ALL DAY DEVOPS

NOVEMBER 12, 2020

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Cloud as a Commodity: Highest Probability of 100% Availability

Why listen to me today?

Interrupt and Ask Questions!

I like it

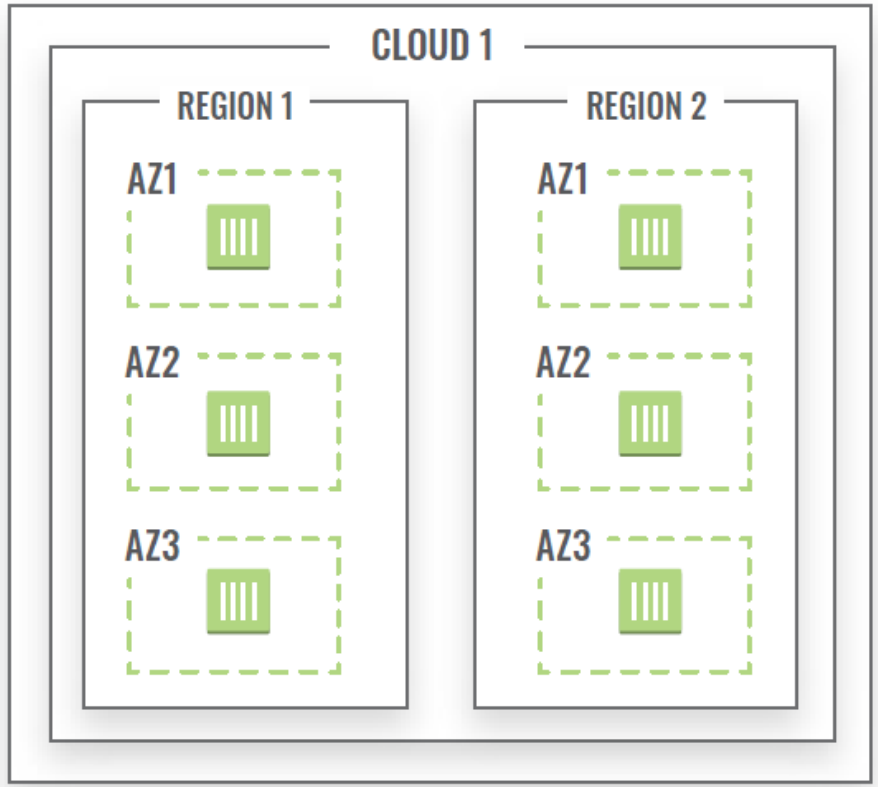
Quick Humble Context

- Was Global head of SRE/AppSec at NCR
- Make killer omelets with an iron skillet
- Spent 25 million USD on DX to learn from my epic failure
- In DevSecOps space to innovate & contribute content
- Certified Google Fellow

