
AWS
re:Invent

ENT306

De-risking migration and modernization initiatives

Ajit Zadgaonkar

WW Technical Leader – Enterprise Modernization

AWS

AWS re:Invent

© 2020, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Recent cost savings insights from 1,036 customers that moved to AWS

AWS reduces costs



19.0%

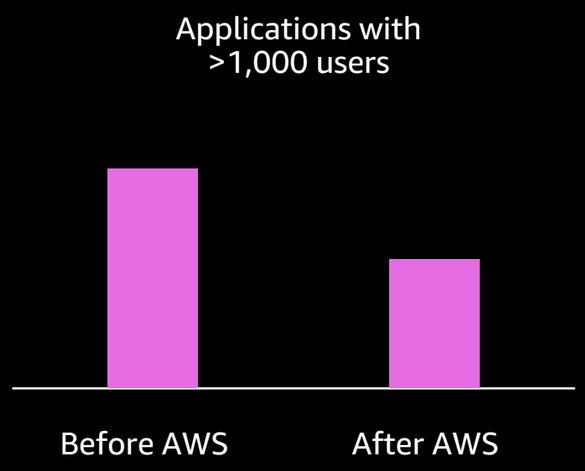
Reduction in overall IT infra spend



27.4%

Reduction in overall spend per user

Cost reduction grows as customers mature and scale on AWS



42.4%

Reduction in overall spend per user



12.3%

Lower overall spend per user vs. multi-cloud customer

Source: AWS Cloud Economics Benchmarking

Challenges, risks, and impact

Business risks: Inefficiencies draining organization energy, un-optimized ROI, increased cost of doing business, mounting competitive pressure

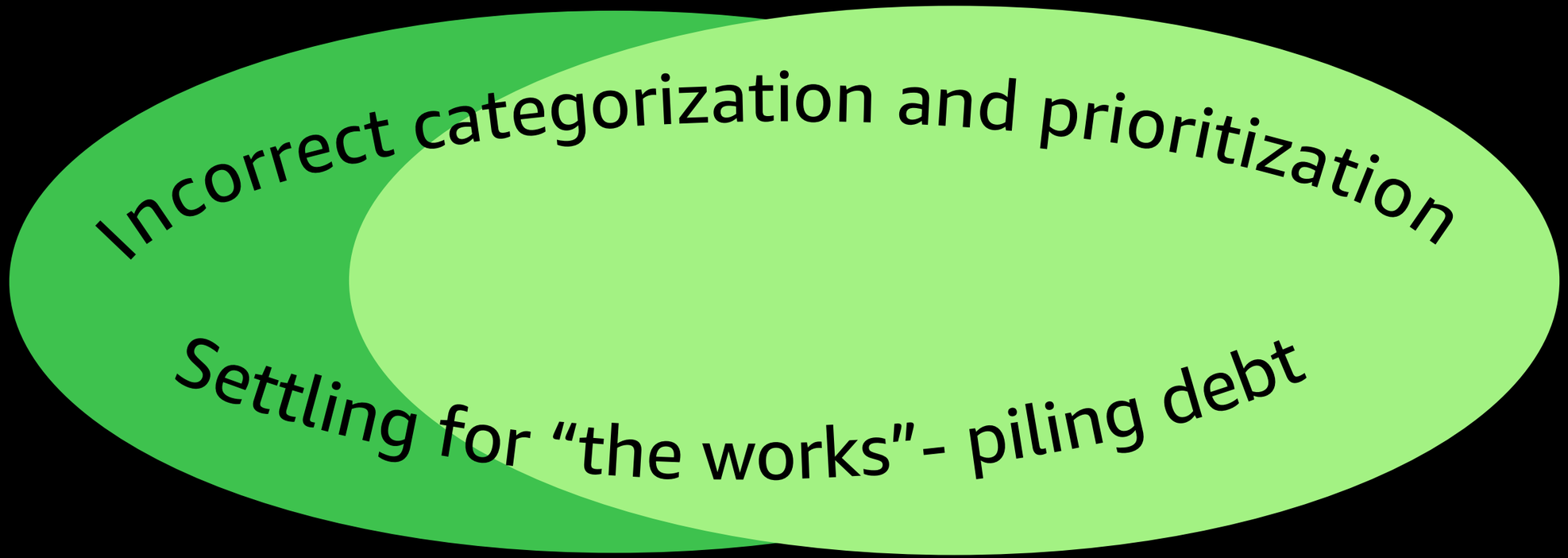
Tech functional challenges: Speeding and lasting, experimenting w/o damages, scaling architecture, unified platform

Common observed impact: Outages, reduced performance, business continuity impacted, cost overruns, stressed teams, stale decisions

