We are in the era of legacy cloud Legacy systems limiting innovation

## On cloud path already

- Simple workloads that have been lifted-and-shifted
- Net new applications, cloud native

#### The new frontier



Complex custom enterprise applications

- Custom-develop over the years
- Stacking multiple technologies
- Carrying technical debt
- Carrying open source, maintained... or not
- With interdependencies, identified... or not
- Under high security & compliance scrutiny
- Not necessarily well documented

#### Cloud-native: Measure success in terms of business value

Cost management

180+%

return on investment (ROI) over 3 years

75%

reduction in environment setup time (Day0/1 ops)

75%

reduction in ongoing mgmt time (Day 2 ops)

**Business continuity** 

50+%

less time spent monitoring services, resulting in reinvested productivity

Improvement in availability and avoided downtime

95%

faster deployments

Capabilities

30+%

improvement in developer efficiency and time to market 40%

reduction in developer recruiting costs because of better developer retention

improvement in productivity for security tasks

Source: The Total Economic Impact™ Of Google Kubernetes Engine, July 2021, a commissioned study conducted by Forrester Consulting on behalf of Google. Source: The Total Economic Impact™ Of Cloud Run, November 2021, a commissioned study conducted by Forrester Consulting on behalf of Google

## Our goal is to meet you where you are and accelerate your path to cloud

- Cloud Infrastructure & Architecture
- Continuous Integration / Continuous Deployment (CI/CD)
- DevSecOps
- Containerization & Orchestration
- GitOps
- Infrastructure as a Code (IAC) & Automation
- MLOps
- API Management
- Cloud Migration



- Cost Optimization Disaster Recovery
- Security and Compliance
- Serverless Computing
- Management
- Microservices
- Monitoring & Alerting
- **Identity and Access**
- Hybrid Cloud
- Content Delivery & **Edge Computing**





















#### Introduction

Our team of highly skilled DevOps Engineers specializes in providing DevOps services on the Google Cloud Platform (GCP). With extensive experience in designing, building, and managing DevOps infrastructure and processes, we can help your organization achieve your DevOps goals. In this document, we outline our team's competencies and how we can support your business.

**Cloud Infrastructure and Architecture** 

Our team has expertise in designing and implementing scalable cloud infrastructure and architecture using GCP services such as Compute Engine, Kubernetes Engine, Cloud Run, App Engine. Our team can help you design and implement a robust and scalable infrastructure that meets your business requirements.

**Continuous Integration/Continuous Deployment (CI/CD)** 

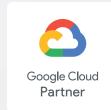
Our team has extensive experience in building and managing CI/CD pipelines using tools like Jenkins, GitLab, CircleCI, ArgoCD, TravisCI, Tekton, Bamboo, Drone, GitHub Actions, Cloud Build and Cloud Deploy. We can help you automate the entire software development life cycle, including building, testing, and deploying code to production.

**GitOps** 

Our team has experience in implementing GitOps practices using tools like ArgoCD, Flux and Jenkins X. We can help you manage your Kubernetes clusters and applications declaratively through Git repositories, enabling version control, continuous delivery, and collaboration. We can help you implement GitOps best practices, such as infrastructure-as-code, version-controlled manifests, and automated rollouts, to improve your application's reliability and reduce deployment errors.

**Containerization and Orchestration** 

Our team has experience in containerizing applications using Docker and deploying them on Kubernetes. We can help you build, deploy, and scale your applications more efficiently using Google Kubernetes Engine (GKE) and Docker.





Infrastructure as a Code (IAC) & Automation

Our team has expertise in automating tasks and processes using tools like Terraform, Ansible, and Chef, resulting in increased efficiency and reduced human error. We can help you automate your infrastructure and software development life cycle processes to improve productivity and reliability. We can automate tasks and build solutions using scripting and programming languages like Python, Bash, or PowerShell to increase efficiency and reduce manual effort.

