

Fault-Tolerant Server Hardware



Our Fault-Tolerant Server products provide continuous operations for critical applications. (The server is available only in the rack-mount versions as shown above.)

- 99.999% availability
- All O/S and fault tolerant software pre-installed
- Plug-and-play control network installation
- Online hardware maintenance

Introduction

When uptime in your historian, diagnostics or remote client servers are critical; the Fault-Tolerant Server can be used as the hardware platform for your application Station. DeltaV™ software installed on this Application Station will keep running through hardware failures, if they occur, in the server. This keeps your process operating successfully—impervious to failure of a hard drive, motherboard, or processor.

The Fault-Tolerant Server provides greater reliability than typical hardware redundancy. Processing continues without interruption through hardware failures. This takes place transparently to the user, as well as to the software executing on the server, and requires no manual interaction. The result is applications running in the most reliable environment available today.



Benefits

Comes with pre-installed software. The Fault-Tolerant Server is delivered ready to plug and play into your DeltaV system for hassle-free installation. All of the required operating system and fault-tolerant software are pre-installed and there are no third-party interfaces, compatibility problems, or software versions for you to deal with. All you need to do is install DeltaV using the same methods as any other DeltaV workstation.

Makes control network installation easy. The server ships from the factory with the appropriate DeltaV control network cards pre-installed. Setup is as easy as connecting the server to the DeltaV network and configuring it using the same procedures as any other DeltaV workstation.

Online maintenance. Using hot-pluggable hardware simplifies your maintenance work in keeping the server in its fault-tolerant condition. Components can be replaced online and the system automatically assimilates them into the hardware configuration, restoring full operation to the Fault-Tolerant Server, without human intervention.

Offers 99.999% availability. The Fault-Tolerant Server ensures non-stop processing. The redundant server immediately takes over if a failure occurs.

Product Description

The Fault-Tolerant Server consists of a dual modular redundant system. This configuration of linked processors appears as a single workstation; i.e. one node on the DeltaV control network. See the specification table for details of the exact hardware configuration provided and supported.

Workstation Hardware

The DeltaV Fault-Tolerant Server is a compact package about the size of a large standard rack mounted server (see specifications). These units are fully self-contained and are simply connected to power and the DeltaV network to be up and running—ready for DeltaV install and download.

Hardware Support

The DeltaV Fault-Tolerant Server includes 3 years of next-day hardware support (see Support Details section below).

Applications Supported

DeltaV Applications Supported on the DeltaV Fault-Tolerant Server
Simplex Batch Executive
Batch Historian Administrator's Interface
Batch Historian Server
Batch History View
Simplex Campaign Manager and Campaign Manager Operator Interface (CMOI)
DeltaV—Fault-Tolerant Server Status Reporting
Diagnostics
Excel Add-in
Simplex OPC Alarms & Events server
Simplex OPC Mirror/OPC DA server
Plant Event Historian
Process History View/DeltaV Continuous Historian Database
Process History View/Event Chronicle
Remote Access Server
Virtual Controller

System Compatibility

DeltaV Fault-Tolerant Server Specifications	
Enclosure	<p>Tower Chassis: no longer available Rack-mountable chassis:</p> <ul style="list-style-type: none"> • Input voltage 100-240 VAC; 50 Hz, 60 Hz • Dimensions (H x W x D) 7.0" (4U) x 17.5" x 30" • Weight rack: 54.34 kg (120 lbs)- including rails <p>Also please see www.stratus.com for details on the ft4500 general specifications.</p>
CPU/memory	<p>Quad Core Intel Xeon™ processor 2.0 GHz Cache 4MB L2 Intel QPI speed 4.8 GT/s 8GB memory per CPU</p>
Video	<p>Rack-mount keyboard and 17" flat-screen monitor.</p>
Drives	<p>6 – 146 Gig 15K RPM hard drives in a RAID 1 configuration (mirrored pairs) DVD-R/W</p>
Ports	<ul style="list-style-type: none"> • 2 serial ports maximum, one on each CPU • 3- USB ports <p>12 Ethernet ports:</p> <ul style="list-style-type: none"> • 8- 10/100/1000 ports (dual port PCI Add-in NICs) - special NIC teaming setup required for DeltaV redundant networks. • 4 onboard 10/100/1000 ports • 1 modem port for diagnostics and "phone home" hardware support service. <p>DeltaV system does not support using other add-in cards.</p>
Environmental	<p>Controlled environment- see note below.</p>
Power	<p>Redundant power – each 750 watts 120/240 VAC +/- 10% 50/60Hz Dual power cords</p>

Operating system	Windows Server 2003 or Server 2008 Enterprise version (English only)
DeltaV software	DeltaV v10.3, 10.3.1 and v11.3
Stratus Software Version	DeltaV operates only on a specific version of Stratus software. This version is available only when the server is purchased from Emerson Process Management—see note below.