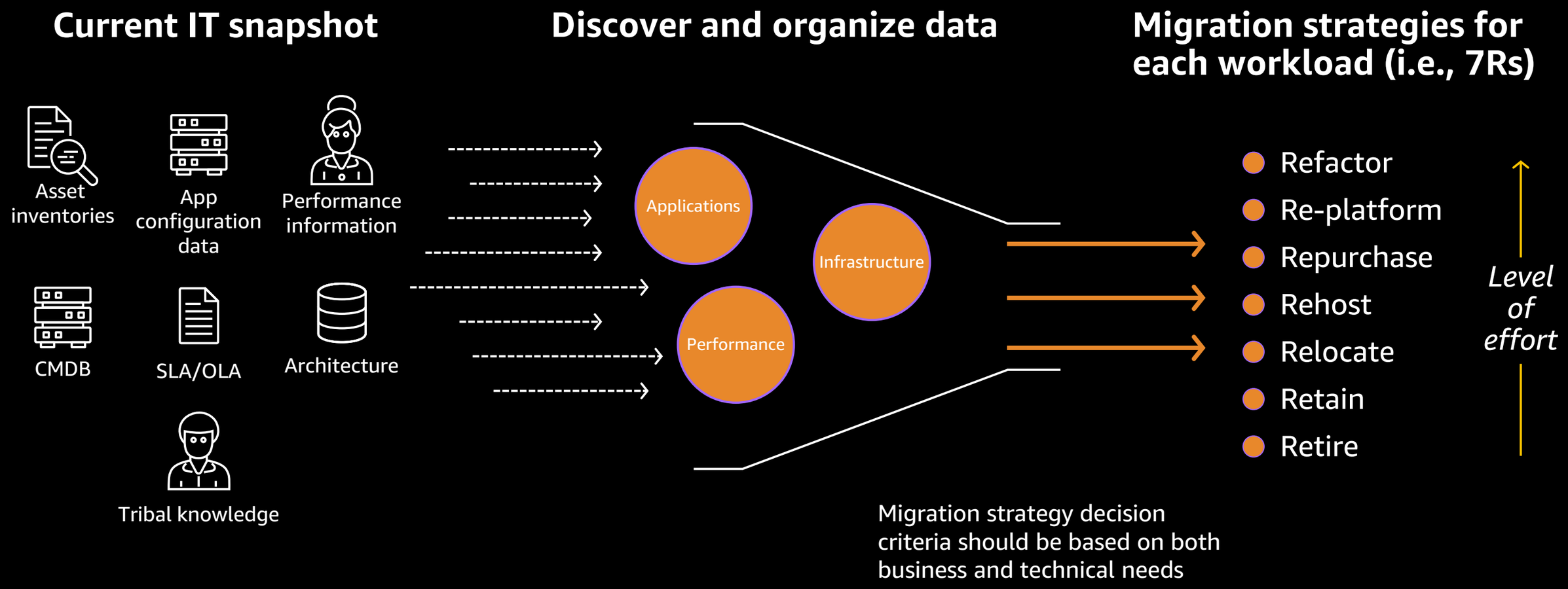
Risks identification

- What will break the apps (configuration, latency, compatibility etc.)
- All or nothing propositions pushing the pendulum to extreme
- Are you opening up entry gates to the walled garden?
- What changes often
- Budgets, resources, and timelines

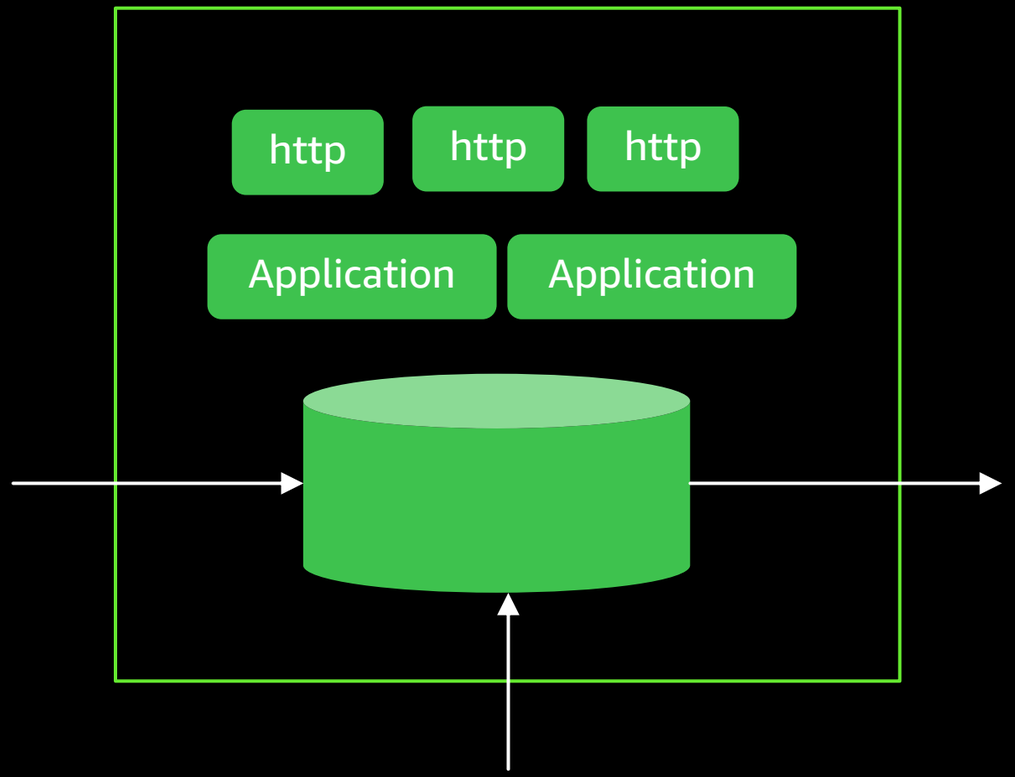
Risk 1: Bloated double bubble



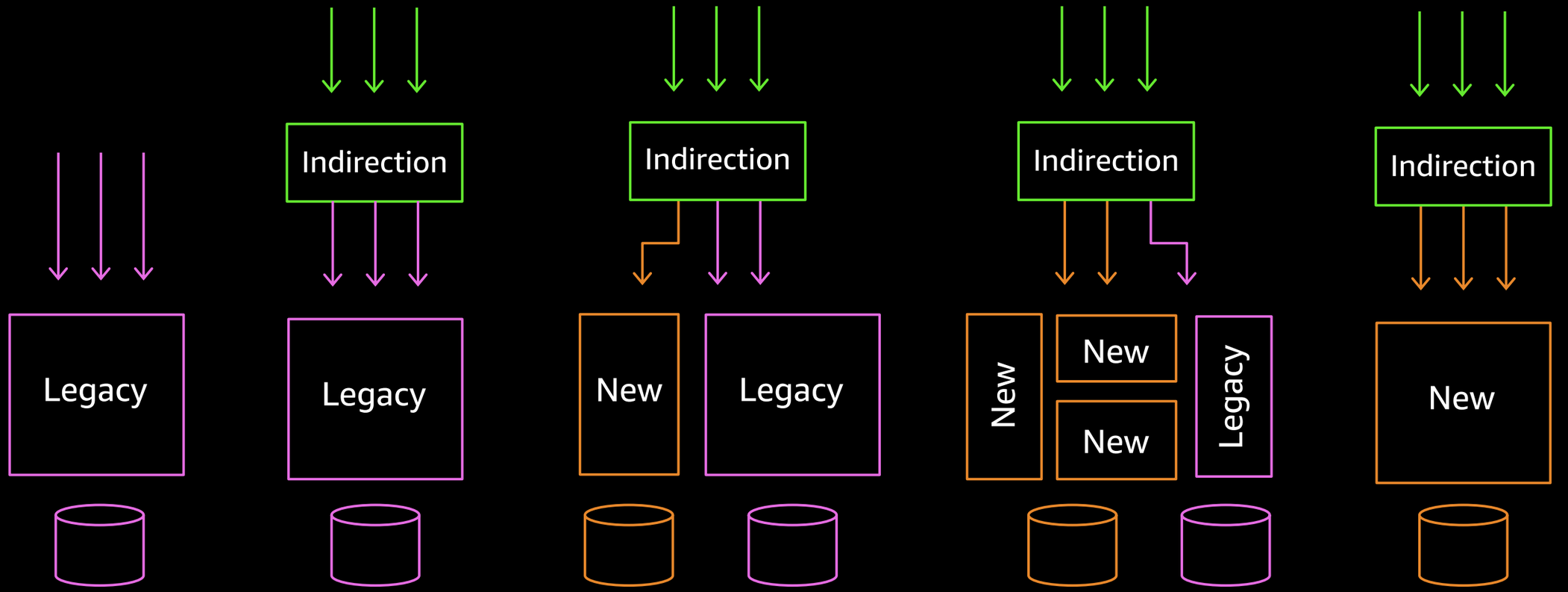
De-risking: Migration modernization readiness



