dev up

Permit to Cloud:

Land with confidence in Azure

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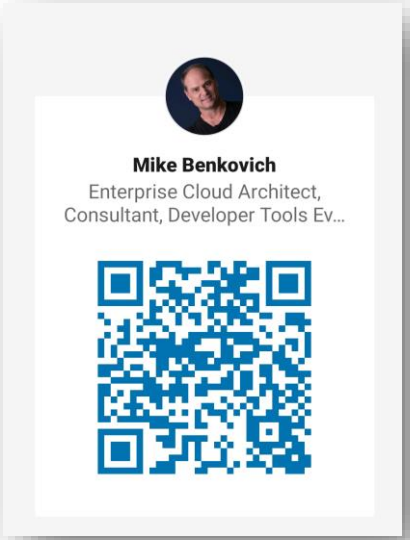


- **Developer**
- Cloud **Architect** & **Consultant**
- Live in **Minneapolis**
- Founder of **Imagine Technologies**, Inc.
- Developing Courses for **LinkedIn** Learning
- Blog www.**benkoTIPS**.com
- Follow **@mbenko** on **Twitter**
- Send me **Feedback**! mike@benkotips.com

My Sessions … this week!

- Permit to Cloud – Land with Confidence in Azure
  - Tuesday 6/7 11:00 am – Discovery D
- Performance Tuning Strategies for Cosmos DB
  - Tuesday 6/7 4:00 pm – Imagination B
- Infrastructure as Code Bake-off ARM vs Bicep vs TF
  - Wednesday 6/8 4:00 pm – Discovery B

Takeaways from today

How to go from **Idea** to **Cloud** App

Blueprints create **Landing Zones** with **Cloud Governance**

Discover **Visual Studio** tools to build **Connected** Apps

Use **Resource Group** projects to manage cloud **access**!

Enable Continuous **Value** with **DevOps**

What is the "Cloud Journey"

An **Application** is an Idea

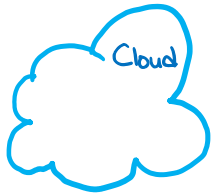
Data

Code

+ Infrastructure

= Application

Cloud Application



- Runs in a cloud datacenter
- Managed on virtual hardware
- Monitored
- Configurable
- Scalable

I've got an idea!

My kids graduating…

Need guidance!

- Hard to be everywhere
- Words of wisdom help

Mobile Friendly

Reuse API Economy?

The Dad App

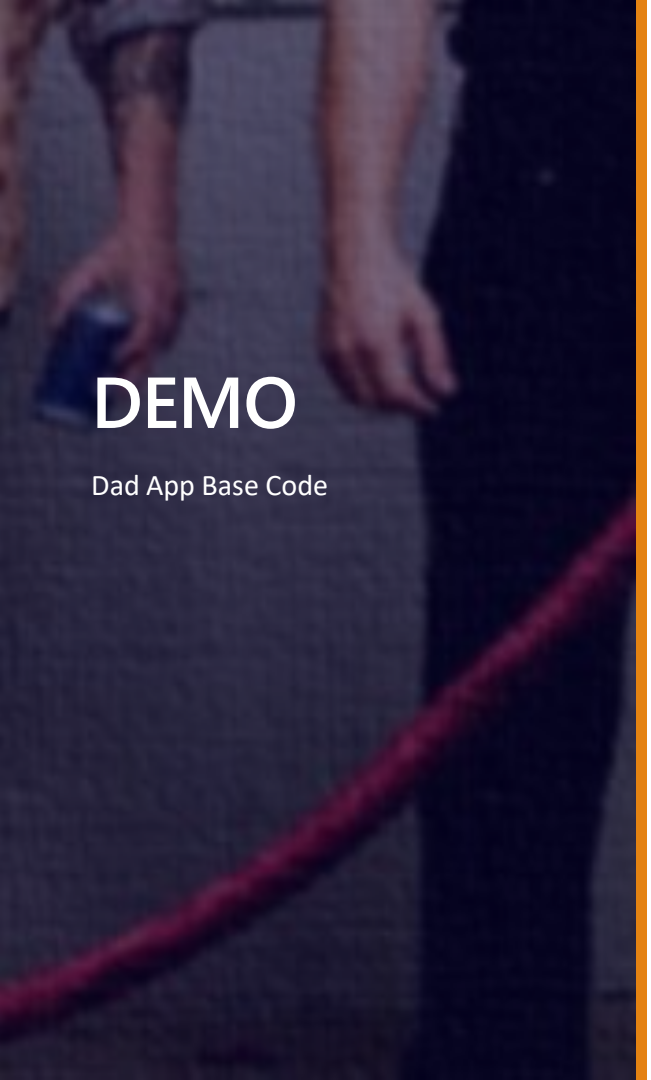
Web Application
- Mobile friendly
- ASP.NET Core Web App
- Calls API for Joke

Configuration

Monitored

Keep it simple!
- Use existing tools
- Click to deploy
- Manage in Portal

http://askdad.benkotips.com

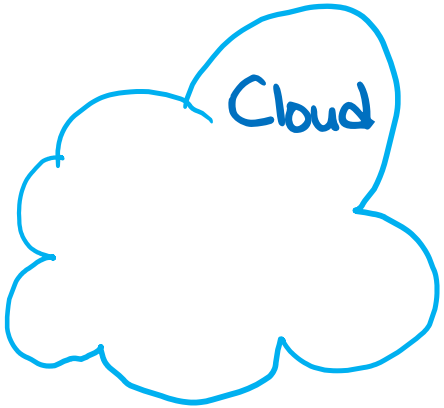


DEMO

Dad App Base Code

Permit to Build

I've got an app, where should I run it?



Cloud or On Premises?

