# Neverfail for BlackBerry® Enterprise Server
## Eliminating Mobile User Downtime

Executives, road warriors and knowledge workers rely on their BlackBerry® smartphones to receive, access and collaborate not just through email, but by leveraging information that helps them make the right decision, at the right time. Uninterrupted access to email and corporate information can make the difference between success and failure of a given business decision, the results of which can affect productivity, financial performance and corporate reputation.

Keeping mobile workers constantly connected to their email and enterprise application and information services  is mission-critical to all types of organizations. While implementing mobility strategies, nothing less than continuous availability is acceptable for BlackBerry smartphone users. This means protecting the end-to-end ecosystem in a manner that provides 24x7 access to email, mobile applications and the corporate information structure

### The Dangers of Downtime

All email and information sent or received by a BlackBerry smartphone flows through the corporation's BlackBerry Enterprise Server. But what happens when the infrastructure supporting a BlackBerry Enterprise Server fails? What happens when hardware needs to be shut down for maintenance? What happens when there is an unplanned outage such as a software failure or even a site disaster? In short, email and data services to the BlackBerry smartphone stop – and user frustration sets in – yet these outages can and do occur.

A worldwide survey of email availability conducted by Osterman Research* shows an average of almost four unplanned outages per month which would affect delivery of email or data to BlackBerry smartphones. Planned maintenance averages 11.2 outages per year. Additionally, with planned maintenance outages averaging almost once per month, Osterman therefore concludes that downtime is prevalent. If the BlackBerry business case is to be realized in practice, your BlackBerry Enterprise Server infrastructure must be fully protected and any single point of failure eliminated.

**Five questions to ask BlackBerry® Enterprise Server High Availability Solution vendors.**

1. **Solution Maturity.**  How mature is the proposed solution? Does it go beyond BlackBerry® Enterprise Server protection to include protection for email servers or other information sources? Is it "application-aware" with automation of failover/switchover? Are there enterprise-scale deployed references?

2. **Solution Implementation.** Can you implement and update the solution without taking the BlackBerry® Enterprise Server out of service? Will it auto-discover and subsequently automatically protect changes to the BlackBerry® Enterprise Server configuration on both primary and secondary servers immediately? What is the impact of failover on handset connectivity?

3. **Solution Protection.**  Does the HA solution monitor the entire BlackBerry® Enterprise Server ecosystem, at the application software component level, in order to detect failure conditions?  Or does it only monitor host platform availability?  Specifically, will it monitor that:

   ► The BlackBerry® Enterprise Server services are running properly without excessive resource consumption or hung threads?
   ► The BlackBerry® Enterprise Server services can communicate (within acceptable response times) with the RIM® Network Operations Center, the BlackBerry® Enterprise Server SQL database, and the email system connected to the BlackBerry® Enterprise Server?
   ► There are no fatal error conditions reported in the BlackBerry® Enterprise Server logs?

4. **Optimized for  HA and DR.** Does the solution also offer protection against site disasters and utility failures by offering optimized remote failover including WAN optimization and multi-tier replication and failover?

5. **Affordable,** simple to deploy. Does the solution deploy over physical or virtual infrastructures without dependence on expensive infrastructure components such as shared-SAN storage? Does the vendor offer simple, fixed-price deployment services?

## Increased Productivity – The Case for Mobility

Various studies show that the majority of firms plan to implement or expand their use of wireless email and BlackBerry including the expansion of the use of personalized contacts and calendars for their mobile workforce. With more and more employees relying on their BlackBerry smartphones as their connection to the office the need to keep these workers connected is mission-critical to an organization's profitability and success.

## How to Avoid Single Points of Failure and Protect the ROI

The BlackBerry Enterprise Server is the vital link between corporate email and information systems, and the BlackBerry smartphones themselves. If the BlackBerry Enterprise Server suffers an outage it becomes the single point of failure in that link. User productivity gains and, in fact, the entire BlackBerry deployment ROI hinges on the ability of the BlackBerry Enterprise Server to deliver information to the BlackBerry smartphones 100 percent of the time. If any component within the BlackBerry Enterprise Server local environment fails, the ROI of the entire deployment is at risk.

But it's not just the BlackBerry Enterprise Server that is at risk. There is an entire corporate information ecosystem comprised of email messaging servers, corporate information databases and so forth, all of which supply information through the BlackBerry Enterprise Server onto a user's BlackBerry smartphone. Failure within any of these backend information systems has exactly the same effect on the user as a BlackBerry Enterprise Server outage – information starvation and accessibility deprivation. There is, therefore, a pressing requirement to protect the entire end-to-end mobile infrastructure rather than solely the BlackBerry Enterprise Server in isolation.

## Neverfail Delivers the Required Protection

Neverfail's state-of-the art technology ensures there is always a complete, consistent and up-to-date copy of the BlackBerry Enterprise Server and its associated email and SQL configuration databases available on a secondary server as a fully-synchronized hot standby. If anything goes wrong with the primary environment, users are connected seamlessly – without interruption – to the secondary server for high availability, or the remote tertiary server for disaster recovery and work continues.

