zero.gravity

Information Brochure

Brief Background

Zero Gravity was founded in October 2016. We are based out of Durban, KZN and are singularly focused on Public Cloud. With our specific focus being Amazon Web Services.

Cloud is the next evolution in our Industry and is already mainstream in Regions such as the US, Europe, Asia and even Australia. Nobody, in these Regions, seems to be buying 'tin' anymore.

At the beginning of our journey, we quickly realized that: Locally, whilst everybody may already be talking 'Cloud', nobody seemed to really understand Cloud.

So this has become our core mission: To develop a Profound Competence in Cloud.

Our first step was to find The Market Leader in Public Cloud.

Amazon Web Services

Research unveiled Amazon Web Services (AWS) as the emphatic leader in Public Cloud.

AWS was named as THE LEADER in Gartner's: Infrastructure as a Service (IaaS) Magic Quadrant report, for the 6th consecutive Year. Gartner reports that AWS (as significant market leader in public cloud) is still several times the size of the next 14 cloud providers combined.

AWS is the fastest Growing Multi-Billion Dollar Enterprise IT Company in the World, currently on a $14B run-rate, sustaining around 55% Year-on-year growth.

Besides hosting the largest number of Startups, AWS has the largest number of Enterprise Customers. They also host the largest number of Public Sector Customers.

AWS literally have a presence in every vertical. This is the broadest ecosystem of System Integrators as well as the broadest Ecosystem of Independent Software Vendors

AWS offers over 70 unique services, each with the deepest level of functionality. Their service offering is growing at a phenomenal rate.

Another unique, intrinsic, distinctive competitive advantage is their exponential pace of innovation: Over 1000 new capabilities were added in 2016, an average around 3 new capabilities per day. This is up from 722 new capabilities added in 2015.

The AWS Marketplace (online store where you can sell or buy software that runs on Amazon Web Services) itself has been growing at a 112% Year-on-year rate

Zero Gravity Partners with AWS

After finding the largest parade in the town of Public Cloud, our strategy became that of getting our Zero Gravity flag to the front of the AWS Parade… and to wave it proudly!

To this end, we are currently four (and counting) of the less than 32,000 AWS Certified Solutions Architects Worldwide.

These certifications have already enabled us to become a Registered AWS Partner (Partner ID: 848143).

This is just the beginning of our journey though, where we are committed to achieving 'Black Belt' status: attaining all AWS Certifications available. Our lofty ambition as AWS Partners is to achieve the rarified air of Premier Partner. There are currently less than 20 Premier Partners Worldwide.

Why migrate to cloud anyway?

We advocate the ideal scenario as currently being a Hybrid scenario: On-Premise + Public Cloud.

Further to this, we will never recommend an overnight, forklift approach. Our philosophy is that of a 1-3 Year Roadmap for Cloud Migration. Our desired role is to guide our Customers and partner with their incumbent ICT Service Provider on this carefully planned journey.

Just simply migrating a workload to a virtual instance though, cannot be considered cloud migration either. This is merely a move from an on-premise data center to an off-premise data center. The single-point-of-failure still wholly exists.

The benefits of true Public cloud are multi-fold:

Firstly, if it is not differentiable… you should not be doing it! With the Shared Responsibility model, Zero Gravity partners with AWS to jointly take care of all the lower, indifferentiable layers of the stack for you.

Your Workload
Zero Gravity Identity Access Management with multi-factor authentication
Zero Gravity Automated patch management for security and optimization updates.
Zero Gravity Custom instance per specific requirement: general purpose, compute optimized, memory optimized, storage optimized, accelerated computing, micro instances.
Zero Gravity High Availability: Cross-region replication. Redundancy across multiple availability zones. Auto-scaling, custom routing
AWS Custom Server Infrastructure: Compute Servers optimized for thermal and power efficiency Custom Storage Servers AWS have radically customized Xen as their hypervisor. Individual virtual instances, even those running on the same physical hypervisor, are totally isolated from each other.
AWS Custom Network Hardware built to spec. AWS custom-build their own switchgear. AWS custom-build their own routers. AWS run their own proprietary network protocol. Software defined networking
AWS Availability Zones (AWS Data Center) require are at least two independent electricity providers, each on independent grids. AWS has a long-term commitment to achieve 100% renewable energy usage for their global infrastructure footprint, in addition to the environmental benefits inherently associated with running applications in the cloud, AWS exceeded their goal of 40% renewable energy by the end of 2016, and have set a new goal to be powered by 50% renewable energy by the end of 2017.
AWS Cloud operates 42 Availability Zones within 16 geographic Regions around the world, with five more Availability Zones and two more Regions coming online throughout the Year: 2017. Minimum of two availability zones (independent data center) per region, the average being five.
Amazon Global Network: 100% End-to-end AWS Operational Control. One Administrative domain. Only AWS touches your packet. Redundant 100GbE Network circles the Globe. Many, many parallel links providing multiple layers of redundancy.

