Stratus ftServer
4700 System

ftServer systems are for organizations with mission-critical applications that must always be protected against downtime and data loss.

The sixth generation Stratus® ftServer® 4700 system brings leading scalability/performance and premier continuous availability to a mid-range server designed for data centers and lights-out settings where agility and business continuity is essential. Delivering 99.999% and greater uptime, this modular server harnesses the quad-core Intel® Xeon® processor and new Intel QuickPath Architecture to achieve high-performance processing power in a flexible configuration.

The ftServer 4700 brings businesses a powerful solution for Microsoft® Windows Server®, Red Hat® Enterprise Linux®, and VMware® vSphere™ operating environments. Customers will find the ftServer 4700 architecture ideal for supporting business processing solutions that include: manufacturing execution systems (MES), ATM/POS, computer-aided dispatch (CAD), cloud computing, server virtualization, and hospital information systems (HIS).

The versatility of the 4700 model reflects significant design improvements in the physical chassis that enable increased use of modular, industry-standard components. The system leverages Intel QuickPath Technology which incorporates integrated, high-speed memory controllers and interconnects that boost system performance, bandwidth and reliability. These physical design improvements are further enhanced by the availability, performance, and security features offered by the operating systems.

Uptime assurance features

Like other members of the industry-standard ftServer family, the model 4700 comes complete with Stratus uptime assurance features that eliminate operational complexity and high costs inherent in clusters. Your enterprise gains superior uptime protection without having to modify applications — and without the need for failover scripting, repeated test procedures, or extra effort to make applications cluster-aware.

Uptime. **All the time.**

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.

Proactive Availability Management

24/7 monitoring: people / practices

Automated Uptime Layer

Detects, isolates, and resolves issues before they cause downtime

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

Lockstep hardware withstands faults that would cause other servers to crash

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.

Uptime. **All the time.**

Stratus ftServer 4700 Systems

The ftServer 4700 system redefines scalability and uptime for departmental business processing. This mid-range server taps the power of Intel's advanced quad-core technology and QuickPath Architecture.

ftServer 4700 system specifications

PROCESSORS

Logical processor	2-socket per customer replaceable unit (CRU)
Processor	Intel® Xeon® processor E5-2603, 1.8 GHz
Cores	4 (per processor)
L2 cache	10 MB (per processor)
Intel QPI speed	6.4 GT/s
Maximum memory bandwidth	68.2 GB/s

MEMORY

Min/max memory	16 GB/256 GB DDR3
DIMM slots	32 (16 per CRU)

I/O SUBSYSTEM

Integrated PCI adapter slots	4 PCI-Express Gen 2x4 (2 per CRU)
Optional PCI-adapter slots	4 PCI-Express Gen 2x8 (2 per CRU)

STORAGE SUBSYSTEM

Internal system drive bays	16 SAS 2.5" (8 per CRU)
Internal SAS disk drives supported	15K (146 GB, 300 GB); 7.2K (1 TB); 200 GB SLC SSD

ftSCALABLE STORAGE SUBSYSTEM

Expansion drive slots (SAS)	up to 72
RAID levels	0, 1, 3, 5, 6, 10, 50
Drive types	SFF SAS: SSD and HDD (15K, 7.2K RPM)

EMBEDDED I/O

10/100/1000 Ethernet ports	4 (2 per CRU)
10 Gigabit Ethernet ports	4 (2 per CRU); requires optional PCI riser card
10/100 Management Ethernet ports	2 (1 per CRU)
DVD-R/W	1
Serial (com) ports	2 (9-pin) ports per system
USB ports	4 (3 on rear, 1 on front per system)

MANAGEABILITY

Baseboard management controller	standard
Virtual Technician Module (VTM)	standard
Graphics adapter	1 VGA port per system
ActiveService modem	1 on rear panel (optional)

PCI ADAPTERS

1 Gigabit dual-port Ethernet	up to 8 optional (4 per CRU)
10 Gigabit Ethernet server adapter	up to 4 optional (2 per CRU)
6Gb SAS 8-port host bus adapter for tape	up to 2 optional (non-redundant)
8Gb Fibre Channel for external storage	up to 4 optional (2 per CRU)

SERVICEABILITY

Hot-swappable components	CPU / I/O module, disks

OPERATING SYSTEM

Microsoft	Windows Server 2008 R2 with Hyper-V™ virtualization
Red Hat	Red Hat Enterprise 6
VMware	vSphere 5.1

POWER AND PACKAGING

Input voltage	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
Weight (fully loaded including rails)	54.43 kg (120 lbs.)

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Intelligent.**

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