



Solution's Guide

Continuous Data Protection for
Parallels™ Virtuozzo Containers



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Overview

Peer Software and Parallels have combined efforts to offer joint customers with virtualization platforms and disaster recovery solutions that enable businesses to gain cost-saving and simplified IT infrastructures, while having complete confidence in the certified data protection, availability and continuous backup that our products provide.

This document will give you an overview of the virtual server backup solutions offered by Peer Software to Parallels Virtuozzo Containers customers.

Who is Parallels?

Parallels offers Server Virtualization solutions through Parallels Virtuozzo Containers.

Parallels Virtuozzo Containers is the world's leading OS virtualization solution. This virtual infrastructure creates isolated containers on a single physical server and OS instance. Compared to other virtualization technologies, Parallels Virtuozzo Containers offers the highest levels of density, performance and manageability.

What is OS Virtualization?

Sometimes called OS-level or shared OS virtualization, OS virtualization virtualizes servers on the operating system (kernel) layer. This creates isolated containers on a single physical server and OS instance to utilize hardware, software, data center and management efforts with maximum efficiency.

What Challenges do most Data Protection Software have in Virtualized environments?

Most Disaster Recovery solutions require the installation of a low level driver application on the physical host machine to enable real-time data protection for the individual virtual environment. This type of backup will not provide continuous protection since the virtual systems are hosted by individual containers and the OS events will only be detected at the container level. In order to provide continuous data protection, the backup software solution needs to be able to monitor the virtual OS drives for file event changes and provide real-time replication for a top-of-the line disaster recovery solution.

PeerSync and Peer DRS for Parallels Virtuozzo Containers

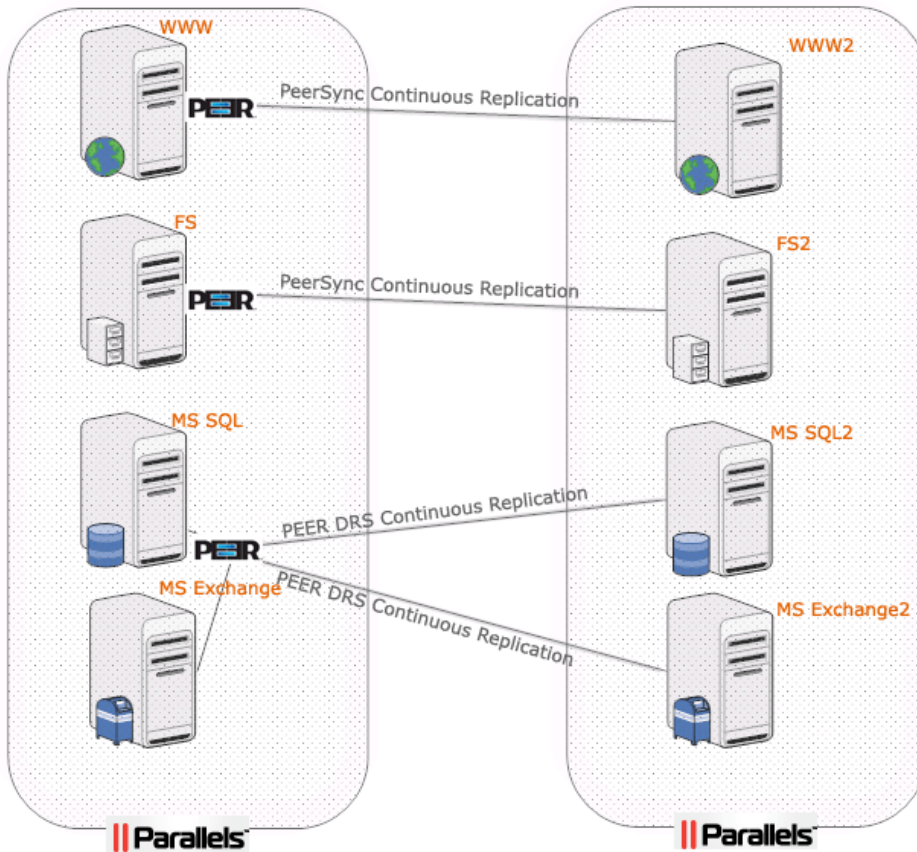
Peer Software products are not hardware specific and therefore are not tied to a specific hard disk. As long as a drive is visible by the Parallels Virtuozzo Container as a local drive, whether the drive is configured as a virtual disk or as a "raw disk" partition, Peer Software products will be able to read and monitor its content.

Peer Software's PeerSync and Peer DRS product lines have been certified to provide Parallels Virtuozzo Containers with a world-class data protection solution for users, applications, MS SQL and MS Exchange data.

Complete Data Protection and High Availability Solution

PeerSync and Peer DRS provide Real-Time or Scheduled replication of files and data to minimize downtime from lost or damaged files. Below is a diagram of Peer Software's Continuous Data Protection solution.

Our solutions can be configured for Windows Virtual Servers only, or a combination of Windows Virtual and Physical servers. The example below shows Parallels Virtuozzo Containers as both primary and DR servers.



