

Stratus ztC Endurance™

Evolutionary predictive fault tolerant computing delivering protected, serviceable performance for next generation, sustainable operations.



The Stratus ztC Endurance platform enables organizations to run critical applications without downtime or data loss, in edge or data center environments, using intelligent, predictive fault tolerance based on Stratus' proven redundant hardware architecture, hardened drivers, and Stratus Automated Uptime Layer with Smart Exchange™.

Across industries, organizations rely on the continuous availability of mission-critical applications to successfully meet the demand of "always on" operations. For these essential processes and operations, any unplanned downtime can significantly impact productivity, revenue, reputation, and safety. For these operations, failure recovery is not good enough. Organizations running vital applications require continuous availability of data and applications and the modern infrastructure to enable failure prevention.

Both OT and IT teams face the challenge of delivering this reliability to both centralized and distributed locations across their operations. They also may lack on-site technical staff needed to maintain complex infrastructure. Platforms running critical applications must be easy to deploy, easy to manage, and easy to service—and not just in data centers, but at the edge of corporate networks.

Stratus ztC Endurance provides continuous availability and ensures data integrity for mission-critical applications running at the edge, operations center, and data center. Delivering seven nines (99.99999%) uptime, its Automated Uptime Layer with Smart Exchange provides continual proactive health monitoring and automatically takes action to maintain system availability and protect against data loss when needed. Coupled with the platform's modular design of hot-swappable customer replacement units (CRUs), ztC Endurance makes it easy for OT and IT teams to manage and support. ztC Endurance delivers the processing power and performance to host dozens of software applications as virtual machines (VMs), dramatically reducing the number of PCs or servers required for OT and IT teams to manage and maintain.

Key benefits

Seven nines availability for critical applications: Built-in computing fault tolerance delivers 99.99999% availability to run critical applications.

No loss of data: Redundant computing architecture combined with intelligent automated management prevents in-flight data loss and ensures data integrity.

"Zero touch" management and support: Modular design plus pro-active remote health monitoring and self-healing simplifies system management and serviceability for both IT and OT teams.

Rapid modernization and workload consolidation: Modernize infrastructure and streamline operations by leveraging virtualization to consolidate multiple software workloads onto a single platform.

Multi-layered security: Supports multi-layered defense-in-depth approaches, with focus on both process and product security guidelines to ensure maximum protection.

Lower TCO: Reduce IT footprint and purchase fewer software licenses on a highly reliable platform with an expected 7-10 year lifespan, twice that of traditional servers.



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Stratus ztC Endurance features

Using Stratus ztC Endurance, organizations can rapidly modernize IT infrastructure to maximize reliability, simplify manageability, and increase efficiency with minimal risk. Several key features help make ztC Endurance easy to deploy, easy to manage, and easy to service—at the enterprise data center, operations center, or edge location:



Intelligent, predictive fault tolerance

Stratus ztC Endurance delivers built-in fault tolerance that is transparent to applications without any scripting or modification. Stratus' Automated Uptime Layer with Smart Exchange™ (AUL - Smart Exchange) software automatically manages system resources to ensure continuous availability while providing a single system image to operating systems, applications, and users. AUL - Smart Exchange monitors nearly 500 alarm points to predict and avoid a potential failure before it occurs, taking action before operations are impacted.



Proactive health monitoring

Stratus ztC Endurance delivers automated self-monitoring, alerting, self-diagnosing, and remediation capabilities. Using the Stratus ActiveService™ Network (ASN) or an organization's existing monitoring methods, Stratus, partners and/or customers can receive platform health information and alerts. In most cases, the AUL - Smart Exchange identifies and resolves potential issues before they occur while keeping the appropriate teams informed at all times.



Modular design with redundant CRU modules

Each ztC Endurance platform has four pairs of identical customer replaceable unit modules (CRU modules)—two compute modules, two storage modules, two I/O modules, and two power supply modules. Together with the AUL - Smart Exchange, the redundant pairs of CRU modules act as a single system maintaining 99.99999% availability.



Industry standard components

Stratus ztC Endurance is engineered with the highest quality industry-standard components – Intel chipsets, RDIMMs, I/O cards, network cards, and NVMe drives. The platforms run standard shrink-wrapped operating systems and hypervisors, support industry-standard application programming interfaces (APIs), and cybersecurity software for ease of management, open interoperability, remote management, and security. Stratus builds on this design with its hardened drivers and built-in fault tolerance.



Connectivity to critical infrastructure

Stratus ztC Endurance provides the highest levels of computing reliability, enabling acquisition of critical data and connection to enterprise systems whether in the data center or at the edge. The platform ensures secure and fast access to crucial data in your Storage Area Network (SAN) with reliable Fibre Channel connectivity. ztC Endurance enables single pane of glass visibility of your industrial automation infrastructure with OPC-UA Server, integrating standards-based interoperability and security for connectivity with digitized sensors, industrial equipment, and industrial software applications.



Workload consolidation

Stratus ztC Endurance offers the flexibility to run critical applications on bare metal – with the choice of industry-standard operating systems from Microsoft or RedHat – or to consolidate workloads with the hypervisor of your choice – whether VMware vSphere or Microsoft Windows Server with Hyper-V. With built-in virtualization, teams can easily consolidate multiple servers and devices onto a single, fault tolerant platform, allowing them to run more applications, improve performance, reduce total IT footprint and costs while ensuring application availability and uptime.



Manageable and serviceable by OT and IT

Status ztC Endurance simplifies manageability with remote monitoring capabilities and management APIs interoperable with standard systems. ztC Endurance is also easily serviceable without specialized IT skills or tools. The platform features four pairs of hot swappable customer replaceable unit (CRU) modules. When a CRU module is replaced, the system automatically returns the module to operation, making ztC Endurance ideal for environments with limited IT resources.

