Cloud Organization Hierarchy: Powering Scalable and Secure Cloud Environments

Introduction to Cloud Organization Hierarchy

- Organization Hierarchy Models

  Structured arrangements of cloud accounts, services, and identity controls within a cloud provider's environment.

- Ensuring Compliance, Security, and Cost Management

  Hierarchical models enable logical separation of workloads, centralized governance, access control, and cost visibility.

- Cloud Provider Frameworks

  AWS Organizations, Azure Management Groups, and GCP Organization Nodes facilitate multi-account governance and policy enforcement.

- Aligning with Business Objectives

  Hierarchy design reflects an organization's structure, security boundaries, and regulatory needs for operational efficiency.

- Key Concepts: Root, Sub-Accounts, and Delegated Administration

  Establishing a structured hierarchy with clear roles and responsibilities for effective cloud management.

- Enhancing Visibility and Control

  Centralized monitoring, policy enforcement, and cost tracking through hierarchical frameworks.

Key Concepts of Cloud Organization Hierarchy

- Root Account

  The highest-level authority responsible for managing all sub-accounts, projects, and services within the cloud environment.

- Sub-Accounts

  Discrete cloud accounts that are created within the hierarchy to segment workloads based on business functions, security policies, or compliance requirements.

- Organizational Units (OUs)

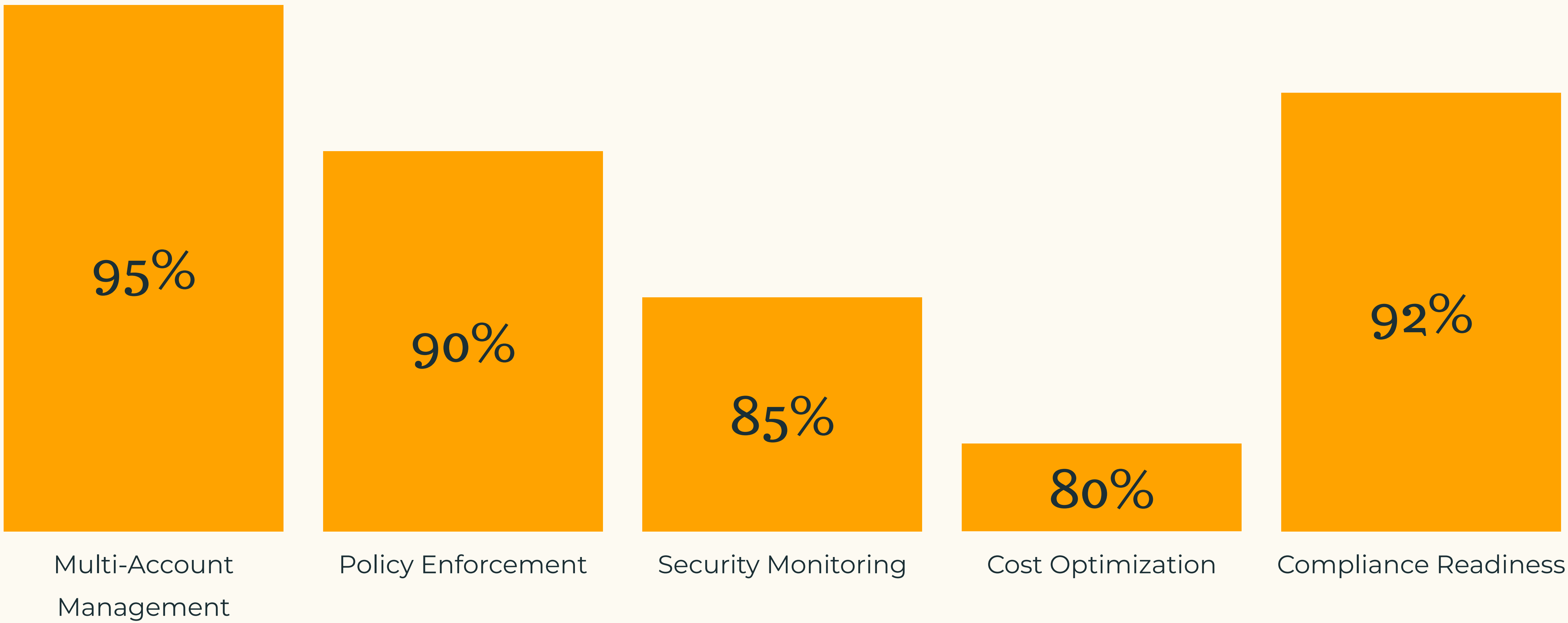
  Logical groupings of sub-accounts that enable the application of common policies, access controls, and governance frameworks across related cloud resources.

