

# AWS re:Inforce

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TDR233

# How LLA reduces incident response time with AWS Systems Manager

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Liberty Latin America



# Agenda

Liberty Latin America (LLA) and their security challenges

Overview of AWS security services

LLA security framework and deployment

Q&A

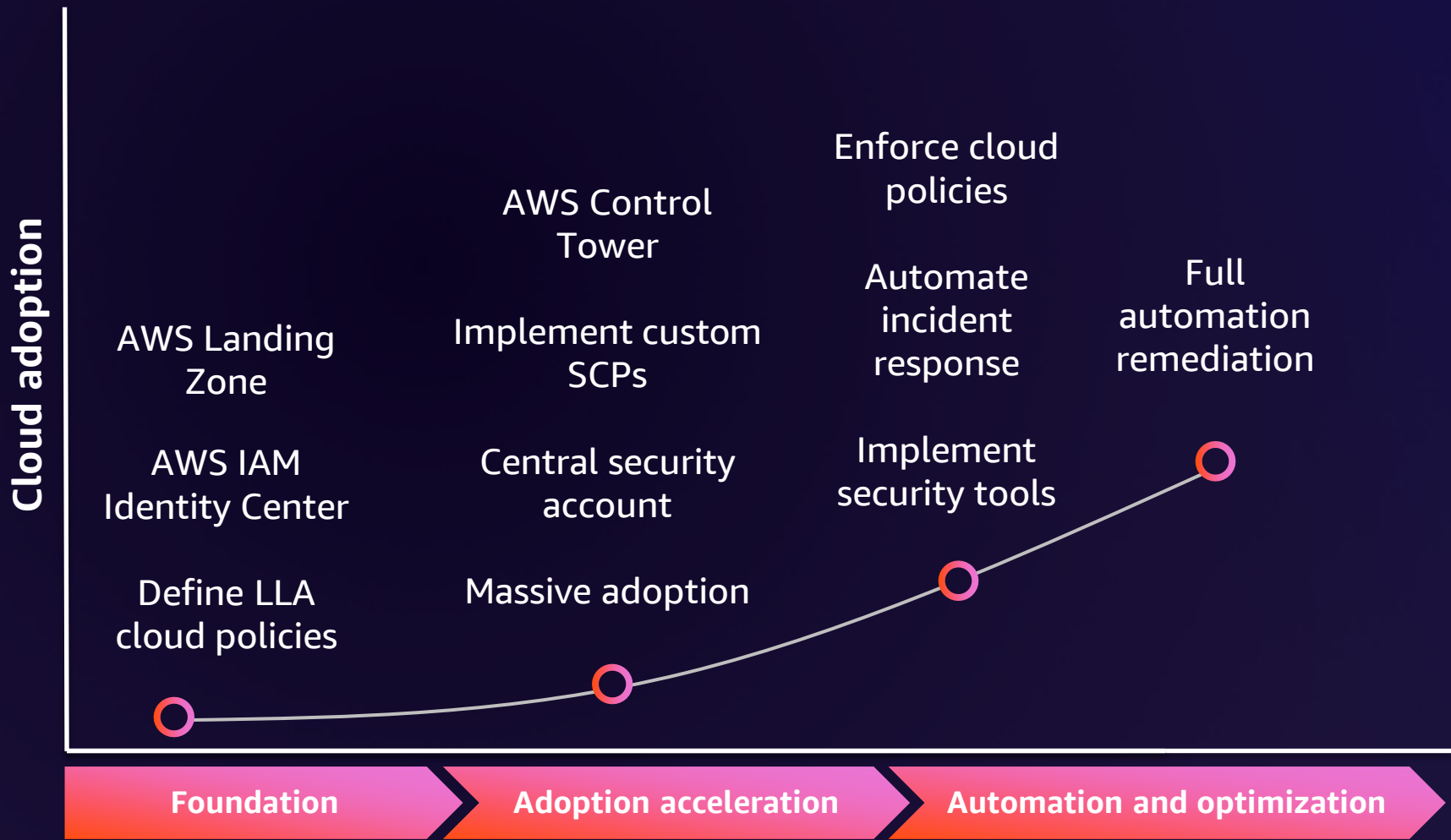
# Liberty Latin America: Operations and brands