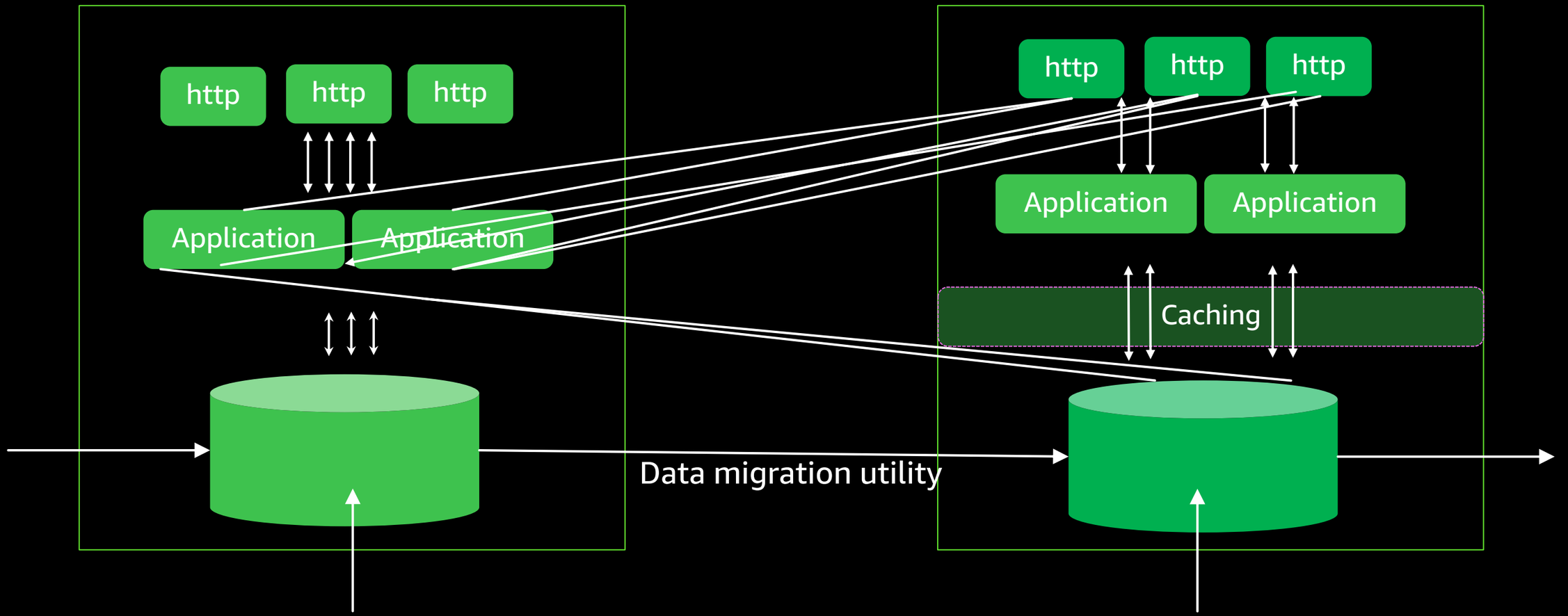
Risk 2: All or nothing brings down the house



