

An Optimized and Scalable High Performance Computing / Deep Learning Solution

Quanta Cloud Technology (QCT) offers cutting-edge High Performance Computing (HPC) / Deep Learning (DL) solution that integrates adaptive hardware with software stacks and common applications. This unique solution combines QCT's best-in-class infrastructure with high-bandwidth and low-latency interconnect. Furthermore, QCT's solution offers seamless connectivity with leading parallel file systems, to provide a scalable cluster architecture for supercomputing users. QCT delivers its starter kit with comprehensive software tools, which comply with OpenHPC conventions, to simplify deployment processes and to speed time-to-market. The QCT QxSmart HPC/DL solution is a fast and reliable way to build a HPC or deep learning environment across many industries, while reducing the time and effort to implement projects.

Solution Highlights



Rapid Deployment through QCT HPC/DL Cluster Starter Kit and rack-level integration.



Simplified Management with comprehensive software tools.



Optimized Integration on legacy HPC workload and deep learning framework.



Flexible Scalability to meet your business requirement.

What QCT HPC/DL Solution Can Offer

The QxSmart HPC/DL Solution is composed of validated software tools and vertical applications powered by QCT's infrastructure platform. This architecture simplifies the deployment process and minimizes time-to-value, which brings huge benefits to end users, administrators, and developers.

End Users:

- ✓ Accelerate time-to-value through the QCT HPC/DL Cluster Starter Kit
- ✓ Speed up productivity with intelligent workload management

Administrators:

- ✓ Simplify complex IT environments
- ✓ Streamline cluster deployment, monitoring, and management

Developers:

- ✓ Compile on de facto standard application frameworks
- ✓ Maximize ROI on comprehensive software tools

HPC/DL Software Stack

HPC/DL Applications									
User Authentication	Resource Management	Job Scheduling	Task Launching	Network Security	Compilers & Math Libraries	Application Frameworks			
NIS/LDAP	SLURM/PBS pro			Firewall	Intel/GNU/PGI Compilers & Libraries	MPICH/MVAPICH2 OpenMPI / Intel MPI	Hadoop / Spark	TensorFlow/PyTorch Keras/ CUDA	
System Deployment		System Monitoring			System Operation		System Environment		
xCAT	Ansible	Pacemaker	Ganglia	Nagios	QSM	PDSH	Lmod / Modules	Docker	Singularity
					Scale-Out NAS		Parallel File System		
					pNFS		BeeGFS		
Operating System									
Red Hat Enterprise Linux					CentOS Linux				
System Monitoring									
Server			Networking				Storage		



Specifications



Found at: www.QCT.io/wheretobuy

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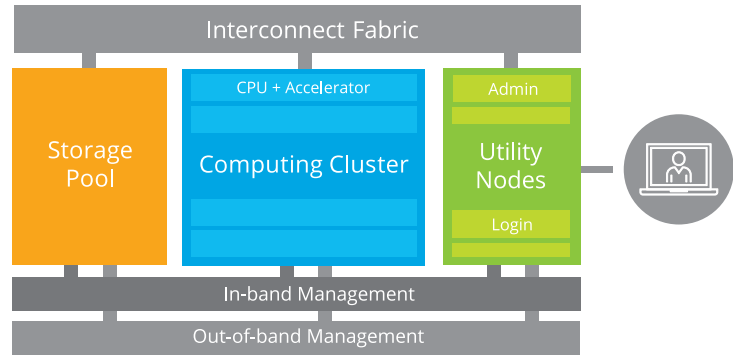
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QCT authorized partner

QxSmart HPC/DL System Architecture



QxSmart HPC/DL System Component

<p>High Density</p> <p>QuantaPlex T425P-2U - Form Factor: 2U 4 Node - Support AEP/NVMe</p> <p>Per Node</p> <ul style="list-style-type: none"> - Dual Intel® Xeon® Scalable Processors - Up to 8TB RDIMM DDR4 	<p>Big Memory</p> <p>QuantaGrid Q72D-2U - Quad Intel® Xeon® Scalable Processors - Support AEP/NVMe - Up to 3TB DDR4 RDIMM - Up to 16 2.5" HDD/SSD</p>	<p>Deep Learning</p> <p>QuantaGrid D52G-4U - Dual Intel® Xeon® Scalable Processors - Support AEP/NVMe - Up to 3TB DDR4-2666 - Up to 24 2.5" SSD</p> <p>SXM2</p> <ul style="list-style-type: none"> - Up to 8 GPU <p>PCIe</p> <ul style="list-style-type: none"> - Up to 16 GPU/FPGA
<p>Accelerated</p> <p>QuantaGrid D52BV-2U - Dual Intel® Xeon® Scalable Processors - Support AEP/NVMe - Up to 3TB DDR4-2666 - Up to 8 3.5"/2.5" HDD/SSD - Up to 4 GPU</p>	<p>QuantaGrid D52B-1U - Dual Intel® Xeon® Scalable Processors - Up to 3TB DDR4 RDIMM - Up to 12 2.5" SSD</p>	<p>QuantaGrid D52BQ-2U - Dual Intel® Xeon® Scalable Processors - Up to 3TB DDR4 RDIMM - Up to 24 2.5" SSD - Support AEP/NVMe</p>
<p>QuantaVault JB4242 - Up to 8 2.5" SSD - Up to 24 3.5" SAS/SATA HDD</p>	<p>QuantaVault JB4602 - Up to 60 SAS/SATA HDD</p>	<p>Inter-connection</p> <p>25/100Gb Ethernet Switch Mellanox InfiniBand Switch Intel® Omni-Path Switch</p>

About Quanta Cloud Technology (QCT)

Quanta Cloud Technology (QCT) is a global data center solution provider. We combine the efficiency of hyperscale hardware with infrastructure software from a diversity of industry leaders to solve next-generation data center design and operation challenges. QCT serves cloud service providers, telecoms and enterprises running public, hybrid and private clouds.

Product lines include hyper-converged and software-defined data center solutions as well as servers, storage, switches, integrated racks with a diverse ecosystem of hardware component and software partners. QCT designs, manufactures, integrates and services cutting edge offerings via its own global network. The parent of QCT is Quanta Computer, Inc., a Fortune Global 500 corporation.

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