About QCT

Quanta Cloud Technology (QCT) is a global datacenter solution provider extending the power of hyperscale datacenter design in standard and open SKUs to all datacenter customers.
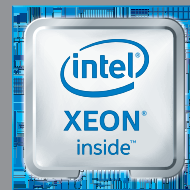
Product lines include servers, storage, network switches, integrated rack systems and cloud solutions, all delivering hyperscale efficiency, scalability, reliability, manageability, serviceability and optimized performance for each workload.

QCT offers a full spectrum of datacenter products and services from engineering, integration and optimization to global supply chain support, all under one roof.

The parent of QCT is Quanta Computer Inc., a Fortune Global 500 technology engineering and manufacturing company.

http://www.QCT.io

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Found at: www.QCT.io/wheretobuy

United States
QCT LLC., Silicon Valley office
1010 Rincon Circle, San Jose, CA 95131
TOLL-FREE: 1-855-QCT-MUST
TEL: +1-510-270-6111
FAX: +1-510-270-6161
Support: +1-510-270-6216

China
云达科技,北京办公室（Quanta Cloud Technology）
北京市朝阳区东三环中路 1 号，环球金融中心东楼
1508 室
TEL: +86-10-5920-7600
FAX: +86-10-5981-7958

云达科技,杭州办公室（Quanta Cloud Technology）
浙江省杭州市西湖区古墩路浙商财富中心 4 号楼
303 室
TEL: +86-571-2819-8650

Japan
Quanta Cloud Technology Japan 株式会社
日本国東京都港区芝大門二丁目五番八号牧
田ビル 3 階
TEL: +81-3-5777-0818
FAX: +81-3-5777-0819

Taiwan
雲達科技（Quanta Cloud Technology）
桃園市龜山區文化二路 211 號 1 樓
TEL: +886-3-286-0707
FAX: +886-3-327-0001

Other regions
Quanta Cloud Technology
No. 211 Wenhua 2nd Rd., Guishan Dist.,
Taoyuan City 33377, Taiwan
TEL: +886-3-327-2345
FAX: +886-3-397-4770

QCT authorized partner

QxStack powered by VMware Cloud Foundation™

Easiest Way to Build and Operate a Software-Defined Data Center (SDDC) Private Cloud

Key Benefits:

- A turnkey SDDC solution on pre-qualified, pre-validated QCT hardware, powered by VMware Cloud Foundation software stack.
- Simplified SDDC deployment, configuration and ongoing operations management with the VMware SDDC Manager, resulting in greater simplicity and faster time-to-value.
- Provided elasticity on scaling and configuration, to best align with current and future capacity requirements.
- Significant OpEx and CapEx benefits delivered with SDDC software capabilities and QCT's cost-effective hardware.

At a Glance

QCT QxStack powered by VMware Cloud Foundation is a fully interoperable solution that provides customers with the easiest way to build and run an SDDC private cloud. The solution delivered with pre-qualified hardware provided by QCT and VMware's Cloud Foundation software. This SDDC-based integrated system is ideal for enterprises and service providers focused on greater simplicity, faster time-to-value, enhanced security and lower total cost of ownership (TCO).

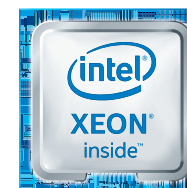### Why QCT Integrated System Powered by VMware Cloud Foundation?

For many companies, traditional infrastructure can slow down the journey to the software-defined datacenter:
1. Initial Setup – From designing reference architecture to procuring the individual infrastructure components from multiple vendors, significant times and effort can be consumed before the first VM deployment.

2. Provisioning – Proliferation of hardware-centric control points that often lack user friendly tools makes it hard to operate disparate infrastructure devices.

3. Ongoing Lifecycle Management – Having to deal with multiple vendors for support trouble shooting and lengthy manual software patching and upgrades creates multiple administration cycles, thereby negatively affecting operations.

QCT and VMware worked closely to simplify how customers architect, procure, deploy, and manage the software and hardware infrastructure of an SDDC. This integrated solution jumpstarts the journey to SDDC by delivering a complete VMware software stack on proven QCT hardware platform.

QxStack Powered by VMware Cloud Foundation Use Cases

Use cases include virtual infrastructure, general purpose IaaS and virtual desktop infrastructure, supporting up to 1,000 virtual machines (VMs) or 2,000 virtual desktops per physical rack. Within each instance, operators also have the flexibility to host multiple workloads with distinct availability, performance and security characteristics using the workload domain construct. A construct unique to VMware Cloud Foundation, as an example, this can be used by operators to simultaneously run both traditional and third-platform applications on the same shared infrastructure.

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Key Features and Capabilities

Pre-Validated and Pre-Integrated Solution with Fully Automated Bring Up Process —

- The integrated systems will be pre-racked and pre-cabled with all software pre-installed prior to delivery. Within several hours of initial bring up, customers can have a fully operational integrated system powered by VMware Cloud Foundation.