De-risking with layer of indirection

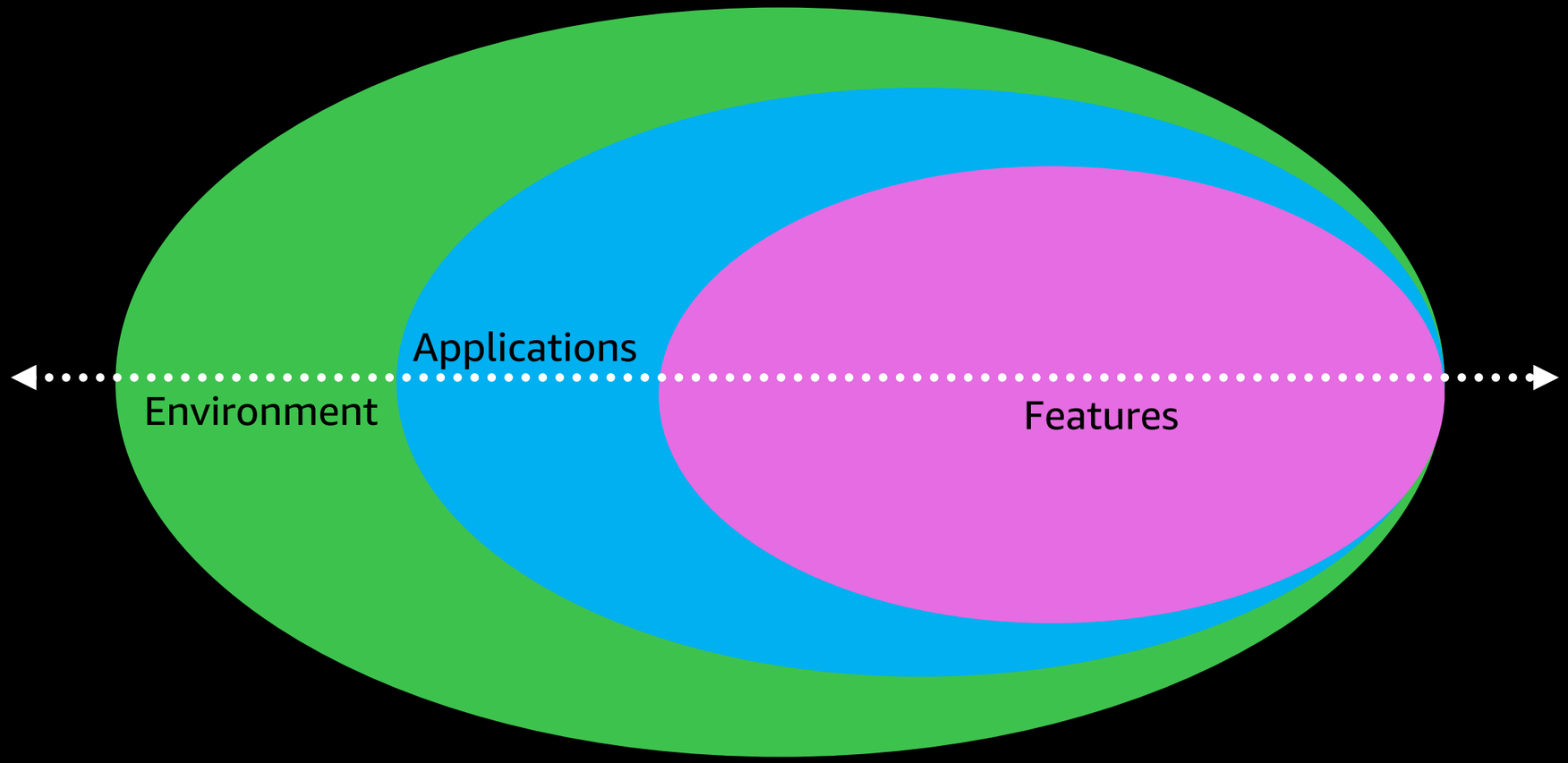


De-risking with gradual tiered modernization

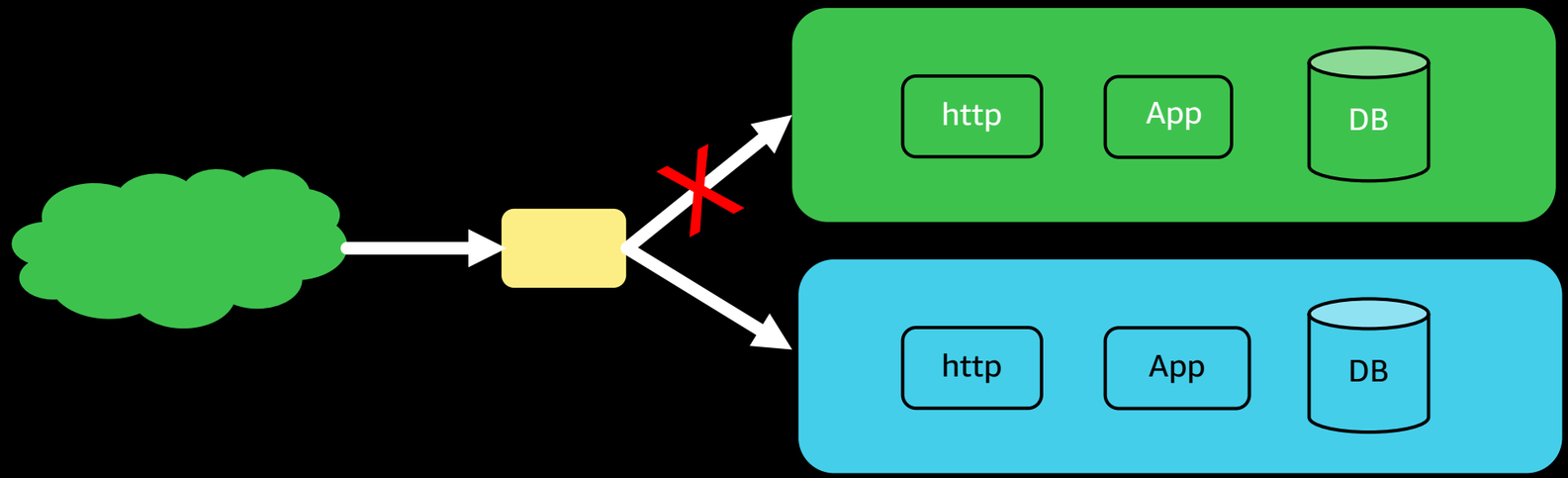


Risk 3: Risk of introducing changes

…may result in unavailability, reduced performance, adoption

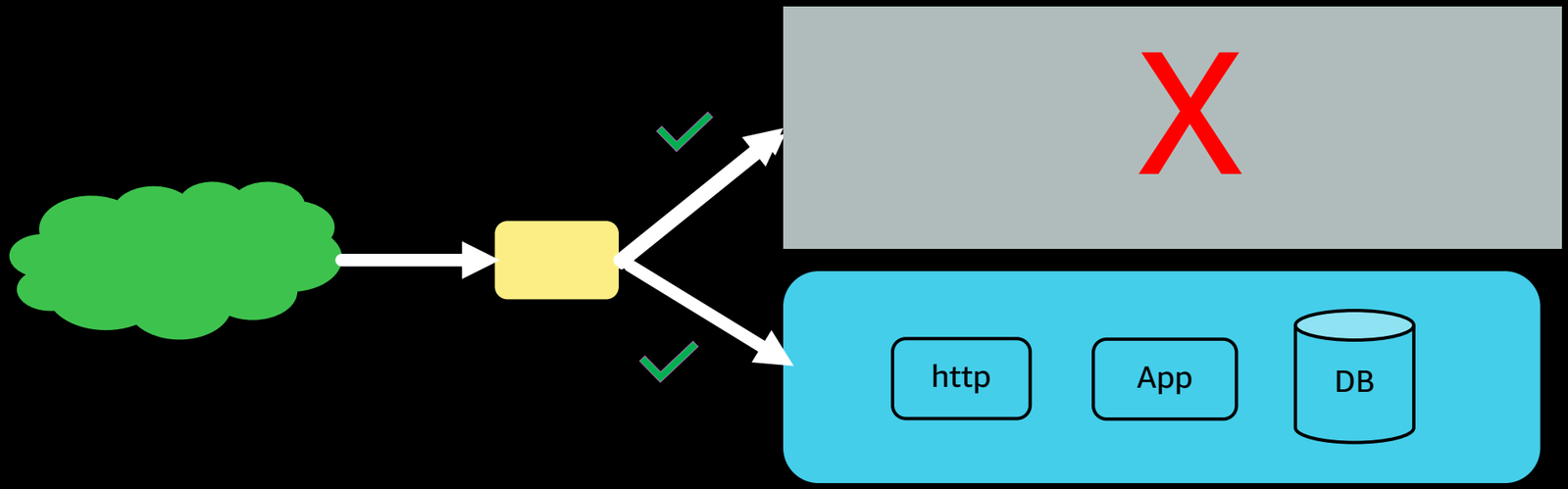


De-risking with blue / green deployments



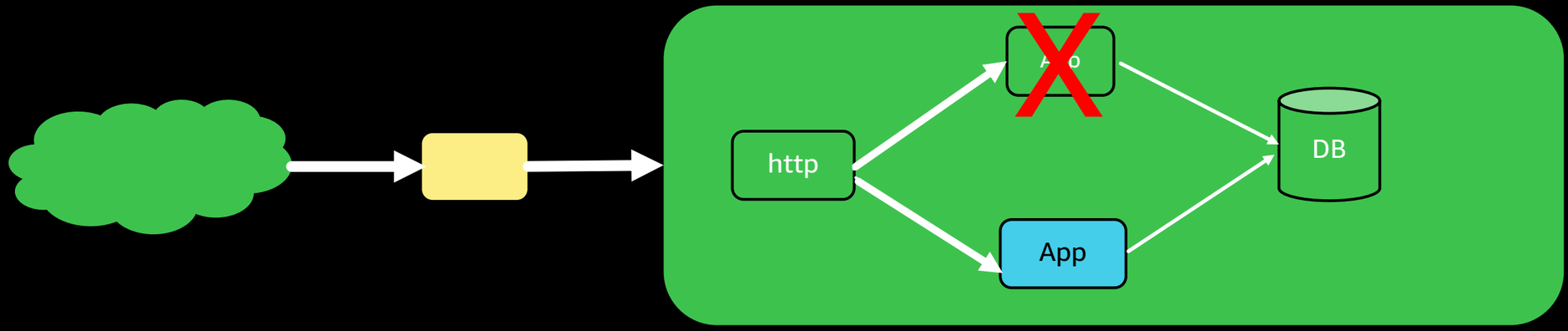
Environment-level de-risking control: Blue / green