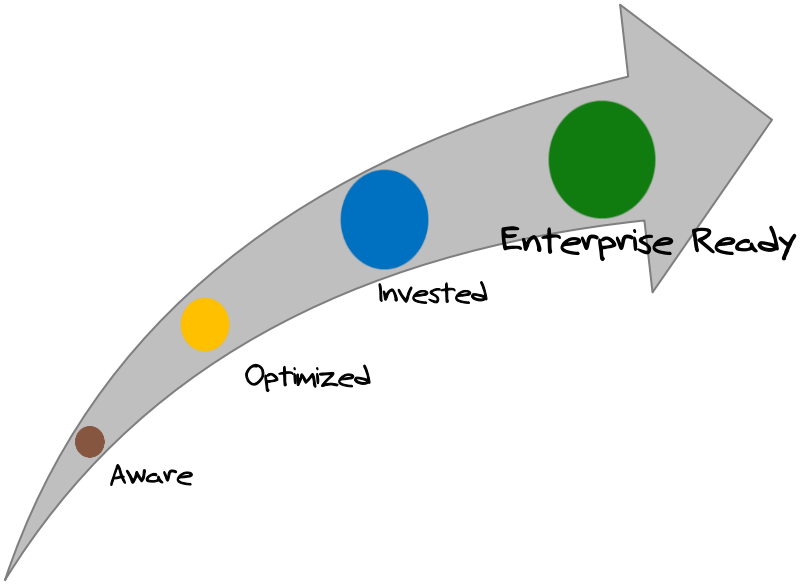
On Premises

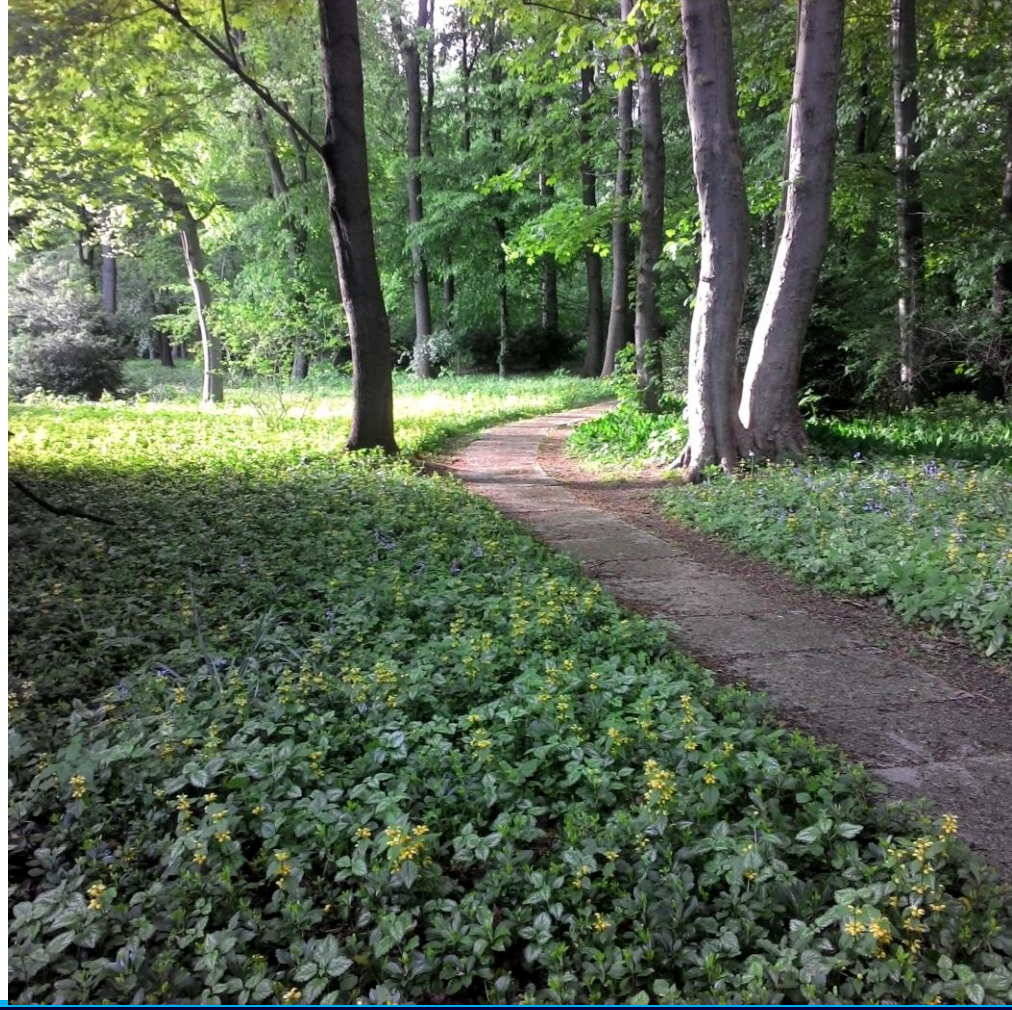
- Hardware Concerns
- Capacity
- Timeframe
- Capital Costs
- Security

Cloud

- On-demand provisioning
- Time savings
- Pay for use
- Choice of Services
- Maturity of platform

Cloud Journey





Step 1 – The Cloud Aware App

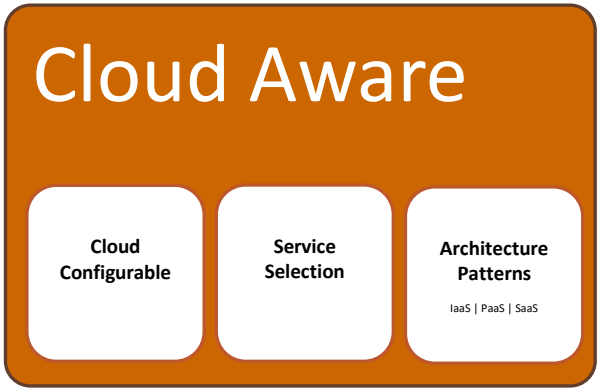
Runs in the **cloud**

Use **Existing** code, minimal changes

Click to deploy in Azure

Manage Config settings in **Portal**

Connected Services



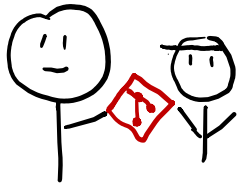
To Deploy to Azure...

