How auroCLOUD
Eliminates Cloud Lock-In

Cloud computing today is significantly improving enterprises and business IT speed, agility and costs. However, companies fear technology "lock-in" when engaging proprietary public clouds and it has become increasing difficult to switch clouds or hosting providers platforms due to enterprise size and scale and continues to discourage many large corporations from realizing the benefits of the public cloud. This document discusses the typical lock-in enterprises face with traditional cloud computing and how auroCLOUD's Public Cloud built on the OpenStack open-source platform can help eliminate that concern by utilizing the leading open source cloud operating system and delivering an elastic cloud that provides true cloud computing with integrated compatibility with other public clouds.

The Enterprise Cloud Today

As enterprise cloud adoption continues to grow at increasing speed, organizations are beginning to see the increase in productivity and cost savings that derive from moving off an on-site legacy system to a distributed cloud environment. With that, there are several trends that have been shaping the cloud market. One of which has proven that OpenStack-based clouds are on the upswing, as quantified by eWEEK during a recent survey.

IT vendors, analysts, IT data centers and systems managers told eWEEK that hybrid cloud (both public and private cloud environments) is the flavor they expect will ultimately be used most often within enterprises in the years to come. It does seem logical since enterprises—especially those with older systems—refresh their IT on a continual basis, and recently they have begun swapping out services previously hosted in-house and are changing over to public cloud services for various workloads, with the intent to save money and employee time. This directly results in an IT system with a hybrid mix of on-site, public and/or private cloud components.

Similarly, the research showed that cloud services have been replacing former in-office functions, such as employee recruiting management, testing and development of software, travel and expense management, and employee benefit management. More and more consumer-facing apps—including for online payment, event and product sign-ups and other services—run on public clouds like auroCLOUD and other leading services, which are also being built into older systems.   With all of the changes, companies are continually evaluating services to identify the best cloud environment that matches their existing and new business requirements for cloud computing.   In reviewing this, the customer needs to first consider the types of clouds that are available and then how vendor lock-in could possibly impact their business and eliminate the cost savings, efficiencies and innovation that they are looking for.

How auroCLOUD
Eliminates Cloud Lock-In

Types of Cloud Computing with auroCLOUD

The industry has appropriated the term "Cloud" to span many different hosting and even internal virtualization solutions. As a general review, we will use the following definitions for "cloud" to differentiate the various cloud environments.

- Public Cloud – is an off premise service delivered in a multi-tenant environment that enables users to purchase and consume cloud resources immediately.
- Private Cloud – single tenant virtualization service that is hosted either off premise or located on site.
- Dedicated Server – single tenant systems that can utilize virtualized and non-virtualized computing.
- Hybrid Cloud – the ability to mix different cloud services like public and private clouds into a flexible hybrid environment.

Each of these solutions and their hybrid mixture has its own advantages and limitations, making some solutions more appropriate for different use cases. When looking at auroCLOUD's Public Cloud, it offers the most leverage and greatest flexibility to enterprises including the ability to integrate different cloud flavors through a single cloud management panel that includes Hosted Private Clouds and On Premise Clouds. This allows users to easily address security, privacy, compliance and other risks as well as avoiding the up-front and ongoing capital investments for enterprises. Finally, as a mixed solution, Hybrid Hosting offers the elasticity of cloud computing along with the security of dedicated servers, providing the ability to further optimize the use of computing resources, even within a single application.

Cloud Lock In – Does it exist?

auroCLOUD can quickly resolve four major issues that enterprise IT environments face today: reliability, availability, scalability and affordability. Its speed, agility and cost allow enterprises to increase capacity in real-time without investing in new infrastructure, training new and existing personnel, and licensing new software.

