PLATESPIN POWER RECON™

Server Consolidation
Consolidated Recovery
Green Computing
Data Center Optimization
Capacity Profiling & Planning
Asset Management
Workload Profiling
Virtual Infrastructure Management

Advanced Analysis and Planning for Enterprise Data Centers

Successful data center initiatives such as server consolidation and disaster recovery require considerable upfront planning and analysis to ensure a maximum return on investment. Previously, data center managers had to rely on best guesses to identify underutilized or under-protected servers and allocate sufficient resources for current and future needs. PlateSpin PowerRecon is a powerful and sophisticated analysis and planning solution that takes the guesswork out of complex server consolidation, disaster recovery, capacity planning, asset management and green data center initiatives.

PlateSpin PowerRecon provides new levels of intelligence, visual analysis and forecasting for optimizing the data center by collecting hardware, software and services inventory for all server workloads with absolutely no manual effort. PowerRecon remotely gathers workload utilization statistics for a clear and concise picture of the application services running in the data center and how their resources are being used. PowerRecon supports the green data center by allowing organizations to assess the potential cost savings in power, cooling and space that can be achieved through consolidation.

With broad support for today's distributed, multi platform environments and unprecedented scalability to accommodate the world's largest data centers, PowerRecon provides a true enterprise-scale workload profiling and planning solution. When combined with PlateSpin PowerConvert, organizations gain a complete end-to-end solution with tightly integrated planning and execution for data center initiatives.

The Workload Movement

Organizations are starting to recognize that server workloads are the base units of business value in the data center. A server workload refers to the data, applications and operating systems that reside on a physical or virtual host. The ability to monitor, assess, manage and move server workloads at will between physical and virtual hosts in the data center is a key driver of operational efficiency and business success. A workload in PowerRecon contains not only the name and inventory of a server but also a detailed workload profile that captures the server's current resource requirements based on real performance data.

Building a Greener Data Center

The cost savings and environmental benefits of virtualization are closely aligned. By consolidating servers into more energy-efficient virtual machine hosts or blade servers, organizations can retire old, power-hungry hardware and optimize underutilized servers to achieve significant savings in space, power and cooling requirements, resulting in a greener data center. With the unique ability to analyze and report on power and cooling usage in the data center, PowerRecon helps organizations accurately assess the environmental impacts and potential cost savings derived from a consolidation or hardware migration project and create plans for reducing energy consumption.

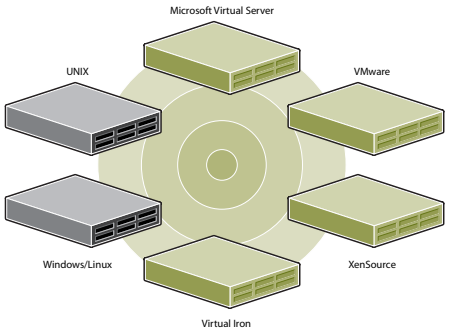
Workload Profiling and Planning in Action

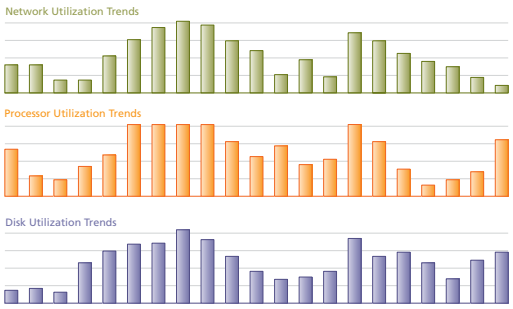
PlateSpin PowerRecon improves the speed and quality of data center initiatives such as server consolidation, hardware migration and disaster recovery by providing advanced workload awareness, data collection, analysis, reporting and planning capabilities.

Rapidly collect inventory and utilization data across thousands of servers.

Save time and effort by automating the collection of server inventory, workload and resource utilization data.

PlateSpin PowerRecon allows organizations to remotely discover server hardware and software assets across the entire data center – regardless of the various virtual machines, operating systems and hardware platforms deployed. With support for Windows, UNIX and Linux platforms, PowerRecon collects detailed information for each server in the network such as operating system, installed and running applications or services, patch levels, CPU, memory, network and disk resources. PowerRecon also identifies workloads and monitors utilization data over days, weeks or months to determine utilization trends. By collecting the key data points needed to access and match workload sizes and resources, PowerRecon helps ensure that the data center is continuously optimized.

