

Bedrock Financial Technology Background Information

(Prepared for the EMEA Strategic Advisor Certification)

Bedrock Enterprises (BE) has made recent investments in Salesforce and MuleSoft over the years and were impressed by MuleSoft's vision of API-led transformation during an executive briefing. A Group CTO has also recently been appointed, and has been flagging to the Board that a new approach is required.

Of the three BE divisions, **Bedrock Financial (BF)** is experiencing particularly significant business pressure to innovate. However there is **no consensus** across high level stakeholders on **what innovation means**, its implementation path and organisation implications.

Nonetheless BF has been identified by the Board as a good **starting point to develop and prove a new operating model based on an API network** that can then be scaled up across the business. In the recent contract renewal with Salesforce, the CTO persuaded BE to purchase a **significant initial entitlement to MuleSoft as a catalyst** for this initial exercise.

BE welcomed MuleSoft's suggestion that a Strategic Advisor (SA) engagement would help BE define their API strategy for BF which could hence be adopted more broadly at Group level. The **SA will report to the CTO who will own the API strategy** at Board level. BE have never had a MuleSoft SA before and however have some understanding from the expectations set by the AE, EM and PL during the sales cycle..

They would like some **guidance on how to set the engagement up to be a success**, and are keen to learn from MuleSoft's experience in terms of **key activities they should be asking their SA to tackle**.

Whilst the CTO is still learning about the SA role, at the initial meeting during pre-sales, some particular areas of concern have already been identified that they would definitely like to see the SA engage in. However the main priority for the SA is to help BF move forward with an API led approach to their **Wealth Management customer onboarding journey transformation**. The business desperately needs to transform the journey and are struggling to keep up the competition.

General organisation and historic IT approach

Integration

BE's business structure means that **historically IT has developed in silos**, with little economy of scale or reuse. Over the years, the diversity of the business has meant that **each business unit has had autonomy and budget** to develop its own IT capability. The CTO perceives that as well as being contrary to BE's overall stated strategy of shared services, this lack of reuse is the antithesis of an API network

A catalogue of standard platforms are mandated by BE Group IT, of which MuleSoft is now one after the recent license purchase. There are, however, a number of middleware products supporting the BF apps, a number of which have found their way into the estate piecemeal via projects. At a group level, BE has been using **IBM Integration Bus (IIB)** as the de facto standard for enterprise integration, a **legacy of an attempted SOA** initiative some years previously. When purchasing MuleSoft, however, the IT LT have explicitly stated that they wish to transition fully to Anypoint as soon as is feasible.

BE have also leaned heavily on **partners to perform development** in general and integration in particular. The CTO is uncovering already that in BF alone there are multiple middleware tools supporting these applications, with a variety of integration styles and technology deployed. Those discovered so far include:

- **Custom.NET code** running on Azure acting as point-to-point integration between modern single-page web applications and a variety of on-premises systems.
- BF made an attempt at SOA back in the early 2000s that whilst ultimately aborted has resulted in some core services that were modelled and exposed as SOAP Web Services running on IBM Integration Bus.
- **Informatica handling ETL** between Salesforce and downstream finance systems.
- There is an **in-house BF middleware team** but they are mainly focused on operational aspects of the IBM MQ estate.

Development

BF's IT approach reflects that of the wider BE, in that systems have typically been developed in silos by a variety of different delivery partners. **BF has an IT Director and a group of solution architects led by a Chief Architect.** There are pockets of developers as permanent staff or long term contractors that have been retained on a project by project basis, though BF's general policy is to outsource development and maintenance of their estate. A BE Group IT pool of technical operations staff maintain the estate at an infrastructure level, and route application problem reports to the relevant project teams. Project Management responsibility is held by the business, with delivery provided by IT.

BF do not have a formal IT governance construct, but are bound to fit into BE Group IT controls. These get triggered when proposed BF change impacts the wider organisation. The perceived weight of this group-level governance has meant that BF IT have become adept at **presenting activity in their estate carefully to avoid scrutiny**. For example, the scope of Salesforce has been communicated to include the connected apps and tools as well as the Org itself. This approach enabled BF to purchase Informatica middleware when BE's corporate standard was an IBM product, since the group perception was that the purchase was for more "Salesforce". There is a **group-level drive to move to shared services**, but this has yet to translate into the individual business units.

