AWS Academy Cloud Security Foundations Bridging to Certification Student Guide
Version 1.0.0

100-ACSECF-10-EN-SG

Contents

Welcome to the Bridging to Certification module.

Introduction
Bridging to Certification
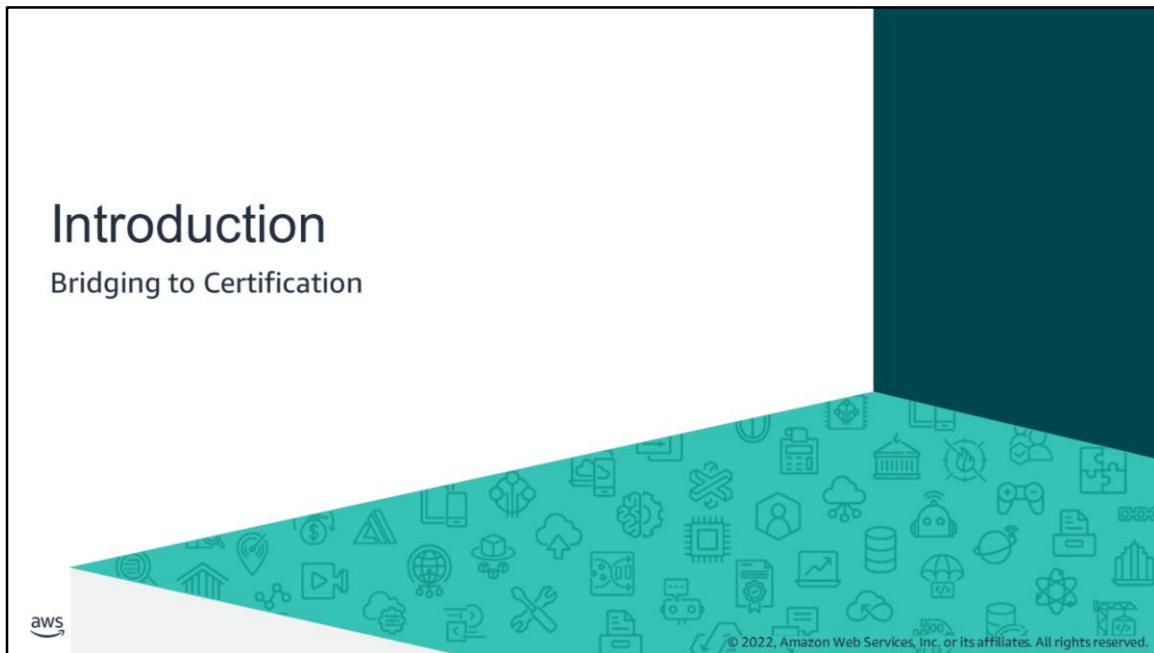
This section provides an introduction to the module.

Module objectives

At the end of this module, you should be able to do the following:

- Identify the next steps to prepare for the AWS Certified Security – Specialty certification.
- Identify where to find resources.

At the end of this module, you should be able to do the following:
- Identify the next steps to prepare for the AWS Certified Security – Specialty certification.
- Identify where to find resources.

