Kodak Graphic Communications Canada Company
3700 Gilmore Way
Burnaby, B.C., Canada
V5G 4M1
Tel: 1.604.451.2700
Fax: 1.604.437.9891

Request support: http://graphics.kodak.com
ecentral.creo.com

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FAQ

Prinergy Hot Standby (EPM+) and Job Replication With Double-Take

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Prinergy™ Hot Standby, formerly known as EPM+, allows Prinergy systems to continue processing jobs and producing plates if the Prinergy primary server fails. The Hot Standby option provides near-complete system redundancy by replicating the Prinergy primary server configuration files and the Oracle™ database. Hot Standby uses a secondary (failover) server as a primary server until the original primary server is restored.

Job Replication expands on the Hot Standby option by replicating job data from a Microsoft™ Windows™-based main tertiary server to a backup tertiary server. In the event that the production job server fails, the backup tertiary server supports production operations until the original server is restored.

Hot Standby previously used the VERITAS™ Storage Replicator (VSR) software engine to replicate the Oracle database. Hot Standby and the new Job Replication option use the NSI™ Double-Take software engine to replicate the Oracle database and Windows-based job files in real time.

How Does Hot Standby Work?

All of the primary server's Prinergy software components are installed on a secondary server. These components include all Prinergy executables, libraries, and configuration files, as well as an installation of the Oracle database.

The configuration files are copied nightly from the primary server to the Hot Standby failover (secondary) server. These files include process plans, the Prinergy license key, standard colors, and fonts. The Oracle database on the primary server is continuously replicated to the failover server and is fully available when the system is put in Hot Standby mode.

During normal system operation, the Hot Standby failover server uses only those Prinergy components required by a regular secondary server. All non-secondary components, such as the Oracle database, are unused. If the Prinergy primary server fails, you reconfigure the Hot Standby failover server to enter Hot Standby mode and resume processing of jobs (at a somewhat reduced capacity).

How Does Job Replication Work?

Failover setup for Job Replication is significantly different than failing over a primary server and does not involve any actual changes to Prinergy. Job Replication simply replicates job data from a Windows-based tertiary job server to a Windows-based tertiary (failover) server in real time.

If the tertiary server fails, a failover can be initiated using the Double-Take Failover Control Center. The backup tertiary server will take on the tertiary server's IP address. All network requests for the tertiary server will be redirected to the backup tertiary server.

When Would Failover be Initiated?

