




Server Consolidation  
Disaster Recovery  
Hardware Lease Migration  
Data Center Relocation  
Data Center Optimization







## **Anywhere-to-Anywhere Portability and Protection for all Server Workloads in the Data Center**

PlateSpin PowerConvert is a powerful workload portability™ and protection solution that empowers enterprises to manage and optimize the data center by migrating server workloads over the network between physical servers, virtual hosts and image archives. Previously, server workloads have been tied to the hardware infrastructure on which they reside, preventing the optimal use of physical and virtual resources.

PowerConvert remotely decouples workloads from the underlying server hardware and streams them to and from any physical and virtual host with a simple drag and drop. The flexibility to move and rebalance workloads in any direction between physical and virtual hosts – physical-to-virtual, virtual-to-physical, virtual-to-virtual, physical-to-physical, in and out of imaging formats and so on – ensures optimal data center efficiency.

With PowerConvert, enterprises can continually match service level requirements with available resources by rapidly reconfiguring, relocating and optimizing workloads – all from a single point of control without having to be in physical contact with source or target servers.


Together, PowerConvert and PowerRecon, PlateSpin's advanced analysis and planning software, provide a comprehensive data center management solution that includes integrated planning, testing and migration for critical enterprise initiatives such as server consolidation, hardware lease migration, data center relocation and disaster recovery.

## **Making Physical and Virtual Environments Work As One**

Today's data centers employ a mix of different hardware platforms, operating systems and virtualization technologies that must work together to drive operational efficiency and business growth. PlateSpin PowerConvert provides the most comprehensive multiplatform support for mixed IT environments, enabling enterprises to easily manage, optimize and protect all server workloads in the data center. With broad support for Windows and Linux, as well as leading server hardware and virtualization technologies, PowerConvert enables enterprises to profile, move, copy, protect and replicate whole server workloads including data, applications and operating systems across infrastructure boundaries to make physical and virtual environments work as one.

## **Enterprise-Ready Workload Migration**

Successful virtualization initiatives such as server consolidation and disaster recovery require upfront planning and robust, enterprise-ready solutions that automate the tasks of planning, testing and migrating server workloads to the virtual environment. With broad support for today's distributed, multiplatform environments, and unmatched migration speed and reliability to accommodate the world's largest enterprise data centers, PowerConvert provides organizations with a true enterprise-ready solution for migrating, protecting and optimizing server workloads. Designed to handle the real-world complexities of mixed IT environments, PowerConvert helps enterprises optimize their data centers, cross physical and virtual boundaries and avoid downtime and risk.



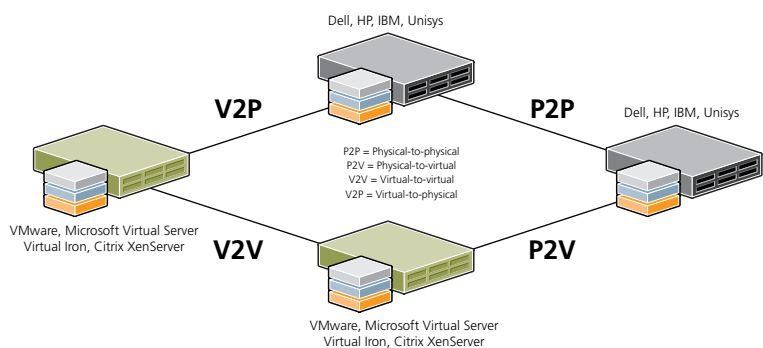
## Workload Portability and Protection in Action

PlateSpin PowerConvert reduces cost, complexity and risk in the enterprise data center by providing a unified approach to solving critical IT challenges including server consolidation, hardware lease migration, data center relocation and disaster recovery.

## Perform anywhere-to-anywhere workload migrations with broad multiplatform support.

Migrate and protect all workloads regardless of hardware, operating system or virtual host.

