



aws INNOVATE

EVERY APPLICATION EDITION

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Architect for success with cloud foundations

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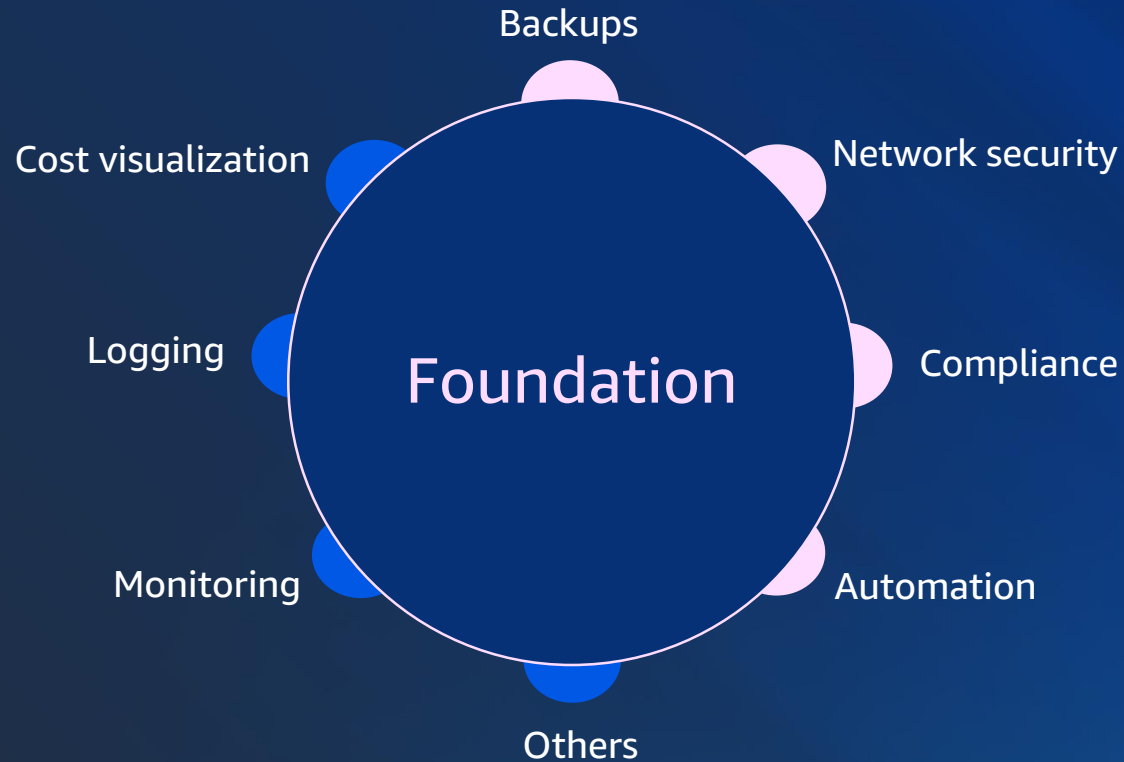
AWS

Agenda

- What is a cloud foundation?
- Why build a cloud foundation?
- How to build a cloud foundation?
 - Requirements
 - Best Practices
 - Implementation
 - 5 steps to get started today
- Recap
- Next steps

What is a cloud foundation

A cloud foundation refers to the core elements that ensure reliability, scalability, security and efficiency of a cloud based infrastructure



Why build a cloud foundation?

Misconfigurations seep into ad-hoc cloud environments

Cloud environments get misconfigured, when foundational aspects are not given due consideration

Misconfiguration symptoms

Change impacting across environment

Lack of clarity around compliance

Lack of clarity about inventory

Inability to experiment



Business impacts of misconfigured environments

Misconfiguration in turn can become a cause for direct business impacts

Misconfiguration symptoms

Change impacting across environment

Lack of clarity around compliance

Lack of clarity about inventory

Inability to experiment

Impacts of misconfiguration

Extended outages & financial losses

Delayed audits, hampered integrations

Cost overruns & security risk

Lack of innovation

Build a foundation to maximize benefits of cloud

Building a cloud foundation can remedy these issues by employing best practices

Misconfiguration symptoms

Change impacting across environment

Lack of clarity around compliance

Lack of clarity about inventory

Inability to experiment

Impacts of misconfiguration

Extended outages & financial losses

Delayed audits, hampered integrations

Cost overruns & security risk

Lack of innovation

Avoid impacts by building a foundation

A Customer created **isolated environment** to accelerate development by 5x

A Customer used **security incident response** to monitor compliance and enable B2B audits

