Stratus ftServer Family of Systems 2700, 4700, 6400 Models

Round-the-clock uptime assurance for mission-critical applications

Sixth-generation Stratus® ftServer® systems deliver affordable continuous availability, comprehensive data protection and up to four times the performance of previous ftServer generations. Powered by mult-core Intel® Xeon® processors and Intel QuickPath Architecture, the ftServer 2700, 4700, and 6400 models feature Microsoft® Windows Server® and Red Hat® Enterprise Linux®, operating environments. These industry-standard, fault-tolerant servers eliminate the operational complexity and high costs inherent in other solutions.

Priced below comparable cluster solutions, the entry-level 2700 model features a compact design that combines economic value with lights-out management. It's an ideal choice for volume deployment at remote locations — or as a fault-tolerant replacement for ordinary, standalone servers.

The ftServer 4700 brings businesses a powerful, flexible solution for dedicated business processing. The system leverages Intel® QuickPath technology with integrated high-speed memory controllers and interconnects that boost system performance, bandwidth, and reliability. These design enhancements are complemented by the availability, performance, and security features offered by the operating systems.

The top-of-the-line 6400 system is powered by two high-performance, octo-core Intel Xeon processors for outstanding levels of processing power. No-compromise features like hyper-threading technology, integrated memory controllers, and high-speed interconnects make this system right for enterprise-class applications or transaction-intensive data center solutions. Such environments include server virtualization, database engine, electronic funds transfer, online banking, supply chain, and cloud computing.

Whichever ftServer model you choose, you're sure to benefit from business continuity, data integrity, customer satisfaction, and the highest levels of uptime in the industry.

Uptime assurance features

Stratus builds uptime assurance technologies into every ftServer system. Every aspect of the server — hardware, software, and service — is designed to prevent unplanned downtime. Your enterprise gains superior uptime protection without the need for failover scripting, repeated test procedures, or any extra effort to make applications cluster-aware.

Fault-tolerant ftServer systems protect mission-critical applications against downtime and data loss.

Lockstep hardware technology

Replicated, fault-tolerant hardware components process the same instructions at the same time. In the event of a component malfunction, processing doesn't miss a beat. The redundant component acts as an active spare that continues normal operations without system downtime or data loss. But that's just one of the major difference between ftServer systems and conventional servers.

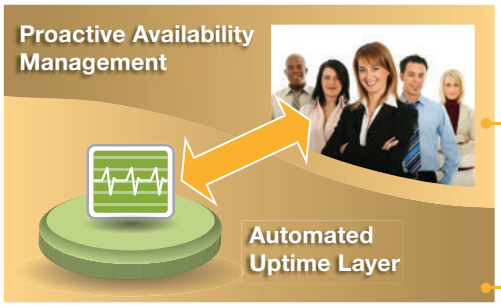
The ftServer architecture separates PCI I/O from the rest of the motherboard and adds hardware logic in the form of custom Stratus chipsets. These chipsets provide the essential foundation for lockstep processing and the ability to detect, isolate, and withstand faults. Lockstep operation allows the ftServer system to isolate any hardware failure without any degradation in performance.

Automated Uptime layer

The Automated Uptime™ layer presents and manages the replicated ftServer components as a single system. This dramatically reduces complexity and operator error. Conventional technologies like clusters require you to synchronize state information between the nodes and between all the layers of multi-tiered applications such as the Web layer, middleware, and back-end database.

Working in concert with lockstep technology, the Automated Uptime layer prevents many errors from escalating into outages. Even in-memory data is constantly protected and maintained. Other issues are captured, analyzed, and reported to Stratus. This allows support personnel to take a proactive approach to correcting software problems before they recur.

Stratus uptime assurance keeps critical operations available all the time.



24/7 monitoring: people / practices

Detects, isolates, and resolves issues before they cause downtime

Lockstep hardware withstands faults that would cause other servers to crash

ftServer systems combine purpose-built fault-tolerant hardware, Automated Uptime Layer software, and proactive availability management services for complete uptime assurance.

Stratus ftServer™

Uptime. **All the time.**

Stratus uptime assurance. Automatic availability that exceeds 99.999%.

Stratus provides a single source of accountability for complex inter-related platform, system software, and operating system support issues.

If needed, the ftServer system automatically orders the *correct* customer-replaceable part and resynchronizes upon installation. Stratus device driver hardening adds yet another level of reliability to the operating environment.

Proactive availability management

Stratus support technicians monitor your system over our secure global ActiveService™ Network (ASN). Leveraging information provided by the automated uptime layer, these experts are at the ready 24/7 to remotely diagnose and remediate more complex issues.

The Automated Uptime Layer reports a depth and frequency of diagnostic information that is unmatched in the industry. Authorized Stratus support engineers use this data to determine the root cause of issues related to the hardware or operating environment.

Remote support capabilities — made possible by the global Stratus ActiveService Network — enable our service engineers to diagnose, troubleshoot, and resolve problems online as if they were onsite.

Stratus' extensive online knowledgebase is a repository that tracks events across the entire installed base of systems. This enables us to identify and take remedial action on trends and defects before they pose problems. We also use this data to improve future product and service capabilities.

Stratus' uptime assurance features translate into tangible financial advantages that any business can appreciate: industry-leading uptime, plug-and-play deployment and simplified management and support.

