Leveraging Virtual Private Servers

Boosting performance and decreasing operational costs for enterprise applications

A ONENECK IT SERVICES CASE STUDY

OneNeck® IT Services

Virtualization is one of today's hot IT topics and will continue to gain popularity as a viable alternative to companies hosting and managing their own physical IT infrastructure. Why should this trend matter to your company? Virtualization has the ability to enhance operations, increase service availability to end users, dramatically decrease turnaround time on new server deployments and simplify disaster recovery plans all while significantly reducing IT capital spend.

Virtual Private Servers (VPS) uses virtualization to partition a single server so it appears as multiple servers. It bridges the gap between shared hosting and dedicated hosting and allows customers to have an independent solution at a lower cost than deploying physical, dedicated servers. VPS is often the first step companies take toward virtualization and cloud computing.

Key Aspects of the OneNeck VPS Solution

By leveraging industry leading virtualization software, OneNeck partitions one physical server into multiple servers so each has the appearance and capabilities of running on a dedicated platform. Each virtual server runs its own operating system and can be independently rebooted. With administrative-level access, companies can install almost any software that runs on the OS, as well as perform system maintenance.

OneNeck's VPS solution delivers resources, applications and servers when and where they're needed. Instead of buying costly, individual servers, businesses access the OneNeck infrastructure for capacity on demand. Companies can ramp up IT operations to deploy new applications or respond to changing market conditions.

Designed to meet every critical demand of today's IT organizations, OneNeck's VPS solution:

- Creates an efficient, dynamic IT environment for companies.
- Provides the hardware, virtualization software, switching infrastructure, SAN infrastructure along with a System Availability Service Level Agreement of 99.99%.
- Allows businesses to choose the number of virtual processors, the amount of allocated RAM and the amount of allocated disk space via OneNeck's shared SAN environment.
- Eliminates purchasing requirements and capital expenditures.
- Lowers costs of deployment and management since companies pay only for what they need.
- Accelerates turn-up without waiting for rack and stack or equipment shipments.
- Keeps pace with an organization's strategic initiatives by quickly scaling to changing business requirements.
- Facilitates IT operations and does not hinder a company's revenue-generating projects.
- Provides access to best-of-breed IT infrastructures so businesses can take advantage of a world-class environment.
- Speeds time-to-market for a company's products and services.
- Protects businesses with a high-availability environment and advanced levels of security by preventing data losses from infrastructure failures.
- Enables customized solutions to each company's specific situation.
- Requires no hardware support contracts, spare parts or hardware life cycles to manage.
- Creates an energy efficient technology – VPS is considered a greener choice.

A VPS solution is suitable for companies of all sizes and most applications. Smaller customers can leverage VPS for their complete IT infrastructure. Larger enterprise customers often find it useful to leverage VPS in a hybrid fashion or as a point solution. However, VPS may not be appropriate for every application environment. Applications requiring real-time CPU access or intensive disk I/O may be better suited on a dedicated platform. With thorough analysis of a company's business, OneNeck customizes the most appropriate and benefit-producing solution for each customer.

Feature Comparison

The table below provides insight into how OneNeck's VPS solution compares to a dedicated hardware scenario.

Feature Comparison	OneNeck VPS Solutions	Dedicated Hardware
Costs	No Capital Expenditure. Systems can be tailored to fit application and performance needs.	Dedicated server hardware requires capital expenditure. Current hardware offerings typically require customers to over-buy hardware and waste resources.
Infrastructure	Infrastructure is built in; no need to pay for LAN, SAN, rack or power.	Requires separate LAN, SAN, rack and power infrastructure.
Deployment	Reduces both time and effort required to deploy. With the OneNeck VPS platform, new servers can be brought up in a matter of minutes in many cases.	Extended deployments due to hardware vendor lead times. Requires resource time to "rack and stack" new server hardware.
Recovery Time Objective (RTO)	High Availabiltiy (HA) VPS. Provides cost effective, automated restart within minutes for all applications in the event of hardware or operating system failures. High Fault Tolerance (HFT) VPS. Provides continuous availability without any data loss or downtime to any application.	Typical dedicated hardware failure takes four or more hours for vendor repair. High Availability on dedicated hardware requires an investment in secondary hardware equipment. High Fault-Tolerance on dedicated hardware also requires expensive, complex server clustering technologies that may not support your applications.
Recovery Point Objective (RPO)	Uses virtualization technologies that may offer many flexible DR options than dedicated hardware.	Dependant on traditional DR methodology.

