

# VMWARE BACKUP WITH EMC NETWORKER

## Unified protection for virtual environments

### ESSENTIALS

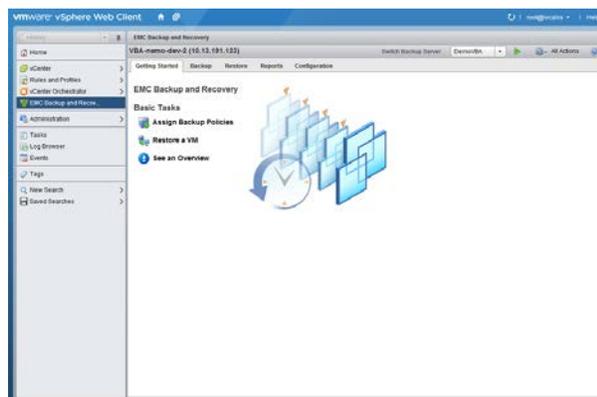
- Use VMware Backup Appliance to deliver non-disruptive, off-host protection
- Integrated deduplication with EMC Data Domain significantly reduces impact on network and infrastructure
- Multi-streamed proxies for optimized backup performance
- Leverages Changed Block Tracking and disk level granularity for fast backup and recovery
- VMware vCenter integration enables VMware backup policy creation, monitoring, and reporting from the NetWorker Management Console
- Integration with VMware vSphere Web Client enables VMware Administrators to assign protection policies and perform image-level backup and recovery
- Immediate access to critical information backed up to a Data Domain system with Instant Access
- Clone to external media for extended retention and compliance

As more of your information moves from physical servers to a virtual infrastructure, you need to consider new approaches for protecting your critical information and application assets. EMC® NetWorker® solves physical and virtual machine backup challenges with unified traditional and next-generation data protection that dramatically reduces backup windows and ensures reliable recovery. NetWorker automates and accelerates data protection across an enterprise to ensure vital information is safe and available. By providing support for a wide range of applications, operating systems, and environments, including VMware® vSphere™, NetWorker simplifies management and lowers costs by centralizing the entire backup environment.

### OFF-HOST VIRTUAL SERVER BACKUP

To meet the challenge of data protection within a VMware environment, NetWorker integrates with the VMware vStorage APIs for Data Protection (VADP) to centrally protect virtual machines. With VADP, the backup process is diverted from production hosts onto centralized virtual proxy servers, ensuring that critical business operations are not impacted. NetWorker employs a VMware Backup Appliance and virtual proxies that leverage both load-balancing and multi-streaming in the backup process, enabling multiple virtual machines to be backed up simultaneously across proxies. Since each virtual machine is dynamically mounted to the proxy, no data is physically moved across the network. VMware Changed Block Tracking (CBT), a feature of VADP, is employed to speed both incremental backup and recovery operations. With CBT, NetWorker quickly identifies and protects changed virtual machine data and only backs up the changed blocks, thus reducing backup time and storage requirements while also speeding time to recovery. The NetWorker VMware Backup Appliance leverages EMC® Data Domain® systems as the backup target for high performance and scale. For VM

images stored on a Data Domain system, a VM can be instantly accessed and, while running, Storage vMotioned back to the production environment. Both full image-level and file-level recovery with a single backup of virtual machines are supported for Microsoft Windows and Linux.



VMware vSphere™ Web Client

## APPLICATION AWARE BACKUP

NetWorker offers flexible backup options for individual virtual machine guests within VMware environments. Guest-level backup with the NetWorker client software and application modules enables granular, application consistent backup. This delivers maximum flexibility for recovery and ensures applications can be restarted post data restore. Users can leverage traditional or deduplication backup—or both—to meet virtual machine data protection and recovery requirements.

## VMWARE VCENTER INTEGRATION

NetWorker integrates with VMware vCenter™ to deliver greater visibility and unprecedented levels of control in protection of vSphere environments. Through integration with vCenter, NetWorker auto-discovers the virtualized environment and maps it graphically in the NetWorker Management Console. NetWorker is also able to monitor and report on the protection status of the VMware environment. The NetWorker Management Console is also used to configure protection policies which the backup administrator can then either apply or provision to the VMware administrator. In a self-service model, the VMware administrator uses the vSphere Web Client to choose the protection policies allocated to them by the backup administrator in NetWorker. The vSphere Web Client also enables VMware image and VMDK-level backup and recovery, as well vSphere reporting. New virtual machines added to the environment are automatically protected based on the protection policy of the container they were created in, enabling consistent policies across VM groups and ensuring all VMs are always protected.

A new web-based recovery user interface enables file level recovery for both Windows and Linux environments for system administrators and others with system privileges. All user interfaces are integrated with VMware vCenter, offering the appropriate level of visibility and control of virtual machine protection in-context with the user's role.

## QUALIFICATION WITH VMWARE SOLUTIONS

NetWorker is qualified with VMware tools such as VMotion™, Dynamic Resource Scheduling (DRS), and High Availability (HA) to ensure that there is no interruption of backup service for VMs that have moved from one VMware server to another.

## COMPLETE PROTECTION FOR VMWARE

With NetWorker, businesses and organizations of all sizes can take advantage of the tight integration with VMware VADP and vCenter, maintaining ease of use, flexibility, and greater levels of manageability and control, while providing the best of traditional and deduplication VMware backup in one solution. IT organizations have the tools required to comply with governance regulations, meet service level agreements, and keep their VMware environments running at their full potential.



## CONTACT US

To learn more about how EMC products, services, and solutions can help solve your business and IT challenges, contact your local representative or authorized reseller—or visit us at [www.EMC.com](http://www.EMC.com).

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