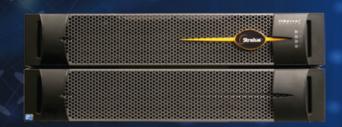# ftServer®

A continuously available computing platform purpose-built to run mission-critical applications without downtime or data loss—for the enterprise data center, control room, or edge location.

Stratus ftServer provides organizations with an unmatched combination of reliability, computing power, performance, and serviceability to rapidly modernize IT architectures, run mission-critical applications with no downtime, and turn data into actionable insight.

In today's business world, seconds matter. Ensuring the continuous availability of critical applications and the integrity of data is essential to business operations. In some cases, recovering from a failure, no matter how quick, is simply not an option. Enterprises require failure prevention—not failure recovery.

Compounding the issue is the growing scarcity of IT resources, especially at remote plants at the edge of corporate networks. These distributed locations require not only the continuous availability of key applications but also the ability for non-IT staff supporting these services to maintain infrastructure. Platforms running these critical applications must be easy to deploy, easy to manage, and easy to service—not just in data centers, but at the edge of corporate networks.

Stratus ftServer is a zero-touch computing platform purpose-built to run mission-critical applications at the enterprise data center, control room, or edge locations without downtime or data loss. The platform's hardware-based, fault-tolerant architecture delivers better than five-nines reliability, is easily serviceable by OT or IT, and is uniquely engineered for proactive health monitoring and self-healing. Using ftServer, organizations are able to rapidly modernize their IT infrastructure to maximize reliability, simplify manageability, and increase efficiency with minimal risk. In addition, application virtualization enables the consolidation of multiple software workloads onto a single ftServer platform to run an enterprise data center, digital factory, or remote asset. This unmatched combination of performance, computing power, reliability, and serviceability allows organizations to build future-proof, edge-to-enterprise architectures necessary to connect edge operations with cloud investments and realize edge-core-cloud data strategies that turn data into actionable insight.

Key benefits

Eliminate application downtime: Built-in fault tolerance delivers greater than five nines availability to run critical applications.

Avoid data loss and ensure data integrity: Redundant computing architecture protects in-flight data in the event of component failure.

Simplify management and support: Pro-active health monitoring and self-healing saves time and enables management by OT or IT.

Rapidly modernize computing infrastructure: Deploy virtualization to consolidate multiple software workloads onto a single platform and run advanced software.

Reduce TCO: Platform delivers 7-10 year lifespan, twice that of traditional servers, reduces IT footprint, and requires fewer software licenses.

"Having the Stratus ftServer there gives us peace of mind because it is truly fault tolerant. It's one of the main reasons why we always choose to go Stratus ftServer when available."

Eric Belgard, Enginuity Global, LLC
Lead Systems Engineer

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ftServer features

Using ftServer, organizations are able to rapidly modernize IT infrastructure to maximize reliability, simplify manageability, and increase efficiency with minimal risk. Several key features help make ftServer easy to deploy, easy to manage, and easy to service—at the enterprise data center, control room, or edge location:

Automated Uptime Layer

Stratus' Automated Uptime Layer (AUL) software coordinates processor synchronization, data replication, and logic needed to ensure continuous availability, even in the event of a hardware component failure. AUL monitors nearly 500 alarm points to alert users of potential issues.

Serviceable by OT and IT teams

ftServer is designed for serviceability. The CRUs are hot swappable without requiring platform shutdown or use of special tools. When a CRU is replaced, the system automatically re-synchronizes data, making ftServer ideal for deployment in remote manufacturing locations or locations with limited IT resources.

Workload consolidation

ftServer 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.

Industry standard components

ftServer uses the same chipsets, DIMMs, and drives, as those found in other industry standard x86 systems. It also uses standard shrink-wrapped operating system and virtualization software for ease of management and faster time to value.

Proactive health monitoring

ftServer delivers automated self-monitoring, alerting, self-diagnosing, and remediation capabilities. Platform health information sent via the Stratus ActiveService™ Network (ASN) or through an organization's existing monitoring methods alerts users of potential issues before they occur.

Redundant hardware CRUs

Each ftServer platform consists of two identical customer replaceable units (CRUs)—each with their own processors, memory, storage and power. All redundant components and subsystems are packaged as a single system. This approach is completely transparent to applications, therefore requiring no development overhead to deploy, greatly simplifying management, and allowing the platform to be serviced and maintained while in operation, without disruption or downtime.

ftServer models

ftServer is easy to deploy, easy to manage, and easy to service. Four different ftServer models meet most every enterprise workload, environment, and budget.

ftServer 2920

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

ftServer 4920

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

ftServer 6910

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

ftServer 6920

The ultimate in performance for compute-, data- or transaction-intensive applications in corporate data centers or large plants

