# OakRocket

ENTERPRISE CLOUDOPS

CAPABILITIES & CASE STUDIES

About Oak Rocket

- Woman Owned Small Business

- Headquartered in Austin, TX

- Digital System Integrator with focus on

  - **Big Data, Cloud-Based BI, Advanced Analytics**

  - **Boutique Value-Added Managed Services**

  - **Optimized Cloud Billing solutions**

- 160+ world class professionals with rich experience in **Managed Services and all things Cloud & Data**

- Key industry verticals – **Media & Entertainment, HCM, Energy & Utilities Services, Design Automation & Engineering, E-Commerce**

CANADA

UK

HEADQUARTERED IN SAN FRANCISCO, CALIFORNIA

COSTA RICA

OFFSHORE DEVELOPMENT CENTRE: CHENNAI, INDIA
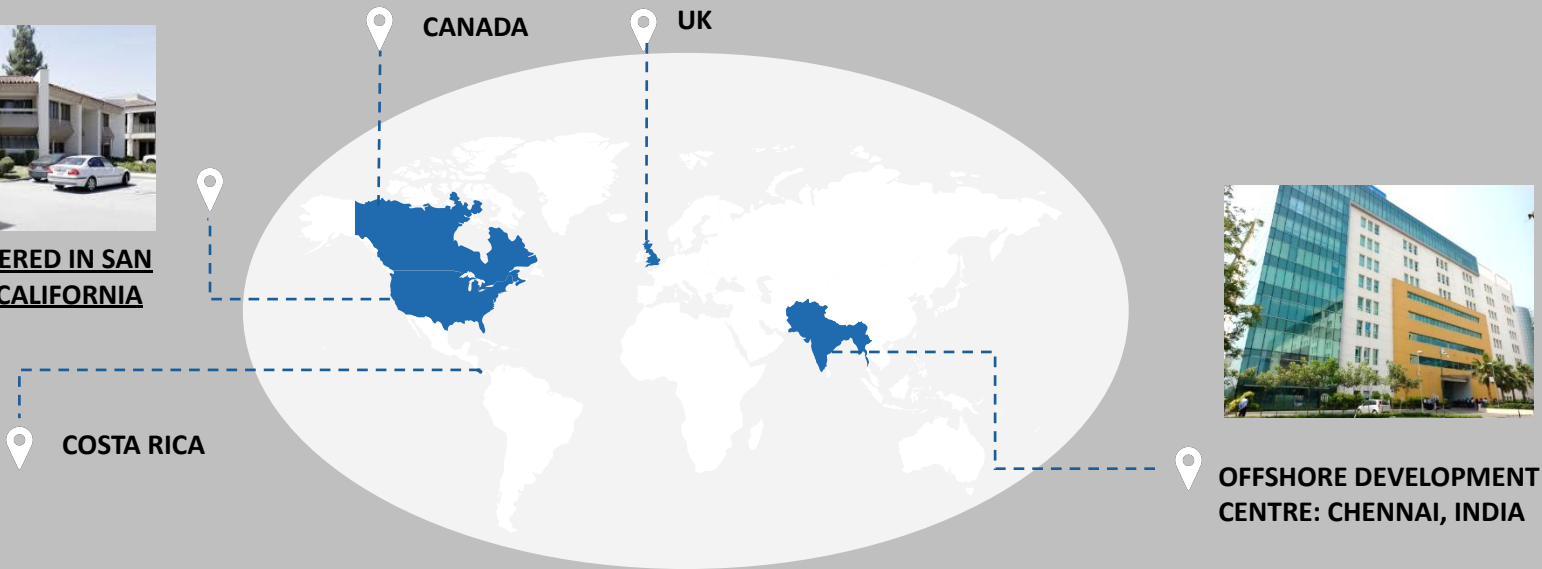
Our current presence:

- **USA:** 40+ (Data Architects and Cloud Specialists)
- **India:** 120+ (Data Scientists, Cloud Migration Experts and Big Data developers)
- **Canada:** 5+ Technology experts
- **Costa Rica:** 5+ Technology experts