Yelling Side Profile

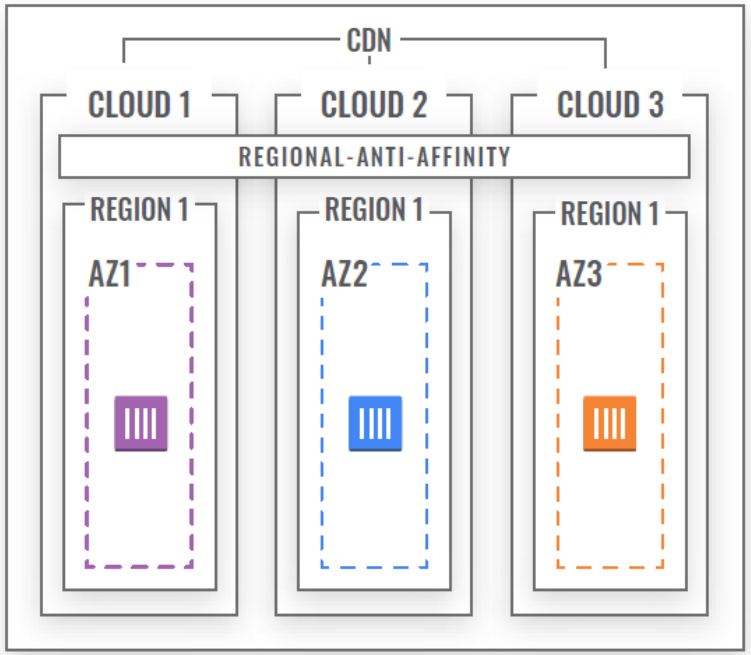
Antipatterns to Resilient Architecture

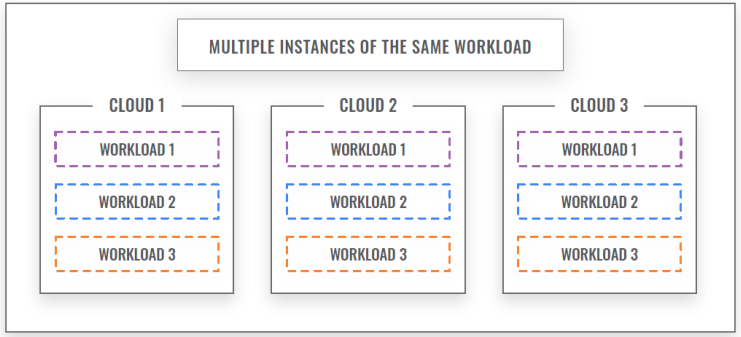
- Strategic Cloud Target
- Multi-Regional
- 3+ Availability Zones
- Unable to achieve 100% availability
  - Google SRE handbook confirms



Data-Driven Resilient Architecture

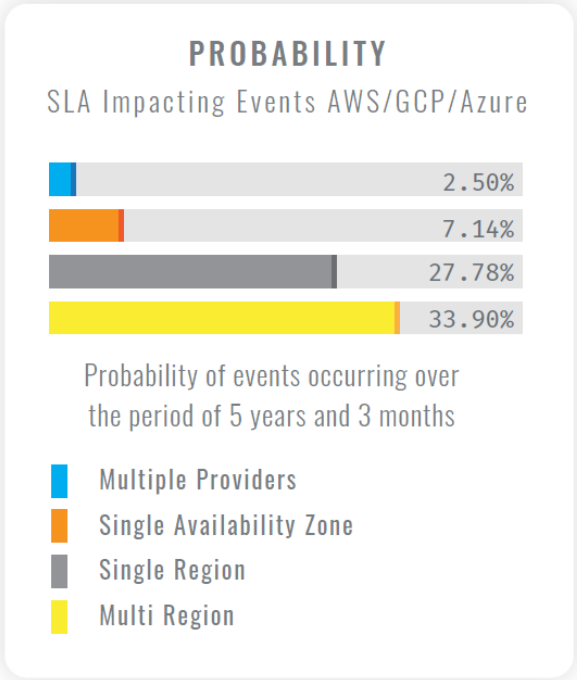
- What I call ‘Sum Cloud’
- Redundant Multi-cloud Workloads
- 1 Availability Zone
- Able to achieve 100% availability
- Fewer workloads for higher resilience