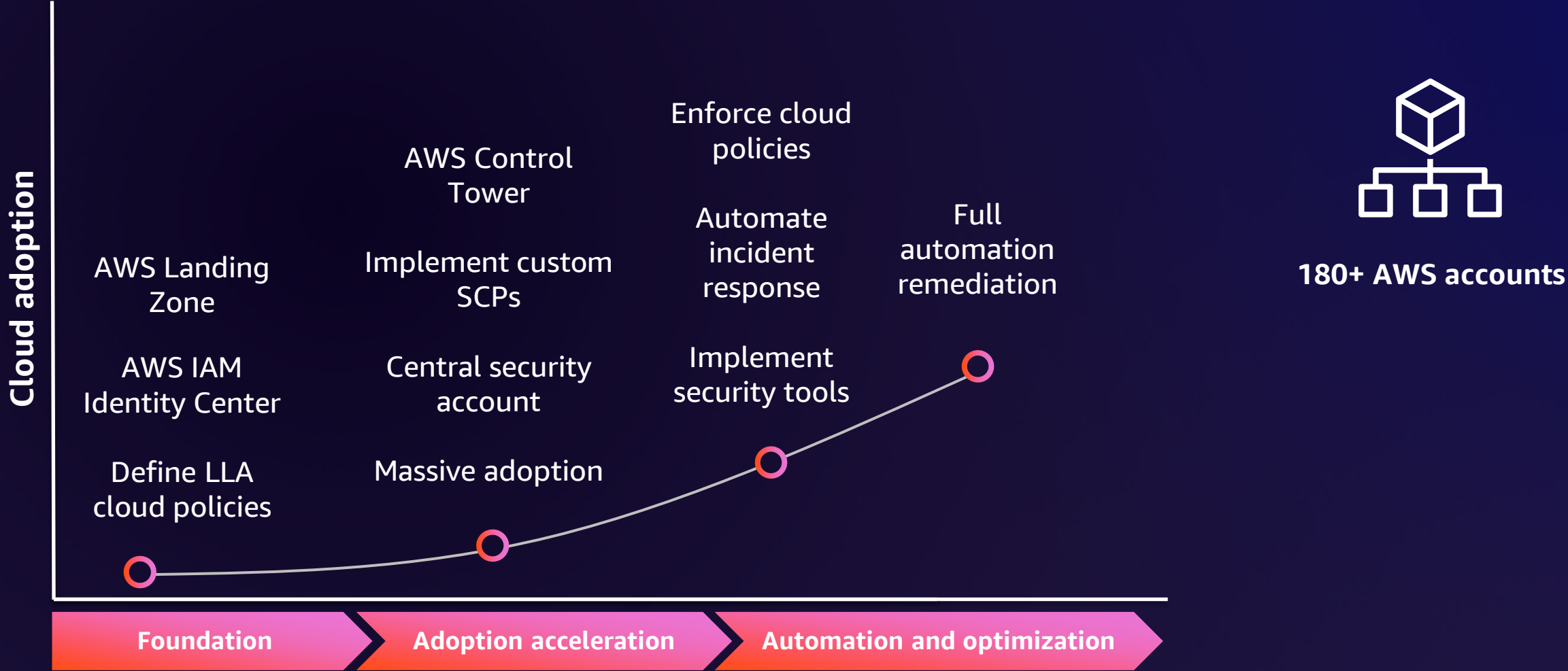
**LIBERTY**  
LATIN AMERICA



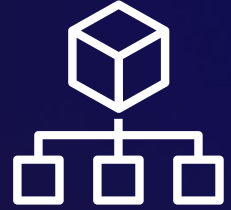
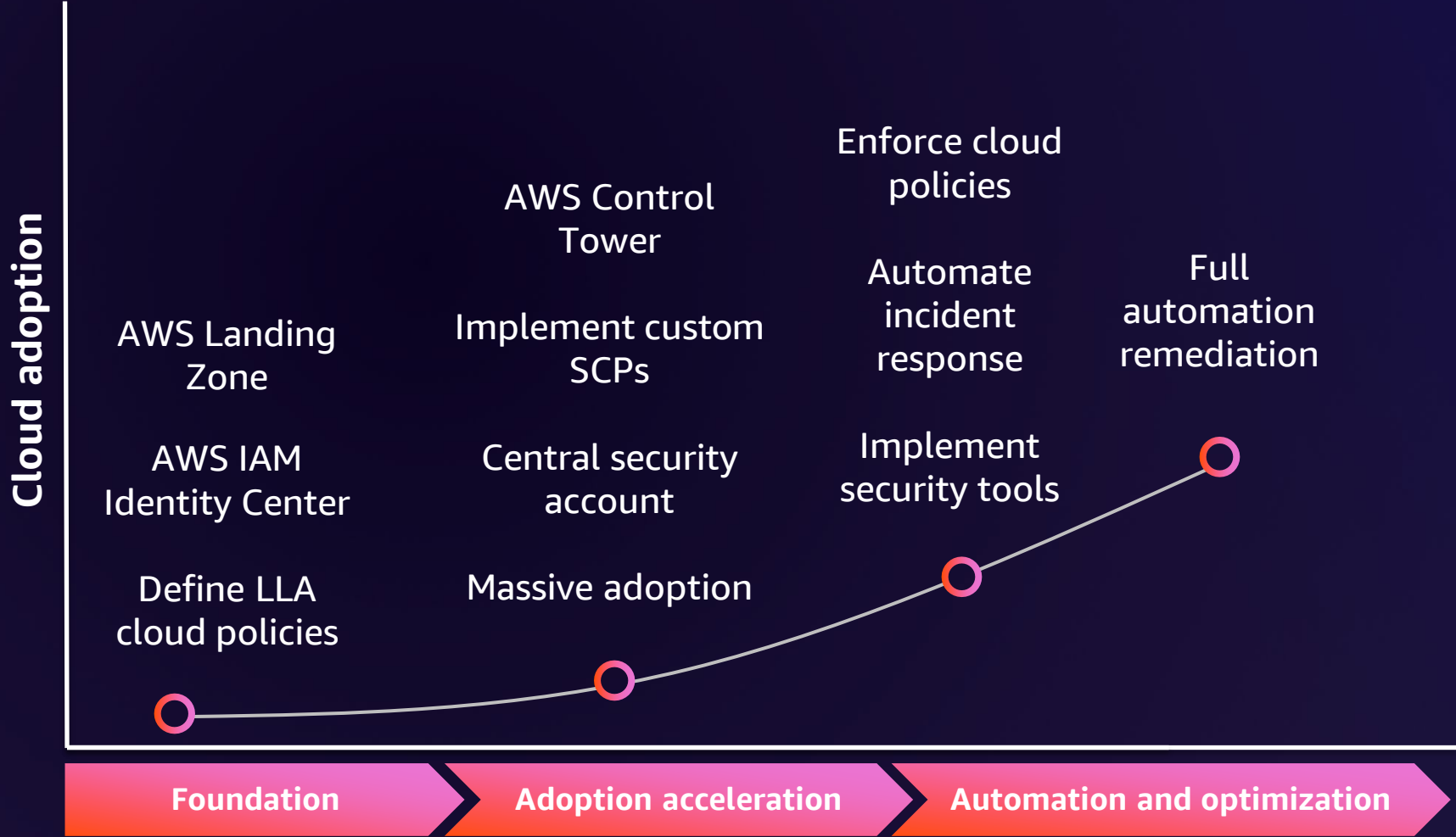
# Cloud adoption and security challenges