As of Jan 2018

Our Selective US Clients - BI, Big Data Analytics & Managed Services

- **Digital Transformation to M&E client delivering self-service BI sales & marketing analytics empowering quicker Time-To-Market decisions. Devised a elastic scalable Data Lake that helped seamless migration of 500+ TB warehouse enabling 6X reduction in data-processing.**

- **Delivered an enriched and engaging 360 degree campaign analytics by seamlessly integrating HCM, direct to customer and corporate data, enriching Business Decisions.**

- **Rapid Response EDW Migration Engineering from tightly-coupled on-premise to 24/7 elastic cloud architectures with AWS RedShift MPP framework resulting in +30% savings in IT costs.**

- **24*7 Managed SLA based support-service model resulting in 30-50% reduced TCO for large scale Big Data, BI implementation, involving multiple technologies.**

AWS Services Expertise - Summary

Big Data Services

- 10+ Engineering Engagements with Large EDL implementations (500+ TB)

- 500+ person months of solid expertise in AWS EDL and EDW technology stack

Cloud & Enterprise Dev ops

- Comprehensive coverage of Design, Build and Run Cloud Ops services

- 1000+ Active Cluster Servers Managed

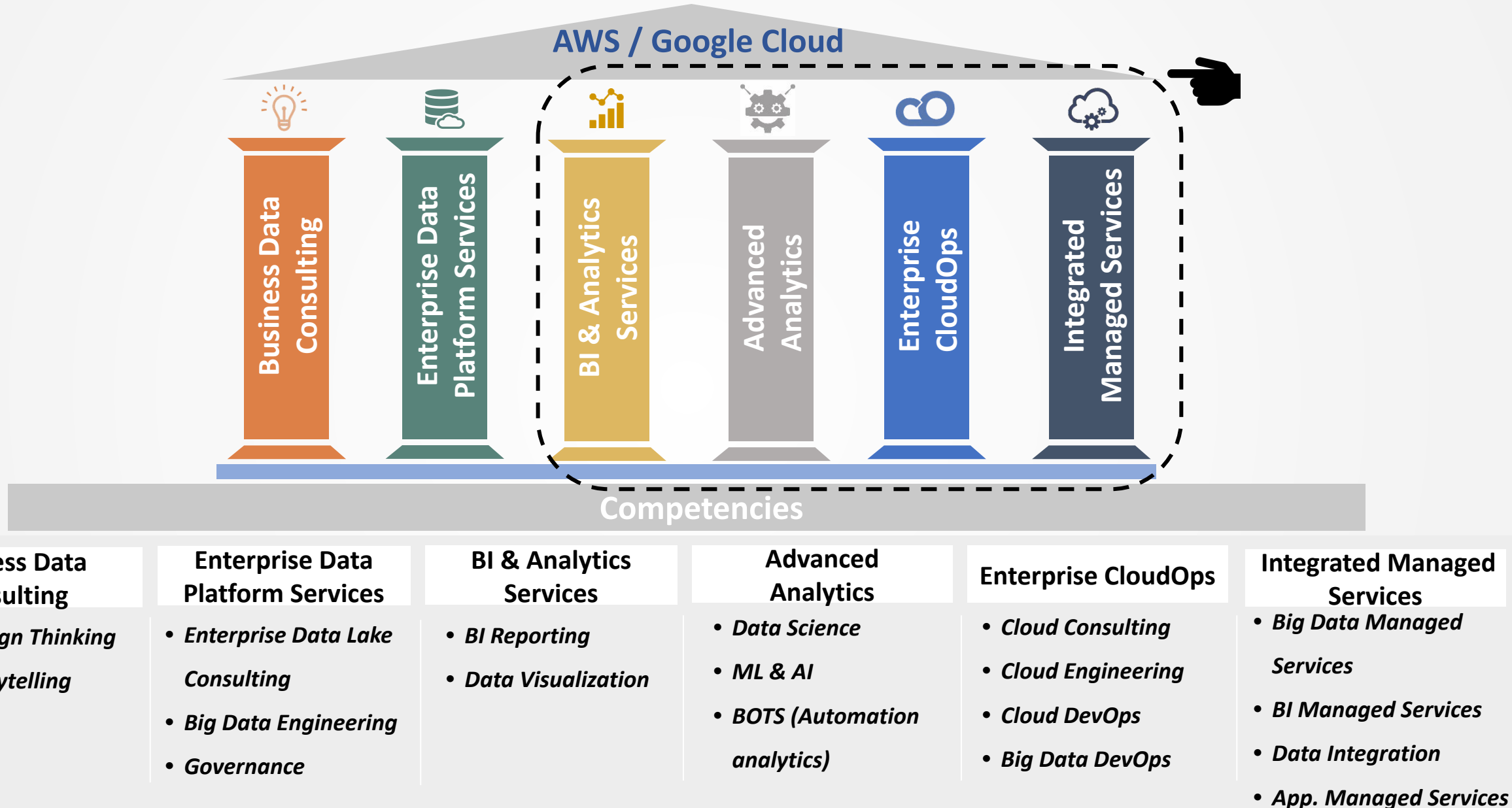- 20+ AWS Solution Architects

Integrated Managed Services

- 20+ Engineering engagements spanning Data Integration, Visualization and Storage services

- 24/7 Elastic Managed Services

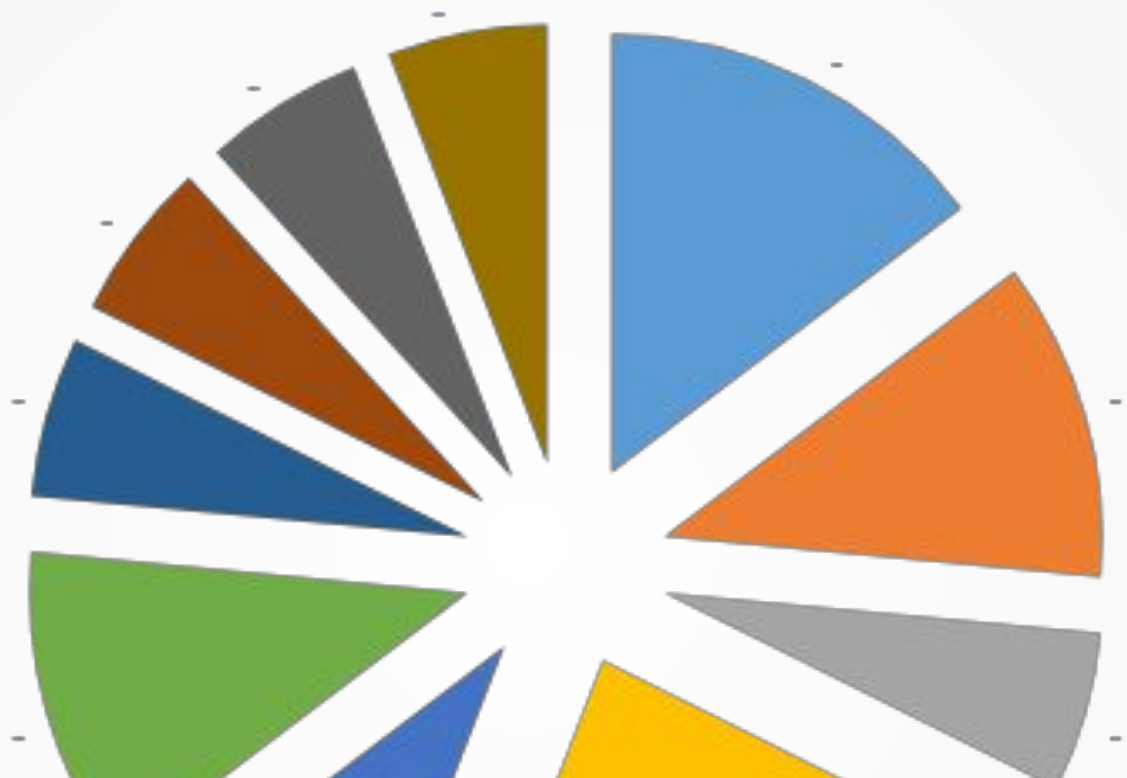- Complete SLA based Governance

Advanced Analytics

- Consumer Analytics implementations for several M&E clients

- Global DNA implementation of Health care clients

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Holistic representation of our Service Offerings

