Comparing VM Creation between Amazon Web Services, Google Cloud, and Microsoft Azure

By Ian McKechnie

Creating a virtual machine on each platform is relatively easy when going through each providers' user interface. Each one walks you through every option allow you to specify which computing resources, operating system, location, and more you want on the virtual machine to best meet your needs. The largest difference between each platform is in which options each one provides. Amazon Web Services offers the most locations as well as they offer more variability of the computing resources behind the virtual machines. This means you can choose from a wider variety of CPUs, GPUs, and ram amounts when configuring a virtual machine. Amazon Web Services also has the best integration between it's VMs and its wide array of other cloud products. Since Amazon Web Services is a leader in the cloud space and offers the most products, it's VMs have easy integration with these other products making development time faster. As a result of all this variability Amazon Web Services is not offer the cheapest virtual machine rates. Google Cloud offers the cheapest rates for their virtual machines. Google Cloud also offers the most intuitive UI for deploying VMs. Azure on the other hand is offered by Microsoft so it has great integration with all the other microsoft products such as Office 365. Azure from my experience is also the slowest for starting up and shutting down VMs. It's been much slower than the competitors from my experience trying to start and stop VMs when testing out various configurations.

Overall each platform has it's pros and cons and depending on the use case I would pick different providers. If the client or product was already using a cloud provider for another service I would choose the same provider to host the VM. Each one integrates with its own products the best and I would try to keep it consistent. Thanks to this class I can build VMs on any platform. All things being equal however I would pick Amazon Web Services. I think Amazon Web Services gives the largest flexibility and future proofing for a VM. I can pick a close region so the VM is responsive, finely spec the computer that is running the VM so I get the exact hardware to fit the needs of the system, as well as Amazon Web Services offers the most products for future proofing. Even though Amazon Web Services might have a slightly more expensive product I think all these extra perks by Amazon Web Services make this the best solution to large scale virtual machine deployment.