A Customer gained 100% real time visibility into their infrastructure using **Inventory & monitoring**

A customer was able to foster innovation with **isolated environments & policy based security.**

How to build a cloud foundation?

Requirements, best practices and implementation

Finalize your requirements, map them to best practices and implement these using automation

Requirements



Best Practices



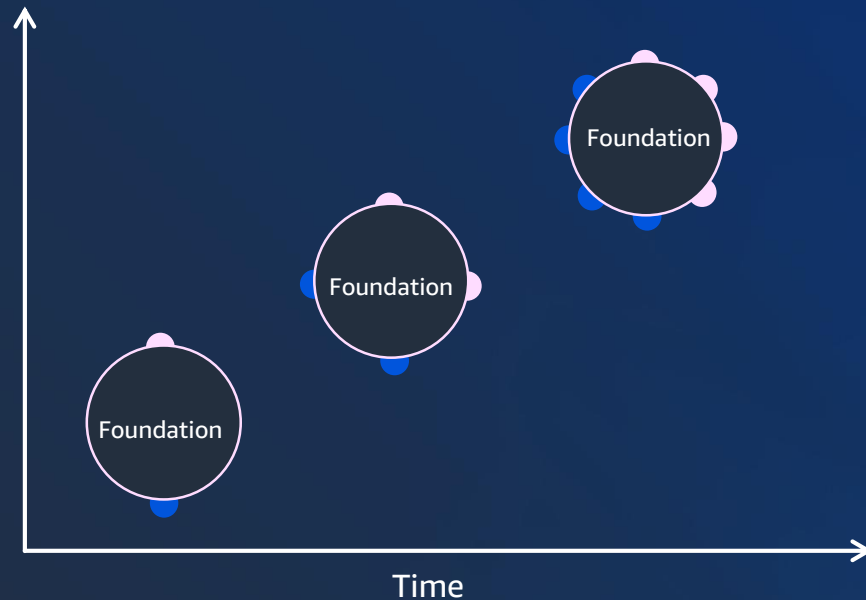
Implementation



Define the right foundation that meets your needs

There isn't a size fits all foundation. What makes up your foundation, is defined by your requirements