Today's data centers are increasingly complex with a mix of different physical and virtual hosts, operating systems and image formats. With unprecedented multiplatform support, PowerConvert provides a single, cost-effective solution for streaming workloads between any host in the network including physical machines, blade infrastructures, virtual hosts and image archives. PowerConvert supports all of the leading virtualization solutions including Microsoft Virtual Server, Virtual Iron, VMware and Citrix XenServer, as well as multiple operating systems, hardware configurations and imaging technologies. Easily move workloads between dissimilar hardware models or between different virtual infrastructures.



### Workload Portability



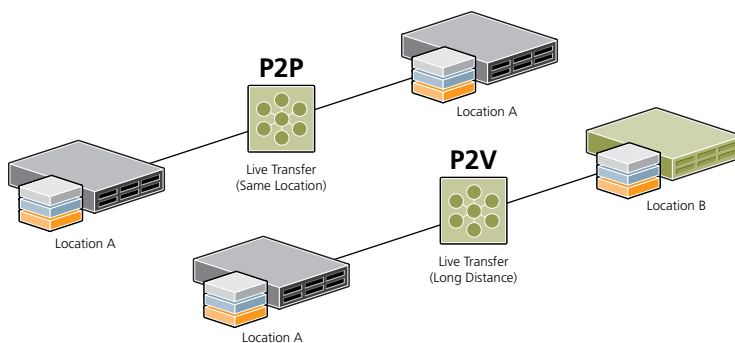
#### Workload

A server workload refers to the data, applications and operating system that reside on a physical or virtual host.

## Rapidly migrate and protect running workloads within a local site or across the wide area network.

Migrate, test and protect workloads across primary and secondary data center sites.

PlateSpin PowerConvert enables enterprises to move and protect workloads locally or across geographically dispersed sites in any direction between physical and virtual infrastructures. PowerConvert's Live Transfer capability enables users to move workloads across the local or wide area network without taking production servers offline. PowerConvert also enables live testing with no disruption to source systems to ensure that workloads will run as expected in the virtual environment. Once testing is complete, PowerConvert's Server Sync™ feature briefly shuts down the source to perform a final synchronization to the target virtual host. In addition to minimizing downtime, Server Sync provides a fast and efficient solution for long-distance migrations by reducing the total volume of data that must be sent across the WAN.



### Active Workload Migration



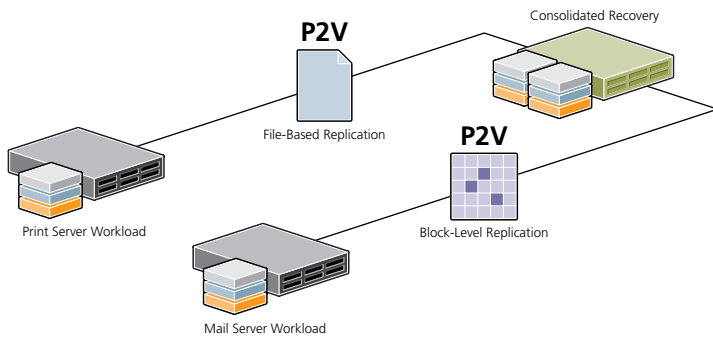
#### Live Transfer



Live Transfer enables the migration of an active Windows workload without taking the source server offline.

## Protect all workloads in the data center with live incremental replication.

Flexible, efficient and cost-effective workload protection and recovery options.

PowerConvert provides a range of workload protection alternatives in a single product for maximum flexibility. Data centers can choose between flexible image backup and hardware-independent restore or consolidated recovery using virtual infrastructure and whole server workload replication. By using virtualization as a recovery platform, organizations can protect a larger share of data center workloads without having to invest in costly duplicate hardware and software. In addition to standard file-based replication, high-speed block-level transfer enables enterprise customers to protect transactional workloads, such as mail and database servers, where point-in-time transactional information, configuration settings and data must be maintained. Efficient incremental transfers ensure that only changes to source data files are replicated to the target environment, minimizing network usage. Enterprises can also augment existing recovery plans with flexible, platform-independent full, incremental and differential images.