ftServer System Specifications	2920	4920	6910	6920
Processors				
Processor(s)	1 x Intel® Xeon® Silver 4210R processor 2.4 Ghz	2 x Intel® Xeon® Silver 4210R processor 2.4 Ghz	2 x Intel® Xeon® Gold 5220 processor 2.2 GHz	2 x Intel® Xeon® Gold 6241C processor 2.3 GHz
Intel® Hyper-threaded Cores	10 per processor (10 per CRU)	10 per processor (20 per CRU)	18 per processor (36 per CRU)	22 per processor (44 per CRU)
Threads	20 per processor (20 per CRU)	20 per processor (40 per CRU)	36 per processor (72 per CRU)	44 per processor (88 per CRU)
Intel UPI speed	9.6 GT/s	9.6 GT/s	10.4 GT/s	10.4 GT/s
Maximum memory bandwidth	76.8 GB/s	192 GB/s	213.3 GB/s	213.3 GB/s
Memory				
Min/max memory	32 GB / 256 GB DDR4	64 GB / 640 GB DDR4	64 GB / 1280 GB DDR4	64 GB / 1280 GB DDR4
DIMM slots	16 (8 per CRU)	40 (20 per CRU)	40 (20 per CRU)	40 (20 per CRU)
I/O Subsystem				
Integrated PCIe® adapter slots	4 PCIe 3 x8 (2 per CRU)	4 PCIe 3 x8 (2 per CRU)	4 PCIe 3 x8 (2 per CRU)	4 PCIe 3 x8 (2 per CRU)
Additional PCIe adapter slots	N/A	4 PCIe 3 x8 (optional) (2 per CRU)	4 PCIe 3 x8 (included) (2 per CRU)	4 PCIe 3 x8 (included) (2 per CRU)
Storage Subsystem				
Internal system drive bays	12 Gb SAS (8 per CRU) OR 12 Gb SAS (2 per CRU), NVMe PCIe Gen4 x 4 U.2 (4 per CRU)	12 Gb SAS (8 per CRU) OR 12 Gb SAS (2 per CRU), NVMe PCIe Gen4 x 4 U.2 (4 per CRU)	12 Gb SAS (8 per CRU) OR 12 Gb SAS (2 per CRU), NVMe PCIe Gen4 x 4 U.2 (4 per CRU)	12 Gb SAS (8 per CRU) OR 12 Gb SAS (2 per CRU), NVMe PCIe Gen4 x 4 U.2 (4 per CRU)
Internal 2.5" drives	Please visit www.stratus.com/ftserver/disks for a complete list of supported disk drives			
ftScalable Storage Subsystem				
Expansion drive slots (RAID)	Up to 144	Up to 144	Up to 144	Up to 144
RAID levels	1, 5, 6, 10	1, 5, 6, 10	1, 5, 6, 10	1, 5, 6, 10
Drive types	Please visit www.stratus.com/ftserver/disks for a complete list of supported disk drives			
Embedded I/O				
10/100/1000 Ethernet ports	4 (2 per CRU)	4 (2 per CRU)	4 (2 per CRU)	4 (2 per CRU)
10 Gb Ethernet ports	N/A	4 (2 per CRU)	4 (2 per CRU)	4 (2 per CRU)
10/100 Management Ethernet ports	2 (1 per CRU)	2 (1 per CRU)	2 (1 per CRU)	2 (1 per CRU)
Serial (com) ports	2 (9-pin) ports per system	2 (9-pin) ports per system	2 (9-pin) ports per system	2 (9-pin) ports per system
USB ports	4 USB 2.0 (redundant), 4 USB 3.0 (non-redundant)	4 USB 2.0 (redundant), 4 USB 3.0 (non-redundant)	4 USB 2.0 (redundant), 4 USB 3.0 (non-redundant)	4 USB 2.0 (redundant), 4 USB 3.0 (non-redundant)
Manageability				
Baseboard management controller	Standard	Standard	Standard	Standard
Virtual Technician Module (VTM)	Standard	Standard	Standard	Standard
Graphics adapter	1 VGA port per system	1 VGA port per system	1 VGA port per system	1 VGA port per system

ftServer System Specifications	2920	4920	6910	6920
PCI Adapters				
1 Gb dual-port Ethernet	Up to 4 optional (2 per CRU)	Up to 8 optional (4 per CRU)	Up to 8 optional (4 per CRU)	Up to 8 optional (4 per CRU)
10 Gb dual-port Ethernet server adapter (fiber & copper)	Up to 4 optional (2 per CRU)	Up to 4 optional (2 per CRU)	Up to 4 optional (2 per CRU)	Up to 4 optional (2 per CRU)
32 Gb Fibre Channel for external storage	Up to 4 optional (2 per CRU)	Up to 4 optional (2 per CRU)	Up to 4 optional (2 per CRU)	Up to 4 optional (2 per CRU)
Serviceability				
Hot-swappable components	CPU / I/O module, disks	CPU / I/O module, disks	CPU / I/O module, disks	CPU / I/O module, disks
Operating System*				
Microsoft	Windows Server with Hyper-V™ virtualization	Windows Server with Hyper-V™ virtualization	Windows Server with Hyper-V™ virtualization	Windows Server with Hyper-V™ virtualization
VMware	vSphere	vSphere	vSphere	vSphere
Red Hat	Enterprise Linux	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	100-127, 200-240 VAC; 50 Hz, 60 Hz	100-127, 200-240 VAC; 50 Hz, 60 Hz
System dimension (H x W x D)	7.0" (4U) x 17.5" x 30.1" with bezel	7.0" (4U) x 17.5" x 30.1" with bezel	7.0" (4U) x 17.5" x 30.1" with bezel	7.0" (4U) x 17.5" x 30.1" with bezel
Weight (fully loaded including rails)	54.43 kg (120 lbs.)	54.43 kg (120 lbs.)	54.43 kg (120 lbs.)	54.43 kg (120 lbs.)

* Please visit our Stratus support page for a complete list of supported Operating Systems.
  For information about model availability, contact your local distributor.

Stratus support and additional storage

Stratus offers a variety of certified options to easily extend your continuously available platform. From value added managed support plans, to modular storage—get the additional capabilities that you need, to satisfy your unique enterprise and Edge Computing requirements.

ftServices

A variety of managed support plans and professional services are available 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, System Assurance, Extended Platform Support, and Platform Support managed plans are available for different applications, environments, and use cases. More+

ftScalable

Specifically designed to complement ftServer, this hybrid storage array helps you easily meet your growing storage needs, while also ensuring continuous availability and data integrity. Manage both hot and cold storage with real time data tiering, and protect your sensitive data at rest with encrypted disk technology. 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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