Customer Successes with VPS

Real company scenario #1: Before outsourcing, company #1's success depended on 24/7 availability of its scheduling, CRM and communication systems. In the event of a major production failure, company #1 needed redundancy, reliability and geographic diversity in these systems. Specifically, the disaster recovery solution required the following:

- Replicating and validating proprietary data with aggressive RTO and RPO targets.
- A disaster recovery environment that could connect with its existing nationwide MPLS WAN — automated failover and routing was critical so remote sites have infrastructure access.
- Adequate IT resources to operate a 24/7 environment in the event of a disaster — without putting a drain on the company's finances.

After selecting OneNeck, company #1 moved its infrastructure to OneNeck's VPS environment. OneNeck duplicated company #1's production infrastructure in its Tier 3, SAS70 Type II backed operational facilities and now maintains it on-site 24/7. Prior to OneNeck, this type of disaster recovery environment would have been inaccessible for company #1. Other significant advantages company #1 experienced include:

- OneNeck's VPS infrastructure provides a low cost, scalable and flexible infrastructure for company #1 without the need for hardware life-cycle management. VPS keeps company #1's capital costs for its disaster recovery infrastructure at a minimum.
- An investment in disaster recovery would be useless without replicating critical data from production to the VPS environment. OneNeck provides aggressive RTO and RPO times by using solutions such as SAN, VM and file level replication.
- MPLS WAN connectivity allows company #1's remote offices to effectively access the VPS environment in the event of a production failure. OneNeck provides a carrier neutral environment and cross-connects from the telecommunications demarc to company #1's hosted VPS environment. Should a production failure occur, company #1's systems are accessed over the MPLS network via the additional MPLS link at OneNeck's data centers.

Bottom Line Impact: Company #1 has a partner to help create, monitor and maintain a more robust disaster recovery environment. By migrating to OneNeck's data center, company #1 saved approximately 50% over a dedicated disaster recovery environment with dedicated servers.

Real Company Scenario #1	
Before OneNeck	**After OneNeck**
Crucial IT requirements: • System redundancy, reliability and geographic diversity • Aggressive RTO and RPO targets • Automated failover and routing for remote sites • Economical 24/7 operations in the event of a disaster	Crucial IT solutions: • Infrastructure duplication and migration to OneNeck's data center • On-site 24/7 management • Low cost, scalable infrastructure • No hardware life-cycle management • MPLS WAN connectivity • A more robust disaster recovery using VPS
Savings of Approximately 50%	

Real company scenario #2: Before outsourcing to OneNeck, company #2 faced a tough balancing act: developing new products for its 10,000+ application users while keeping the internal IT operations running round-the-clock. As a Web-based solution provider, company #2 had no choice but to prioritize server management — and that left little time for product development. Any system downtime meant lost revenue and angry customers. Company #2 had to establish a reliable environment that customers could access and monitor their assets anytime, anywhere.

After company #2 partnered with OneNeck, it deployed an innovative VPS solution. Bridging the gap between shared hosting and dedicated hosting, VPS allowed company #2 to have an independent solution at a lower cost than deploying physical, dedicated servers. With VPS, OneNeck can deliver resources, applications and servers when and where company #2 needs them. For this solution, OneNeck provided the hardware, VMWare licensing, switching infrastructure, SAN infrastructure, 24/7 monitoring and a Service Level Agreement of 99.99% for a capacity-on-demand infrastructure.

Bottom Line Impact: By using shared hardware, company #2 doesn't have to lease or purchase physical servers. They pay only for what they need. OneNeck's VPS solution lowers administration costs and reduces capital expenses by eliminating the need to procure hardware, rack mount hardware and provision networking devices.

