

Server Sprawl? Not in Your Backyard!

Convert your major metropolitan data center into a manageable suburban zone.

Administering a data center is a lot like urban planning. It's all about centralized management of real estate and community assets—without upsetting people. You want your environment to be functional, not dysfunctional. Organized, not disorganized. Compact, not sprawling. Singapore, not L.A.

So what are some of the questions you're probably asking now?

- How can I make my applications, workloads and servers agile, available and readily accessible?
- How do I organize all of my physical and virtual resources to get the most out of CPU cycles and storage as well as application and network performance?
- How do I convert my data center to a cost-effective, strategic sector of the business?

The answers are simple. Start with server consolidation. It can reduce the number of physical servers in your enterprise, and virtual ones too.

“PlateSpin complements existing Novell strengths. Novell already has very strong systems management tools in its ZENworks suite. Now PlateSpin extends these capabilities to server virtualization and the dynamic data center... Kudos to Novell CEO Ron Hovsepian and Co. on this deal.”

—Novell's PlateSpin Play, CNET NewsBlog, posted February 27, 2008 by Jon Oltsik, senior analyst at the Enterprise Strategy Group

But it's not enough to take a one-off consolidation approach. The business needs of the enterprise change all the time, and so must the data center to accommodate them. That means being able to switch from physical to virtual servers, or vice-versa, at a moment's notice. It means being able to scale up and scale out, knowing in advance the capacities and requirements of physical and virtual resources.

It also means knowing what physical and virtual servers exist, and what type of workload utilization profiles they contain, at any given time. And, for the sake of availability, scalability and agility, you need to be able to make changes on an ongoing basis to optimize your environment. It's all a matter of being in control; be the

king or queen of your castle; the master of your IT domain.

Novell can help you make it happen. Unlike any other infrastructure management company, Novell has all the pieces in place—complementary solutions when it comes to server consolidation, virtualization and data center optimization.

> Optimizing the Data Center: Putting All the (Physical and Virtual) Pieces in Place

February 25th is an important day in history. In boxing, it's the day in 1964 that Cassius Clay beat Sonny Liston for the heavyweight championship. In IT, it's the day in 2008 when Novell announced its agreement to acquire PlateSpin.

A big deal? You bet it is. In fact, it's a technical knockout for anyone interested in server consolidation (not to mention disaster recovery, data center moves and hardware migration). That's because Novell's world-class platform and automation management, combined with PlateSpin's leading solutions for workload relocation, protection and provisioning, give customers the agility to cross physical and virtual boundaries effortlessly—fostering data center efficiency like never before.

Together, Novell and PlateSpin deliver solutions for complete workload lifecycle management in the physical and virtual data center. Novell and PlateSpin synergies, coupled with existing strategic relationships the companies have with Citrix, Microsoft, and VMware, form the basis for the most comprehensive workload-management solutions on the market today. They are solutions that allow IT managers to monitor and analyze what to virtualize, then seamlessly migrate workloads as they see fit.

“As IT managers look to maximize their enterprise resources and have increased flexibility, they need tools to help them interoperate between Windows and Linux. The combination of PlateSpin's capabilities in P2V, V2V and analytical tools, combined with Novell and Microsoft's interoperable virtualization will allow customers to cross the boundaries of the physical and virtual environments with confidence.”

**—Larry Orecklin,
General Manager of Marketing, Server &
Tools Division,
Microsoft**

Completing the Workload Management Lifecycle

Novell now offers a full solution stack with a powerful virtualization platform and best-in-class tools to manage both physical and virtual assets across a heterogeneous data center. In addition to SUSE Linux Enterprise with the Xen hypervisor and ZENworks Orchestrator—an outstanding management platform to manage physical and virtual resources in a heterogeneous environment—the portfolio now includes PlateSpin’s PowerRecon, PowerConvert and Forge products. Respectively, they provide capabilities to assess and monitor which workloads are candidates for virtualization, to stream virtual and physical workloads seamlessly, and to protect workloads from unplanned outages.

> The PlateSpin Value Proposition

PlateSpin data center management software optimizes the use of server resources across the enterprise. PlateSpin PowerRecon is the industry-leading product that enables customers to analyze their IT environment as to what workloads should be on what physical platforms and virtual platforms. PowerRecon collects hardware, software and services inventories for all server workloads and remotely gathers workload utilization statistics for a clear and concise picture of how resources are being used.

