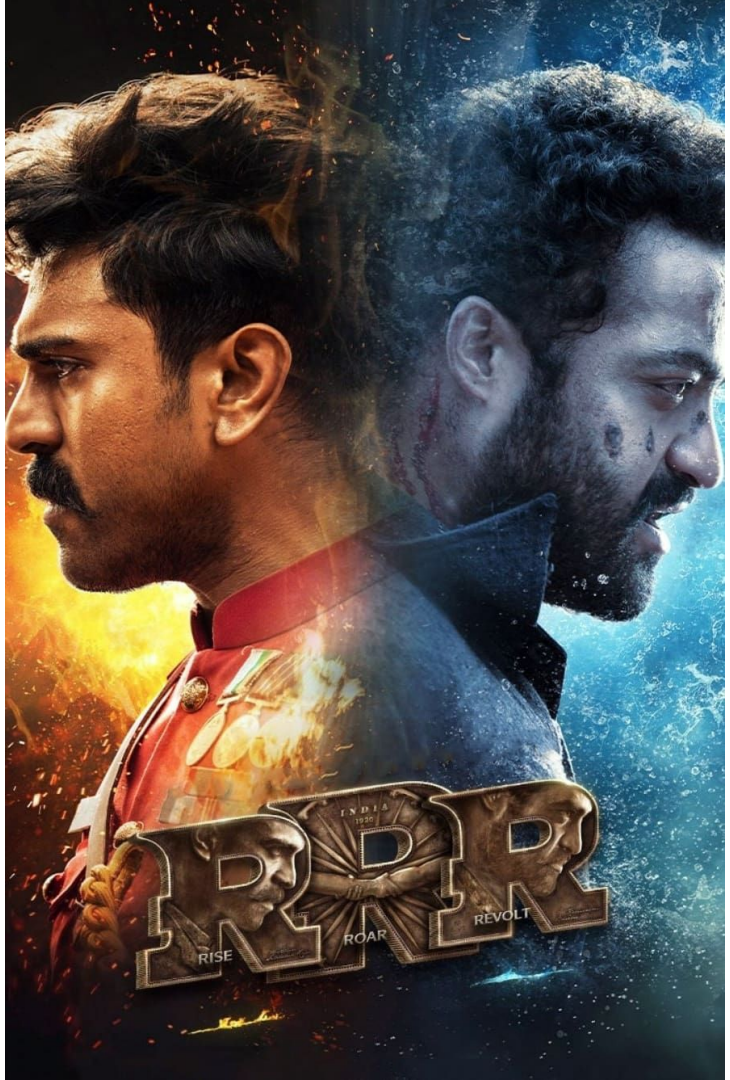
Welcome to the screening of …


INDIA
1920
RRR
RISE
ROAR
REVOLT

Sorry, this is a presentation

I will talk now

RRR - Rehost, Replatform, Refactor

The Three Tenets of Cloud Migration

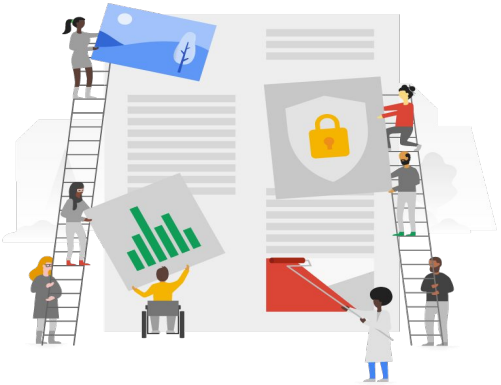
I’ve missed this much

Question: What did the on-prem server say to its workloads?


WHERE YOU GOING?

Cloud adoption is accelerating but...

