When major outages occur, many businesses can’t afford to wait several days for conventional recovery solutions. Long work delays and loss of critical data can quickly affect revenues, profits, and customer satisfaction. While conventional disaster recovery solutions often rely on human intervention to get the business up and running, they can leave businesses down for hours and sometimes days.

**HP Metrocluster reduces business downtime** to minutes in the event of a fault, failure, or disaster. By acting as a safety net for critical data and applications in metropolitan data centers, HP Metrocluster not only increases the level of protection from disasters—it also turns the business continuity infrastructure into a productive asset that can be used for day-to-day operations. This means that your business continuity infrastructure can also be used for planned downtime activities, such as upgrading applications and adding and deleting nodes in the cluster.

**proven, industry-leading technology**

**cost-effectiveness**

**integrated, end-to-end business continuity solution**

clustering for business continuity

HP Metrocluster integrates HP’s foundation cluster software, MC/Serviceguard, with EMC’s Symmetrix Remote Data Facility (SRDF) data replication software to offer a business continuity solution with automatic site failover for up to sixteen HP 9000 servers connected to EMC Symmetrix storage. When a site becomes inoperable due to a system failure or disaster event, application package switching occurs without any manual intervention. HP Metrocluster automatically recovers not only from localized incidents, but also from broader, more dramatic interruptions.
key features

- **Automatic and bidirectional failover** of mission-critical data and applications located up to 50 kilometers (30 miles) apart—so both data centers can be active, protected, and capable of handling package failover for each other.

- **Fast failover and failback time,** which minimizes potential downtime through rapid application recovery time on the secondary site and minimizes the restart time of the primary site after a disaster.

- **Support for synchronous data replication** between EMC Symmetrix disk arrays by integration with EMC SRDF; as opposed to host-based data replication solutions, disk array-based replication has no effect on server performance since data is replicated directly between arrays.

- **Service level management** through integration with HP-UX Workload Manager (WLM); this integration allows failover of WLM configuration files from one server to another to ensure that service level objectives are met, even during disasters.

- **Flexible pricing** through HP Utility Pricing, which can lower the overall upfront cost for the business continuity infrastructure and reduce costs during lower-demand periods.

- **Cost-effective protection,** since planned, unplanned, and disaster downtime are all addressed.

recommended when:

- service needs to be restored very quickly after a disaster

- application performance is critical

- EMC Symmetrix disk arrays are used to store and manage large volumes of critical data

- data centers are located up to 50 kilometers (30 miles) apart

- business is at risk from disasters that result from fire, building damage, tornadoes, power outages, flooding, and sabotage

Unlike traditional approaches to business continuity, Metrocluster is useful even on days when lightning does not strike. By combining metropolitan data centers into a single, manageable cluster with automatic failover of data and applications, you will be able to take full advantage of your business continuity infrastructure. HP Metrocluster also supports a variety of networking technologies such as dense wavelength division multiplexing (DWDM), which makes it possible to transfer application control to a secondary data center located up to 50 kilometers (30 miles) away.

Through integration with EMC SRDF, HP Metrocluster supports synchronous data replication. Synchronous replication requires that the write I/O be written to the remote cache before an I/O completion is sent to the local host, providing a high level of data currency.

HP Metrocluster is part of HP’s complete high availability solutions portfolio that includes a comprehensive range of products and services.
benefits

- Computing resources remain available, even during critical disasters
- Application and system performance is not affected
- Application downtime is minimized through rapid application recovery time on the secondary site
- Critical data is protected through continuous replication from the primary site to the backup site
- The effect of operators’ errors, the major cause of unplanned downtime, is minimized
- Reduced planned downtime through the rolling upgrade functionality provided in MC/Serviceguard, which allows users to change the cluster configuration while the cluster is running and add or remove a node online
- Increased flexibility in where to locate data centers because of available support over extended distances of up to 50 kilometers (30 miles)

hp business continuity software

HP MC/Serviceguard—Fast, secure failover of mission-critical data and applications in the data center.

Extended Campus Clusters—Automated failover of mission-critical data and applications over metropolitan networks. Integrated with HP Mirrordisk/UX.

HP MetroCluster with HP Continuous Access XP—Fast, automated failover of mission-critical data and applications over metropolitan networks. Integrated with HP’s high-performance data replication solutions, HP Continuous Access XP.

HP MetroCluster with EMC SRDF—Fast, automated failover of mission-critical data and applications over metropolitan networks. Integrated with EMC data replication solution SRDF.

HP Continental Clusters—Push-button failover between mission-critical clusters over wide-area networks across thousands of kilometers. Integrated with the high-performance data replication solutions HP Continuous Access XP and EMC SRDF, and with logical data replication Oracle® Standby Database.

HP’s mission-critical system engineering team can help you select and design the right business continuity solution for your computing environment.

hp high availability services

HP offers comprehensive Business Continuity and Recovery Services. Consulting and Integration helps assess, design, implement, and plan your infrastructure so you can be assured of the best possible business continuity solution. Some of the services provided include:

- Availability needs assessment—consulting services to identify and define availability needs and requirements
- Architecture and design—consulting services to design the underlying architecture for the customer’s environment
- Implementation—consulting services to configure and implement HP infrastructure solutions in the operating environment
- Test/rehearsal plans—consulting services to design appropriate disaster rehearsal test plans, define measurement criteria, and evaluate the execution of rehearsals

Also, HP offers comprehensive support and operation services to help you operate your business continuity infrastructure more efficiently.
why hp?

• proven high availability and business continuity solutions with over 60,000 licenses sold (Jan ’02)

• recognized by GartnerGroup as the #1 disaster tolerant solutions portfolio in the industry

• robust clustering architecture with many advanced features and functionalities

• comprehensive Business Continuity and Recovery Services that span the entire lifecycle of the business continuity solution, including design, implementation, education, support, and operations

• HP high availability and business continuity solutions are tested with 100’s of ISV applications