

A VISION FOR INNOVATION

Network Appliance brings a unique value proposition to the world of data management. As a leader in network storage solutions, Network Appliance pioneered the integration of Network Attached Storage (NAS) and Storage Area Network (SAN) architectures. Today, the company's enterprise storage and content-delivery solutions are setting new standards for reducing complexity and lowering total cost-of-ownership for Oracle deployments. Writer David Baum recently asked **Network Appliance chief executive officer Dan Warmenhoven** to talk about product differentiation, strategy, and partnerships moving forward.

| INTERVIEWED BY DAVID BAUM



"We've had the same philosophy from the outset: to simplify operations even while we deliver more innovative solutions to our customers." Dan Warmenhoven, Chief Executive Officer, Network Appliance

Q Baum: What differentiates your products and strategy from other storage vendors?

A Warmenhoven: For starters, we don't really think of ourselves as a storage company but as a technology vendor that provides data-management solutions. Storage hardware, such as disk drives and controllers, represents the lowest common denominator. In our industry, it is the software and the management utilities that make a company unique. Software allows you to replicate data, to freeze disk images so you can recover data easily, to share data between Microsoft Windows and UNIX environments, to simultaneously support SAN and NAS architectures, and to simplify system-management activities.

Q Baum: What are Oracle and Network Appliance doing to raise IT standards for customers?

A Warmenhoven: We have built our alliance around a common vision: reducing complexity, improving reliability, and ensuring an optimum return on customer investments. To facilitate this vision, we constructed the Oracle on NetApp Center of Excellence that provides joint delivery of our Accelerator Services for implementing Oracle9i Database and Oracle9i Real Application Clusters, including the delivery of services for implementing our storage infrastructure with Oracle's E-Business Suite. These fixed-fee, fixed-scope solutions simplify the process of deploying Oracle software on Network Appliance data-management systems. We've fine-tuned the hardware/software infrastructure to deliver optimal results. If customers have problems, they can call either NetApp or Oracle, and behind the scenes the two companies will work together to resolve them. We have also established joint demos and test environments in Oracle ETC's and iCenters around the world, where customers can test Oracle technology running in a NetApp environment. For example, customers can learn how to size and configure their systems, which saves valuable deployment time.

Q Baum: What are the essential ingredients for building a successful alliance of this type?

A Warmenhoven: One of the ways we have learned so much about each other's technology is by using it day in and day out. Oracle uses over 500 terabytes of NetApp

storage everyday throughout its business, including Oracle E-Business Suite Outsourcing, education and software development. NetApp has used the Oracle database for many years and is in the process of implementing Oracle9i Real Application Clusters and Oracle E-Business Suite at the core of its business. Using each other's products fosters a great deal of trust and understanding.

Q Baum: Can you explain the distinction between NAS and SAN, and how you are converging these two architectures in customer environments?

A Warmenhoven: NAS architectures access files over an Ethernet network, a lot like what you do from your PC when you access a disk drive that is not physically part of your desktop configuration. SANs combine disks to create a common storage pool that can be accessed at the block level over a fiber channel infrastructure, which is a high-performance fiber ring. For example, an Oracle customer might use a NetApp SAN to support a heavy transaction-processing environment, and use NAS technology for backing up that environment. Production applications could read and write to the SAN. At the same time, a snapshot of the data could be created and accessed via NAS as a giant image. This architectural flexibility simplifies IT operations by giving system administrators more options for how they create and maintain information systems.

Q Baum: What is your vision for the future of Linux?

A Warmenhoven: We see tremendous momentum around NetApp, Oracle9i Real Application Clusters, and Linux. Linux is becoming increasingly more important as enterprises adopt blade servers on the front end and NetApp storage on the back end. These organizations are demanding high availability without sacrificing performance, and the combination of solutions from Oracle, NetApp, and Linux is helping them meet their needs in a cost-effective way.

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