Many enterprises still have various concerns that prevent them from going forward with a migration plan



Security concern

- Enterprises fear entrusting their data to another party due to various security concerns like compliance violations, external threats, data loss*

Migration concern

- Many enterprises feel that migration process is too complex and there is too much to learn**

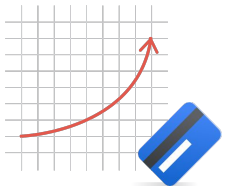
Insufficient cloud expertise and knowledge

- Lack of cloud knowledge holds many enterprise from migrating to cloud
- 46% stated that they had insufficient cloud expertise on a technical level to shift to the cloud***

*https://www.ibm.com/blogs/services/2019/09/03/it-managers-fight-fear-with-facts-on-the-journey-to-cloud/, **https://amazicworld.com/10-cloud-migration-barriers-and-how-to-tackle-them/
***https://solutionsreview.com/cloud-platforms/security-is-the-top-reason-enterprises-dont-migrate-to-the-cloud/

Other concerns are...

Cost



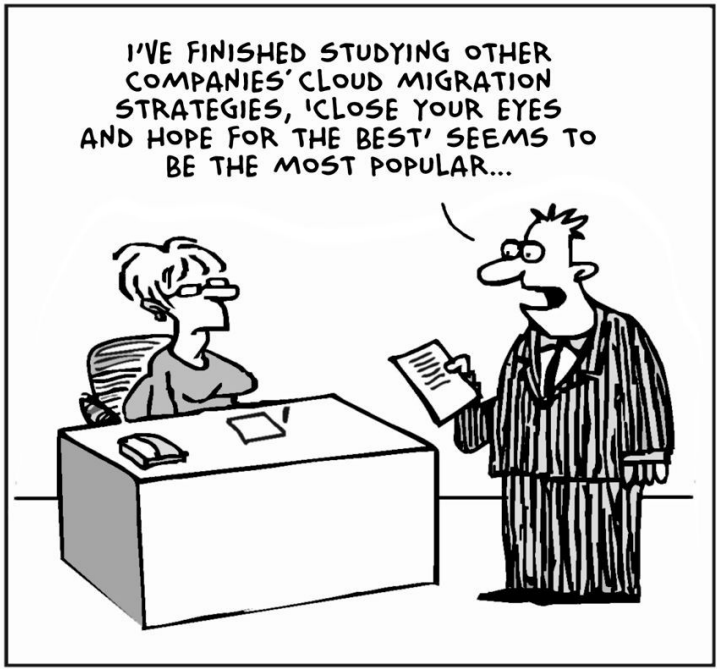
Complexity and support for the cloud

Fear of vendor lock-in

Cultural changes are too big

https://www.ibm.com/blogs/services/2019/09/03/it-managers-fight-fear-with-facts-on-the-journey-to-cloud/
https://thenextweb.com/news/5-reasons-enterprises-are-frightened-of-the-cloud

How can I not put memes?



Rinse. Repeat.

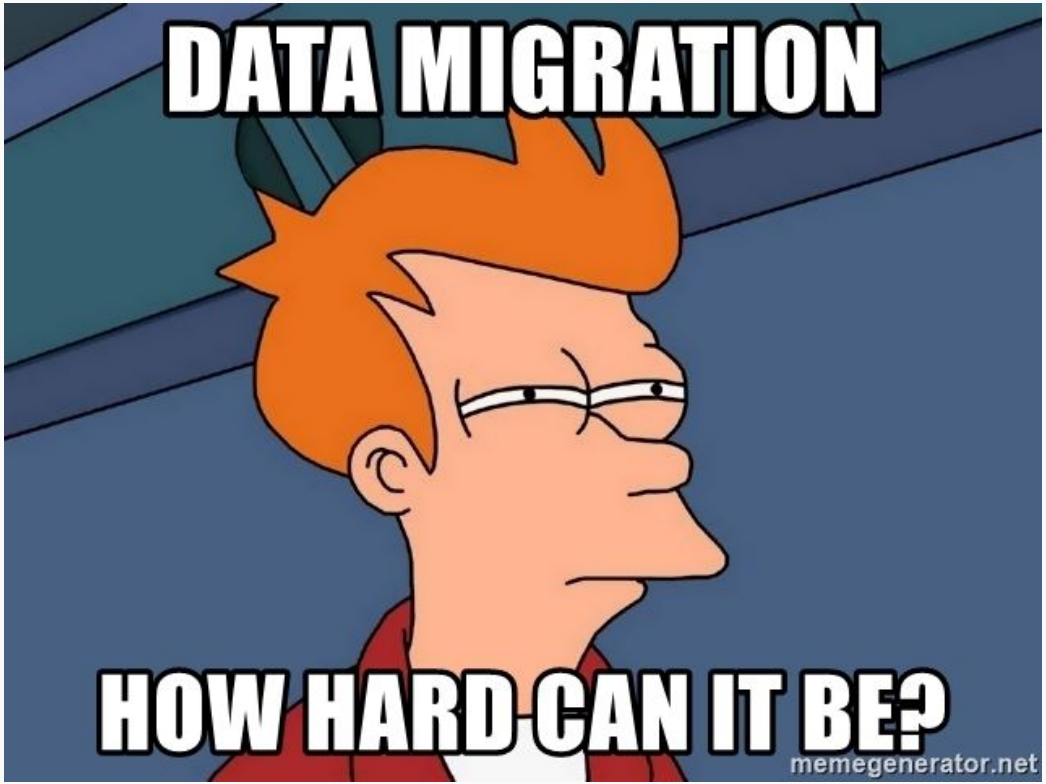
Question: What is the single most important factor in cloud migrations?

