written by Chris Jackson on 9 June 2014 in

why we're sticking with aws

We're hosting all our services with AWS for the forseable future. Here's our story.

We started using AWS in early 2009, and have never hosted production services anywhere else. At that point it was a no-brainer to use AWS, because it allowed a tiny company to scale up several massive services.

There have been times over the past five years when we've wavered on our commitment. Our infrastructure now involves a lot of processing components that are always on, and this leads to a big cost. We also had a few other specific concerns.

debit card as single point of failure

For many years, our biggest concern was neither cost nor technology. AWS charged all but their largest their customers via card transactions, and only from the US in dollars. This led to a huge foreign currency transaction coming out of our account nearly every month. Both our banks routinely blocked the transaction as suspected fraud. AWS have a reasonable policy when payments are declined, so a serious issue was unlikely, but we were never happy with the arrangement

Eventually we qualified for invoice payments, so it's now all done via bank transfer. We even use the most excellent transferwise to get the best value on the FX market.

Still, it would be nice if AWS offered invoicing within the EU, and in a range of currencies.

account management, or self-serve?

We were initially a bit surprised when an AWS account manager first called a couple of years back. What's the point of account management for a self-serve proposition? Subsequently we realised that there's a role for people in enterprise sales, even when it's a SaaS product.

We rarely need the human help here, but we have received excellent help from the AWS team in the UK. They've been amazingly knowledgeable, and often honest abut out best architectural options, beyond a level that serves Amazon's immediate interests. We certainly have no complaints.

reliability

This is the big priority of course, and something we keep a constant eye on. Some AWS incidents a few years ago have been very serious, and we have to be very careful to safeguard our interests in this area, and of course those of our clients.

The reality is that AWS incidents have become fewer and less serious. Most affect people who run critical services in a single availability zone without a recovery plan, and generally affecting the largest and therefore most advanced region—US-East.

Here in Europe we've been seriously affected by one incident only — the great not lightning strike of 2011. None of MetaBroadcast's critical services were affected in that incident, but we were concerned with aspects of the AWS service as a result, and have only recently returned to using Elastic Block Stores, after clear assurances from AWS.

Anyone hosting at scale and quality is used to carrying on through failure. Usage varies, software performance varies, hosts fail all the time, data centres have issues regularly. All this, and end users rarely feel the pain. While AWS has had some issues, in our book they win over conventional suppliers for their transparency, speed to explain the preventative measure they take, and the flexibility in smaller incidents to maintain service by using extra resource. This is massively helped by the scale of their operation. In the final analysis, even a user in EU-East during 2011-12 would probably have a better time than with a conventional provider — especially if their system was well architected.

is aws really good value for money?

When you look at the raw numbers, AWS is pretty expensive. That's compared to renting boxes, not vs. other cloud providers, who seem to either be very small, or to trade on better support vs. AWS, at higher prices.

In 2012 we briefly considered running our own "private cloud". We did a comparison with providers who rent and support the hardware in resilient data centres, ie providing all of EC2 bar the hypervisors and associated management tools. Our model showed a saving greater than 30%, even when we made very pessimistic assumptions about how heavily we utilised the underlying hardware. At our usage levels, this is enough to pay the salary of the person who would manage the private cloud. It's likely they would then find further savings.

So, what's the catch? At the time, we concluded that the various open-source options were not ready for primetime. Paying for commercial software would make the project unviable, and we've not seen the situation improve.

Until recently we also had some issues with how evenly AWS load balancers spread traffic across data centres. We found it was necessary to keep lots of spare capacity across two regions, in case the load balancing became uneven. Even for our decently heavy use, this represented a substantial overhead. We've found this is much improved on AWS now, offering a clear saving.

AWS also has schemes to commit to instances in advance, and rent unused instances at knockdown prices. Further savings occur.

All in, we have concluded that AWS is now not much more expensive than a private cloud, and with many fewer worries.

wild extrapolation

So, we stick with AWS, maybe even start using some of their interesting higher level services. Then lots of others do the same. Surely they'll start to take advantage of their position? Of course this is a risk, but we think it's pretty small.

Amazon's conduct in their core B2C retail markets is clear. They come in offering a service that makes small margins on massive volumes. That's because their markets have massive opportunity for growth. They focus on taking business from the old-style competitors (eg bricks and mortar shops), rather than milking their customer base. Unlike some other markets, cloud computing still has loads of room for growth. Until Amazon increases their margin on physical books, there's unlikely to be any cause for concern.

happy to be stuck with you

All in, this is enough for us to believe AWS will be the best value choice for the foreseeable future. Really interested to hear how the numbers stack up for you. Let us know below, or via Twitter.