

PRIMERGY 670-20

2-way Enterprise Server

Hardware Product | Server

The expandable 2-way Enterprise server



For solutions with high data volumes

Fujitsu Siemens presents the PRIMERGY 670-20, as an entry enterprise Server class model in the PRIMERGY server family.

This class of server therefore holds out totally new application possibilities that make the system particularly attractive to expanding companies, offering the option of expandability and performance upgrade in the future. Scalable system performance and generous expandability make this system into an ideal platform for meeting the requirements of small and medium-sized networks.

Hardware-Description

With its Dual Independent Bus architecture, the Intel Pentium® III chip delivers high processor and I/O performance. To boost performance further, a 32-Kbyte first-level cache is integrated. Two Intel Pentium® III processors with 100 MHz front-side bus can be installed in the system. PRIMERGY servers make use of Intel Pentium® III processors with 256 Kbyte ECC (Error Correction Code) protected second-level cache.

With 4 slots provided on the motherboard, RAM can be expanded to max. 2 GB. The entire memory is ECC-protected. When data in main memory is accessed, 1-bit errors are detected and automatically corrected. Our patented memory scrubbing function regularly activates the ECC mechanism and thus assures consistent data integrity.

An LVD / U2W SCSI controller is integrated onboard, supporting data transfer rates of 80 MB/s. Conventional SCSI devices can also be operated simultaneously via an additional cascaded connection.

The PRIMERGY 670-20 has the flexibility to grow as requirements change. For this purpose it features five PCI slots. There is an additional shared slot for either an ISA or a PCI card. For increased graphics performance, a separate AGP port is available.

The PRIMERGY 670-20 can be ordered and deployed as a tower or in a 19-inch rack-mount version. Floor-standing and rack installation kits are available to allow later conversion from tower to rack, or vice versa.

There are four bays for external drives available. One external accessible bay is occupied as standard by CD drive and one by floppy disk drive. Three of the bays are for warm-replace accessible drives.

Internal are 2 x 4 drive bays (1.6-inch high) for hard disks available.

The disk array controller offered as an option with the PRIMERGY 670-20 increases the availability of the system and supports RAID levels 0,1,5. Additional protection is offered by hot-plug hard disks, hot-plug fans, hot-plug power supply and LocalView, an operator display for presenting the most important system information on the machine. Even accessible drives like DAT or CD-ROM can be replaced in the PRIMERGY 670-20 during online operation. This is made possible thanks to support software provided free of charge as part of the product package. Components can be installed or removed without the use of tools. The service-friendly PRIMERGY 670-20 continues to operate with no break in operation.

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The vast range of high-availability functions implemented in the PRIMERGY hardware can be enhanced by optional server clustering, i.e. two PRIMERGY servers work together as a team and monitor each other. If one system goes down, the second takes over its applications and data. PRIMERGY server clusters are available under the MS Windows NT, Novell NetWare and SCO UnixWare operating systems.

The hot-plug, redundant (opt.) power supply modules and the hot-plug and redundant fans contribute to the modularity and high availability of the system.

An additional system monitoring aid is provided by LocalView™ - a LC display integrated in the PRIMERGY 670-20:

- Display of important messages directly on the server
- Output of significant or critical messages from ServerView
- Additional editable menu with important server information

Security features

Access to the system is controlled by password protection in the BIOS for system start and system settings (Setup). Logical locks can be set for external interfaces and drives to prevent unintentional changes to system settings. The door lock provides additional mechanical protection in the hardware. Externally accessible drives and the On/Off switch can be locked independently. A built-in sensor detects any attempt to open the server and displays a warning via ServerView. The optional integrated ChipCard reader (in the system unit or keyboard) provides the basis for new, additional security functions.

Server Management

Prefailure Detection and Analyzing technology (**PDA**) warns the system administrator of impending system faults or problems so that preventive action can be taken.

ASR&R (Automatic Server Reconfiguration & Restart) takes defective system components offline when an automatic system restart is performed.

The **ServerStart** software supplied as standard allows quick, customized configuration of your PRIMERGY server. User-friendly menus with success checks are available for installation of the server operating systems. Additional help in installing Windows NT is provided by a convenient installation script.

The **ServerView** software developed by Fujitsu Siemens is designed to increase the fault tolerance and reduce the running costs of your PRIMERGY servers. SNMP agents are available for many server operating systems, cyclically sending data on all relevant operating states of the servers and their attached storage subsystems to a central management console for evaluation.

RemoteView is another optional component in the comprehensive management concept for PRIMERGY servers. RemoteView is started automatically if the operating system crashes or parts of the hardware go down, and immediately initiates remote maintenance and diagnosis, thereby increasing the availability of the server. RemoteView supports local administration directly on the server and also remotely controlled administration via modem or LAN. This gives you reliable control at all times over PRIMERGY servers installed at remote sites and enables maintenance costs to be reduced considerably. The remote control software pcANYWHERE is included as a component of RemoteView, providing you with remote access while the server is online.

Software Support

On the PRIMERGY 670-20 running a choice of different standard operating systems as MS Windows NT; Novell NetWare and IntranetWare; SCO UnixWare and OpenServer; IBM OS/2; SUN Solaris or Linux.

In addition we offer Microsoft's BackOffice components and the backup software ARCserv for Windows NT and NetWare.

