VIRTUAL PRIVATE CLOUD FOR ENTERPRISES
DEFINITION

Virtual Private Cloud (VPC) is an on demand configurable pool of shared computing resources allocated within a public cloud environment, providing a certain level of isolation between the different organizations using the resources.

The isolation between one VPC user and all other users of the same cloud is achieved normally through allocation of a Private IP Subnet and a virtual communication construct per user. In a VPC solution, the previously described mechanism, providing isolation within the cloud, is accompanied with a VPN function that secures, by means of authentication and encryption, the remote access of the organization to its VPC cloud resources.
In aggregate, 44% of IT budgets are spent on cloud computing today, increasing to 51% by 2015 in the base of enterprises interviewed for the study.


Platform-as-a-Service (PaaS) will attain a 41% CAGR through 2016, generating 24% of total cloud revenues.

Source: the451, 2013
Public Cloud Services Spending Forecast, 2Q12 Update

- New public cloud services forecast includes new segmentation:
  - 5 segments, 28 subsegments
  - 10 regions, 20 countries
- Cloud advertising (part of BPaaS) dominates the cloud forecast at 48% of the total
- 2012 cloud growth areas:
  - IaaS — compute and storage
  - Cloud management and security — IT operations management
  - PaaS — DBMS
  - SaaS — Office suites and enterprise content management

Public Cloud Services Growing Strongly, but Still Only 5% of Overall IT by 2016

Source: Public Cloud Services Forecast, 2Q12 Update

Source: IT Spending Forecast, 3Q12 Update & Public Cloud Services Forecast, 2Q12 Update
CUSTOMERS

Small, Medium and Large enterprises that need a dedicated cloud environment
• First-time strategic cloud users
• Cloud customers that are reluctant to use another cloud vendors due to rising cost/lack of flexibility
• Customers that value Jelastic’s flexible pricing, dynamic scalability and no vendor lock-in attributes

Virtual Private Cloud adoption in
• Financial Services – 64%
• Healthcare – 47%
• Manufacturing – 40%
• Retail – 37%
USE CASES

• **Test, acceptance, and occasional usage** – testing out different kinds of products for evaluation or acceptance purposes

• **Education** – enables organizations to offer fine grained cloud access and single-sign-on for their teachers, students and researchers

• **Scalability** – applications that require occasional computing power, or computing power with uncertain upfront resource demands

• **Backup in the cloud** – resilience by storing duplicates, which allows for recovery when one (or even multiple) copies of a data object are lost
PRIVATE CLOUD OPTIONS
VIRTUAL PRIVATE CLOUD (VPC)
MANAGED VIRTUAL PRIVATE CLOUD (MVPC)
CASE STUDIES
DataJoe, LLC develops technology products for business and trade journals, including research tools, e-commerce applications, data-to-print utilities and an online marketplace of locally-collected industry research.

DataJoe chose Jelastic Platform-as-Infrastructure over OpenShift Enterprise for the following reasons:

**EASE OF MANAGEMENT**

“One of the largest gains we are experiencing, and a key reason for adopting private cloud is the ease and speed of server creation and deployment. The short version is I am minutes from new server deployment instead of weeks.”

**4-5X PERFORMANCE**

"Ramping up from 1 request per second to 1000 requests per second, over the course of 5 minutes, our old system started choking around 300 requests/second and by the end of the test it was taking something like > 90s per request to return and the failure rate was way too high. In the new system, response times started slowing around 600-800 requests per second but, if I remember correctly never exceeded.

**UNIQUE SCALABILITY**

"I chose Jelastic first and foremost for the ability to scale both vertically and horizontally. At this stage, I think you might still be the only player offering dynamic vertical scaling.”

**HIGH AVAILABILITY**

“Worst case scenario recovery used to be a matter of hours of downtime. Now Clustering/HA is already a reality and the failure rate is almost non-existent.”
An ERP Provider in the UK provides CRM-as-a-Service to large, medium and small enterprises. Each customer uses their software on a subscription basis. For this vendor, server density, availability, and price/performance are critical.

ERP Provider chose Jelastic Platform-as-Infrastructure over VMware for the following reasons:

**TCO**
Jelastic’s subscription model delivers a scalable, available cloud at 10% of the cost of VMware when comparing TCO over 3 years.

**SCALING/DENSITY**
Automatic vertical and horizontal scaling provide the optimal use of resources for the ERP application. Allocating exactly the resources required for each customer depending on that customer’s load at the time maximizes server density and lowers cost.

**AVAILABILITY**
The ERP application needs to be available 100% of the time. Jelastic’s cloud solution provides clustering, scaling and simple management to ensure uptime. In addition, software availability features like isolated containers and intelligent session replication ensure the best availability at the app level.

**PERFORMANCE**
Jelastic’s Platform-as-Infrastructure has doubled performance for this application over the first few months of implementation without significant tuning.
EXAMPLES ON THE MARKET
Amazon Virtual Private Cloud (Amazon VPC) lets you provision a logically isolated section of the Amazon Web Services (AWS) Cloud where you can launch AWS resources in a virtual network that you define. You have complete control over your virtual networking environment, including selection of your own IP address range, creation of subnets, and configuration of route tables and network gateways.

http://aws.amazon.com/vpc/
What is a private cloud?

