PLATFORM9

SCALITY

Platform9 Managed OpenStack Keeps Scality Focused on Innovation

Effective Hybrid Cloud Strategy enables simple over-provisioning resulting in 98% in storage savings

Executive Summary

Scality builds powerful storage tools to make data easy to protect, search, and manage anytime, on any cloud. Their technology gives users freedom and control necessary to be competitive in a data driven economy. It was becoming increasingly difficult to maintain their development competitive advantage as the environment was increasingly complex, expensive, and hard to manage with a physical server for each developer. They looked at public cloud but significant cost quickly eliminated that platform. They also tried several on-premises solutions including LBH managed cloud, Mirantis, Salt Cloud, managed OpenStack, VMware cloud, and finally, they tried to build their own OpenStack Cloud. Each time their expectations were not met and they were becoming increasingly frustrated.

They reframed their expectations and started to look for solutions that would enable the entire infrastructure to be managed in a way that would deliver a cloud experience on-premises and enable the use of public cloud. Platform9 Managed OpenStack greatly simplified the management of the infrastructure while enabling the environment to be over-provisioned which resulted in a significant cost savings. Their annual infrastructure budget across the company was reduced an impressive 98%.

The unique case for over-provisioning

The solutions that Scality creates are mission-critical to Fortune 2000 enterprise customers, which generates a huge need for lab environments to be used by trainers, support, and development. Trainers need to deploy up to 12 distributed systems to effectively educate customers over one week. Sales engineers use the labs to perform low-cost proofs of concept while customer service engineers spin-up customer environments to test and demonstrate new features. Developers, through continuous integration, spawn distributed systems each time they commit a new capability. With all this activity, there can be up to 2,000 VMs up and running across the environment at any time. The VMs need to be persistent but are idle most of the time. In a public cloud environment, this would be very expensive with 2,000 VMs waiting to be used. However, in an over-provisioned private cloud, Scality is able to optimally leverage the environment, taking advantage of time zones and lulls in demand.

Key Solution Points

Challenge

» Inefficient resource delivering delayed development

» Inconsistent physical environments increases development, maintenance, and management complexity and costs

» Increasing costs and poor utilization across the environment

Solution

» Platform9 Managed OpenStack delivers a scalable, highly available development platform

» One infrastructure for development, SEs, demo, support and training

» Ability to over-provision to realize utilization rates approaching 90%

Results

» Accelerated access to development resources with a predictable SLA

» Reduced management and maintenance costs

» Up to 90% CPU and storage utilization rates

The Challenge

Scality is a software and professional services company, yet, they increasingly found themselves addressing hardware issues due to their development environment. This lead to several challenges:

Difficulty providing development with the resources they need

Technology companies need to ensure innovation moves forward and developers are kept productive. Scality was providing a physical server to each developer which was highly inefficient and not scalable. There was no cohesive SLA across all the hardware, so developers had no idea as to any expectations as to services offered, uptime, configuration, etc. The completed isolated development environment prevented effective collaboration making it difficult to work together on new features and issue resolution.

Inconsistent platform for development, management, and maintenance

Each developer configured their physical server how they thought was best, which meant that none of them were the same. The inconsistency across the development platform extended the time it took to troubleshoot issues as additional work needed to be done to ensure the issue was a code issue and not a platform configuration issues. Ensuring updates, upgrades, and patches were managed consistently was very difficult as well.

Expanding storage costs

Based on the design of the environment, each physical box needed its own dedicated storage and it could not be easily provisioned for development, customer support, and training. This put a strain on the IT team in terms of management and maintenance. Additionally, this put storage requirements at very high levels. The CPU was also severely underutilized across the board, further decreasing the ROI on IT investments.

The Solution

Platform9 Managed OpenStack delivers OpenStack as a service, greatly simplifying the management of infrastructure resources. Leveraging Murano Apps, the team is able to create a distributed infrastructure stack for development or replicating customer environments for support calls in just 15 minutes.

Consistent development platform available in one-click

With PMO, the entire organization, engineering and support, are working on the same infrastructure delivered as a service. It can be deployed quickly and consistently to ensure everyone is working on the same code set. Additionally, SLAs were applied so the development team knows what to expect in terms of service availability, uptime, and ticket turnaround.

Simplified management and maintenance and troubleshooting

PMO sits on top of the environment, enabling the Scality team to standardize the service levels, infrastructure stack, and services - regardless of the underlying hardware. This makes it much easier to manage and maintain as updates can be applied once to the environment. Troubleshooting is also much easier as there is no variation at the platform level.

Effective utilization of storage

The over-provisioning of storage was possible with Platform9 Managed OpenStack. No other solution enabled the team at Scality to over-provision storage to these levels. The flexibility of the platform ensured safeguards could be put in place so once a threshold was hit, the team was alerted and hypervisors could be powered off to stay within the boundaries of the physical resources. The environment was able to be over provisioned 1600% - 1800%. Additionally, the CPU utilization dramatically increased with rates up from 2 - 3% to as high as 90%.

The Results

The Scality team found themselves with many measurable and tangible benefits including millions of dollars in savings, a consistent environment for use across the company, and increased developer productivity.

Development has the resources they need with a predictable SLA

The development team never had to worry about the environment being available for their development and testing. The global team was able to get access to what they needed, when they needed it, ensuring no interruption to innovation. The consistency of the platform also kept developers focused on code and not infrastructure.

Additionally, leveraging a separate IaaS with PMO, they were able to offer self-service provisioning with published service levels. The IT team was able to set expectations correctly with developers, making it easier for planning and project management. For example, with the team able to submit bugs on a single code-tracked project, not only is a higher quality product delivered, but labor costs are also decreased as problems are found faster.

A consistent platform deployed in one click

Leveraging the power of the Platform9 Managed OpenStack solution, the Scality team was able to deliver a consistent environment with a single click. The Murano Application stack is easily deployed, attaching volumes, assigning resources, floating IPs, neutron groups, etc. It takes 15 minutes to create a distributed stack for development or replicating customer environments for support. The consistency across the environment delivers higher quality code, faster and more thorough troubleshooting, and a more accurate demo experience.

98% Reduction in infrastructure costs

The solution has delivered several tangible and measurable benefits and the most significant is millions in infrastructure savings. The CPU utilization dramatically increased as well with rates approaching 95%, which was also enabled through over-provisioning. Storage utilization was increased from 5% to up to 90%. The environment is able to be over-provisioned with safeguards in place in the off-chance all the users get on the system at once. The change in their infrastructure strategy has not only offered dramatic savings, it has also enabled Scality to focus on their core offerings, software development and professional services.