



HP and Gravic, Inc.

Shadowbase Total Replication Solutions

Business continuity, disaster recovery and continuous availability

Application availability

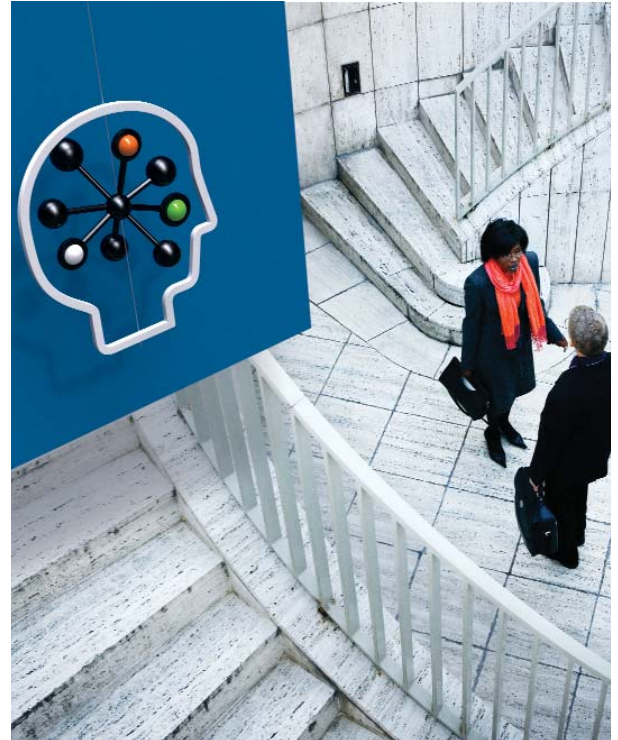
Today, customers have more options than ever and even minor service outages lead to customer retention issues. Successful enterprises realize that application availability is critical to their long-term prosperity. The modern solution to high-application availability needs an architecture based on active/passive, active/active and continuous availability technologies.

Shadowbase business continuity solutions

Gravic's patented bi-directional replication technology provides the highest level of disaster avoidance available, enabling two or more simultaneously active systems within the architecture. Enterprises can distribute applications and databases across multiple physical nodes to create one logical system that scales linearly and survives the failure of an entire node. Shadowbase provides continuous processing solutions for Oracle®, MySQL, DB2, SQL Server, Sybase and HP NonStop databases on UNIX®, Linux®, Microsoft® Windows® and HP NonStop platforms.

Solution benefits

- Enables active/passive, active/almost active and active/active architectures
- Improves application availability by increasing the "sparing" of major system components
- Eliminates outages during migrations with minimal or zero application downtime
- Improves recovery point objective (RPO) thereby reducing or even eliminating data loss for a nodal failure
- Improves recovery time objective (RTO) thereby reducing application outage time, potentially to zero when disaster strikes



Working together with HP

Business Intelligence solutions enable you to tap into the vast pools of information residing across your enterprise. To achieve this goal, today's BI solutions provide sophisticated software—driven by high-performance hardware—that can integrate, analyze and report on diverse data to enable more timely and informed business decisions. Working with HP, you can implement scalable, available and cost-effective BI solutions that deliver flexibility and performance to provide the intelligence you need, when you need it, and increase the value of your information assets.



Shadowbase data replication

Shadowbase's business continuity options comprise various architectures from the traditional, unidirectional disaster recovery solution to full, bi-directional implementations. In the uni-directional environment, an active primary node feeds a stand-by, or passive backup system. The bi-directional architecture allows the application to be active on all nodes in the network, processing user requests, thereby leveraging the processing capacity of each node for real application work.

When building active/active systems, data collisions are an important consideration (i.e., the updating of the same data on two systems at the same time). In an active/almost active architecture, the application is running on both nodes, but only processing update requests on one node (the other node is available for read-only queries). This approach avoids data collisions. In an active/active architecture, Shadowbase can be configured to either avoid data collisions (assuming data or transaction "partitioning" can be used), or for cases where partitioning cannot be used, to identify and in many cases automatically resolve data collisions (by embedding the collision resolution logic into the Shadowbase replication engine).

Shadowbase's support for zero downtime system, site, application and database migrations (ZDM) increases the availability of the application to the user community by totally eliminating "planned outages" during upgrades of the application or underlying infrastructure.

HP products supported

HP Integrity NonStop servers provide 24x7 application availability out-of-the-box, and offer the best choice for critical and complex enterprise applications. These servers deliver mainframe class of service, and drive key business-critical applications that require 24x7 availability, real-time high-volume transaction environments and large databases for data integration. The system is designed from the ground up to be "always available" and provides an order of magnitude with higher availability and scalability than general-purpose servers and software. These capabilities are available out-of-the-box, with no complex configuring.

Operating systems supported

To provide always-on availability in our round-the-clock marketplace, our applications are optimized for HP Integrity NonStop servers – the gold standard for business continuity. Known for running the world's most demanding enterprise applications, HP NonStop system software complements the open, parallel architecture of HP NonStop servers, providing highly reliable, scalable computing within an open system environment.

Building on the value of strong relationships

By working collaboratively with HP, we can leverage the necessary resources, experience and knowledge to deliver tailor-made solutions that drive better business value. For more than 50 years, HP has thrived on innovation, holding a proven track record of success in virtually every market, customer segment and region worldwide. Together, we use innovative technology and services to design solutions that meet today's business challenges, while helping you prepare for tomorrow's.

For 30 years, Gravic, Inc. has been a leader in providing database replication solutions. Gravic pushes the technological evolution with its patented flagship Shadowbase line of replication solutions. Gravic's extensive patent portfolio, Breaking the Availability Barrier book series, and comprehensive published whitepapers and articles reinforce the expertise of Gravic's staff and technology.

Working together to drive success

By combining standards-based and modular technologies with our leading-edge applications and comprehensive services portfolio, you gain a powerful, flexible solution that meets your business needs today and dynamically adapts as those needs change. We provide an agile foundation for building a highly responsive enterprise that drives better business outcomes and promotes your long-term success.

Technology for better business outcomes

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4AA2-6515ENW, May 2009