Module overview

Sections

- Continuing on the AWS Academy Security learning path
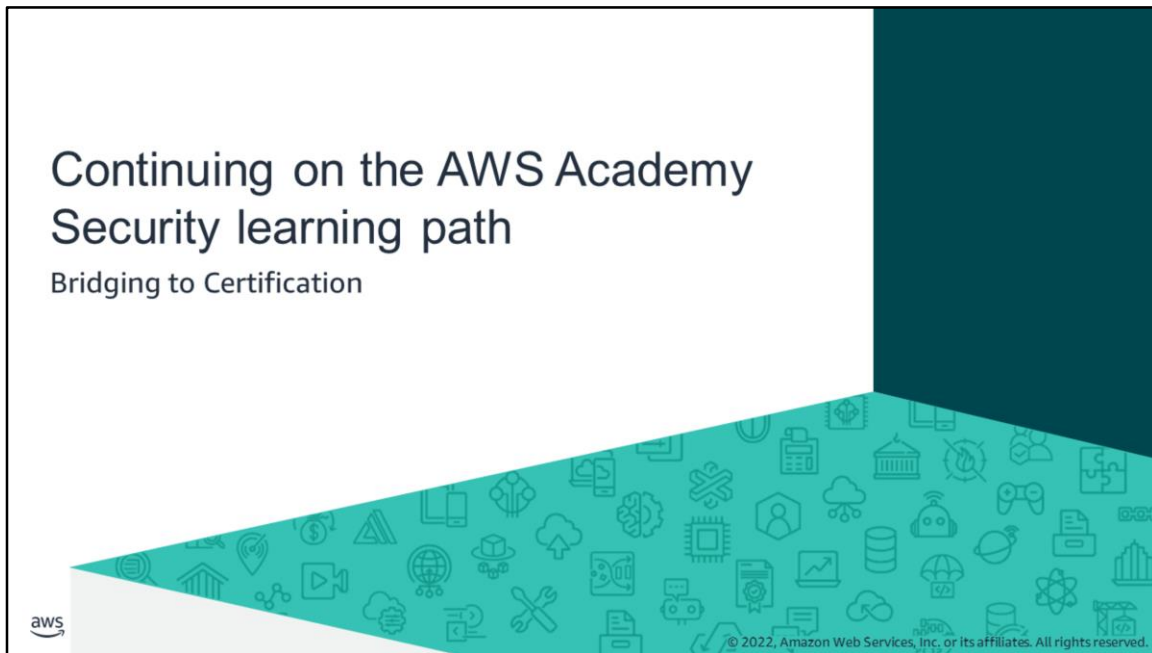- AWS documentation and frameworks

This module includes the following sections:
- Continuing down the AWS Academy Security learning path
- AWS documentation and frameworks

This section describes how to continue on the AWS Academy Security learning path.

AWS Certification helps learners to build credibility and confidence by validating their cloud expertise with an industry-recognized credential. Certification also helps organizations to identify skilled professionals to lead cloud initiatives with AWS.

Being AWS Certified provides the following benefits:
- **Digital badges:** Showcase your AWS Certification achievement with digital badges on your social media and email signatures. Use your badge to gain access to exclusive AWS sponsored certification events.
- **Exam discount:** Get access to a 50 percent discount voucher to apply toward recertification or any other exam.
- **Event recognition:** Receive invites to regional Appreciation Receptions, and use your digital badge to get exclusive access to AWS Certification Lounges at AWS re:Invent and select AWS Summit events.
- **AWS Certified Global Community:** Gain access to the AWS Certified community on LinkedIn and network with your peers.
- **AWS Certified store:** Unlock access to exclusive AWS Certified merchandise.

Certification exam: Domain 1 objectives

Incident Response

- 1.1 Given an AWS abuse notice, evaluate the suspected compromised instance or exposed access keys.

- 1.2 Verify that the Incident Response plan includes relevant AWS services.

- 1.3 Evaluate the configuration of automated alerting, and execute possible remediation of security-related incidents and emerging issues.

aws

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.   7

This course has provided an introduction to the material that is covered in the domain objectives of the AWS Certified Security – Specialty exam. Let's take a closer look at the topics in each domain.

Domain 1 is *Incident Response*. It makes up 12 percent of the exam and covers the following topics:
- 1.1 Given an AWS abuse notice, evaluate the suspected compromised instance or exposed access keys.
- 1.2 Verify that the Incident Response plan includes relevant AWS services.
- 1.3 Evaluate the configuration of automated alerting, and execute possible remediation of security-related incidents and emerging issues.

Certification exam: Domain 2 objectives

Logging and Monitoring

- 2.1 Design and implement security monitoring and alerting.

- 2.2 Troubleshoot security monitoring and alerting.

- 2.3 Design and implement a logging solution.

- 2.4 Troubleshoot logging solutions.

aws

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.   8

Domain 2 is *Logging and Monitoring*. It makes up 20 percent of the exam and covers the following topics:
- 2.1 Design and implement security monitoring and alerting.
- 2.2 Troubleshoot security monitoring and alerting.
- 2.3 Design and implement a logging solution.
- 2.4 Troubleshoot logging solutions.