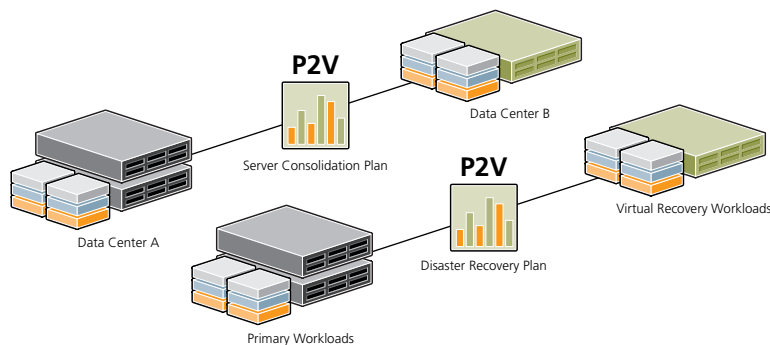



Workload Replication Methods	
	<b>File-Based Replication</b> File-based replication provides a cost-effective solution for moving and synchronizing workloads while maintaining server uptime.
	<b>Block-Level Replication</b> This high-speed replication enables the movement and synchronization of transactional workloads such as mail and database servers.

## Improve the speed and quality of enterprise data center initiatives with integrated planning and execution.

Automated planning, migration and testing reduce business risk and ensure a rapid return on investment.

Together, PlateSpin PowerConvert and PowerRecon provide the only solution that automates the assessment, planning, testing and migration phases of a successful data center initiative. This end-to-end solution reduces overall project time, lowers risk and increases the accuracy of the result. PowerRecon allows organizations to assess, analyze and create optimal plans for server consolidation and disaster recovery. Accelerate data center initiatives by implementing PowerRecon plans using PlateSpin PowerConvert to stream workloads into physical and virtual environments. Consolidate and protect server workloads to virtual machine and blade infrastructures and maximize consolidation ratios by leveraging intelligent workload-based resource configuration. Minimize resource contention and the overhead of ongoing migration by optimally balancing workloads across target servers.



Integrated Planning and Execution	
	<b>PowerRecon</b> Automate the assessment, planning and execution of data center initiatives from start to finish, reducing overall project time and increasing the accuracy of the result.

### PowerConvert Packages/Feature Comparison

With a choice of packages and affordable enterprise and project-based pricing options, PowerConvert is ideal for long-term enterprise data center optimization and disaster recovery initiatives as well as limited-duration projects. Usage-based pricing provides a low-cost entry point for customers and system integrators to use PowerConvert for multiple projects. Workload-based pricing allows PowerConvert to perform recurring workload movement from source to target hosts at no additional cost for solutions like disaster recovery and ongoing data center optimization.

### PowerConvert Packages/Feature Comparison\*

	Project Edition	Standard Edition	Universal Edition	Enterprise Edition
	Ideal for one-time projects such as server consolidation, hardware migration and data center relocation	Used for long-term data center initiatives such as server provisioning, ongoing workload management and optimization	Includes all the features of Standard Edition plus workload protection and consolidated recovery	Offers broad support for all workloads in the data center (includes block-level transfer for high-transactional environments)
<b>Solutions</b>				
Workload Relocation	○	○	○	○
Workload Provisioning		○	○	○
Workload Optimization		○	○	○
Workload Protection			○	○
<b>Features</b>				
Physical-to-Virtual (P2V)	○	○	○	○
Physical-to-Physical (P2P)	○	○	○	○
Virtual-to-Virtual (V2V)	○	○	○	○
Virtual-to-Physical (V2P)	○	○	○	○
Flexible Image Capture	○	○	○	○
Flexible Image Deploy	○	○	○	○
Manual Incremental Transfers/ Server Sync™	○	○	○	○
Automated Incremental Transfers w/ Synchronization Schedules			○	○
File-based Live Transfer	○	○	○	○
Block-level Live Transfer				○
<b>Suitable Workloads</b>				
Stateless (middle-tier applications, presentation servers, web front-ends)	○	○	○	○
Low Transactional (DHCP, Infrastructure, non-critical databases)	○	○	○	○
High Transactional (Mail servers, critical databases)	○			○ <sup>1</sup>
<b>Pricing</b>	Per Use	Per Server Workload	Per Server Workload	Per Server Workload

