case study

iland™ CLOUD INFRASTRUCTURE

vmware PARTNER NETWORK AWARD 2012 GLOBAL WINNER 2010-2012 AMERICAS WINNER

Using the Cloud to Exceed Scalability and Performance Objectives

How do you achieve your goal of enabling every user to seamlessly transition between electronic devices with the flexibility to work in any way they want? See how UK-based AppSense is achieving that goal with the help of iland's cloud infrastructure to bring its software products to market quicker and more cost-effectively than a traditional hardware environment ever could.

Company	**AppSense**
Size	SMB
Industry	Information Technology
Cloud Application	R&D / Production
Location	Nr Manchester, UK

Business Profile

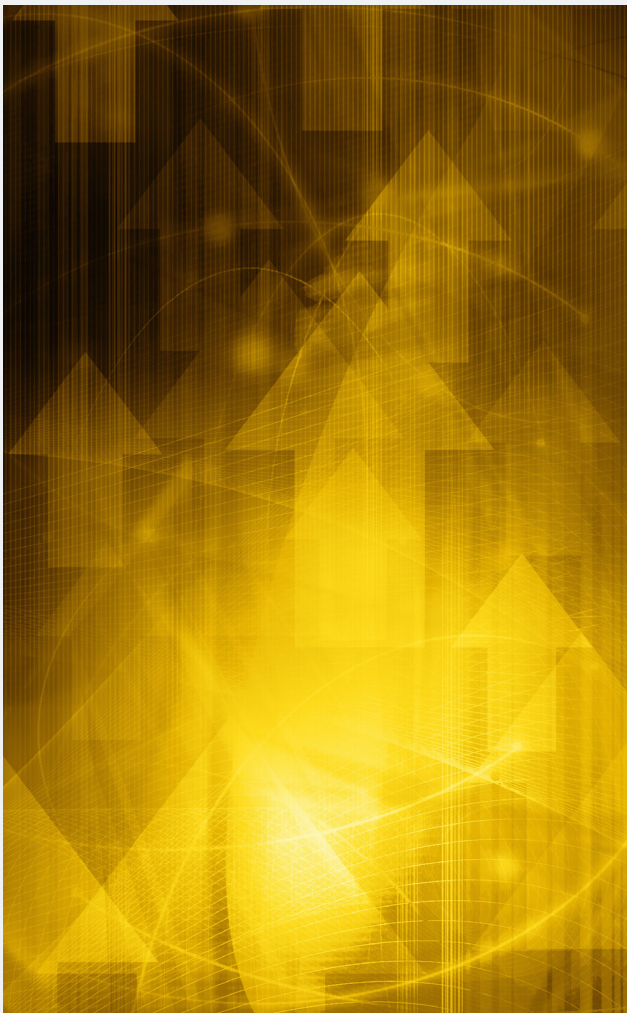
Numerous companies claim to provide superior customer service and to building long-term customer relationships based on a culture of employee empowerment. Very few companies actually achieve these goals. One of those companies is AppSense. AppSense, headquartered in the United Kingdom with offices around the world, focuses on the creation of complete user virtualisation that would enable every user to seamlessly transition between electronic devices with the flexibility to work in any way they want. Today, following phenomenal growth, AppSense has over 500 employees and has developed multiple software products all with this original goal in mind. Abdul Hummaida is Development Project Lead at AppSense. He describes the vision of the company:

"Every time we, as individuals, interact with a tablet, a laptop or a smart phone, we create a digital print that's unique to us. This digital print should have the capability of being moved seamlessly between devices. If we think about email, for example, we should be able to carry over our settings whether we are using a machine from Apple or Microsoft. AppSense software enables you to achieve seamless transition between devices."

The Challenge

Sustaining a growth rate of more than 30% year-on-year is not without its challenges. The demand for AppSense's software meant that the requirement for development and testing was increasing at a faster rate. The company already had experience working with cloud platforms for some of its research and development projects. But AppSense was facing two major challenges. First was scalability testing – AppSense needed to be able to execute massive and aggressive scalability testing which required an infrastructure capable of mimicking its enterprise clients' environments of hundreds of thousands of people. To enable such scalability in a traditional testing sandbox would mean continually purchasing large amounts of hardware. AppSense considered the option of building out its own data centre but as Abdul says, "The problem was that the company didn't need all of that hardware all of the time. Maybe once or twice a month but the rest of the time it would be standing idle – something that was problematic from a CAPEX perspective. We needed the infrastructure in bursts when testing demanded it which meant that for the rest of the time the hardware would be unused."

The second challenge the company faced was performance. AppSense engineers needed to test, tune and optimise the company's software products by working with different versions very quickly and ideally in parallel. It's possible to do that in sequence. In other words, run the first experiment, get the results, analyse them, then run experiment number two and so on. The problem with that approach is that it could take weeks. The alternative is to carry out experiments simultaneously and obtain the results faster so the time required to finish the project is substantially reduced. Although AppSense does have testing labs with traditional hardware, the company simply did not want to have to spend four or five times more capital expenditure. AppSense needed a way to run multiple versions of its software products in parallel.



The Solution

Abdul spearheaded the initiative to find a cloud-based solution that would meet the company's objectives in a cost–effective and timely manner. He and his team set out to find the right cloud partner to work with, initially through due diligence and shortlisting vendors

and followed by a proof of concept with each vendor on the shortlist. During the proof of concept phase, iland became the front runner. As Abdul states, "iland was the only vendor that allowed us to run desktop operating systems such as Windows XP, Windows 7 etc. Our software products are deployed on both server operating systems and desktop operating systems and so it was important to us that our prospective cloud vendor and partner should be capable of meeting those requirements."