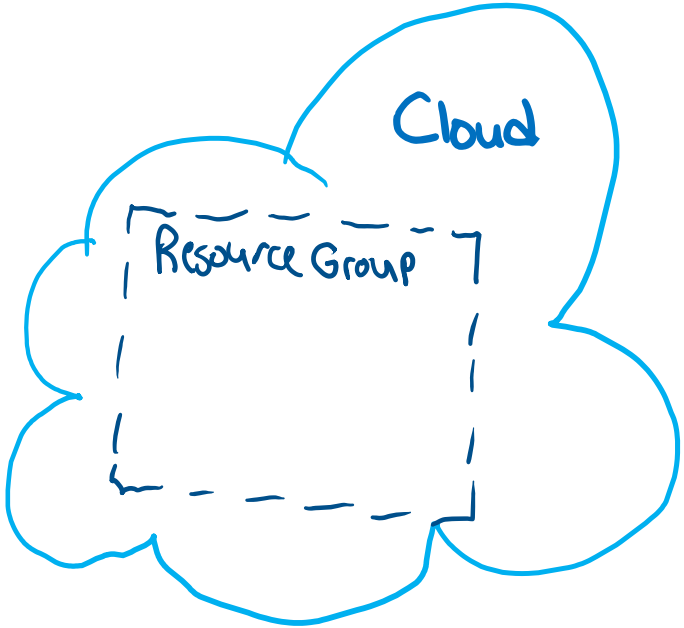
Code Repository - GIT

Need an **Azure** Subscription

Create **Resource Group**

Give access to **Developer**



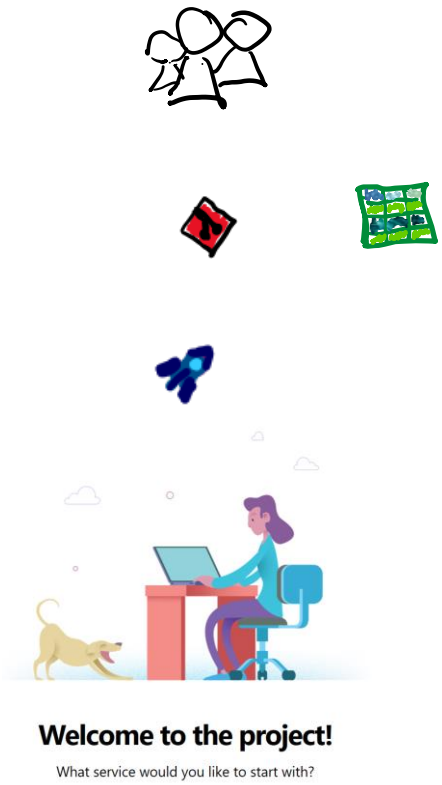


Code Repository Choice

- Enables Collaboration
- Work Board
- Code Repositories
- Pipelines (build and release)
- Testing

https://dev.azure.com

https://github.com



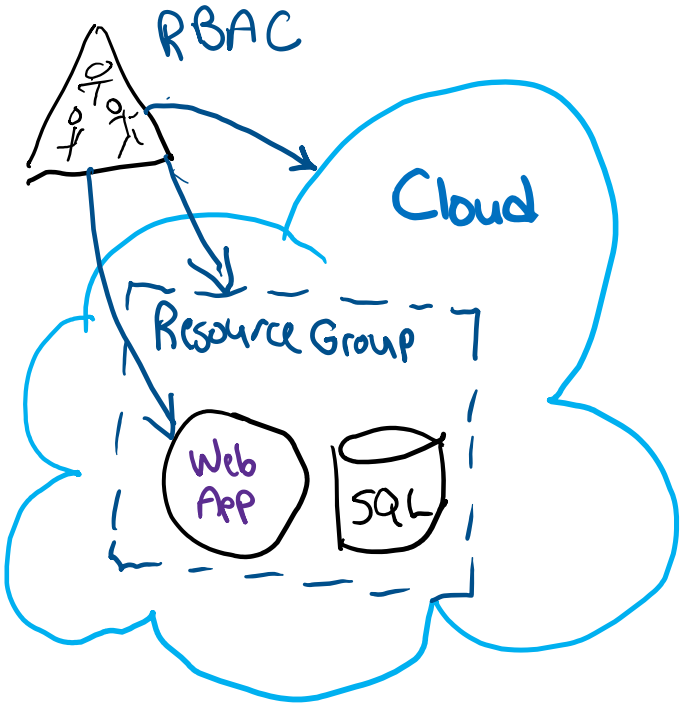
Access to Azure

Tenant (or directory of users)

Management Groups (optional)

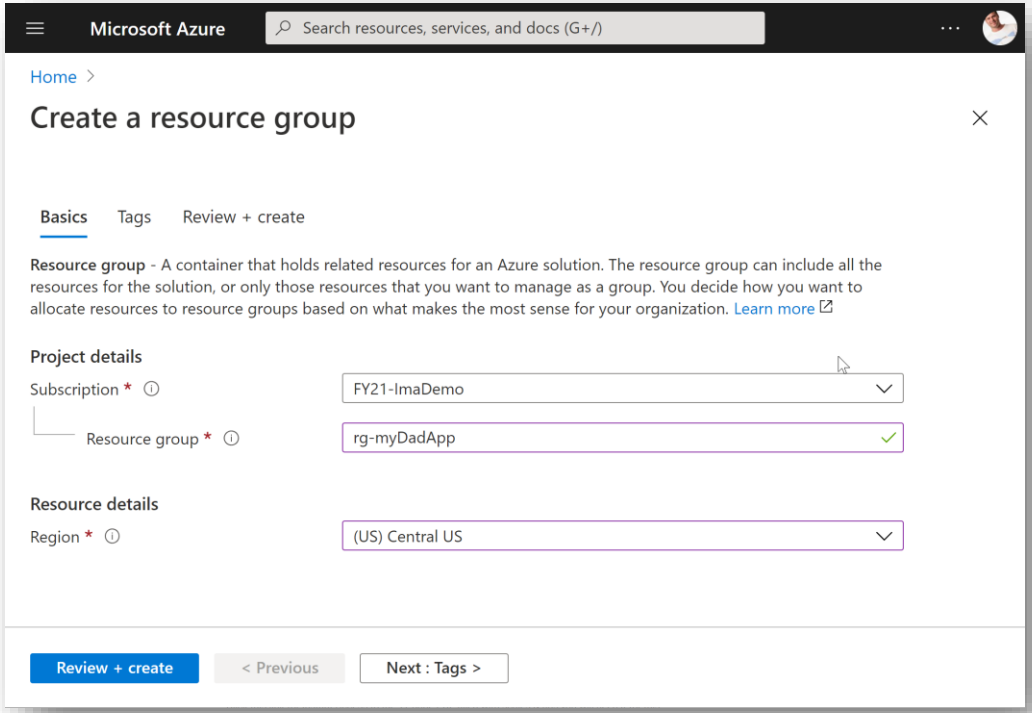
- Subscriptions
  - Resource Groups
    - Resources