- Org Size & Complexity
- Industry regulation
- Cloud adoption maturity



Cloud Foundation Maturity Map



Best Practices

Requirements



Best Practices



Implementation



Map requirements to best practices

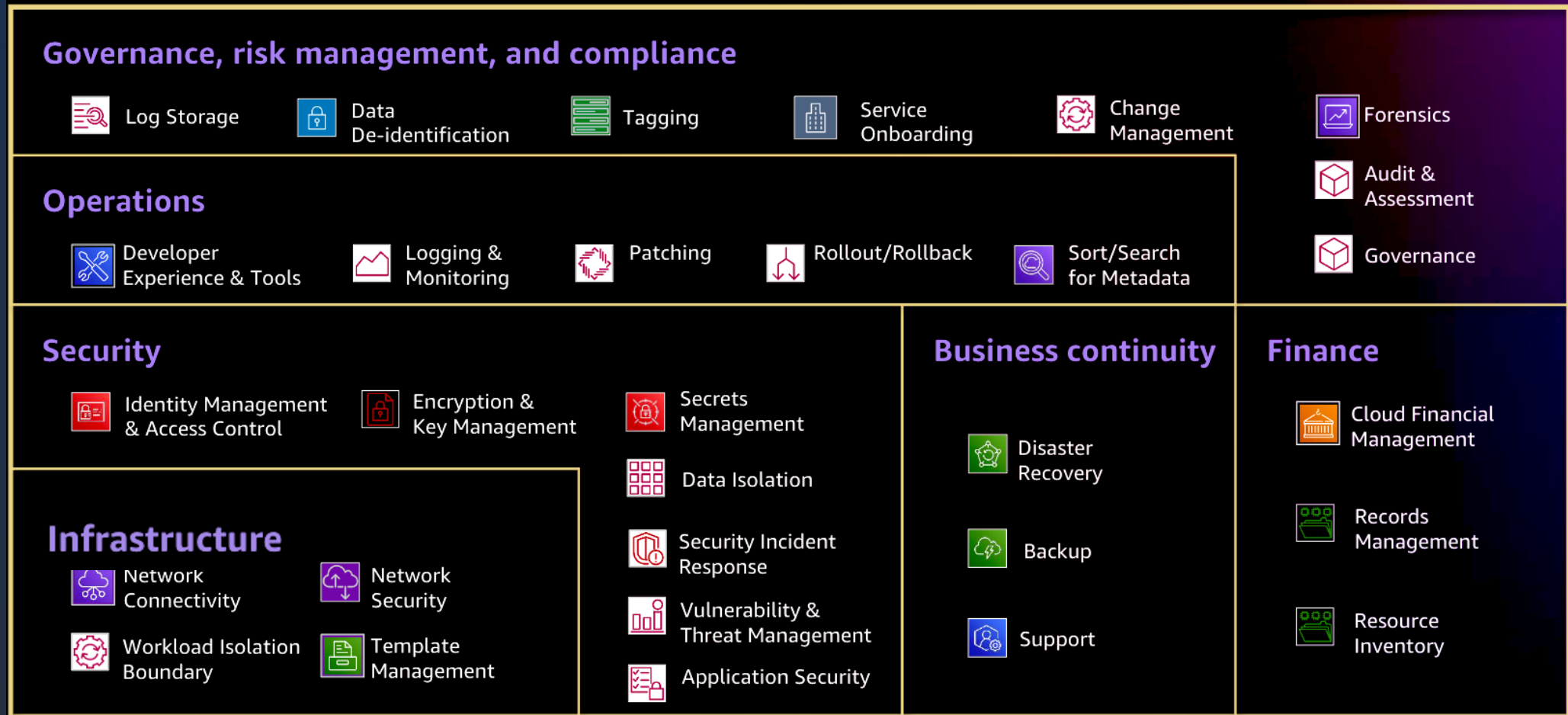


How do you determine, which best practices to use?

AWS Architecture Center: Cloud Foundations

AWS Cloud Foundations defines 30 capabilities that span six categories to address different areas of challenges that customers face when establishing and operating a cloud environment.

A capability includes a definition, scenarios, opinionated guidance, and supporting automation



Implementation

Establish a team & process for adoption of best practices at the outset to build a foundation

Requirements



Best Practices



Implementation



Get started with these 5 primary steps

Get started now with these 5 primary steps that can help you irrespective of the size of your organization, industry or state of cloud adoption

1. Establish the account as an operational unit

2. Centralize security view, for response and remediation

3. Simplify access using identity federation

4. Classify and isolate workload environments

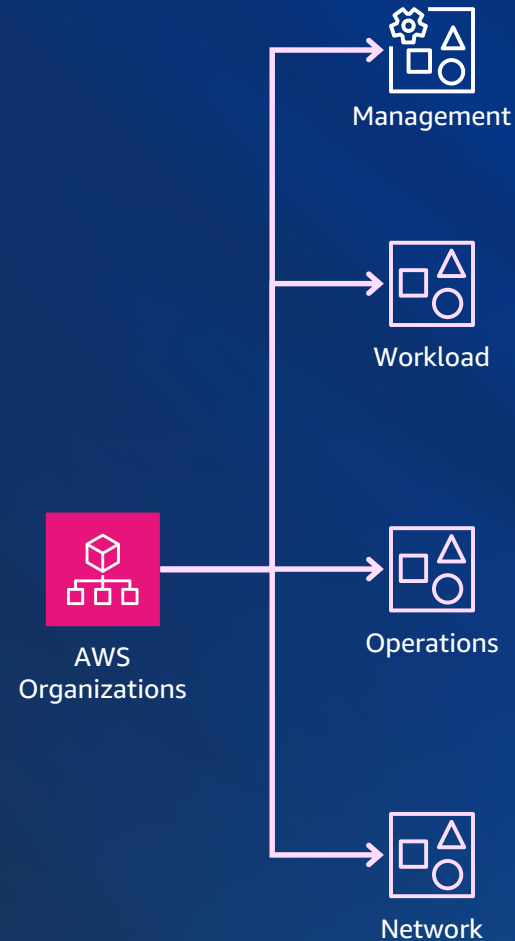
5. Implement top down permission control