PeerSync – Continuous Data Protection and Replication Software

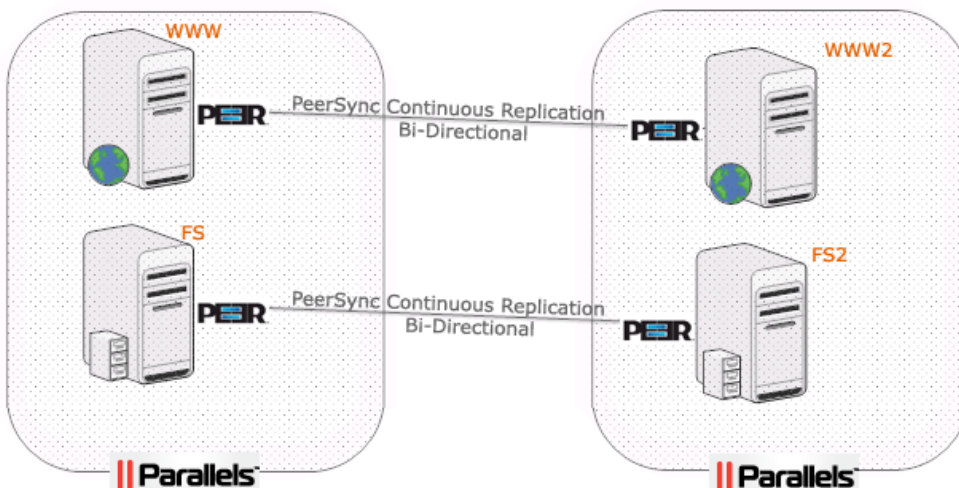
PeerSync is a powerful file mirroring, backup, and distribution solution; it is installed directly on the Virtuozzo container monitoring any visible drive.

PeerSync Product Key Features

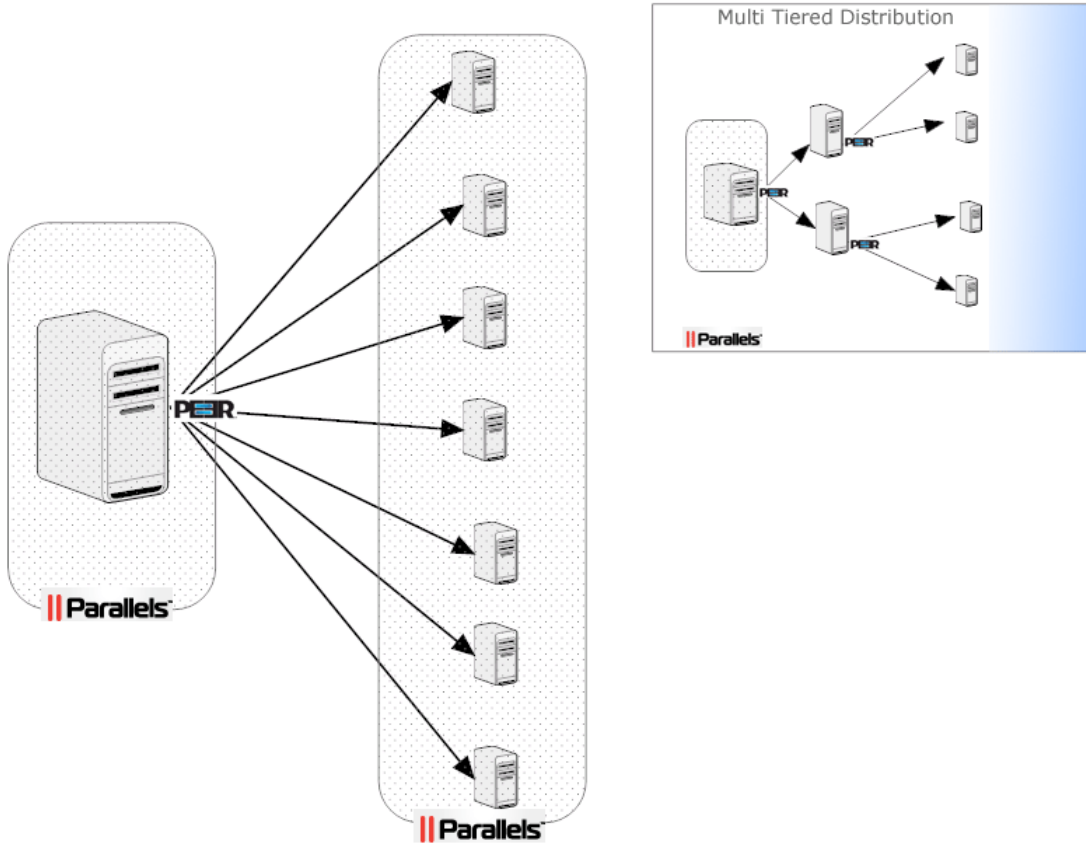
- ❑ One-to-One, Many-to-One, or Many-to-Many Server data protection
- ❑ Central Configuration Administration
- ❑ Centralized Monitoring
- ❑ Real-Time and Scheduled Processing
- ❑ Open-File/Database Replication
- ❑ Byte-Level Replication
- ❑ Multi-Threading
- ❑ UNC Path, TCP/IP and FTP Support
- ❑ Email and Administrative Reporting
- ❑ Configures and runs in minutes instead of hours

Parallels Virtuozzo Containers users are now able to take advantage of the following proven scenarios as part of their Data Protection DR plan:

Server Mirroring - Provide an exact duplicate of files/folders between servers in real-time for such purposes as high availability, disaster recovery, or load balancing.



