



Case Studies

EC Group

Streamlining client on-boarding
through harmonised API publication
in WSO2 API Cloud

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The Client

EC Group a world class organisation

EC Group is a world class fulfilment and delivery solutions provider and operates one of the UK's largest response handling facilities providing flexible and comprehensive warehousing, packing mailing and distribution solutions.

Crucial to its business is their platform providing a complete range of tracking, management and reporting options.

EC Group had identified a need to streamline the interfaces offered by the platform to enable easier on-boarding of clients with a reduced effort in support.

The Project

Service harmonisation, elastic adoption

EC Group approached Spida Solutions, a WSO2 Partner, to explore the possibility of using the WSO2 API Cloud to provide a solution for their requirements.

Together, EC Group and Spida Solutions agreed that the WSO2 Cloud API solution was a good fit for their requirements as it would:

- Allow harmonisation of existing services into a single consistent API design
- Provide self-service sign up for clients through the customisable API Store including self-service key generation for OAuth authentication
- Allow publication of self-serve documentation to aid client's adoption and use of APIs
- Be cloud based requiring no on-site infrastructure
- Allow elasticity in platform adoption via the graded subscription levels allowing proof-of-concept at low cost followed by staged roll-out and ramp up of user migration

In addition, Spida Solutions suggested that, while all EC Groups existing services were SOAP/XML services, one of the advantages of the WSO2 platform could be leveraged and all APIs published in the WSO2 Cloud API could be transformed and published as REST/JSON APIs. EC Group agreed with the adoption of this approach.

Implementation

Quality and velocity via continuous integration

Spida Solutions managed the design of APIs, API Store customisation and the publication of a first API resource as a proof-of-concept project. From the beginning the project made use of Spida Solutions in-house continuous delivery platform for API management which provides:

- A continuous integration environment for the development, testing and deployment of published APIs using Maven, Jenkins & Docker and making full use of the WSO2 management APIs.
- Maven plugins for API lifecycle management via the WSO2 management APIs
- Maven archetypes for rapid API project inception.
- Full CI cycle with unit &, integration tests with mocked backend services

The PoC project was deemed a success and was quickly followed by the phased publication of an additional set of services to achieve an harmonised set of resources in a single API, based on a disparate group of back end services.

The Spida Solutions implementation used many of the features of the WSO2 API Cloud platform. To achieve the requirements of the project. These included:

- Mapping API resource name to backend service domain to allow backend services on disparate domains to be harmonised into one single API
- Custom roles for access control
- Static data lookups from API Manager registry
- Custom tier creation for managing throughput
- Custom scripts and sequences to create a framework facilitating rapid addition of new resources
- Custom failure handlers for ensuring correct management and return of fault messages
- Marshalling and un-marshalling of JWT tokens

Platform Enhancement

The Partner advantage

During the project new requirements emerged that called for enhanced capabilities from the WSO2 API Cloud platform resulting from real-world implementation use-cases. As a WSO2 Partner, Spida Solutions was able to work closely with WSO2 to deliver these changes as platform improvements.

Some of the improvements made were:

- Refinement of WSO2 email marketing when custom roles are in use
- Ability to fully customise API consumer on-boarding email, delivering guidance and documentation prior to sign up
- Ability to fully control the visibility of all API versions

In addition, the Spida Solutions CI environment led directly to a number of technical improvements in the platform by providing key feedback to WSO2 during testing phases.

Outcome

Rapid return on investment, streamlined integrations

EC Group is now using the API delivered during this project to quickly and easily integrate with clients.

Key features that have delivered real business benefits from the investment in an API strategy include:

- A single consistent, harmonised API design
- Drastically lowered API consumer development learning curve
- Self-service subscription and authorisation key generation lowering support effort
- Ability to on-board API consumers with a single invitation email containing clear guidance and documentation
- Provision of a web-based testing environment through the Swagger driven API Console allowing API consumers to easily test API integrations
- Collection of statistics on API consumer sign-up and API use
- Drastically lowered rate of calls to support lines from API consumers during on-boarding process

A specific use case for EC Group has been the integration of clients using platforms such as Shopify with the EC Group back end services. The publication of a set of resources in a single harmonised REST based API, within a self-service API Store offering a simple sign up process backed by easily available documentation has greatly streamlined the on-boarding of Shopify clients.

About Spida Solutions

Innovative, common sense, full-lifecycle solutions

Spida Solutions is an innovative information technology group with a passion for the opportunities presented by the convergence of service and component based architectures.

Spida Solutions strives to provide clients with a common sense approach to software development

We believe in making use of best of breed software without big label licence limitations wherever possible. We also recognise that many organisations continue to work with a range of vendor products and are equally comfortable engaging with such development projects.

Spida Solutions is able to provide both turnkey solutions and consultancy services

We can provide these wherever you are in your project lifecycle, from inception through to implementation. We can enable fast project start up and rapid delivery of robustly tested, high quality solutions either through our extensive library of project archetypes and test frameworks or by consulting with your in-house teams to produce your own.

Spida Solutions seeks to partner with the best of breed software providers including WSO2.

By being part of a global network of partners we can provide customers with the expertise they need to meet their business challenges.