De-risking with canary deployments



Environment-level de-risking control: Canary

De-risking patterns and practices

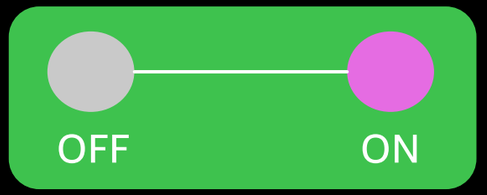


De-risking control: B/G and canary approach can be applied to application tier too

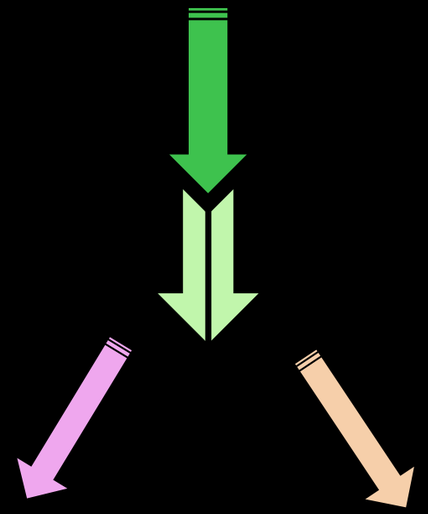
De-risking functionality introduction



Dark launch



Feature toggle



A/B tests

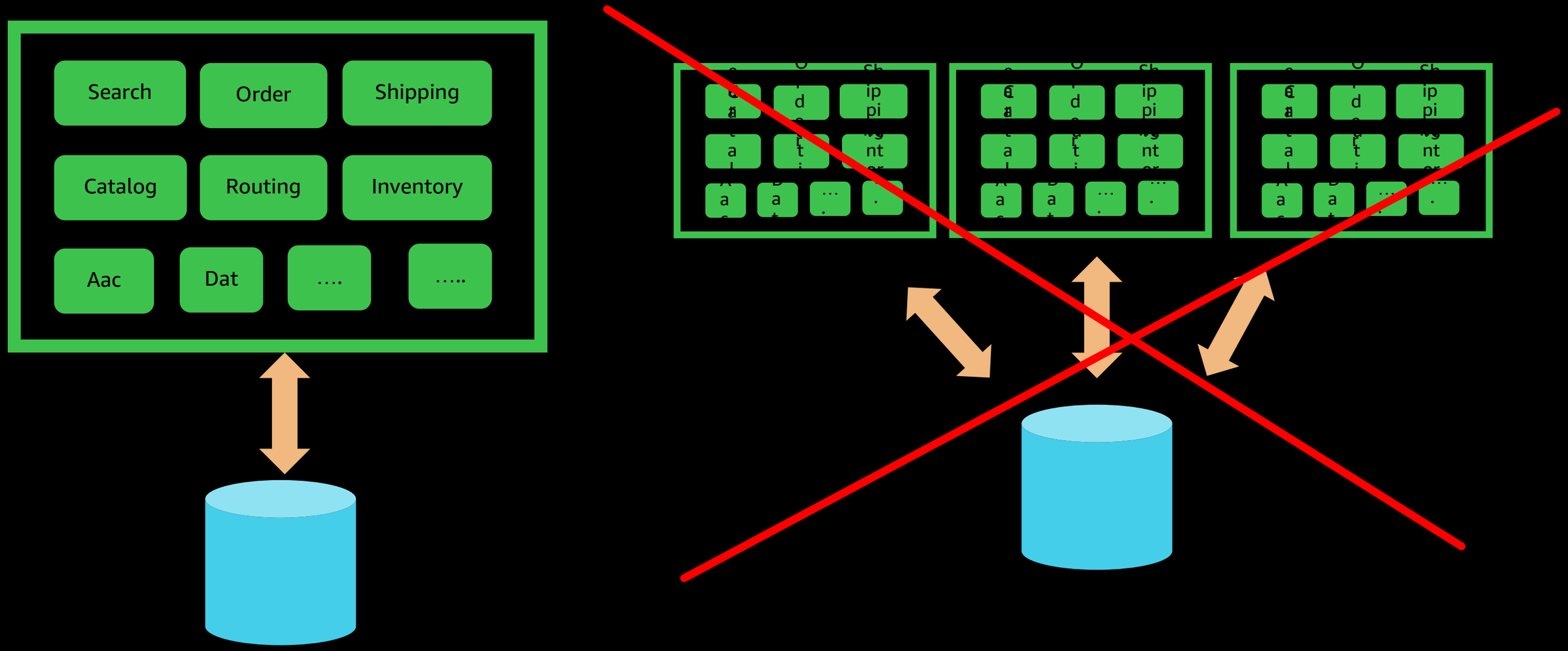
Popular controls at code, configuration and product

