Course : Identity federation (SAML 2, OpenID Connect), overview

Synthesis course - 2d - 14h00 - Ref. FED
Price : 2020 CHF E.T.

★★★★½   4,4 / 5

(BEST)

This overview course presents the use cases, semantics and software architectures associated with implementing the SAML 2 / OAUTH 2.0/OpenID Connect standards as part of a project linked to the use of remote identities, with tools of the trade and interaction with existing technologies.

🎯 Teaching objectives

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

- ✔ SAML 2 services and use cases
- ✔ Master SAML 2 syntax and semantics
- ✔ Integrating OAUTH 2.0/OpenID Connect into the IS
- ✔ SAML 2 technologies
- ✔ Integrating SAML 2 into the IS

Intended audience

This course is aimed at network managers, architects, design managers, system engineers and developers who need to integrate a solution using SAML 2.returnchariot

Prerequisites

Basic knowledge of technical Web architectures.

Course schedule

PARTICIPANTS

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PREREQUISITES

Basic knowledge of technical Web architectures.

TRAINER QUALIFICATIONS

The experts leading the training are specialists in the covered subjects. They have been approved by our instructional teams for both their professional knowledge and their teaching ability, for each course they teach. They have at least five to ten years of experience in their field and hold (or have held) decision-making positions in companies.

ASSESSMENT TERMS

The trainer evaluates each participant's academic progress throughout the training using multiple choice, scenarios, hands-on work and more.
Participants also complete a placement test before and after the course to measure the skills they've developed.

1   Use cases

- SAML 2: the services it can provide, MDSSO, Identity Federation, Web Service.
- The various players involved : CIOs, architects, developers, operators.
- Identity linking and federation: choice of services, identifier type and federation dynamics.
- Identity Provider: Web SSO in IDP (Identity Provider) Initiated SSO or OP OpenID Connect.
- Service provider: SAML V2 SP (Service Provider) or OpenID Connect RP (Relaying Party).
- Web Browser SSO: user authentication steps and round-trips between Client and Server.
- SAML 2 and Web Services: using assertions. SAML 2 assertions and Secure Token Service (STS).
- Oauth 2.0 and the Access Token. OpenID Connect and the Id Token.

2   SAML 2

- Syntax and concepts: SOAP/XML, assertions, protocols, binding, profile, authentication context, metadata.
- Bindings": HTTP Redirect, HTTP Post, HTTP Artifact, SAML SOAP, Reverse SOAP, SAML URI.
- Profiles defined in SAML 2.0: Web Browser SSO, ECP, IDP Discovery, Single Logout, Assertion Query/Request.

3   OAUTH 2.0

- Syntax and concepts: REST, Authorization, Scope, Access Token, Refresh Token.
- Actors and their roles.
- Scenarios: Code , Implicit, Client Credentials, Password.

4   OpenID Connect

- Syntax and concepts: REST, Json, JWT, ID_Token.
- Actors and their roles.
- Scenarios: Code, Implicit, Hybrid Flow.

5   Information system integration case study

- 1 : Using SAML V2 - Creating a SAML V2 IDP.
- 2: Using SAML V2 - Creating a SAML V2 SP.
- 3: Using OpenID Connect - Creating an OIDC OP.
- 4: Using Oauth 2.0 and OpenID Connect - With ADFS or Keycloak.
- 5: Using OpenID Connect - France Connect.

6   SAML 2 and OAUTH 2.0/OpenID Connect

- OpenSource products and modules (simplesamlPHP, Shibboleth, mod_auth_mellon,mod_auth_openidc).
- Commercial products (IBM, Microsoft, Oracle, CA, Forgerock, etc.).
- Service comparison and interoperability.

Demonstration
Presentation and demonstration of selected products.

TEACHING AIDS AND TECHNICAL RESOURCES

- The main teaching aids and instructional methods used in the training are audiovisual aids, documentation and course material, hands-on application exercises and corrected exercises for practical training courses, case studies and coverage of real cases for training seminars.
- At the end of each course or seminar, ORSYS provides participants with a course evaluation questionnaire that is analysed by our instructional teams.
- A check-in sheet for each half-day of attendance is provided at the end of the training, along with a course completion certificate if the trainee attended the entire session.

TERMS AND DEADLINES

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

ACCESSIBILITY FOR PEOPLE WITH DISABILITIES

Do you need special accessibility accommodations? Contact Mrs. Fosse, Disability Manager, at psh-accueil@orsys.fr to review your request and its feasibility.

7   **SAML 2 and OAUTH/OpenID Connect and other technologies**

- SAML 2 , Oauth 2.0/OpenID Connect and Kerberos.
- PKI, WS-Federation and OpenIDConnect.

Dates and locations

REMOTE CLASS
2026 : 11 June, 22 Sep., 10 Dec.

LAUSANNE
2026 : 11 June, 10 Dec.

GENÈVE
2026 : 11 June, 10 Dec.