GP7000F

FUJITSU

Fujitsu UNIX Server GP7000F Series

GP7000F
Model 1000

Model 1000 adds to Fujitsu's growing family of Solaris based servers by offering a lower cost alternative to those customers wishing to expand their server power range to 32 processors. Ideal for server consolidation, e-commerce, and large enterprise application processing, GP7000F Model 1000 offers the perfect alternative when the business need does not require the larger SMP(Symmetrical Multi-Processing) power features of Model 2000.

Solaris 7, the same 64-bit Unix operating system used across the GP7000F range delivers proven world-class stability and a wealth of application software to meet your highest standards.

Add to this Fujitsu's RAS(Reliability, Availability, Serviceability) strategy for maximum up time and service life and once again Model 1000 brings all the features you need to reduce your total cost of ownership.

Like all other Fujitsu GP7000F SMP systems, Model 1000 uses Fujitsu's own SPARC64 GP processors, together with other leading technologies such as the "world's best" cross bar switching to ensure maximum scalability and system resource utilization. The power of the SMP configuration can be dynamically reallocated allowing multiple applications to obtain the resources they need when they need it. As a result Model 1000 is perfect for many enterprise class tasks. All but the very largest of server consolidations needs will be met by this well sized data centre system.

Leading performance

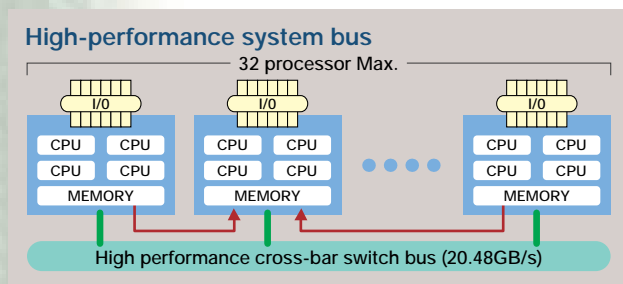## "SPARC64 GP", high performance and reliability

"SPARC64 GP" as used in the GP7000F series is the latest 64-bit RISC processor and conforms completely to SPARC International's V9 architecture. It features high speeded processing, very large capacity cache, parallel instruction processing through 'Out-of-Order' operation and a highly accurate instruction branch prediction function. All of these ensure excellent performance in either scientific or business transaction environments. Importantly SPARC64 GP has ECC (Error Checking & Correction) in more places than comparable SPARC processors. This ensures you receive higher reliability through significantly reduced processor instruction failure rates.

Scalable Memory access and performance

Whether 1 or 32 processors, the Fujitsu design provides ultra fast processor to memory performance whatever your required configuration.

High performance cross-bar switch

This Fujitsu developed technology provides you with the highest available performance and bandwidth in a commercially available system bus(20.48GB/s). The power of the cross-bar switch also provides the best in balanced and smooth scalability up to your chosen maximum number of processors.

High-performance system bus

32 processor Max.

I/O	I/O	I/O
CPU CPU	CPU CPU	CPU CPU
CPU CPU	CPU CPU	CPU CPU
MEMORY	MEMORY	MEMORY

High performance cross-bar switch bus (20.48GB/s)

Cluster system further enhances Model 1000 availability

Model 1000 makes us of Fujitsu's "SynfinityCluster" infrastructure software allowing you to build a sophisticated cluster system that will further improve the availability of your system services and data.

— High availability

All hardware and software can be multiplexed to minimise your system downtime from unexpected events, accidents, component failures and periodic maintenance. Fast service resumption is achieved by inter-nodal failure notification, and hot stand-by techniques derived from Mainframe technology. Model 1000 supports various methods including inter-standby and N-to-one standby.

