Turning server failures into business successes

StandbyServer for OS/2 Warp

Highlights

Designed to provide continuous access to applications and data when hardware or software failures occur

Helps ensure data reliability and completeness through realtime mirroring between servers

Enables users to work while network administrators diagnose and repair system failures

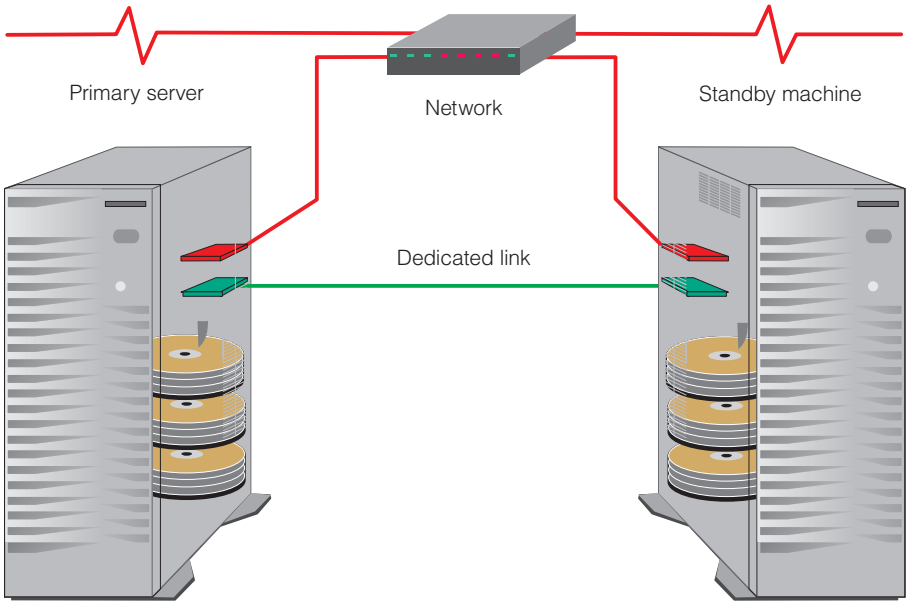
Allows customized configurations to meet specific software requirements

Permits full automation of switchovers to the standby machine

Does not impact network performance

The robust features of IBM® OS/2® Warp Server are an essential part of your enterprise's functions. As a company that depends on the server daily, you know how important it is to have reliable access to the mission-critical applications and data that reside on it.

If you're in a traditional PC-based environment, you're know that server availability is important. But, if your company has moved to a thin client (network computing) environment, you recognize the full implications of not having a highly available server environment. For everyone, server downtime causes problems. But for network-based businesses, server downtime is not just unproductive and distracting—it's a major business hazard. You may already be searching for a better solution than traditional products—such as tape backups and UPS systems—to guard against server downtime after failures.



StandbyServer for OS/2 Warp can help make server downtime a thing of the past.

Fully automates failovers from the primary to the standby machine

Let's face it. Traditional products can help to eliminate data loss, but can do little to prevent server downtime. With the Standby*Server*™ for OS/2 Warp from Vinca[1], downtime may become a thing of the past.

VINCA®
the data protection company

Standby*Server*—critical protection against downtime

Standby*Server* for OS/2 Warp is the premier, fault-tolerant mirroring system for servers running IBM OS/2 Warp Server, Version 4 and IBM OS/2 Warp Server Advanced, Version 4. It supports such popular OS/2-based applications as IBM DB2®, Lotus Notes®, Lotus® Domino™ and IBM Communications Server. Specifically designed to protect critical OS/2 servers against downtime resulting from hardware and software failures, Standby*Server* for OS/2 Warp allows you to connect a hot spare server directly to the main server through a dedicated high-speed link. Standby*Server* for OS/2 Warp continually mirrors data from the main server to a second computer.

If the primary server fails—either from hardware failure or software corruption—the standby machine takes over server functions automatically, so users can continue to access data and applications with only a short pause. System administrators can then diagnose and repair the failed server while users continue working on the standby machine.

IBM NetFinity® software (also known as SystemView® in OS/2 Warp Server) can fully automate the switchover from the primary server to the standby machine. NetFinity also allows a system administrator to customize alerts that can be sent to a local client, remote console or digital pager.