DISCOVERY

Cloud Migrations 101

- Most cloud migrations fail to achieve their originally intended goals because of faulty/lazy discovery
- When it comes to discovery, the only dumb question is the one not asked.
- Don’t limit to how many servers. Think:
  - Applications
  - Utilization
  - Code/Programming Language
  - Networking
  - Licenses and Dependencies
  - Environments
  - CI/CD
  - Observability
  - Backup and BCP
  - Future Scale
  - Cost
- And that’s just for Application Migrations!

Database Migrations are whole different league



DATA MIGRATION A LOT MORE COMPLEX THAN PEOPLE THINK

DATA MIGRATION A LOT MORE COMPLEX THAN PEOPLE THINK

Ask Questions!

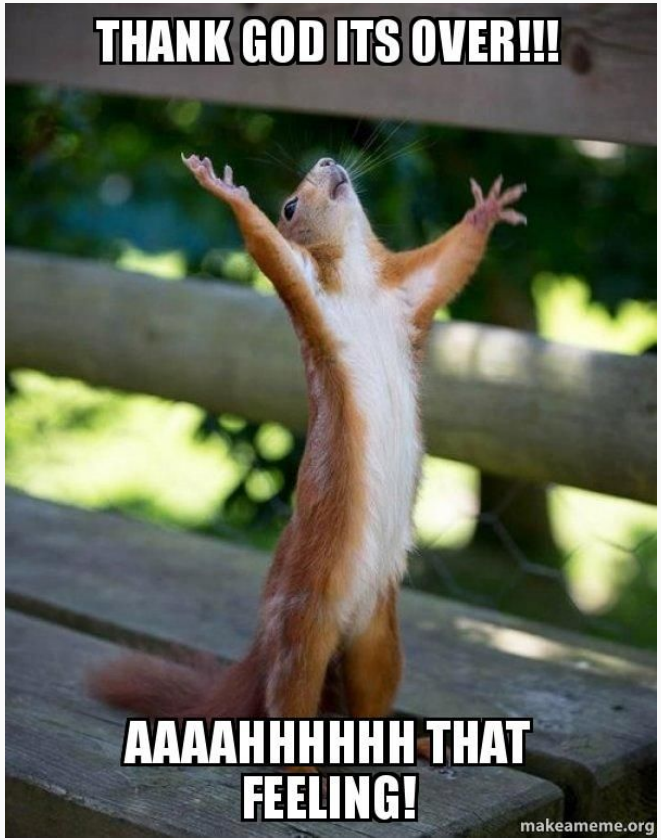
- Aspects to think for:
  - SQL, NoSQL or feeling fancy with NewSQL?
  - How many databases?
  - How many tables?
  - Which ones are critical?
  - How many rows?
  - How many applications talk to the database?
  - Are all database in the instance equally utilized?
  - What is the QPS?
  - Are there connection pools?
  - Are there cached queries?
  - Is it a heterogeneous migration or homogeneous migration?
  - How many regions?
  - What is the backup and BCP plan? What is the RPO?

