

Business Continuity Server™ for Microsoft® SQL Server™

Continuous Availability for SQL Server

**Recover MS SQL
in 30 Seconds**

**Continuous SQL
Application and
Data Availability**



The SQL Challenges: Protection and Availability

Microsoft SQL Server has emerged as the database of choice for complex mission critical applications in mid-market enterprises. More and more companies are running their businesses on MS SQL, relying on immediate access to the data stored within it. It's a challenge to keep all that data protected and available 24x7. Losing access to SQL applications and data can be devastating, resulting in lost customers, low productivity, and severe financial impact. One can't read the news today without seeing the disastrous results of a failed SQL Server. With the health of the business at stake, IT professionals are under immense pressure to keep SQL available at all times.

To meet the challenge of 100% uptime and near-zero data loss, IT departments often piece together disparate tools for business continuity, data protection, disaster recovery, and backup. But multiple tools deliver only partial solutions, often requiring hours of intensive IT effort to restore critical servers and data. Backup data may be corrupted, involving significant manual effort to recover key information. And minutes or even hours of critical data may be lost forever if an outage occurs.

The need for a guaranteed solution that protects continuous, business critical applications is clear, and the answer is Asempra.

The Asempra Answer

Asempra's Business Continuity Server (BCS) is a unique, SQL-aware solution that recovers critical applications and data running on SQL as fast as 30 seconds, well before traditional recovery technologies. With Asempra's innovative recovery technologies, applications can restart immediately. No more waiting for hours or days for a complete storage recovery for SQL database services to be restored and users to be productive.

The near real-time data protection of the BCS ensures that all data is protected, from a single database to an entire instance. Flexible recovery techniques allow roll-back to previous points in time. And patented event capture and indexing techniques ensure that recovered data is uncorrupted and 100% usable, eliminating the need for multiple, time-consuming recovery attempts.

Continuous Availability of SQL Applications and Data

Uninterrupted access to your SQL business applications and data is made possible with Asempra's Virtual On-Demand Recovery™. Unlike other technologies that require a full recovery of the SQL data set before the application is usable, the BCS allows you to recover SQL objects instantly at a granular level — giving you the ability to recover data on demand, while the SQL application is running.

Combined with Asempra's application failover technology, SQL Servers and data can be restored easily within 30 seconds.



Granular to Global Recovery

Simple Point and Click Recovery Process

Complete Protection for MS SQL Server

The Asempra Business Continuity Server for Microsoft SQL Server is an SQL-aware protection agent which constantly monitors and protects the primary SQL Server by tightly associating itself on the host server to the SQL instance. The SQL protection agent captures byte-level changes and efficiently sends only relevant data, maintaining historic versions on the Business Continuity Server for immediate access. The result is a multi-dimensional master copy of your primary data with an added new dimension of time. Database Administrators (DBAs) no longer have to babysit their backups or endure any type of downtime as a result of performance degradation.

Granular to Global Recovery

In the event of unforeseen errors or corruption on the primary SQL server, a SQL DBA can recover the exact SQL database or recover the entire SQL instance with few simple clicks without having to go through manual recovery processes. If the desire is to recover only individual objects like a dropped table or individual rows, the BCS goes a step further — allowing you to temporarily attach to a historic copy prior to the deletion event and select only the data to be recovered.

Guaranteed Data Usability

With traditional data protection products, data recovery is a painful and time-consuming process that may deliver data that is corrupted and unusable. The Business Continuity Server's sophisticated data recording and recovery technologies deliver near-zero data loss and ensure that data is usable on the first recovery.

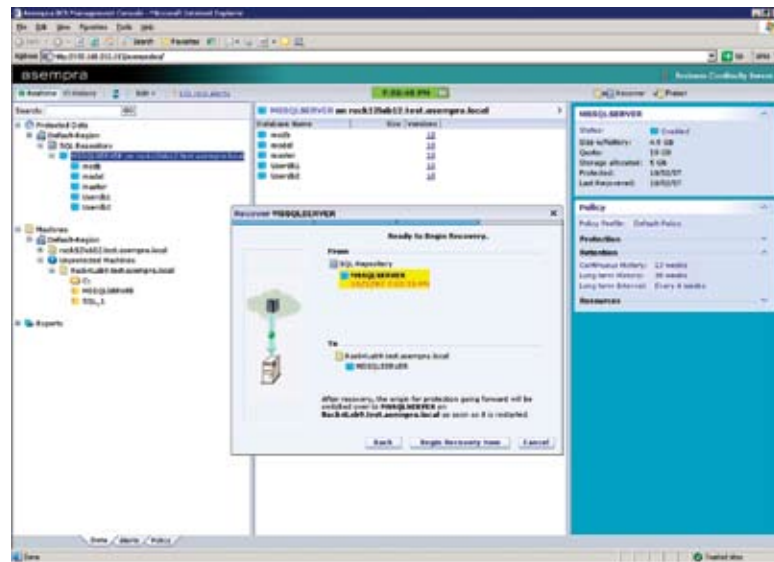
The Business Continuity Server guarantees consistent, uncorrupted data through the use of its patented Real-Time Event Journaling™ and three-dimensional continuous object store indexing techniques (real-time data, metadata, and event). These elements preserve a true data history of the application, allowing application events and data to be restored to any point in time, to any level of granularity required.