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180+ AWS accounts



1,000+ users with AWS access  
(internal stakeholders and third-party partners)  
50+ permission sets



# Cloud adoption and security challenges

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Inaccurate  
AWS account contact  
information

# Cloud adoption and security challenges



Inaccurate  
AWS account contact  
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Insecure  
AWS resource  
configuration

# Cloud adoption and security challenges



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Unintended disclosure  
of security credentials  
and secrets

# Cloud adoption and security challenges



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Unintended disclosure  
of security credentials  
and secrets



Ineffective response to  
detective controls

# Cloud adoption and security challenges



Inaccurate  
AWS account contact  
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Insecure  
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Unintended disclosure  
of security credentials  
and secrets



Ineffective response to  
detective controls



Lack of continuous  
vulnerability management



Users with different  
cloud skills

# Liberty Latin America security framework: Logical design

# Liberty Latin America security framework



# Liberty Latin America security framework

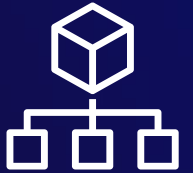
Workload isolation using AWS Organizations

Threat detection with Amazon GuardDuty

AWS Security Hub for centralizing security data and alerts

Security event processing with Amazon EventBridge

Incident management with AWS Incident Manager



# Threat detection, monitoring, and response



Integrated with AWS workloads in an AWS account, along with identities and network activity

**Amazon GuardDuty**  
Detect threats and anomalous behavior

**Amazon Macie**  
Discover sensitive data

**Amazon Inspector**  
Detect vulnerabilities

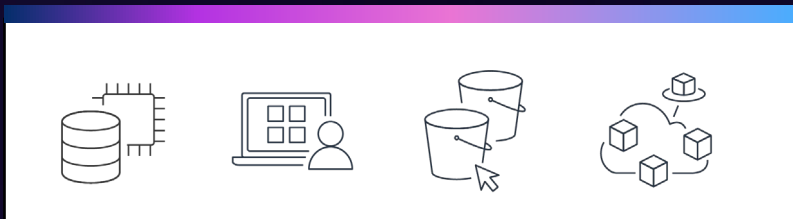
**AWS Security Hub**  
Automate security checks and centralize security alerts