Stratus servers are available only in the above hardware configurations for use with DeltaV software. The DeltaV version of the Fault-Tolerant Server is configured with a specific Stratus software revision level and setup that can be purchased only through Emerson Process Management. If other options are desired (such as additional memory) an ISR must be submitted to quote and purchase the server. Servers for use in a DeltaV system may not be purchased directly from Stratus.

These computers must be installed in a dust-free, contaminant-free environment. These computers are not suitable for mounting in industrial environments unless they are mounted in enclosures that provide the necessary dust-free and contaminant-free environment. Environment must meet Class G1 level for airborne contaminants per the ISA standard ISA-71.04-1985, Environmental Conditions for Process Measurement and Control Systems: Airborne Contaminants.

Stratus Support Details	
<p>Note: The DeltaV FTS is supplied with a DeltaV specific 3-year support contract that is available only when the server is purchased from Emerson Process Management. This special support contract is provided at a significantly lower cost to the end user than the same contract when purchased directly from Stratus. Servers purchased directly from Stratus cannot use the Emerson Process Management specific support contract. For these servers a support contract must be purchased directly from Stratus at current support pricing.</p>	
Software support	<p>First- level software support from Emerson Process Management for the DeltaV system and related applications supported or supplied by Emerson for systems on Foundation Support. Third-party software support (software supplied by customers or others) is provided by Stratus on a 5-day x 8-hours/day local business hours basis.</p>
Hardware support	<p>All server hardware support is supplied directly from Stratus. The FTS can report system problems directly to Stratus via modem connection built into the server. Hardware problems are also reported to the operator workstations via the DeltaV Fault-Tolerant Server status reporting application.</p> <p>All replacement hardware will be shipped directly from Stratus to the end user with up to 2nd day delivery¹. Replacement is to be done by customer, local Emerson service personnel, or local Stratus personnel depending on type of hardware to be replaced. Local spares can be purchased to meet needs for immediate replacement if required. Support options are available. Contact your local Emerson Process Management sales office for details.</p>

Specifications are current as of the date of this document. They are subject to change without notice.

Please see www.stratus.com for complete information on fault tolerance and the tf4500 hardware.

¹ Hardware support times will vary based on country's location where the system is installed. Local spares may be recommended. Contact your local sales office for further information..

Ordering Information

Description	Model Number
<p>Fault-Tolerant Server for Server DeltaV v10.3 and v10.3.1 Rack-Mount; Stratus ft4500; Server 2008 Enterprise downgraded to Server 2003 Enterprise w/SP2; 17-inch Rack-Mount Monitor; Includes Stratus Installation Services to install the Server 2003 O/S on the server** (see note below on installing Server 2003)</p>	<p>VE2406C2S2L01</p>
<p>Fault-Tolerant Server for DeltaV v11.3 Fault-Tolerant Server; Rack-Mount; Stratus ft4500; Server 2008 Enterprise; 17-inch Rack-Mount Monitor</p>	<p>SE2404C2S3L01</p>
<ul style="list-style-type: none"> ■ Supports Application Station-based applications only. ProfessionalPLUS Station is not supported on the DeltaV Fault Tolerant Server ■ Only the DeltaV applications listed in this data sheet are supported on the Fault-Tolerant Server. If other, user-specific, applications are required to be installed on this server, testing of these applications should be done by the SureService group prior to implementation. ■ To obtain ft Servers to support DeltaV software versions not listed in this product data sheet please contact DeltaV Installed Base Support at Emerson Process Management for assistance. ■ Please see Customer KBA NA0400-0010 for DeltaV compatibility information WITH Stratus ftServer <p>** Stratus is unable to ship the VE2406C2S2L01 ft4500 server with the Windows Server 2003 operating system pre-installed from their factory. This server will ship from the factory with Windows Server 2008 installed along with a downgrade license for Server 2003. Once the server arrives at the integration site, a Stratus field engineer will make an on-site call to install Server 2003 SP2 at no extra charge.</p>	

To locate a sales office near you, visit our website at:
www.EmersonProcess.com/DeltaV

Or call us at:
 Asia Pacific: 65.6777.8211
 Europe, Middle East: 41.41.768.6111
 North America, Latin America: +1 800.833.8314 or +1 512.832.3774

For large power, water, and wastewater applications contact Power and Water Solutions at:

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 North America, Latin America: +1 412.963.4000

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