AWS / Google Cloud

Pillars (left to right):
- Business Data Consulting
- Enterprise Data Platform Services
- BI & Analytics Services
- Advanced Analytics
- Enterprise CloudOps
- Integrated Managed Services

Competencies

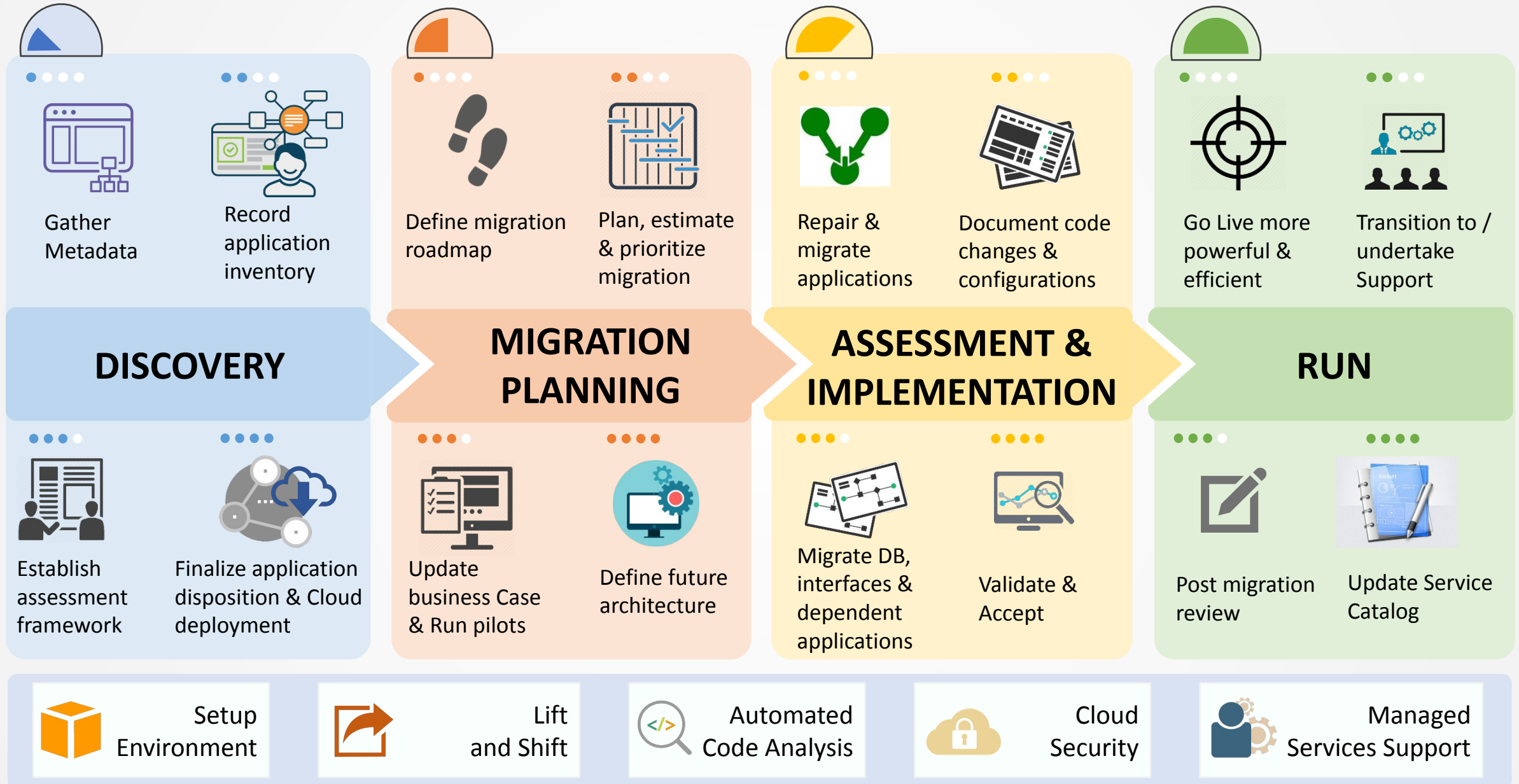| Business Data Consulting	Enterprise Data Platform Services	BI & Analytics Services	Advanced Analytics	Enterprise CloudOps	Integrated Managed Services
• *Data Design Thinking* • *Data Storytelling*	• *Enterprise Data Lake Consulting* • *Big Data Engineering* • *Governance*	• *BI Reporting* • *Data Visualization*	• *Data Science* • *ML & AI* • *BOTS (Automation analytics)*	• *Cloud Consulting* • *Cloud Engineering* • *Cloud DevOps* • *Big Data DevOps*	• *Big Data Managed Services* • *BI Managed Services* • *Data Integration* • *App. Managed Services*