- Delegated Administration

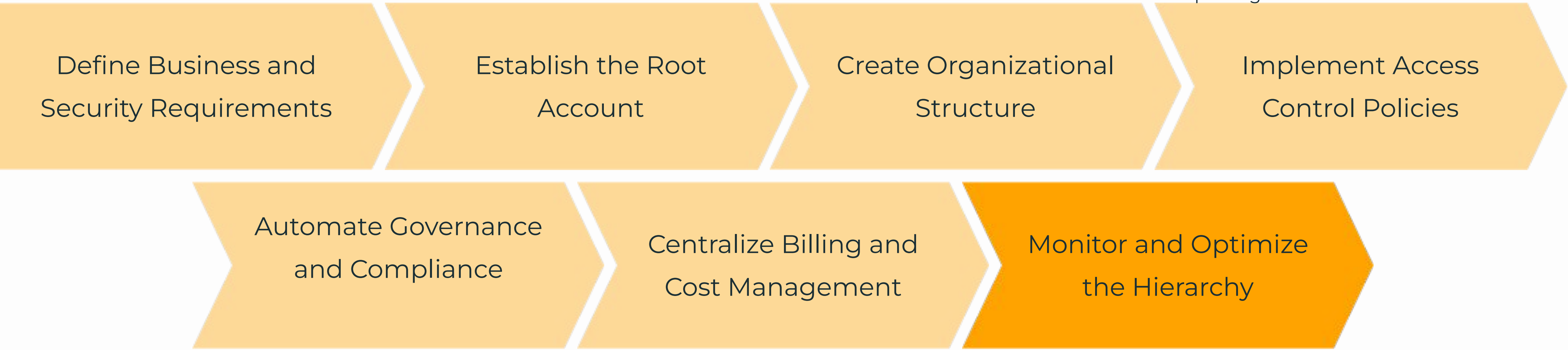
  The ability to assign specific roles and responsibilities to different teams or individuals within the cloud hierarchy, while maintaining clear security boundaries.

Cloud Provider Hierarchy Capabilities

Comparison of multi-account governance, policy enforcement, and security management features across leading cloud providers



Building an Effective Cloud Hierarchy



Define Business and Security Requirements

Identify the organization's security, compliance, and operational needs to guide the hierarchy design.

Establish the Root Account

Create a highly secure root or management account to serve as the foundation of the hierarchy, with strict access controls.

Create Organizational Structure

Segment the hierarchy into sub-accounts, management groups, or folders based on business functions, security boundaries, and compliance requirements.

Implement Access Control Policies

Enforce role-based access control (RBAC) and security policies, such as AWS Service Control Policies, Azure RBAC, and GCP IAM Policies, to restrict access based on the principle of least privilege.

Automate Governance and Compliance

Leverage cloud-native tools like AWS Config, Azure Security Center, and GCP Security Command Center to enforce compliance and monitor cloud activities.

