



Quorum HA Anywhere™

A flexible deployment architecture to fit any business

WHITEPAPER



Performance vs. cost. It's a dilemma facing IT teams since the first mainframes became available. Since then, technology has advanced, and the emergence of the .com era has shown organizations that IT can be a competitive differentiator, but the decision between performance and cost has not gone away, if anything, it's gotten worse.

CPU, network and storage performance have all improved which has led to ever increasing application performance. Smart mobile devices have extended application use to times away from home and office making most business applications 24 x 7. So users are now expecting more performance and 24 x 7 availability for all of your apps—putting more pressure on application architects to construct highly scalable and highly available applications.

High speed backup, replication and failover are now required to keep those applications up and constantly performing, but the backup and recovery market has been slow to adapt. Traditionally, there are three backup and recovery strategies: Hardware, Software and Cloud—each with their own strengths and weaknesses.

Hardware

Hardware solutions for High Availability and Disaster Recovery offer the best performance, best security and the lowest management but typically cost more than other options. In addition, they require space and power in your datacenter, and will need a hardware refresh at the end of their warranty period. Their biggest advantage is that they provide the necessary hardware to immediately recover your servers. The downside is that they need space, power, cooling and management in your datacenter, at a time when many organizations are trying to downsize their datacenters.

Software

Tape backup software is cheap, but suffers from a much more complicated and time consuming recovery process—so it lacks fast failover. In addition, tape storage and physical security requires additional time and money especially if you are storing tapes and other media offsite. And although software solutions

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Virtualization was a step in the right direction, by allowing IT teams to run VMs on shared infrastructure, and thereby lowering the hardware cost. So although the dependence on hardware is reduced, it is still a significant cost. VM backup and recovery works well for other virtualized servers, but not as well for physical servers and cloud applications.

Cloud

Backing up to cloud removes the onsite hardware dependency, but cannot yet match the performance of an onsite recovery appliance. In this sense, cloud has the cost advantage of software, but none of the hardware requirements, making it a very appealing option to most businesses.

However in some instances, cloud backup struggles with high transaction volume applications, making it a non-viable option for backup and recovery.

In addition, sending your data over an internet connection to a third party site raises a variety of security and performance questions. Is the network connection secure? Is the data encrypted in motion and at rest? Does the third party data center have the necessary certifications to meet my customer's needs?

Finally, as you store more and more data to the cloud, the time needed to retrieve that data goes up—quite substantially in some cases, making network latency a limiting factor for backup and recovery. The few cloud vendors that actually offer cloud recovery charge a significant amount for compute resources, in the event of a failure. So although you don't see that cost on a monthly basis, it hits you hard when you have a failure and have to failover.

At Quorum, we know that when designing a continuity strategy for modern business, one size does not fit all. That is why we offer HA Anywhere a flexible architecture that puts the right mix of technology to work for you.

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The Quorum difference

With Quorum, you don't have to choose one deployment strategy, our HA Anywhere™ architecture means that you mix and match the strategies that best suit your business needs.

At the core of HA Anywhere is Quorum onQ, a high performance, 1-click instant recovery instance that can be run in the Quorum cloud, can be run locally, or can be run from a remote location. To the administrator, all instances work together and are managed via the same centralized management console to provide an ease of use, not seen in other products.

Working together seamlessly in an combination allows Quorum to put the right technology in place to fit the needs of the business. Quorum onQ is available in three versions, which can be combined in any combination.

onQ Cloud

The onQ cloud instance is hosted in Quorum's private cloud a fully encrypted, regulatory compliant, and high performance PRIVATE datacenter owned and operated by Quorum. Multiple high speed secure data centers power the Quorum cloud providing the highest levels of performance and security in the market.

Our Direct 2 Cloud (D2C) technology sends snapshots directly to the Quorum cloud using a high speed encrypted VPN tunnel. In the event of a failure, our web based console is used to boot up a virtual clone, which takes over the workload from your failed server. For most of your servers, D2C provides the highest levels of performance and security without adding any hardware to your environment.

For further redundancy, cloud mirroring between our datacenters provides an additional offsite copy of the snapshot, delivering HA and DR without any additional onsite hardware.



Customer Servers and Data





Some environments will be better served with a local onQ appliance providing onsite HA. In this scenario, onQ provides HA for the onsite servers, but also streams the snapshots to the Quorum cloud for Disaster Recovery. For local failures, the onsite appliance takes over at the click of a button providing high speed workload recovery and business continuity. In the event of a complete site failure, the web based console is used to boot up the recovery clone stored in the Quorum cloud, and once booted, the clone running in the cloud takes over the workload.

onQ Local

From onQube to POD, our award winning appliances have the performance and features to provide High Availability for even the highest transaction rate servers. Using our proprietary snapshot technology, we can instantly recover any server or file with just a few clicks.

In the event of a failure, an IT administrator simply logs in to our web based console, identifies the failed server, and boots a virtual clone directly from the appliance. Once booted, the clone takes the place of your failed server, providing immediate recovery.

onQ Remote

For customers that have a DR location and want to protect against a site wide outage, we offer onQ remote. In this configuration, a second onQ instance is installed and configured at a the secondary site, or in the Quorum cloud.

In both cases, a local appliance provides onsite High Availability, but also streams data offsite to the secondary DR appliance. In the event of a natural disaster or power failure that takes your site down, the DR appliance is started from the same web based administration console. Once booted, end users are directed to the remote appliance to resume work. Your systems will be back up and running within minutes of failover.

HA Anywhere is all about choice

HA Anywhere is more than a deployment strategy, it's our vision. It's our commitment to creating the perfect backup and recovery strategy for your business. Unlike other vendors that push you towards a single strategy, we have crafted our products to be interchangeable, providing you with the highest level of flexibility and security in the market. You decide the right mix of cloud and local HA to best fit your business.

With HA Anywhere you get cost savings and performance. We offer a 30 min, no fee consultation and site survey to help you understand the best way to protect your business. Working together, we will craft a custom strategy to protect your business now, and into the future.

For more information, visit us at www.quorum.com.