File Distribution - Provides secure Real-Time or Scheduled file distribution capabilities from one host to multiple systems. File or software distribution is optimized through multi-threading replication where files can be processed in parallel to any number of targets minimizing the duration of the distribution. PeerSync can also be configured in a multi-tiered distribution scenario minimizing resource usage on host servers.



Peer DRS – Centralized SQL Backup and Exchange Backup

Our Peer DRS product provides a centralized way to manage and monitor all your SQL and/or Exchange database backups from a single location and application. It has a plug-in architecture allowing it to support different types of Application Specific database backups from a single console.

With Peer DRS, Parallels Virtuozzo Containers clients can configure and manage their MS SQL Backup and MS Exchange Backup Jobs for **continuous data protection** assurance.

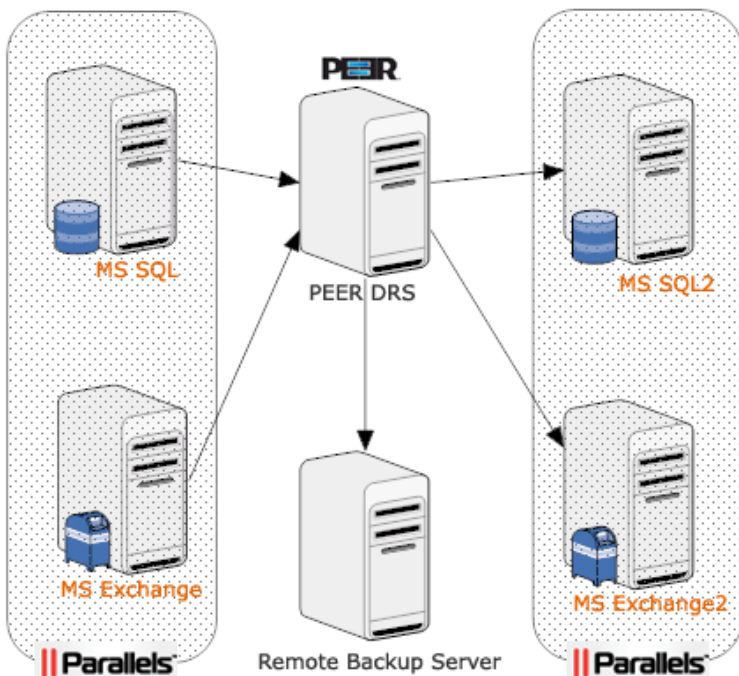
How does Peer DRS Work?

Peer DRS employs a form of log shipping which is the process of automating the backup of SQL Databases, Exchange Storage Groups and transaction log files on a primary server, and then restoring them onto a target standby server. The key feature of log shipping is that it will automatically backup transaction logs throughout the day (for whatever interval you specify) and automatically restore them on a standby server located anywhere in the world. This in effect keeps the two Databases in "synch".

Peer DRS can be installed locally, on the same server as the Target or Primary Databases reside with network access to all primary and target SQL and/or Exchange databases. The most commonly used installation scenario is the Remote Centralized Installation.

Remote Centralized Installation (Best Practice)

This configuration deploys an installation on a separate server from the primary database(s) or any of the target databases. Centralized installation is normally used when you need to backup and replicate two or more primary databases residing on different servers (such as in the case of MS SQL and MS Exchange residing on two separate Virtual or Physical Servers). This configuration is also useful if you want to offload as much I/O and CPU processing as possible from the primary database servers.



On the left is a diagram depicting a typical environment where the Peer DRS installation is centralized on a separate server (physical or virtual) configured to replicate data to secondary SQL and Exchange Servers and, as additional data protection, backup the database files to a separate Backup Server.

For more information about Peer Software products and services, contact the Sales Information Center at:

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Or visit us at:

Website: www.peersoftware.com

Free 15 day evaluation:

To download a free 15 day evaluation, please visit:

<http://www.peersoftware.com/virtuozzo>

About Parallels:

Parallels is a worldwide leader in virtualization and automation software that optimizes computing for consumers, businesses, and service providers across all major hardware, operating system, and virtualization platforms. Founded in 1999, Parallels is a fast-growing company with 900 employees in North America, Europe, and Asia.

About Peer Software:

Peer Software develops powerful, cost-effective, and easy-to-use file and database management solutions allowing organizations to seamlessly, efficiently, and reliably protect their digital assets.

Close to half of the current Fortune 100 companies entrust critical file management to Peer Software. Notable customers include the Department of Justice, Fannie Mae, Microsoft, Boeing, Intel, American Express, Hewlett Packard, and more. The company's software products are available online at www.peersoftware.com, via other online channels, and through resellers in the U.S. and abroad. Founded in 1993, the company is privately held.