You are thereby liberated to apply undiluted focus on your workload so as to add maximum value to your unique, intrinsic, distinctive competitive advantage. No more worrying about specifying, procuring, installing, racking, networking or maintaining servers!

Security: At AWS, Cloud Security is THE HIGHEST priority! The misnomer about migrating content to public cloud, is that this presents a huge security risk…

The reality is that AWS spends over a 1$B per Year on Security. It is their Priority Zero! AWS Public Cloud is infinitely more secure than any on-premise or collocated datacenter could ever be.

As just one example: AWS Route53 (AWS DNS Service) + AWS Shield combine to provide Market Leading protection against DDoS (Distributed Denial of Service) attacks. This automatic protection is natively available to every AWS customer.

Elasticity: Elastic is the new normal! Auto Scaling Groups enables your workload to scale up and (equally importantly) back down as demanded by your traffic.

Routing standards such as (1) Weighted, (2) Latency, (3) Geo-location, (4) Failover, allow us to customize your traffic flow as per your specific requirements.

Fault-Tolerance: Elastic Load Balancing across multiple availability zones ensures highest availability and extreme fault tolerance.

Cloudwatch monitors and responds real-time to events and alerts. Event response is fully automated.

Experimentation: True Agility! There is no longer any significant opportunity-cost to replicating your production environment into a Test and Dev. facility. You can now R&D at will!

We simply snapshot your production-ready iteration and spin this up into a new production instance, with that snapshot image. No more maintenance-related downtime.

Analytics: The strategic value lies in the ability to analyze traffic patterns and customer behavior. This ability is native within AWS.

Building Blocks: With AWS, they provide the building blocks, for their Partners to use in designing Next-Generation solutions. The philosophy is to make the same technology that is available to Multi Billion Dollar Corporations, available to a kid in a dorm room as well.

The Zero Gravity: AF5 Website Standard
- Floating: We do your heavy lifting. Only worry about your source-code.
- Fortified: Multiple layers of security and protection.
- Flexible: Elastic as well intelligent routing policies
- Fault-tolerant: Multi-zone availability plus granular monitoring with automated event response
- Flowing: The ability to be agile. Test, develop, innovate then go live and go big really quickly

Zero Gravity: Deep Space (Storage & Archival)
- 11 x 9's durability (Probability of risk less than one file per billion)
- 99.99% availability
- Fully automated Versioning and Life Cycle Management
- Virtually infinite amount of storage capacity
- Cost effective Archival

Weightless Dev. & Test Environment
- Elasticity is the new normal
- Instances should be spun up & back down at will
- Virtualize and robustly test your solution before deployment
- No more guesswork!

Zero Gravity Cloud Database
- 10X the performance of standard databases
- 1/10th the cost of an enterprise database.
- Fault-tolerant
- Automated backup

DR-on-the-Fly
- The best-case scenario is a hybrid environment
- Your entire infrastructure should be extended into the cloud
- Real time testing
- Immediate Failover
- No more heavy lifting required

Preferred Engagement Process:

1. Meet-and-Greet + Initial information Gathering Session

2. Follow up Cloud Readiness Audit with current ICT Service Provider

3. Cloud Migration Roadmap

4. Phased migrations via Prince2 Project Methodology

Disclaimer: Although this is our preferred engagement process. We are obsessed with being Customer-Centric. As such, our most important duty is to listen to our Customer and respond in a manner that will be to the greatest benefit of our Customer.