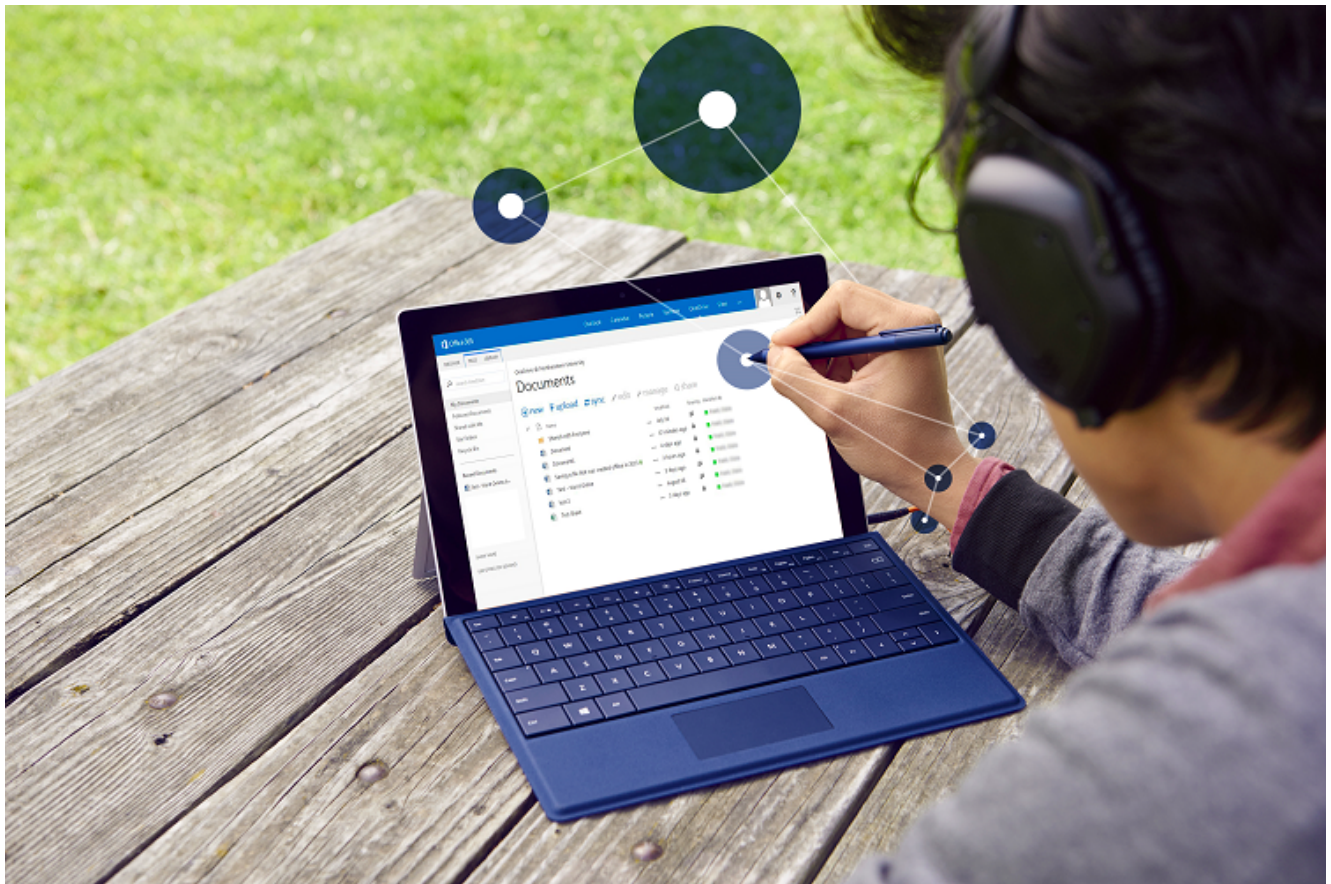


Microsoft's Small and Medium Business Blog for Malaysia

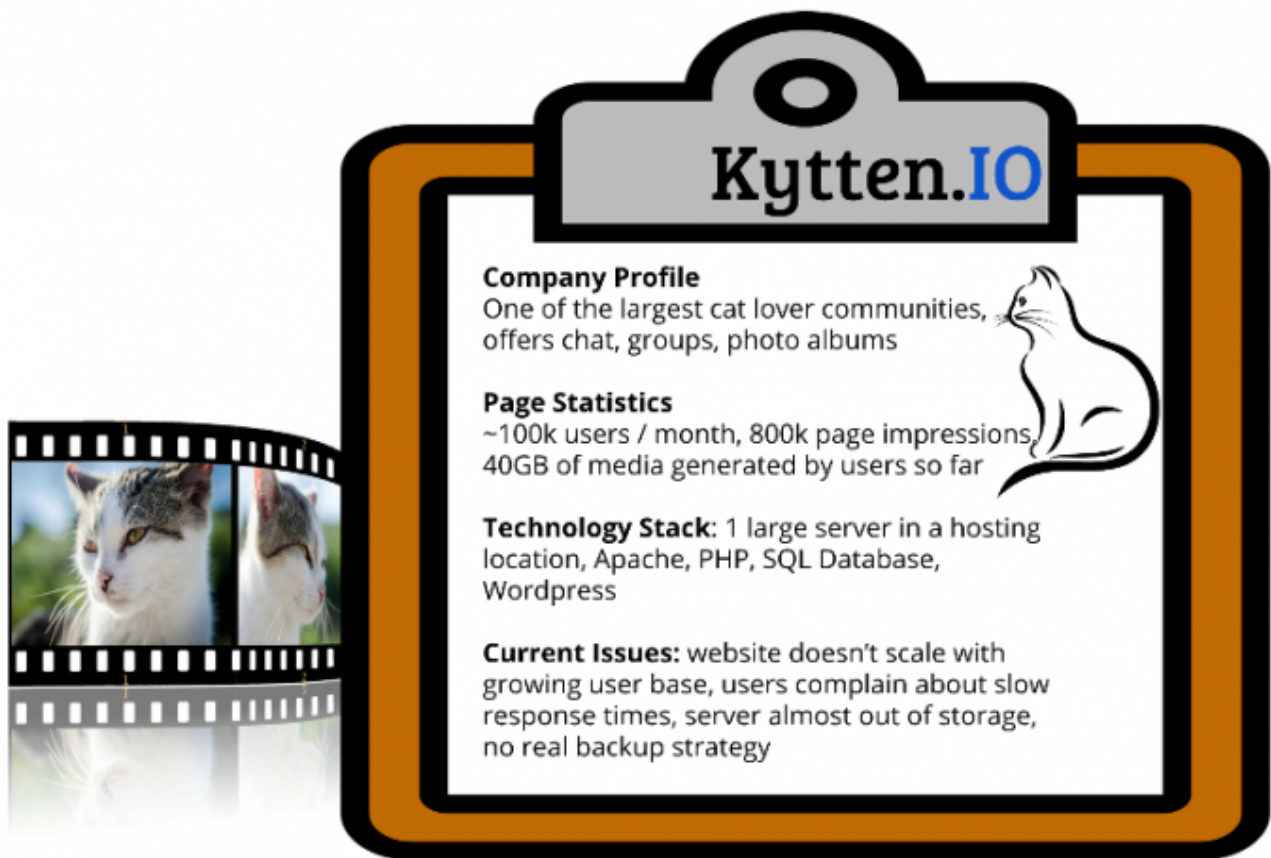
Why go cloud? 4 practical gains for SMBs

March 27, 2017 | Posted by APAC SMB Team



So you've heard that more and more small businesses (SMBs) are using the Cloud. But how exactly does the cloud make things faster, better, cheaper? And which bit of the cloud should SMBs be interested in anyway – with applications, databases and servers all being offered 'as a service'?

To show the value of each cloud service, I'm going to use the example of a small, web-based business. It's called Kytten.IO, and it's a fantastic website for people who love cats. It enables people to share their photos and experiences with other people in the community, and it's proving very popular.



