# Progress® Fathom™

## Fathom™ Replication

**Fathom Replication plays a key role in an OpenEdge™ disaster recovery solution, and your overall Business Continuity Plan (BCP).**

### HIGHLIGHTS

– **Fathom Replication provides protection of critical business information assets with quick, efficient failover and backup through asynchronous replication.**

– **Fathom Replication Plus allows read-only query capabilities for load-balancing purposes, resulting in overall improved performance.**

### FEATURES AT A GLANCE

– **Disaster recovery solution in the event of unplanned outage or crash via failover.**

– **Simple, easy backup for planned downtime.**

– **Backup server freeing up the production database for increased efficiency.**

– **Query server for load balancing and optimum efficiency (Replication Plus version only).**

Progress® Fathom™ products protect businesses against unforeseen events with essential disaster recovery tools. Fathom Replication plays a key role in the disaster recovery process, providing recovery of mission-critical data for applications at an alternate site.

### Planning for Probable Disasters

The Disaster Recovery Plan, a component of the Business Continuity Plan (BCP), is as crucial as applications, email, and the Internet are integral to conducting business. Disasters do not always come in the form of a catastrophe however; some of the most common causes of unplanned system downtime are hardware failure, software issues, power outages, and human error. Any prolonged system downtime not only costs a business lost productivity and revenue, but there are other repercussions that are not measured as easily: poor quality of service, customer base erosion, and operational redundancies.

### Protecting Critical Business Information Assets

Many enterprises have embarked on application-availability improvement programs as part of the business continuity/disaster 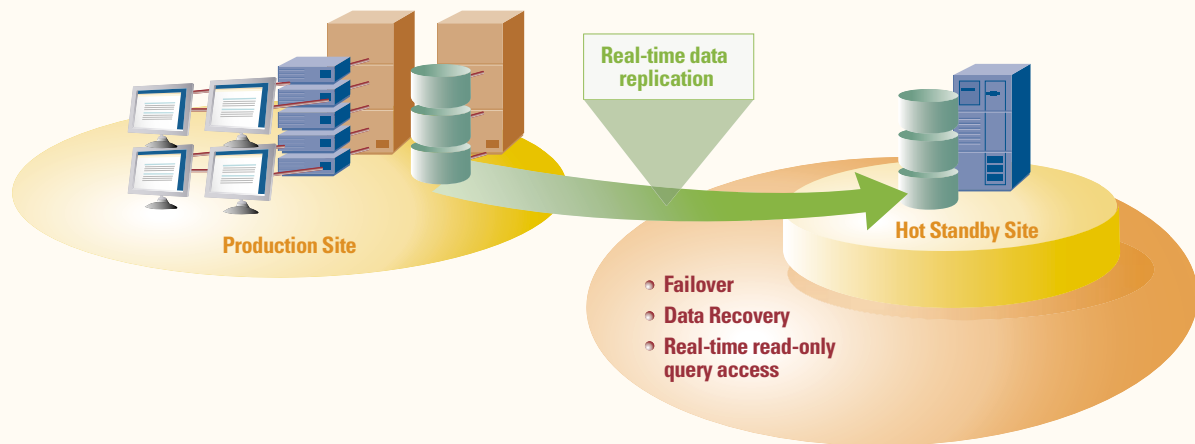recovery planning process; however many of these programs have been focused on the redundancy of infrastructure — not on the data itself. Applications cannot be made available if the data is not available.

As the number of data-intensive and externally-accessed applications increases, customers require higher levels of availability for a greater amount of data. To satisfy these requirements, IT organizations are moving from the traditional backup orientation to a more holistic approach that focuses on application-oriented data availability. This shift requires that IT organizations understand and classify each application's availability and recovery requirements. Providing the appropriate level of data availability means satisfying application requirements within a set of cost and complexity constraints.

### Business Recovery Strategy

Defining application requirements is an essential step in creating a successful business recovery strategy for dealing with likely disasters. It is also a key component in developing an effective BCP. Two variables to consider when developing a recovery strategy are:

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## Fathom™ Replication Plus



Both Fathom Replication and Replication Plus are integral to maintaining highly available systems and addressing an organization's **business continuity** needs. The figure above represents a typical Fathom Replication Plus configuration.