RBAC – Role Based Access Control



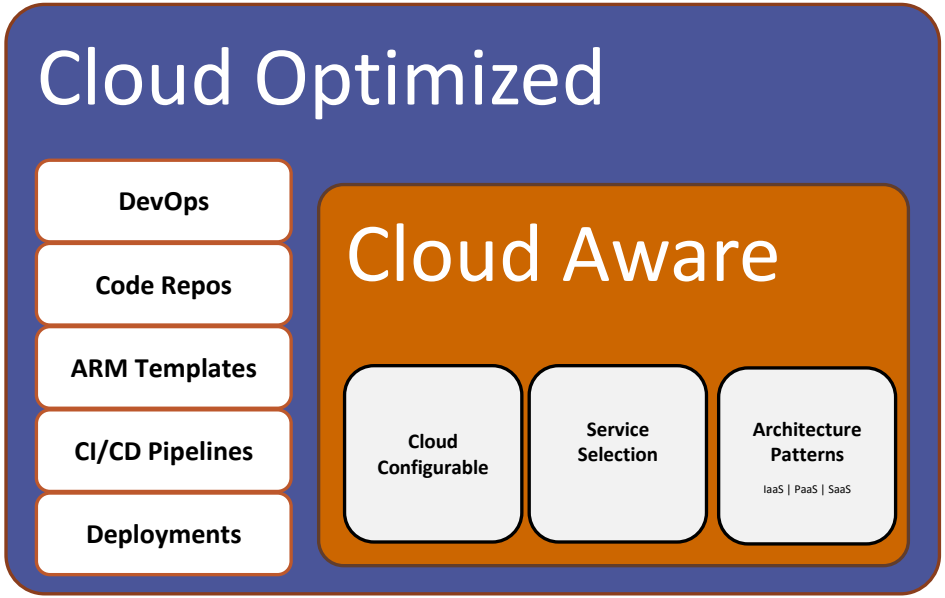
DEMO

Dad App Base Code



Step 2 - Cloud Optimized

DevOps Processes
Code collaboration
Cloud service capabilities
Application Lifecycles
Managing delivery