Fault-tolerant ftScalable™ storage enables common storage management.

The ftScalable storage solution from Stratus packs innovative availability into an economical, scalable, 2U powerhouse. This high-performance, modular array addresses dedicated, shared and networked storage environments — allowing your to dynamically configure and grow your system as quickly as the needs of your business dictate.

Like other members of our ftServer product family, the fault-tolerant ftScalable solution is designed for continuous availability. Redundant components, integrated automatic controller failover, and hot standby features combine with multi-path IO support to ensure maximum data integrity and protection.

Stratus ftScalable storage offers dynamic capacity expansion of up to three shelves.

ftServer System Specifications



	2700	4700	6400
PROCESSORS			
Logical processors	1 socket (per CRU*)	2 sockets (per CRU*)	2 sockets (per CRU*)
Processor	Intel Xeon processor E5-2603, 1.8 GHz	Intel Xeon processor E5-2603, 1.8 GHz	Intel Xeon processor E5-2670, 2.6 GHz
Cores	4 (per processor)	4 (per processor)	8 (per processor)
L2 Cache	10 MB (per processor)	10 MB (per processor)	20 MB (per processor)
Intel QPI speed	8.5 GT/s	8.5 GT/s	10.7 GT/s
Maximum memory bandwidth	34.1 GB/s	68.2 GB/s	85.3 GB/s
MEMORY			
Min/max memory	4 GB/32 GB DDR3	16 GB/256 GB DDR3	16 GB/256 GB DDR3
DIMM Slots	16 (8 per CRU)	32 (16 per CRU)	32 (16 per CRU)
I/O SUBSYSTEM			
Integrated PCI adapter slots	4 PCI-Express (2 per CRU)	4 PCI-Express (2 per CRU)	4 PCI-Express Gen 2x4 (2 per CRU), 4 PCI-Express Gen 2x8 (2 per CRU)
Optional PCI adapter slots	N/A	4 PCI-Express Gen 2x8 (2 per CRU)	N/A
STORAGE SUBSYSTEM			
Internal system drive bays	16 6Gb SAS 2.5" (8 per CRU)	16 6Gb SAS 2.5" (8 per CRU)	16 6Gb SAS 2.5" (8 per CRU)
Internal SAS disk drives supported	15K (146 GB, 300 GB); 7.2K 1TB; 200 GB SLC SSD	15K (146 GB, 300 GB); 7.2K 1TB; 200 GB SLC SSD	15K (146 GB, 300 GB); 7.2K 1TB; 200 GB SLC SSD
FTSCALABLE STORAGE			
Expansion drive slots (RAID)	up to 72	up to 72	up to 72
RAID levels	0, 1, 3, 5, 6, 10, 50	0, 1, 3, 5, 6, 10, 50	0, 1, 3, 5, 6, 10, 50
Drive types	SFF SAS: SSD and HDD (15K, 7.2K RPM)	SFF SAS: SSD and HDD (15K, 7.2K RPM)	SFF SAS: SSD and HDD (15K, 7.2K RPM)
EMBEDDED I/O			
10/100/1000 Ethernet ports	4 (2 per CRU)	4 (2 per CRU)	4 (2 per CRU)
10/100 management Ethernet	2 (1 per CRU)	2 (1 per CRU)	2 (1 per CRU)
10 Gigabit Ethernet ports	N/A	4 (2 per CRU); requires optional PCI slots	4 (2 per CRU)
Serial (com) ports	2 (9-pin) ports per system	2 (9-pin) ports per system	2 (9-pin) ports per system
USB ports	4 (3 on rear, 1 on front per system)	4 (3 on rear, 1 on front per system)	4 (3 on rear, 1 on front per system)
MANAGEABILITY			
Integrated VTM/BMC	standard	standard	standard
Graphics adapter	1 VGA port per system	1 VGA port per system	1 VGA port per system
PCI ADAPTERS			
1 Gigabit dual-port Ethernet	up to 4 optional (2 per CRU)	up to 8 optional (4 per CRU)	up to 8 optional (4 per CRU)
10 Gigabit Ethernet server adapter	N/A	up to 4 optional (2 per CRU)	up to 4 optional (2 per CRU)
SAS 8-port host bus adapter for tape	up to 2 optional (non-redundant)	up to 2 optional (non-redundant)	up to 2 optional (non-redundant)
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)
SERVICEABILITY			
Hot-swappable components	CPU / I/O module, disks	CPU / I/O module, disks	CPU / I/O module, disks
OPERATING SYSTEMS			
Microsoft	Windows Server® 2008 R2 with Hyper-V™ virtualization	Windows Server 2008 R2 with Hyper-V™ virtualization	Windows Server 2008 R2 with Hyper-V™ virtualization
Red Hat	Red Hat Enterprise Linux 6	Red Hat Enterprise Linux 6	Red Hat Enterprise Linux 6
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
Dimension (H x W x D)	7.0" (4U) x 17.5" x 30.1"	7.0" (4U) x 17.5" x 30.1"	7.0" (4U) x 17.5" x 30.1"
Weight (fully loaded)	54.43 kg (120 lbs.)	54.43 kg (120 lbs.)	54.43 kg (120 lbs.)

* Customer replaceable unit

Specifications and descriptions are summary in nature and subject to change without notice.

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