Centralize Billing and Cost Management

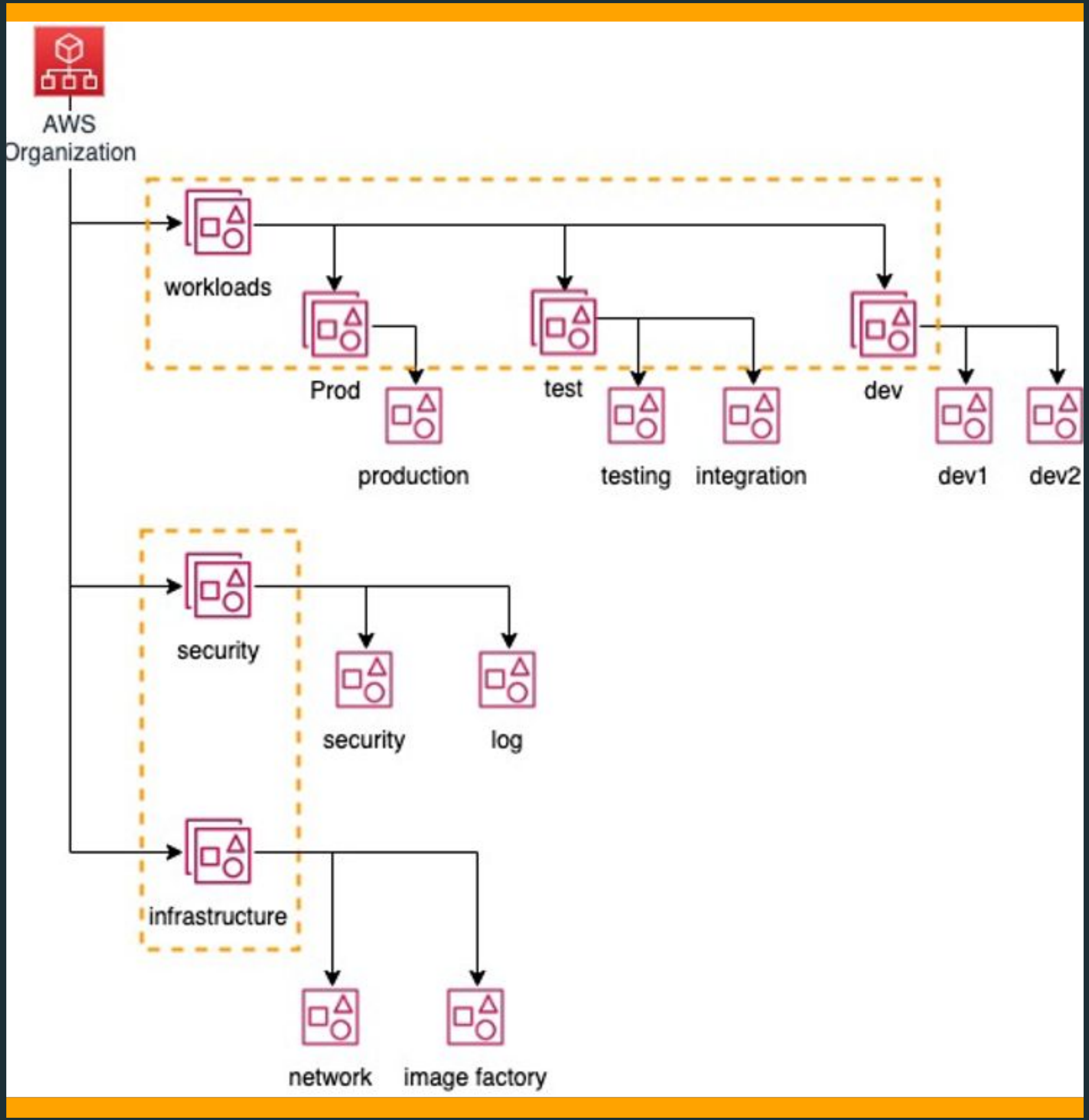
Utilize consolidated billing and cost tracking features provided by cloud providers to allocate expenditures accurately across the hierarchy.

Monitor and Optimize the Hierarchy

Continuously monitor the hierarchy's performance, refine policies, and optimize resource utilization to maintain security, compliance, and cost efficiency.

Case Study: Financial Institution's Multi-Account Strategy

A global financial services firm sought to migrate its operations to the cloud while ensuring security, regulatory compliance, and cost management. The company needed a multi-account strategy to segment workloads while adhering to PCI-DSS, GDPR, and other financial regulations.



Key Benefits of Structured Cloud Hierarchy

Enhanced Security

Enables access control, policy enforcement, and workload segmentation to minimize risk and unauthorized access.

Improved Compliance

Ensures adherence to industry regulations and standards through centralized policy management and monitoring.

Optimized Costs

Provides visibility into resource utilization and enables cost allocation across business units for better financial management.