Azure Landing Zone

Governance built in

Secure

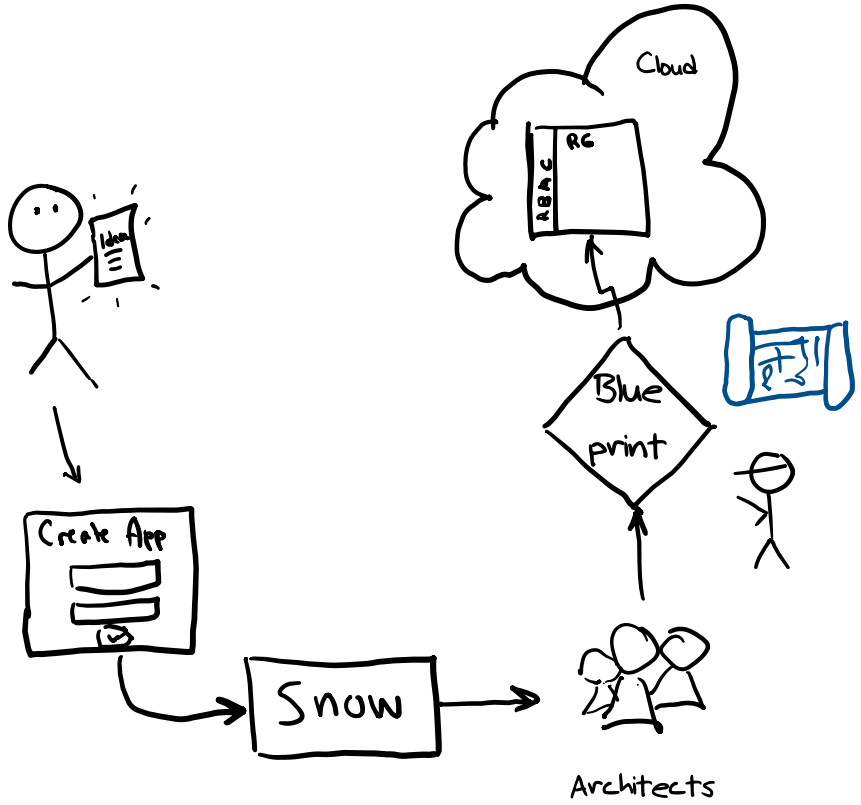
Compliant

Controlled Access

Shared Resources

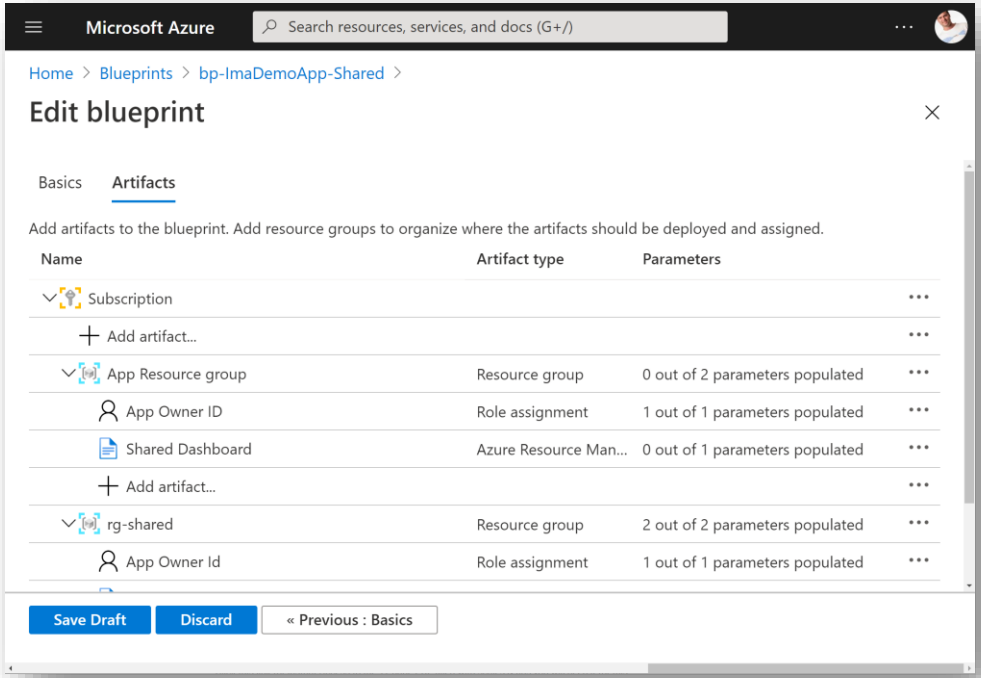
Azure Blueprints

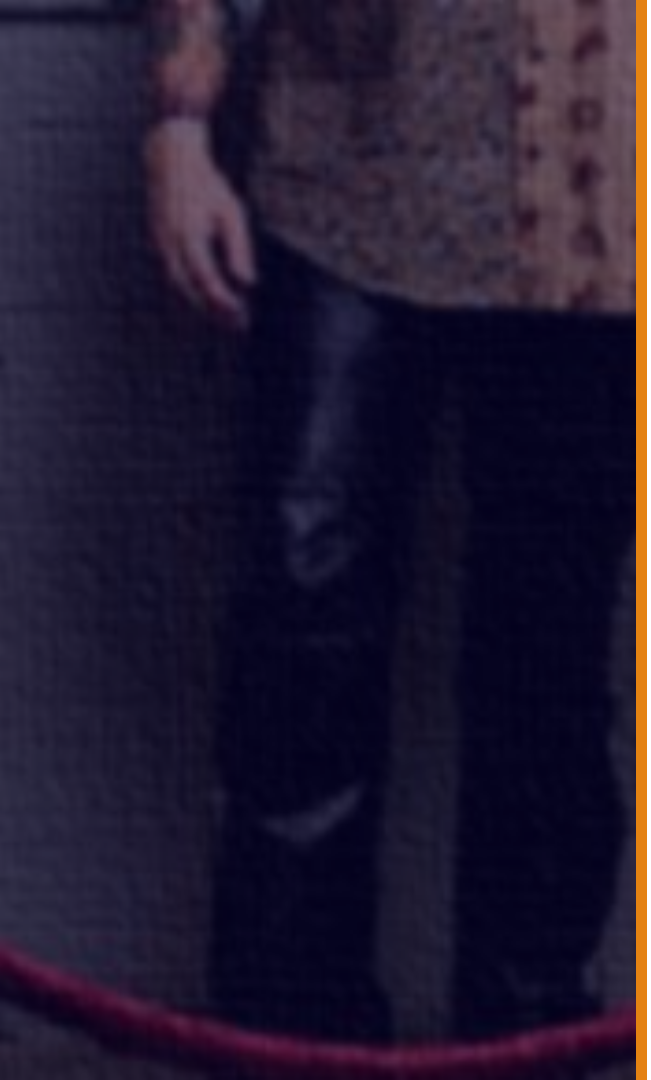
- Resource Group
- Access Control (RBAC)
- Policies
- Templates



My DemoApp Blueprint

- App Resource Group
- App Owner Assignment (RBAC on RG)
- App Dashboard
- Access to Shared Resources
  - KeyVault
  - Network
  - Storage
- Parameters
  - Owner ID
  - App Name





