

AWS Security Hub

Automated compliance checks and security alert prioritization



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AWS Security Services overview



AWS Foundational and Layered Security Services



Security HubOrganizations



AWS AWS Control Trusted Tower Advisor



AWS Transit Gateway

Amazon

VPC

PrivateLink



濕

Amazon Cloud





Amazon

Macie





CloudWatch



AWS Step Functions



AWS **OpsWorks**



AWS CloudFormation



ලා

AWS

Direct

Connect

Amazon

VPC

AWS IoT

Device

Defender

Resource

Access

manager

EB



AWS

Directory

Service

Directory

Amazon **AWS** Inspector Security Hub

AWS Systems Manager

AWS Lambda

Identify



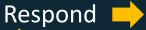
Protect



Detect











Catalog





AWS Well-Architected Tool

AWS Systems Manager



AWS

Shield

AWS

WAF



IAM

AWS

Firewall

`₩

AWS

Secrets

Manager

AWS

Certificate

Manager



KMS

AWS

CloudHSM











Cognito









AWS Single Sign-On







Personal Health Dashboard



Amazon Route 53



Amazon S3 Glacier



Archive









Introduction AWS Security Hub



Problem statements





Introduction to AWS Security Hub



Better visibility into **security issues**.

Easier to stay in **compliance**.





Introduction to AWS Security Hub

Responding to Findings \ Insights: Remediation





AWS Security
Services
OR
Partner
solutions



AWS Security
Hub





CloudWa Even

Detect

Aggregate

Report



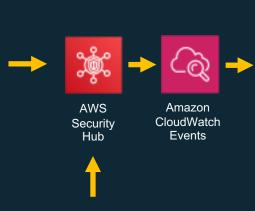


Partner integrations



Partners forwarding findings into AWS Security Hub





"Taking Action"



AWS Security Services Forwarding findings into AWS Security Hub









AWS Security Hub Benefits



AWS Security Hub Benefits





Compliance standards



Aggregated findings



Take Action





Automated compliance checks





43 fully automated, nearly continuous checks













Based on CIS AWS Foundations Benchmark

- 43 fully automated, nearly continuous checks
- Findings are displayed on main dashboard for quick access.
- Best practices information is provided to help mitigate gaps to be in compliance.







Examples:

Avoid the use of the "root" account

Ensure **CloudTrail** is enabled in all regions

Ensure no Security groups allow ingress from 0.0.0.0/0 to port 22

Ensure IAM policies that allow full "*:*" administrative privileges are not created

43 pre configured rules for CIS







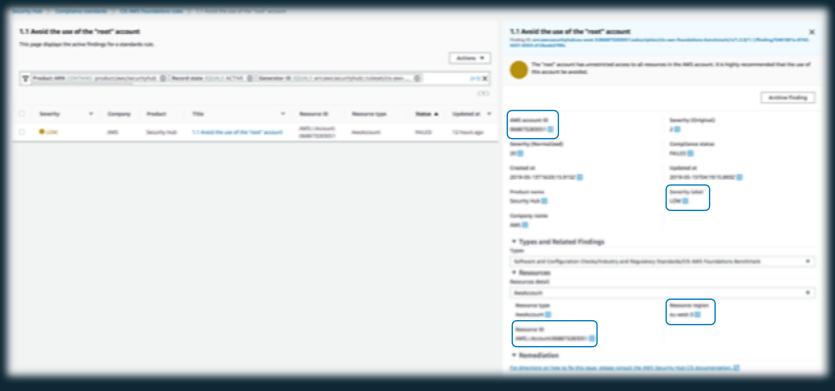
SOUTH TO SEPARATE TO SERVICE SERVICE		
CS AWS Foundations rules AWS South No ordical G automated checks against the CS-RMS Poundations benchmark rules. Q. reservate		(111)
(4.44		
1.1 Available use of the "roof" account.	1.2 Ensure multi-factor authentication (MFK) is enabled for all MFF users that have a console patiented © Compliant 1 account passed	1.3 Ensure credentials unused for 90 days or greater are disabled. ©Complete 1 accord passed
1.4 Crouve access large are related every 90 days or less @ Complete 1 account passed	1.5 Crown SW password policy requires at least one upperson letter @Complex 1 around passed	1.6 Crown Wife password policy requires at least one lowersame letter @Complete 1 assert passed
1.7 Course IAM password policy requires at least one symbol © complete 1 accord passet	1.8 Course NW password policy requires at least one number © complete 1 accord passet	1.5 Crown WW password policy requires minimum password langth of 14 or greater @innexts 1 accord passet
1.10 financi (AM password policy presents password rount	1.11 Ground WM password policy expires passworth within 50 days or less © Complete 1 accord passed	1.12 Ensure no next account access key exists © Complete 1 access passed
1.13 Ensure Mild is enabled for the "soot" account Green year I account foliate	1.14 Draws hardware MHA is enabled for the "soot" account the control of the con	1.16 Ensure 16th politices are attached only to groups or roles @Complete 1 accord passed
1.22 Ensure ISM policies that allow full "\" administrative privileges are not created @ Complete 1 assert passed	2.1 Snows Coudinal is enabled in all regions © Complete 1 accord passed	3.3 timure Condition log file validation is enabled @timulate 1-condition to a passed





