

# FAULT-TOLERANT SOLUTIONS FOR EXCHANGES AND CAPITAL MARKETS

Always-on trading and back office operations without compromising performance

Stock Exchanges and Capital Markets globally rely on Stratus fault-tolerant platforms, and have for decades. This is because their primary need is uptime and Stratus technology guarantees this. This demand for fault-tolerant systems has only increased with the advent of electronic trading and global free access to markets. However, increasingly competitive and regulated markets are dictating the need for today's financial trading infrastructures to be efficient and fast in addition to always available and stable.

No other server on the market today delivers the superior levels of uptime, combined with low latency, high throughput performance than the Stratus architecture. The latest evolution of the Stratus® ftServer® delivers all of this in a simple, reliable platform without the complexity of clustering or other approaches to fault tolerance.

**Availability without compromise**—The Stratus ftServer combines hardware fault tolerance with a low jitter version of Linux® and Solarflare® OpenOnload® to deliver the highest levels of availability and performance in a standard Intel® based Linux server.

**Fault tolerance without modifications**—Applications deployed on a Stratus ftServer system are fault-tolerant without the need for any modifications. This reduces development and test cycles and enables the widest range of applications to run in a fault-tolerant mode.

**Compliance without complexity**—The Stratus ftServer prevents unplanned downtime rather than recovering from it. Its ability to monitor itself and fail over prior to a downtime event eliminates unplanned downtime, reducing the impact of compliance processes and regulatory headaches.

## Key Benefits

- 99.999+% uptime, the highest reliability available
- Ultra-fast processing for Linux environments enabling improved application performance, control and security while reducing CPU utilization
- Unmatched message rates over standard Ethernet with low-latency, low jitter and superior virtualization
- Superior to N+1 and other fast failover architectures
- Hardened OS and drivers for Stratus machines offer unmatched stability
- Reduced operational expense through support for both KVM and container based application deployment
- Eliminates the need for buying redundant hardware and costly licenses
- Reduced development costs (as much as 40%) due to application transparent architecture

## Don't just take our word for it...

“If we had to do fault tolerance on our own we would have to put it into the application, which would either mean some amount of software overhead, or significant engineering complexity. And that, we've been able to avoid by using hardware fault tolerance. We've been able to move it into the hardware layer. It gives us reliability without the cost of losing cycles and it also helps move the engineering skills into the hardware layer which we would probably have a very hard time doing on our own.”

Sankarson Banerjee, Deputy Chief-Technology  
NSE India



## Key Features

### Lockstep Technology

Unique to the industry, ftServer’s mirrored hardware components process the same instructions in “lockstep”—at the same exact time. In the event of a component malfunction, the mirrored component continues processing without missing a beat.

### Simplified Configuration

ftServer provides a “single system view” that presents and manages replicated ftServer components as a single system image. Applications run without modification and only a single copy of software is required. With one system view, installation, configuration and management is simplified.

### System Generated Replacement Ordering Hot-swappable

Customer replacement units (CRUs) are easily replaced, without user intervention or any special tools, while ftServer and your applications continue to run.

### Flexible Storage

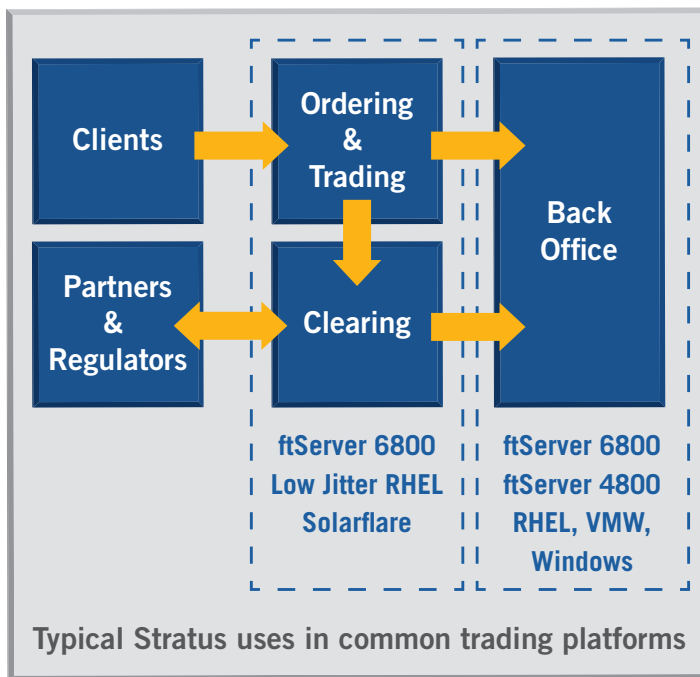
ftServer provides flexible storage options to meet all data requirements including redundant internal storage, external ftScalable™ Storage Arrays and industry standard SANs.

### Embedded Monitoring

The Automated Uptime Software Layer™ identifies, manages and takes corrective action on failed components before they impact operations by monitoring more than 500 system components.

### Performance Monitoring

Automatically detect system performance issues on premise with continuous monitoring of your hardware, operating system. Remote Availability Management & Service Award winning service with unmatched customer satisfaction.



Operating Systems			
ftServer Series #	Windows®	Linux	VMware®
2800, 4800, 6800	Windows Server 2012 R2 and 2008 R2 with Hyper-V™ virtualization	Red Hat® Enterprise® Linux RHEL 7 with KVM	VMware vSphere 6