Step 3 – Cloud Invested

Operational

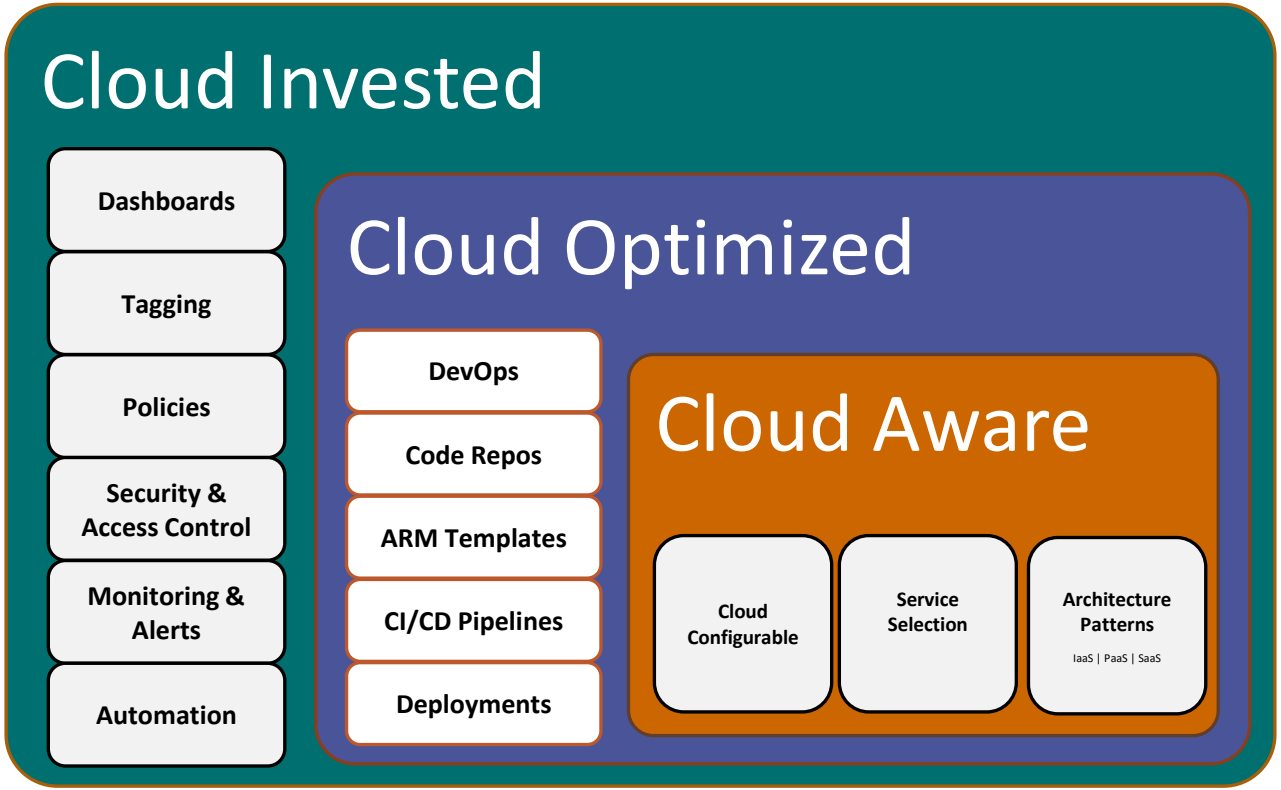
Dashboards

Cost Mgmt

Compliance

Policies

Blueprints

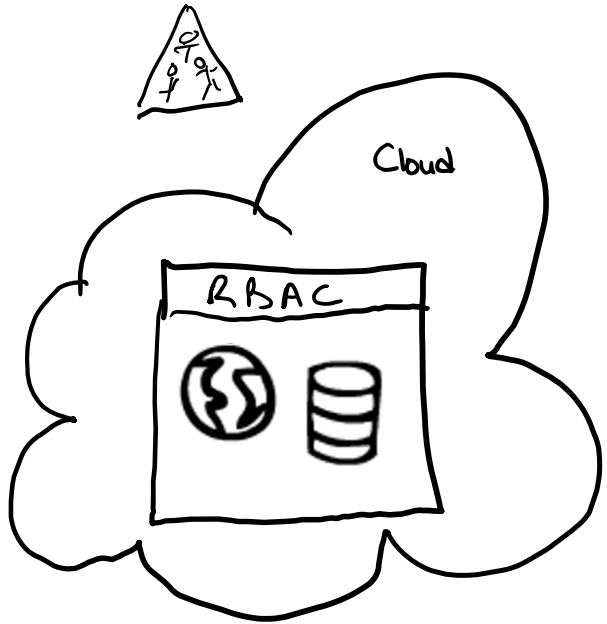


Cloud Governance Concerns

Azure and Github	-	https://bit.ly/**azGitHub**
Azure DevOps	-	https://bit.ly/**azDevOps**
Best Practices	-	https://bit.ly/**azBestPractices**
Cost Management	-	https://bit.ly/**azCostMgmt**
Tagging	-	https://bit.ly/**azTagging**
Location Selection	-	https://bit.ly/**azRegions**
Naming Standards	-	https://bit.ly/**azNames**

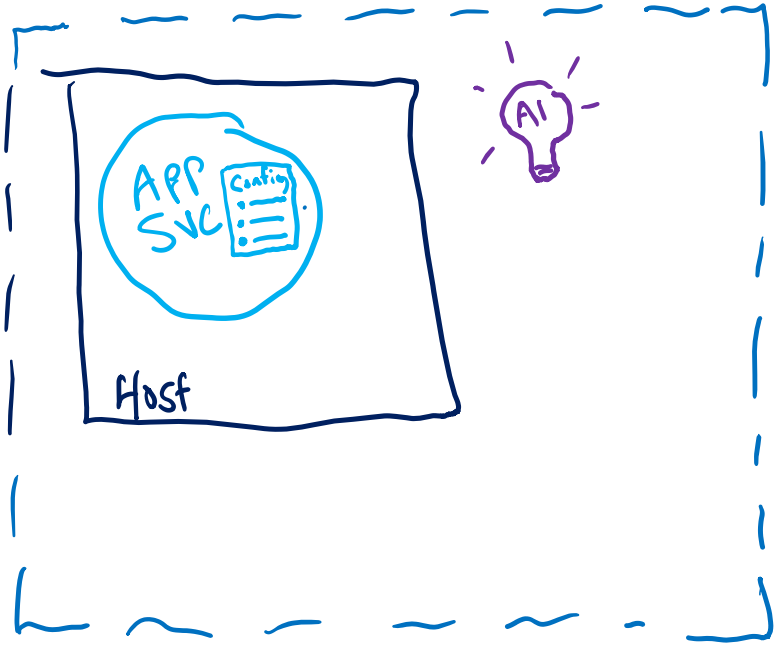
Cloud Resource Group Project

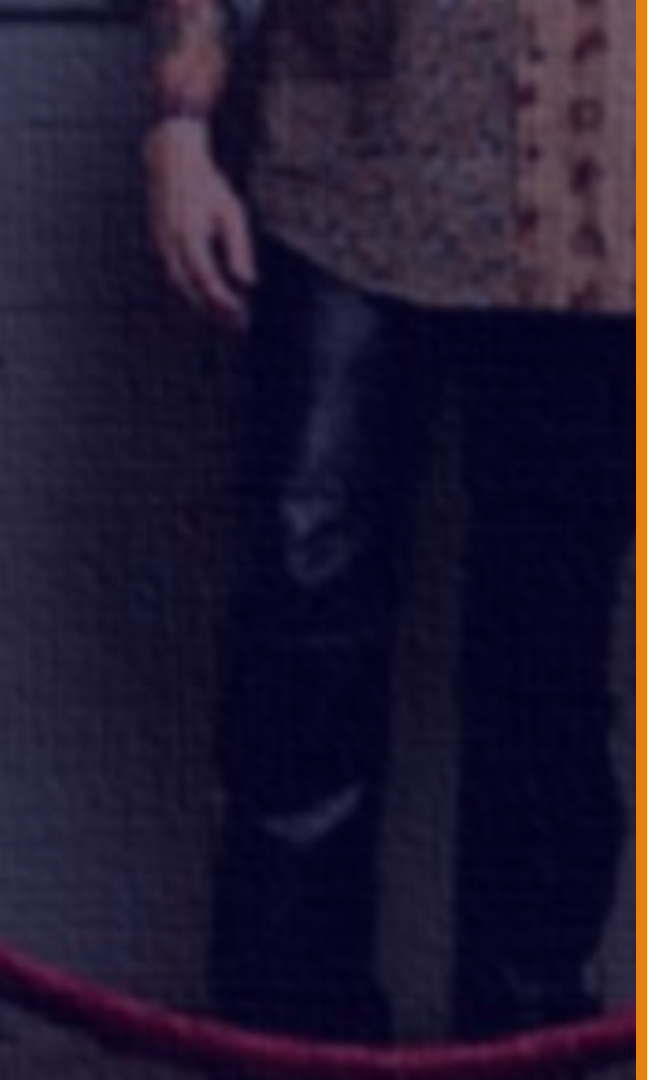
- Templates for infrastructure
- Azure Resource Manager
- JSON to describe
- Scriptable & repeatable