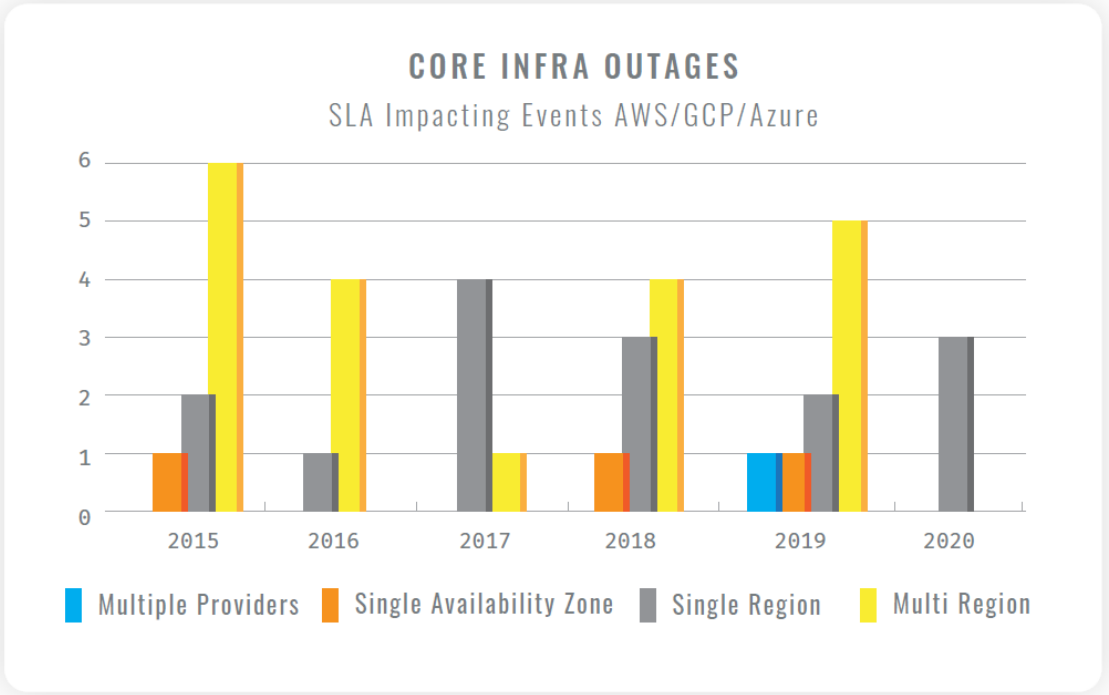




Data Analysis – Proving a Point

- Scope: AWS/GCP/Azure
- Timeframe: 2015-2020 March

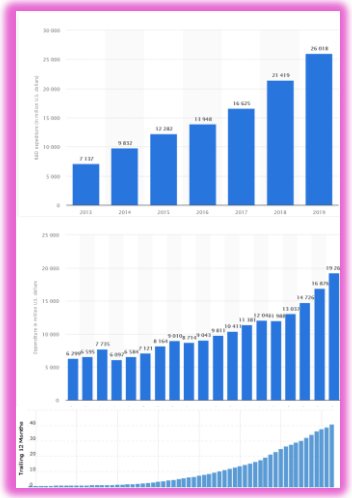




Source - ThousandEyes, DownDetector, CloudHarmony, CRN, cloud provider status pages.

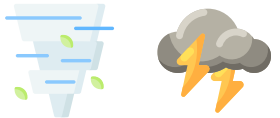
Take-Aways

- Resilience to SLA impactful events is by running your services from independent organizations (►R&D)