Recovery of SQL Made Simple



Turn back the clock to any point in time by moving the timeline indicator. Simply select the object to recover, from a single database or an entire instance. Then recover with a simple right click of the mouse. It's that easy.

**Near-zero Data Loss
with 100% Useable
Data**



All-in-One Protection

Only Asempra provides a multi-functional solution to protect SQL applications and data. With combined continuous availability, application failover, continuous data protection, replication, snapshot, disk-based backup, and seamless tape integration capabilities, the BCS dramatically reduces IT cost and complexity.

**Single, Easy-to-Use
Solution for
Business Continuity,
Disaster Recovery,
Continuous Availability,
Backup, E-discovery,
Recovery Management,
Compliance and
Governance**

Disaster Recovery

After the initial copy, all changes are captured at the byte-level enabling the BCS to perform as efficiently over a WAN as a LAN. Patent pending data reduction and stream prioritization techniques minimize storage and bandwidth costs.

Backup Windows Eliminated

For SQL installations requiring round the clock access, backup windows are a real problem. In the absence of real tools, administrators end up deploying all kinds of manual processes to shorten the time it takes to backup. Asempra BCS for MS SQL changes the whole equation by completely eliminating the entire backup window. Asempra's protection agents automatically protect the data throughout the day requiring no scheduled backup windows. Seamless integration with Tivoli, Symantec/Veritas, Legato/EMC and other tape backup infrastructures eliminates backup windows, simplifies backup procedures, and substantially reduces the cost of backup.

Off-host Processing for Querying, Backup or Other Reporting Needs

With a multi-dimensional master copy of SQL available at their fingertips users can access the data for multitudes of temporary usage. Make as many copies of the data from any point in time without affecting the production server. Attach a temporary instance to run SQL queries for reporting or diagnostic purposes. Use it to test for migration or upgrades or for pure development purposes.

**Support for Microsoft
Servers, Windows
Clusters, and Windows
Applications Running
in VMware®**

Give customers and employees the always-on SQL services they demand. With innovative protections for SQL applications and data, Asempra BCS ensures that sensitive SQL information is continuously protected and can be restored to previous points in time to meet the most demanding requirements.

Features and Benefits Summary

Business Continuity Server for Microsoft SQL Server

Feature	Benefit
Virtual On-Demand Recovery™ (VODR)	<ul style="list-style-type: none"> Instantaneous application and data availability — in seconds or minutes Any object is available immediately while the data set recovers in the background Recovery Time Objectives (RTO) in seconds or minutes
Near Real-Time Protection	<ul style="list-style-type: none"> Instantaneous application data recovery Recovery point objectives (RPO) measured in minutes
Single Easy-to-Use Solution	<ul style="list-style-type: none"> Simplifies the business challenges of continuous availability, disaster recovery, business continuity, e-discovery, regulatory compliance and governance Combines near real-time CDP, application failover, snapshot, disk-based backup, replication, and seamless tape integration technologies
File-based, Application-aware Data Protection	<ul style="list-style-type: none"> Guarantees recovered data is completely usable on first recovery Eliminates costly multiple manual recoveries
Scalable BCS Store	<ul style="list-style-type: none"> Each BCS cluster supports up to 4 computational nodes, 100 protected data sets, and 32PB of storage
Support for Clustered Applications	<ul style="list-style-type: none"> Supports protection of Microsoft clusters in both Active/Passive and Active/Active configurations
VMware® Support	<ul style="list-style-type: none"> Protects Windows applications running under VMware
Seamless Backup Integration	<ul style="list-style-type: none"> Dramatically reduces the cost and time of backup Transparent integration with tape backup and archival products Eliminates backup windows Creates test environments with real data sets
Continuous Two Tier Protection Policy Engine	<ul style="list-style-type: none"> Variable data retention policies according to corporate service level agreements (SLAs) and compliance regulations Allows for storing long term history with minimal storage resource
Byte-level Data Delta Reduction	<ul style="list-style-type: none"> Significantly reduces network and storage usage
Continuous, Transaction Oriented Object Store	<ul style="list-style-type: none"> Simple point and click global to granular recovery Instant access to consistent data from any point-in-time Recovery time measured in seconds
Web-based Management Console	<ul style="list-style-type: none"> One click, wizard-based protection and recovery Supports Microsoft Internet Explorer. 6.0 and 7.0
IP LAN and WAN Support	<ul style="list-style-type: none"> Reduces costs by leveraging existing infrastructure Single solution for disaster recovery (remote recovery) and real-time business continuity (local recovery)

Technical Summary

System Requirements/Specifications

Operating System Support:
Windows 2000, 2003

Database Support:
Microsoft SQL Server 2000, 2005

Messaging Server Support:
Microsoft Exchange Server 2003

Storage/Network Requirements/Specifications

Heterogeneous Storage Support:
iSCSI or Fibre-Channel attached storage
Direct Attached Storage (DAS)
or Storage Area Network (SAN)

Network Support:
IP LAN or WAN - Standard TCP/IP



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