Overall Skill Distribution
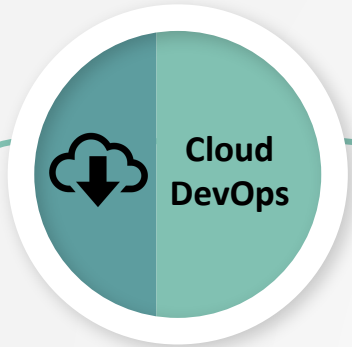

160+ Talent Pool

AWS Enterprise Data Platform	Enterprise CloudOps	Advanced Analytics	BI Data Integration	BI Visualization	Application Management Services	QA Services	ITIL Services
RedShift EMR Hadoop S3 Spark Kinesis	Jenkins Chef/Puppet CICD Ansible	Tensor Flow Chat Bots Gluon	Aws Glue SnapLogic Informatica	MicroStrategy Tableau Business Objects	MicroSoft Java Stack	Selenium	PagerDuty Nagios
25	20	10	40	15	20	10	10

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ENTERPRISE CLOUDOPS

Cloud & Enterprise DevOps - Services

DISCOVERY

Gather Metadata

Record application inventory

Establish assessment framework

Finalize application disposition & Cloud deployment

MIGRATION PLANNING

Define migration roadmap

Plan, estimate & prioritize migration

Update business Case & Run pilots

Define future architecture

ASSESSMENT & IMPLEMENTATION

Repair & migrate applications

Document code changes & configurations

Migrate DB, interfaces & dependent applications

Validate & Accept

RUN

Go Live more powerful & efficient

Transition to / undertake Support

Post migration review

Update Service Catalog

Setup Environment

Lift and Shift

Automated Code Analysis

Cloud Security

Managed Services Support

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Cloud & Enterprise DevOps - Offerings

Cloud DevOps

- **Infrastructure Protection**
- **Data Protection**
- **Privilege Management**
- **Detective Controls**

Big Data DevOps

- **Platform as a Service (PaaS)**
- **Infrastructure as a Service (IaaS)**
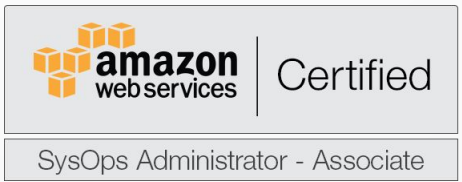- **Infrastructure Operations**

Cloud Financial Consulting

- **Cost & Expense Management**
- **Resource Utilization & Optimization**

Service Offerings & Skill Matrix

AWS SysOps Professionals	10+
AWS DevOps Professionals	5+

4 — amazon web services | Certified — Solutions Architect - Associate

1 — amazon web services | Certified — SysOps Administrator - Associate

1 — amazon web services | Certified — Developer - Associate

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Cloud Ops Services

Infrastructure Protection

- Antivirus and Vulnerability Management
- Termination protection
- Isolated Public and Private subnets
- Trusted Advisor to monitor/analyse S3 & SG

Data Protection

- Data encryption
- S3 encryption
- DB encryption
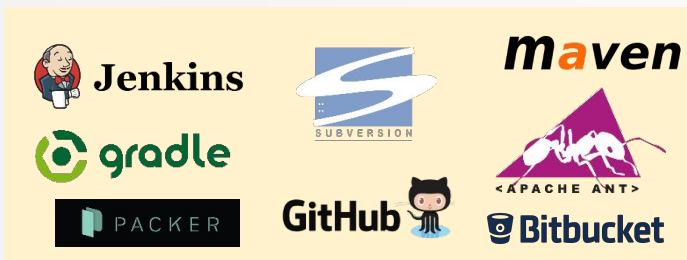- Cross region replication for DR and HD

