

# **DIGITAL OpenVMS Disk Services for Windows NT**

## The smart, affordable way to maximize your storage investments

The challenge? To cope with the rapid growth of Windows NT into the enterprise. As more and more organizations deploy mission-critical applications on Windows NT, the availability and reliability of the data stored there become increasingly important. Whether you're using Windows NT as the front-end for a corporate Intranet server, a Microsoft Exchange server, or an inventory and sales datamart, the safety and security of your data is paramount.

> OpenVMS Disk Services for Windows NT helps bring enterprise-class availability and costeffective storage management to Windows NT, while protecting and leveraging your investment in OpenVMS. It is the ideal storage solution for managers deploying Windows NT systems who want the reliability and failover capabilities they've come to expect from OpenVMS.

### **Benefits**

Physically centralized storage

Automatic failover of disk
services in the OpenVMS Cluster
Flexibility in allocating storage to Windows NT systems
Investment protection
Compatibility with
Windows NT applications

Scalability

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Service and support

# "The Microsoft OS gets a shot in the arm from OpenVMS Disk Services for Windows NT, a new product that enables an OpenVMS file to serve as a Windows NT disk. Centralized storage

and management, as well as access to the goodness and reliability of OpenVMS Clusters, are among the benefits that accrue to this OpenVMS cluster-resident service."

Terry Shannon, publisher, Shannon Knows DEC

# OpenVMS Disk Services for Windows NT Storage on the OpenVMS Cluster Windows NT Server Vindows NT Server User Workstations Windows 54 Windows 95 Windows 95

### Reap the benefits of centralized storage on OpenVMS

To store Windows NT data more efficiently and reliably, DIGITAL introduces OpenVMS Disk Services for Windows NT. This software solution lets an OpenVMS server provide physical storage to Windows NT servers. In turn, these servers can deliver Windows NT applications to the Windows community via standard network sharing mechanisms.

### A step forward in "back up"

Since Windows NT data is stored on OpenVMS disks, Windows NT applications and data can be backed up with your existing OpenVMS backup routines. With fewer objects in your storage environment requiring system management attention, you'll reduce costs and maintenance time.

### **OpenVMS Clusters failover**

You can capitalize on the enhanced data availability an OpenVMS Cluster offers. Since the disk service automatically and transparently fails over to a standby node in the cluster with minimal interruption, data is always available. In combination with OpenVMS Clusters and RAID or shadowing solutions, OpenVMS Disk Services for Windows NT provides a highly available environment for storing Windows NT data or applications.

### Maximum flexibility

By dividing large OpenVMS disks into smaller virtual disks, and connecting them to different Windows NT servers, you can better control how existing storage is allocated. For example, a 50 GB OpenVMS RAID array could be divided into a 5 GB disk for a Microsoft Exchange server, a 10 GB disk for a SQL database server, and a 10 GB disk for a web server.

### Leverage OpenVMS investments

OpenVMS Disk Services for Windows NT provides investment protection. You have more control over how to use existing OpenVMS storage to serve the growing number of Windows NT systems in your environment. It also means you can plan future purchases of storage based on user's requirements instead of the physical media packaging.

### 100% compatible with Windows NT applications

The storage hosted on the OpenVMS Cluster appears to the Windows NT system as if it were a locally attached physical disk. Therefore, all Windows NT applications that store data on locally attached disks can store data on OpenVMS disks without modification. Windows NT applications can even be installed on to the virtual disks.

### Grows with your needs

OpenVMS Disk Services for Windows NT is based on a three-tiered design. Therefore, it is easy to provide safe storage to additional Windows NT servers. Because the physical storage is hosted in the Open-VMS Cluster, you can readily add disks into the environment and make them available to the Windows NT community.

### Worldwide service and support

A business-critical computing environment requires comprehensive, flexible service and support. DIGITAL provides a single worldwide point of responsibility for all your multi-vendor service needs. DIGITAL's service professionals are ready to provide a total solution for your information infrastructure.

### Small investment with big dividends

For a small expenditure, DIGITAL OpenVMS Disk Services for Windows NT delivers significant paybacks. It is the perfect storage alternative for system managers who want to store Windows NT data and applications on their OpenVMS Cluster, but don't need to share files between OpenVMS and Windows NT applications.

### Innovative approach

With OpenVMS Disk Services for Windows NT, a software driver tells the Windows NT server it has additional locally attached disks. In reality, these disks reside on the OpenVMS server.

From the Windows NT system, the virtual disks are formatted with a native file system, such as NTFS or FAT. The Windows NT system uses TCP/IP to communicate with the OpenVMS Cluster. Because the disk service is hosted on an OpenVMS Cluster, it will move between nodes in the event of an unplanned shutdown. Clients automatically reconnect (I/O's are stalled and reissued) when the link is re-established.

DCL commands set up and manage disk services on the OpenVMS Cluster, and a pointand-click interface on the Windows NT system makes it easy to connect and disconnect as needed.

### Non-proprietary and industry standard

OpenVMS Disk Services for Windows NT employs a design that takes advantage of standard communications hardware, IP protocols (UDP and TCP/IP), and programming interfaces (TDI on Windows NT and PWIP on OpenVMS). This means the product easily fits into any environment with minimal additional expense or effort.

### **Natural Affinity**

As Microsoft extends Windows NT, and ISVs create more and more out-of-the box applications and easy-to-use development tools, more organizations are adopting Windows NT applications as a corporate standard. As a result, most businesses, including Fortune 500 companies, have a significant investment in Windows NT and Windows NT applications.

At the same time, many DIGITAL customers want to take advantage of their OpenVMS systems' unique extensions and capabilities. Customers want the functionality of OpenVMS Clusters, specifically scalability, reliability, and high availability — 24x365 computing.

DIGITAL's response to its customers is in the Affinity for OpenVMS program. This program provides a roadmap for customers who want to introduce Windows NT into their OpenVMS environment in a controlled fashion, allowing them to expand the number of applications available while protecting their current and future investments in OpenVMS.

OpenVMS Disk Services for Windows NT is the latest addition in the ongoing product introductions that support the Affinity for OpenVMS strategy.



### Investing in the future

OpenVMS Disk Services Version 1.0 for Windows NT introduces the concept of storing Windows NT data and applications on OpenVMS. However, we don't intend to stop there. Future versions are actively being developed with an eye toward broader operating system and platform coverage, disaster tolerant solutions and optimization with Microsoft's Clustering model.

### **Contact us**

For more information about how DIGITAL OpenVMS Disk Services for Windows NT helps to address your storage challenges, please contact your local DIGITAL sales office or DIGITAL business partner, or call 1-800-DIGITAL. You can also visit DIGITAL on the World Wide Web at: http://www.openvms.digital.com /openvms/products/ntds/ index.html DIGITAL believes the information in this publication is accurate as of its publication date; such information is subject to change without notice. DIGITAL is not responsible for any inadvertent errors.

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12