Certification exam: Domain 3 objectives

Infrastructure Security

• 3.1 Design edge security on AWS.

• 3.2 Design and implement a secure network infrastructure.

• 3.3 Troubleshoot a secure network infrastructure.

• 3.4 Design and implement host-based security.

Domain 3 is *Infrastructure Security*. It makes up 26 percent of the exam and covers the following topics:
- 3.1 Design edge security on AWS.
- 3.2 Design and implement a secure network infrastructure.
- 3.3 Troubleshoot a secure network infrastructure.
- 3.4 Design and implement host-based security.

Certification exam: Domain 4 objectives

Identity and Access Management

- 4.1 Design and implement a scalable authorization and authentication system to access AWS resources.

- 4.2 Troubleshoot an authorization and authentication system to access AWS resources.

Domain 4 is *Identity and Access Management*. It makes up 20 percent of the exam and covers the following topics:
- 4.1 Design and implement a scalable authorization and authentication system to access AWS resources.
- 4.2 Troubleshoot an authorization and authentication system to access AWS resources.

Certification exam: Domain 5 objectives

Data Protection

- 5.1 Design and implement key management and use.

- 5.2 Troubleshoot key management.

- 5.3 Design and implement a data encryption solution for data at rest and data in transit.

Domain 5 is *Data Protection*. It makes up 22 percent of the exam and covers the following topics:
- 5.1 Design and implement key management and use.
- 5.2 Troubleshoot key management.
- 5.3 Design and implement a data encryption solution for data at rest and data in transit.

The current slide and next slide list the primary AWS resources that you can use to prepare for the exam and assess whether you are ready to take it.

For more information, see the following resources:
- Exam Guide: https://d1.awsstatic.com/training-and-certification/docs-security-spec/AWS-Certified-Security-Specialty_Exam-Guide.pdf
- Sample Exam Questions: https://d1.awsstatic.com/training-and-certification/docs-security-spec/AWS-Certified-Security-Speciality_Sample-Questions.pdf

Exam readiness resources (continued)

Resource	Description	Preparation
AWS Well-Architected	• Website that covers the pillars of the AWS Well-Architected Framework	• Familiarize yourself with the key concepts for each pillar. • Read the whitepapers that are associated with each pillar.
AWS Whitepapers and Guides	• Technical content that is written by AWS, independent analysts, and the AWS Partner Network (APN)	• Broaden your technical understanding of key topics that the exam covers.
AWS FAQs	• Website with frequently asked questions about AWS products and services	• Review the FAQs that are related to the services that are covered in this course and the AWS Certified Security – Specialty exam.

aws

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

13

For more information, see the following resources:
- AWS Well-Architected: https://aws.amazon.com/architecture/well-architected
- AWS Whitepapers & Guides: https://aws.amazon.com/whitepapers
- AWS FAQs: https://aws.amazon.com/faqs

Exam readiness training

Course	Learn to...
Exam Readiness: AWS Certified Security – Specialty (Classroom) Exam Readiness: AWS Certified Security – Specialty (Digital)	• Understand the exam structure and question types. • Identify how questions relate to AWS security best practices. • Interpret the concepts being tested by an exam question. • Allocate your time spent studying for the exam.

14

AWS also offers the Exam Readiness: AWS Certified Security – Specialty training. The training is available in classroom and free digital training formats. This training helps you to prepare for the AWS Certification exam.

AWS develops the training so that the content is current with the newest best practices.

The training reviews sample exam questions in each topic area and teaches you how to interpret the concepts that are being tested so that you can more easily eliminate incorrect responses. You will also receive tips about allocating your study time.