**Amazon Detective**  
Investigate events and findings

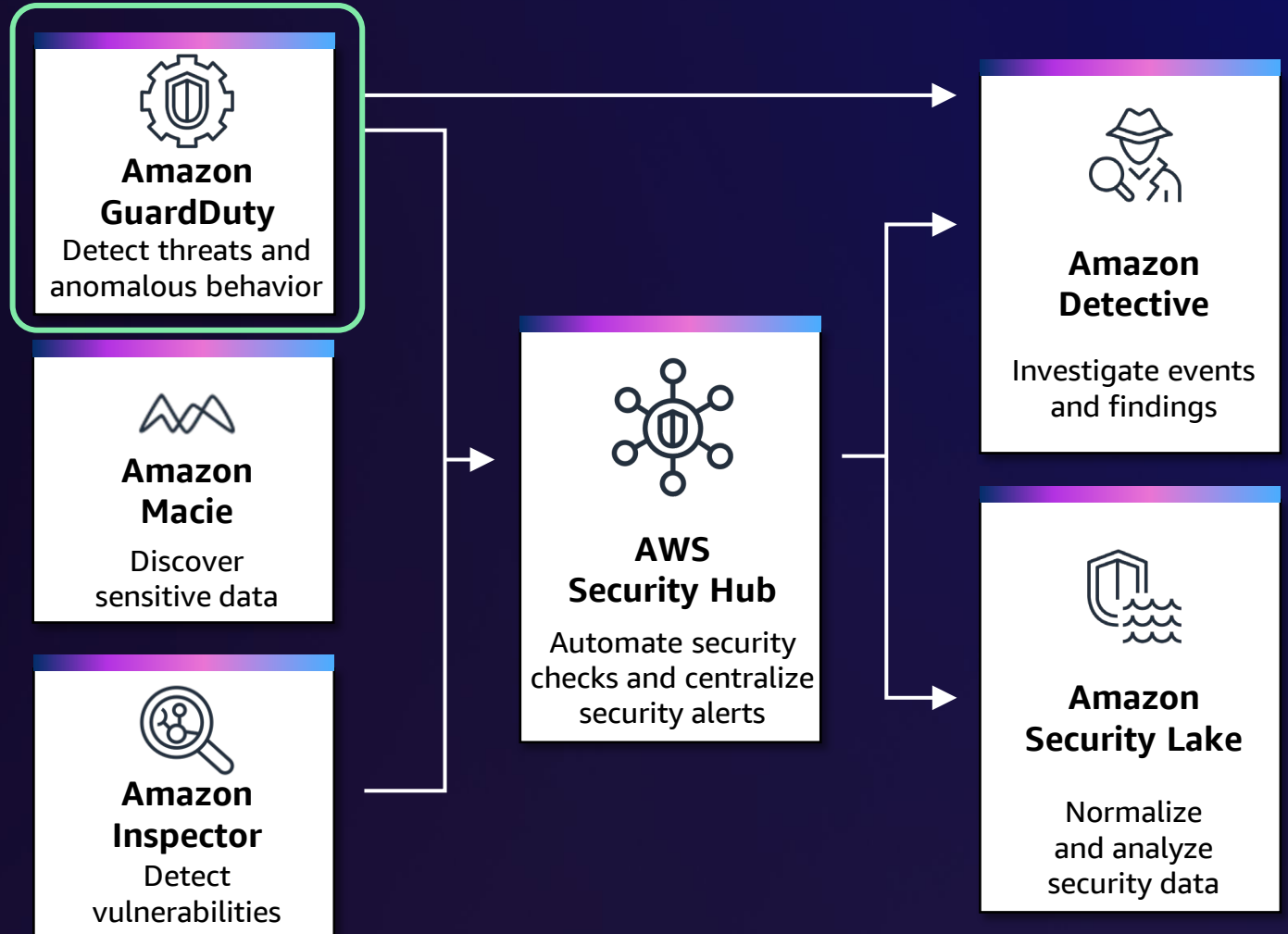
**Amazon Security Lake**  
Normalize and analyze security data



