Broadberry™

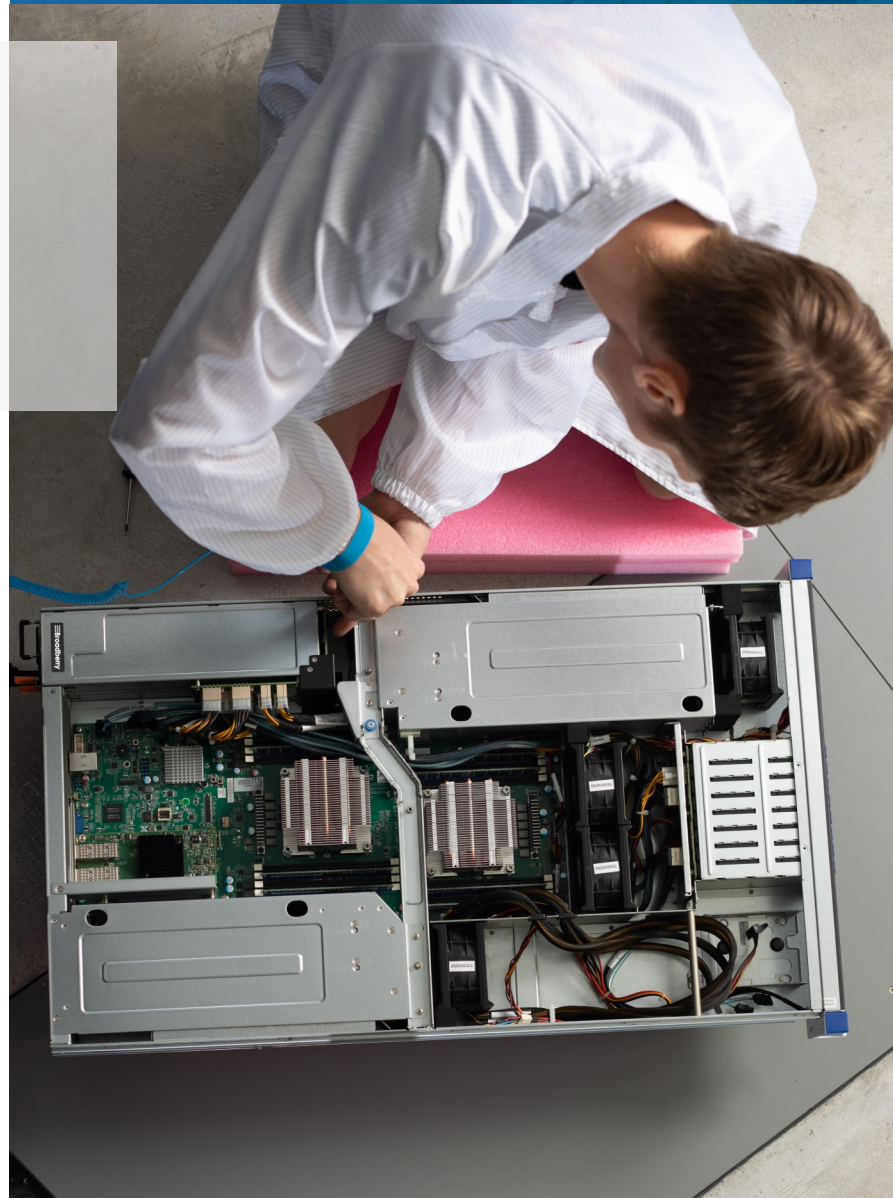# CyberServe Single Xeon SP Servers

Release Date:
Q1 2019

Suitable For:
Cloud Servers, Virtualised Infrastructure

Tags:
CyberServe, Intel, Xeon, Scalable, Single Socket

Introduction:

Ideal business-class servers, the Broadberry CyberServe SP1 range of Single Xeon rackmount servers is based on the Intel Xeon Scalable Processor family.

Providing huge benefits in performance, efficiency and security, these single socket servers can be configured with up to 512GB DDR4 RAM and 22 processing cores.

