

Innovating in the Cloud

S9: Provisioning a Cloud Innovation Lab using Public Cloud Offerings

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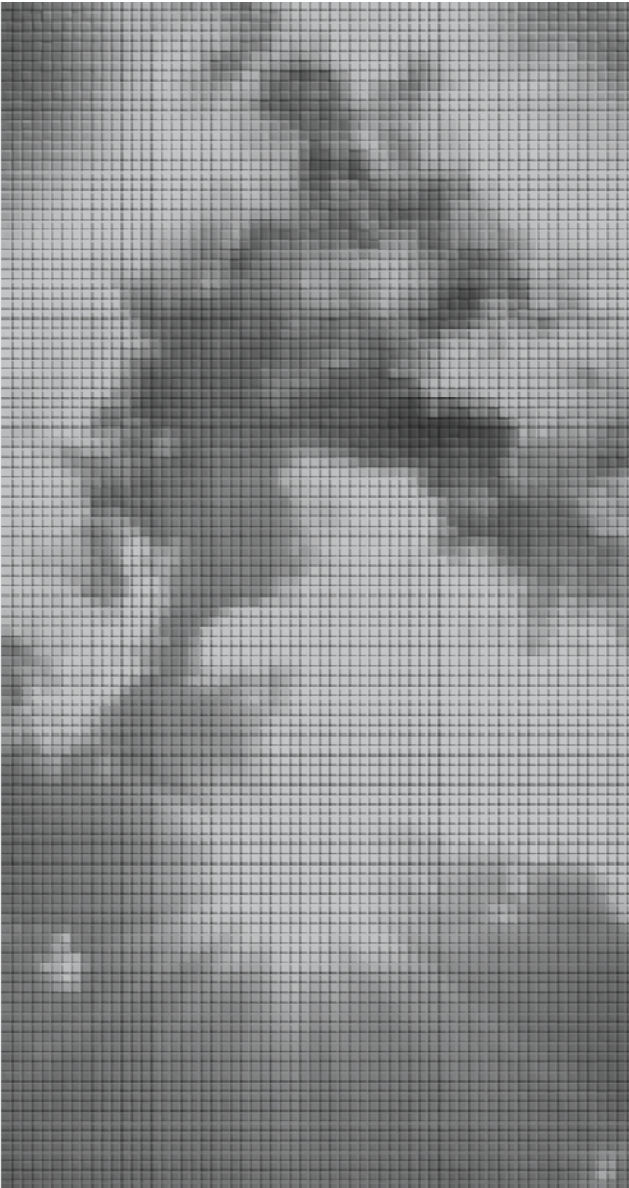
AGENDA

Background

Demo

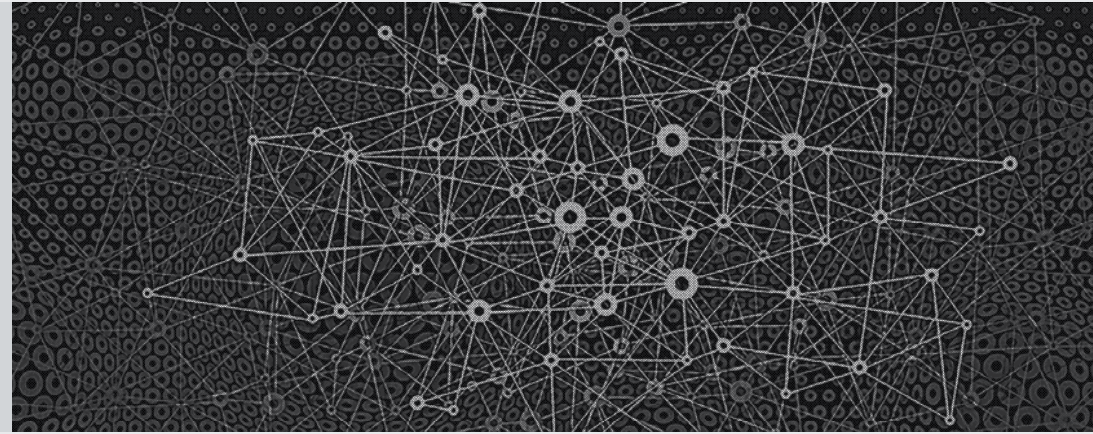
Recipe

Questions



WHAT IS CLOUD COMPUTING?

On-demand
access to shared
computing services



5 Essential Characteristics

- On demand
- Broad Network Access
- Resource pooling
- Rapid elasticity
- Measured service

Traditional On-Prem IT Supply in an Enterprise

"Hi There, I need a place to experiment and try some stuff out"

Phew, ok once I've filled in this form how long will this process take?"