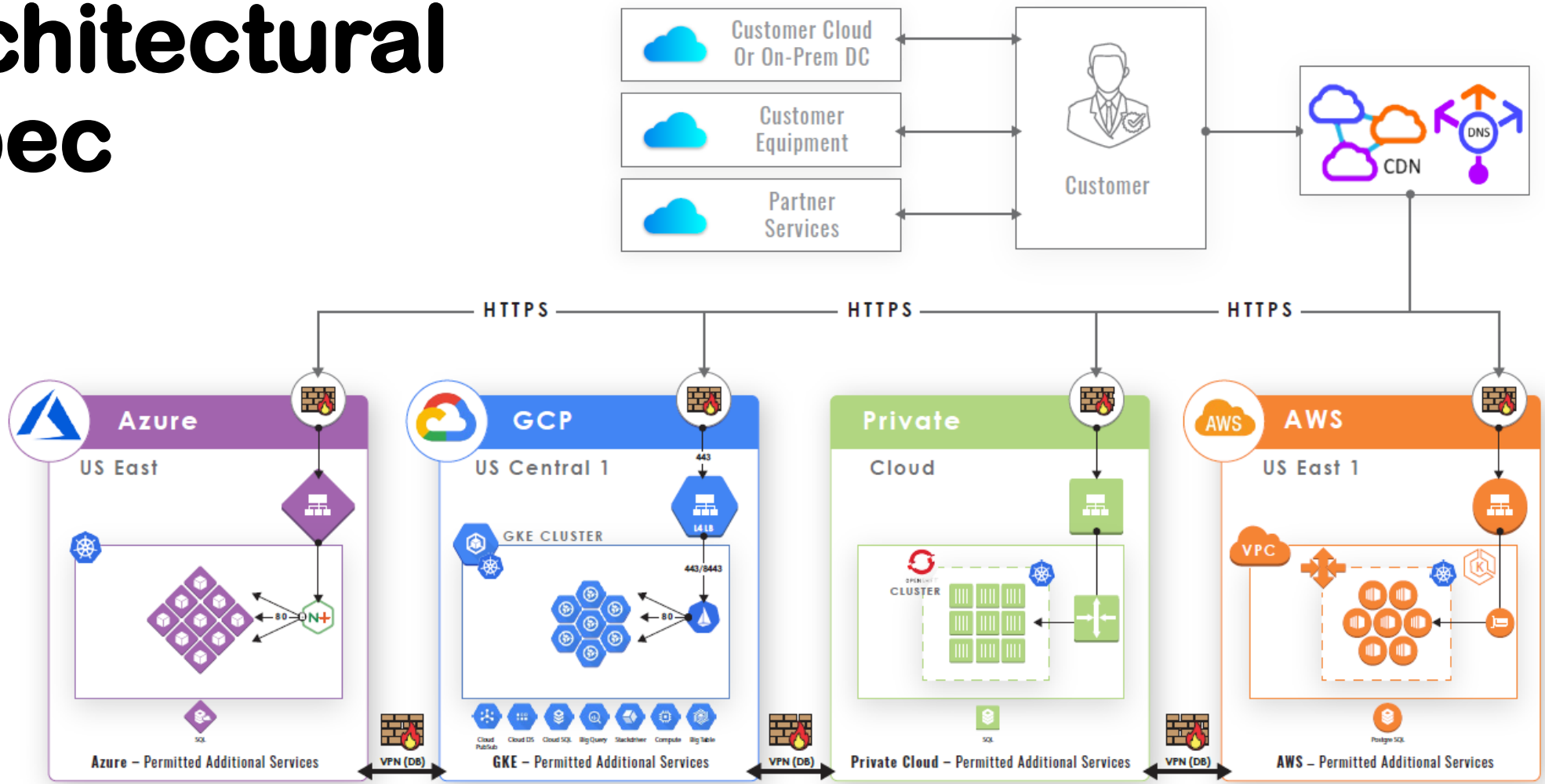
- Human errors cause the bigger events

- Environmental events cause AZ outages

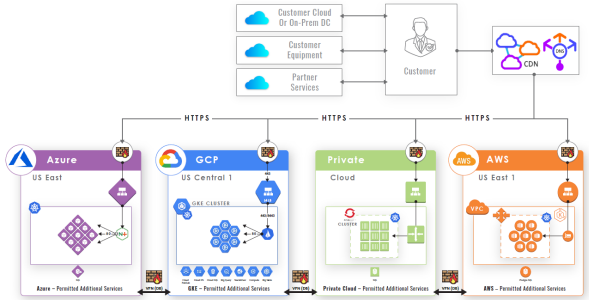


- Multi-Cloud with the CNCF can be efficient and minimal operational management overhead

Architectural Spec



Reasonable Multi Cloud Operational Management

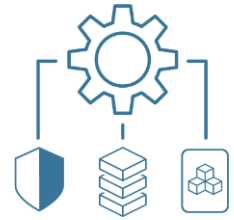


Pipeline-as-Code ► Orchestration not Automation

Stop Making Infrastructure Pipelines

Include IAC / CAC in the delivery (environment delta)

Environmental requirements are part of the delivery (GitOps)



SHOW US – 3 Clouds!

Learn more: Whitepaper (https://www.benchmarkcorp.com/immutable-clouds-whitepaper/)

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