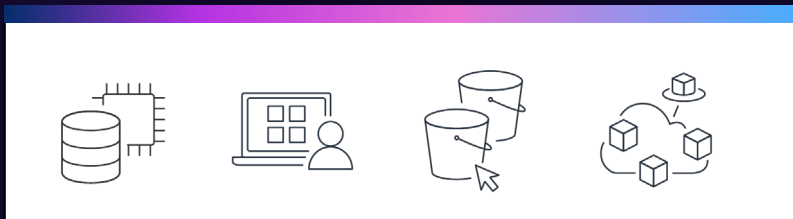
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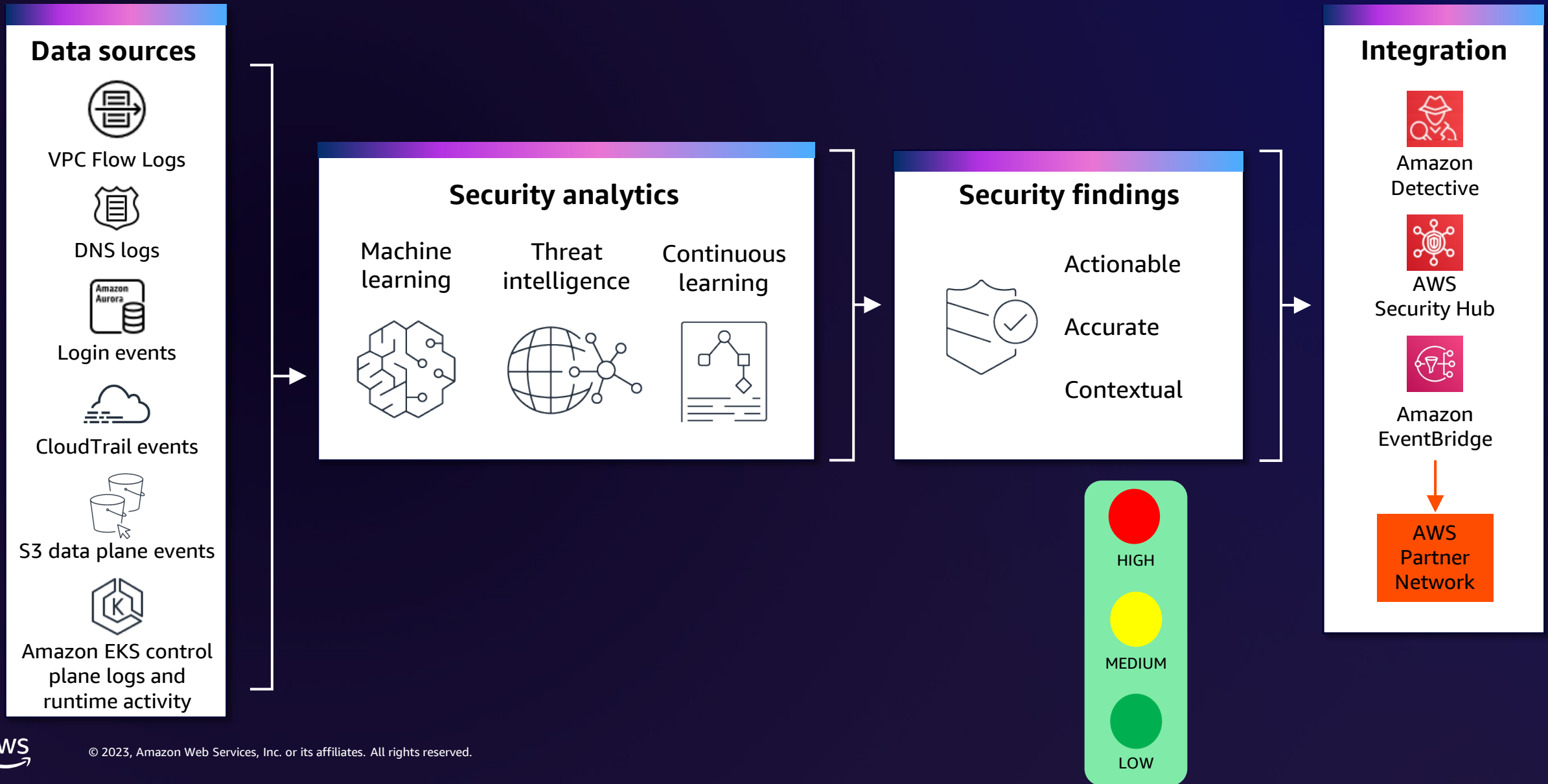
**Amazon Inspector**  
Detect vulnerabilities