Noooooooooooooooooo!



Excellent I can totally help you with that. To start the process I just need you to fill in this 12 page form

It depends – could be in the range of 3-12 months

Er, Hello.....?

CLOUD COMPUTING

Services can be **easily** provisioned and released with minimal management effort or service provider interaction

OUR STORY



OUR CHALLENGE

- Integral Part of the GC Cloud Journey
- Cloud CoE – Change Agents
- Maximize the benefits to Agency

OUR CHALLENGE

Areas Impacted by Cloud Adoption

Security, Risk Mgt, and Legal

Cybersecurity, Access, Compliance, Information Risk Management, Legal & Regulatory Compliance, controls and policies

Governance & Portfolio Mgt & Policy

Business & IT Roles and Responsibilities - Strategic Investment Planning - Portfolio Management: Applications & Infra. services, common functions, consolidation, and aggregation. Policy

Service Management

Consumption Model, Operating Model, SLAs, Processes, Demand Mgt, Onboarding, CRM, Service Catalog, Service Lifecycle.

Procurement, Sourcing, and Vendor Relations

Procurement Strategy & Plan, establish vehicles, vendor management, contracting, arbitrage, provider ecosystem

Finance & Cost Modeling

Pricing model, cost recovery model, financial processes and tools, financial performance indicators.

Enterprise Information Management

Data Classification, Records Management, Data lifecycle management, BI

Communications & Change Management

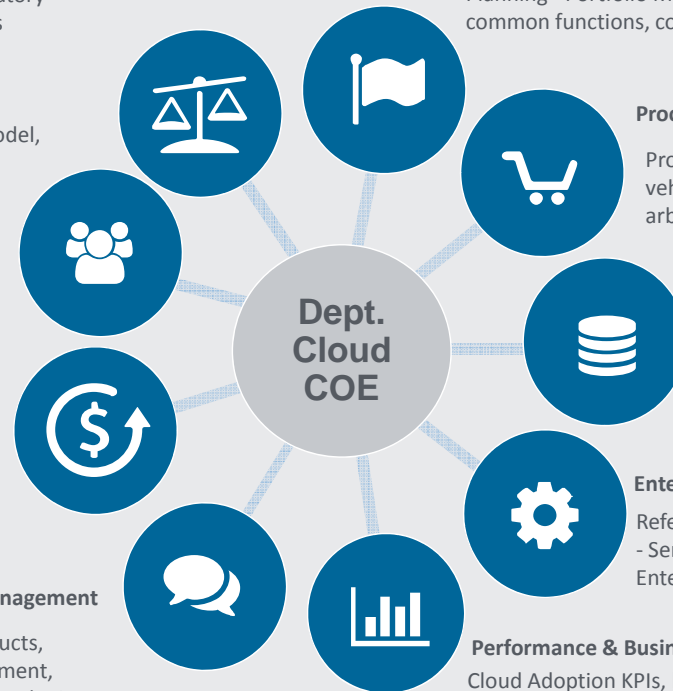
Communications Plan and Products, Organizational Change Management, Stakeholder Mapping, Service Marketing.

Enterprise Arch & Design

Reference architectures, patterns & standards - Service/data integration - Migration planning - Enterprise process models

Performance & Business Acceleration

Cloud Adoption KPIs, benefits realization and reporting. Aligning benefits and service evolution to accelerate business objectives.