Scalable Governance

Allows for easy expansion of cloud footprint while maintaining consistent security, compliance, and cost controls.

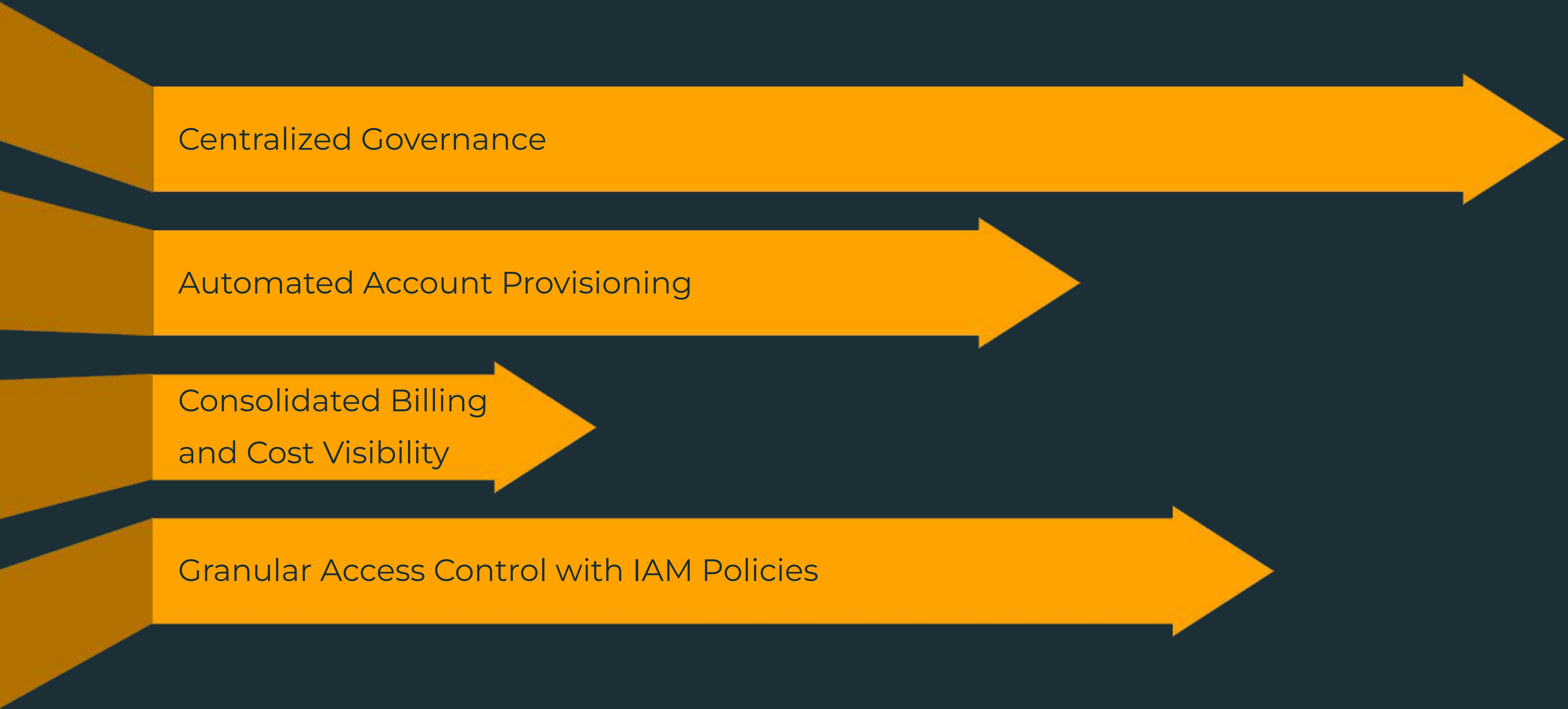
Centralized Visibility

Offers a single pane of glass for monitoring cloud activities, security events, and resource utilization.

Streamlined Operations

Simplifies management of cloud resources, roles, and policies through a structured, hierarchical approach.