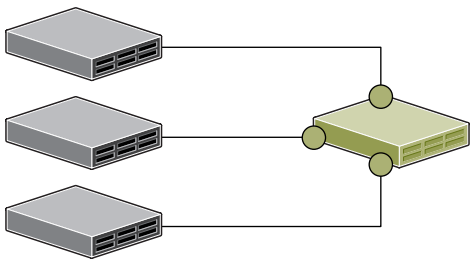


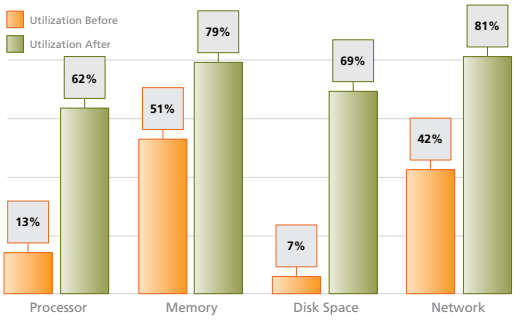


Plan data center initiatives based on concrete data, analysis, trending and forecasting.

Take the guesswork out of data center initiatives and achieve optimal results based on detailed analysis.

PowerRecon provides the most advanced scenario modeling, forecasting and planning capabilities available for data center initiatives. Create scenarios for distributing workloads across servers to maximize utilization and minimize resource contention. Use powerful what-if modeling to determine different combinations of hardware and virtual hosts and proactively account for future growth by using forecasted workload and utilization values. Enter your own standard hardware builds for experimentation, generate a consolidation or recovery plan with detailed project, scenario, workload assignment, and create environmental impact reports and charts. Compare and cost-justify different scenarios based on power and cooling, total cost of ownership, consolidation ratio and rack space needs.

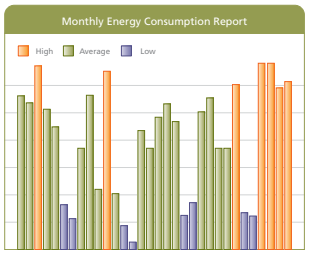


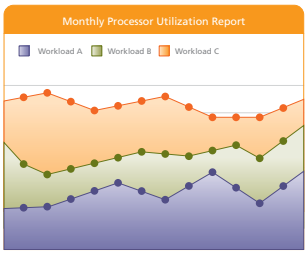


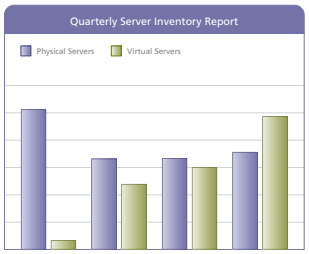
Gain a clearer view of server workloads with advanced reporting and visualization.

Increase visibility into ongoing resource utilization to keep the data center continuously in balance.

PowerRecon provides customizable graphical reporting to view and manage workload and resource utilization over time for optimal data center operations. Sort server workloads by CPU, memory, disk, network, inventory and/or performance and compare power, cooling, space, cost and utilization metrics to identify workload and resource mismatches. View summary workload sizing and power and cooling data or drill down to point-in-time granular levels using detailed tabular reports and time-series charts. Create management reports by designing charts and customized report templates, and easily generate the energy savings reports required to qualify for utility rebates. Schedule the automated delivery of reports via email and FTP to IT optimization specialists and service providers so they can easily track the state of the data center from anywhere in the world. Virtualization chargeback capabilities allow you to calculate IT costs for business units based on actual resource usage.



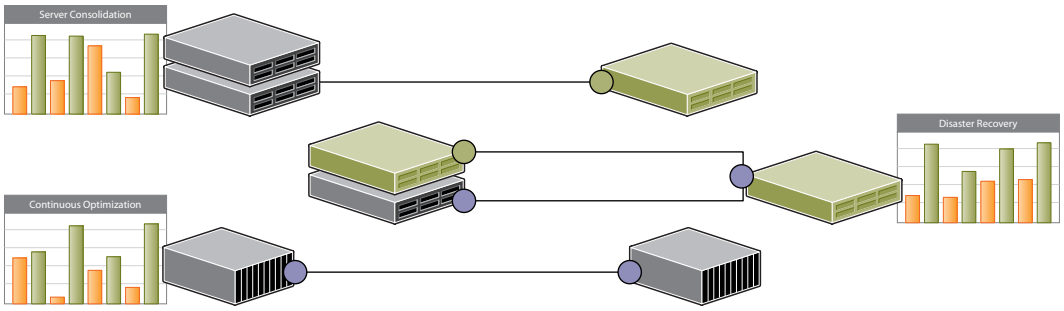




Accelerate data center initiatives by automatically generating executable plans.