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Upgrades, options

Processors:

- Pentium® III 600E /100 MHz, 256 KB SLC
- Pentium® III 650 /100 MHz, 256 KB SLC
- Pentium® III 700 /100 MHz, 256 KB SLC
- Pentium® III 750 /100 MHz, 256 KB SLC
- Pentium® III 800 /100 MHz, 256 KB SLC

Main memory modules:

- 64, 128, 256, 512 Mbyte

Hard disk drives:

- 9, 18 Gbyte (7200 rpm)
- 9, 18, 36 Gbyte (10000 rpm)
- Max. 8 in the system unit

Backup drives:

- DAT DDS3
 - 12 Gbyte
 - Max. 2 per system
- DAT DDS 3 Autoloader
 - 72 Gbyte
 - Max. 1 per system
- DLT 4000 / 7000
 - 20 Gbyte / 35 Gbyte
 - Max. 1 per system
- SLR50
 - 25 Gbyte
 - Max. 2 per system

Mass storage controllers:

- SCSI controller, 1 channel
 - LVD U2W SCSI (80 MB/s)
 - Max. 2 per system

- RAID controller, 1 / 3 channel
 - LVD U2W SCSI (80 MB/s)
 - Battery Backup Unit (BBU)
 - 4 or 16 MB / 16, 32 or 64 MB cache
 - Max. 2 per system
- Fibre Channel, 1 channel
 - CU or MMF Interface
 - Max. 2 per system

LAN controllers:

- Various Fast Ethernet Adapters
 - Partially with WOL (wake on LAN)
 - 2 - 3 per system
- Token Ring Adapter (MK3, Olicom 3540)
 - Partially with WOL (wake on LAN)
 - Max. 2 per system

WAN controllers:

- ISDN Adapter
 - S0 active 2B+D
 - S2M active 30B+D

Storage subsystems (external):

- PRIMERGY S40
 - External connection to SCSI or Fibre channel
 - 1 up to 3 internal SCSI channels
 - Max. 12 hard disks 9, 18 or 36 Gbyte
 - Up to 2 Backup drives

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Technical Data PRIMERGY 670-20

Type	Intel Pentium® III Dual processor Server
System board	
Processor	Intel Pentium® III 600E / 650 / 700/ 750 / 800 MHz
Higher clock speeds	when available
Data width	64 bit internal and external
Clock speed (MHz)	600/100;650/100, 700/100
cache bus / host bus	750/100, 800/100
First-Level-Cache integrated	32 Kbyte (2 x 16 Kbyte)
Second-Level-Cache	256 Kbyte
RAM	128 MB - 2 GB SDRAM with ECC
Bus system	ISA, PCI 32-bit
Flash-EPROM	BIOS-update possible from floppy disk or via LAN
Interfaces	
2 x RS-232-C (serial, 9-pin)	
1 x Centronics (parallel, 25-pin, EPP/ECP compatible)	
2 x PS/2 (keyboard and mouse), 1 x VGA (15-pin)	
2 x CAN bus, 1 x USB external, 1 x USB internal	
Onboard controllers	
Floppy disk drive	1,44 Mbyte
SCSI hard disks	SYM53C895 and SYM53C141
accessible drives	on PCI bus
IDE hard disks (RemoteView)	on ISA bus
Graphics processor onboard	
Cirrus GD5446	PCI graphic with 2 Mbyte
Floppy disk drive	3,5 inch, 1,44 Mbyte
CD-ROM drive	5,25 inch, 40-speed
Hard disk drives	3.5 inch (UW and LVD/U2W SCSI)
Net capacity	9 / 18 Gbyte 7200 rpm 9 / 18 / 36 Gbyte 10000 rpm
Access time	< 10 ms
Hard disk capacity, internal	max. 288 Gbyte
Bays	
for hard disks	8 x 3,5 inch (1.6 inch high)
for accessible drives	3 x 5.25 inch (1.6 inch high) (warm replace) 1 x 3.5 inch (1 inch high)
Slots	
5 x 32-bit PCI,	
1 x PCI/ISA	
1 x AGP	

Electrical values

Power supply	1- 3 hot-pluggable modules rated at 400 W (output power) max. 600 VA (apparent power)
Rated AC voltage	100-120 / 200-240 V
Frequency	50 - 60 Hz

Temperature/Noise/Dimension/Weight

Ambient temperature	15°C - 35°C (to IEC 721)
Sound pressure level	< 45 dB(A) (to ISO 9296)
pegel LpA	in standard configuration
dimension (H x W x D)	485 x 403 x 725 mm
Rack mount	7 height units
Weight	ca. 55 kg (dependent on configuration)

Standards

Product safety	IEC950/EN 60950/UL 1950, CDA 22.2 No. 950
Electro magnetic compatibility	EN 55 022/B and EN 50 082-1, FCC class A
CE certification	to EU Directives: 89/336/EWG (EMV) and 73/23/EWG (Product safety)

Approvals

There is general compliance with the safety requirements of all European countries and North America. National approvals required in order to satisfy statutory regulations or for other reasons (e.g. for Canada and USA, East European countries, Norway), can be applied for on request.

NEMKO for Norway

Operating system/Software

<u>Orderable with</u>	MS Windows NT Workstation/Server 4.0;
<u>PRIMERGY server</u>	MS Windows NT Server 4.0 Terminal Server Edition; MS Windows NT Server 4.0 Enterprise Edition; Novell NetWare 4.x, 5.x and IntranetWare; SCO UnixWare 7.0.x and OpenServer; IBM OS/2; SUN Solaris; Linux (SuSE + Red Hat > 6.0)
<u>Standard</u>	ServerStart and ServerView

References:

(HCL = Hardware Compatibility List)	
Microsoft software products	HC-test and HCL entry Cluster HCL (planned)
Novell	Certified for server
SCO UnixWare 7	Entry in SCO-HCL
SCO OpenServer 5.x	Entry in SCO-HCL
SAP R/3	Certificate for server

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