How Standby*Server* works

Standby*Server* for OS/2 Warp operates as an extension of the server operating system. Standby*Server* works in conjunction with the operating system software to allow the primary server to access disk devices physically located in the standby machine. The remote disk devices are treated as if they were physically located in the primary server. Using the mirroring functionality in Warp Server—or other OS/2 mirroring software—drives in the primary server are mirrored to drives in the standby machine, creating a live, equal-state data set on both servers.

In addition to accepting mirrored data from the primary server, the standby machine continually monitors the primary server for activity. If a hardware or software error causes the primary server to crash, the standby machine detects the failure and automatically fails-over. The standby machine becomes the new primary server and assumes the address and responsibilities of the failed primary server. All functions, including server identities and applications, become available on the standby machine. Workstations attached to the failed primary server see the standby machine as the primary server. When the failover process is complete, users have full access to the same applications and associated data. The failover process takes only moments to complete and users do not have to logon again because network connections remain intact.

Full support for application failover

Standby*Server* for OS/2 Warp has been designed to specifically support applications as well as critical data. During normal operation, data from applications is continuously mirroring to the standby machine, keeping a second data set actively up to date.

Helps provide server protection for hardware components, operating systems and applications

Standby*Server* for OS/2 Warp functions at three key levels within the primary server. These include:

Data mirroring
Using the mirroring process, Standby*Server* for OS/2 Warp helps ensure that the latest data changes written to the primary server are available on the standby machine. When the primary server fails, the standby machine has an accurate, equal-state data set available to network users.

Identity protection of primary server
Many server applications are dependent upon a NetBIOS name or specific IP address to function correctly. Standby*Server* for OS/2 Warp provides the capability to transfer these critical server identities from the failed primary server to the standby machine during the failover process. As a result, server applications dependent on specific server identities will function after a failover.

Application status monitoring
Utilizing features of Netfinity software and SystemView, Standby*Server* for OS/2 Warp takes corrective actions when the application itself fails. By constantly monitoring the application processes (with pinging) Standby*Server* detects application failures and executes predefined corrective actions as necessary.

Netfinity and SystemView integration
You can use Netfinity software to add additional management and notification capabilities to Standby*Server* for OS/2 Warp; you can also use Netfinity software to remotely manage a Standby*Server* configuration. Standby*Server* for OS/2 Warp is designed to work specifically with Netfinity software and SystemView to provide:

- Custom alerts
- Service monitoring
- Failover notification

Hardware independence
Standby*Server* for OS/2 Warp supports a wide variety of Intel®-based processor and storage configurations, including:

- Pentium®
- Redundant arrays of independent disks (RAID)
- 486
- Small computer system interface (SCSI)
- Symmetric multiprocessing (SMP)
- Fiber Channel/serial storage architecture (SSA)

The primary and backup servers do not have to be identical, which creates tremendous flexibility for pairing servers.

Customizable configurations
Standby*Server* for OS/2 Warp can be customized to meet specific software requirements and configurations. Through the use of customizable command files, Standby*Server* for OS/2 Warp protects services critical to unique configurations. Custom command files are run during the failover process, allowing services to stop and restart in proper sequence, helping ensure successful switchover of the entire failed server environment.

For more information
For general information about Standby*Server* for OS/2 Warp[2], visit:

www.vinca.com

For technical support databases, documentation and resources[2], visit:

www.kb.vinca.com

StandbyServer for OS/2 Warp at a glance

Both the primary and backup servers must meet the following minimum requirements and must be properly installed and configured to function as a file server on the network, including software and LAN adapters.

Hardware requirements	• IBM-certified Intel-based servers • Minimum of 16MB RAM • Minimum 386 CPU • Minimum 250MB hard drive (two hard drives required in the standby machine; one for system, one for mirroring) • SVGA monitor (preferred) • IBM-certified LAN adapter (EtherExpress Pro/100) for both the client network connection and the dedicated link connection • Netfinity software must be installed on both servers to support automatic failover
Software requirements	• OS/2 Warp, Version 3 or higher

IBM Corporation
11400 Burnet Road
Austin, TX 78758

Produced in the United States of America
4-99

[1] IBM distributes Vinca StandbyServer for OS/2 Warp through IBM Resellers and Authorized Software Distributors.

[2] The related URLs section of this publication provides addresses to non-IBM Web sites. IBM is not responsible for the content on such sites.

Printed in the United States on recycled paper containing 10% recovered post-consumer fiber.

G325-3896-00