\* Product packaging, pricing and system requirements may be subject to change.  
<sup>1</sup> Note: A short period of system downtime may be required for initial replication.

### Workload Portability

#### Anywhere-to-anywhere Workload Migration

Free server workloads from the underlying hardware and move or copy them to and from physical, virtual, or image-based infrastructures on demand. With comprehensive support for multiple physical and virtual platforms, PowerConvert automatically configures the workload to operate on the target environment, making necessary driver, kernel and other configuration changes.

#### Server Sync™ for Effective Testing and WAN Migrations

Reduce the risks associated with server consolidation and data center relocation. Perform an initial transfer to the target site or host, test the workload in the new location while continuing to run the source, and then perform a final sync before cutting over the workload. When the source and destination are geographically distributed, Server Sync removes the necessity for a full system replication, dramatically accelerating workload migrations over the WAN.

#### Enterprise-class Speed and Reliability

PowerConvert provides optimized transfer speeds for workload migrations over a wide range of network types from Gigabit Ethernet networks to high-latency WAN environments – all with reliable enterprise-class workload migration functionality that minimizes downtime while maximizing the integrity of the workload migration. With unmatched migration speed and enterprise-caliber reliability, PowerConvert reduces overall migration project times, lowers business risk and accelerates time to value for large-scale data center initiatives.

#### Live Transfer

PowerConvert Live Transfer enables the migration or image capture of active Windows servers without taking the source servers offline or having to reboot. Reduce system downtime during migration or create regular backups of production systems. Concurrent live transfers, managed through a central administration point, help to accelerate consolidation efforts.

#### File and Block-level Replication

PowerConvert supports both file and block-level replication. High-speed block-level replication enables the movement of transactional workloads such as mail servers and database servers. With block-level transfer, only the portion of a file that has changed is replicated, making it ideal for incrementally synchronizing large database servers and enabling efficient offsite data transfers. File-based replication provides a cost-effective solution for moving or copying less critical workloads while maintaining server uptime.

#### Efficient Image-based Provisioning

Redeploy PlateSpin Flexible Images or leverage existing third-party image inventories across different hardware to rapidly provision workloads. Capture the image once and reuse it repeatedly.

### Workload Protection

#### Cost-effective Consolidated Protection

Incremental synchronization can occur at user-defined intervals to maintain currency between production environments and virtual standby systems. Multiple hardware-independent virtual recovery environments can be hosted on a single platform to provide affordable disaster recovery.

#### Easy Test Recovery

PowerConvert allows data centers to quickly test recovery plans without disruption to the backup process, bringing simplified, auditable testing to disaster recovery procedures.

#### Effective Failover and Failback Capabilities

Rapidly failover workloads simply by booting up a replicated copy on the virtual recovery server. PowerConvert's hardware-independent restore capability enables enterprises to failback the workload to the same or a different hardware platform for full restoration of the workload.

#### Image-based Backup and Recovery

Reduce recovery costs by maintaining a library of hardware-independent images which can be deployed to any hardware make or model for disaster recovery. This option is ideal for offsite hosted recovery where similar hardware is not always available or when the recovery process needs to be tested on a regular basis. Enterprises have the flexibility to produce full, incremental or differential images. Incremental imaging enables data centers to maintain up-to-date multiple recovery points.

### Ease-of-Use

#### Automatic Discovery

Automatically discover existing physical or virtual machines throughout the network for complete visibility into the data center landscape including hardware, OS, services and application inventory.