Tip:

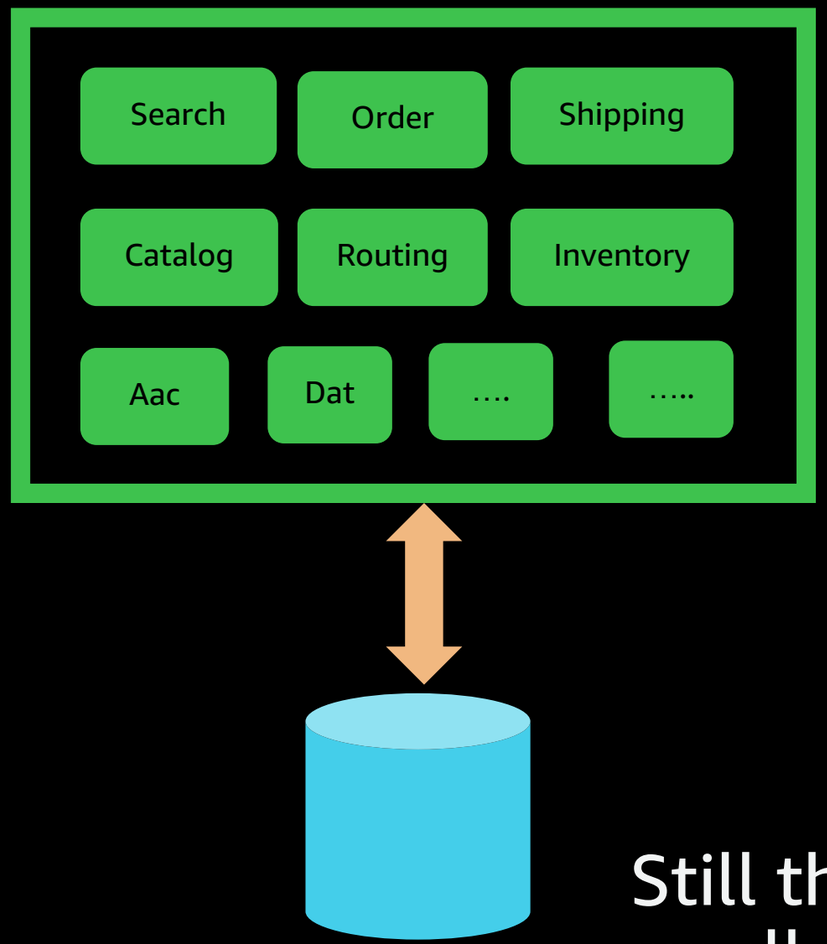
Look for opportunities to have a control switch