The secondary and tertiary servers are more than just copies of the data. Neverfail provides complete, ready-to-go clones of the BlackBerry Enterprise Server, including initial configuration entries and subsequent changes that may have been applied since the BlackBerry Enterprise Server was first installed. With Neverfail, no BlackBerry Enterprise Server re-initialization is required at switchover so users keep working without delays. In fact, neither they nor their devices are even aware that they are connected and communicating through either the secondary or tertiary server in the case of a failure of the primary server. Business continues.

This goes beyond BES HA to provide complete, continuous availability of mobile access to corporate information systems.

Exactly the same level of protection can be applied to systems that supply information to the BlackBerry. Neverfail has solutions to protect Microsoft Exchange®, IBM® Domino®, mobile application databases powered by SQL Server and collaboration tools such as SharePoint. All of these systems are monitored and can be controlled via the Neverfail Continuous Availability Director to provide seamless coordinated multi-server failover in the event of a disaster or downtime.

## Neverfail for Blackberry® Enterprise Server  Features and Benefits

- Keeps mobile users connected without interruption, despite IT failure

- Protects the corporate BlackBerry Enterprise Server ecosystem including applications, hardware, network and data

- Leverage Neverfail Tertiary™ for Multi-tier HA and DR

- Compatible with third party BlackBerry Enterprise Server monitoring Tools such as Conceivium , BoxTone and Zenprise

- Enables planned maintenance without downtime at the push of a button

- Failover in less than two minutes, automated switchback without scripts

- Supports LAN and WAN deployments

- Eliminate bandwidth barriers using Neverfail WANSmart™

- Protects against SRP lockout

- Requires no shared storage technologies

- Rapid implementation

- Part of Neverfail's end-to-end application protection suite

"Workforce mobility is a key strategic consideration for business managers today and the BlackBerry® Enterprise Server solution is renowned for helping mobile professionals become more productive and responsive. Neverfail's mobile continuity solution for BlackBerry Enterprise Server adds an additional layer of protection to keep users connected while on the go."

Jeff McDowell, Vice President, Global Alliances -  Research In Motion

# Focusing on Business - Neverfail Continuous Availability Director

Too often IT system architectures fail to account for the impact on the user. Traditional mechanisms to protect the BlackBerry Enterprise Server may be based on rapid recovery from a disk backup. Yet for BlackBerry smartphone users to resume working this may require a complete re-connection of the BlackBerry Enterprise Server to the entire handset population, which could take hours. Failure to keep users seamlessly connected throughout outages is guaranteed to disrupt business, no matter how robust the backup and recovery software may be.

Prior to Neverfail for BlackBerry Enterprise Server, options for protecting BlackBerry Enterprise Server service delivery have been either inappropriate or incomplete. Strategies relying on manual failover to a backup BlackBerry Enterprise Server are simply too complex and time consuming. Alternative product solutions are either incomplete (in that they detect only a very restricted range of failure conditions), not sufficiently automated in their operation (thus requiring manual user intervention and error-prone scripting), or have simply been promised but never delivered.

As a leading innovator of business continuity solutions, Neverfail has always focused on how best to ensure Black-Berry Enterprise Server and messaging continuity of service to the business. By focusing on continuous availability, Neverfail solutions are architected to anticipate IT downtime, yet ensure that application service continues through any type of corporate infrastructure threat, ranging from operator error, application software issues, hardware failures, to a complete site disaster. The key benefit Neverfail delivers to its customers is complete assurance that no business downtime will be experienced by BlackBerry® smartphone users caused by corporate infrastructure issues affecting BlackBerry Enterprise Servers, email or applications. This is only possible through deep understanding of best practice monitoring and management of the BlackBerry Enterprise Server and the systems that supply information to it, including Microsoft® Exchange, Microsoft® SQL Server, Lotus Domino and more.

The key innovation that enables best practice monitoring, failure detection and management across the board is Neverfail's Application Management Framework (AMF) and Continuous Availability Director. Together they deliver an industry leading framework that combines instrumentation to detect failure conditions with best practices to determine when to failover of individual components, or the entire messaging infrastructure is required. Extensible rules that anticipate causes of downtime and detect and resolve application threats are applied in real-time to protect BlackBerry Enterprise Servers. Accordingly, Neverfail believes that AMF delivers a significant step forward in the quest to deliver high availability, disaster recovery and, ultimately, business continuity for the corporate mobile platform.

For BlackBerry Enterprise Server deployments, the AMF understands that multiple components must function and collaborate correctly for service to be delivered. For example, the BlackBerry Enterprise Server itself comprises multiple Windows services that must all execute correctly within certain performance tolerances and with sufficient system resource availability. These services, in turn, must be able to communicate with other key infrastructure components, such as the dedicated SQL database, email system, RIM® Network Operations Center, and so forth. The AMF continuously monitors these parameters and understands the specific protection requirements for each application component and how these components interrelate. It knows which data to replicate at what time, which services to monitor, and how to execute many additional built-in and user-defined rules.