AWS Organizations and Best Practices



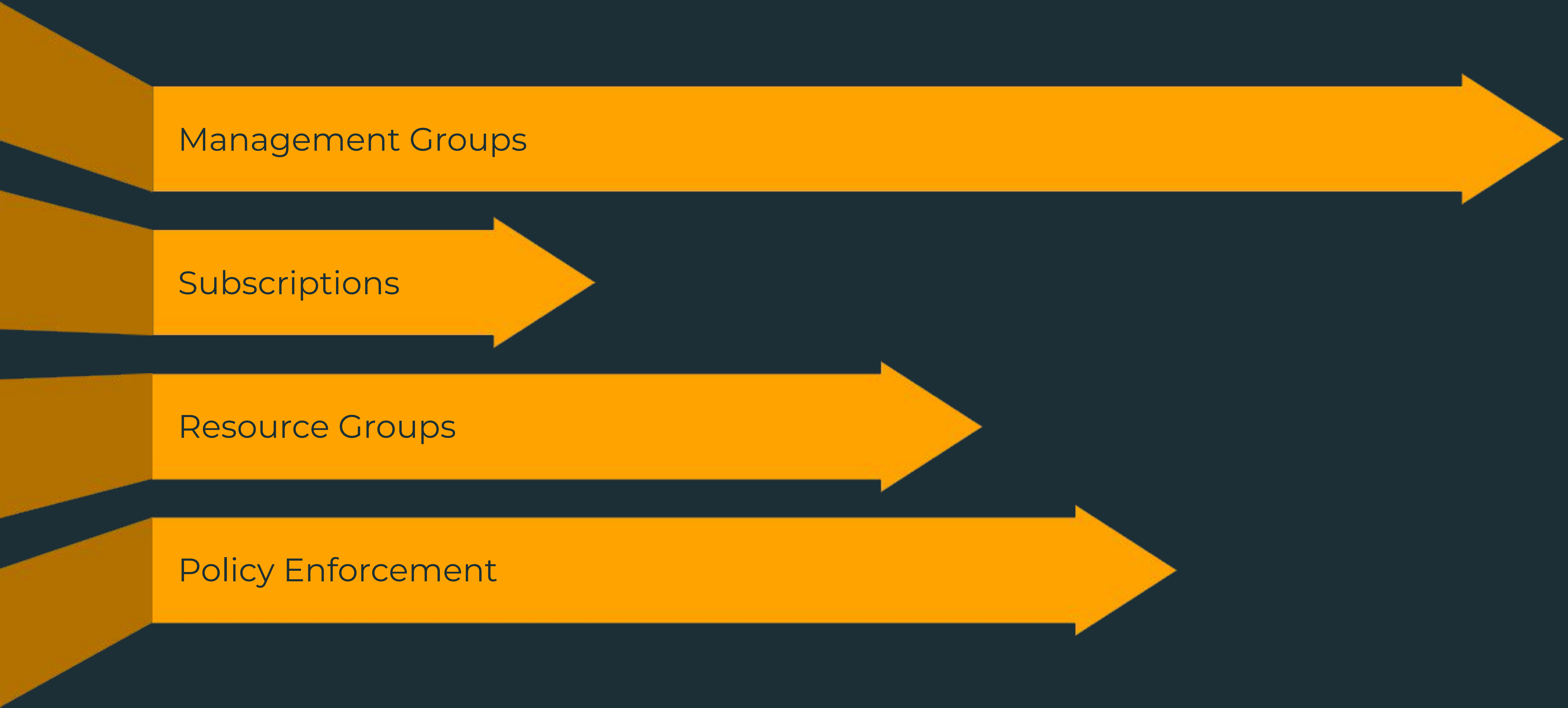
Centralized Governance

Automated Account Provisioning

Consolidated Billing and Cost Visibility

Granular Access Control with IAM Policies

Azure Management Groups and Subscriptions



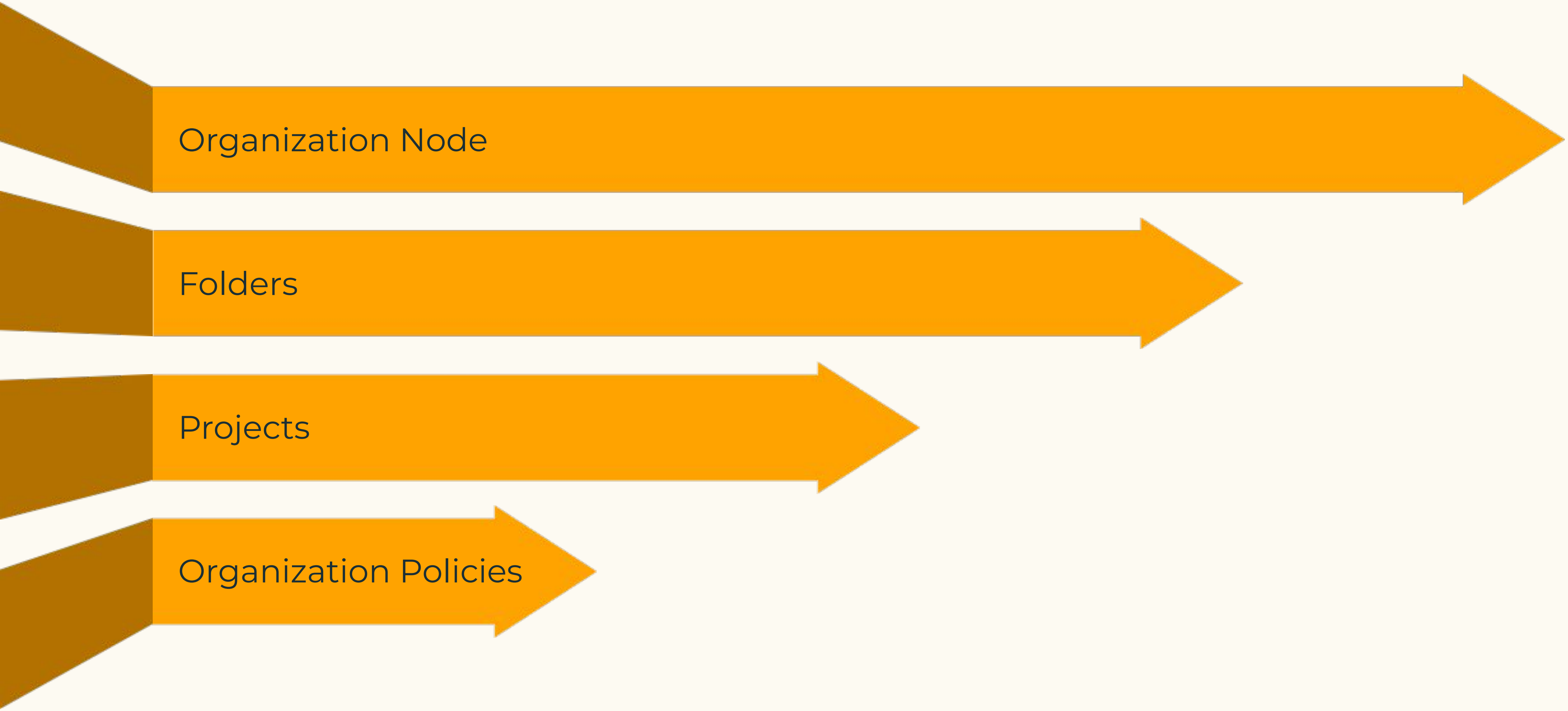