While we hear from our startup and enterprise customers that auroCLOUD is the platform for their applications and websites, we commonly encounter the general misconception that all public clouds require vendor lock in. For example, if you are running on Amazon Web Services, your workloads are strictly confined to the Amazon platform. This is important as closed platforms can reduce your flexibility and ability to innovate. The industry refers to this phenomenon as "lock-in." By using a hosting company's proprietary system or a vendor's proprietary virtualization platform, switching to another
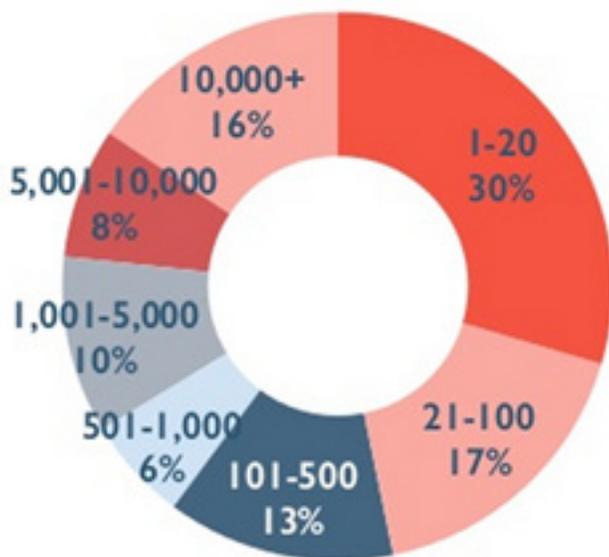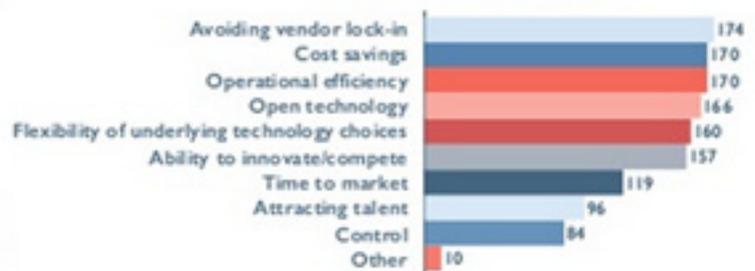
provider or platform often becomes too expensive, difficult and time-consuming that enterprises instead remain locked in to their existing providers, reducing bargaining power and, therefore, the ability to seek greater value. A recent survey revealed that the number one business driver ahead of efficiency and cost savings was avoiding vendor lock-in.

DEPLOYMENT SURVEY

Organization Size (employees)

- 10,000+ 16%
- 5,001-10,000 8%
- 1,001-5,000 10%
- 501-1,000 6%
- 101-500 13%
- 21-100 17%
- 1-20 30%

Business Drivers

Driver	Value
Avoiding vendor lock-in	174
Cost savings	170
Operational efficiency	170
Open technology	166
Flexibility of underlying technology choices	160
Ability to innovate/compete	157
Time to market	119
Attracting talent	96
Control	84
Other	10

Stage of Deployment

Stage	Value
Dev/QA	210
Proof of Concept	218
Production	209

Enterprises fear lock-in because they are concerned first and foremost about integrating with their existing computing resources. They need an IT model that can easily plug into the legacy systems, hardware components, existing work flows and software applications they have built up over years. Thus, a cloud computing solution that helps move enterprises toward open federation while remaining portable and easy to implement is paramount to CEOs, CFOs, CIOs and other IT executives.
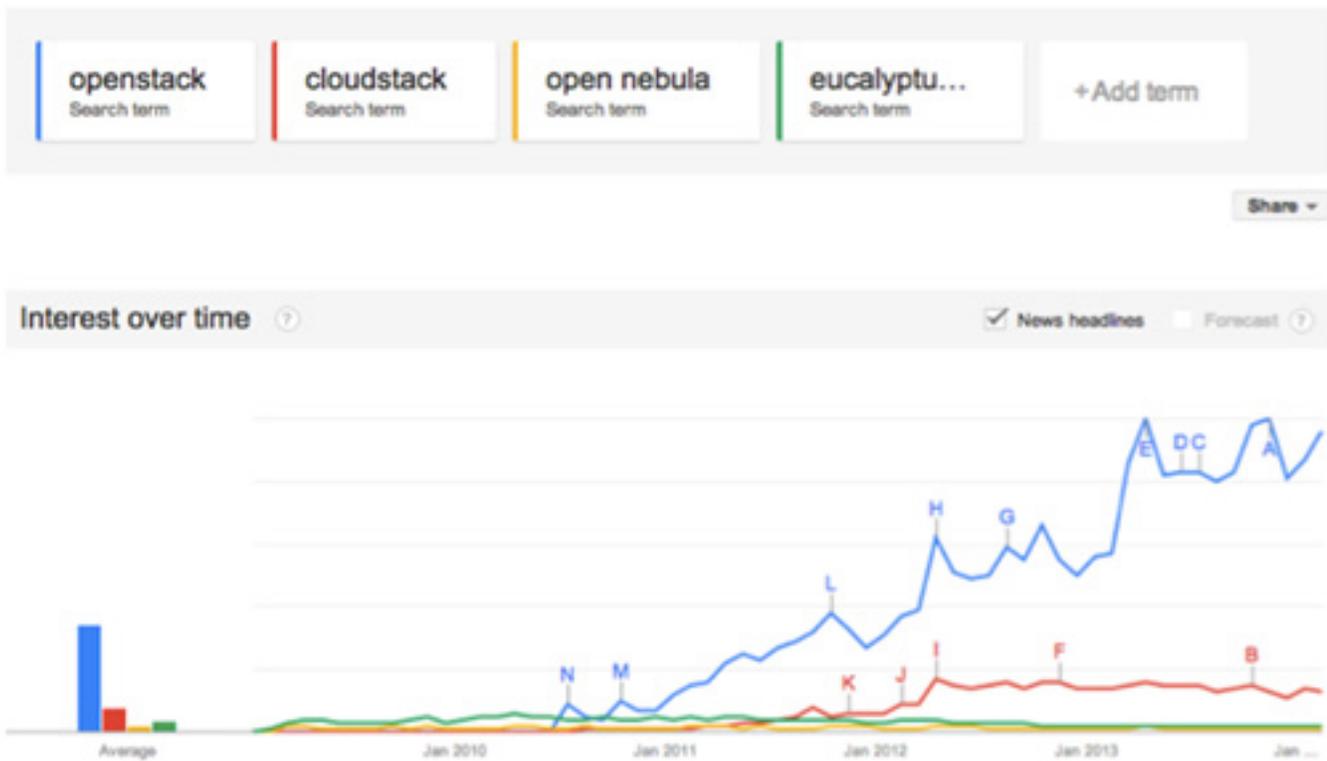
How auroCLOUD
Eliminates Cloud Lock-In