Example: 1.1 Avoid the use of the "root" account









AWS Security Hub Benefits





Compliance standards





Take Action





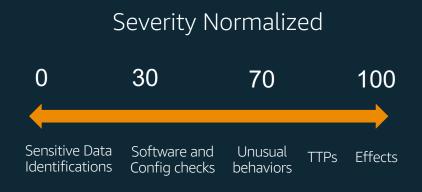
Aggregated findings

AWS Security Finding Format



~100 JSON-formatted fields Finding Types

- Sensitive Data Identifications
- Software and Configuration Checks
- Unusual Behaviors
- Tactics, Techniques, and Procedures (TTPs)
- Effects

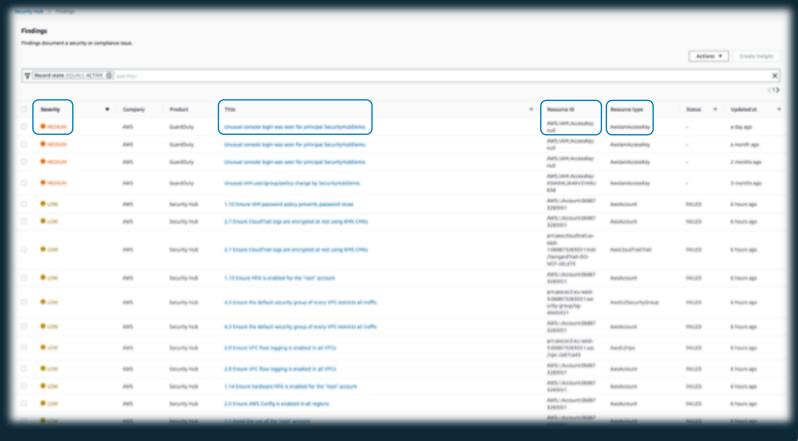






Aggregated findings



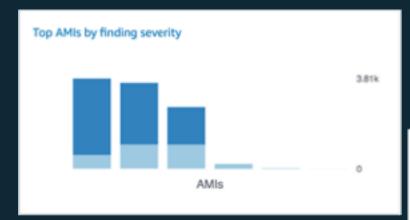


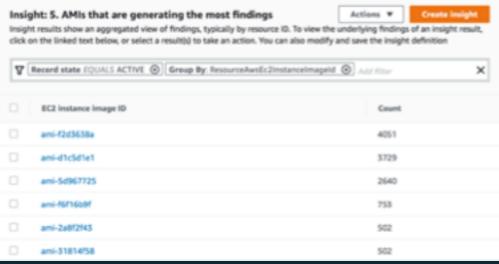




Insights help identify resources that require attention











AWS Security Hub insights



- Dashboard provides visibility into the top security findings
- 20 pre-built insights provided by AWS and AWS partners
- Customer can create their own insights
- Examples:

EC2 instances that have missing security patches

S3 buckets with stored credentials

S3 buckets with public read and write permissions

Top AMIs by counts of findings





AWS Security Hub Benefits





Compliance standards



Aggregated findings



Take Action





Take Action





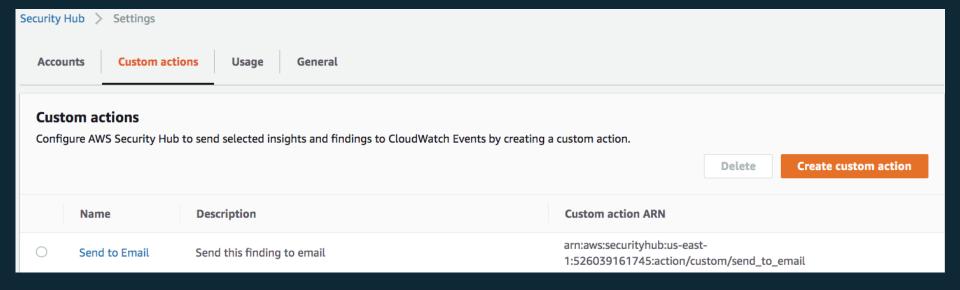
Custom Actions Amazon Security Hub

















Create custom action	×
A custom action is linked to a CloudWatch Event rule via the custom action ID. Name	
Send to Email	
Description	
Send this finding to email	
Custom action ID 3	
send_to_email	6
Cancel	Ok











Service













Custom Action



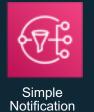












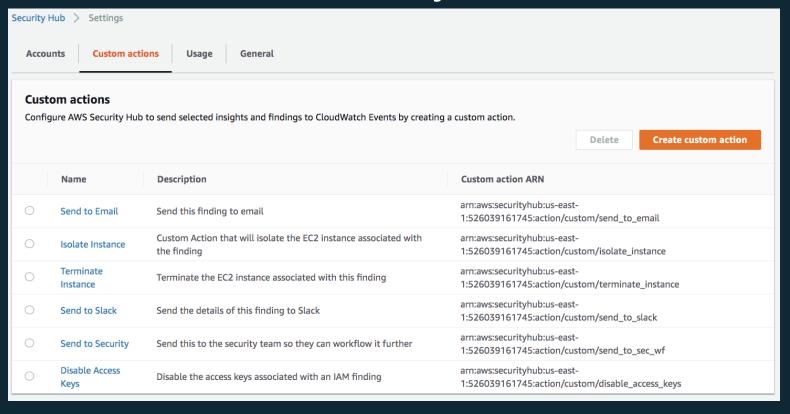
Service











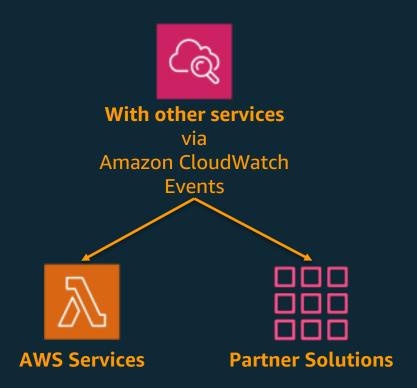




Take Action





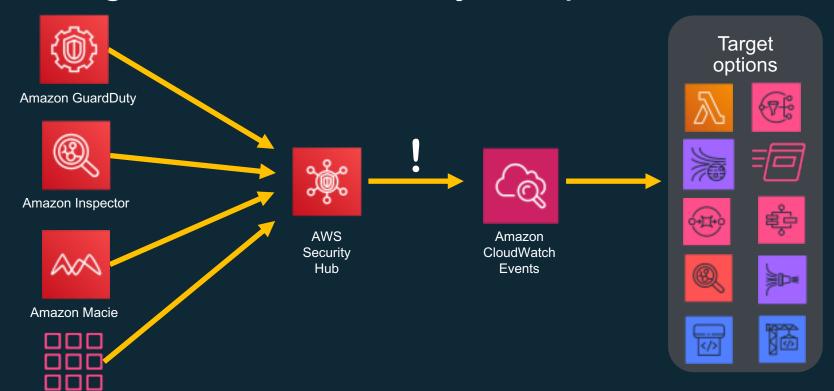






Taking Action with Security Hub partner





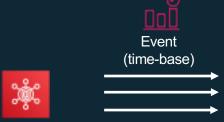




Partner Solutions

Customizable response and remediation actions









2. AWS Security Hub user selects findings in the console and takes a custom action on them. These findings are sent to CloudWatch decorated with a custom action ID

3. User creates CloudWatch event rules to look for certain findings associated with a custom action id or types of findings.