Privilege Management

- IAM Role based Access controls with MFA
- IAM Roles audit
- Access keys Rotations for AWS APIs
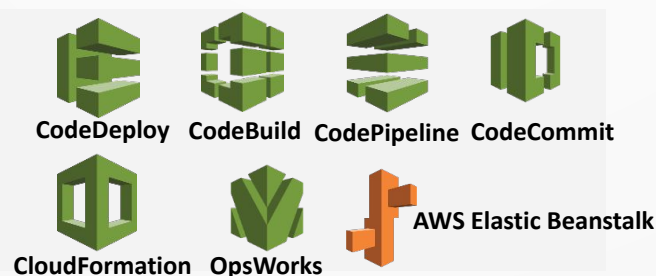- SG and NACL for restriction based access

Detective Controls

- Cloud Trail for Security Audit
- Cloud Watch Monitoring
- Splunk to monitor App logs
- Snare to monitor System logs

CI/CD

Jenkins   SUBVERSION   maven   APACHE ANT
gradle   GitHub   Bitbucket
PACKER

AWS DevOps

CodeDeploy   CodeBuild   CodePipeline   CodeCommit
CloudFormation   OpsWorks   AWS Elastic Beanstalk

Infrastructure Management

CHEF   ANSIBLE   puppet   HashiCorp Terraform
docker   kubernetes   PRTG NETWORK MONITOR   New Relic.   splunk>
ZABBIX   pagerduty

Big Data DevOps
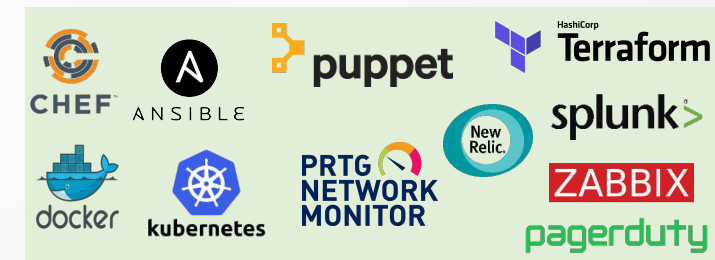
Platform As a Service (PaaS Offerings)

- **Services Offered**
  - Infrastructure Provisioning
  - Custom Configuration management
  - Cloud Engineering Support
  - Scalability Support
  - Security Implementation
  - External Tool Integration
- **Platforms**
  - Elastic Map Reduce
  - Azure SQL
  - RedShift etc.

Infrastructure As a Service (IaaS Offerings)

- **Services Offered**
  - Cloud Engineering Support
  - Customizations (Software / Hardware perspective)
  - Cloud Security Management
  - Cluster Management & Trouble shooting
  - DevOPS
- **Distributions / Tools**
  - CloudFormation/Chef/Ansible
  - Jenkins/Bamboo/Code Pipeline
  - Bit Bucket/Github/CodeCommit

Infrastructure Operations (On-Premise/CoLo)

- **Services Offered**
  - Server Management (Baremetal and Virtualized)
  - Operating System – Lifecycle Management
  - SAN and Storage Mgmt.
  - Batch Maintenance
  - LAN Management
  - Raised Floor Management
  - NOC Services
- **Distributions / Tools**
  - Linux, Windows OS, VmWare, EMD Dell, HP 3 Par, TWS

Cloud Financial Consulting

- Cost Allocation & Spend Mgmt.
- Invoicing & Chargebacks
- Reports & Alerts

Cost & Expense Management

- Detailed usage reports
- Tagging & analysing Infra service cost
- Asset Mgmt. & Inventory reporting

Resource Utilization & Optimization

Beyond Technical operations

- Technical & Financial Optimization
- Procurement & Purchasing

Technology Agnostic

- Not a "Tool" vendor or reseller
- Repeatable & Portable practices

Shared Benefit Fee Model

- Fees on Actual Savings
- Not "spend under management"