For more information about both formats and to schedule your course, see the following resources:
- Exam Readiness: AWS Certified Security – Specialty (Classroom):
  https://www.aws.training/SessionSearch?courseId=32296
- Exam Readiness: AWS Certified Security – Specialty (Digital):
  https://explore.skillbuilder.aws/learn/course/external/view/elearning/97/exam-readiness-aws-certified-security-specialty

17

AWS Training and Certification portal

Explore AWS Training and Certification at https://aws.training/

- Schedule and manage exams.
- View your certification history.
- Access your digital badges.
- View your certification benefits.

aws training and certification

15

The AWS Training and Certification portal provides several resources related to certification. You can schedule an exam, view your certification history, access your digital badges, and view your certification benefits.

18

Official practice question sets

AWS Training and Certification offers free official AWS Certification practice question sets. To access these question sets, follow these steps:

1. Sign in to https://skillbuilder.aws/.
2. Search for "practice question sets".
3. Choose **AWS Certification Official Practice Question Sets** in your preferred language.
4. Choose **ENROLL**.
5. Choose **START LEARNING NOW**.
6. Choose **START LEARNING NOW** again.
7. Follow the instructions on the page.

aws

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.   16

AWS offers free official practice question sets for AWS Certification exams. These question sets supplement the exam guide and can help you to test your knowledge before you take the final exam.

To access the AWS Certification official practice question sets, follow these steps:
1. Sign in to https://skillbuilder.aws.
2. Search for "practice question sets".
3. Choose in your preferred language. **AWS Certification Official Practice Question Sets**
4. Choose **ENROLL**.
5. Choose **START LEARNING NOW**.
6. Choose **START LEARNING NOW** again.
7. Follow the instructions on the page.
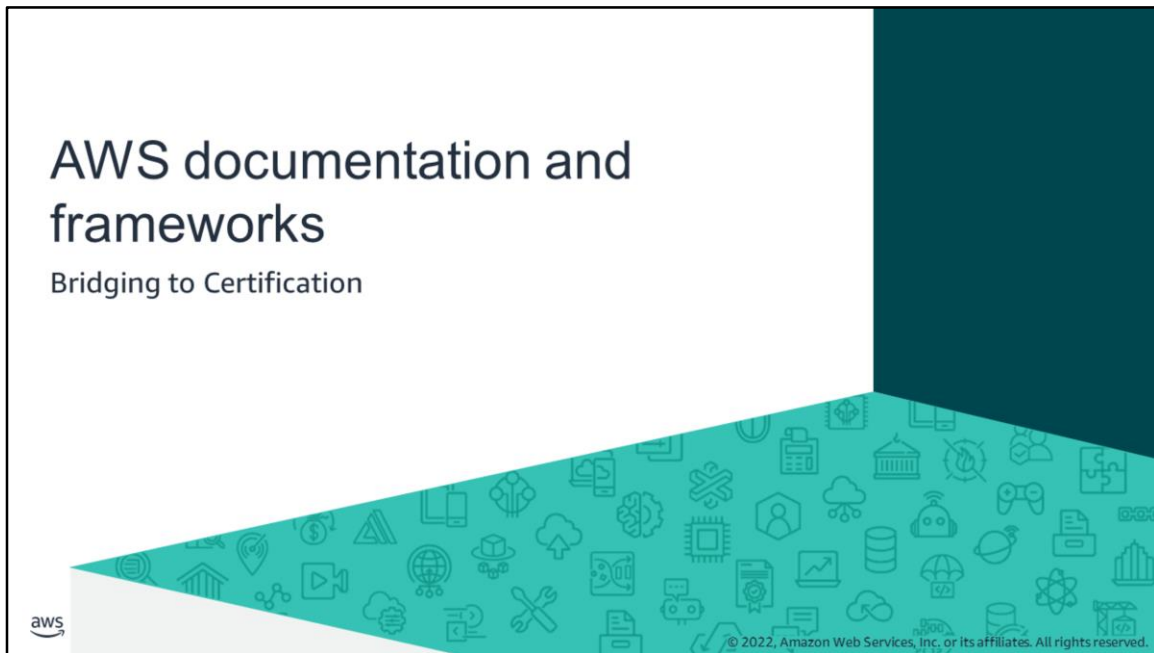
This section describes the AWS documentation and frameworks that might assist you in preparing for the exam.

