Cisco UCS Invicta C3124SA Appliance

Product Overview

The Cisco Unified Computing System™ (Cisco UCS®) Invicta C3124SA Appliance delivers powerful, easy-to-manage application acceleration for data-intensive workloads. With the Cisco UCS Invicta C3124SA, customers can dynamically manage the mix of performance and efficiency they need to support real-time decision making that can move their business forward. As business needs expand, customers can transition from the Cisco UCS Invicta C3124SA to the Cisco UCS Invicta Scaling System, the first truly enterprise-class, scalable solid-state system.

The Cisco UCS Invicta OS enables the appliance to outperform similar technologies. The OS was explicitly designed to use NAND flash memory to sustain high throughput, a high I/O operations per second (IOPS), and ultra-low latency while overcoming the write performance and longevity challenges typically associated with multilevel-cell (MLC) flash memory.

Imagine all of your mission-critical application workloads performing faster. Cisco's application-centric approach allows customers to quickly and efficiently configure IT infrastructure to support resource intensive applications, real-time analytics, and decision making. Consider the impact on your business if transactions, analysis, batch jobs, desktops, and other important processes consistently performed at maximum speed. Cisco's solid-state systems products dramatically improve the performance of many types of workloads:

- Analytics and intelligence: Extract data, integrate data, and perform analysis 10x faster.
- Batch processing: Run batches without pausing workflow.
- Email: Reduce time delay by a factor of 50.
- Online transaction processing: Remove the performance bottleneck between server and memory and eliminate delays.
- Video: Compress more video files faster.
- Virtual desktops: Accelerate the performance of resource-intensive applications such as VDI.
- Database loads: Dramatically decrease query response times.
- High-performance computing: HPC clusters typically require high-performance memory.

In today's world of increasing business demands and technology requirements, customers need to process and react to data faster. Applications now require a higher level of performance, and IT departments need infrastructure that can be quickly shaped and reshaped as opportunities demand. This is where Cisco's leadership in high-performance, solid-state systems that accelerate application performance and simplify data center operations shines.

Features and Benefits

Table 1 summarizes the features and benefits of the Cisco UCS Invicta C3124SA Appliance.

Table 1. Features and Benefits

Feature	Benefit
Cisco UCS Invicta OS	• Enables the appliance to achieve high throughput, high IOPS, and ultra-low latency. • Greatly extends the useful life of MLC media. • Treats write requests in a manner that best accommodates flash architecture-wear-leveling algorithms by committing all writes across the entire appliance. • Reduces power consumption and floor space, leading to energy and space savings.
Data protection	• Write-protection buffer delivers confirmed writes in the event of a power loss. • Asynchronous and open target replication enables users to replicate data to a variety of different targets for increased flexibility, security, and availability.
Connectivity	• Users can use their current environments without limiting options to build an enterprise infrastructure.
Manageability	• Users can configure the appliance with only a few easy steps. • The GUI provides performance monitoring; advanced autosupport setup; role assignment; and management tools for mirroring, replication, and other functions.
Data Reduction	• Provides up to 10x deduplication rate. • Reduces space requirements for more efficient use.
Thin Provisioning	• Eliminates the cost of unused, over allocated memory. • Saves space and resources.

Product Specifications

Table 2 lists the hardware specifications for the Cisco UCS Invicta C3124SA Appliance.

Table 2. Cisco UCS Invicta C3124SA Appliance Specifications

Item	Specification
Capacity (TB)	3, 6, 12, and 24 TB
IOPS*	250,000 read operations 200,000 write operations * For 4000 cryptologically random writes
Bandwidth	1.9 GBps
Latency	100 microseconds
Drive protection	RAID
Redundant fans and power supplies	• Dual-redundant fans and power supplies for enterprise-class reliability and uptime • Power efficiency through Cisco® Common Form-Factor Platinum Power Supplies
Form factor	2RU
Power consumption	~350W
Interfaces	Ethernet: 10 Gigabit Ethernet and 1/10GBASE-T Fibre Channel: 8 GB
OS support	Microsoft Windows, Linux, Red Hat, Solaris, VMware vSphere, and Citrix XenServer
Integration	VAAI
Management Integration	Cisco UCS Director
Protocols	Fibre Channel, iSCSI, and NFS
Power outage protection	Write protection buffer
Processors	Intel Xeon processor: E5-2630 v2
Memory	24 DIMM slots 16-GB dual rank 1.35V

Item	Specification
PCIe slots	2 PCIe Generation 3, x16 slots: both full height, 3/4 length (10.5-in)
Drives	Up to 24 front-accessible, hot-swappable, 2.5-inch SATA drives
Front-panel connector	One KVM console connector (supplies 2 USB, 1 VGA, and 1 serial connector)
Front-panel locator LED	Indicator to help direct administrators to specific servers in large data center environments
Additional rear connectors	Additional interfaces including a VGA video port, 2 USB 2.0 ports, 1 Gigabit Ethernet dedicated management port, quad 1 Gigabit Ethernet ports, and an RJ-45 serial port
Physical dimensions (HxWxD)	2RU: 3.4 x 17.5 x 28.0 in. (8.7 x 44.5 x 71.2 cm)
Temperature: Operating	41 to 104℉ (5 to 40℃); derate the maximum tempera ture by 1℃ per every 305m of altitude above sea level
Temperature: Nonoperating	–40 to 158℉ (–40 to 70℃)
Humidity: Operating	10 to 90% noncondensing
Humidity: Nonoperating	5 to 93% noncondensing
Altitude: Operating	0 to 10,000 ft (0 to 3000m); maximum ambient temperature decreases by 1℃ per 300m)
Altitude: Nonoperating	40,000 ft (12,000m)
NV memory card	PCIe Card NVRAM card with Mode 2 support (Rev F support)
Boot drive	32-BG SD-card boot drive

Regulatory Standards

Table 3 provides regulatory standards compliance information for the Cisco UCS Invicta C3124SA Appliance.

Table 3. Regulatory Standards Compliance: Safety

Specification	Description
Safety	• UL 60950-1 No. 21CFR1040 Second Edition • CAN/CSA-C22.2 No. 60950-1 Second Edition • IEC 60950-1 Second Edition • EN 60950-1 Second Edition • IEC 60950-1 Second Edition • AS/NZS 60950-1 • GB4943 2001
EMC: Emissions	• 47CFR Part 15 (CFR 47) Class A • AS/NZS CISPR22 Class A • CISPR2 2 Class A • EN55022 Class A • ICES003 Class A • VCCI Class A • EN61000-3-2 • EN61000-3-3 • KN22 Class A • CNS13438 Class A
EMC: Immunity	• EN55024 • CISPR24 • EN300386 • KN24

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