Risk Free & Scoped SOWs

- Results realized fees
- Tactics billed on finite basis

DevOps Approach and Associated Benefits

Stay ahead of the game

Faster time to Market

Productivity increase

Automation enablement

Faster recovery

Better Time to Value
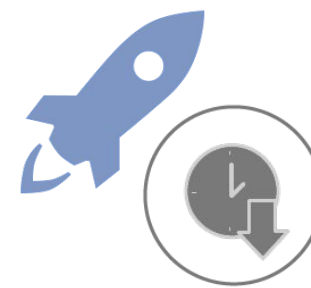
Quicker deployments

Reduction in cycle time

Key to Cloud Success

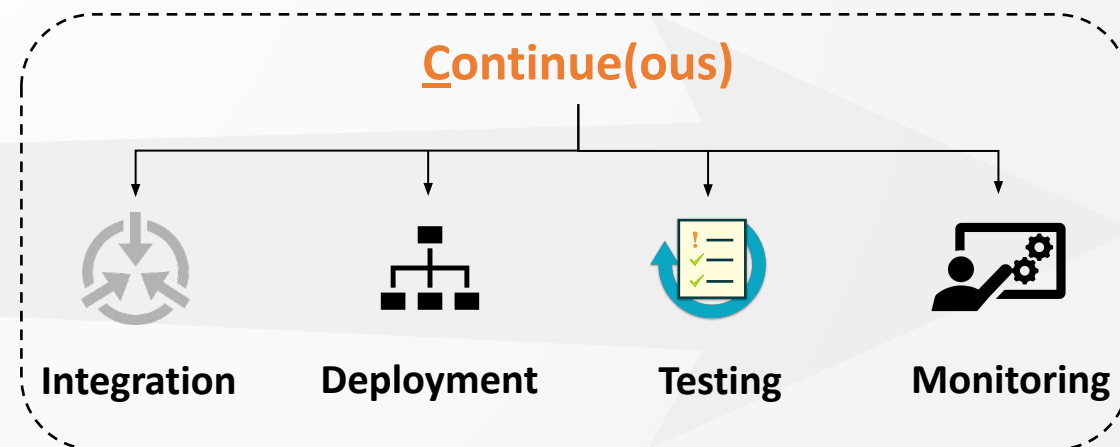**Noiseless Digitalization**
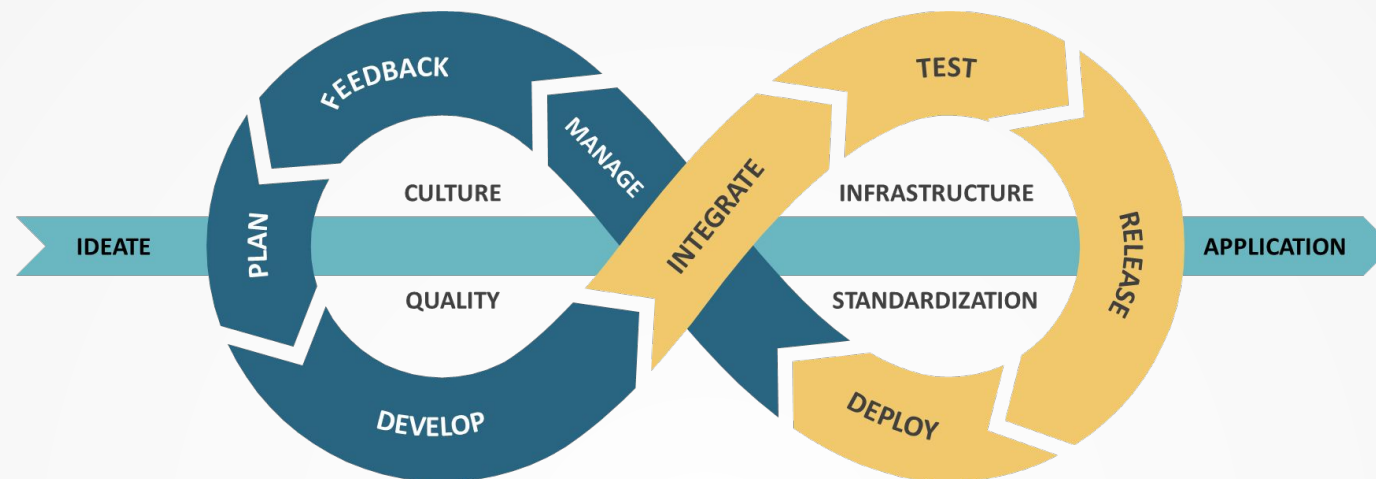
4 C's of Oak Rocket's DevOps approach

