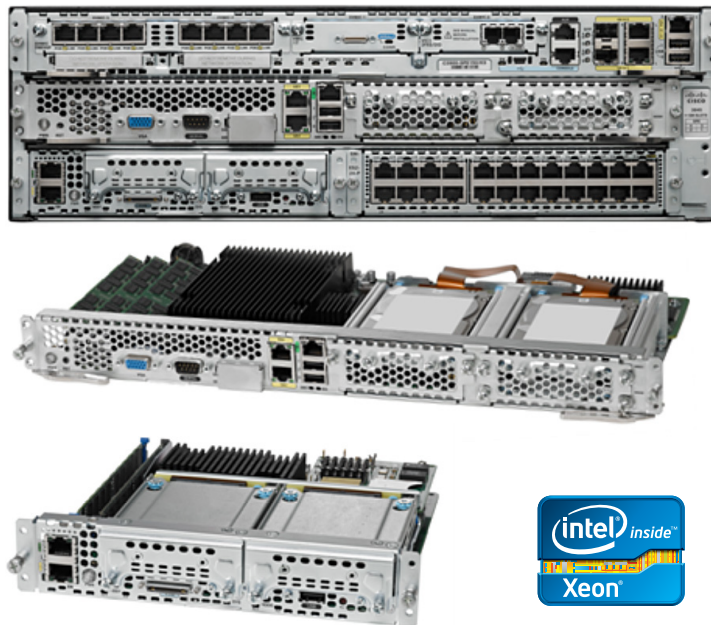
At-A-Glance

What Are Cisco UCS E-Series Servers?

Cisco UCS® E-Series Servers bring data center–class virtualization-ready blade servers to the branch office. Cisco UCS E-Series Servers are virtualization-ready, high-density, single-socket blade servers designed to balance simplicity, performance, and application density while operating in an energy-efficient environment. These powerful, small form factor, x86 64-bit blade servers are housed within Cisco Integrated Services Routers Generation 2 (ISR G2) networking platforms and are designed to host essential infrastructure services and mission-critical business applications in the lean branch office (Figure 1).

Cisco UCS E-Series Servers are available in two form factors: a single-wide blade server powered by a high-performance yet power-efficient Intel® Xeon® processor E3-1100 product family with four cores, up to 16 GB of RAM, and 2 terabytes (TB) of local storage, and a double-wide blade server powered by a high-performance Intel® Xeon® processor E5-2400 product family with up to six cores and support for up to 48 GB of RAM and 3 TB of local storage.

Figure 1. Cisco UCS-E Series Servers with Cisco 3945 ISR



Cisco UCS E-Series Servers are best suited for multisite organizations with centralized IT infrastructure that need to host applications locally in the branch office for performance, survivability, or compliance reasons. Unlike the previous generation Cisco UCS Express servers, the new Cisco UCS E-Series Servers are designed from the start as data center–class blade servers supporting both bare-metal and virtualized OS and application deployments while providing much higher performance, more RAM and hard disk capacity. Because Cisco UCS E-Series blades use powerful yet efficient Intel® Xeon® processors, they are ideal for deploying multiple virtual instances of Microsoft Windows Server, SUSE, Red Hat Enterprise Linux, and Oracle Enterprise Linux on industry-leading virtualization platforms, including Microsoft Hyper-V, VMware vSphere, and Citrix XenServer, making them an excellent means for customers to introduce virtualization into the branch office. With the flexibility to provision and manage applications and services in either bare-metal or virtualized deployments through built-in remote lights-out management, Cisco UCS E-Series blade servers enable multisite organizations to increase business agility while lowering total cost of ownership (TCO), and getting more value from their branch-office infrastructure.

Applications

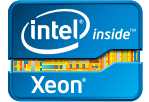
Cisco UCS E-Series Servers provide excellent performance and value for a diverse range of workloads, including:

- Core Microsoft Windows services: Microsoft Active Directory Domain Services (AD DS) and Microsoft Windows print services, DHCP server, DNS server, file services, and others
- Mission-critical business applications: POS systems, bank teller in-office control points (IOCPs), EMR systems, inventory management systems, and others
- Client-management services: Configuration and operations management, monitoring services, update and patching services, backup and recovery services, terminal server gateways, and others
- Cisco virtualized network services: Cisco® Virtual Wide Area Application Services (vWAAS), Enterprise Content Delivery System (ECDS), Video Surveillance Manager (VSM), and others



Cisco UCS E-Series Servers

Bringing Data Center Class Virtualization Ready Blade Servers to the Branch Office



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Cisco UCS E-Series Server Features

Compact Data Center–Class Intel x86 64-Bit Blade Servers

Cisco UCS E-Series Servers are full-featured general-purpose servers using the latest Intel® Xeon® processors. They include the following features:

