



**NetApp™**  
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Infrastructure Solution

# Maintain Availability of Vital Business Data

NetApp MetroCluster provides continuous data availability for business-critical applications at half the cost and half the complexity of competitive solutions

## KEY BENEFITS

50% lower cost, no host-based clustering required, added efficiency through data deduplication and server virtualization

Zero unplanned downtime through transparent failover with protection from hardware plus network and environmental faults

Zero planned downtime through nondisruptive upgrades for storage hardware and software

Set it once: Simple to deploy, with no scripts or dependencies on the application or operating system

Zero change management through automatic mirroring of changes to user, configuration, and application data

## THE CHALLENGE

Enterprise-class customers today are facing the perfect storm. Challenging economic times are compelling businesses to achieve even greater levels of cost savings and operational efficiency. Yet business-critical applications still require vital data to be protected and available to meet increasing service-level demands. The majority of businesses that fail to protect their critical applications don't get a second chance, and those that fail to reduce their operational expenses may suffer the same fate.

## THE SOLUTION

NetApp® MetroCluster is a solution that combines array-based clustering with synchronous mirroring to deliver continuous availability and zero data loss at the lowest cost. Administration of the array-based cluster is simpler because the dependencies and complexity normally associated with host-based clustering are eliminated. MetroCluster immediately duplicates all your business-critical data on a transaction-by-transaction basis, providing uninterrupted access to your applications and data. And unlike standard data mirroring solutions, MetroCluster works seamlessly with your host environment to provide continuous data availability while eliminating the need to create and maintain complicated failover scripts.

## CONTINUOUS AVAILABILITY

NetApp MetroCluster enhances the built-in redundancy of NetApp hardware and software, providing an additional layer of protection for the entire storage and host environment. Whether your environment is composed of standalone servers, high-availability clusters, or virtualized servers, MetroCluster seamlessly maintains application availability in the face of a total storage outage due to losses of power, cooling, or network connectivity; storage array shutdown; or operational error. This is because MetroCluster is an array-based active-active clustered solution, eliminating the need for complex failover scripts, server reboots, or application restarts. In fact, most MetroCluster customers report that their users experience no application interruption when a cluster recovery takes place.

## FLEXIBLE DEPLOYMENT OPTIONS

### True high-availability data center

NetApp MetroCluster is ideal for organizations that require 24x7 operation for critical business applications by synchronously replicating your data between clustered NetApp FAS3000, FAS3100, FAS6000, and V-Series systems that are collocated in the same data center or across a campus, providing you with a zero-touch continuous availability solution that guards against faults inside and outside the array.

### Campus and metro-wide protection

NetApp MetroCluster can also significantly simplify the design, deployment, and maintenance of campus or metropolitan-wide high-availability solutions. During a total site disruption, data services are restored at the secondary site with an automated single command in a matter of seconds, with no complex failover scripts or restart procedures.

### WAN-based disaster recovery

If your business is geographically dispersed beyond metropolitan distances, NetApp SnapMirror® software can be added to replicate data across your global network simply and reliably. NetApp SnapMirror software replicates data at high speeds over WAN connections, protecting your business-critical applications from regional disruptions.

### SINGLE SYSTEM ADMINISTRATION: “SET IT ONCE”

Most storage-based data mirroring solutions require duplicate effort in terms of storage system administration, configuration, and maintenance because the replication relationships between the primary and secondary storage array are managed separately. This not only increases management overhead, it can also expose you to greater risk if configuration inconsistencies arise between

the primary and secondary storage arrays. Because NetApp MetroCluster is a true clustered storage solution, the active-active storage pair is managed as a single entity, eliminating duplicate administration work and maintaining configuration consistency.

### A COMPLETE END-TO-END HIGH-AVAILABILITY SOLUTION

NetApp MetroCluster has been tested and proven with leading server virtualization and host clustering technologies from VMware, Microsoft, Symantec, IBM, and many others. Our strong industry partnerships mean that MetroCluster integrates smoothly into your IT environment, enhancing the high-availability and recovery features of those products.

### ENHANCE YOUR VMWARE ENVIRONMENT WITH METROCLUSTER

The combination of VMware® Infrastructure and NetApp MetroCluster resolves a number of customer challenges from both server and storage perspectives. VMware Infrastructure provides a robust server consolidation solution with high application availability. MetroCluster provides continuous access to your data in a data center or across a campus, and when it is combined with SnapMirror software, data can be protected at a regional level as well.

### PROTECT ALL OF YOUR DATA WITHOUT DOUBLING YOUR STORAGE COSTS

Traditional data mirroring solutions require that the backup array have the same or more storage capacity as the primary array, doubling storage cost and administration overhead. NetApp deduplication offers space savings across all storage tiers: primary data, backup data, and archival data. NetApp deduplication is included with all NetApp FAS3000, FAS3100, FAS6000, and V-Series systems. Unlike other deduplication solutions, no additional hardware or software licenses are required, and NetApp deduplication is application and protocol agnostic.

### PARTNER FOR SUCCESS

When you partner with our Professional Services and Global Support teams, you gain access to our extensive storage expertise, innovative technologies, and best practices. You can accelerate the return on your infrastructure investments and get the most business benefit from them. We respond quickly to your problems, no matter where in the world they occur. And because we offer one of the most flexible support programs in the industry, you always get just the support you need for your unique IT and business requirements.

NetApp creates innovative storage and data management solutions that accelerate business breakthroughs and deliver outstanding cost efficiency. Discover our passion for helping companies around the world go further, faster at [www.netapp.com](http://www.netapp.com).

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