Management Groups

Subscriptions

Resource Groups

Policy Enforcement

Google Cloud Resource Hierarchy



Organization Node

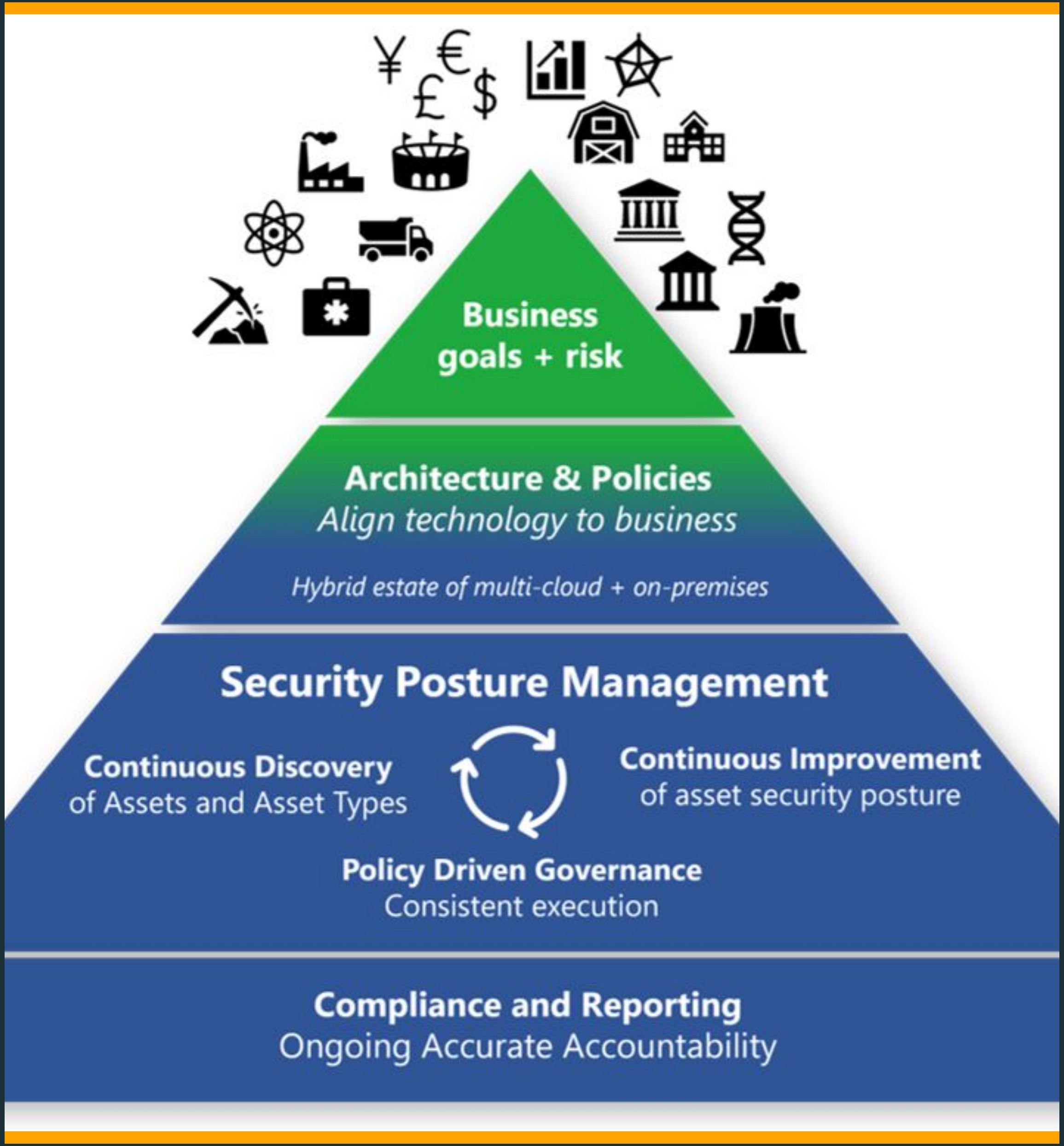
Folders

Projects

Organization Policies

Enhancing Cloud Security and Compliance

Cloud organization hierarchy models play a crucial role in supporting broader security governance and compliance initiatives within cloud environments. These hierarchical structures provide the foundation for implementing robust security controls, enforcing policies, and ensuring regulatory adherence across an organization's cloud infrastructure.



