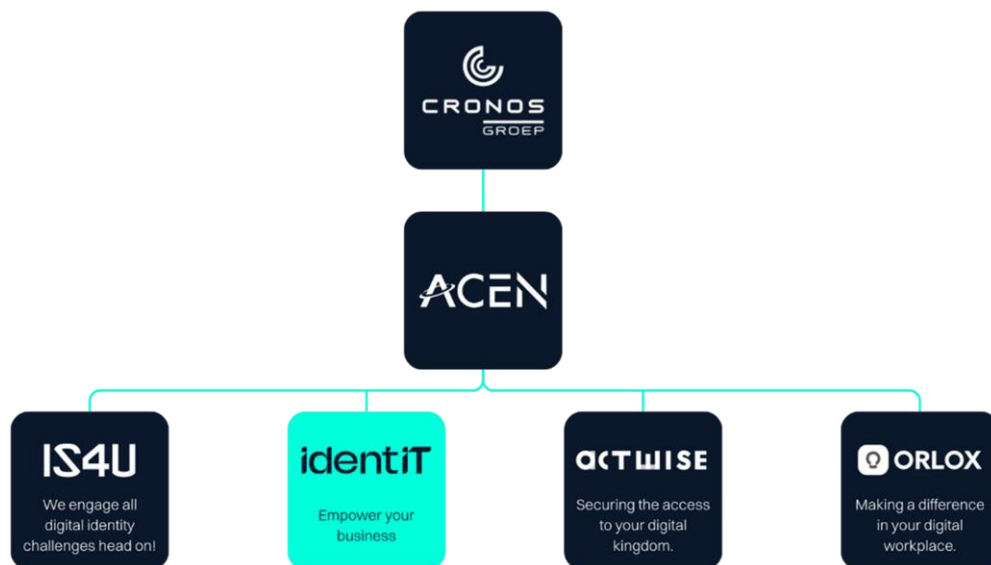


INTERNSHIP

Secure a TV Platform

IdentIT: Part of The Cronos Group

The Cronos Group is recognized as one of the largest IT service providers in Belgium, renowned for its extensive ecosystem and commitment to innovation. With more than 9,000 employees, the Cronos Group operates over 600 competence centers, creating a robust network of expertise across various domains.



In today's digital landscape, Identity & Access Management is essential for building a successful digital-first strategy. IdentIT's mission is to deliver cutting-edge (C)IAM solutions that enhance customer experience, strengthen security measures, drive cost efficiency, increase business flexibility, and ensure compliance with data protection regulations.

Description of Assignment

Identity and Access Management (IAM) plays a crucial role in securing modern digital platforms. In this internship assignment, you will work with 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 their digital platform to external applications. They are requesting a solution that uses Curity to manage registration, authentication, and authorization.

Within this context, you will work with a so-called set-top box. This is 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 a software-based simulation of the device will be used to replicate its operation and communication with the platform. The set-top box acts as a client connecting to the IdenTV platform. Since this box has access to personal and potentially sensitive data, it is essential that communication between the set-top box and the platform is well secured.

The assignment is therefore to design a secure IAM structure in which the set-top box registers as a client with Curity and then uses standardized protocols such as OAuth and OpenID Connect to gain access to the platform.

What will you do?

- Setting up a dedicated Curity environment for testing and development.
- Ensuring that end users can easily and securely “register” their box via a secure protocol.
- Guaranteeing secure communication between Curity and the registered applications.
- Implementing resource protection so that only authorized clients can access certain endpoints or data.
- Documenting the entire process and describing how it can be easily applied in a production environment.

What will you learn (technical)?

- 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 OAuth2, OIDC, and SAML
- Identity and Access Management

Which soft skills will you develop?

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

Project Methodology

- The internship assignments follow the Scrum project methodology to ensure a structured and efficient approach to (sub)tasks.
- This reflects IdentIT's project approach.
- Scrum is a flexible framework that:
 - Promotes collaboration
 - Encourages adaptability
 - Ensures transparency
- The work is organized 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:
 - Intern(s) and supervisor(s) hold a sprint planning session
 - Objectives are defined
 - A sprint backlog is created
- During the sprint:
 - Weekly stand-up meetings take place
 - Progress is discussed
 - Potential obstacles are identified and addressed
- At the end of each sprint:
 - A sprint review is conducted
 - If possible, a demo is given
 - Feedback is collected
- Scrum contributes to a collaborative and adaptable work environment.
- The goal 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
- Enforcing authorization rights based on the authenticated user to access specific content

Expected Outcomes

At the end of the assignment, the following outcomes are expected:

- (Technical) analysis of the problem statement
- Architecture of the required components
- Implementation that meets the MVP plus possible extensions
- Demo of the end-to-end solution
- Documentation

Contact details

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