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Intel Xeon SP

Boasting up to 22 cores, 112 threads and 96 lanes of PCIe, the Broadberry CyberServe SP1 range of rackmount server solutions is based on single Intel Xeon Scalable Processors. This makes them a superb choice for a huge variety of applications, ranging from business servers to mid-level applications.

Based on the Intel Xeon Processor Scalable family, capable of supporting up to 12 DIMMS per CPU and boasting an enhanced memory subsystem, the Broadberry CyberServe SP1 range of server solutions are optimised for these applications:

- Business Servers
- Domain Controllers
- Virtualised Infrastructure
- Cloud Servers

Why Broadberry?

As leading providers of enterprise grade server and storage solutions over the past three decades, we've supplied some of the world's largest organisations including the likes of Sky, Toshiba, the University of Oxford, the University of Cambridge, Disney, the BBC, NASA and many more.

Our powerful online configurator allows you to create your CyberServe server to perfectly fit the needs and requirements of your business. With a wide array of features, hundreds of possible configuration combinations and a meticulous design process that optimises them directly for you, our servers are built to help your business thrive.

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Platform Improvements

The Broadberry CyberServe SP1 server range offers a number of advantages over server ranges powered by previous processors. Boasting up to 22 cores, 4 sockets and 6 TB , the processors used to power this range offer outstanding, efficient performance for a low price.

Having been awarded 5 stars by ITPro, the super cost-effective server has been described as being "an affordable option for SMBs with plenty of room to grow " and representing "excellent value". Despite being single socket, this solution offers plenty of great storage options.

...A big rack server with a Xeon Silver lining. It's an affordable option for SMBs with plenty of room to grow and has the added bonus of allowing them to keep costs down by choosing their own storage devices.

Full KVM remote control and virtual media services as standard; Excellent value; Good storage options .

- Dave Mitchell, ITPro

★ ★ ★ ★ ★

Security

Our Intel Xeon Scalable Processor based servers feature security without compromise, incorporating a number of technologies and features that will aid in safeguarding your system.

Intel Quick Assist Technology delivers a software-enabled base for security and authentication. Intel Key Protection Technology is found within Intel Xeon Scalable processors, enabled via Intel QAT. Intel KPT is on hand to help with secure private key management.

These features provide an immensely vital foundation for secure IT. They are necessary to handle the ever-increasing and evolving threats across both physical and virtual infrastructures.

Performance Optimisation

The Xeon Scalable Processor family features breakthrough performance and possesses the industry leading memory and I/O capacity necessary to substantially eliminate performance bottlenecks. The Xeon Scalable performance is a big contributor to the strong performance of the overall system.

Applications can be accelerated via the addition of Intel QAT (Quick Assist Technology) to a software-defined infrastructure environment. Intel QAT offers noteworthy increases in the performance and efficiency of standard platform solutions.

The Intel Xeon Scalable processors the Broadberry CyberServe SP1 range is based on provide a degree of flexibility and performance that allows you to handle business server and hosting server demands.

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Re-Designed From The Ground Up

Re-designed from the ground up for huge improvements, the era-defining Intel Xeon SP Processor family goes above and beyond the standards set by previous generations (Intel Xeon E5 and E7 V4). Find more information on the Xeon Scalable range below.

The CyberServe Xeon-SP range of business class servers has been designed and built from the ground up for modern data centre applications.
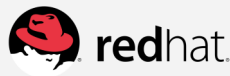
Driven by the Intel Xeon Scalable processor family, these flexible servers are able to excel across applications. With this range you benefit from gaining insights from advanced real time analytics as well as emerging technologies such as AI, autonomous driving, 5G and many more.

Adding a server from this range to your data centre will allow you to enjoy the ability to take advantage of new opportunities discovered via advanced, data fuelled methods.