1. Establish the account as an operational unit

- Use a multi account strategy
- Use each account for only 1 function

Benefits

- Segregation of functions & responsibilities
- Easy implementation of the principal of least privilege

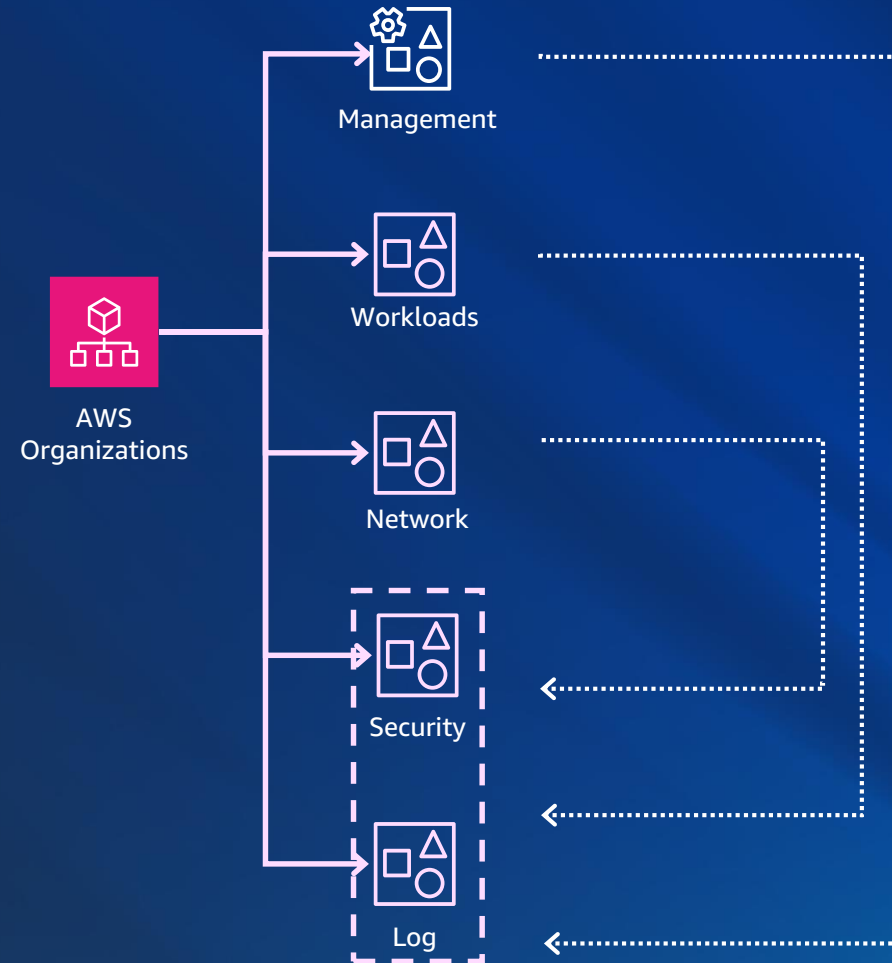


2. Centralize security view, for response and remediation

- Setup a dedicated account for log storage.
- Setup a dedicated account for hosting security tools

Benefits

- Centralized logs to enable cross application and platform issue forensics
- Centralized security view for response and remediation