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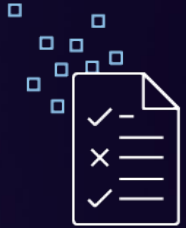
**Amazon Security Lake**  
Normalize and analyze security data

# Amazon GuardDuty



# AWS Security Hub

Centrally view and manage security alerts and automate security checks



Save time with aggregated findings



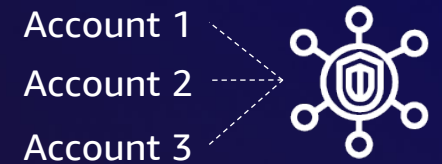
Improve security posture with automated checks



Review curated security best practices



Seamlessly integrate with standardized findings format

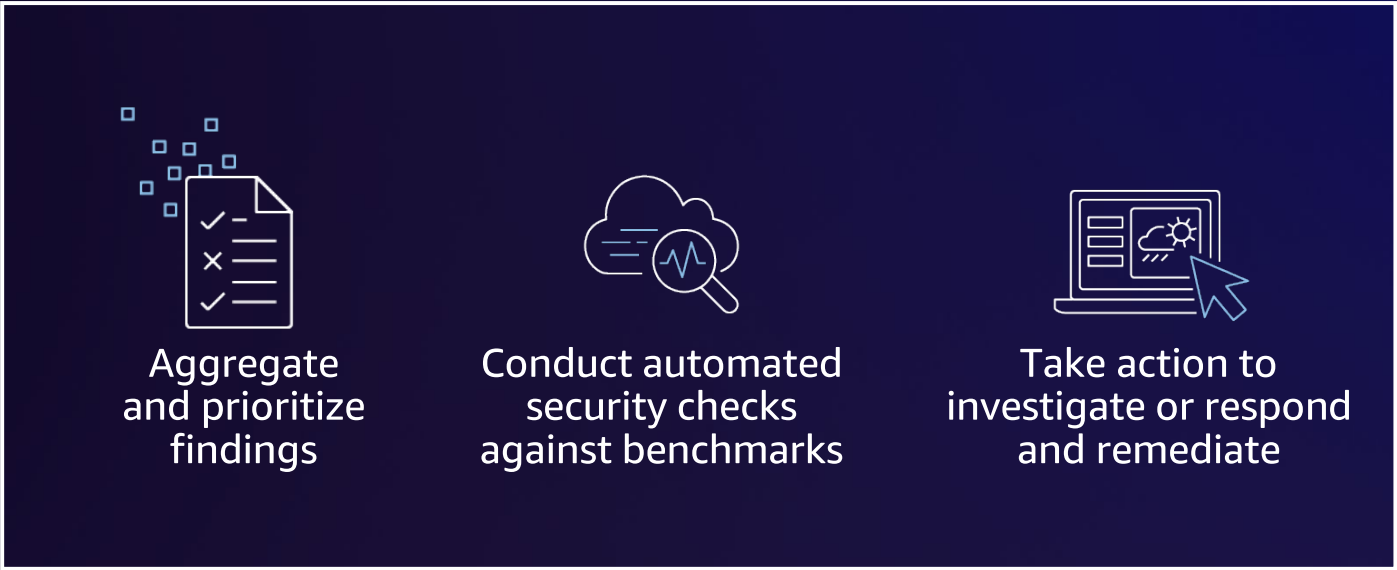


Activate multi-account support

# AWS Security Hub



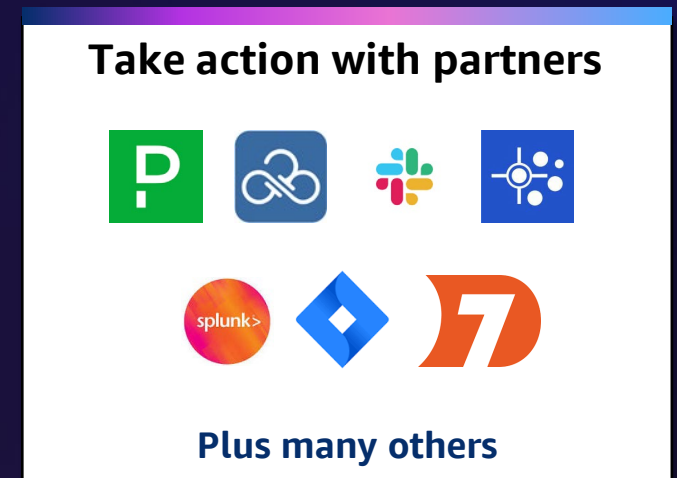
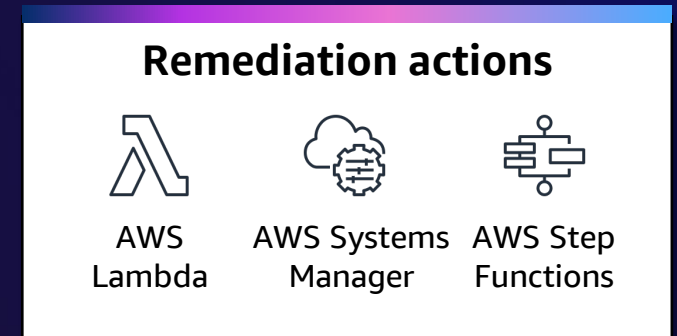
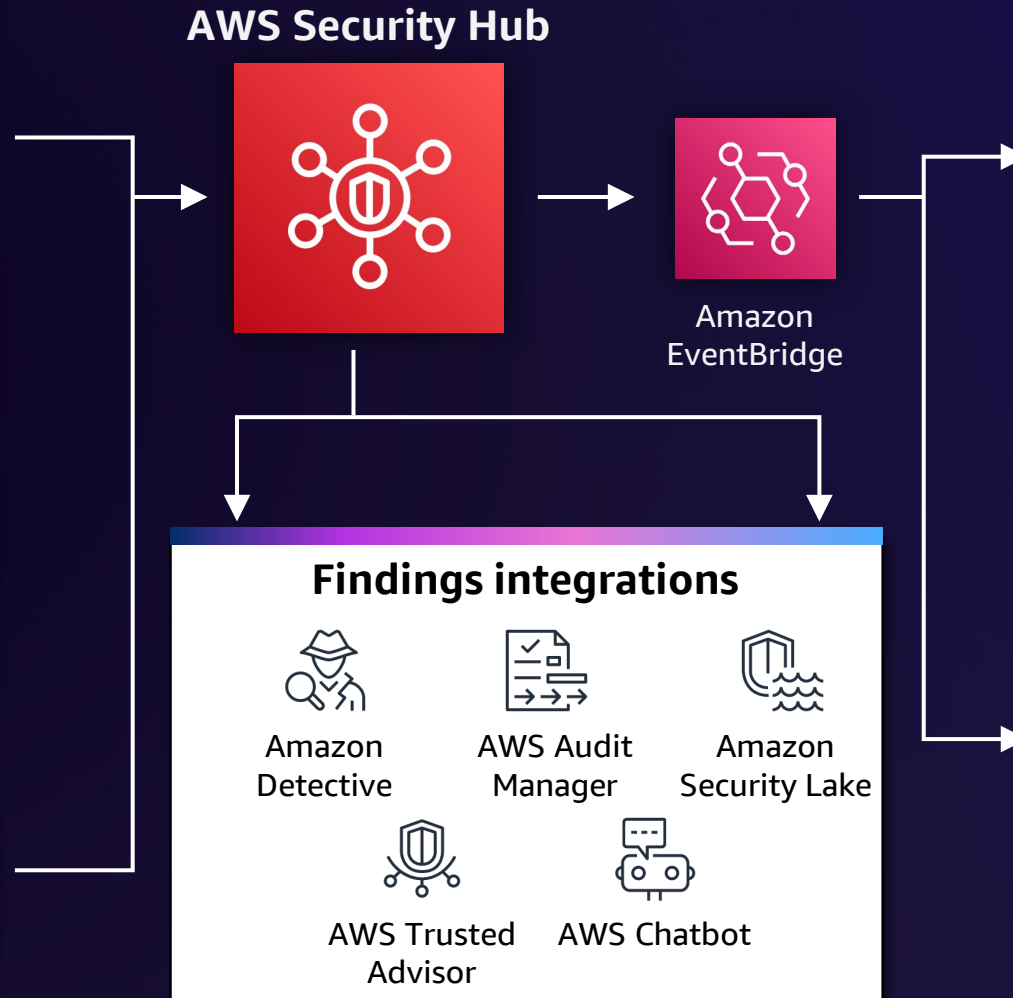
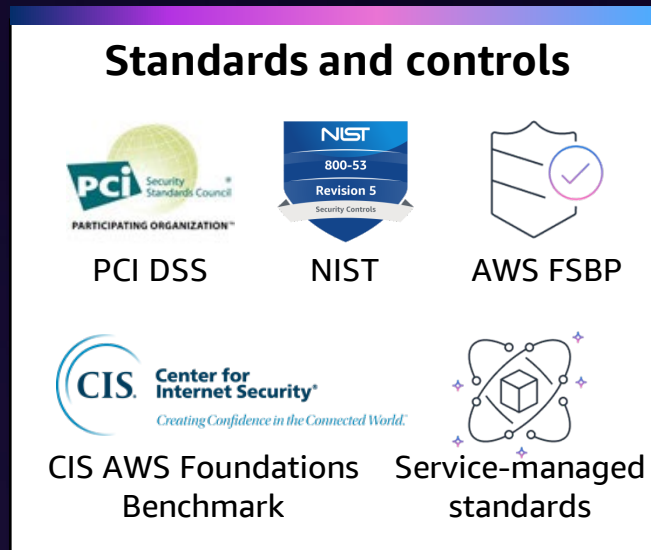
AWS Security Hub