Real Company Scenario #2	
Before OneNeck	**After OneNeck**
Crucial IT requirements: • Focus on business goals and product development instead of IT infrastructure management • Round-the-clock IT operations • Reliable environment with minimal system downtime • Asset monitoring anytime, anywhere	Crucial IT solutions: • VPS bridges the gap between shared and dedicated hosting • Lower costs vs. physical, dedicated servers • Resources delivered when and where needed • SLA of 99.99% • Capacity on demand
Lower Administration Costs and Capital Expenses	

Real company scenario #3: Before outsourcing to OneNeck, company #3 was challenged with critical IT requirements that needed to be met. The company required adequate IT resources at its disposal to operate a 24/7 environment — the appropriate technical knowledge, the most advanced technology and responsive support staff around-the-clock. Additionally, these resources could not put an inordinate drain on the company's finances or detract from its purpose of outfitting and protecting the USA's elite military, federal agencies and law enforcement personnel.

After company #3 added OneNeck to its team, its in-house infrastructure was migrated to OneNeck's data centers. OneNeck hosts and manages company #3's physical and virtual cloud-based servers, software and web-based applications. Specific services are guaranteed by OneNeck's 99.99% service level agreement.

Bottom Line Impact: ***Company #3 now houses its IT infrastructure in a data center that meets the stringent requirements for Tier 3, SAS70 Type II backed operational facilities. OneNeck's VPS infrastructure provides a flexible infrastructure without the need for hardware life-cycle management.***

Real Company Scenario #3	
Before OneNeck	**After OneNeck**
Crucial IT requirements: • 24/7 environment • Technical expertise and advanced technology • Round-the-clock support • Reasonable costs	Crucial IT solutions: • Migrated in-house infrastructure to OneNeck data center • Uses physical and cloud-based servers, software and web applications • 99.99% SLA
Flexibility and No Life-Cycle Management	

Summary

VPS represents a fundamental shift in computing. It provides a platform for flexible, cost-efficient business applications and IT infrastructure. When evaluating VPS solutions, companies should consider the following in great detail:

How secure is the solution?

Companies must identify which aspects of their business will be moved to a VPS solution. OneNeck helps its customers analyze and assess data, infrastructure and application requirements to determine what's best suited for migration to VPS. By providing an army of security functions — from antivirus software to intrusion protection to vulnerability assessments — companies no longer have their information assets in harm's way. With OneNeck's VPS solutions, businesses can be 100% confident vital information is not only secure, but expertly backed up and stored. OneNeck's data center and skilled experts give companies the comfort of knowing their assets are safe 24/7. Most importantly, the VPS solution provides minimal interruption in the event of an equipment failure. The virtual server will be automatically switched over to another virtual server, dramatically increasing the uptime and stability of a company's network.

How fast can you scale operations?

VPS makes perfect sense in situations where companies need to grow in increments or to scale up and down to meet the peaks and troughs of customer usage. OneNeck's VPS quickly scales to a company's business requirements and helps it keep pace with strategic initiatives. Resources will be available when needed so IT operations do not hinder revenue-generating projects. Businesses gain access to best-of-breed technology and a world-class environment quickly and effortlessly.

How much time and money will your company save?

By using shared hardware, businesses don't have to lease or purchase physical servers. They pay only for what they need. In addition, companies experience minimal time to roll-out or build a new server instance. OneNeck's VPS solution eliminates the need to procure hardware, rack mount hardware and provision networking devices. Plus, VPS solutions reduce overall IT costs by providing a fixed, predictable spend for infrastructure needs. Companies no longer deal with the variable costs associated with dedicated physical assets.

How much virtualization expertise do you have in-house?

If a business doesn't have the skills, time or desire to mess with provisioning or managing a virtualized infrastructure, outsourcing to OneNeck is the way to go. OneNeck provides advice and guidance to help a company improve its business capabilities and helps create, monitor and maintain a more robust IT environment. OneNeck not only hosts a company's infrastructure, but manages it with leading expertise, advanced technologies and significant cost efficiencies.

High levels of security, scalability, cost savings and expert service are inherent to the OneNeck VPS solution. These major benefits are what make VPS appealing to businesses. With OneNeck's VPS, companies get the best of virtualization combined with the best of managed hosting.

OneNeck® IT Services

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