Stratus ztC Endurance models

Stratus ztC Endurance platforms are easy to deploy, easy to manage, and easy to service. We offer three different ztC Endurance models to meet the workload, environment, and budget of today's application dependent enterprises and edge locations.

ztC Endurance 3100

Affordable performance for stable, fixed standalone applications in remote offices, branch offices, or shop floor locations

ztC Endurance 5100

Versatility and flexibility for rapidly growing or evolving applications in regional offices, remote plants, or regional data centers

ztC Endurance 7100

High performance for high volume data- or transaction-intensive applications in large remote plants or corporate data centers



ztC Endurance System Specifications	3100	5100	7100
Compute Module			
Processor(s)	1 x Intel® Xeon® Silver 4410Y processor 2.0 GHz	2 x Intel® Xeon® Silver 4410Y processor 2.0 GHz	2 x Intel® Xeon® Gold 5418Y processor 2.0 GHz
All Core Turbo Max Frequency	2.8 GHz	2.8 GHz	2.8 GHz
Max Turbo Frequency	3.9 GHz	3.9 GHz	3.8 GHz
Intel® Hyper-threaded Cores	12 per processor/ 12 per compute module	12 per processor/ 24 per compute module	24 per processor/ 48 per compute module
Threads	24 per processor/ 24 per compute module	24 per processor/ 48 per compute module	48 per processor/ 96 per compute module
Min/max memory	64 GB / 256 GB DDR5 RDIMMS	128 GB / 512 GB DDR5 RDIMMS	256 GB/ 1024 GB DDR5 RDIMMS
Intel UPI speed	16 GT/s	16 GT/s	16 GT/s
Maximum memory speed	4000 MT/s	4000 MT/s	4400 MT/s
USB Port	2 USB 3.0 (non-redundant) per compute module	2 USB 3.0 (non-redundant) per compute module	2 USB 3.0 (non-redundant) per compute module
I/O Module			
Integrated PCIe® adapter slots	5 PCIe 4 x8 per I/O module	5 PCIe 4 x8 per I/O module	5 PCIe 4 x8 per I/O module
10 Gb Ethernet ports	4 / 2 per I/O module	4 / 2 per I/O module	4 / 2 per I/O module
1 Gb Ethernet management ports	2 / 1 per I/O module	2 / 1 per I/O module	2 / 1 per I/O module
10 Gb dual-port Ethernet server PCIe adapter (fiber & copper)	Up to 5 optional per I/O module ¹		
25 Gb dual-port Ethernet server PCIe adapter (fiber & copper)	Up to 5 optional per I/O module ¹		
32 Gb Fibre Channel PCIe adapter	Up to 5 optional per I/O module		
Storage Module			
Internal system drive bays	6 per storage module NVMe PCIe Gen 4		
Internal 2.5" drives	Please visit www.stratus.com/solutions/platforms/system-specifications/disk-drive-matrix/ for a complete list of supported disk drives		
Manageability			
Alerts & Notifications	SNMP support, email alerts, REST API, and ActiveService Network (ASN)	SNMP support, email alerts, REST API, and ActiveService Network (ASN)	SNMP support, email alerts, REST API, and ActiveService Network (ASN)
Baseboard management controller	Standard	Standard	Standard



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Virtual Technician Module (VTM)	Standard	Standard	Standard
Graphics adapter	1 VGA port per system	1 VGA port per system	1 VGA port per system
USB ports	1 USB 2.0 (redundant) per system	1 USB 2.0 (redundant) per system	1 USB 2.0 (redundant) per system
Serviceability			
Hot-swappable components	Compute module, storage module, I/O module, PSU, drives, RDIMMS	Compute module, storage module, I/O module, PSU, drives, RDIMMS	Compute module, storage module, I/O module, PSU, drives, RDIMMS
Operating System ²			
Microsoft	Windows Server with optional Hyper-V® virtualization	Windows Server with optional Hyper-V® virtualization	Windows Server with optional Hyper-V® virtualization
VMware	vSphere	vSphere	vSphere
Red Hat	Enterprise Linux	Enterprise Linux	Enterprise Linux
Power and Packaging			
Input voltage	100-127, 200-240 VAC; 50 Hz, 60 Hz	100-127, 200-240 VAC; 50 Hz, 60 Hz	200-240 VAC; 50 Hz, 60 Hz
System dimension (H x W x D)	87.1 mm/3.43 in. (2U) x 446 mm/17.6 in. x 910 mm/35.83in		
Weight (fully loaded including rails)	34 kg (75 lbs.)	35 kg (78 lbs.)	35 kg (78 lbs.)

¹ VMware vSphere limits to no more than three dual-port Ethernet server PCIe adapter cards per I/O module.

² Support for Hyper-V with Windows Server and Red Hat Enterprise Linux will be available in a future release. Please visit [our Stratus support page](#) for a complete list of supported Operating Systems.

Seven nines (99.99999%) availability of the Stratus ztC Endurance computing platform is based on requirements that customers use parts authorized for Stratus ztC Endurance, maintain an active Stratus Support contract, and perform system updates recommended by Stratus.

For information about model availability, contact your local distributor.

Stratus support

From basic support plans to value added managed and professional services—get the additional capabilities you need to satisfy your unique enterprise and Edge Computing requirements.

Stratus Services for ztC Endurance

Similar to all Stratus computing platforms, Stratus offers a variety of certified options to ensure your systems are up-to-date and operating at peak efficiency. You'll get the help you need when you need it. Total Assurance and Extended Platform Support managed plans are available for different applications, environments, and use cases. [More+](#)

Find out more

For more information, or to purchase Stratus products, please call 1-800-STRATUS, or visit www.stratus.com.



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