Think!

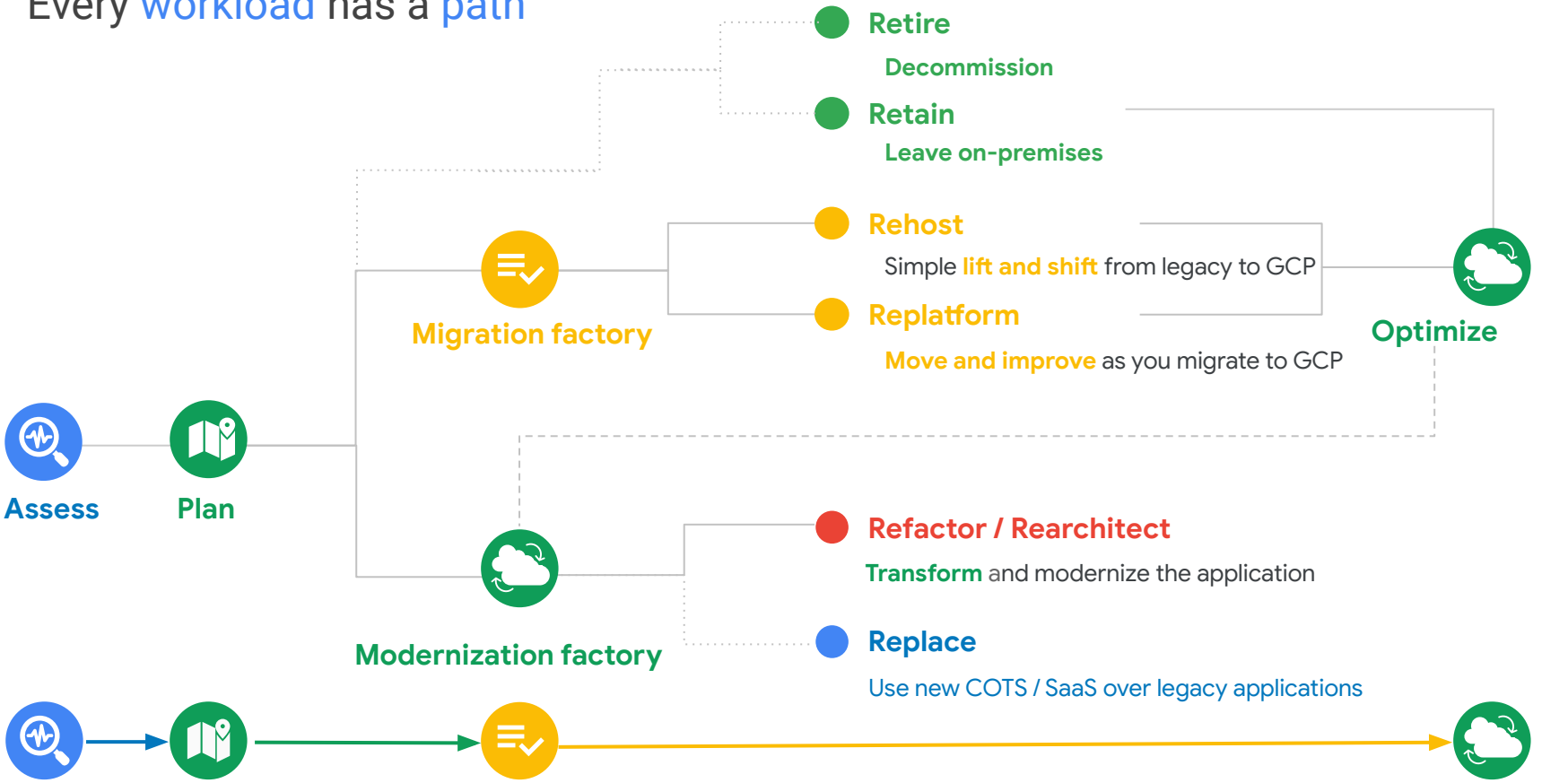
Your computer is smart but YOU are smarter