PlateSpin PowerConvert offers the industry’s most robust set of capabilities for allowing IT managers to flexibly create images for those physical- and virtual-resident workloads, and to move between the various physical and virtual image types. Moreover, PowerConvert allows servers to be streamed over the enterprise network from any source to any destination, ensuring the best fit between server resource supply and application workload demands. It is the first and only solution that remotely decouples workloads from the underlying server hardware and streams them to and from any physical or virtual host with a simple drag and drop.

PlateSpin’s server consolidation solution, which combines PowerRecon and PowerConvert software, provides integrated assessment, planning, migration and testing to enable successful, risk-free server consolidations.

What’s more, only Novell offers the ability to virtualize Linux, Windows and NetWare on one common platform with world-class support for all three operating systems.

> The Novell Contribution

Like PlateSpin, Novell is blazing the trail in the field of physical and virtual workload management.

Consolidation is key. The Xen hypervisor integrated into SUSE Linux Enterprise Server can reduce your total number of servers dramatically by enabling migration of multiple workloads on different physical machines to individual virtual machines hosted on a single server.

You can deploy up to 12 virtual machines on each physical server for a 12:1 consolidation ratio. CPU utilization can increase by up to 30 percent while your space and cooling requirements drop off the charts. It’s no wonder that more than two million virtualization-ready SUSE Linux 10 servers are already on the job worldwide.

Novell ZENworks Orchestrator provides another key piece of the puzzle. It automates the management and provisioning of workloads to meet your enterprise’s constantly changing needs. When a problem arises in the data center, ZENworks Orchestrator takes action, repurposing virtual machines and migrating workloads on the fly. It also includes an integrated management model for both physical and virtual machines.

What’s more, only Novell offers the ability to virtualize Linux, Windows and NetWare on one common platform with world-class support for all three operating systems.

As a result, you gain the flexibility to reconfigure your applications and systems to increase server utilization without impacting performance.

Forget the server sprawl-perpetuating, one-application-stack-per-server data center model. Virtualization from Novell is the efficient answer.

“Helping customers efficiently deal with server sprawl to achieve a real-time infrastructure using technologies like open source and virtualization is key to our business. Unisys services and solutions expertise combined with Novell’s technology is a fundamental underpinning to creating a real-time infrastructure.”

**—Rich Marcello,
President, Systems & Technology at Unisys**

> Server Consolidation and Beyond

All by itself, in a vacuum, server consolidation is an unassailable concept. After all, there isn’t a downside to eliminating the entrenched inefficiency and unnecessary expense inherent in server sprawl. But server consolidation must be accomplished within the context of incredibly complex, mixed-IT environments. Virtual infrastructures must coexist with new and legacy physical infrastructures. Security must be impenetrable. Individuals, workgroups, departments, partners and

customers must all have real-time access to the data and applications they seek—no excuses.

And while not so long ago this may have sounded like an oppressive set of management challenges, that's no longer the case—because Novell is on the case. And, thanks to PlateSpin's coming on board, virtually (and physically!) anything is possible in the modern, mixed-IT data center. Today, Novell stands ready to help you create the next-generation infrastructure needed to power tomorrow's data center. Server consolidation is a great place to start. **N**

Novell and PlateSpin: Hand-in-Glove Product Lines

- SUSE Linux 10 outfitted with Xen hypervisor makes it possible to run Linux, Windows and NetWare-based virtual machines on a single physical server.
- PlateSpin's PowerRecon enables IT managers to monitor and analyze their IT environment as

to what workloads should be on what physical platforms and virtual platforms.

- PowerConvert lets IT managers create images for physical- and virtual-resident workloads, and to move fluidly between the various physical and virtual image types.
- ZENworks Orchestrator adjusts automatically to changes in your business environment. When demand is high, it launches new virtual machines to satisfy need. When demand drops again, it can deprovision those machines and use the resources elsewhere. In addition, it automates PowerRecon's workload profiling and analysis and PowerConvert's workload portability capability.

Bring it all together and you get a finely tuned, fully interoperable and heterogeneous data center management capability that allows you to use the technologies you have and like—the hardware, operating platform, hypervisor, applications—to their greatest advantage.