Automated planning and execution ensure a rapid return on investment from data center initiatives.

Together, PlateSpin PowerRecon and PowerConvert provide the only solution that automates project assessment, planning and execution from start to finish. Organizations can accelerate data center initiatives by using PlateSpin PowerConvert to execute PowerRecon plans and stream physical servers into virtual environments. Consolidate and protect servers using virtual 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.



PowerRecon Packaging Options
With a choice of packages and affordable enterprise and project-based pricing options, PowerRecon is ideal for limited-duration projects or long-term enterprise data center optimization and disaster recovery initiatives. Usage-based pricing provides an easy, low-cost entry point for companies to take advantage of PowerRecon for "once-and-done" projects.

PowerRecon Packages/Feature Comparison

	Inventory Edition	Project Edition (Includes Planning)	Virtual Infrastructure Edition[1]	Standard Edition	Standard Edition with Planning
	Server Inventory Asset Management Configuration Management	Ideal for one-time projects such as capacity planning and server consolidation	Chargeback Reporting VM Growth Reporting Power & Cooling Reporitng VirtualCenter Integration	Workload Profiling Capacity Profiling	Server Consolidation Virtualized Recovery Capacity Planning Data Center Optimization Green Computing
Server Discovery and Inventory	O	O	O	O	O
Data Collection	O	O	O	O	O
Microsoft Windows		O	O	O	O
Linux (Red Hat and SuSE)		O	O	O	O
Sun Solaris		O	O	O	O
VirtualCenter Integration		O	O	O	O
Physical Servers	O	O		O	O
Virtual Machines	O	O	O	O	O
Reporting	O	O	O	O	O
Inventory	O	O	O	O	O
Analysis		O	O	O	O
Charting	O	O	O	O	O
Report Scheduling and Automated Delivery		O	O	O	O
Chargeback		O	O		O
Power and Cooling		O	O		O
Virtual Machine Growth		O	O		O
Planning		O			O
Consolidation Planning		O			O
Power and Cooling		O			O
Forecasting in Charts, Reports and Plans		O			O
Implement Plans with PowerConvert		O			O
Snapshots		O	O	O	O
Import		O	O	O	O
Export		O	O	O	O
Custom Fields	O	O	O	O	O
Pricing	Per Server (Free for up to 100 servers)	Per Server Day[2]	Per VMware ESX Server	Per Server	Per Server

[1]Requires VMware Infrastructure 3.
[2]Per Server Day – Server days are the number of servers multiplied by the duration in days.
For example, 200 server days allow you to use PowerRecon on 200 servers for 1 day, 1 server for 200 days, 10 servers for 20 days, or any combination therein.

Standard Features

Remote Data Collection
PowerRecon does not require the installation of any agent software, eliminating the need to physically touch data center servers. All performance and inventory data is collected via standard OS instrumentation capabilities.

Rich Data Modeling
Make better consolidation choices based on sophisticated analysis of resources, workloads and utilization trends. Tight integration with VMware VirtualCenter provides greater visibility into your virtual infrastructure, improving data center management and operations.

Custom Report Creation and Delivery
Define resource and workload parameters and generate custom visual reports to accelerate data center assessments and server consolidations. Quickly identify consolidation candidates based on resource utilization trends and compare workload characteristics before and after consolidation. Scheduled report delivery via email or FTP ensures easy access to remote data and provides up-to-date information for decision making.

Flexible Data Capture and Export
PowerRecon data can be easily exported to a number of formats including HTML, PDF, Word, CSV, Excel or images for flexible report creation. Raw data can be extracted directly from the database and delivered to business intelligence applications for advanced statistical analysis.