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Business goals + risk
Architecture & Policies
Align technology to business
Hybrid estate of multi-cloud + on-premises
Security Posture Management
Continuous Discovery
of Assets and Asset Types
Continuous Improvement
of asset security posture
Policy Driven Governance
Consistent execution
Compliance and Reporting
Ongoing Accurate Accountability

OPTIMIZATION
DELEGATED
HIERARCHY
APPLICATION
TRUST
INTEGRATION
MANAGEMENT
SECURITY
HARMONIZATION
SCALABLE
ISOLATION
INCIDENT
REPORTING
SELF
PREDICTIVE
FEDERATED
PRESERVATION
COMPLIANCE
SOVEREIGNTY
SERVERLESS
DATA
RISK
RESOURCE
MOBILITY
COST
COLLABORATION
TAGGING
SERVICE
SHARED
MICROSERVICES
ANOMALY
IDENTIFICATION
AWARE
LIFECYCLE
DYNAMIC
NATIVE
PRIVACY
EDGE
CODE
AUTOMATION
CLOUD
FEDERATED
ORCHESTRATION
INVENTORY
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RESPONSIBILITY
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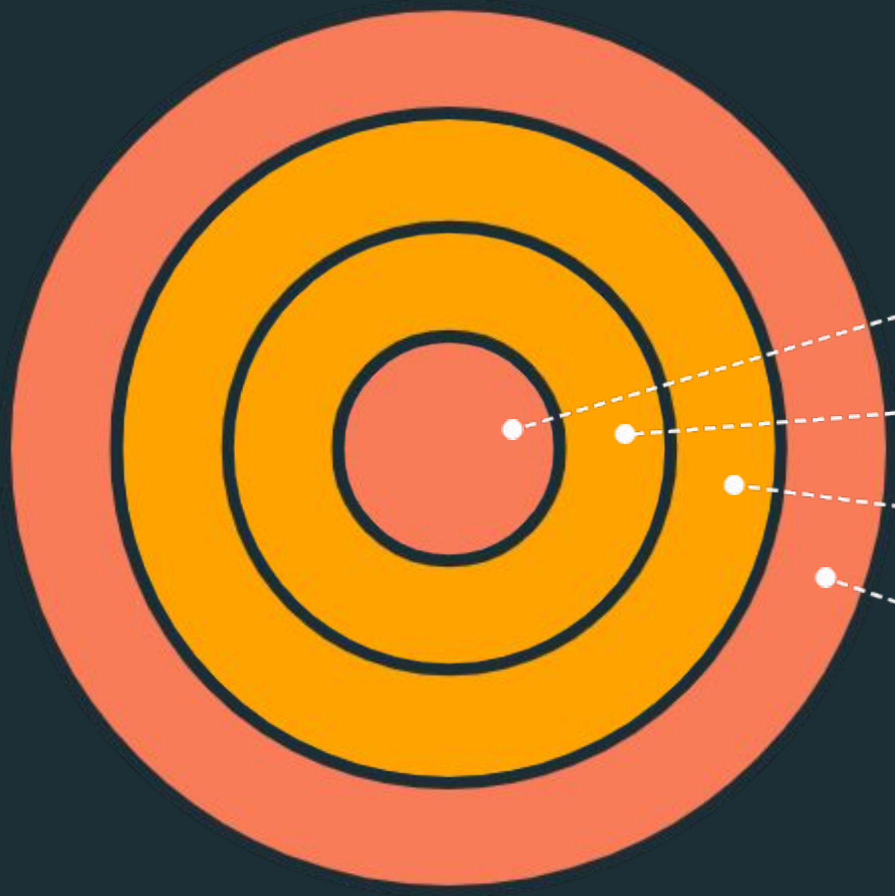
KUBERNETES
CLOUD
IDENTITY
THREAT
SPEND
MANAGEMENT
MULTILATERAL
ECOSYSTEM
CLOUD RESOURCE
ASSET
CODE
POLICY
BLOCKCHAIN
CONTEXT
ELASTICITY
WORKLOAD
REGULATORY
ZERO
HEALING
GRANULAR
DEVSECOPS
GOVERNANCE
VISIBILITY
DETECTION
ANALYTICS
AGNOSTIC
CONTAINERS
RESPONSE
GOVERNANCE
ADMINISTRATION
PERFORMANCE
VISUALIZATION

Conclusion: Embracing the Power of Cloud Hierarchy



Centralized Governance

Establish a structured hierarchy for effective management and control

Enhanced Security

Implement access controls, policy enforcement, and security monitoring

Operational Efficiency

Optimize resource allocation, cost management, and scalability

Regulatory Compliance

Ensure adherence to industry standards and legal requirements