SUBJECT 3:

Public API V2 : more secured, accessible and industrial APIs

Department
R&D

Duration
At least 6 months

An open API is a valuable type of technology for developers. It provides standards for how software programs communicate with each other. In short, it simplifies the process of integrating multiple software programs. At Expensya, it has been one of the crucial product offered by the company and enhancing it remains one of our priorities. Our 4 priorities are to:

- Automate API definitions deployment.
- Implement API versioning: The API in its current form is not versioned, which will lead to problems when when it comes to make breaking changes, which will happen given enough time. We therefore need to version our API.
- Integrate Oauth 2 authentication : OAuth2 has become the de facto standard when it comes to managing API authorizations and it makes sense to support it.
- Create a public SDK for Public APIs: In order to make it easier for our clients to use our APIs, we could supply a SDK (.NET to begin with, but other languages could also be supported) so that they don't need to explicitly call our API; the SDK would expose classes and methods wrapping the underlying API calls.

This project involves the following tasks:

- Upgrade to the newest Swagger/Open API package; include additional documentation with XMLDoc, with samples; automate the OpenAPI definitions deployment to Azure API Management.
- Study the possible versioning patterns, including what is offered out of the box by Azure API Management, and choose the most appropriate one; implement the required changes to the code and define the deprecation policies.