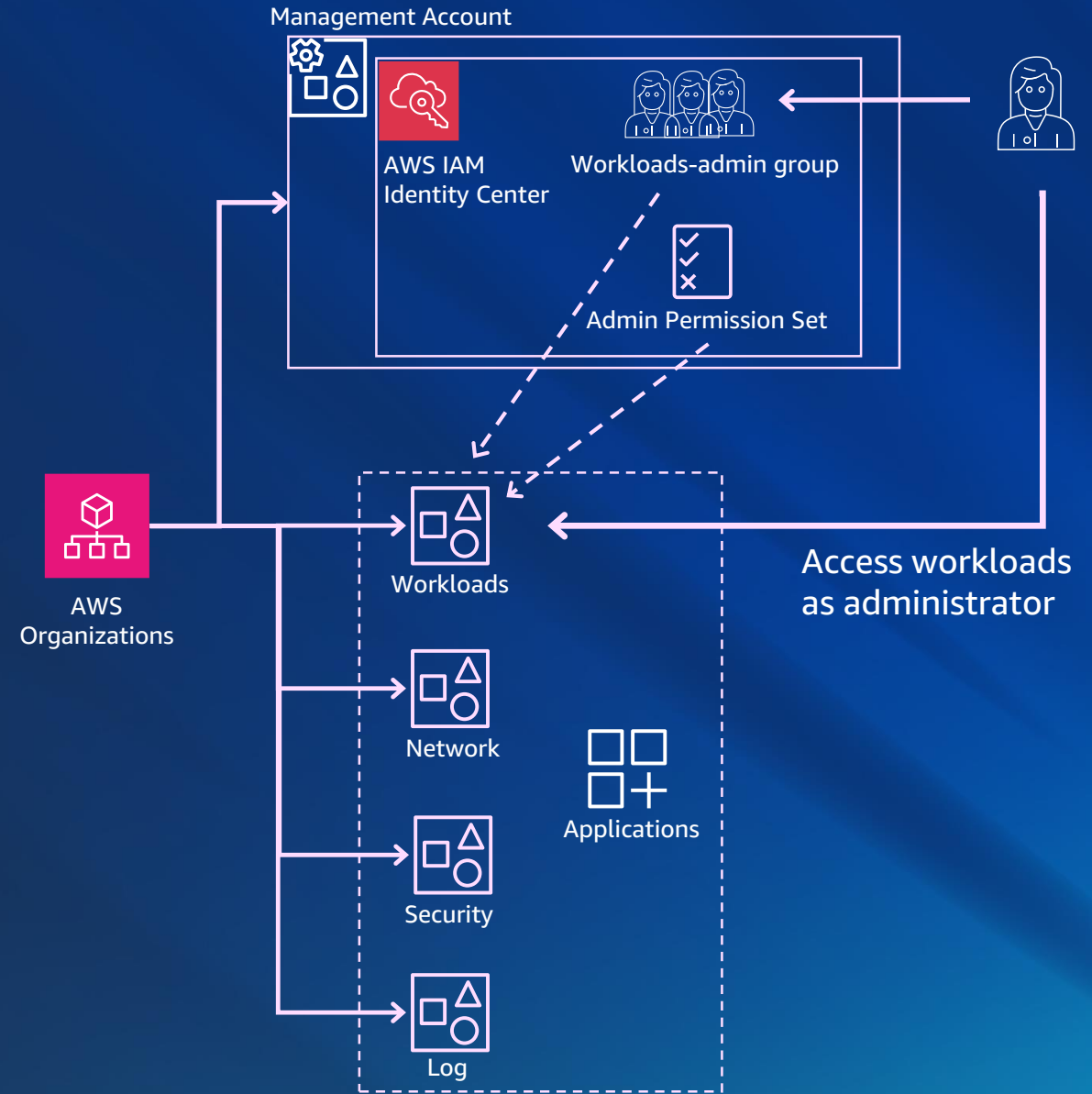


3: Simplify access using identity federation

- Setup unified access control using AWS IAM Identity center

Benefits

- Single pane for managing all human and programmatic access
- Use of one login in AWS and other supported applications

