



The Benefits of Cloud Computing to the E-Commerce Industry

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A whitepaper on how hosting on a cloud platform can lower costs, improve productivity and stability and remove issues around scalability.

INTRODUCTION3

DEFINING A CLOUD SERVICE.....3

WORLDWIDE PUBLIC IT CLOUD SERVICES* SPENDING (\$B) BY OFFERING CATEGORY4

BENEFITS TO E-COMMERCE5

CONCLUSION.....6

ABOUT VIRTUAL INTERNET.....6

REFERENCES6

INTRODUCTION

Within 10 years, 80% of all computing, storage, and e-commerce done worldwide may take place in the cloud predict analysts, in what's been termed the third phase of Internet computing in the modern era.¹

This paradigm shift highlights the rising supremacy of cloud computing and mobile devices in reshaping where and how information (and applications) is accessed.¹

The first phase of computing combined software and operating systems into one terminal allowing basic communication through devices such as email. The second phase allowed the user to connect to the World Wide Web containing millions of websites, which in the mid-1990s saw Internet usage increase 100-fold in just two years.

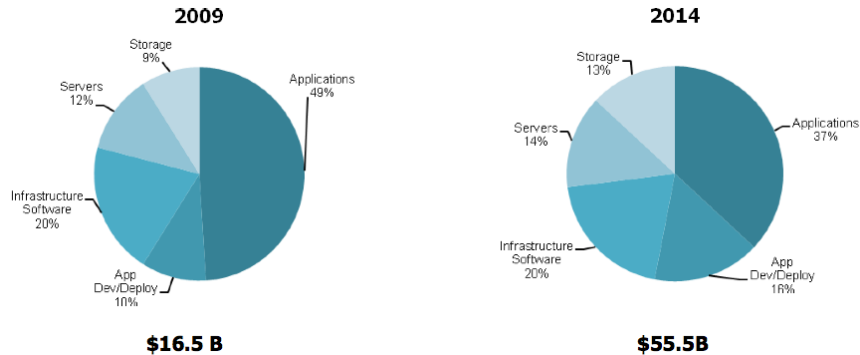
In the present third phase, everything will live in the cloud – including your data and software. Further, by 2020, there could be in excess of 100 billion devices and sensors accessing these remote data centers in the cloud. Only a small amount, approximately 1.4 billion, will be personal computers.

The progression away from the mainframe to personal computers is now being superseded by the dual arrival of the Smartphone and cloud computing. In each step the underlying structure of computing has become more distributed. This has profound implications for how consumers, vendors and suppliers will interact inside the e-commerce channel over the next decade.

DEFINING A CLOUD SERVICE

The term “cloud computing” has been hotly contested, drawing both derision and praise from different sectors of the I.T. community. At its core, the term refers to the outsourcing of data centers and application services to a remote provider under a pay-as-you-go contract. This “metered” approach lowers costs and reduces complexity, simultaneously allowing the business to consume additional services “on-demand”.

WORLDWIDE PUBLIC IT CLOUD SERVICES* SPENDING (\$B) BY OFFERING CATEGORY



Source: IDC, June 2010

*Includes spending on Applications, Application development & Deployment Software, Systems Infrastructure Software, Server capacity and Storage capacity provided via the public Cloud Services delivery model

This virtualization of server infrastructure -- sharing one server as if it were several -- allows for huge cost savings and economies of scale.²

Hybrid models are also possible whereby a business may build its own private cloud and temporarily access additional public cloud services if it so requires. An example of this could include an e-commerce site, which leverages further cloud services to deal with the effects of a successful social media campaign without having to upgrade its infrastructure.³

In many cases setting up hybrid clouds will require a customized solution, which is a service that is provided by Virtual Internet.

However, the term cloud computing does have further meanings in addition to those defined above. These include Software as a Service (SaaS), Platform as a Service (PaaS), and Infrastructure as a Service (IaaS).

In simple terms, SaaS refers to an end user accessing a remote product or e-commerce service over the Internet. These could include a remote CRM such as Salesforce or a data center offered by Amazon Web Services.

PaaS is geared towards developers who wish to deploy applications in the cloud and don't want to get involved with the server infrastructure. The Google apps store is an example of this.

The final version, IaaS, allows developers maximum interaction with the underlying server infrastructure including, but not limited to, deploying back-office applications on that remote environment.⁴ As of 2010 the SaaS model is the most dominant and widespread cloud variant in the marketplace.

BENEFITS TO E-COMMERCE

Trust

One of biggest challenges facing e-commerce pioneers in the early days of the web turned out not to be a technical problem, but a human one: Trust.⁵

It took time to build trust into their networks and establish a set of online credentials that made buyers feel comfortable initiating an online purchase.

With the advent of cloud computing, existing businesses and startups can immediately leverage the trust built into established cloud systems such as Google, Amazon and Salesforce. A business can now point out to its customer base that their technical platform is managed and secured by the best cloud engineers in the world.

Cost Savings

Cost is generally one of the primary reasons for moving a business application or data center to the cloud. While there may be a low cost associated with developing and deploying an e-commerce application, the parallel need for hardware and bandwidth may turn out to be expensive.

Generally, a cloud-based initiative on a virtualized server may save a company 80% of the costs normally associated with a traditional e-commerce roll out. ⁶

Speed

A company may be able to roll out an e-commerce application five times faster than before and begin selling immediately on the remote platform.

Scalability

Often referred to as “elastic”, these cloud services allow a business to scale quickly and support seasonal spikes in demand or those triggered by special promotions.⁸

Security

Securing applications, physical facilities and networks is a critical consideration. Many cloud vendors complete third-party certifications, including ISO 27001 and SysTrust audits. Further security measures are implemented at the application, facility and network levels including data encryption, biometric screening of personnel and certification through third-party vulnerability assessment programs.⁷

Interoperability

The explosive growth in cloud ecommerce offerings in the next

few years will also see an increase in the ability to share information between clouds and communities of clouds. Leading-edge cloud vendors will offer a standards-based framework, which allows programmatic access for users, partners and others who want to leverage additional functionality from within the cloud.

CONCLUSION

The term cloud computing is no longer an industry buzzword and signals a transformational shift in how business data and e-commerce applications will be stored, accessed, shared, and transacted online.

In tandem, mobile applications and services will be provisioned from the cloud offering a myriad of ways for the end user to engage e-commerce operations.

The arrival of cloud computing is in many respects equivalent to arrival of the Internet in the 1990s and fulfills the maxim prophesized by Google CEO, Eric Schmidt in 2006, when he declared “the network will truly be the computer.”⁸

Whether you are looking for a private or public cloud service to host your e-commerce solution, Virtual Internet is a service provider that has the existing infrastructure, accreditations and skills to supply the service.

ABOUT VIRTUAL INTERNET

Virtual Internet (VI) specializes in high availability managed hosting for mission critical websites and applications. VI has been providing unparalleled hosting solutions and support services for a diverse mix of clients from within the public and private sectors since 1996. VI’s technology and support infrastructure allow their highly qualified engineers to continually exceed customer expectations, freeing internal IT resources to focus on projects directly related to an organization’s core competency. For more information, visit www.vi.net

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