— High performance/Scalability

The cluster structure of GP7000F will allow you to grow your system, over time, to a maximum of 16 nodes and 1024 processors. This superior level of scalability makes these systems ideally suited for applications requiring the very highest processing performance.
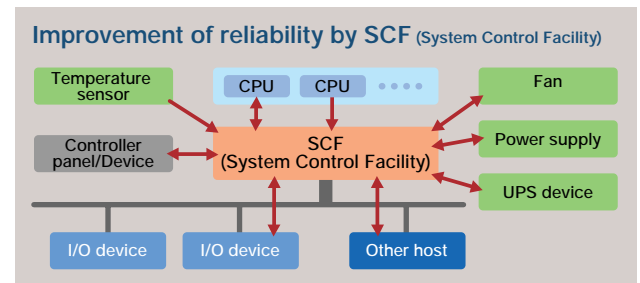
High reliability for mission critical systems

System Control Facility (SCF)

Your Model 1000 comes with a System Control Facility with its own independent processor. This provides excellent system monitoring and service control. Being independent of the normal system status, processor failures and system hang-ups, it provides you with valuable information continuously. Immediate detection and accurate notification of failures, potential failures and system control status are viewable either at the server or via a remote monitoring service.
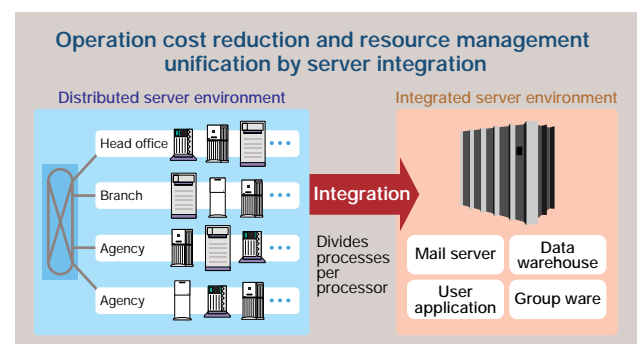
Highly reliable and available hardware

The main system components of the Model 1000 (disks, power units and fans) are redundant and hot swappable. Plus the processors, memory, and I/O bus can be easily reconfigured. This ensures that you achieve the highest possible system reliability and availability.

Improvement of reliability by SCF (System Control Facility)

Temperature sensor	CPU	CPU	• • • •	Fan
Controller panel/Device		SCF (System Control Facility)		Power supply
				UPS device
I/O device	I/O device		Other host	

# Server consolidation by partitioning

A partition function is provided which allows you to divide the system into independent single or multiple processor application segments. Each partition is physically independent and allows systems, which you have previously distributed across multiple servers to be integrated onto a single Model 1000. Such consolidation brings better systems management, higher levels of performance, greater system stability, reliability and availability and improved support productivity. Best of all a large reduction in your overall total cost of ownership(TCO) will be possible.

Operation cost reduction and resource management unification by server integration

Distributed server environment   Integrated server environment

Head office

Branch   Integration

Agency   Divides processes per processor

Agency

| Mail server | Data warehouse |
| User application | Group ware |

GP7000F Model 1000 Specifications

Model name		Model 1000
Processor	Type	SPARC64 GP
	Clock rate*1	300MHz
	Quantity	4～32cpu processors
Cache (per processor)		64KB (Instruction)+ 64KB (Data), 8MB (Common to instruction/data)
Memory	Minimum	2GB
	Unit for addition	512MB
	Maximum	32GB
	Error correction	ECC
Disk capacity	Minimum	18.2GB
	Unit for addition	9.1GB/18.2GB
	Internal disk	Up To 1TB
I/O slot		PCI (66/33MHz): 3～24 slots
		PCI (33MHz): 3～24 slots
Redundancy		Disk (mirrored or by the disk array device), Power Supply, Fan, System Control Facility
Hot-Swappable items		Disk, Power Supply, Fan, System Control Facility
Other functions		Calendar function, Automatic power control function
UPS		External (optional)
Profile & Weight	Outer dimensions W×D×H (mm)	~16 processors: 766×1161×1800 *2, ~32 processors: 1470×1161×1800 *2
	Weight (Kg)	~16 processors: 690Kg *2, ~32 processors: 1320Kg *2
Power Consumption		~16 processors: 5700W *2, ~32 processors: 11400W *2

*1: Actual clock rate is 296MHz.
*2: Approximation
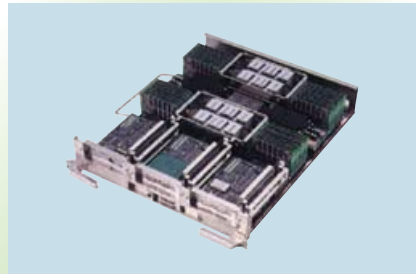
System board

When ~16 processors are mounted

When ~32 processors are mounted

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