AT&T WorldMark™ 5100S Server
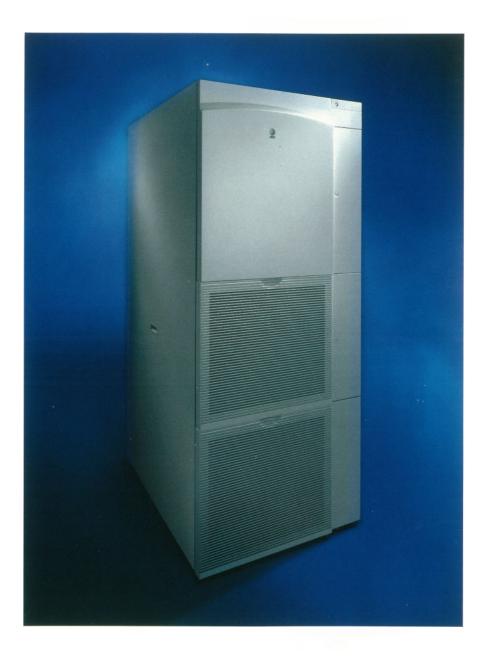
GET IT
move
USE IT.

Bringing computing and communications
together to help you get, move,
and use information.

AT&T Global Information Solutions introduces the Symmetrical Multiprocessing (SMP) member of the AT&T **WorldMark**™ 5000 server series -- the AT&T **WorldMark** 5100S server. Using a modular cabinet, a series of "subsystems," and the most advanced system technology, the **WorldMark** 5100S server offers exceptional price/performance and investment protection through a unique design that provides the ultimate in system scalability.

Symmetrical multiprocessing means that multiple, tightly-coupled processors execute several applications simultaneously while using common memory and a single operating system image.

The **WorldMark** 5100S server is an exceptional platform for building information solutions, such as:
• Departmental Server
• High Performance Online Transaction Processing (OLTP)
• Decision Support
• Data Warehouses

Architected for Performance and Scalability

The **WorldMark** 5100S server uses one of the fastest open system SMP designs ever benchmarked, maximizing potential for your most demanding mission critical applications. The **WorldMark** 5100S server starts with a single SMP processor subsystem and maintains that same platform as your information processing needs change.

Unprecedented application processing power and processor scalability are attained through the **WorldMark** 5100S server's support of 4 to 32 90 MHz or 133 MHz Intel® Pentium® processors within a single processor subsystem. The **WorldMark** 5100S server will also support the next generation Intel processor family, enabling even greater processing performance.

The **WorldMark** 5100S server's processor subsystem uses Quad processor board technology to achieve its 32 processor capacity. Each Quad board supports up to four processors, with each processor subsystem supporting up to eight Quad boards.

The Quad board is designed with a 4 MB Second Level Cache per processor, allowing for more instructions and data to reside closer to the processors. The Quad board is also designed with 32 MB Limited Address Range Cache (LARC). LARC, accessible to all processors populated on a Quad board, holds frequently accessed portions of the operating system kernel and application software.

Disconnect Memory Baseboards enhance processing potential by enabling up to 4 GB of Error Checking and Correcting Memory (ECC) with 2-way or 4-way interleaving. Through the use of the "disconnect" feature, the Disconnect Board reduces system bus contention and maximizes system performance and scalability. One or two Disconnect Memory Boards can be configured per processor subsystem, with up to 2 GB of ECC SIMMs per board.

In addition to the greater processing and memory capabilities provided by the **WorldMark** 5100S server, the system uses 16 I/O slots to enable a wide variety of I/O operations ranging from SCSI, LAN, WAN, FDDI, to TTY connectivity.

Quad Fast/Wide SCSI technology provides the **WorldMark** 5100S server with high performance disk storage connectivity. Each Quad SCSI board has four 20 MB/second channels, offering greater connectivity through more buses controlled by one adapter.

Each processor subsystem is accompanied by two local media subsystems for "hot pluggable" root operating system drives and removable media devices.

The optional internal disk subsystem provides economical, highly scalable disk storage ideal for application information. The disk subsystem provides up to 160 GB of internal data/application storage capacity using forty 4 GB disk drives.

Ensured System Availability

Along with the performance and scalability advantages gained with the **WorldMark** 5100S server, this system also offers outstanding availability, reliability, and serviceability through many features, including:
• Hot swappable and hot addable disk drives, hot swappable power supplies, batteries and fans
• Optional redundant battery backup
• Redundant power supplies and fans
• AT&T UNIX SVR4 MP-RAS, AT&T's mature, stable, and proven operating system software

The AT&T WorldMark™ Servers are Designed for Growth

While the **WorldMark** 5100S server is the foundation for many departmental or small enterprise information solutions, it also serves as the basic building block for large department clusters and enterprise Massively Parallel Processing (MPP) solutions. Multiple node systems are constructed with the **WorldMark** 5100S server's common processor subsystem as the foundation in these solutions: AT&T LifeKeeper switchover, Oracle Parallel Server™ Clusters, and MPP configurations for Teradata™ and other merchant databases.