To access AWS user and developer guides, API references, tutorials and projects, software development kits (SDKs) and toolkits, and other resources, see AWS documentation at https://docs.aws.amazon.com.

Each AWS service developer guide contains a **Getting started** section with step-by-step tutorials that can help to familiarize you with the service.

Security pillar of the AWS Well-Architected Framework

- One of the six pillars of the
  AWS Well-Architected Framework

- Provides guidance to help you apply best
  practices and current recommendations to
  design, deliver, and maintain secure AWS
  workloads

The security pillar of the AWS Well-Architected Framework provides guidance to help you apply best practices and current recommendations in the design, delivery, and maintenance of secure AWS workloads. It will assist you in understanding AWS current recommendations and strategies that you can use when designing cloud architectures with security in mind.

For more information, see Security Pillar: AWS Well-Architected Framework at
https://docs.aws.amazon.com/wellarchitected/latest/security-pillar/welcome.html.

Explore AWS training

- AWS Technical Essentials (Classroom)
- AWS Technical Essentials (Digital)
- AWS Security Fundamentals (Digital)
- Getting Started with AWS Security, Identity, and Compliance (Digital)
- Introduction to AWS Identity and Access Management (IAM) (Digital)
- Introduction to Amazon Virtual Private Cloud (VPC) (Digital)
- Securing and Protecting Your Data in Amazon Simple Storage Service (Amazon S3) (Digital)
- AWS Security Governance at Scale (Classroom)
- AWS Security Best Practices: Monitoring and Alerting (Digital)

aws   © 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.   20

Build your technical skills with the following recommended courses:
- AWS Technical Essentials (Classroom): https://aws.amazon.com/training/classroom/aws-technical-essentials
- AWS Technical Essentials (Digital):
  https://explore.skillbuilder.aws/learn/course/external/view/elearning/1851/aws-technical-essentials
- AWS Security Fundamentals (Digital):
  https://explore.skillbuilder.aws/learn/course/external/view/elearning/48/aws-security-fundamentals-second-edition
- Getting Started with AWS Security, Identity, and Compliance (Digital):
  https://explore.skillbuilder.aws/learn/course/external/view/elearning/101/getting-started-with-aws-security-identity-and-compliance
- Introduction to AWS Identity and Access Management (IAM) (Digital):
  https://explore.skillbuilder.aws/learn/course/external/view/elearning/120/introduction-to-aws-identity-and-access-management-iam
- Introduction to Amazon Virtual Private Cloud (VPC) (Digital):
  https://explore.skillbuilder.aws/learn/course/external/view/elearning/79/introduction-to-amazon-virtual-private-cloud-vpc
- Securing and Protecting Your Data in Amazon Simple Storage Service (Amazon S3) (Digital):
  https://explore.skillbuilder.aws/learn/course/external/view/elearning/4892/securing-and-protecting-your-data-in-amazon-simple-storage-service-amazon-s3
- AWS Security Governance at Scale (Classroom): https://aws.amazon.com/training/classroom/aws-security-governance-at-scale
- AWS Security Best Practices: Monitoring and Alerting (Digital):
  https://explore.skillbuilder.aws/learn/course/external/view/elearning/11264/aws-security-best-practices-monitoring-and-alerting

For more information about AWS training for security professionals, see the security training page at
https://aws.amazon.com/training/learn-about/security.

Additional resources

- Amazon Web Services: Overview of Security Processes
- Best Practices for Security, Identity, & Compliance
- Security Pillar: AWS Well-Architected Framework – Detection
- AWS Key Management Service Best Practices
- An Overview of the AWS Cloud Adoption Framework
- AWS Best Practices for DDoS Resiliency
- Building a Scalable and Secure Multi-VPC AWS Network Infrastructure
- Security & Compliance Quick Reference Guide