Other vendors did allow AppSense to deploy on server operating systems but the company needed to be able to deploy on both server and desktop operating systems and wanted to deal with a single vendor only. As iland met both of these requirements, it became the cloud vendor of choice.

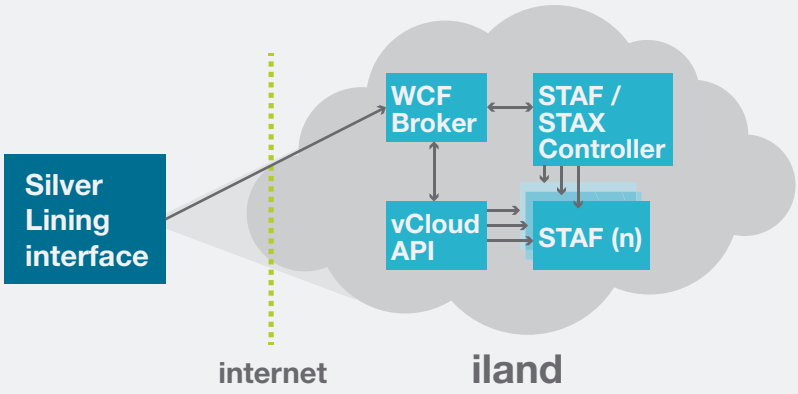
Abdul commented, "We were impressed with the honest and upfront interaction and willingness of the iland team to understand the issues that were specific to our business. We were delighted with the quick access we had to iland's technical individuals and their proactive approach to working with us on developing our cloud platform."

This collaborative approach was essential for AppSense. The company has developed automated software that sits on top of VMware vCloud in the iland cloud environment. Virtual machines (VMs) can be created very quickly and the AppSense software products can be deployed on the VMs. Templates can also be used to enable authorised users to spin up environments very quickly. The whole process is automated and the initiative is known internally as Project Silver Lining.

Project Silver Lining

The project is in the process of being extended so that more divisions of the company can quickly provision the infrastructure they need. For example, through a web interface an engineer can select an AppSense product on which to run tests. They can then select a VM or VMs to be used for running the tests and exact size them in terms of CPU, RAM and networking. The framework will upload the version of the product that the engineer has specified, spin up the VM or VMs, run the tests that were specified for it,

take the results and store them and automatically destroy the VMs. VMs are spun up on-demand and then automatically decommissioned ensuring effective cost control for the company. AppSense ensures control and security through a defined set of individuals that can use the iland cloud infrastructure.



Another factor in the decision to select iland, was the geographical locations of the company's data centres. With data centres in both the USA and UK, development and engineering staff in the USA are able to use iland's Dallas data centre while those in the UK can use the London data centre.

What originally started as a development division requirement to reduce capital expenditure has quickly morphed into something much larger with many requests from other parts of the business coming into IT asking for access to the iland cloud environment. One division currently being considered for expansion to the cloud platform is Sales who are eager to use it for hosting demo environments for AppSense software products. Even as more users access the system, it will remain secure thanks to the role-based access controls built in to iland's cloud that allow only authorised individuals to use the cloud infrastructure.

The Benefits

Deploying iland cloud infrastructure has enabled AppSense to meet the objectives that were set out at the start of Project Silver Lining. The company has achieved the goal of scalability testing - enabling hundreds of VMs to be spun up to represent a customer's environment and allow for aggressive software testing in that environment. The second goal of performance has also been achieved as engineers are able to spin up environments rapidly on-demand. Prior to the cloud environment, it took a week to purchase and set up a new hardware development and testing environment. Using the iland cloud to set up a test and development sandbox now takes just a few minutes so the time savings are immense.

AppSense is also enjoying the benefit of cost savings by not buying large amounts of hardware to develop and test its software products. The IT department's financial model has become a case of zero CAPEX vs

healthy OPEX. "From a development perspective, if someone comes to me to request hardware my first question to them is 'Why would you need to buy hardware rather than use the iland cloud?'" comments Abdul. His view is that unless an individual has a technical reason for purchasing hardware, the work has to be done in the cloud environment.

Another benefit of iland's cloud is the collaborative environment it offers to a globally dispersed development engineering team, allowing team members to resolve issues and plan and coordinate workloads faster and more efficiently.

With the speed and agility the iland cloud offers, AppSense is able to bring its software products to market quicker, contributing to the company's bottom line much faster than the traditional hardware environment ever could.

The Future

AppSense has no intention of slowing down. As the company introduces more enterprise software products the demand increases for more testing, more investigation and more replication of customer environments. Instead of that demand being directed to more hardware, internal acceptance of the iland cloud platform is increasing. As more team members adopt the cloud for the flexibility, agility and speed of deployment it offers, it is becoming the infrastructure platform of choice for a company that's forging ahead to continue to meet its goals of superior customer service and long-term customer relationships.

About iland

iland Internet Solutions, VMware's Service Provider Partner of the Year Global and Americas, provides hosted cloud infrastructure services in North America and Europe that enable customers to leverage enterprise class infrastructure in the form of virtual data centres with flexible billing and capacity models. Solutions include secure hosted environments for virtual servers and desktops, test and development, cloud-based disaster recovery, and hybrid cloud services to maximise the value of existing VMware based environments.

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