Communicate

Collaborate

Control

Continue(ous)

Integration

Deployment

Testing

Monitoring
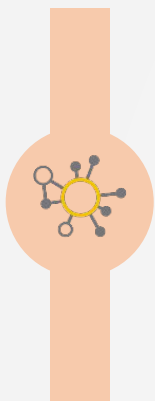
DevOps Framework

SUCCESS STORIES

Data Lake on Hortonworks (Iaas) - Networking Client

Challenge

- Marketing activities handled by different external teams (Adobe, Eloqua, etc.)
- Difficulty in capturing ROI due to data inconsistency
- Data is both structured / unstructured, and disjoint and hence unable to perform any better analysis
- Historical data available in SAP, but couldn't use for improving market reach

Overview

- KNIME for web analytics
- Zeppelin for all data ingestions, along with PySpark, Hive, etc.
- Tableau for dashboard, visualizations, etc.
- Apache Falcon for data

Solution

- Setup a Marketing data lake using Horton work distribution running on AWS
- Used APIs to move data from external locations to the data lake
- Perform data cleansing, transformation / validations and load data into a hive data warehouse
- Data science team can make use of hive data warehouse for their marketing data analytics
- Maintenance support for both AWS & Hortonworks
- Compliance support for client's internal security audits

Benefits

- Enhanced data security at user level, and data level
- Jobs are scheduled using Oozie
- Useful for data science team for all their marketing analytics
- Data lake helped the client in better market reach based on customers feedback

DevOps Services – M&E – AWS Crawler Migration
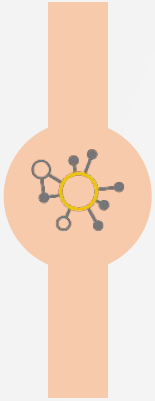
Challenge

- To migrate their existing 'data collection' setup to a new environment which is more reliable, scalable and easily manageable.
- New data collection configurations to be setup for different partner sites i.e., sites such as Amazon, Apple iTunes, Google Playstore and Vudu.
- The volume and challenges of collecting data multi-fold, due to global presence of these new partner sites.

Overview

- Java / Mysql / AWS Java SDK, MongoDb for application development / CRs
- AWS – Crawler, Crawl Scheduler, RDS with MySql, EC2 with Mongo db service & EBS with tomcat8 webserver

Solution

- Setup a data collection / crawling on a new cloud based environment running on AWS
- Migrate existing crawlers (used for data collection) from a different cloud-based environment to the new AWS environment.
- An **Agile Model Driven Development**(AMDD) with 5 sprints to execute the migration.

Benefits

- Ready availability of raw data in real time enabled quicker availability of business performance insights through analytics.
- The widened coverage of 'data collection' helped stakeholders with insights about new market areas that were vital for their business expansion plans.

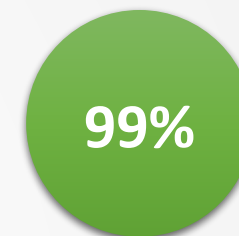# Cloud & Enterprise DevOps - Dev Ops – M&E Client

Application

20+

AWS Accounts

1000+

EC2s

50+

Other Services

100+

Applications

99%

Uptime and availability guaranteed

Services Offered

- Designing Infrastructure
- AWS Environment set up / Build
- Maintenance and support
- Patch and Vulnerability Management
- Monitoring
- Disaster Recovery
- Optimization

Technologies

CloudWatch
CloudTrail
PRTG Network Monitor
Splunk
Snare
Nagios
ELK
Jenkins