*Acceptable levels of downtime*
Variables to consider include industry-based service expectations, volume and timeliness of transactions, etc.

*Freshness of data*
Sensitivity to data loss is also an essential consideration in formulating a successful recovery strategy. Again, tolerance is determined by many variables including industry and customer expectations for timely transactions, etc.

### High Availability through Replication

Fathom Replication addresses the needs for continuous availability and minimal data loss. For many IT organizations, data protection is typically equated to storage backup, with many IT projects focusing on the backup process rather than the recovery process. With the growing concern for data protection, data replication has become increasingly important to both disaster recovery and business continuity planning.

### Why Use Replication Tools?

Fathom Replication, part of the Fathom suite of products and services, automates database replication for two purposes:

- *Disaster Recovery*
- *Load-balancing & Application Availability*

Using data replication for disaster recovery has moved into the mainstream as critical business processes are increasingly dependent on IT services. Fathom Replication provides a mechanism for fast, hot standby recovery or application failover. With Fathom Replication, synchronization and replication occur in real-time, greatly reducing the likelihood of data loss and impact to system availability.

Fathom Replication Plus serves in load balancing and application availability, making replica data available for reporting purposes. This process offloads production workloads for horizontal scalability, enabling businesses to achieve better resource utilization of the disaster recovery configuration (e.g. it reduces the total cost of ownership of a disaster recovery configuration).

Fathom Replication Plus can improve performance and increase availability of applications because alternate data access options become available. For example, users can access a local database rather than a remote server to minimize network traffic. Furthermore, the application can continue to function if parts of the distributed database are down, as replicas of the data are likely to be accessible.

## Optimize Your Environment

Fathom Replication fully automates and simplifies the database replication process, promoting continuous system availability and aiding in disaster recovery through:

- Zero-latency database replication

- Guaranteed data integrity between source and target database(s)

- Single source and multiple target configurations

- Automated recovery and resynchronization

- Easy integration and deployment

- Real-time replication for disaster recovery or failover

- Real-time replication for distributed queries and RDBMS administration tasks

- Flexible deployment options

## Promote Continuous Availability

In the event of a communications failure, replication data will be queued on the source database until the target database is accessible. Replication recovery and resynchronization of data between sites are automated and user-configurable to mirror business requirements. For example, if replication fails, the source database can be configured to either pause or accept database updates. In the event of system failures, the target database can automatically transition into a full read and write accessible database. The result is minimal impact in the event of unplanned downtime or a disaster.

## Optimum Performance

Fathom Replication Plus offers the additional capability for Progress Software clients (4GL, SQL92, and database administration processes) to connect in multi-user mode to the target replicated databases. Client connections to the target databases will be forced to read-only mode while replication is active. This load-balancing capability promotes optimal system performance by offloading read-only querying to the secondary site.

## Supported Operating Systems

- Windows® XP,
  Windows 2000 Professional

- IBM® AIX®

- HP-UX® (32 Bit & 64 Bit)

- SUN® Solaris™ Sparc
  (32 Bit & 64 Bit)

- Compaq® Tru64 UNIX® (64 Bit)

- Linux® Red Hat, Linux SuSe,
  Linux Server, Linux Caldera,
  Turbo Linux

For a detailed list of platforms, please refer to the Progress Product Availability Guide available online at www.progress.com/products.

## Minimum System Requirements

Fathom Replication and Replication Plus run on Progress Version 9.1D. Progress customers using earlier versions of the Progress database must upgrade to Version 9.1D to implement Fathom Replication and Fathom Replication Plus.

*For more information regarding Fathom Replication and Replication Plus go to www.progress.com/products/fathom or contact your local sales office: www.progress.com/worldwide/offices.htm.*

*For information regarding business continuity, read the white paper, Business Continuity Planning: A Progress Guide to Survival at www.progress.com/products/fathom*

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