When a threat is detected, the Neverfail Continuous Availability Director can automate the entire coordinated failover process based on pre-defined criteria within the AMF "rules." In the event that planned maintenance requires a primary BlackBerry Enterprise Server to be taken out of service, an administrator may (in an entirely automated fashion at the click of one button) gracefully switchover from the primary to either the secondary BlackBerry Enterprise Server for high availability or the tertiary BlackBerry Enterprise Server over the WAN for disaster recovery. Administrators with limited knowledge of, or experience with, operating a BlackBerry Enterprise Server can easily deploy complete protection because best practice knowledge is already embedded into Neverfail's AMF. On the other hand, experienced administrators can add to, or update, the pre-existing set of AMF rules to take into account unique requirements specific to their BlackBerry Enterprise Server deployment.
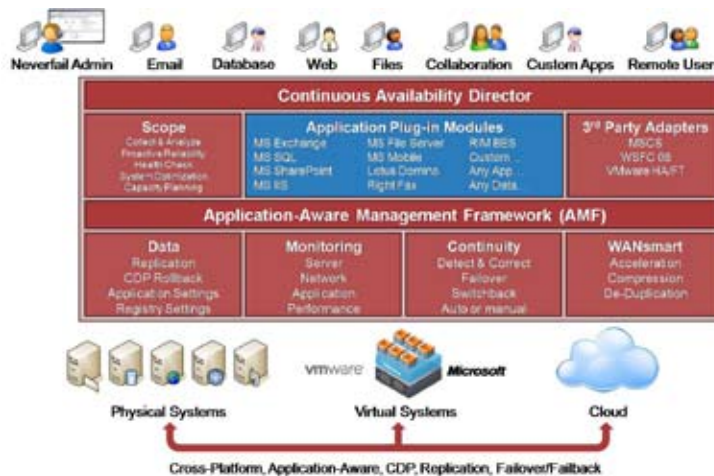
# Neverfail Provides Full Mobile Ecosystem Protection

Combining the next generation of application management with full ecosystem protection, Neverfail provides IT administrators with confidence that the application stack as well as the IT ecosystem surrounding the mobility platform remains healthy. When issues do occur, mission-critical applications are continuously available to end-users through Neverfail's Continuous Availability Suite of products. In short, Neverfail's Application Management Framework and Continuous Availability Director keep BlackBerry® smartphone users working and connected to their email and information systems through any type of IT outage.
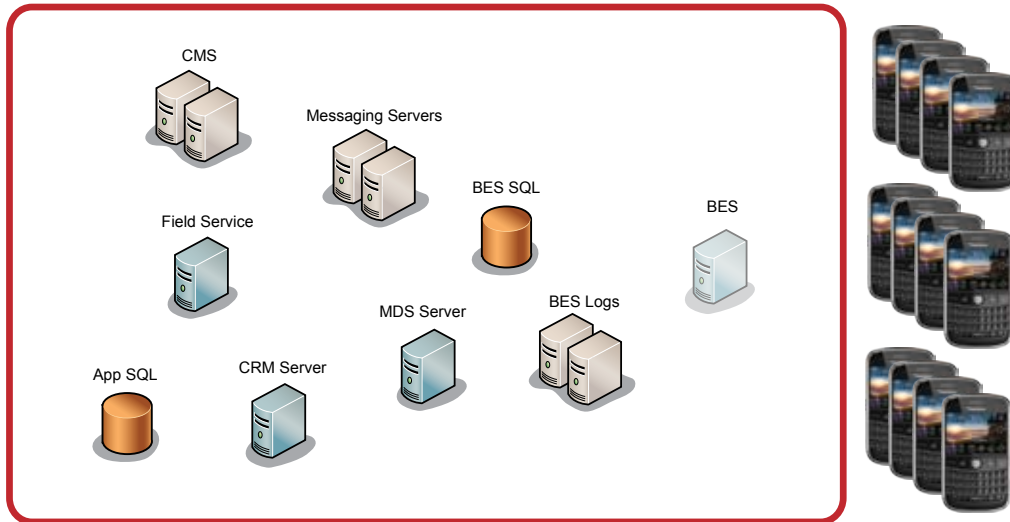


> **"Neverfail is unique. Its nearest competitor only delivers 50 percent of the functionality."**
>
> **Timo Sillober, Head of Office IT**
> **Vodafone Group Services GmbH**

**North America**
T: +1 512-327-5777
Email: info@us.neverfailgroup.com

**Europe**
T: +44 (0) 870 777 1500
Email: info@neverfailgroup.com

**Netherlands**
T: + 31 294 237545
Email: info@neverfailgroup.com

**Germany**
T: +49 (0)69 7593 8433
Email: info@neverfailgroup.com

**Middle East**
T: + 971 4 360 2436
Email: mena@neverfailgroup.com

**Asia Pacific**
T: +61 2 8448 8192
Email: apj.info@neverfailgroup.com

**neverfail**®
WWW.NEVERFAILGROUP.COM

**BlackBerry**®
Alliance Member

*Osterman Research – "Planning for Improved Email Availability, an Osterman Research White Paper, 2007

*Ipsos Reid – Research Study: Analyzing the Return On Investment of a BlackBerry Deployments, 2007

**Microsoft**
GOLD CERTIFIED
*Partner*