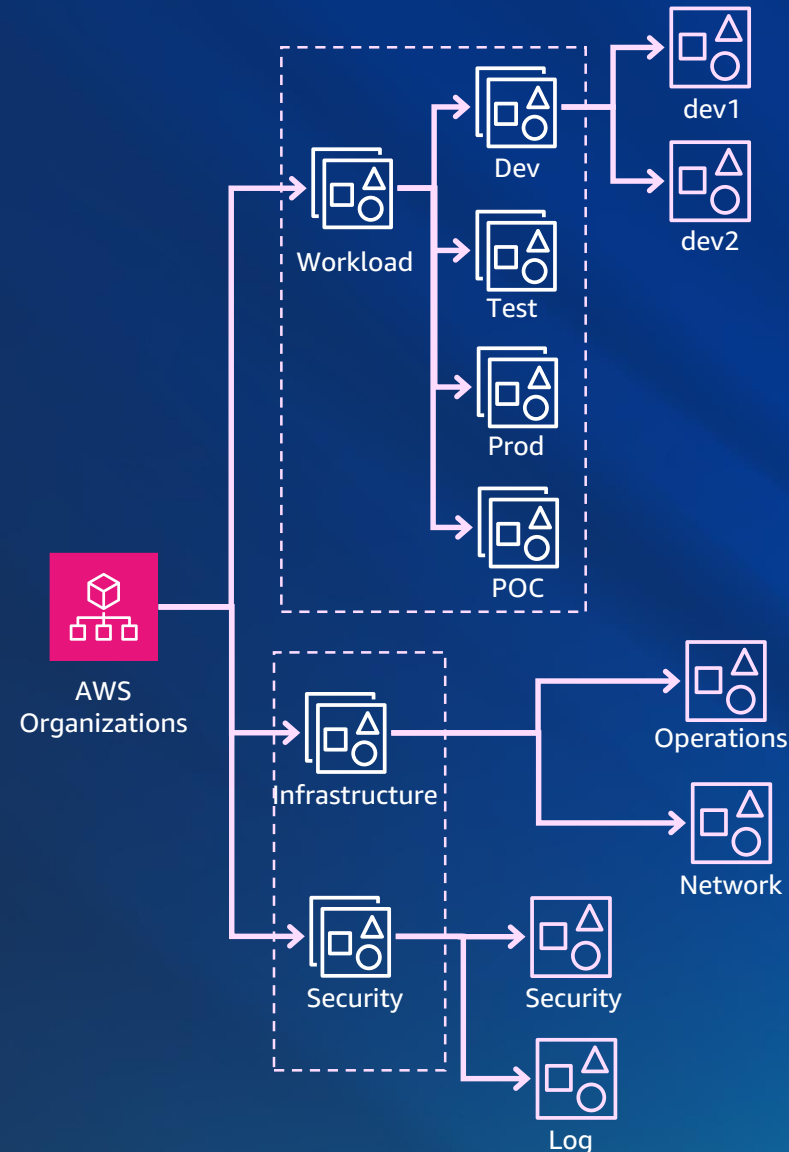


4. Classify and isolate workload environments

- Create individual OUs for each workload environment

Benefits

- Containment of blast radius for security issues and infrastructure misconfigurations
- Easy and fearless experimentation

