Modern APIs and Enterprise Systems: Friend or foe?

Digital channels have become the primary way to initiate consumer and business engagements, providing both accessibility to a global audience and a cost-effective means to conduct business. We have seen mobile devices become the preferred way in which consumers and employees interact with companies. The hyper-connectivity of mobile users sets the expectation that information is at their fingertips whenever they require it. This must be the right information, delivered in context, and almost certainly drawn from multiple sources, to enhance the mobile user’s experience.

In order to create mobile apps, the use of application programming interfaces (APIs) becomes essential. Although not exclusively built for the mobile world, APIs are becoming a significant part of successful mobile apps and the majority of them will be powered by APIs. APIs can help quickly address new market opportunities, empowering developers to expose and consume core business services to continuously build, refine and deploy apps at speed. Moreover, organizations that API-enable their assets can monetize existing investments in their application logic and business data.

A successful mobile and API strategy centres on z Systems environments.

Most IBM z Systems environments deliver business critical applications and data to the enterprise. It is estimated that nearly 70% of all enterprise transactions involve a mainframe, ultimately making it a prolific contributor of services needed to power APIs for mobile and digital services. However, z Systems platforms are not immediately thought of as an API powerhouse. Why?

 Likely because the predominant access routes to these platforms are via messaging or web services, whereas the wider industry is moving toward open, discoverable REpresentational State Transfer (REST) APIs, which are the de facto standard for creating the mobile and cloud apps used by the fastest growing digital start-ups.

Recent technology introductions make the mainframe fully conversant with REST APIs, putting z Systems in the centre of the API Economy. Applications developed with CICS, IMS and DB2 z/OS can now be accessed as a RESTful service thanks to these technologies. The design principle was to provide configurable services (meaning zero coding is necessary) allowing developers to self-discover and consume mainframe applications as REST APIs – with no change to the underlying application.

During this one-and-a-half day event, our experts will enter into details of an API implementation project illustrated with the creation of APIs to connect a Mobile and Cloud-based Application to z Systems. We will discuss and show the following areas that are typical in an API and Mobile environment on IBM z mainframe:

- Evolution from SOA to API Economy and the important role of z Systems
- Creating APIs from mainframe applications then Governing and Securing them
- Consumers of APIs: Mobile, Cloud and the Internet of Things
- Mobile Workload Pricing
- 2 hour hands-on Lab to get you acquainted with the technologies discussed
- How to engage the IBM Client Center in your projects: discover how our (Integration Studio) can help you and your clients define how to integrate their Mobile Apps to existing back-ends through the use of APIs.

They will use customer cases where they have implemented solutions, they will show implementations and demonstrate several IBM technologies. We conclude the event by a two hour hands-on workshop.

Audience: This workshop is especially designed for IT Architects & IT Consultants from the Computer Services Industry interested in and working with z Systems. Basic knowledge of z Systems and Enterprise Architecture helps in understanding the solutions that are covered.

We look forward to meeting you in Montpellier!

- Contact your local IBM Sales or Technical Representative -
Open your mainframe to Digital Services:
**z Systems Mobile and API Enablement Workshop**

An event for European Consultants and System Integrators

**Presentation Abstracts**

**Evolutions from SOA to APIs. What makes a good API, anyway?**
Learn how to protect customer’s investments in core business applications leveraging tools and services to modernize their enterprise for the API economy and the mobile world. Avoid duplication of enterprise data yet be able to present the data accurately to the demanding end-users.

**Evolution from SOA to the API Economy and the important role of z Systems**
- An overview of the recent past and current state of IT related to the mainframe environments

**What makes a good API?**
- Looking at many different APIs out there one must acknowledge that they are not all great. In fact, it is really, really hard to develop a great API. There are a few attributes that can make a big difference. We will talk about these.

**Creating, securing and managing APIs from mainframe environments**
Starting from a 3270 CICS application we take it step-by-step to start the creation of APIs. We will show you how to configure, not code, tooling to access the CICS functionality by means of a RESTful API. We will test the API and use it from a Mobile device. We will enhance the CICS data with geo-location. We will create and use APIs to a no-SQL database, running on zLinux for z Systems, to include images for the app. Last but not least we will show you how to manage the APIs and how to consume them from a cloud and Internet of Things environment. Of course, security will be the underlying theme. **We will discuss how to:**

... create APIs consuming mainframe applications
- Use tooling to create APIs with configurations, not coding
- Test and use the APIs

... create APIs consuming no-SQL database resources running on Linux for z Systems
- Identify application vulnerabilities
- Manage applications and the enterprise app store

... Socialise and manage the created APIs
- Publishes the created APIs securely both from IT Security point of view as well as from an IT usage point of view

During this session, we will **demonstrate** the process step-by-step.

**Mobile Workloads**
The trend is that mobile is increasing the workload significantly. Most of the workload is Read Only. But not all. The Daily peaks has changed so has the weekly peaks. We see that the variability has enlarged. Apart from the IT challenges this unpredictable workload brings, it has also a pricing impact on the Monthly Licence Cost.

**Learn how to:**
- ... provide a highly scalable infrastructure
- ... protect against the workload surges caused by mobile workloads
- ... reduce the number of mobile transactions
- ... reduce the cost of mobile transactions

During this session, we will **demonstrate** how to tag a mobile transaction to be eligible for Mobile Workload Pricing.

**HandsOn Lab**
You will be able to practise some of the technologies introduced during this workshop. Using IBM’s Bluemix environment, you will work on a web application consuming the CICS and non-SQL database resources by means of APIs. You will get some hands-on experience on how to discover, use and manage the APIs.

*Please bring your own laptop equipment to access Cloud based applications.*