4. The rule defines a target – typically a Lambda function, Step Function, or Automation document



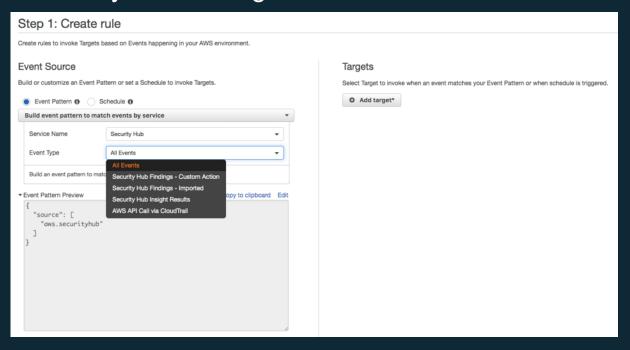
AWS Security Hub



Taking Action on All Findings



Every new Security Hub finding is sent to Amazon CloudWatch Events







Event Pattern Examples



Filter by Tags

```
"source": [
 "aws.securityhub"
"detail-type": [
 "Security Hub Findings"
"detail": {
  "findings":
    "Resources": {
        "Environment":
          "PCI"
```





Event Pattern Examples



Filter by Severity

```
"source": [
  "aws.securityhub"
"detail-type": [
  "Security Hub Findings"
"detail": {
      "Normalized": [
        95,
        96,
        98,
        99,
```







Services Availability



AWS Security Hub

Services Availability (Regions)











Pricing



Pricing



Free trial: All AWS accounts will have a 30-day free trial.

Finding ingestion pricing:

- Free tier: Post 30 days, a perpetual free tier of 10,000 findings ingestion events per account per month.
- Then finding ingestion events are \$0.3 per 10,000 findings.

Events	Pricing
First 10,000 events / month	Free
10,001 + events / month	\$0.00003/finding

Compliance Standards pricing:

Charge is based on the following:

- Per compliance check
- Per AWS account
- Per region
- Per month

Compliance Standards	Pricing
First 100,000	\$0.0010/check
100,001-500,000	\$0.0008/check
500,001+	\$0.0005/check







Reference Customers



Reference Customers























Use Case 1: Centralized security and compliance workspace

Goal	Have a single pane of glass to view, triage, and take action on AWS security and compliance issues across accounts
Personas	SecOps, compliance, and/or DevSecOps teams focused on AWS, Cloud Centers of Excellence, the first security hire
Key processes example	 Ingest findings from finding providers High-volume and well-known findings are programmatically routed to remediation workflows, which include updating the status of the finding Remaining findings are routed to analysts via an on-call management system, and they use ticketing and chat systems to resolve them
Taking action integrations	Ticketing systems, chat systems, on-call management systems, SOAR platforms, customer-built remediation playbooks

Use pattern 2: Centralized routing to a SIEM

Goal	Easily route all AWS security and compliance findings in a normalized format to a centralized SIEM or log management tool
Personas	SecOps, compliance, and/or DevSecOps teams
Key processes example	 Ingest findings from finding providers All findings are routed via Amazon CloudWatch Events to a central SIEM that stores AWS and on-premises security and compliance data Analyst workflows are linked to the central SIEM
Taking action integrations	SIEM

Use pattern 3: Dashboard for account owners

Goal	Provide visibility to AWS account owners on the security and compliance posture of their account
Personas	AWS account owners
Key processes example	 Ingest findings from finding providers Account owners are given read-only access to Security Hub Account owners can use Security Hub to research issues that they are ticketed on or proactively monitor their own security and compliance state
Taking action integrations	Chat, ticketing