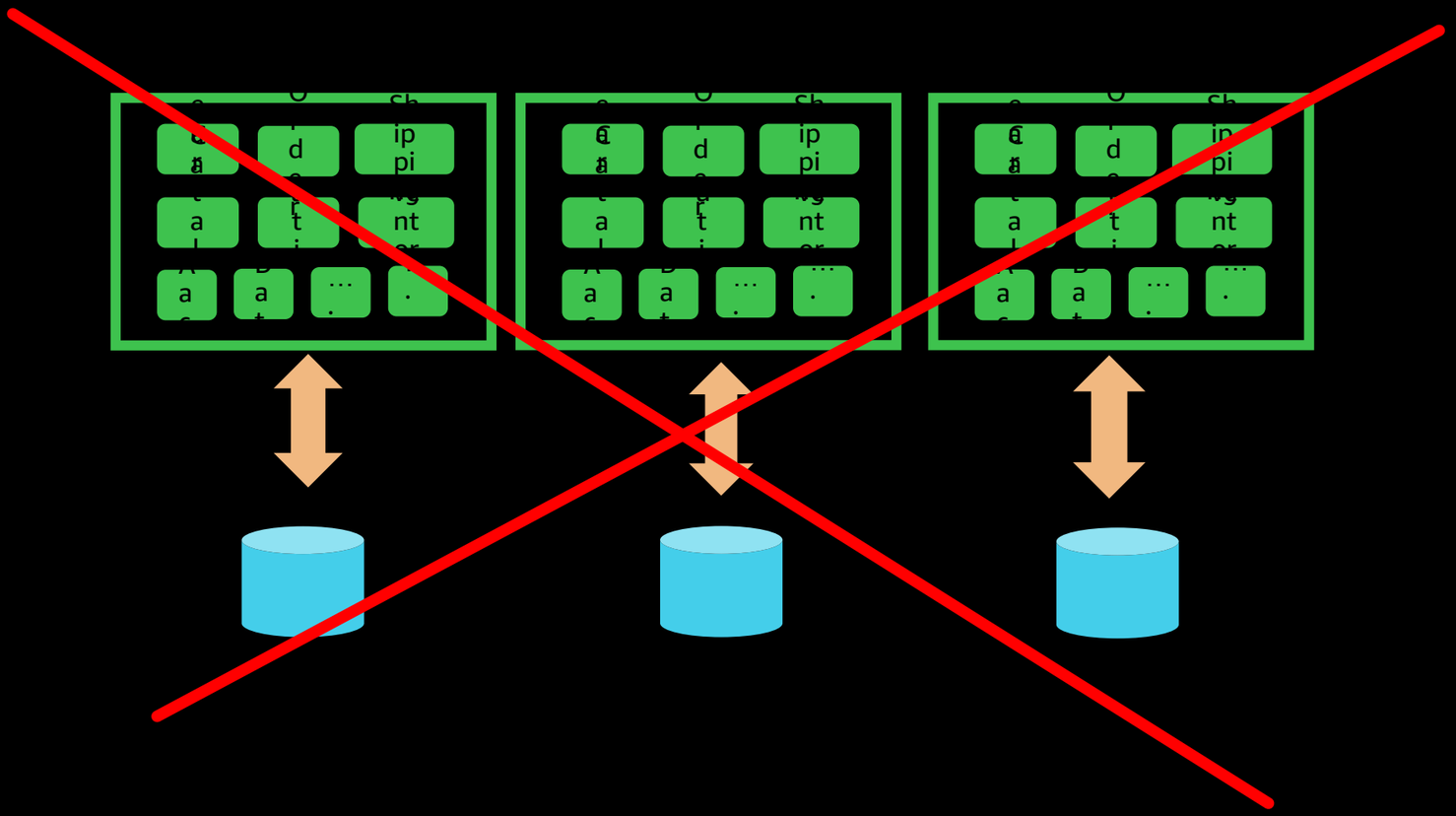
Implement granular risk mitigation

Risk 4: Giving old problems a new dimensions

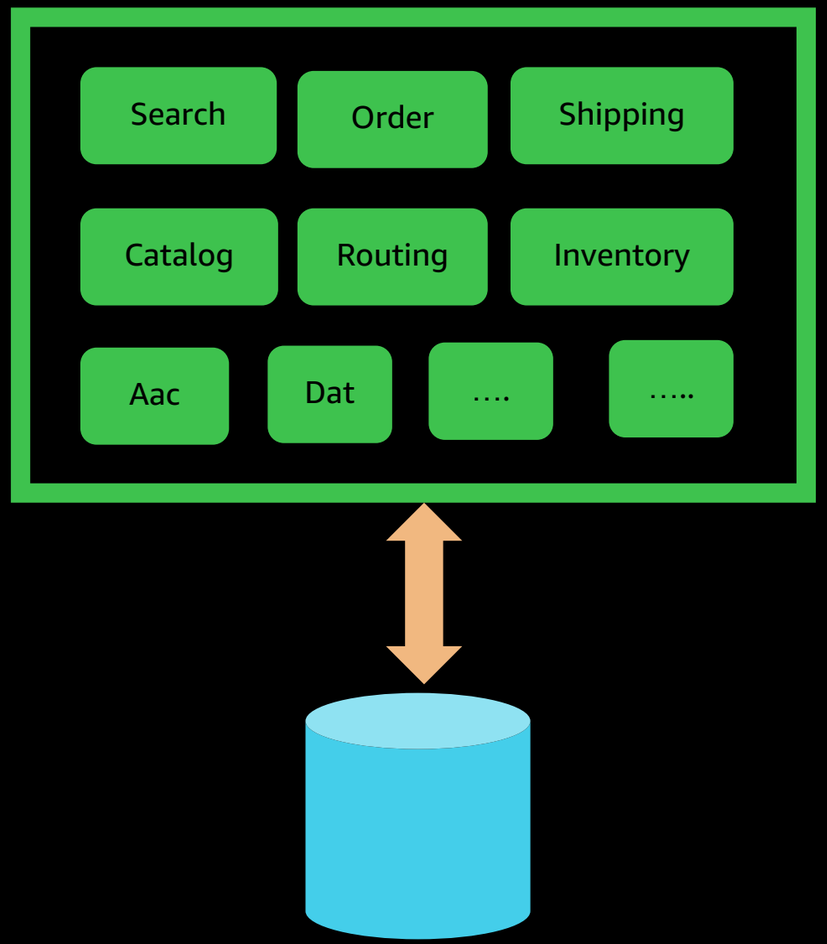


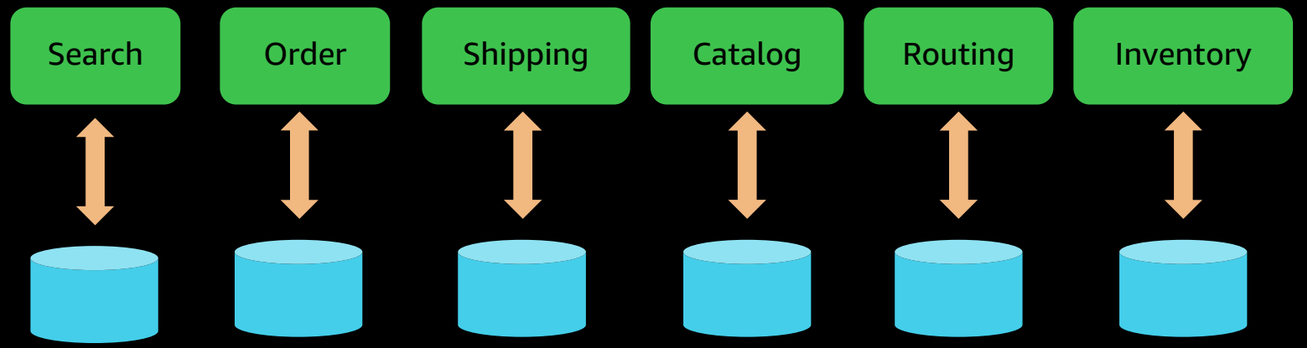
Breaking an old problem into many small problems