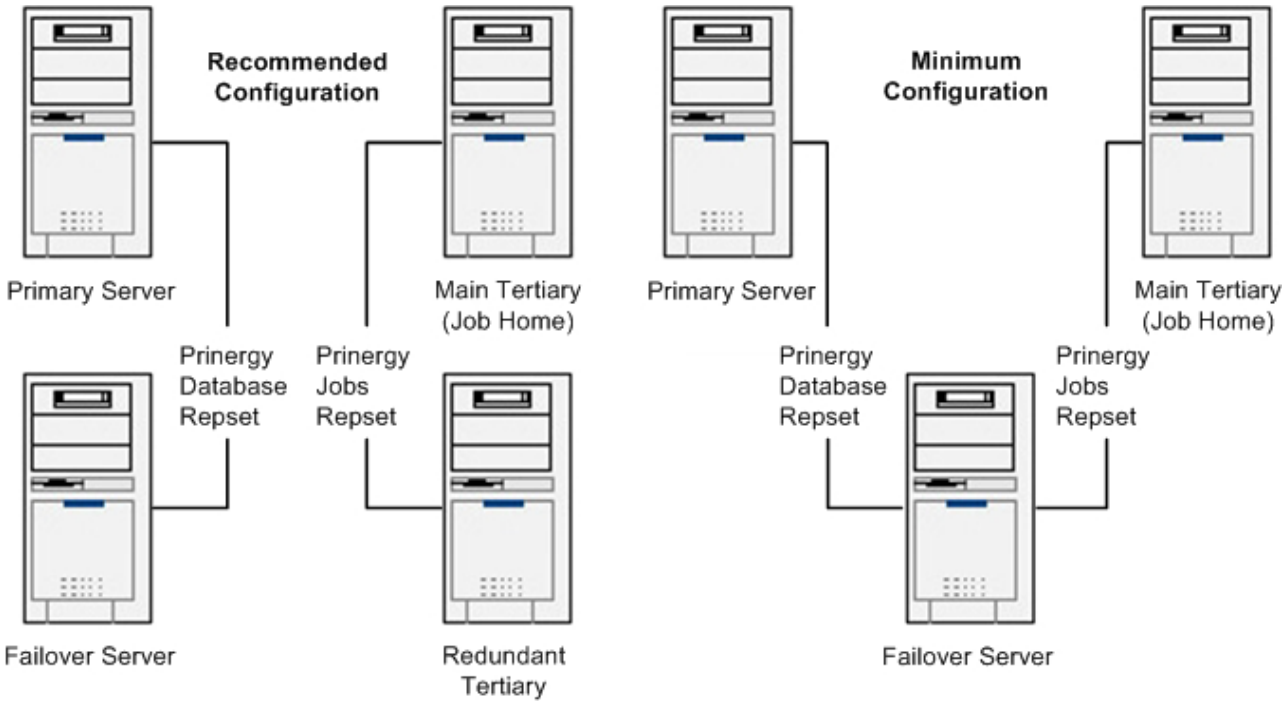
Reasons for switching to the Hot Standby and Job Replication failover server may differ from one case to another. The main reason for switching is to ensure the continuation of production jobs. If a Prinergy primary server or job server failure occurs, the customer should contact a service representative for help and then assess the urgency of the situation. If a plate must be remade for a job on press, then failover mode can be initiated with minimal delay.

Which Versions of Prinergy Are Qualified With Hot Standby and Job Replication?

Prinergy 2.3.1.3 and later.

What is the Recommended Hardware Configuration of the Failover Servers?

Separate failover servers are recommended for each Prinergy primary and tertiary job server (see the recommended configuration diagram that follows). However, the minimum configuration allows the failover server to also function as the backup tertiary server. The backup tertiary server may also be used as a secondary server. Specifications for the failover server and redundant tertiary server should be equivalent to or better than the primary and main tertiary server. For example, if the server is a Dell™ PowerEdge 2600 with 2 GB RAM and three 73 GB hard drives, the failover hardware should be, at minimum, the equivalent specification.



Additional configuration requirements for the Prinergy primary failover server:

- Server-class platform—for example, premium or performance server
- Drive letter assignments on the server should be identical to the primary server (**D** for **system**, **E** for **temp**, and **G** or **J** for **DataLog**).
- Prinergy program path should be identical to the primary server.
- Static IP address assignments

Additional configuration requirements for the redundant tertiary server:

- Server-class platform—for example, premium or performance server running Windows 2000 or Windows 2003 Server Standard Edition with direct-attach storage
- 1 GB RAM for redundant tertiary (2 GB if redundant tertiary is being used as a Prinergy secondary)
- No Prinergy JTPs hosted on the tertiary server, other than archiver and purge JTPs.
- Gigabit network connection
- Static IP address assignments

What Are the Advantages of Four- vs Three-server Configuration?

- In a four-server configuration, if the primary and tertiary servers fail at the same time, the current jobs will still be accessible. In a three-server configuration, current jobs would be accessible upon failure of either the primary or tertiary server, but not if both failed at the same time. The failover server cannot function simultaneously as a primary and tertiary server.
- If the failover server is also used as the backup tertiary server, job data replication will be stopped during failover mode.
- A redundant tertiary server provides better file serving performance in the case of main tertiary server failure. This is a major benefit for customers with large Prinergy systems.
- A redundant tertiary server allows backup of job replication data without impacting main tertiary server resources.

What Part Numbers and Pricing Do I Use?

