



Computacenter product guide

Sun servers with CoolThreads

Setting new standards in application performance



5x performance,
using 1/5 of the power,
in 1/4 of the space.

Sun's new server systems with CoolThreads technology deliver breakthrough performance, scalability and reliability with dramatic space, power and cost-efficiency.

CoolThreads servers

Meeting your data centre challenges

Server workloads are increasing, demanding more raw computing power and faster networks, leading to pressure on IT departments to deliver higher performance at lower cost.

CoolThreads technology from Sun, using chip multi-threading, meets the need by outpacing conventional single-threaded and multi-core processors by up to 500%. The technology minimises memory latency, enables more efficient use of processor resource and improves throughput dramatically. CoolThreads processors with up to 64, 128 or 256 threads in 8, 16 or 32 cores are on the market now.

The benefits are impressive. Data centres can make 20% savings in power for a given throughput and concentrate 25% more estate in a given

space – giving operators scope for consolidation and further savings.

Less power hungry servers – keeping data centres cooler, cleaner

All organisations are seeking to reduce power consumption and cooling capacity, both to reduce cost and to meet the demands of the green agenda. CoolThreads deploys innovative power management technology operating both in the processor core and in memory, achieving consumption reductions in the region of 20% over conventional equivalents. The servers are fed by highly efficient Climate Savers compliant power supplies and consumption can be reported to management applications at a five second frequency – making data centre power management and customer chargeback far more effective.

Security at zero additional cost

CoolThreads has on-board security, so you don't need to spend on extra defence. The technology includes support for the ten most common ciphers and secure hashing functions. It features on-chip crypto-accelerators offering a performance improvement together with lower processing overheads. It offers leading cryptography performance and penalty-free SSL performance.

Virtualisation at zero additional cost

All CoolThreads servers include a logical domain hypervisor, which supports up to 128 domains, at no extra cost. This allows the server to be virtualised into multiple secure Solaris environments and for resources to be dynamically shared and allocated. The

CoolThreads servers also support Solaris Containers which gives an extremely flexible total solution for server consolidation. Look forward to greatly increased utilisation and flexibility in the deployment of services, leading to substantial savings in system management.

CoolThreads: the ideal upgrade path for UltraSPARC users

All UltraSPARC II, III, IIIi, IV and IV+ servers have reached end of sales life, although additional parts will be available in the future. Also some older servers have reached, or are approaching, their end of service life. CoolThreads offers huge advantages in size, power consumption, weight and performance and is the ideal upgrade technology for operators with an existing investment in Sun technology.

Applications

Sun CoolThreads servers are designed to handle highly-threaded, network intensive applications.

Web-centric apps: web servers (Apache, Sun Java, BEA Weblogic); application servers (Web-sphere, J2EE); proxy caching; portals; application delivery controllers/load balancers (eg Zeus ZXTM); streaming; security; directory services

Parallel apps: mail servers; groupware; LDAP; calendar; backup (eg Netbackup); spam protection (eg Brightmail); search engines
DB servers/OLTP (read- rather than write-intensive): Oracle; MySQL; DB2
ERP apps: SAP; Siebel; Oracle E-Business; Peoplesoft



Sun SPARC Enterprise T5120/T5220 servers

The first server on a chip, with world record network performance and wire-speed security.

Uniprocessor systems using UltraSPARC T2 processor – 2x performance of UltraSPARC T1

Processor: 4/6/8 cores – up to 64 threads

Memory: up to 128GB FB-DIMM

Security: on-chip crypto acceleration

Networking: 10 GbE and PCI-E on-chip

Floating point: up to 8FPU with world-record performance

Virtualisation: up to 64 Idoms/system

High reliability: hot-pluggable 2.5” drives and redundant, hot-swappable PSUs and fans; low total part count

Advanced manageability: Integrated Lights Out Management and industry standard interfaces

These rack servers are also available in the Sun Blade 6000 chassis. This includes the T6320 (equivalent to T5120) and T6340 (equivalent to T5140). They can be mixed with AMD and Intel based blades in the same chassis.