My Web App Template

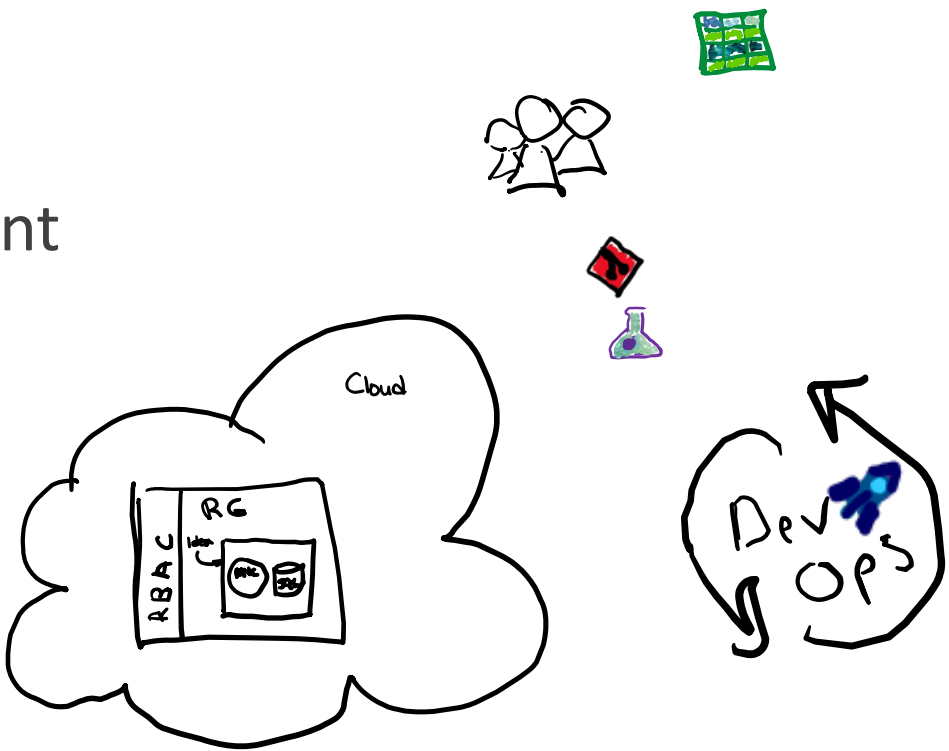
- App Hosting Plan
- Web Application
- Configuration Settings
- Monitoring
- Data connection strings



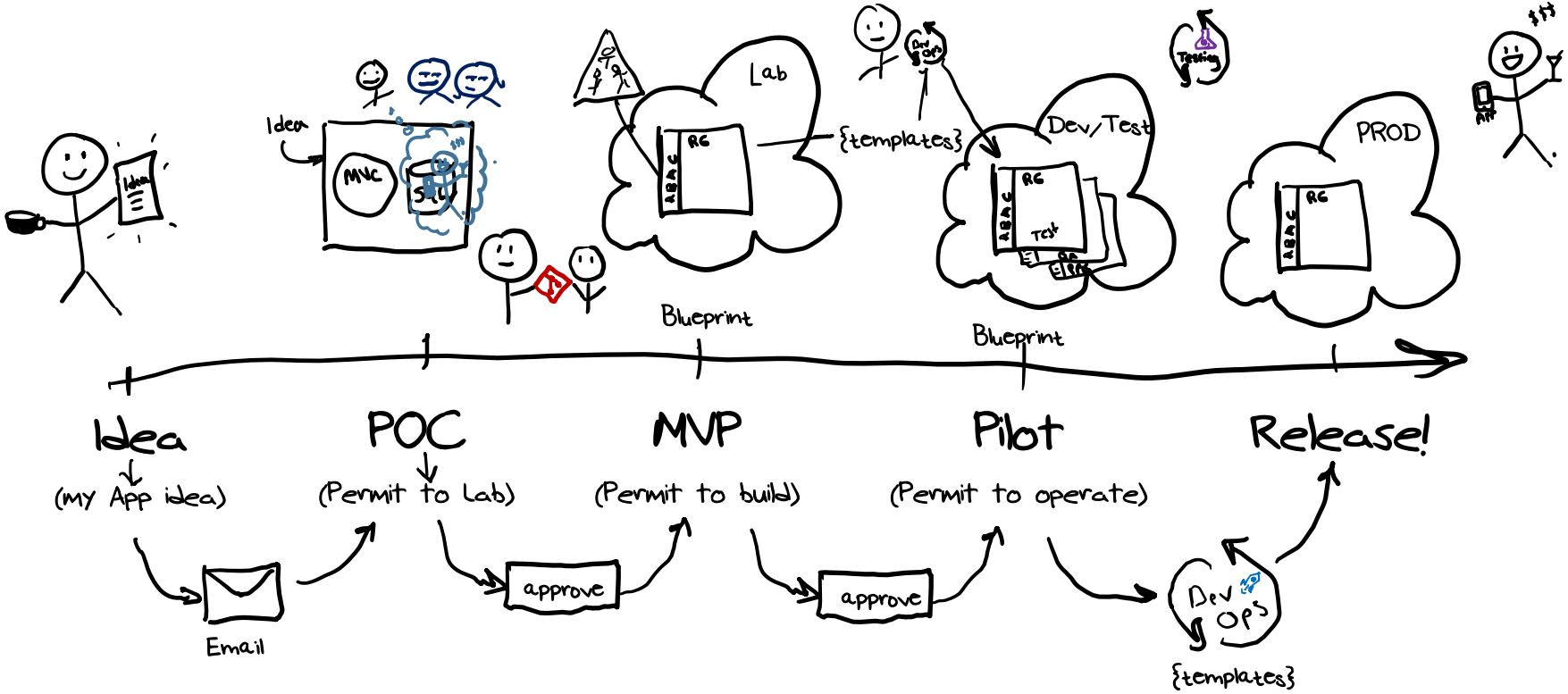


Continuous Delivery

- Process for Change
- Collaboration
- Iterative Development
- Agile(ish) in Nature
- Reportable