Still the same: Breaking an old problem into many small problems

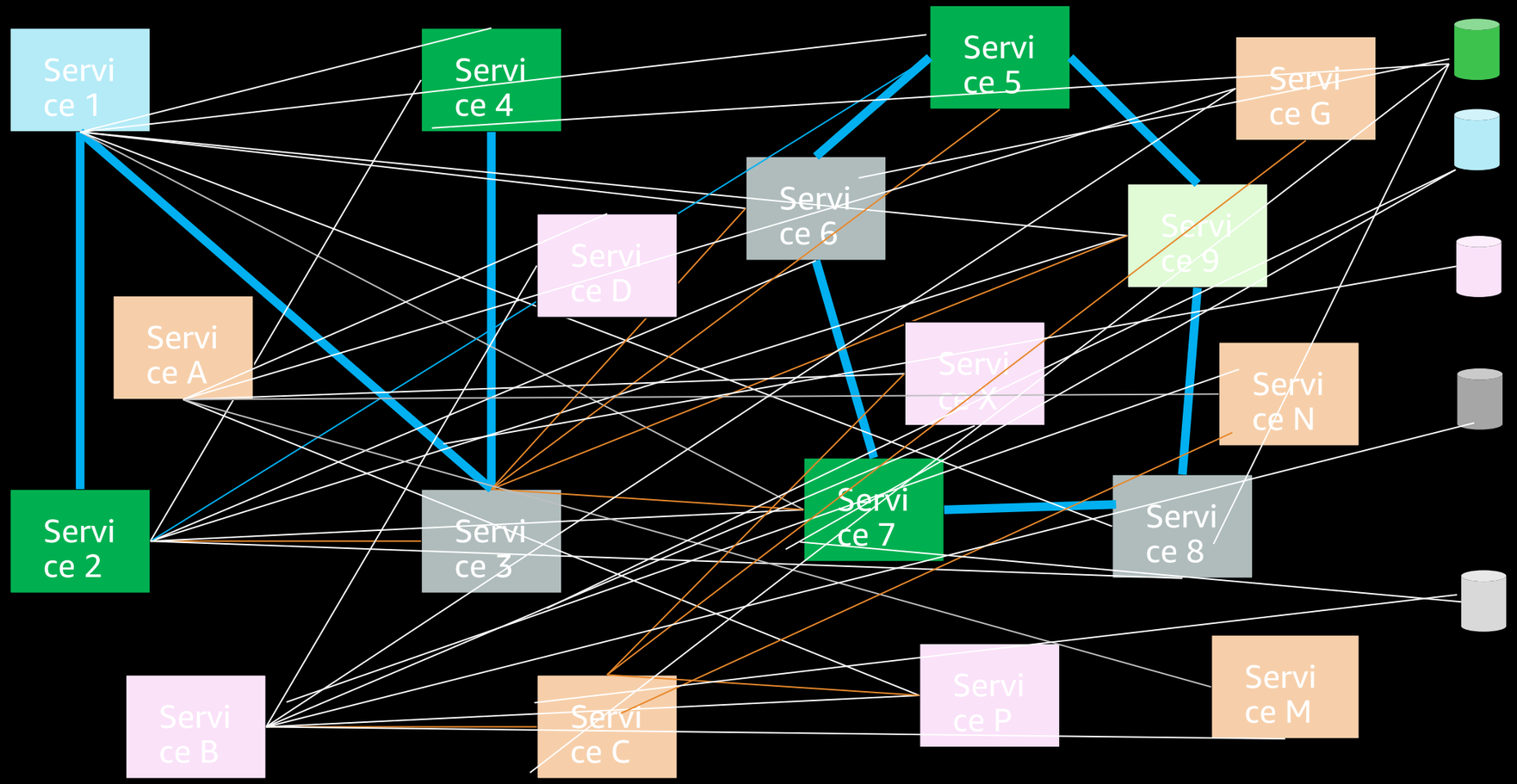




Tip:

Take opportunities to decouple, reduce blast radius

Risk 5: Ending up with big ball of mud



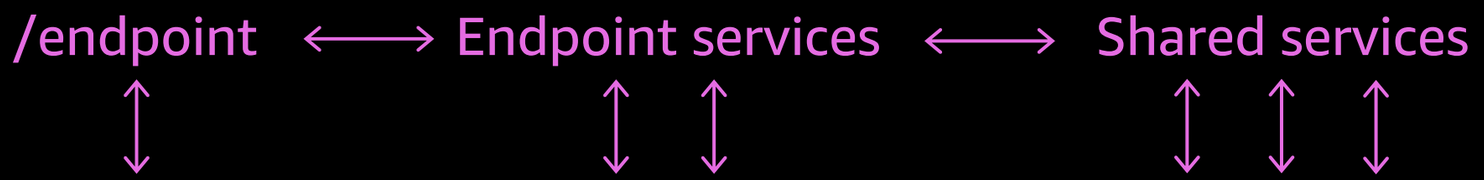
Similar services

Endpoints chaos

Interdependencies

Data not in sync

De-risking: Domain, boundaries, core services



/profile	User	User auth	Validate transaction
/search	Search	Check availability	Product catalog
/inventory	Inventory	Ratings	Shipping
/orders	Orders	Pricing	Stock
/payment	Payments	Credit card	User location

Operational excellence: Service registry, implement circuit breaker to avoid domino failures, failover and fall back

Tip:

Implement observability

Decouple on scaling factors

Keep services single-purpose

Identify and regulate shared services

Define and maintain authoritative source

Structured approach to drive success

Assess

Discovery and Assessment



Rapid discovery



TCO report



Briefings and workshops



Migration readiness assessment

Mobilize

Build momentum and gain experience

Portfolio



Discovery and planning



Migration plan



Business case / migration evaluator

Migrate



Migration experience

People

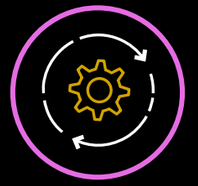


Skills / center of excellence

Platform



Landing zone



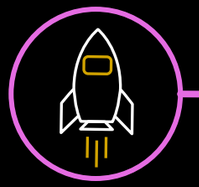
Operating model



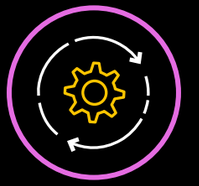
Security and compliance

Migrate & modernize

Accelerate, scale and modernize



Scale



Operate and optimize



Modernize

Resources

Cloud Migration Homepage:
https://aws.amazon.com/cloud-migration/

Additional Migration Resources, AWS Prescriptive Guidance, AWS Enterprise Blog Collection:
https://aws.amazon.com/cloud-migration/resources/

Migration Immersion Day:
https://migration-immersionday.workshop.aws/en

All AWS workshops available here:
https://www.workshops.aws/



© 2020, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Thank you!



AWS re:Invent

© 2020, Amazon Web Services, Inc. or its affiliates. All rights reserved.



Please complete the session survey

AWS re:Invent

© 2020, Amazon Web Services, Inc. or its affiliates. All rights reserved.