Better visibility into **security issues**      Easier to stay in **compliance**



# Security Hub information flows



# AWS Systems Manager Incident Manager



RESOLVE APPLICATION ISSUES FASTER WITH AUTOMATED RESPONSE PLANS

1 Prepare for the **who**, **what**, and **where** in a response plan

## Response plan



Escalation plans & contacts

Who you engage



Automated runbooks

What you do

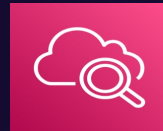


AWS Chatbot

Where you collaborate

2 Attach **response plans** to monitors

## Triggers (event sources)



Amazon CloudWatch



Amazon EventBridge



Manual

3 Manage and track in **Incident Manager**

## Incident Manager



Incident timeline



Integrated runbook



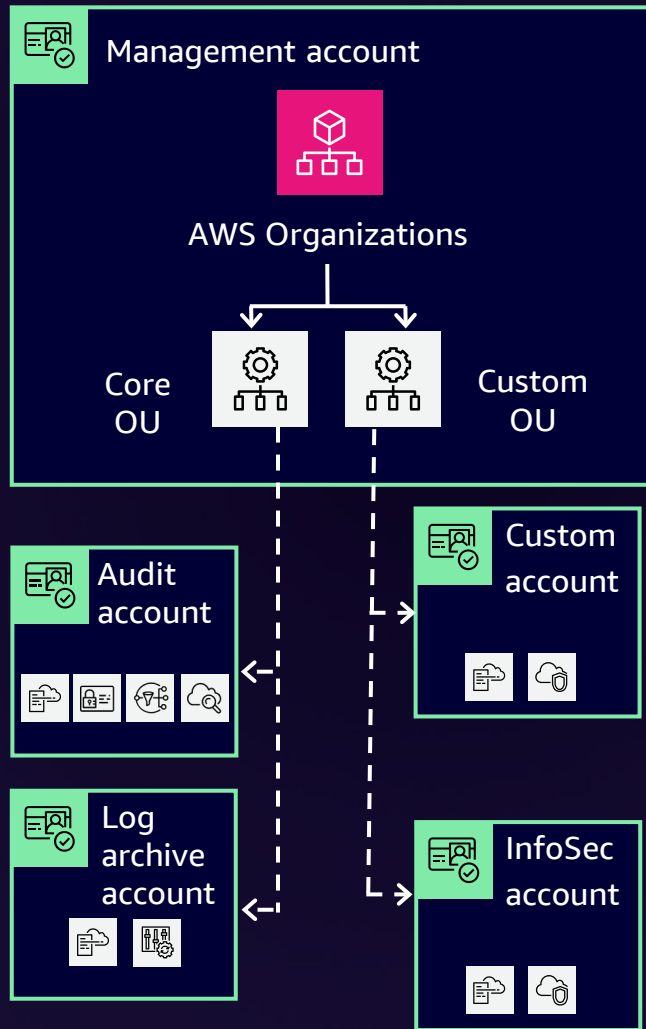
Triage & analysis





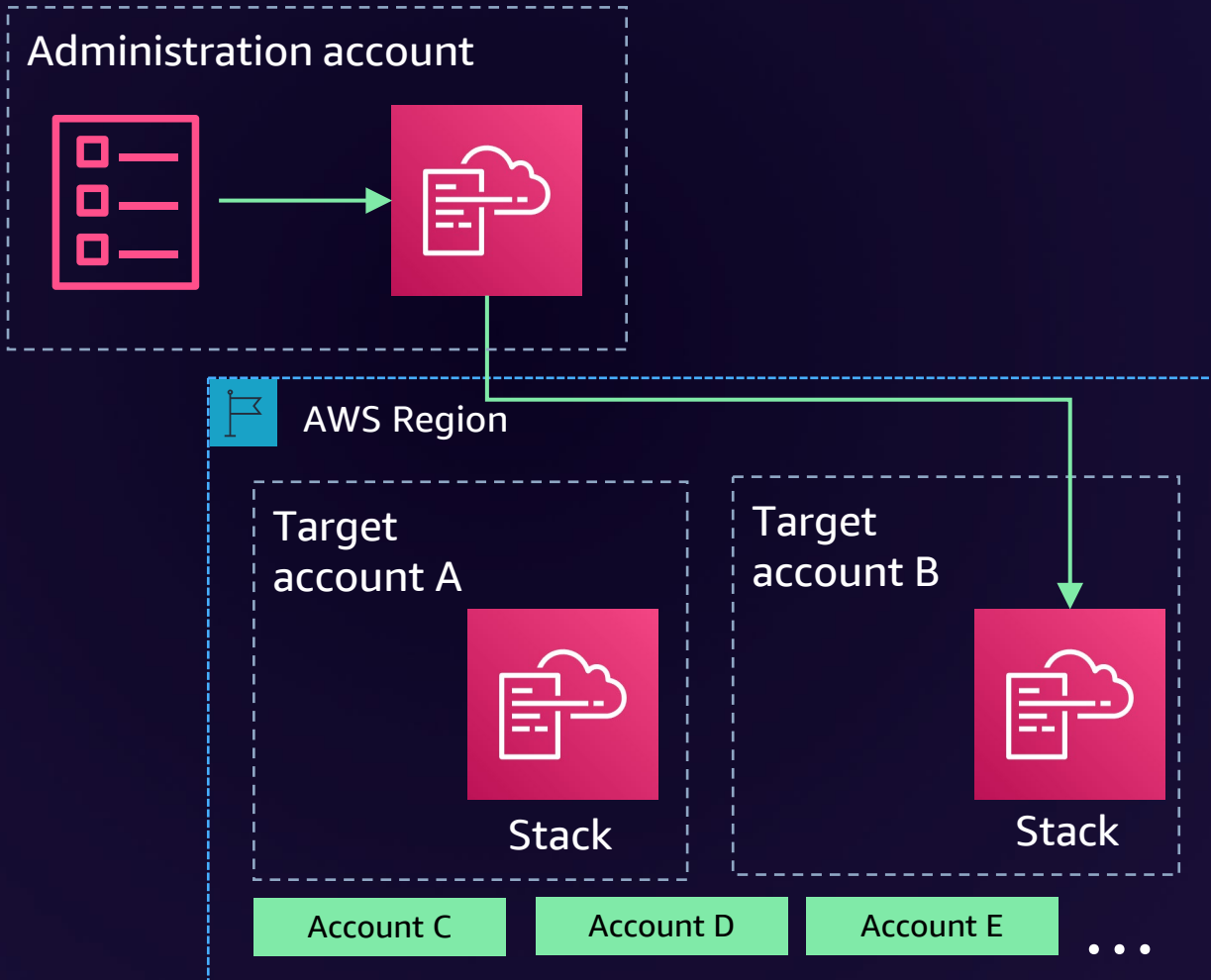
# Liberty Latin America security framework: Deployment

# Liberty Latin America Multi-account architecture



- Management account – designation of your existing account to create a new organization; also your main payer account
- Organizations have several organizational units (OUs) for workloads
- AWS Control Tower-created accounts (i.e., audit account and log archive account)
- InfoSec account – manage GuardDuty and Security Hub centrally

# Deployment: AWS CloudFormation StackSets



```
AWSTemplateFormatVersion: 2010-09-09
Parameters:
  - SecurityAccountId:
    Type: String
    Description: AWS Account Id of the Security account.
    AllowedPattern: "[0-9]{12}"
  - MasterAccountId:
    Type: String
    Description: AWS Account Id of the Master account.
    AllowedPattern: "[0-9]{12}"
  - OrganizationID:
    Type: String
    Description: ID of Organization example o-abcdefghijklm
    AllowedPattern: "o-[a-zA-Z0-9]+"
  - DefaultEscalationARN:
    Type: String
    Description: ARN of the escalation plan set as default
    Default: ""
Conditions:
  - SecurityAccountOnly: !Equals [ !Ref AWS::AccountId, !Ref SecurityAccountId ]
  - NonSecurityAccountOnly: !Not [ !Equals [ !Ref AWS::AccountId, !Ref SecurityAccountId ] ]
  - DefaultEscalationPlanExist: !Not [ !Equals [ !Ref DefaultEscalationARN, "" ] ]
  - ShareEscalation: !And
    - !Condition DefaultEscalationPlanExist
    - !Condition SecurityAccountOnly
Resources:
  - SecurityResponsePlanSetup:
```

# Thank you!



Please complete  
the session survey  
in the mobile app

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**Joaquin Cameselle**

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