- Modular, energy-efficient blade-server form factor designed for high performance, high reliability, and simplified operations and servability
- Two form factors: a cost- and size-optimized single-wide blade, and a performance- and capacity-optimized double-wide blade
- Intel® Xeon® processor E3-1105C with up to four cores (single wide) or Intel® Xeon® processors E5-2428L with up to six cores (double wide)
- Up to 16 GB of RAM (single wide), or up to 48 of GB RAM (double wide)
- Up to 2 TB of storage capacity (single wide), or up to 3 TB of storage capacity (double wide)
- Hardware RAID 0 and 1 (single wide), or hardware RAID 0, 1, and 5 (double wide)
- Two internal Gigabit Ethernet interfaces
- One external Gigabit Ethernet port (single wide), or two external Gigabit Ethernet ports (double wide)
- Front-panel VGA, 2 USB, and serial console connectors
- One 10/100BASE-T out-of-band management interface
- Optional PCI Express (PCIe) slot on the double-wide blade server to enable addition of storage or network I/O with the choice of four 1 Gigabit Ethernet ports or one 10 Gigabit Ethernet and Fibre Channel over Ethernet (FCoE) port
- Choice of data center server-class single-level cell (SLC) SSD, SAS hard drive, SAS self-encrypting drive (SED), or SATA hot-swappable hard drive
- Wire-free, simple, and fast hardware provisioning

Dedicated Blade Management

The Cisco Integrated Management Controller (CIMC) is the hardware management controller for Cisco UCS E-Series Servers. The Cisco UCS C-Series CIMC provides:

- Command-line interface (CLI) and GUI management consoles for remote or local configuration and monitoring of the Cisco UCS E-Series Server hardware
- Consistent device management with the standalone Cisco UCS C-Series Rack Servers

- Virtual media and virtual keyboard, video, and mouse (KVM) support
- Supports both Bare-metal OS and hypervisor provisioning
- Management console for server administrators independent of the router management system, enabling separation of duties between server and network administrators

Single-Device Consolidation

Cisco ISR G2 is the networking platform that serves as the blade server enclosure for Cisco UCS E-Series Servers. The Cisco ISR G2 platform provides:

- Compact enclosure for housing one or more Cisco UCS E-Series x86 64-bit blade servers in a single chassis
- Multigigabit fabric (MGF) backplane switch for direct network connectivity between operating systems and hypervisors on one Cisco UCS E-Series blade to other Cisco UCS E-Series blades or EtherSwitch modules in the same Cisco ISR G2 chassis
- Single highly reliable size, weight, and power optimized platform for consolidating all branch-office services, including voice, video, security, network services and applications, and wireless and LAN and WAN networking, with built-in remote management capability

Hardware Certification for Data Center–Class Operating Systems and Hypervisors

- Microsoft Windows Hardware Quality Labs (WHQL)
- VMware vSphere Hardware Compatibility List (HCL)
- Citrix XenServer Hardware Certification
- Red Hat Enterprise Linux Hardware Certification
- SUSE Enterprise Linux Hardware Certification

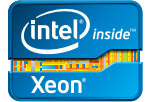
Cisco UCS E-Series Server Benefits

The Cisco UCS E-Series data center center–class, virtualization-ready multicore Intel x86 64-bit Xeon processor server blades provide customers with the capability to dramatically reduce the branch-office server footprint by incorporating high-performance, power-optimized blade servers directly into Cisco ISR G2 branch-office routers. The unique zero-footprint profile provided by the Cisco UCS E-Series blades and the comprehensive collection of branch-office services available in Cisco IOS® Software, all integrated and housed in a single Cisco ISR G2 chassis, delivers an ideal all-in-one platform for the lean branch office.



Cisco UCS E-Series Servers

Bringing Data Center Class Virtualization Ready Blade Servers to the Branch Office



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This solution offers many benefits, including the following:

- Low TCO: Cisco UCS E-Series Servers in combination with the Cisco ISR G2 platform reduce both capital expenditures and operating expenses by:
 - Reducing server onsite deployment and shipping costs
 - Lowering power, cooling, cabling, and space costs
 - Eliminating separate server hardware support costs
 - Increasing system uptime and availability
 - Reducing or eliminating service-call costs for new application deployments and system maintenance
- Operating efficiency in the branch office: Cisco UCS E-Series Servers offer the flexibility to address changing business needs:
 - New applications can be deployed quickly in a bare-metal or virtualized environment
 - Consolidated, wire-free infrastructure reduces operational burden and makes adding new services and infrastructure quick and easy
 - Blade servers accelerate and simplify physical server provisioning and simplify system maintenance
 - Built-in lights-out server management through Cisco Integrated Management Controller running on dedicated baseboard management controller (BMC) hardware provides Stand Alone Management consistency with the Cisco UCS C-Series Rack Servers for both local and remote server monitoring and configuration management
 - Cisco UCS E-Series Servers provide better physical security. With no external network cables or physical KVM required, the Cisco UCS E-Series blades easily can be secured in a wiring closet or other secure location without compromising managability, which is difficult to do with traditional tower and rack-mount servers
- Protection of infrastructure investment: Cisco UCS E-Series Servers can continue to support your branch office IT infrastructure into the future:
 - Open service module slots in your Cisco ISR G2 can now be used for server consolidation or for deploying new applications
 - Your Cisco SMARTnet® Service for the Cisco ISR G2 platform covers all Cisco UCS E-Series Servers deployed in the router chassis

- No infrastructure changes are needed to deploy new applications after the Cisco UCS E-Series Servers are deployed in your Cisco ISR G2 chassis
- When the Cisco UCS E-Series is coupled with virtualization, you can deploy new applications and services on demand with full central management and control

For More Information

<http://www.cisco.com/go/ucse>

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