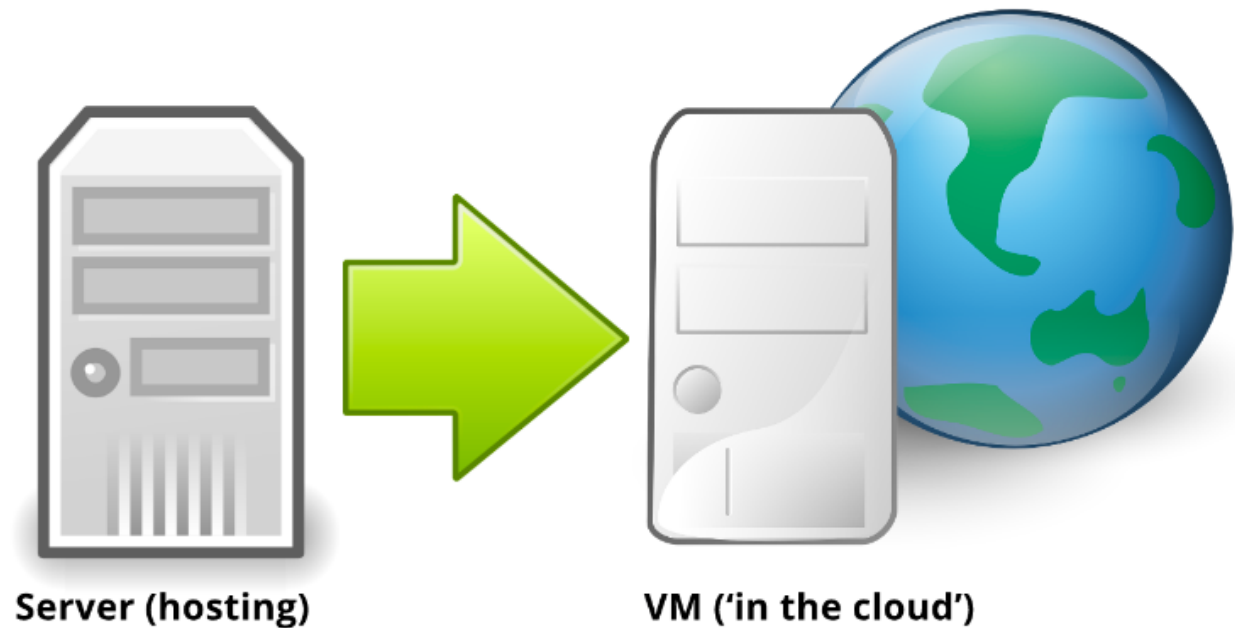
But here's the challenge: with growing popularity, the Kytten.IO website needs enhancements. First, the website experience is slowing down because the company's in-house servers are running short of capacity. Second, the developers want to give the website more features, but also make it easier for members to store and search for images.

Third – and this applies to everyone building a web presence – the Kytten.IO team don't want to spend ever-increasing amounts of time managing their technology. They don't want to hire IT experts either. "Keep it simple," they say to themselves. "We want our IT to be straightforward, so we control the technology — not the other way round."

"What will the cloud ever do for us?"

So here's how the cloud help Kitten.IO meet these three challenges:

1. Infrastructure as a Service (IaaS)



IaaS means you don't buy hardware. Instead, a cloud-service provider hosts your systems on their own virtualized infrastructure. In effect, you rent their server capacity — typically by the month.

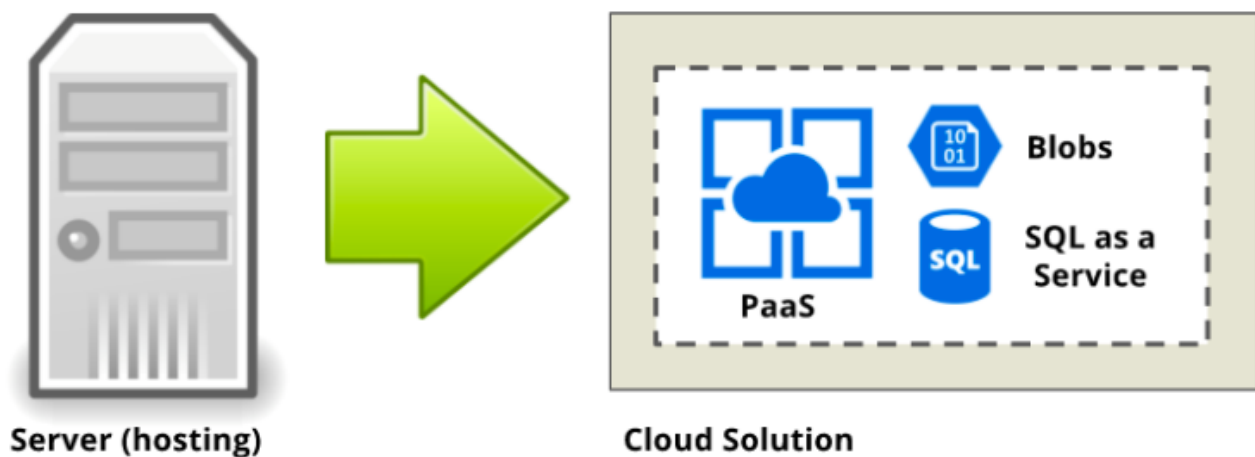
For Kytten.IO, this provides the opportunity to run their website from machines that have similar specs to their on-site servers, and with their own choice of operating system. They can install and configure servers the way they like, and work with their IT in exactly the same way.

