Boosting the API Economy with Microsoft Azure PaaS & DevOps

Aberdeen Standard Investments saw the strategic need to deliver their services to partners and customers through public APIs.

They selected endjin's best-of-breed Azure reference architecture, security framework, and blueprints to kick-start their API Delivery programme.

Powered by DevOps processes and automation, Aberdeen Standard Investments had a frictionless path to production for rapid delivery.

An Overview

Developing a centralized service layer over an array of disparate and heterogenous systems was key to modernizing Aberdeen Standard Investments business and allowing bimodal IT.

But critical to its success was doing it the right way – building a best-in-class cloud architecture that could scale and support the new workloads that it would enable, and building out a new DevOps capability in the team that ultimately be responsible for its rapid development.

With help from endjin in the form of a production quality, proof-of-concept, API Platform reference architecture, Aberdeen Standard Investments eliminated the need for lengthy R&D and could hit the ground running on day one. By applying DevOps best practices to process and automation, endjin left Aberdeen Standard Investments with a frictionless path from feature development to production, allowing the team to deliver rapidly whilst ensuring the required quality at every step of the way.

> *"We used the solution endjin provided to accelerate our early CSP development sprints. By providing us with a blueprint, the team was able to accomplish Sprint Zero without any impediments and have gone on to build on these foundations."*
>
> *— Michael Speed, Head of Core Architecture, Aberdeen Standard Investments*

The challenges

- Developing a centralized API service layer over disparate internal systems, for both internal and external consumption
- Using a best-in-class cloud architecture without managing infrastructure
- Meeting tight overall deadlines whilst delivering incremental value in rapid iterations
- Maintaining high quality with outsourced development team
- Defining and implementing cross-cutting and non-functional requirements such as security policies, and operational monitoring

How endjin helped

A reference architecture for the new API platform

Endjin provisioned their API Economy Platform Blueprint, which implements a best-of-breed reference PaaS architecture for Aberdeen Standard Investments' central API service layer. The entire solution infrastructure is modelled as declarative Azure Resource Manager templates, which can be version controlled and parameterised, and deployed at the push of a button.

A fully configured DevOps pipeline

Endjin configured Azure DevOps services for a best-in-class DevOps development workflow – from Git and GitHubFlow conventions, enforced through pull requests and branch policies, to Continuous Integration and Continuous Delivery pipelines with the necessary quality gates and environment security policies – to allow the team to work quickly and confidently.

A wealth of experience and expertise

Endjin applied their "work smarter" mantra to every aspect of the engagement, providing documentation in the form of walkthrough and demo videos so that the team had a permanent record of the thought processes, decisions, and resulting actions taken at every step of the way. This collateral was augmented with best practice DevOps guidance using Azure DevOps and its associated toolset so that the underlying principles behind why things were done "the right way" were understood in a contextualized environment.

> *"We recently completed a Microsoft Solution Assessment and line-by-line code review. The solution and code were rated high-quality and well-constructed."*
>
> *— Phil Taylor, Enterprise Architect, Aberdeen Standard Investments*

The Benefits

Since engaging with endjin, Aberdeen Standard Investments have gone on to build on the foundations of the API Economy Platform Blueprint, delivering business value on top of a solid architectural base, without lengthy set up or up-front design work. The patterns and templates provided in the blueprint mean that Aberdeen Standard Investments have clear guidance and examples for implementing specific workload scenarios so they can integrate new features rapidly and consistently.

The DevOps processes that were recommended and configured inside Azure DevOps have meant that Aberdeen Standard Investments had Continuous Integration and Continuous Delivery pipelines on day one – automatically deploying the entire solution infrastructure into first class Azure PaaS services. Not only has this enabled agility and increased efficiency in the development team, but by configuring the necessary quality gates at every step of the way, it has added a safety net around the entire ALM process, so changes will only be promoted once the required approvals and confirmations have been applied. With Application Insights providing centralized operational monitoring in the Cloud, the team is truly DevOps enabled.

Finally, thorough documentation, in the form of walkthrough and demo videos on the solution template and DevOps processes, has meant that the development team have been able to shortcut the training process, acquiring the necessary skills quickly through contextualized and relevant content. The training collateral has been used to onboard new team members into the project, allowing them to get up to speed on the technical decision making process and developer workflow quickly so that they can deliver within the aggressive deadlines that the business demands.

Solution Architecture

Endjin's API Economy Platform Blueprint can be configured to deploy specific API platform infrastructure according to the underlying workloads supporting the APIs – including .NET operations, R models, or services requiring complex data movement and processing activities.

In each case, Azure API Management provides the means to create and publish APIs, enforce their usage policies, control access, support the subscriber community, collect and analyze usage statistics, and report on performance.
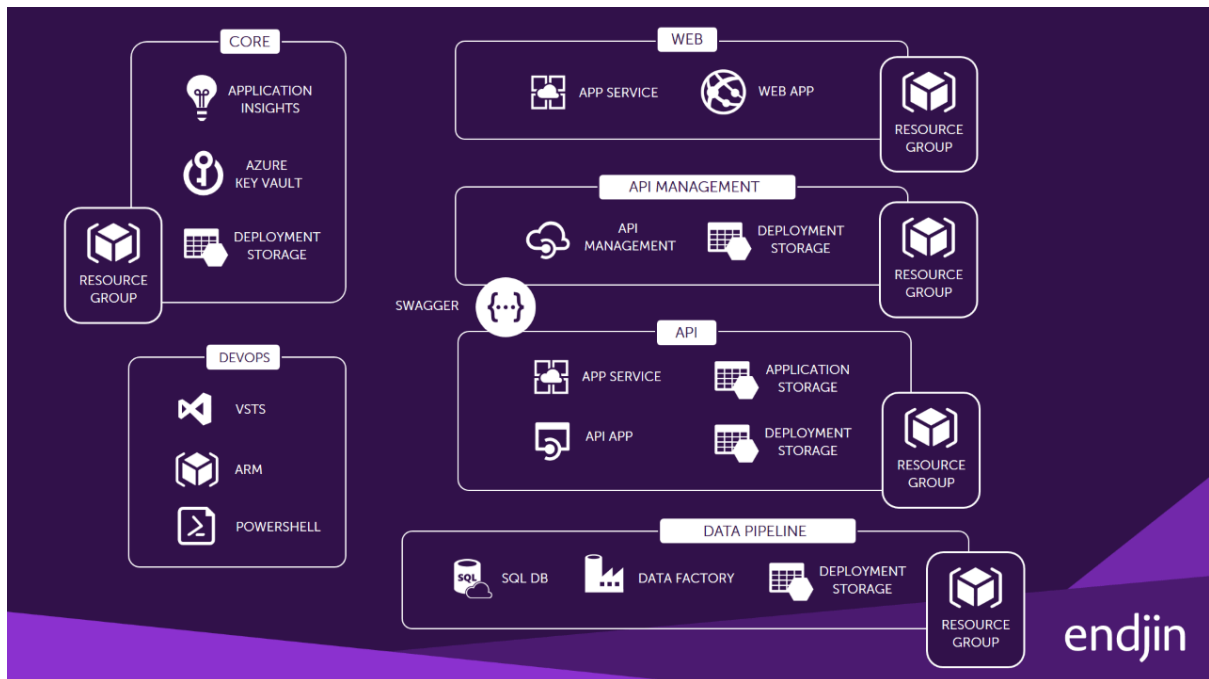
How can we help you?

If you are looking to modernise your API or Data platform, please get in contact at https://endjin.com/contact-us or email hello@endjin.com