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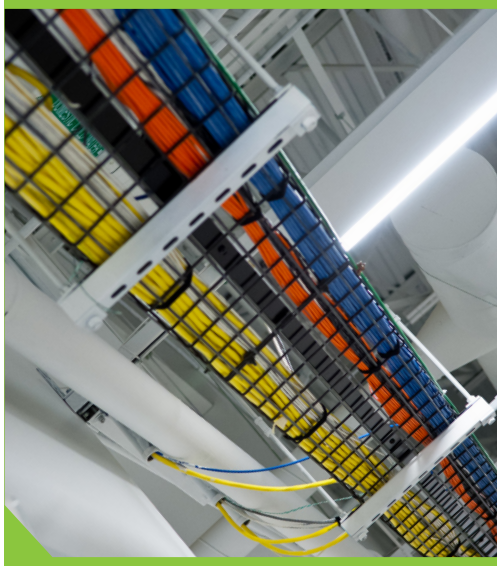
WHITE PAPER

Putting “Service” Back Into Web Services: When to Avoid AWS and Commodity Cloud

Presented by Green House Data



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Introduction

Amazon Web Services is the biggest provider of cloud computing in the world, with a huge and ever-expanding portfolio of add-ons, features, and availability zones. That means any organization with their eye on the cloud, from small businesses to enterprises, is likely to consider AWS when evaluating service provider options.

Famous for innovating the "commodity cloud" — a highly scalable, seemingly inexpensive, and easy to provision system of compute resources delivered from remote data centers — AWS is a great fit for a limited set of cases. For many other uses, including many mission critical applications, a managed service provider or colocated infrastructure can offer better value and more consistent cloud services.

When compared to other models of infrastructure delivery, AWS is best for a cloud-only (or cloud-first) infrastructure, paid for hourly, and commissioned rapidly and variably. If one or more of these features doesn't describe your IT, AWS may be much more expensive than what is listed on their website. There are a lot of hidden costs related to scaling the AWS service.

	Amazon Web Services	Green House Data
Rapid Provisioning	Best	Good
Bursting/Batch Processing	Best	Good
Global Availability	Best	Acceptable
Support	Acceptable	Best
Customizability	Good	Best
Legacy Integration	Acceptable	Best
Known Resource Reqs.	Good (with reserved instances)	Best

When AWS Works

Testing and development

Test&dev, and the related use case below, are where AWS truly shines. Simply and promptly add new resources, copy or clone virtual machines, and destroy them at will. Test your application under a barrage of different circumstances to see how it handles different

When Green House Data is a Better Fit

Steady and/or heavy loads

If you know your resource requirements are going to remain at basically the same level for a while, it's more cost effective to go for a Reservation cloud model or even to purchase and colocate equipment. AWS does have

loads on top of different resources. If you're still figuring out how many vCPUs, how much memory, and how much storage you need to stably deliver your applications or services, AWS is a good way to decide.

Unstable or spiking workloads

Similar to testing and development, applications that require frequent bursting (quickly adding additional computing power), batch processing, or any other sudden spikes in resource requirements are well suited to Amazon's cloud. If you are regularly commissioning and decommissioning many VMs, it will likely be cheaper to do so in EC2.

Global availability

If you need to deliver services across the planet, Amazon has the scale to deliver, allowing users to construct environments that span their many data centers on different continents. However, this can lead to cost sprawl as you pay for each additional zone.

You have in-house expertise

There is a new job title cropping up in the IT World: AWS Infrastructure Manager or Specialist. Companies are actually hiring on experts to manage their Amazon cloud. In the commodity cloud world, enterprises must have plenty of in-house expertise, or else be ready to

> *"Without dedicated staff, there are also no options for managed services. You can buy all the Amazon add-ons in the world, but you have to manage them yourself.*

Reserved Instances for a less expensive way to allocate one or three year terms for known compute resources, but if you need to adjust or scale, you have to sell extra instances on a secondary marketplace.

Even if you may require some bursting and agility, Green House Data can work to deliver hybrid options that will integrate with steady loads, delivering PAYG convenience while remaining less expensive for known resources.

Integration with legacy and/or on-premise IT, especially VMware

Many enterprises have legacy systems that need to work alongside and integrate with new infrastructure. Even if you're trying to go agile, implement DevOps, and generally act like a startup, you'll still need to keep older IT functional, or even continue improve its delivery.

If you have VMware virtualization in-house, Green House Data can easily extend it to our environment. With Amazon, you'll have to convert virtual machines and use their management tools. Green House Data can offer a single portal to manage your in-house and cloud infrastructure.

Large environments

Green House Data can help you avoid cost sprawl by keeping an eye on old and outdated backups, VMs, and storage. In a large-scale cloud environment it can be easy to lose track of old copies of VMs lying around, costing you money every month.

On a similar note, users have reported inconsistent notifications from AWS when their boxes are going to be decommissioned,

hire additional staff to manage it. Amazon is notoriously lacking in this area.

Without dedicated staff, there are also no options for managed services. You can buy all the Amazon add-ons in the world to get load balancing, security, monitoring, and other modules necessary for a bulletproof cloud environment, but you have to manage them yourself.

A service provider can offer IT operations, managing virtual machines, operating systems, load balancers, security software, and more to make sure your environment operates in a consistently secure and reliable manner. Much of this management is often included without additional cost.

meaning the physical hardware running the VMs will be taken down. Sometimes there will be forewarning, on other occasions they are notified after the server has been pulled. With a large environment, this can wreak havoc and cause ripple effects through other VMs.

Backup/DR and storage

Green House Data offers far more options for backup and disaster recovery, allowing for a customized and economical solution that still meets your recovery objectives. Even old-school methods like tape still have a place for long-term retention. Storing vast quantities of data in the cloud simply is not cost-effective.

With many different software choices, some tied to hardware and some hardware agnostic, plus various delivery methods (cloud, hybrid, colocation, dedicated hardware storage), choosing a service provider rather than pure cloud for backup and DR means you get better integration with other systems plus greater resiliency—all from technicians who can manage it for you.

About Green House Data - Green House Data provides VMware powered cloud hosting and colocation backed by 24/7 live support. Headquartered in Cheyenne, Wyoming, the company has data centers in Cheyenne, Orangeburg, NY, Portland, OR, and Newark, NJ. The facilities are HIPAA and SSAE 16 Type II compliant, powered entirely by wind power, and designed to be 40% more energy efficient than an average data center.

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