A private cloud is a scalable cloud environment providing the agility and efficiency of a public cloud, built on infrastructure dedicated exclusively for your organization. It can be hosted in your own data center, in a partner data center, or at Rackspace.

Private clouds are ideal when you need to accelerate innovation, have large compute and storage requirements, or have very strict control, security, and compliance needs.

We offer a complete open-source package, Rackspace Private Cloud Software, that you’re welcome to use at no cost. And to help make your private cloud deployment successful, we’re here to help: we offer a training and certification program, managed services, and support options to help you as you build your private cloud.

http://www.rackspace.com/cloud/private/
HP Helion Managed Virtual Private Cloud

High levels of automation and availability to run your critical business applications in our secure managed cloud

Manage and secure your cloud environments with us

Our managed Virtual Private Cloud provides infrastructure services without the high cost of owning and managing your own equipment or data center. This multi-tenant platform is designed and built for the enterprise, so your high-end applications like SAP and Oracle can be deployed in a secure cloud environment. In addition, management services for HP AppSystems for SAP HANA are available giving you unprecedented access to real-time data analytics while removing the complexity of redundant data and systems.

What's new

- Automate, Orchestrate, Transform: 9Lease CEO Edwin Miller discusses his company's move to the Cloud
- HP Enterprise Cloud Services Selected for USPS Federal Cloud Credential Exchange
- HP Achieves FedRAMP JAB Security Authorization
- HP releases cloud security report

Private Cloud Solutions

Private Clouds
Put your own cloud in the sky.

Cloud too crowded for you? Then build, manage, and have total control over a cloud of virtual servers that’s all your own. SoftLayer bare metal servers provide the ideal, scalable, secure, high-performance infrastructure for running the virtualization technology of your choice, letting you create virtual servers on your own terms and systems. With complete control over your solution, you’ll get reliable, consistent performance along with unprecedented scalability.

Avoid Noisy Neighbors
In public cloud environments, resources are shared among multiple customers. You have guaranteed access to compute and storage resources, but if someone else on your public cloud node is consuming their

http://www.softlayer.com/private-clouds
Managed Private Cloud Hosting

Private clouds have a compelling value proposition for today's businesses. Compared to the traditional approach of purchasing, provisioning and managing a physical environment, Cloud Private offers state-of-the-art equipment, enhanced security, improved back-up options, and manageability. A private cloud allows companies to leverage lower price-points associated with virtualization without placing their infrastructure in a shared environment. Avoid the economic impact of downtime that may occur during system upgrades or hardware failures with a private cloud solution.

What's more, our managed solutions include technical support by HOSTING's superior 24 x 7 Support team. Pool resources across the company; move workloads seamlessly between physical servers; lower operational costs; and avoid upfront capital expenses with a Cloud Private

Related Resources
- Webinar: Closing the Cloud Gap
- Whitepaper: What Cloud Computing Means to You: Efficiency, Flexibility
- Webinar: Planning for the Cloud

Managed Private Cloud
Run your mission-critical applications on a Managed Private Cloud powered by VMware®.

Managed Private Cloud
The overall promise of cloud computing is extremely compelling for businesses. It delivers unprecedented flexibility and scalability in a pay-only-for-what-you-use utility model, ensuring that you’ll get exactly the infrastructure you need when you need it. But as compelling as the cloud is, the hidden and obvious risks to your organization are legion.

http://www.peer1.com/hosting/managed-private-cloud
The differences between the first generation of virtual private clouds that are being sold by competitors and our solution are mostly related to differences between IaaS and PaaS because the current virtual private cloud offers are based on OpenStack or VMware vCenter.

Jelastic virtual private cloud is bringing together the flexibility of IaaS and the ease of use of PaaS in a turnkey package for Enterprises. And it supports both ‘worlds’ – legacy apps and innovative technologies.
JELASTIC VS. VMWARE

- **VMware vCloud Suite**
  - Enterprise-class IaaS-only: no PaaS
  - Excellent DR
  - Expensive
  - Complicated

- **Jelastic Platform-as-Infrastructure**
  - PaaS + IaaS
  - Simple installation: entire stack is turnkey
  - Simple management of cloud
  - Self-management of dev environments
  - No code changes for any apps
  - Granular auto-scaling
  - Better performance (containers)
  - At least 30% better density
  - TCO savings of 90%+
  - Application lifecycle management features
JELASTIC VS. OPENSSHIFT/OPENSTACK

- **OpenShift/OpenStack**
  - OpenStack IaaS + OpenShift PaaS
  - Open Source Community offering – over 17 different OpenStack distributions available
  - Complicated – requires third party implementation/integration/support
  - Lego – building block approach to cloud

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  - No code changes for any apps
  - Granular auto-scaling
  - Better performance (containers)
  - TCO savings of 50%+
  - Application lifecycle management features
Jelastic can be installed on top of Google Cloud Compute Engine as Virtual Private Cloud.

At the same time enterprises have the same version of Jelastic Private Cloud on-premise.

100% compatibility between private and public clouds, and full automation for easy migration between the clouds.
For more information: rs@Jelastic.com