#### Task-based Wizards/Drag-and-drop Interface

With intuitive built-in workflows, PowerConvert reduces learning curves and simplifies workload relocation, protection and provisioning activities. Use the drag-and-drop interface to move, copy, protect, capture or deploy workloads. Intuitive task-based wizards for common actions and advanced job configuration capabilities make the process of configuring jobs easier and more reliable. Easily create reports required for regulatory compliance or to qualify for utility rebates for power and cooling reductions.

#### On-the-fly Configuration

Reconfigure and right-size CPU, disk, memory and network resources on-the-fly to adjust to changing workloads and target machine resources. Change critical parameters on restore and right-size the target server to match workload demands.

### Remote Control

With no agents, boot CDs or physical contact with source or target machines required, PowerConvert provides a single control point, saving time and costs associated with having IT staff on site at remote locations.<sup>1</sup>

### System Requirements

#### PowerConvert Server

- Windows 2000 Server (SP4)
- Windows 2000 Advanced Server (SP4)
- Windows 2003 Server

#### PowerConvert Client

- Windows 2000 Server (SP4)
- Windows 2000 Advanced Server (SP4)
- Windows XP Professional
- Windows 2003 Server

IIS 5.0 and up and the .NET Framework 2.0 (including ASP.NET) must be installed prior to installing the PowerConvert Server and Client

#### Disk Requirements

- 1.5 GB of free disk space

#### Memory Requirements

- Minimum 512 MB of RAM

### Broad Platform Support

#### Virtual Machines

- VMware® Infrastructure 3
- VMware® ESX Server 2.5 and higher
- VMware® Server
- Microsoft Virtual Server 2005 and 2005 R2
- Virtual Iron 3.1 \*
- Citrix XenServer 4.1

#### Operating Systems

- Windows NT Server (SP4, SP6a) \*\*
- Windows 2000 Server
- Windows 2000 Advanced Server
- Windows 2003 Server
- Windows 2003 Server R2
- Windows 2003 Server (x64) \*\*
- Windows 2003 Server R2 (x64) \*\*
- Windows XP Professional (SP2)
- Red Hat Linux (7.3, 8.0)
- Red Hat Enterprise Linux (AS/ES 3.0, 4.0, 5.0)
- SUSE Linux Enterprise Server (8.0, 9.0, 10)

#### Image Archives

- Acronis® True Image™
- Symantec® LiveState™
- PlateSpin Flexible Image Packages
- Symantec® Ghost™ \*\*\*

#### Backup Solutions

- Raw Volume Data \*\*\*
- Veritas® Backup Exec™ \*\*\*
- CA BrighStor ARCserv r11 \*\*\*
- Double-Take® by Double-Take Software \*\*\*

<sup>1</sup> For bare metal devices (servers without operating systems), a PlateSpin boot-CD may be required to take control of the server.  
\* Virtual Machines treated as physical targets \*\* Supported for X2V only \*\*\* Supported as Raw Volume Data



PlateSpin is a Novell Company

PlateSpin, a Novell company, provides a unified suite of solutions to make physical and virtual environments work as one. PlateSpin's Workload Portability™ technology liberates workloads from hardware platforms, allowing data, applications and operating systems to be streamed over the network between any physical or virtual host. The ability to migrate, protect, provision and optimize server workloads across physical and virtual environments helps enterprises reduce cost, complexity and risk. With integrated workload profiling and planning, PlateSpin solutions improve the speed and quality of data center initiatives and ease the burden of managing mixed IT environments.

Backed by Novell's global network, infrastructure software expertise and ecosystem of partners, PlateSpin solutions empower enterprises to solve today's most critical data center initiatives including server consolidation, hardware lease migration, data center relocation and disaster recovery. Together, PlateSpin and Novell are helping customers around the world build more flexible, interoperable and cost-effective IT environments from desktop to data center. For more information please visit [www.platespin.com](http://www.platespin.com).

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