The key difference is the machines are not physically on site so there is no capital investment. With IaaS, Kitten.IO can also increase capacity in just a few minutes and add computing power and memory with just a few clicks.

Which aspects does the cloud take care of in this scenario?

| | |
|--|---|
| Application Code | |
| Middleware (Config, Scaling) | ❌ |
| Database (Config, Maintenance, Backup) | ❌ |
| Media Files (Storage, Backup, Delivery) | ❌ |
| Operating System (Config, Maintenance) | ❌ |
| Server Hardware (Power, Cooling, Maintenance) | ✅ |
| Network (Uptime, Bandwidth) | ✅ |

2. Scalable Object Storage



Second, there's a smarter way for Kitten.IO to store all the photos and videos its members upload. With cloud-based Object Storage Service, a cloud-based service finds and retrieves all files, images and videos. For Kytten.IO – who used WordPress to create their site – this simply means getting a WordPress plugin to connect to the new storage service.

The result: Kytten.IO needs less computing power for its website. And less strain on servers ultimately means lower costs – even more: they're now completely outsourcing

the task of storing, delivering and backing up a large & continuously growing amount of data to a fully managed, elastic service.







3. **Database as a Service (DbaaS)**

Another possible optimization for Kitten.IO is to put its entire database in the cloud. Currently, Kytten.IO has one server to manage the website, and one SQL database server to house the data. By switching to DBaaS, Kytten.IO lets the cloud manage its database servers, including backups and security. This has the double advantage of freeing Kitten.IO technical staff to focus their time on making the website easy and attractive to use.

4. **Platform as a Service (PaaS)**

This cloud option means the actual operating system and middleware on which the Kitten.IO web application runs is managed by someone else, as well as the servers. In-house IT staff don't do the installation, worry about how many gigabytes of RAM their machine should have, or patch the operating system for vulnerabilities. Developers deploy code to the system, everything else is fully managed — including scalability, load balancing and backups.

Which aspects does the cloud take care of in this scenario?

| | |
|--|---|
| Application Code | |
| Middleware (Config, Scaling) |  |
| Database (Config, Maintenance, Backup) |  |
| Media Files (Storage, Backup, Delivery) |  |
| Operating System (Config, Maintenance) |  |
| Server Hardware (Power, Cooling, Maintenance) |  |
| Network (Uptime, Bandwidth) |  |

The practical impact of PaaS is that almost all of the technical expertise required to keep a web application running is taken care of. Again, this frees up time. The Kytten.IO technical teams focus on the creative side of website development rather than operating databases and servers.

The flexibility of a phased approach

One vitally important point about cloud strategies is that you can adopt a phased approach. Companies can start with virtual machines in the cloud, and will see the benefits almost straight away. Services like Object Storage and Azure SQL will easily add value to legacy applications without requiring a major redesign of the application.

Customers choose PaaS to simplify deployment and scaling of larger, distributed applications, particularly for applications that they're building fresh. In this scenario, the servers have gone 'invisible' as they can now leverage a fully managed platform & middleware that scales automatically. Whatever their approach might be, companies can progress into the cloud step-by-step, and pick & choose the services that support their application strategy best at every stage.

The cost of the cloud, in \$\$

As far as Kytten.IO is concerned, the cloud provides four options each of which make their website easier to manage. Depending on the skills that Kytten.IO already has in-house, the company can adopt some or all of these services. They can save on capital investment, complex IT tasks, maintenance, and the responsibility for scaling and securing data. And they also gain free upgrades, and the freedom to focus on creative tasks.

