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Product Overview

Neverfail vXtender™ Extending Virtual Platforms to Provide Continuous Availability of Physical and Virtual Applications

With ever increasing pressures to do more with less, and overwhelming requirements to increase competitiveness in a tough economic climate, businesses are looking to leverage the value of virtualization. Today businesses need to make sure their critical applications are always running to service increasingly mobile and global workforces and customers; yet the advantages of virtualization are restricted to applications that have been moved to a virtual platform. Neverfail vXtender brings virtualization advantages to those applications which will remain deployed on physical servers for some time to come.

With a focus on reducing cost, the value of server consolidation through the use of virtualization is well documented. Reduced power costs, lower floor space requirements and greater deployment flexibility are revolutionizing the way in which applications are deployed. A further valuable benefit from virtualization is a level of platform protection against host level outages which delivers a basic level of high availability (HA). But virtualization is not a panacea for all organizations. Gaining an advantage using virtualization for critical applications up to now has required application migration, with the associated risks and downtime.

Another dimension is that gaining high availability at the virtual platform-level typically requires new spend on hardware upgrades to include shared storage. Even with shared storage there remains a class of application that due to their business-critical nature and the unpredictability of resource sharing will remain deployed on physical servers for some time to come. Such applications still require continuous availability with protection from disasters, planned downtime and application failures. With the right approach and software tools virtualization can add real value in this area.

Neverfail and Virtualization

With multiple copies of applications, possibly geographically spread, the cost of maintaining multiple cloned copies on physical servers can soon add up. Neverfail's unique patented technology provides for multiple application deployments to be protected by a single virtual server running multiple virtual machines.

Neverfail vXtender automates the failover of the physical applications to the virtual machines where it restarts the failed

Neverfail vXtender Benefits

- ▶ Extends server consolidation benefits to enable a single virtual server to protect multiple applications
- ▶ Mission critical application virtualization is NOT a pre-requisite
- ▶ Provides immediate protection for critical applications without disruption and minimal cost
- ▶ No investment in shared storage required
- ▶ May be deployed in LAN and WAN environments for maximum protection
- ▶ Value add approach provides for planned maintenance, virtualization testing and virtual migration with no downtime
- ▶ Increase resilience of mission critical apps
- ▶ Accelerates virtualization benefits
- ▶ Cost efficiency incentives when protecting multiple applications
- ▶ All the benefits of Neverfail Continuous Application Availability

applications. The network identity of the original physical server is maintained ensuring seamless and continuous end-user connection. The virtual server can be deployed locally, or remotely, allowing both LAN and WAN deployment options without the need to use specialist shared storage solutions. This approach ensures maximum flexibility for deployment of high availability and disaster recovery solutions to ensure that business critical systems are always on.

Value Added Continuous Application Availability

The Neverfail approach to availability is to ensure that business users always have access to their critical applications. Of course this level of protection guards against typical threats such as application failures, server outages or storage failures as well as disaster scenarios.

An added value of virtualization is the ability to dynamically manage workloads across multiple servers through use of technology such as VMware VMotion. This provides for relocation of one or more virtual machines to another virtual server to facilitate planned main-

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tenance, for example a memory or disk upgrade of the underlying host server.

While the benefits of technologies such VMware VMotion do not extend to applications running on physical servers a similar effect can be achieved with Neverfail vXtender. vXtender allows manual switchover and switch back of applications between physical and virtual machines. This can be of particular benefit when planned maintenance demands the shutdown of an application running on a physical server, for example to carry out a component upgrade. Because of the seamless nature of a Neverfail application switchover, including the network identity, user access to applications will continue while they are running on the virtual machine, and also when they are switched back once maintenance has been completed. As vXtender can be deployed over Wide-Area Networks the ability to move workload efficiently over long distances is supported.

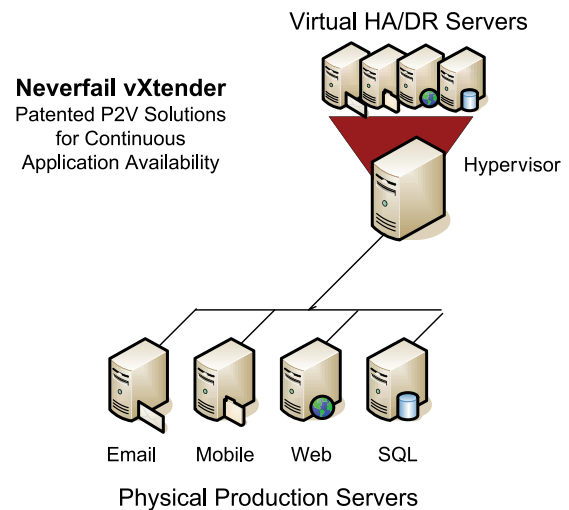
Another benefit of vXtender is to reduce the risk involved in virtualizing applications. Typically the lifecycle in virtualization of an application is to take a snapshot, move this to the virtual server and then test, repeating this process multiple times until the configuration settings and performance are tuned and there is confidence to switch. Alternatively with Neverfail vXtender the application can be switched over at a suitable point and validated in situ as if it had been migrated. If issues are detected it can be switched back to the physical platform at the click of a button. This two-way process means that real-world evaluation can take place, with no downtime for the user.

Deployment Scenarios

vXtender leverages the award winning application protection of Neverfail. This includes Microsoft Exchange, SQL Server, SharePoint, File Systems, IIS, RIM BlackBerry, Lotus Domino and Captaris Rightfax.

To achieve the maximum value it is recommended that vXtender is implemented to protect two or more applications which run on a mix of physical and virtual machines. Good examples of such deployments include

- ▶ Blackberry deployments where the Blackberry Enterprise Server, SQL Configuration Database and Exchange Server or Lotus Domino make up the mobile platform
- ▶ Email deployments where the Exchange or Lotus Domino



- Servers and anti-virus servers are deployed across multiple machines
- ▶ Web applications that rely on SQL databases and IIS linked together with email to control workflow.
 - ▶ Multiple departmental level servers benefiting from availability protection from a central location
 - ▶ Remote Office / Branch Office servers that require continuous availability.
 - ▶ SharePoint deployments where the MOSS, SQL and Index servers are protected

The above are a small sample of scenarios. Any organization looking to extend virtualization to protect multiple applications using virtual machines will benefit from Neverfail vXtender.

vXtender Value Model

A rapid return on investment is achieved using Neverfail vXtender to protect many applications on a single virtual host.

As the virtual host already runs Neverfail the incremental cost for continuous availability is significantly reduced compared to protecting multiple applications with multiple physical servers. For more information contact Neverfail.

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