Publication date : 01/26/2024

Course : Amazon Web Services (AWS) - Advanced architecture on AWS

Official course, Advanced Architecting on AWS

Practical course - 3d - 21h00 - Ref. AWU
Price : 2590 € E.T.

With this training course, you'll deepen your understanding of the concepts presented in the Architecting on AWS modules.

Teaching objectives

At the end of the training, the participant will be able to:

- Applying the AWS Well-Architected Framework
- Managing a multi-account AWS organization
- Connecting the datacenter to AWS
- Argue the cost implications of inter-VPC connections
- Move massive amounts of data from the datacenter to AWS
- Designing large datastores for the AWS cloud
- Understanding the different architecture designs for scaling a website
- Protect your infrastructure from DDoS attacks
- Secure your data on AWS with encryption
- Protect data at rest and in transit
- Boost the performance of your solutions
- Select the deployment mechanism best suited to your needs

Intended audience

Engineers or architects with pronounced experience of AWS and who have already implemented architectures on the AWS platform.

Prerequisites

Be an AWS Architecting Associate.

PARTICIPANTS

Engineers or architects with pronounced experience of AWS and who have already implemented architectures on the AWS platform.

PREREQUISITES

Be an AWS Architecting Associate.

TRAINER QUALIFICATIONS

The experts who lead the training courses are specialists in the subjects covered. They are approved by the publisher and certified for the course. They have also been validated by our teaching teams in terms of both professional knowledge and teaching skills for each course they teach. They have at least three to ten years of experience in their field and hold or have held positions of responsibility in companies.

ASSESSMENT TERMS

Assessment of targeted skills prior to training.
Assessment by the participant, at the end of the training course, of the skills acquired during the training course.
Validation by the trainer of the participant's learning outcomes, specifying the tools used: multiple-choice questions, role-playing exercises, etc.
At the end of each training course, ITTCERT provides participants with a course evaluation questionnaire, which is then analysed by our teaching teams. Participants also complete an official evaluation of the publisher.
An attendance sheet for each half-day of attendance is provided at the end of the training course, along with a certificate of completion if the participant has attended the entire session.

Practical details

Teaching methods

Training in French. Official course material in English and digital format. Good understanding of written English.

Course schedule

1 Revision of architectural concepts

- Review of Architecting on AWS training.

Hands-on work

Secure Amazon S3 VPC endpoint communications.

2 AWS account management

- AWS organizations for multi-account access and authorization.
- AWS SSO to simplify access and authentication between AWS accounts and third-party services.
- AWS control tower.
- Authorizations, access and authentication.

3 Hybrid connectivity

- AWS Client VPN authentication and control.
- AWS site-to-site VPN.
- AWS Direct Connect for hybrid public and private connections.
- Increase bandwidth and reduce costs.
- Basic, high and maximum resilience.
- DNS resolution of Amazon Route 53 resolver.

4 Specialized infrastructure

- AWS storage gateway solutions.
- VMware Cloud on demand on AWS.
- Extended cloud infrastructure services with AWS Outposts.
- AWS local zones for latency-sensitive workloads.
- The 5G network with and without AWS Wavelength.

5 Network connection

- Simplify private subnetwork connections.
- Isolation of VPC with a shared services VPC.
- Transit gateway network manager and VPC accessibility analyzer.
- Access manager for AWS resources.
- AWS PrivateLink and endpoint services.

Hands-on work

Configure transit gateways.

TEACHING AIDS AND TECHNICAL RESOURCES

The teaching resources used are the publisher's official materials and practical exercises.

TERMS AND DEADLINES

Registration must be completed 24 hours before the start of the training course.

ACCESSIBILITY FOR PEOPLE WITH DISABILITIES

Do you have specific accessibility requirements? Contact Ms FOSSE, disability advisor, at the following address: psh-accueil@orsys.fr so that we can assess your request and its feasibility.

6 Containers

- Compare container solutions with virtual machines.
- Docker benefits, components, solution architecture and versioning.
- Container hosting on AWS to reduce costs.
- Managed container services: Amazon ECS and Amazon EKS.
- AWS Fargate.

Hands-on work
Deploying an application with Amazon EKS on Fargate.

7 Continuous integration and continuous delivery (CI/CD)

- CI/CD solutions and their impact.
- CI/CD automation with AWS CodePipeline.
- Deployment models.
- AWS CloudFormation StackSets for improved deployment management.

8 High availability and DDoS protection

- Layers of common DDoS attacks.
- AWS WAF.
- AWS WAF web access control lists (ACLs), real-time metrics, logs and security automation.
- AWS Shield Advanced and AWS DDoS Response Team (DRT) services.
- AWS Network Firewall and AWS Firewall Manager to protect large-scale accounts.

9 Data security

- Cryptography: introduction and use cases.
- AWS KMS.
- AWS CloudHSM architecture.
- FIPS 140-2 level 2 and level 3 encryption.
- Secrets manager.

10 Large-scale databases

- Amazon S3 data storage management (storage class, inventory, metrics and policies).
- Data lake vs. data warehouse: differences, benefits and examples.
- AWS Lake Solutions, Security and Control Training.

Hands-on work
Setting up a data lake with Lake Formation.

11 Large-scale applications

- Cutting-edge services and their use cases.
- Improve performance and mitigate risk with Amazon CloudFront.
- Lambda@Edge.
- AWS Global Accelerator: IP addresses, intelligent traffic distribution and status checks.

Hands-on work
Migration of an on-site NFS share using AWS DataSync and Storage Gateway.

12 Cost optimization

- On-site and cloud-based acquisition/abandonment cycles.
- Cloud cost management tools, including reporting, control and tagging.
- Examples and analysis of the five pillars of cost optimization.

13 Workload migration

- Business factors and the migration process.
- Successful customer practices.
- The 7 Rs of migration and modernization.
- AWS migration tools and services.
- Migration of databases and large data stores.
- AWS schema conversion tool (AWS SCT).

14 Case study : Capstone project

- Use the online course supplement (OCS) to examine use cases.
- Study data and answer architectural design questions.

Options

Certification : 360 € HT

Successful completion of the exam leads to AWS Certified Solutions Architect - Professional certification.
Comment passer votre examen ?

The certification option comes in the form of a voucher or invitation that will allow you to take the exam at the end of the training course.

Dates and locations

REMOTE CLASS
2026 : 9 June, 22 Sep., 1 Dec.

PARIS LA DÉFENSE
2026 : 9 June, 22 Sep., 1 Dec.