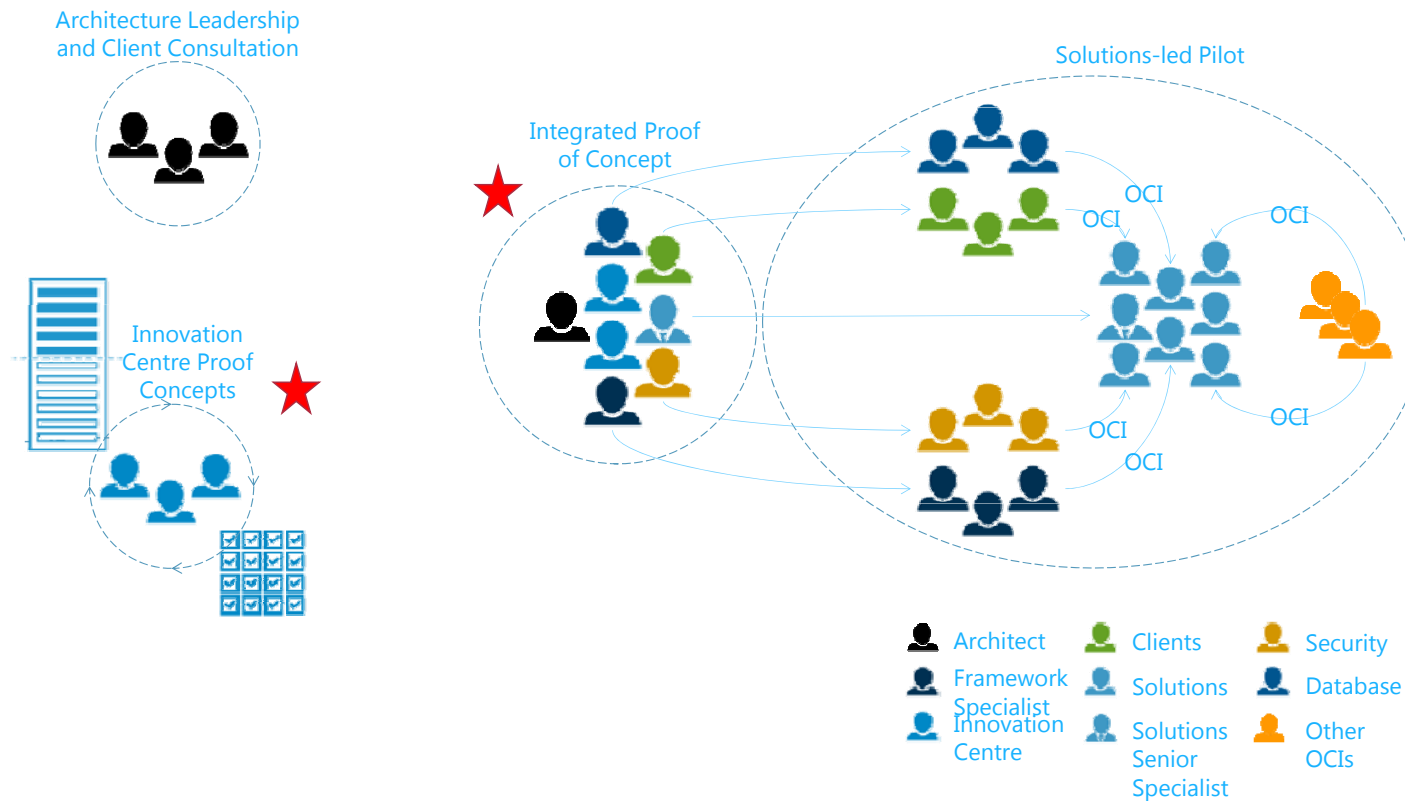
OUR APPROACH

Pragmatic and Programmatic approach

Learn and Evolve through Pathfinders

Agility, Speed and Innovation

INNOVATION ECOSYSTEM



Unlock for Innovation

Refactor to Operationalize

OUR APPROACH

- An Innovation Lab
- Maximize the benefits with unclassified workloads
- Collaborate with other GC Departments

THE STAGE HAS BEEN SET

NOW WHAT?

1
Automation Engine

2
Virtual Network

3
Virtual Machine

4
Jump Server

5
Guardrails &
Governance

<https://github.com/jasonvriends/azure-quickstart>

Provision an Innovation Lab

Click, Script, or ~~button~~ magic

A stylized illustration of a laptop. The screen is dark grey and displays the word "DEMO!" in large, white, sans-serif capital letters. The exclamation point is blue. The laptop body is a lighter grey color.

DEMO!

What's our first workload?

COTS Testing/Engineering



Infrastructure as a Service for
Testing/Engineering Commercial off the Shelf
Software.

Distributed Ledger (Blockchain)



Consortium Blockchain with Open Source
Technology

DevOps Automation



Automation of a build pipelines with Internet
of Things (IoT) integration.

DevOps Pipeline Build

Notification

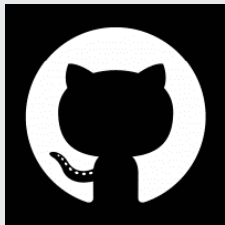
Change the color of a Smart Light
based on DevOps build status



DEMO!

OUR RECIPE

What tooling did we use to do this?



GitHub

github.com/jasonvriends



Azure DevOps

devops.azure.com



Azure Cloud

portal.azure.com



Cloud is about how you do computing,
not where you do computing.

— Paul Maritz, CEO of VMware