Sun SPARC Enterprise T5140/T5240 servers

The first dual socket CMT server, with the highest ever computing density, massive bandwidth, memory and I/O expandability.

Multiprocessor systems using UltraSPARC T2 Plus processor – 4x performance of UltraSPARC T1

Processor: dual 4/6/8 cores – up to 128 threads – 16x the threads of 4 unit competitors, in up to 4x less space

Memory: up to 128GB (T5140), 256GB (T5240) FB-DIMM

Security: on-chip crypto acceleration

Networking: 10 GbE on-board and more PCI-E lanes (8xslots)

Floating point: up to 16FPU with world-record performance

Enhanced virtualisation: 128 Idoms/system

High reliability: hot-pluggable 2.5” drives and redundant, hot-swappable PSUs and fans; low total part count

Advanced manageability: Integrated Lights Out Management and industry standard interfaces

Plus: 8x disk (1 unit) and 16 disk (2 unit) configs up to 32 DIMMs in 2 unit configs

Sun SPARC Enterprise T5440 server

The first quad socket CMT server with the highest ever computing density, massive bandwidth, memory and I/O expandability.

Multiprocessor system using UltraSPARC T2 Plus processor - 8x performance of UltraSPARC T1

Processor: quad 4 or 8 cores - up to 256 threads in 4U

Memory: up to 512GB FB-DIMM

Security: on-chip crypto acceleration

Networking: 10 GbE on-board and more PCI-E lanes (8xslots)

Floating point: up to 32FPU with world-record performance

Enhanced virtualisation: 128 Idoms/system

High reliability: hot-pluggable 2.5” drives and redundant, hot-swappable PSUs and fans; low total part count

Advanced manageability: Integrated Lights Out Management and industry standard interfaces

Competitive pricing

Our close relationship with Sun, economies of scale and streamlined supply chain give you the opportunity to deploy this new technology at highly competitive prices.

Working with you

Our in-house consultancy practice has specialist skills and expertise at your service – dedicated to ensuring you fully understand the benefits of deploying CoolThreads technology. And, of course, we also work with you to optimise your deployment and to maximise the benefits. After all, your success is good for us too!

Solutions Centre: de-risk before deployment

Computacenter's Sun-authorized Solutions Centre provides a state-of-the-art simulation environment in which we can fully prove and optimise your deployment to reduce the go-live risks.

Consolidate, simplify, eliminate, utilise

One of the attractive features of CoolThreads technology in today's commercial environment is the opportunity it offers to consolidate your IT estate, eliminating redundant systems, simplifying system management and increasing resource utilisation. We have proven track record in helping organisations realise these opportunities – our multi-platform expertise and best practice approach make us the ideal partner in achieving the cost benefits inherent in the new technology.

Expert provisioning

You need to ensure that your IT spend achieves the ROI you want. We'll manage the whole delivery, installation, configuration and fine-tuning process to make sure you're on track to achieve the returns.

Managed services

Your business needs agile, resilient data centres managed to mission-critical standards. We offer a full range of managed services from maintenance to support to managed availability that eases the burden on your IT staff and frees them for the more creative work that often has to go by the board. The service is fully backed by strict service level agreements with the focus on reducing the cost of your data centre operations.

Sun CoolThreads through Computacenter

What Next?

Computacenter is Sun's number one technology integrator – we deploy more Sun solutions in more customer environments than any other provider and we hold the highest levels of Sun accreditation. We have the experience and the expertise to help you evaluate, deploy and manage Sun's revolutionary new server technology and to take full advantage of the unique benefits it offers.

To find out more about how CoolThreads can help your business, contact us:

- Contact your account manager
- Call 0800 731 5858
- Email suncentre@computacenter.com
- Visit www.computacenter.com/sun