But do these cloud options cost? First, let's look at the IaaS service. A Windows Server virtual machine (VM) in Southeast Asia with two processor cores and 3.5GB of RAM will generally cost you \$0.18 per hour on Microsoft Azure Cloud. I have included 135GB disk space in the price. If you run your VVM 24 hours per day, this will cost \$133 per month.

With these numbers, you can probably estimate whether the baseline cloud server option – IaaS – will save you money.

Now for the other Cloud services. We've assumed that Kytten.IO signs up for all four options described here. This means outsourcing just about everything except website development. If Kytten.IO chose the Microsoft Cloud service, Azure, the cost per month would be:

- [App Service](#) \$148.80
- [SQL Database](#) \$15.0
- [Storage](#) \$24.00
- Support Options \$0.00

Estimated monthly cost: \$187.83

Of course, for Kytten.IO this is just the start of the cloud calculation. They still have to compare this number with the estimated cost of providing all these services in-house. And

since that includes IT experts who spend part of their time patching, scaling and deploying, plus asset depreciation values and the estimate cost of adopting new technologies, it's not a simple calculation.

But at least Kytten.IO now has a benchmark. If the cost of supporting its website looks like exceeding \$187 per month, then there is probably a cheaper option.

Take advantage of the \$200 free Azure and [sign-up](#) today!

The \$200 Azure offer is a superb way for SMBs to take the first step to experience cloud technology — in virtualizing your development servers, top-grade back up, or SQL storage. You can get a feel for the easy-to-use Azure portal tools and see for yourself the difference a cloud strategy makes to your bottom line.

If you would like to know more about any of these options, contact us at +1-800-886-295 or send us an email to mycloud@microsoft.com.

Original Blog: <https://www.linkedin.com/pulse/im-all-bout-paas-trouble-uli-hitzel>

About the contributor



Uli is a Cloud Solutions Architect engaging with Business Partners in Asia Pacific. He is working with ISVs and solution partners in Asia Pacific on architecting mobile & cloud-native applications, SaaS platforms and modern websites of massive scale, leveraging an increasing number of exciting technologies and services to build things that just haven't been possible before.

Posted in [Business Articles](#)

Join the conversation

0

comments

Add comment

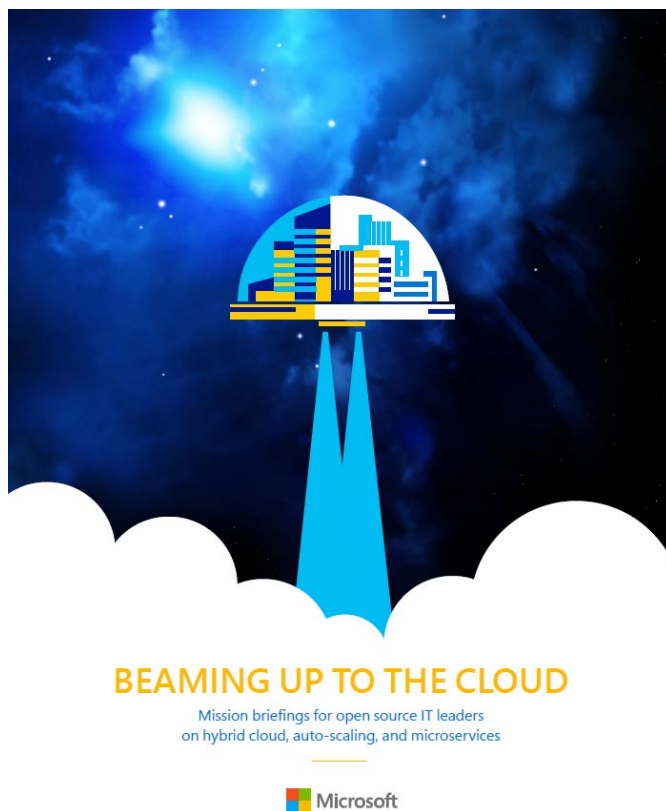
Contact us

Contact number: 1 800 886 295



Beaming up to the cloud: Mission briefings for open source IT leaders on hybrid cloud, auto-scaling, and microservices

Building an enterprise-worthy developer environment is a lot like commanding a starship. Your success—and that of your crew—hinges on your ability to run the cloud of tomorrow with tools that power productivity and innovation. This eBook is the IT leader's "mission briefing" for exploring new capabilities built in the cloud—including hybrid distribution, smart scaling, and microservice architectures.



Get the free eBook