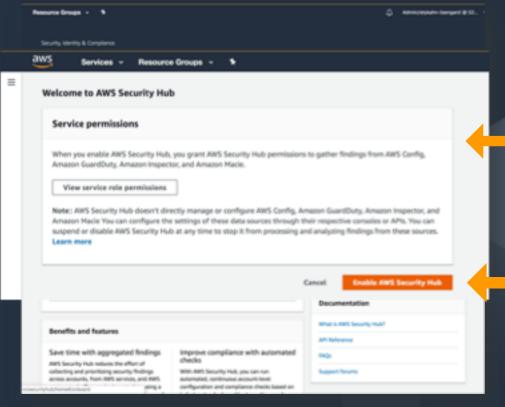


Getting Started



Getting Started

A few clicks to enable Security Hub





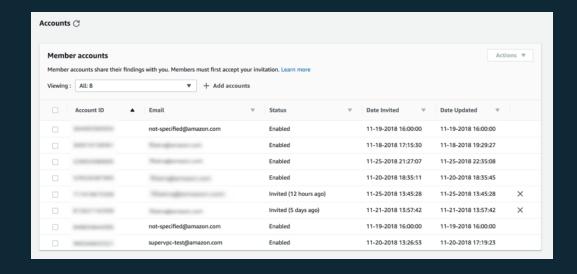




Simple multi-account setup









Bulk enable Security Hub across multiple accounts you control using this multi-account enable script Multi-account enable script







Partner integrations



Partner integrations











AWS Security Services Forwarding findings into AWS Security Hub







Amazon Macie

Amazon Inspector

Amazon GuardDuty



Amazon: GuardDuty A threat detection service that continuously monitors for malicious or unauthorized behavior to help you protect your AWS accounts and workloads.

Default Insights

Links

Ethirchase Configure



Amazon: Inspector

An automated security assessment service that helps improve the security and compliance of applications. deployed on AWS.

Default Insights

Links

Ethurchase Configure



Amazon: Macie

A security service that uses machine learning to automatically discover, classify, and protect sensitive data in AWS.

Default Insights

Links

El Punchase El Configure

Barracuda Networks: Cloud Security Guardian

building applications in, and moving workloads to, public-cloud infrastructures.



Your account is subserble

ARMOR: Armor Anywhere

Armor Anywhere delivers managed security and compliance for AWS.

Default Insights

Click to learn more









Alert Logic: SIEMless ThreatManagement

Get the right level of coverage: Vulnerability and asset visibility, threat detection and incident management, WAF, and assigned SOC analyst options.

Default Insights

Links





***marketplace

Click to learn more



Click to learn more

Barracuda Cloud Security Guardian is a SaaS service that makes it simple and easy to stay secure while

CrowdStrike Falcon's single lightweight sensor uniffes next-gen antivirus, endpoint detection and

Click to learn more

Click to learn more



Befault Insights





Check Point: CloudGuard laa5

Check Point CloudGuard easily extends comprehensive threat prevention security to AWS white protecting assets in the cloud.

Default Insights

ws/marketplace

Click to learn more

Links











Check Point: Dome9 Arc

A SaaS Platform that delivers verifiable cloud network security, advanced IAM protection and comprehensive compliance and governance.

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Links

§\$ Purchase §\$ Configure







Dome





CrowdStrike: CrowdStrike Falcon

response, and 24/7 managed hunting, via the cloud.



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Links





CyberArk: Privileged Threat Analytics

Privileged Threat Analytics collect, detect, alert & respond to high-risk activity & behavior of privileged accounts to contain in-progress attacks.

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Links



F5 Networks: Advanced WAF

Advanced WAF provides mulicious bot protection, L7 DoS mitigation, API inspection, behavior analytics and more to defend against web app attacks.

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Links

Click to learn more









Links

smarketplace

Default Insights





GuardiCore: AWS Infection Monkey

The infection Monkey is an open source attack simulation tool





Key takeaways





Automatically evaluate your compliance against key standards with one-click, frictionless enablement



Centralize all of your findings via the AWS Security Findings Format without the need to parse and normalize them



Prioritize findings using insights for efficient response and remediation



Take actions on findings automatically or semi-automatically using CloudWatch events



View and understand your security and compliance state in one place







Thank you!