New part numbers have been created and are published in the Q3 2006 price list. The original Hot Standby part numbers used in previous price lists are now *end of sales*. See the following tables for current Hot Standby and Job Replication part numbers.

***New* Price List Items for Prinergy Hot Standby and Job Replication**

Part Number	Product Name	Q3 USD
634-00334A	Prinergy Hot Standby (Double-Take)	$11,500.00
634-00335A	Prinergy Upgrade Kit (from EPM to EPM+ Double-Take)	$10,500.00
634-00336A	Job Replication with Double-Take	$10,000.00
634-00441A	Prinergy Job Replication Upgrade Kit for Hot Standby with VSR	$10,000.00

Price List Deletions

Part Number	Product Name	Reason for Deletion
634-00114A	Prinergy Hot Standby (EPM+)	Replaced with 634-00334A
634-00115A	Prinergy Upgrade Kit (from EPM to EPM+)	Replaced with 634-00335A
634-00162A	Prinergy Upgrade Kit (from Rapid Recovery to EPM+)	No sales

What is Included in Hot Standby?

If you sell Hot Standby (with Double-Take), 634-00334A, 1.5 days on site is included for installation, configuration, and testing of Hot Standby. This product also includes two NSI Double-Take licenses for Database Replication and scripts that capture the Prinergy primary server configuration.

I Have an Existing EPM+ Customer and They Are Interested in Job Replication. What Part Number Do I Use?

Use part number 634-00441A, Prinergy Job Replication Upgrade Kit, for existing EPM+ customers. This product includes 1.5 days on site to uninstall EPM+ with VERITAS Storage Replicator and install, configure, and test Hot Standby and Job Replication using NSI Double-Take. Four NSI Double-Take licenses are included (two for Database Replication and two for Job Replication).

Does an Existing EPM+ Customer Have to Upgrade to Hot Standby With NSI Double-Take?

No. Existing EPM+ customers (using VSR to replicate their Prinergy database) do not need to upgrade their current version of EPM+. An upgrade to the latest version of Hot Standby is required if the customer:

- Requires Job Replication
- Upgrades their server operating system to Windows 2003
- Upgrades to a version of Prinergy that no longer supports EPM+ with VSR, which has not yet been determined.

How Can Hot Standby Be Integrated Into a Customer's Existing Prinergy System?

To integrate Hot Standby into an existing Prinergy system that does not have EPM, order item 634-00334A. If the existing system has EPM, order item 634-00335A. Item 634-00334A does not include any server hardware—an existing secondary server may be repurposed as a failover server (see the recommended hardware configuration).

For job data replication, order item 634-00336A (this item does not include any tertiary server hardware).

Configuration Considerations

- If ordering new servers, the customer may want to re-host the primary server on a new server. Advise the customer that there may be extra costs for the re-hosting. The recommended configuration is that the primary and failover servers be the most powerful servers in the system.

- If ordering only the failover server, the server will be shipped configured as a Prinergy primary server. It must be reconfigured as a Hot Standby failover server on site. In the order, specify the letter designations of the existing temp and database drives, and the Prinergy folder path.

- If the existing primary server is to be re-hosted and a new primary and failover server are ordered, the Hot Standby software will be installed and configured prior to shipment from Kodak.

Is Job Replication Exclusive to Prinergy?

No. You can sell Job Replication to customers who require file replication for Windows-based job home servers. Job Replication, 634-00366A, includes 1.5 days on site for installation, configuration, and testing, and two NSI Double-Take licenses for Job Replication.

Are Link and InSite qualified for Use With Hot Standby?

Yes. Link and InSite will function with Hot Standby in failover mode. The additional configuration, failover, and failback procedures required for Link and InSite are available in the Hot Standby documentation.

Are Training Materials Available?

Yes. See the following:

- Prinergy Hot Standby (EPM+) with NSI Double-Take User Guide, 731-00451

- EPM and Hot Standby (EPM+) Emergency Plate Making and NSI Double-Take Installation and Operation, 731-00450A

- Hot Standby (EPM+) WebEx presentations—available on TechPlanet

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