



SECURING A TV PLATFORM

INTERNSHIP

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IDENTITY SECURITY, GUIDED BY EXPERTISE

IdentIT is an Identity Security Partner that helps organisations regain control over their digital identities. We combine independent advice with deep technical expertise in IAM, IGA and IVIP, and provide continuous guidance to help organisations build a sustainable identity landscape.

Our team currently consists of 40 IdentIT'ers who collectively manage 40 million digital identities. This makes us one of the largest dedicated Identity teams in the Benelux.

IdentIT is part of De Cronos Groep. This gives us access to the expertise, network and opportunities of a large technology group, while allowing us to retain our own focus, culture and way of working.

At IdentIT, you are given the freedom to take initiative, assume responsibility and shape your own growth. At the same time, you are never on your own: we bring together different strengths, help each other move forward and share our knowledge. New ideas and critical questions are always welcome, because learning works both ways. We approach complex challenges with focus and ambition, while valuing openness, humanity and spontaneity just as highly.

Assignment

Identity and Access Management (IAM) plays a crucial role in securing modern digital platforms. In this internship assignment, you will use Curity as an Access Management tool to set up a secure registration and access structure for applications or clients within a platform environment.

A fictional customer, IdenTV, wants to develop a secure way to connect its digital platform to external applications. It is looking for a solution that uses Curity to manage registration, authentication and authorisation.

This scenario involves a set-top box: a device that users connect to their television at home to access digital content such as streaming services or interactive applications. For this assignment, the set-top box will be emulated, meaning that a software simulation of the device will be used to reproduce how it operates and communicates with the platform. The set-top box acts as a client that connects to the IdenTV platform. Because the box has access to personal and potentially sensitive data, communication between the set-top box and the platform must be properly secured.

The assignment is therefore to design a secure IAM architecture in which the set-top box registers as a client with Curity and subsequently accesses the platform through standardised protocols such as OAuth and OpenID Connect.

What will you do?

- Set up your own Curity environment for testing and development.
- Enable end users to register their box easily and securely through a secure protocol.
- Ensure secure communication between Curity and the registered applications.
- Implement resource protection so that only authorised clients can access specific endpoints or data.
- Document the entire process and explain how it can be readily applied in a production environment.

What technical skills will you learn?

- Setting up and managing a Curity Identity Server.
- Secure communication between platforms and applications.
- Dynamic client registration
- Certificate management and mTLS.
- Working with federation protocols such as OAuth 2.0, OIDC and SAML.
- Identity and Access Management

What soft skills will you develop?

- Communication skills: reporting and documenting clearly and professionally, and collaborating with colleagues and stakeholders.
- Collaboration: working effectively within a multidisciplinary team in an agile environment.
- Problem-solving: analysing technical challenges and resolving them independently or in consultation with others.
- Self-organisation: taking responsibility for your tasks, planning and progress.
- Critical thinking: substantiating your choices and continuously improving based on feedback and evaluation.
- Customer focus: considering user needs and the business context when designing solutions.

Methodology

- The internship assignments follow the Scrum project methodology to provide a structured and efficient approach to tasks and subtasks.
- This reflects IdentiT's approach to projects.
- Scrum is a flexible framework that:
 - Promotes collaboration
 - Encourages adaptability
 - Ensures transparency.
- The work is organised into time-boxed iterations called sprints:
 - Each sprint lasts 2 to 3 weeks.
 - Each sprint has clear objectives and tasks.
- At the start of each sprint:
 - The intern(s) and supervisor(s) hold a sprint planning session.
 - The objectives are defined.
 - A sprint backlog is created.
- During the sprint:
 - Weekly stand-up meetings are held.
 - Progress is discussed.
 - Any obstacles are identified and addressed.
- At the end of each sprint:
 - A sprint review is held.
 - Where possible, a demo is given.
 - Feedback is collected.
- Scrum contributes to a collaborative and adaptable working environment.
- The aim is to achieve the best possible results within the given timeframe.

MVP

The minimum feature set we expect is:

- A set-top box that can register
- Secure communication between the client and Curity
- Enforcement of authorisation rights based on the signed-in user to control access to specific content

Objectives

The following deliverables are expected at the end of the assignment:

- A technical analysis of the problem
- The architecture of the required components
- An implementation that meets the MVP requirements, plus any additional features
- A demo of the end-to-end solution
- Documentation