**MLOps** 

Our team has experience in implementing MLOps processes using GCP services such as BigQuery, Cloud Dataflow, and AutoML. We can help you streamline your ML development life cycle and ensure reproducibility, scalability, and reliability of ML models. Our team can implement automated testing, model versioning, and deployment using GCP's MLOps tools, such as Kubeflow, AI Platform, and Vertex AI. We can also help you build custom MLOps solutions using open-source tools such as MLflow and TensorFlow Extended (TFX).

**Security and Compliance** 

Our team has a deep understanding of DevOps security practices, including secure software development, network security, access control, and encryption. We can implement security and compliance solutions on GCP using tools like Cloud Security Command Center and Cloud Identity and Access Management to secure your infrastructure and ensure compliance with industry standards and regulations.

**Monitoring and Alerting** 

Our team has a deep understanding of GCP's monitoring and alerting capabilities and can set up customized monitoring solutions using tools such as Stackdriver, Prometheus, and Grafana. We can help you set up comprehensive monitoring and alerting solutions that provide real-time visibility into your application's health and performance.

Microservices

Our team can help you implement microservices architecture on GCP to break down your application into smaller, more manageable services that can be deployed independently. Our team can use Kubernetes to manage your microservices on GCP, and Istio to manage traffic between your microservices and enforce policies for security, monitoring, and tracing.





**Hybrid Cloud** 

Our team can extend your existing on-premises infrastructure to the cloud for better scalability and flexibility using tools like Google Cloud VPN(Virtual Private Network), Google Cloud Interconnect, and Anthos.

**Serverless Computing** 

Our team can help you implement serverless computing on GCP to build and run applications without the need to manage servers. Cloud Functions is a serverless computing platform that allows you to write and deploy event-driven functions in response to cloud events. Cloud Run is another option that allows you to run containers on a fully managed serverless platform.

**Cost optimization** 

Optimize GCP usage and costs using tools like Google Cloud Billing to identify and eliminate unnecessary expenses and improve cost-effectiveness.

**Disaster Recovery 13** 

> Implementing disaster recovery solutions on GCP can help you ensure business continuity in the event of a disaster or outage. Our team can help you use Google Cloud Storage to create backups of your data, while Google Cloud SQL offers automatic failover to a secondary instance in a different region. We can also use tools like Cloud Endure to replicate your workloads across multiple regions for better resilience.

**Identity and Access Management** 

Our team can manage access to your resources and enforce policies for identity and access management using Cloud Identity and BeyondCorp.

**15**` **Content Delivery and Edge Computing** 

> Our team can deliver your content and applications faster and more reliably to users around the world using Cloud CDN(Content Delivery Network), Cloud Run, and Cloud Functions.

**DevSecOps 16** 

> Our team can integrate security into your DevOps processes and ensure the security of your applications and infrastructure using Google Cloud Security Scanner and Cloud Armor.





#### **API Management**

Our team can assist you in implementing API management on GCP, which can help you manage, secure, and monetize your APIs effectively. You can use tools like Apigee to design, deploy, and manage your APIs on GCP. Apigee provides features like API security, rate limiting, analytics, and monetization that can help you manage your APIs efficiently.

18

#### **Cloud Migration**

Our team can help you implement cloud migration on GCP, which can help you migrate your existing applications and data to the cloud for better scalability, performance, and cost savings. You can use tools like Cloud Endure to migrate your applications and workloads to GCP, with features like continuous replication, testing, and cutover that can help you migrate your applications with minimal downtime and risk.

## Conclusion

Our DevOps Engineer Team has the technical and soft skills competencies needed to design, build, and manage DevOps infrastructure and processes on GCP. Our team has proven their Google Cloud competencies with professional GCP certificates. We prioritize collaboration, problem-solving, customer-focused, continuous learning, and automation to provide our clients with the best DevOps services possible. Contact us to learn how we can help your organization achieve your DevOps goals on GCP.

| Certifications |                                | # |
|----------------|--------------------------------|---|
| PCA            | Professional Cloud Architect   | 3 |
| PDE            | Professional Data Engineer     | 3 |
| PNE            | Professional Network Engineer  | 1 |
| PSE            | Professional Security Engineer | 2 |

