Qumulo QC-Series File Storage Systems

Leader in Universal-Scale File Storage

Qumulo File Fabric (QF2) is a modern, highly scalable file storage system that can run on Qumulo's whitebox QC-Series hardware, on third-party hardware and in the public cloud. The choice is yours.

QF2 offers the same interface and capabilities to users, no matter if it is on-premises, off-premises, or spanning both. Administrators can take advantage of the elastic compute resources that the cloud offers and then move data back to their data centers.

Qumulo's QC-Series contains a mix of solid state drives (SSDs) and hard disk drives (HDDs). The QC-Series provides a starting capacity of 96TB and linearly scales to over 2PB raw storage. It is built on standard hardware that is provided by Qumulo. The QC-Series provides flash performance at archive prices.

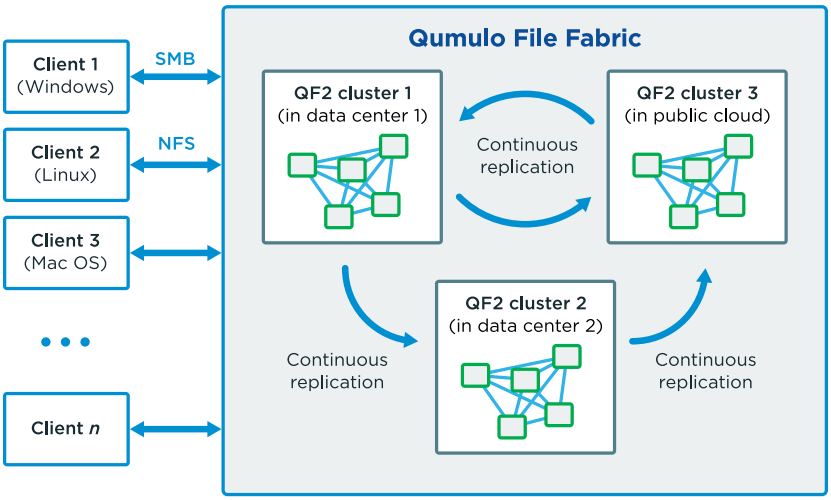
The QC-Series scales from four nodes to over a thousand nodes in a single cluster, creating a single file system and single global namespace. Each node is a dense, self-contained modular building block comprising processing power, memory, networking, SSDs, and HDDs.

Each node runs QF2 and participates in the cluster as a fully symmetric peer, managing write and read requests, and coordinating transactions with other nodes within the cluster. Additional nodes can be added to the cluster easily and non-disruptively, linearly scaling both storage capacity and performance.

QF2 clusters work together to form a globally distributed but highly connected storage fabric tied together with continuous replication.

Customers interact with QF2 clusters using industry-standard file protocols, the QF2 REST API, and a web-based graphical user interface for storage administrators.

QF2 Architecture



QC-Series 1U

QC24 | QC40

QC-Series 4U

QC104 | QC208 | QC260 | QC360

Key Features & Benefits

- **Scales to billions of files**
  Use any mix of large and small files and store as many files as you need. There is no practical limit with QF2's advanced file-system technology.
- **Real-time control at scale**
  Get answers and solve administration problems in real time, no matter how many files and directories you manage.
- **Highest performance**
  QF2 is the highest performance file storage system in the data center and in the cloud. Get multi-GB/s throughput for your toughest on-prem and cloud workloads.
- **Lowest cost**
  QF2 is one third the cost of legacy storage appliances on a capacity basis. And, you can use 100% of provisioned capacity, not just 70% or 80%.

Qumulo Core: Gold Winner
2015 Products of the Year
Storage Systems: Disk and Hybrid Systems

Access to Innovation

Qumulo follows Agile and other modern development practices, which means it has many small, frequent releases that steadily improve the product and keep it on the leading edge of what's possible.

Qumulo was the first storage system manufacturer to ship the new Ultrastar He10 – 10TB – highest density HDDs from HGST. The new HGST Ultrastar He10 drives provide a very efficient storage solution that maximizes data center rack density, floor space, and power consumption.

The Qumulo QC-Series hybrid storage appliance family features six SKUs from Qumulo. The QC-Series 1U appliances (QC24 and QC40 models) give users a choice between lower-cost entry requirements and higher performance/higher capacity needs. The Qumulo QC-Series 4U appliances (QC104, QC208, QC260 and QC360 models) give users a choice between cost-optimized requirements and the highest density, lowest cost per GB solution.

Technical Specifications

	1U		4U			
Per Node	**QC24**	**QC40**	**QC104**	**QC208**	**QC260**	**QC360**
Connectivity ports	2 x 10GbE SFP+		4 x 40GbE QSFP+			
Management ports	1 x IPMI 1GbE Base-T (RJ45)		1 x IPMI 1GbE Base-T (RJ45)			
Storage media (all hot-swappable)	4 x 6TB HGST HDD	4 x 10TB HGST He10 HDD	26 x 4TB HGST HDD	26 x 8TB HGST He8 HDD	26 x 10TB HGST He10 HDD	36 x 10TB HGST He10 HDD
	2 x 800GB eMLC SSD		13 x 480GB eMLC SSD			4 x 1.6TB eMLC SSD
CPU	1 x Intel Xeon E3-1270V5 3.60GHz 4-cores		2 x Intel Xeon E5 2620v3 2.40GHz 6-cores			
Memory	64GB		128GB			256GB
Raw storage capacity	24TB	40TB	104TB	208TB	260TB	360TB
Power supply	2 x 650W (fully redundant, hot-swappable)		2 x 750W (fully redundant, hot-swappable)			
Dimensions (H x W x D)	1.75" (4.5cm) x 17.2" (43.7cm) x 27.9" (70.8cm)		7" (17.8cm) x 17.2" (43.7cm) x 29" (73.7cm)			
Weight	55lbs (24.9kg)		155lbs (70.3kg)			166lbs (75.3kg)
Power requirements	100 – 240V, 50/60hz		100 – 240V, 50/60hz			
Typical power consumption	0.65A @ 240V, 1.41A @ 110V		2.71A @ 240V, 5.91A @ 110V			
Typical thermal rating	155W (VA), 529 BTU/hr		650W (VA), 2,218 BTU/hr			
Maximum power consumption	1.04A @ 240V, 2.28A @ 110V		3.55A @ 240V, 7.73A @ 110V			
Maximum thermal rating	250W (VA), 855 BTU/hr		850W (VA), 2,900 BTU/hr			
Operating temperature	50° F - 95° F (10° C– 35°C)		50° F - 95° F (10° C – 35° C)			
Non-operating temperature	-40° F - 158° F (-40° C– 70°C)		-40° F - 158° F (-40° C – 70° C)			
Operating relative humidity	8% to 90% (non-condensing)		8% to 90% (non-condensing)			
Non-operating relative humidity	5% to 95% (non-condensing)		5% to 95% (non-condensing)			

Certifications	
Safety	UL, cUL
Country	FCC (USA), NRTL (USA and Canada)
Emissions	FCC Part 15 Class A, ICES-003 Class A
Immunity	North America

About Qumulo

Qumulo is the leader in universal-scale file storage. Qumulo File Fabric (QF2) gives data-intensive businesses the freedom to store, manage and access file-based data in the data center and on the cloud at petabyte and global scale. Founded in 2012 by the inventors of scale-out NAS, Qumulo serves the modern file storage and management needs of Global 2000 customers. For more information, visit http://qumulo.com

Qumulo

Q115 0917