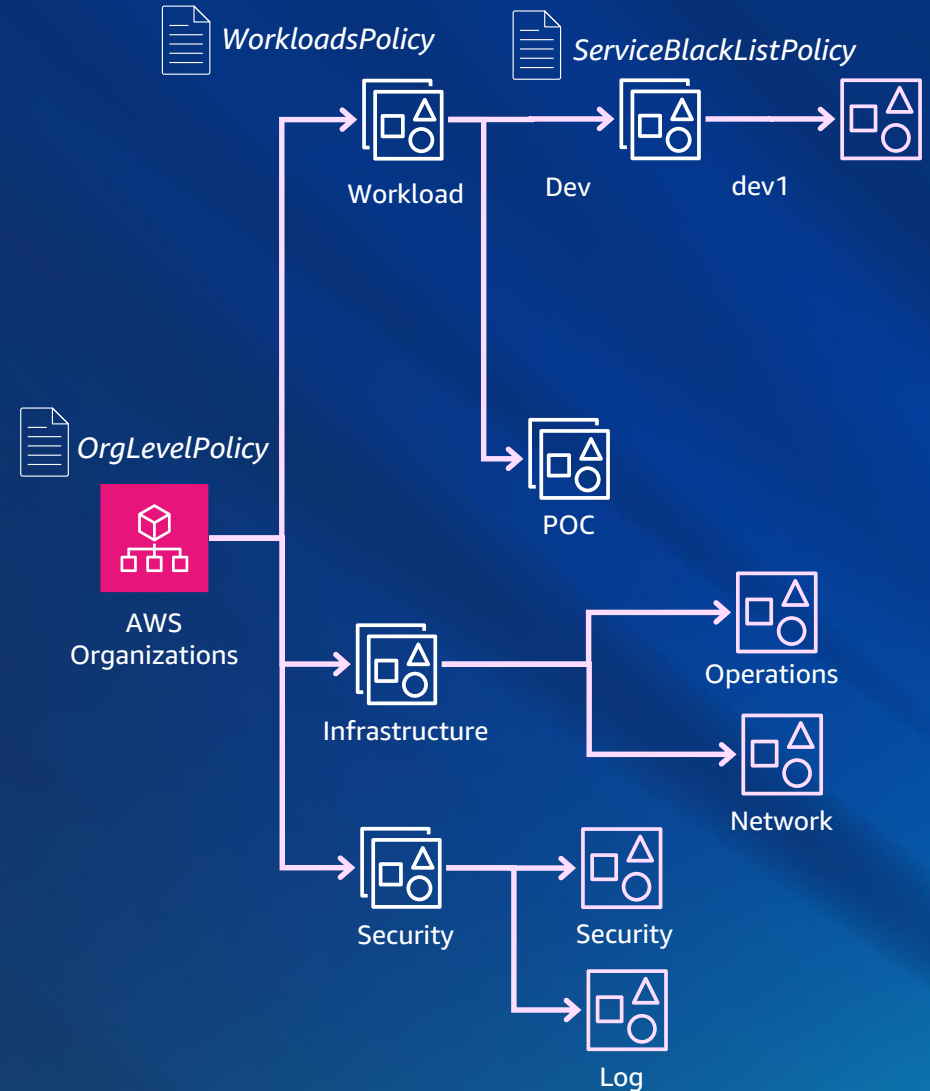


5. Implement top down permission control

- Implement policy based control using AWS Service Control Policies
- Implement Tag Policies to ensure minimum application of tags

Benefits

- Overarching control on permissions in the environment irrespective of IAM permissions.
- Top down cost control



AWS Solutions Library

Solutions For cloud foundations capabilities

Infrastructure

- Workload isolation boundary
- Network security
- Network connectivity

Security

- Application security
- Identity management & access control
- Security incident response