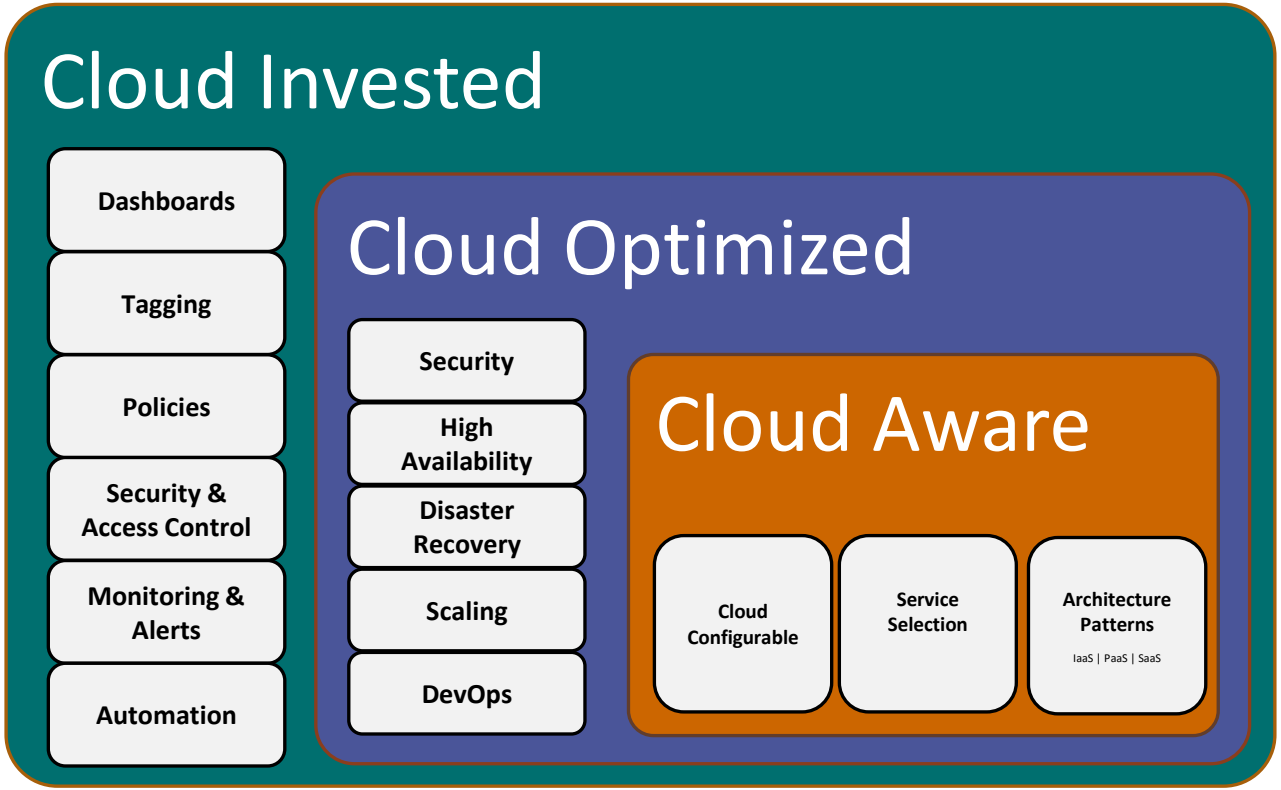


Permit to Cloud



Permit to Cloud is Enterprise {Ready!}

- Operational Intelligence
- Compliance & Security
- Costing
- Learning Library
- Reference Architectures
- Permit to Build Permit to Operate
- Cloud COE



Considerations

The **Last** Mile

Building a **road** vs creating a **path**

White Chip vs **Blue** Chip

CapEx vs OpEx

Open Mindset

Process vs **Product**

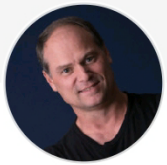
Reference Architectures

Conclusion

The **journey** to the cloud can be challenging

Take it a **step** at a time

Be aware of the **tools** that can ease the way



Mike Benkovich
Enterprise Cloud Architect,
Consultant, Developer Tools Ev...

Call to Action...
Where can I get more info?

Visit my blog www.benkotips.com

Schedule a **workshop** to make your IT workforce cloud aware
mike@benko.com

Try it out with **low hanging fruit** white chips

Journey to the Cloud

- Cloud Governance
  - Compliance Requirements
  - Identity Strategy
  - Cloud Management scope
- Cloud native tools…like Blueprints, Policy, etc.
- Templated deployments
- Code Management
- DevOps Processes
- Measurement of success

Picking which Cloud

- Leadership
- Compute and Storage options
- Messaging and connectivity
- Networking and on-premises
- Governance
  - Cost Management
  - Identity and Security
  - Monitoring and Compliance

Which cloud?

aws	- Since 2006 - IaaS Foundation - 175+ services - Account governance
Azure	- PaaS and Enterprise focus - Advanced tooling and management - Subscription based governance - Leverages Identity for O365 and Teams
Google Cloud	- Compute, AI and Search focused - Innovation and Open Source - Containers and Kubernetes
Other	- IBM, VM Ware, Alibaba, etc.

Azure DevOps vs. Github

Azure DevOps

- Microsoft Team Services
- Enterprise focus
- Private repos by default
- One-stop-shop
  - Repos, Boards, Pipelines
  - Artifacts, Testing

Github

- Open Source favorite
- Community focus
- Public repos by default
- New capabilities
  - Actions
  - Boards

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Click to deploy in Azure
Config settings in portal
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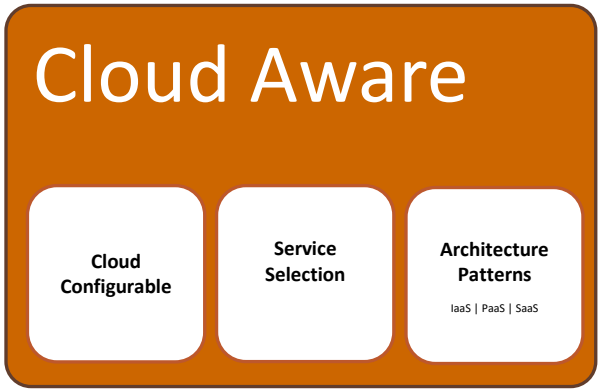

Step 2 - Cloud Optimized

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