

QxStor

Red Hat Ceph Storage Edition



Optimal Integrated Ceph Solution at Petabyte Scale

QxStor Red Hat Ceph Storage Edition offers a family of Ceph solutions for building different types of scale-out storage clusters based on Red Hat Ceph Storage—each optimized to suit different workload and budgetary needs. It provides the seamless interoperability and leading performance for block and object storage, making it well suited for archival, rich media, and cloud infrastructure workloads like OpenStack.

A Compelling Alternative to Traditional Storage

Ceph is the most popular and reliable distributed software-defined storage platform, adopted by more and more cloud datacenters. Together with Red Hat, QCT QxStor has been optimized and comprehensively validated with Red Hat Ceph Storage on QCT servers, offering robust and petabyte-scale block and object storage platform for the enterprise. QxStor brings the efficiency and scalability that traditional SAN or NAS offerings fail to achieve.

Perfect Hardware Design for Ceph

QCT has reinvented datacenter storage technology to design cutting edge storage servers by boosting storage capacity, density and performance.

- **QxStor RCT-200**, optimized for throughput workloads, provides the ultra dense 1U Ceph building block with 12x HDD and 3x SSD. RCT-200 allows enterprises to scale out Ceph cluster with minimum failure domain and best throughput per terabyte.
- **QxStor RCT-400** uses the 4U high-density storage server, maximizing the capacity to 560TB. RCT-400 is the throughput-optimized SKU, providing as great performance as RCT-200 does. It incorporates both dense capacity and best performance simultaneously.
- **QxStor RCC-400** is designed for cost/capacity-optimized workloads. It provides best price/performance with up to 620TB per server, well suited for object storage and archive.
- **QxStor RCI-300** is an all-flash design Ceph for IOPS intensive workloads, such as databases or mission critical applications. It provides the best IOPS performance and the lowest latency in QCT Ceph solutions.

Outstanding Ceph Performance

By integrating SSD for Ceph journaling, QCT QxStor RCT-200 and RCT-400 reach industry-leading performance for throughput with intensive workloads. RCT-400 exploits NVMe SSD technology, enhancing 50% sequential write performance and decreasing 33% latency. The adoption of 40GbE NIC on RCT-400 boosts 2.79x sequential read and 1.58x write throughput. QxStor is designed to provide enterprise with the optimal configurations with cost effectiveness.

Pre-configured for Faster Time-To-Value

QxStor Red Hat Ceph Storage Edition is pre-configured based on the best hardware and software scheme for workloads optimized on throughput and cost/capacity. It also significantly minimizes the time and risk for enterprises to adopt Ceph.

About QCT

QCT (Quanta Cloud Technology) 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>

- Comprehensive QCT QxStor object and block storage solutions based on Red Hat Ceph Storage
- Petabyte-scale, software-defined storage for cloud builders
- Optimized for throughput and cost/capacity workloads, in archival, rich media, or cloud infrastructure
- Industry-leading density and price/performance with innovative QCT server platforms that are easy to deploy rapidly at scale







Powered by Intel® Xeon® processors
Intel Inside®. Powerful Data Center Outside.

Found at: www.QCT.io/wheretobuy

Workload Optimized QxStor Solution



Throughput Optimized		Cost/Capacity Optimized	IOPS Optimized
QxStor RCT-200  D51PH-1ULH	QxStor RCT-400  T21P-4U	QxStor RCC-400  T21P-4U	QxStor RCI-300  D51BP-1U
<ul style="list-style-type: none"> Densest 1U Ceph building block with 12:3 HDD to SSD ratio Smaller failure domain 	<ul style="list-style-type: none"> Obtain best throughput & density at once Scale at high scale 2x 280TB per RCT-400 	<ul style="list-style-type: none"> Maximize storage capacity with 560TB~620TB raw capacity per RCC-400 	<ul style="list-style-type: none"> All Flash Design Lowest latency
<ul style="list-style-type: none"> Block or Object Storage, Video, Audio, Image, Streaming media, and Big Data 3x replication 		<ul style="list-style-type: none"> Object Storage, Object Archive and Backup Erasur coding 	<ul style="list-style-type: none"> Database, HPC, Mission Critical Applications 2x or 3x replication

Found at:
www.QCT.io/wheretobuy

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QCT QxStor Red Hat Ceph Storage Edition Specification

WORKLOADS	ENTRY (>100TB*)	SMALL (500TB*)	MEDIUM (>1PB*)	LARGE (>2PB*)
Throughput Optimized	QxStor RCT-200 4x D51PH-1ULH (4U) <ul style="list-style-type: none"> 12x 8TB HDDs 3x SSDs for journal 1x dual port 10GbE 3x replica 	QxStor RCT-200 16x D51PH-1ULH (16U) <ul style="list-style-type: none"> 12x 8TB HDDs 3x SSDs for journal 1x dual port 10GbE 3x replica 	QxStor RCT-400 6x T21P-4U/Dual (24U) <ul style="list-style-type: none"> 2x 35x 8TB HDDs 2x 2x PCIe SSDs for journal 2x single port 40GbE 3x replica 	QxStor RCT-400 11x T21P-4U/Dual (44U) <ul style="list-style-type: none"> 2x 35x 8TB HDDs 2x 2x PCIe SSDs for journal 2x single port 40GbE 3x replica
Cost/Capacity Optimized		QxStor RCC-400, N pcs x T21P-4U/Dual <ul style="list-style-type: none"> 2x 35x 8TB HDDs 0x SSDs for journal 2x dual port 10GbE Erasur Coding 4:2 		
IOPS Optimized	QxStor RCI-300 N pcs x D51BP-1U <ul style="list-style-type: none"> 2x E5-2695/2699 v4 4x NVMe for OSDs 1x dual port 10GbE or 40GbE 			NA

* Usable storage capacity

About Red Hat Ceph Storage

Red Hat Ceph Storage is a massively scalable, open source, software-defined storage system that gives you unified storage for your cloud environment. To learn more about Red Hat Ceph Storage, visit: www.redhat.com/en/technologies/storage/ceph

QCT authorized partner

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