So what does all this mean if you currently have an AT&T system? A testimony to AT&T's commitment to protect customer investments, the **WorldMark** 5100S server is compatible with existing AT&T platforms. You may also include the **WorldMark** 5100S server in existing AT&T LifeKeeper clustered systems.

With the most scalability and performance offered in the AT&T family of servers, the **WorldMark** 5100S server is the most flexible, powerful, available solution for your information processing needs.

AT&T WorldMark™ servers provide the power, availability, and scalability your business needs to get, move, and use information.

AT&T WorldMark™ 5100S Server

System Scalability

Processor Subsystem
- One processor subsystem per WorldMark™ 5100S server

CPUs per Processor Subsystem
- 4 to 32 90 MHz or 133 MHz Intel® Pentium® processors, each with 4 MB second level cache; 32 MB LARC (Limited Address Range Cache) per Quad processor board
- Support for the next generation Intel processor family

System bus per Processor Subsystem
- 400 MB/second total bandwidth

Memory per Processor Subsystem
- One or two Disconnect Memory Boards
- 64 MB to 4 GB Error Checking and Correcting memory with 2/4-way interleaving

I/O per Processor Subsystem
- Enhanced Micro Channel® - Dual I/O bus at 80 MB/second
- 16 I/O slots; 32-bit bus width per slot
- Quad SCSI Fast and Wide channels at 20 MB/second

Disk Storage per Internal Disk Subsystem
- Up to 160 GB total internal disk storage
- Supports up to 40 drives
- 2 GB or 4 GB 7200 RPM Wide SCSI Drives

Backup Devices per WorldMark™ 5100S server
- Two local media subsystems
- Up to six half-height drives
- 3.5-inch flex drive
- Support for:
  - 600 MB CD-ROM
  - 4/8 GB DDS-2 DAT Tape
  - 1 GB QIC Tape
  - 7/14 GB 8 mm Tape

External Data Storage
- AT&T 6256 Rack Mount Disk Array Subsystem
  - 256 GB internal storage capacity
  - Supports RAID 0, 1, 3, 5
  - Internal UPS
  - Hot Plug drives, fans, disk controllers
- AT&T 6091 Tape Subsystem
  - Digital Linear Tape (DLT)
  - 7/14 GB 8 mm Tape
- AT&T 5607 Disk Subsystem
- AT&T 6298 Disk Subsystem
- AT&T 6299 Disk Subsystem
- AT&T 6357 Tape Drive
- Exabyte® 210 and 440/480 (available from AT&T)
- StorageTek® 4400 Silo (available on a referral basis)

Connectivity per Processor Subsystem
- Up to 7 LAN and 24 WAN connections
- Optional MPCM Communications Subsystem
- Optional IBM Channel for Teradata™
- Optional IBM Channel via Deployer

High Availability Features
- Internal uninterruptible power (via battery back-up)
- Three fault resilient hot-pluggable fan modules per processor subsystem
- Hot pluggable disk drives
- Redundant power supplies
- Optional redundant battery back-up
- Optional LifeKeeper Switchover FRS
- Optional SMP Clusters

Model Upgrades

The **WorldMark** 5100S server is upgradable to the **WorldMark** 5100C server, our SMP Clusters system, and to the **WorldMark** 5100M server, the **WorldMark** 5000 server series' MPP solution. The addition of an Administration Workstation Subsystem (AWS) to these upgraded systems will provide a single point of administration for the entire AT&T **WorldMark** server solution.

Specifications
- Physical dimensions per **WorldMark** 5100S server cabinet:
  Height: **183 cm** (72 in.)
  Width: **76 cm** (30 in.)
  Depth: **102 cm** (40 in.)
  Weight: **422 kg** (930 lbs)
- Operating temperature **5° to 45° C** (40° to 113° F)
- Up to 8 750 Watt power supplies
- Power Requirements Voltage Range: 200 to 240 VAC three phase
- Compliance with U.S. and international safety and emissions standards.

Supported Operating Systems
- AT&T UNIX SVR4 MP-RAS

Supported Databases include:
- INFORMIX OnLine Dynamic Server™ PDQ for SMP
- Oracle®
- SYBASE SQL Server™
- Teradata Database System for UNIX (SMP)

AT&T Global Information Solutions