Operations

- Logging & monitoring
- Developer experience & tools

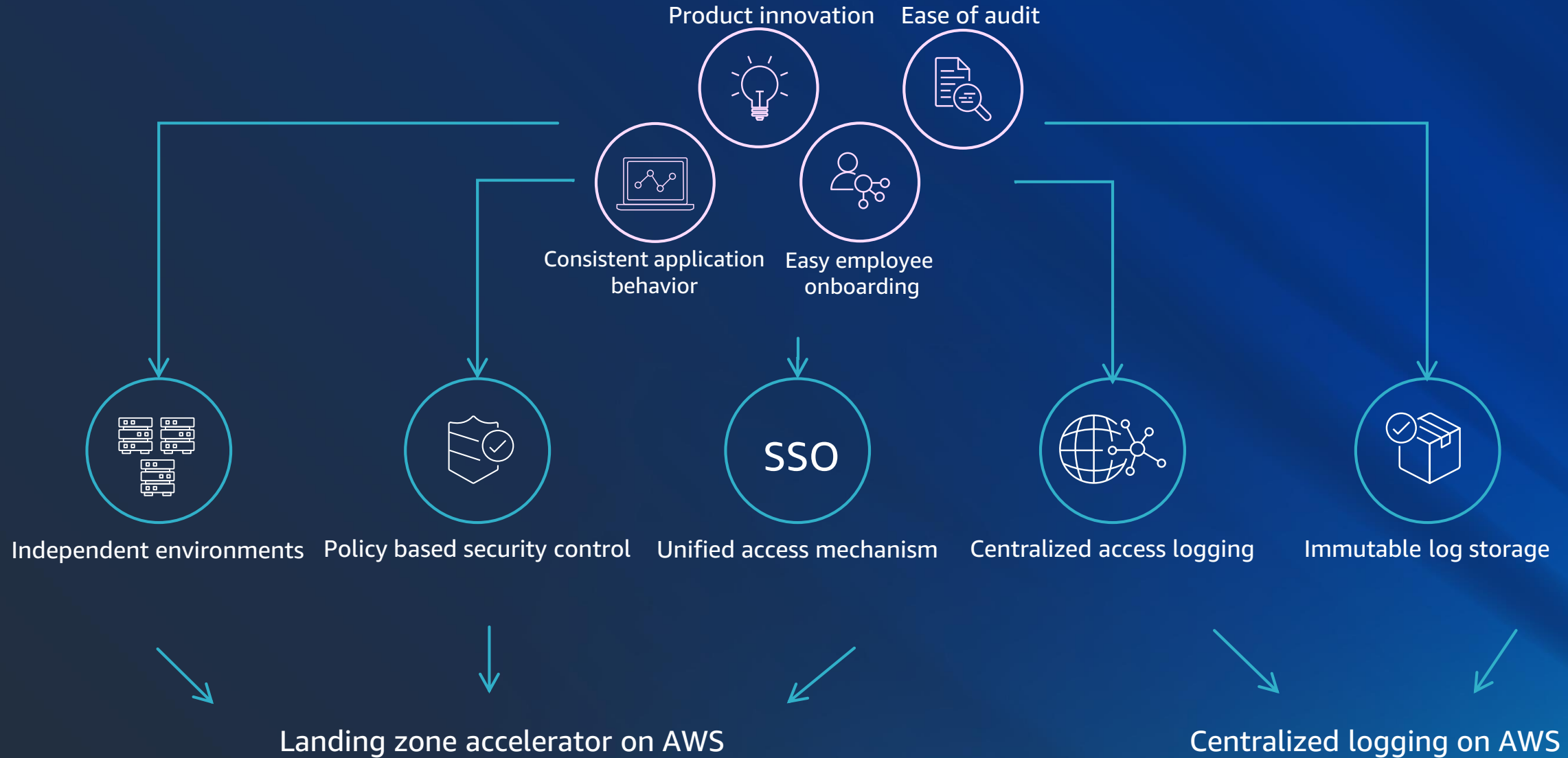
Governance, Risk & Compliance

- Change management
- Governance
- Log storage
- Tagging

Finance

- Cloud financial management
- Resource inventory management

Implementation using solution or guidance



Recap

- **What:** A cloud foundation refers to the core elements and principles that ensure reliability, scalability, security and efficiency of a cloud based infrastructure
- **Why:** Building a foundation helps you avoid misconfiguration and guard against potential negative impacts
- **How:** To build a cloud foundation you need to put together:

Requirements



- Industry
- Organization size
- Organizational complexity
- Cloud adoption maturity

Best practices



- 5 primary steps
- Capabilities and categories

Implementation



- AWS services
- Guidance
- Solutions

- Get started today with 5 steps to build a simple multi-account foundation

Next steps

- Learn more about the categories, capabilities, guidance and solutions
 - ✓ [AWS Architecture Center - Cloud Foundations](#)
 - ✓ [AWS Solutions Library - Cloud Foundations](#)
- Watch demos on 5 primary steps to get started
 1. [Establish the account as an operational unit](#)
 2. [Centralize security view, for response and remediation](#)
 3. [Simplify access using identity federation](#)
 4. [Classify and isolate workload environments](#)
 5. [Implement top-down permission control](#)

Contact your AWS rep on guidance to built the cloud foundation customized for your needs

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