auroCLOUD
a Canadian Web Hosting Company

auroCLOUD Solves Vendor Lock In

So, how does auroCLOUD avoid vendor lock-in and provide true flexibility to its users? One word – OpenStack. The OpenStack Project was created to resolve the enterprise hosting issue of lock-in and promote federation. Its mission is "to produce the ubiquitous open-source cloud computing platform that will meet the needs of public and private clouds regardless of size, by being simple to implement and massively scalable." The OpenStack cloud operating system has effectively created an orchestration standard that allows enterprises to "architect once, deploy anywhere." **The open-source model makes it much easier for an enterprise to adopt and maintain cloud computing by eliminating the time, difficulty and expense of redesigning IT applications.** In contrast to proprietary platforms such as Amazon Web Services and the limited functionality of VMware, the OpenStack platform alleviates lock-in by allowing enterprises to build for a single platform that will run in public clouds or private clouds.

Because of this, OpenStack continues to be a buzzword in the cloud industry and OpenStacks leadership position and interest greatly exceeds any other open source platform. A recent article in Gigaom, demonstrated that position and shows how OpenStack compares to other vendors.

How auroCLOUD
Eliminates Cloud Lock-In

That success is due to the fact that the OpenStack platform is intended for corporations, service providers, VARs, SMBs, researchers and those looking to deploy small to large scale cloud deployments. Though organizations of all sizes will realize its' benefits, OpenStack provides perhaps the largest impact is at the enterprise level. Companies like Wells Fargo, PayPal, Ericsson, MIT and the GAP have already found success with OpenStack. The reason for this is that enterprises and organizational IT departments are seeking more cost-effective, flexible and productive computing, OpenStack represents an incredibly powerful business tool by abolishing vendor and technology lock-in.

auroCLOUD and OpenStack?

With auroCLOUD, and unlike most other vendors, the goal has been to take OpenStack and build a highly scalable, reliable public cloud that maintains fidelity with other leading services. Users now have real-time access to a Canadian public cloud that delivers:

* Broad Network Access
* Measured Service
* Multi-Tenancy
* On-demand self-service
* Rapid Elasticity and scalability
* Resource pooling

This means that if you have workloads running on AWS or Google Compute, you can use the same tools sets, APIs and scripts on auroCLOUD. As part of this, auroCLOUD goes a step further and maintains one of the core principles of OpenStack (an open cloud) and combines it with enterprise infrastructure that can scale, deliver business agility and ensure companies are able to meet strict compliance and security requirements both from a geographic and compliance perspective. auroCLOUD has positioned their service to deliver a cloud experience that's hybrid in nature than what VMware or Amazon Web Services currently provide, and that's based more on software rather than being tied to a specific vendor's hardware. auroCLOUD users now have an open and extensible public cloud that has been designed for production environments that include:

* OpenStack cloud operating system
* Public or Hosted Private Cloud environments
* Modular design with Cloud Blocks
* Public roadmap
* Compatibility with Amazon Web Services (AWS) and Google Compute (GCE)
* Flexible management features include Scalr's Cloud Management Platform
* Canadian privacy and data security compliance
* No vendor lock-in