Entry	Mid	High
Ideal for smaller businesses, Intel Xeon Bronze processors are developed to work best with basic storage servers.	The Intel Xeon Silver is optimised for middling IT organisations that are still developing. It delivers the speed and security you need for your data centre.	Intel Xeon Gold processors provide high performance and high-level reliability. Featuring hardware-enhanced security, this option is ideal for demanding and high intensity workloads.
up to **8 Cores**	up to **12 Cores**	up to **22 Cores**
up to **2 Sockets**	up to **2 Sockets**	up to **4 Sockets**
up to **1.5TB**	up to **1.5TB**	up to **6TB**

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Compatible With All Leading Operating Systems

ubuntu   open-e JovianDSS   Microsoft Hyper-V   openSUSE   ceph

nexenta   redhat   debian   vmware   archlinux

And More…

Up to 12 DIMMs per CPU

The CyberServe SP1 range is capable of supporting up to 12 DIMMS per CPU. That's a significant advancement on the previous limit, which was 9 DIMMS per CPU, representing a 50% increase in memory bandwidth.

In addition to this it also means a 10% speed boost per channel with the newly supported DDR4-2666 MHz memory.

Replacing Intel QPI

On higher end models the platform is scalable up to 4 sockets as well as more I/O and memory bandwidth.

With the new standards set by the leap in system capability it became clear that the time had come for Intel to replace the QPI. That replacement comes in the form of Intel Ultra Path Interconnect (Intel UPI).

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New Technologies and Capabilities

Compute:

- Intel AVX-512
- Unified 2S/4S/8S
- Up to 28 cores
- New MLC arch
- Speed Shift Technology
- High Frequency SKUs
- New on-die interconnect
-

Memory:

- 6 Channels
- Up to DDR4 2666MHz
- ADR Improvements
- 4S/8Sw/o Memory Buffers

Security:

- Intel Boot Guard
- SecurityPerf
- PPI-X
- Intel TXT Improvements
- Intel BIOS Guard 2.0
- Intel MPX

IO:

- More PCIe lanes (48)
- Higher PCIe BW
- Intel VMD
- Intel VROC
- Intel UPI @ 10.4GTs
- 2S 3UPI support
- NTB Improvements
- PCIe Dual-Case
- SRIS

Fabric:

- Integrated Fabric
- Saves 16 PCIe Lanes
- OPA Switches
- OPA Cards

Features:

- Skylake core microarchitecture, with enhancements specific to your data centre
- Intel AVX-512 with 32 DP flops per core
- Data centre optimised cache hierarchy - 1MB L2 per core, non-inclusive L3
- New mesh interconnect architecture
- Enhanced memory subsystem
- Modular IO with integrated devices
- Intel Ultra Path Interconnect - (Intel UPI)
- Intel Speed Shift Technology
- Security & Virtualisation enhancements (MBE, PPK, MPX)
- Optional Integrated Intel Omni-Path Fabric (Intel OPA)

Atom Servers

Perfect Appliance Servers the CyberServe range of Intel Atom based rack servers are designed for light processing tasks.

Xeon E Servers

Superb Business Class Servers, an ideal fit for companies looking for an affordable and efficient system.

AMD EPYC Servers

Perfect for data centre servers the revolutionary CyberServe EPYC range of high-performance servers are built for flexibility, performance and security.

Xeon SP Servers

Perfect Enterprise-Class Servers delivering significant benefits in performance, power efficiency, virtualisation, and security. Servers are configurable with up to 3TB DDR4 RAM and 56 processing cores.

Storage Servers

Configure From £1,078

Multi award-winning, enterprise-grade storage solutions used by the world's top organisations.

As-well as thousands of SMBs for everything from backup and replication to high-availability storage.

Rackmount Servers

Configure From £434

Year-after-year voted the best servers available by the most influential IT brand in the UK.

Our CyberServe range of servers are used by all of the UK's top universities and thousands of SMBs.

Workstations

Configure From £234

Ultra high performance workstations built for the most demanding applications.

Our CyberStation range boasts everything from silent workstations to GPU supercomputers.

Trusted by the Worlds Biggest Brands

We have established ourselves as one of the biggest storage providers in the UK, and since 1989 supplied our server and storage solutions to the world's biggest brands. Our customers include:

Broadberry CELEBRATING

1989 **30** 2019

Years of providing enterprise-grade solutions to the world's biggest brands