CLOUD SOLUTIONS ARCHITECT

intel.
certified pro

Cloud Solutions
Architect

Build on your cloud experience and expertise. The Cloud Solutions Architect curriculum and exam offer expert-level knowledge of cloud instance details, topics, and solutions.

This curriculum is designed for cloud solutions architects with at least two years of practical experience implementing solutions in the cloud. Participants typically have titles such as Solutions Architect, Designer, Developer, Engineer, or similar.

LEARNING OBJECTIVES

- Improve knowledge and skills related to cloud technologies and solutions architecture to design, implement, and optimize cloud solutions.

- Enhance understanding of current industry trends that influence the cloud solutions marketplace and its technology ecosystem.

- Gain advanced knowledge and hands-on training in a wide variety of workloads, including container orchestration, AI, instance tuning, and the cloud-based CI/CD pipeline.

- Earn industry-recognized certification and credentials based on a proctored exam.

RECOMMENDED EXPERIENCE

At least two years of hands-on experience designing and deploying cloud solutions at scale.

Competency in cloud applications, including cloud security, CSP solutions, TOGAF, cloud to edge, and CI/CD.

Professional-level certification from a cloud service provider (CSP) or other training program.

CURRICULUM

11
courses

45
hours to complete
(estimated)

13
hands-on lab

Upon completion of the Cloud Solutions Architect coursework, take the proctored exam to achieve recognition as an Intel® Certified Pro.

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Course 1

CLOUD WORKLOAD SOLUTIONS

Covers critical aspects of workload placement and optimization strategies, some of the most critical workloads in business, best practices for architecting and optimizing, and the role Intel plays in empowering your workloads running in the public cloud to be more successful. The course includes self-paced demos and interactive, hands-on workshops.

Includes Granulate hands-on lab.

Course 2

SECURITY SOLUTIONS AND CONFIGURATION

The Security Solutions and Configuration course will explore important topics related to cloud security implementations. This course includes an overview of confidential computing and a review of cryptographic acceleration, Intel® QuickAssist Technology (Intel® QAT), and microcode updates. We will also explore security technology vendors and their alignment with Intel's contributions, followed by a global view of cloud and security regulations and trends.

Includes SGX Confidential Computing and WordPress TLS load testing hands-on labs.

Course 3

INTEL® TELEMETRY AND CLOUD MONITORING

The Intel Telemetry and Cloud Monitoring course is specifically targeted at cloud solutions architects who want a deeper understanding of telemetry and monitoring. Students will learn about telemetry use cases, including power, microservices, monitoring, data pipelines, and other advanced telemetry uses.

Includes Observability with Microservices and Telemetry and Performance PerfSpect hands-on labs.

Course 4

CLOUD STORAGE

The Cloud Storage course provides a deep understanding of the importance and options related to data storage in the cloud. Learn about the history and evolution of storage, matching storage solutions to specific workloads, and enhancing storage services through architecture and optimizations across cloud providers.

Includes MinIO hands-on lab.

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Course 5
CONTAINERS

The Containers course provides advanced knowledge and recommendations to optimize the choice and use of container-based workloads across multiple instances, markets, and pipelines in the private and public cloud. Course materials include guidance on the optimization of container implementations, building a holistic container strategy, and tuning the container's performance and costs. Interactive labs provide hands-on experience in leveraging OpenVINO™ on Amazon Web Services and implementing confidential computing with Intel® Software Guard Extensions (Intel® SGX) on Microsoft Azure.

Includes OpenVINO™ on Amazon Web Services Lamda and Gramine attestation SGX with Kubernetes hands-on labs.

Course 6
AI IN THE CLOUD

The AI in the Cloud course is designed for cloud solutions architects who seek a deeper understanding of AI workloads in the cloud. AI topics include AI pipelines, benchmarking AI performance, instance selection for AI workloads, and federated learning.

Includes Running AI End-to-End Optimization, Habana Gaudi on Amazon Web Services, and Distributed AI in the Cloud hands-on labs.

Course 7
CLOUD NETWORKING AND EDGE

The Cloud Networking and Edge course will follow the discussion of continued workload growth and variety and take a deeper look at the workloads and data deployed at the enterprise edge. These workloads connect dispersed corporate resources and edge processing and usually require analysis and changes to traditional networking and security configurations. Cloud Networking and Edge topics include SD-WAN, SSE, foundational technologies, and performance optimizations.

Course 8
INTEL® SOFTWARE TUNING AND OPTIMIZATION

The Intel Software Tuning and Optimization course is specifically targeted at cloud solutions architects who want to understand and deliver workload performance optimizations. The course includes lessons, demos, and hands-on labs that familiarize learners with performance methods, tools, and workloads optimized for the cloud.

Includes PerfSpect Training: Telemetry Based on Linux Perf and Profile Your Production Workload in the Cloud—Intel® VTune™ Profiler hands-on labs.

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Course 9
MULTICLOUD AND HYBRID CLOUD MANAGEMENT

The Multicloud and Hybrid Cloud Management course covers the importance of multicloud for customers and for the ecosystem. Learn how to model and deliver solutions with improved total cost of ownership (TCO) through preferred workload placements. The course covers CSP, OEM, and ISV strategies with multicloud, as well as optimization tools, information, and containerization strategies for multicloud scenarios.

Course 10
WORKLOAD ANALYSIS FOR MIGRATION OR REPATRIATION

Workload Analysis and Migration are important for organizations with a hybrid cloud environment that includes public cloud, private cloud, and on-premises data center. This course helps learners understand workload analysis and trade-offs so that each workload can be placed optimally. This course identifies the important factors to consider during analysis and planning.

Course 11
CLOUD SOLUTION DEVELOPMENT – DEVOPS

The Cloud Solution Development – DevOps course was designed to connect the application development and deployment processes with the cloud-enabled tools and resources that support continuous integration and continuous development (CI/CD). Learn to use CSP tools, build and release pipelines, instance requirements, and methodologies to automate the ongoing improvement and deployment of workloads on-premises or in the cloud.

REGISTER TODAY.
COMPLETE YOUR CERTIFICATION.
RUN THE CLOUD.

Cloud Fundamentals is one of four Intel® Cloud.U training and certification programs.

1. Create an account at **cloudu.intel.com**

2. Register for the curriculum of your choice

3. Complete the courses and labs required for certification

4. Take the certification exam

GET STARTED.
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