aws

21

The following additional resources might be helpful for study and review:
- Amazon Web Services: Overview of Security Processes:
  https://docs.aws.amazon.com/whitepapers/latest/aws-overview-security-processes/aws-overview-security-processes.pdf
- Best Practices for Security, Identity, & Compliance: Security at Scale:
  https://aws.amazon.com/architecture/security-identity-compliance
- Security Pillar: AWS Well-Architected Framework – Detection:
  https://docs.aws.amazon.com/wellarchitected/latest/security-pillar/detection.html
- AWS Key Management Service Best Practices: https://d1.awsstatic.com/whitepapers/aws-kms-best-practices.pdf
- An Overview of the AWS Cloud Adoption Framework:
  https://docs.aws.amazon.com/whitepapers/latest/overview-aws-cloud-adoption-framework/welcome.html
- AWS Best Practices for DDoS Resiliency:
  https://d1.awsstatic.com/whitepapers/Security/DDoS_White_Paper.pdf
- Building a Scalable and Secure Multi-VPC AWS Network Infrastructure:
  https://docs.aws.amazon.com/whitepapers/latest/building-scalable-secure-multi-vpc-network-infrastructure/building-scalable-secure-multi-vpc-network-infrastructure.pdf
- Security & Compliance Quick Reference Guide:
  https://d1.awsstatic.com/whitepapers/compliance/AWS_Compliance_Quick_Reference.pdf

24

It's now time to review the module.

Module summary

In this module, you learned how to do the following:

- Identify the next steps to prepare for the AWS Certified Security – Specialty certification.
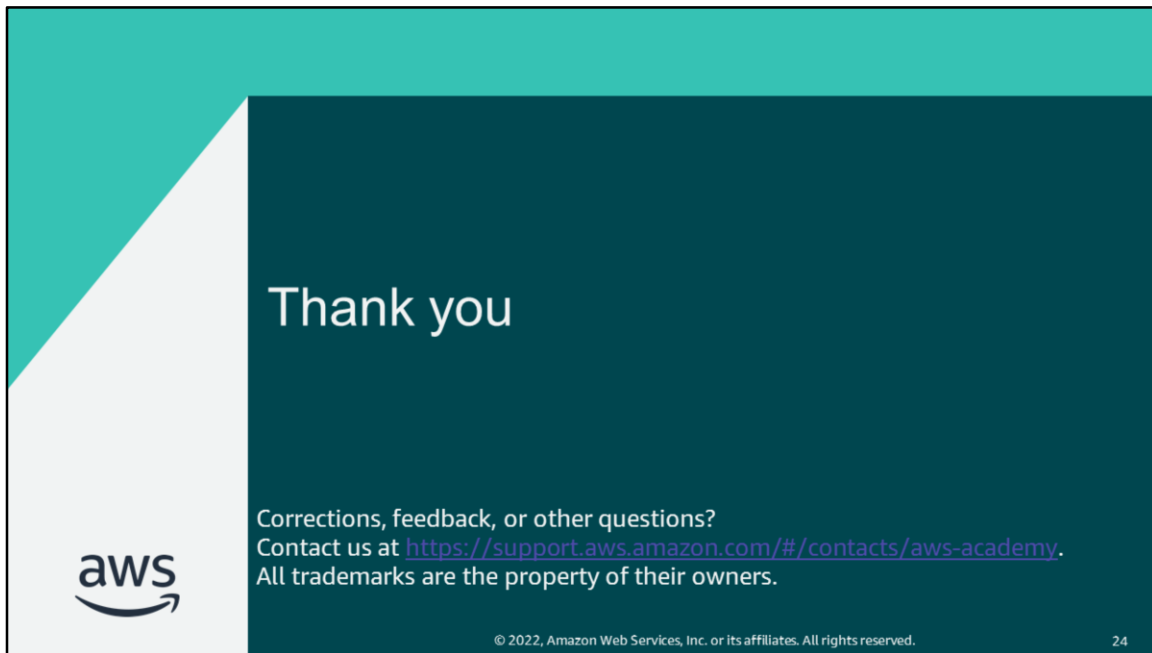- Identify where to find resources.

23

In this module, you learned how to do the following:
- Identify the next steps to prepare for the AWS Certified Security – Specialty certification.
- Identify where to find resources.

Thank you for completing this module.