Enterprise-Level Scalability
Robust data collection, analysis and planning for all servers in the network puts PowerRecon in a class all its own for large-scale data center consolidation projects. Each instance of PowerRecon can monitor up to 1,500 servers to ensure enterprise scalability for the world's largest data centers. Data can be aggregated from multiple PowerRecon data collectors for centralized data warehousing, analysis and planning or to accommodate larger enterprise implementations.

Multiple-Data Center Support
Distribute PowerRecon to different geographical locations to remotely collect data and schedule updates to a master PowerRecon installation, enabling centralized analysis and planning for initiatives like server or data center consolidation.

Flexible Chargeback Reporting
Because virtualization creates a pool of computing resources, it can be difficult to manage and monitor how virtual resources are being used and by whom. PowerRecon allows organizations to effectively allocate and share virtual resources across various business units and departmental owners. PowerRecon's flexible chargeback reporting capabilities improve virtual infrastructure management and financial accounting by allowing organizations to accurately calculate IT costs based on actual resource usage.

VM Growth Reporting
Run virtual machine growth reports to monitor the proliferation of virtual machines and avoid the administrative headaches associated with virtual infrastructure sprawl.

Planning Module Features

Planning
Automatically generate server consolidation and disaster recovery plans based on detailed workload analysis to ensure the optimal fit between server workloads and virtual resources. The ability to use forecasted data ensures that plans are built to accommodate future growth.

Workload Analysis
The PowerRecon Planning Module automatically analyzes the five critical dimensions of workload – CPU, disk, memory, network and time – across thousands of servers simultaneously, providing consolidation plans that maximize utilization while minimizing resource contention.

Scenario Modeling
Create custom scenarios with user-defined target server specifications including server templates or existing virtual machine servers to create an optimal consolidation plan.

Power and Cooling Analysis
Compare and contrast potential power and cooling cost savings and ROI derived from different consolidation scenarios. Custom fields allow power and cooling requirements for major hardware platforms to be inputted and maintained in a central database, enabling organizations to analyze and cost-justify green computing initiatives.

Time-Based Analysis
Stagger multiple workloads evenly across virtual hosts and account for hourly peaks and valleys inherent in server utilization trends.

Workload and Utilization Forecasting
Predict future workloads and resource utilization based on historical trends to better plan for server consolidation and infrastructure growth, and enable more proactive systems management. Forecasting data on CPU, disk, memory and usage trends is presented in easy-to-read charts, reports and plans.

System Requirements

PowerRecon Server
Minimum Requirements*
- Windows 2000 Server
- Windows Server 2003
- Pentium 4, 2 GHz, 2 GB RAM, 4 GB Free Disk Space
- .NET Framework v2.0 and MDAC v2.6, v2.8

Multiplatform Monitoring

Microsoft Windows
- Windows NT 4.0
- Windows 2000 Server
- Windows 2000 Advanced Server
- Windows Server 2003
- Windows XP

UNIX**
- Sun Solaris 8, 9, 10 (Sparc and x86)
- Sun Solaris 7 (Sparc)

Linux
- Red Hat 7.3, 8.0, 9.0
- Red Hat Enterprise Linux 2.1 AS/ES, 3.0 AS/ES, 4.0 AS/ES and 4.4 AS/ES
- Novel SuSE 8.0, 8.1, 8.2, 9.0, 9.1, 9.2, 9.3, 10.0, 10.1

Virtual Machines
- VMware Infrastructure 3
- VMware ESX Server
- VMware Server
- Microsoft Virtual Server
- Virtual Iron
- Xen Enterprise

*Minimum requirements are based on 1-10 servers. Requirements scale as the number of monitored servers increases.

**UNIX is supported for PowerRecon inventory, data collection and reporting (not consolidation planning).

PlateSpin provides the most advanced data center automation solutions designed to optimize the use of server resources across the enterprise. PlateSpin technology liberates software from hardware and streams server workloads over the network between any physical or virtual machine. Global 2000 companies use PlateSpin solutions to lower costs, improve service levels and solve today's most critical data center challenges including server consolidation, disaster recovery and hardware migration.

PlateSpin's patent-pending conversion and optimization technology transforms the enterprise data center by breaking the dependency between hardware infrastructure and server software. Organizations can monitor and manage server workloads to ensure the best fit between server resources and application demands. By enabling the free and flexible interchange of data, applications and operating systems with a simple drag and drop, PlateSpin brings greater flexibility and new efficiencies to the data center.

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