Once the integrated system is physically deployed at the customer site and the system powered on, the customer will only need to execute several steps before deploying its first VM—connect to the datacenter's existing ethernet network via uplinks and power source, provide some basic network info, such as IP range and DNS, and request capacity based on user-specified performance and availability requirements.

Flexibly and Dynamically Scale —

- Customers can flexibly and dynamically scale on QCT integrated systems. Minimum starting requirement is 8 nodes, or one-third of a rack, and customers can scale up incrementally per server up to 24 nodes, or scale out across multiple racks.
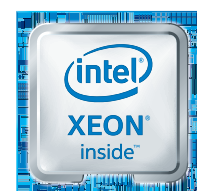
For both small-and large-scale capacity additions, the Hardware Management Service (HMS) auto-discovers the new physical capacity and seamlessly adds those resources to the virtual rack for consumption, non-disruptively extending the virtual rack to larger physical capacity.

Centralized management interface and Automated Lifecycle Management (LCM) —

- VMware SDDC Manager provides a single centralized management interface for managing both the physical and logical infrastructure—from hardware device level details to network typology to VMs.
  VMware SDDC Manager automates day 0 to day 2 operations of entire software stack. It automates the bring up process of VMware Cloud Foundation stack and enables a one click patching or upgrading process of the complete stack. Cloud admins have the flexibility to choose the timing and scope of the updates.

To Learn More

Please contact QCT sales representatives to learn more about the solution, request a demo, or start a proof of concept (PoC) program.
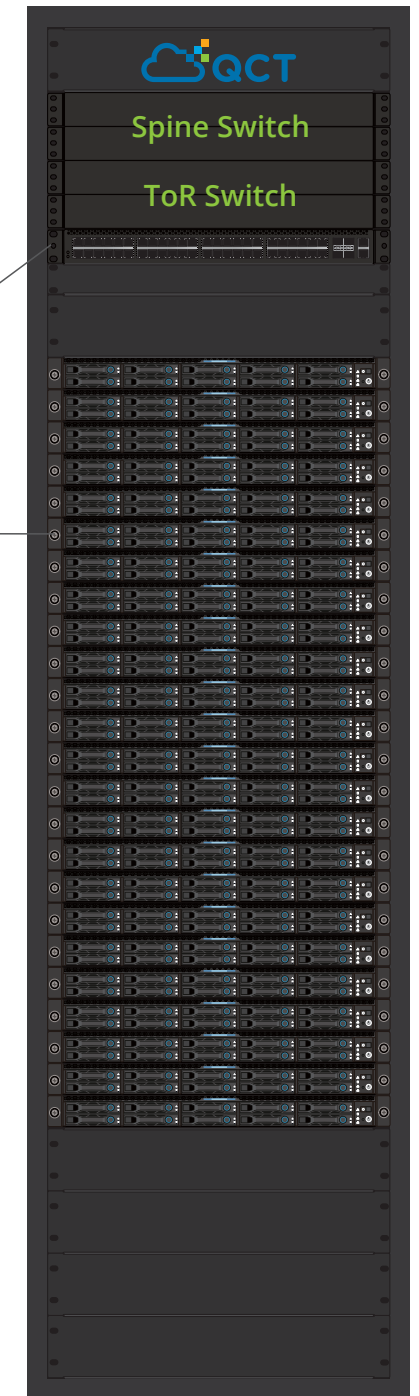
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QCT Integrated System Hardware Architecture

QCT has extended its leadership position in hyperscale cloud to offer private and hybrid cloud solutions for enterprises, leapfrogging from a hardware provider to a total solution provider by partnering with industry-leading software vendors such as VMware in the hyper-converged space. With deep understanding of different cloud workload types, systems integration and optimization experiences, QCT can offer the most efficient, innovative, scalable and easy to deploy hardware to meet the various demands of datacenters.

The fully integrated system is delivered by QCT, covered from design, manufacturing, to global supply chain support. All components are carefully selected, and rigorously tested to ensure optimal performance and compatibility.

Spine Switch

ToR Switch

Management Switch
QuantaMesh BMS-LB9

QuantaGrid D51B-1U
- Full Rack x 24
- 1/3 Rack x 8

The integrated system consists of:

Category	Model Name	Quantity	Note
Server	QuantaGrid D51B-1U	Minimum (8) servers, scale up incrementally to (24) servers per rack	Scale out up to (8) racks
Spine switches	Cisco Nexus 9332PQ or Arista 7050QX-32S-R	(2) 40G switches	First rack only
Top-of-Rack (ToR) switches	Cisco Nexus 9372PX or Arista DCS-7280SE-72-R	(2) 10G switches	Each rack
Management Switch	QuantaMesh BMS-LB9	(1) 1G switch	Each rack