Augment automated discovery with your on-ground experience

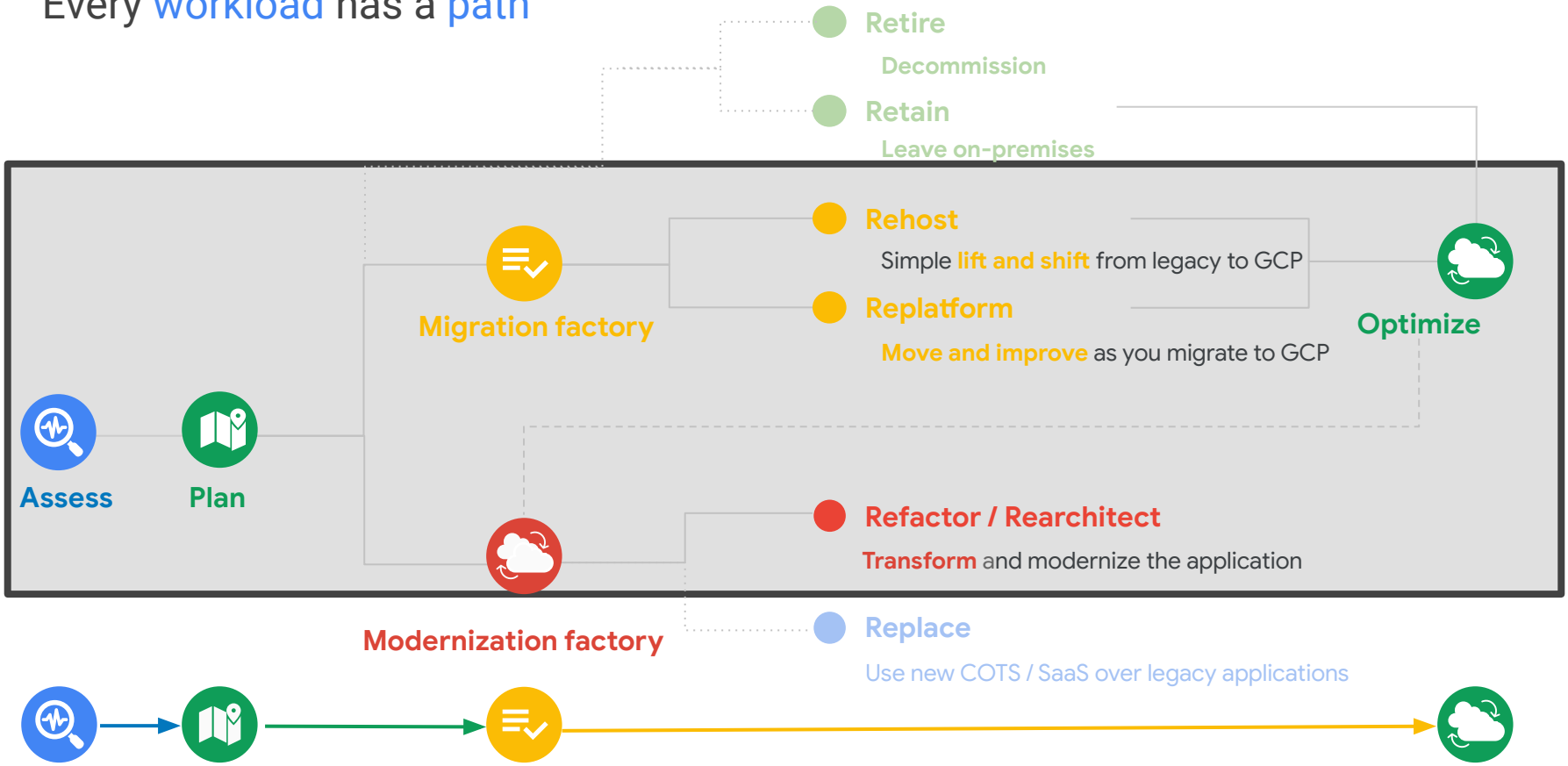
When Discovery is completed



Every workload has a path



Every workload has a path



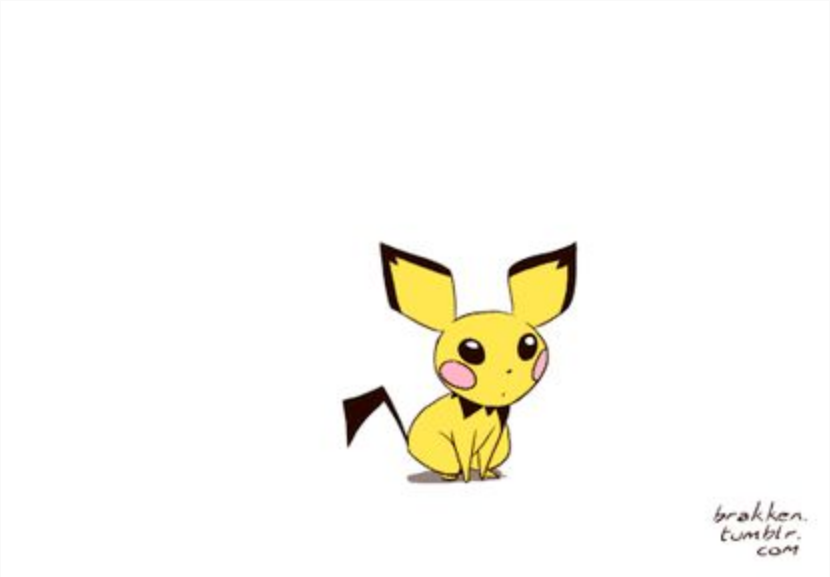
Aah! The classic - Rehost

Replatform

Replatform

Replatform

Refactor



North Star

- Aim for Refactor
- Shoot for Replatform
- Settle for Rehost

After all, what is a cloud migration but a DNS flip?

Question

Imagine, Karthick works for an IT company in a DevOps role, likes to read and is in a happy relationship with his family. How does Karthick spend his weekends?

Migrations, Karthick does Cloud Migrations

Talk to me about myths

Talk to me about myths

Envoy Proxy is the Best Proxy

- Pranay, (circa 2022)

There’s some truth to it

- Use API gateways to attach both source and destination to the same endpoint.
- There’s a reason most DNS services are offered with 100% SLA. Everything depends on them.
- Point your database strings using a DNS. IP addresses can change. DNS always resolves to the right endpoint.
- If your DNS service offers weighted routing, you’re in for a win.
- Envoy Proxy is the best proxy. Canary is the best strategy. Straggler pattern is more than theory.
- Slowly rollout traffic from source to destination.
- Then scale

Other nitpicks

- Design for tomorrow. Nobody likes migrations
- Start with a foundation/landing zone. Think of these:
  - Authentication
  - Authorization
  - Networking
  - Observability
  - Billing
- Leverage IaC as much as possible
- Secure on Day 1. With Security, Day 2 never comes. Pick inconvenience over security every time, every day
- Pick your storage wisely. Overshooting your IOPS for thrills only makes your cloud provider rich.

Finally, No customer has ever asked if systems are run on Kubernetes, Bare Metal or Serverless.

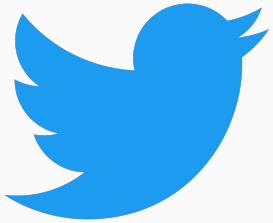
The business value is in the app. Think thoroughly. Play in best interests.

Finally, who is this guy?

Pranay Nanda
Infrastructure Modernization Specialist, Google

It’s good to be back!

I can be reached at



@ipranaynanda


HAVE ANY QUESTIONS
DO YOU?
memegenerator.net

Thank you!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