Implementation initiatives

Risk in the mobile programme

The CTO recognises that one of the benefits of an API network is the ability to compose and remix APIs quickly to meet new business needs. Web and mobile apps are a big focus for BF as **customer satisfaction** surveys indicate that BF are scoring **unfavourably compared to their competitors**. They have a **critical programme running with a partner**, who is currently implementing all their integration logic in code on Amazon Web Services (**AWS**).

As the CTO's CV included a mobile app rollout at a previous organisation, they have been set a special task by the Group CIO to make sure that the mobile programme does not fail. The CTO's concern is that the programme pre-dates their joining BE, yet they don't currently have a proper handle on the integrity of the solution. They are feeling somewhat exposed.

After a successful first meeting during pre-sales, the CTO has already connected with the SA on LinkedIn and spotted they also have a mobile development background. They are pleased because **if deadlines are looking tight**, they're hopeful the SA can roll up their sleeves and cut some code on the project if necessary.

Salesforce CRM migration

BF are currently in the process of transitioning from Microsoft Dynamics to Sales Cloud for CRM. Given MuleSoft's reputation as a leading integration platform for Salesforce effectively sold the Anypoint Platform to BE, the Salesforce migration programme has been identified by the CTO as an excellent opportunity for **"quick wins"**.

BF have an existing Service Cloud instance of some years they want to connect their new Org to, plus a departmental Sales Cloud and the CTO reckons on MuleSoft's connectors saving significant effort in **building the single customer view** that BF are craving. The partner implementing Salesforce have already been hit by a number of delays due to integration issues, and so the CTO is hopeful that MuleSoft SA will be able to bring the CRM programme on track.

Decommissioning of RockStar

A major concern for BF is how to transition from RockStar, a legacy COBOL application, to a more modern technology platform. The reliance of **Wealth Management** on RockStar means the **risk to BF's current business is high if it is compromised**. A large systems integrator previously tendered for the business of migrating to a modern alternative package, but BF were nervous both of their proposed **"big bang" approach** and anticipated price tag.

Successive consultancy engagements have pinpointed RockStar's obsolete technology and reliance on **just three individuals with knowledge** of the platform as being major inhibitors to any meaningful digital transformation. The BF Lead Architect is also nervous about the anticipated scale of opening up RockStar to the scale of web and mobile applications, and of creating a dependency on the new world and the old.

For their part, the BF business is **anxious to begin their digital transformation** and pressure is mounting from the Board as they look to reassure the market.

Adoption of cloud computing

BF have been looking at cloud computing for some time as they recognise that the flexibility of cloud infrastructure should help them reduce costs and deliver more quickly. At BE Group Level, Azure has emerged as the PaaS of choice for custom applications, though BF being in a regulated industry means they are subject to very strict information security controls.

Successive delivery partners have recommended adoption of the Group approach, but managers of BF projects have been reluctant to be the trailblazers that drive an update to their corporate controls. The perception being that it is a potentially protracted dialogue that could derail progress and is therefore best avoided. The sensitivity of certain data and the dependency on legacy mainframe systems like RockStar means that some systems will remain on premises for the long term. Salesforce being only available on the cloud has started to move thinking about the viability (and perceived inevitability) of cloud applications becoming increasingly something that BF will need to consume.

Platforms like Azure and AWS have been used successfully by BF's delivery partners to support externally-facing marketing, but typically are limited to brochureware. One major limitation that has hampered adoption is that currently interaction between BF's systems and the cloud is one way, from the BF premises to the cloud. Currently there is no established way for a cloud platform to invoke a service on an on-premises system. Thus far, the Salesforce implementation programme has considered this a programme constraint and is working to a principle of batch integration triggered on-premises as the line of least resistance. BF has designated Salesforce as the customer master for Wealth Management customers.

IT Execution

Approach to governance

BF has no formal governance process for IT, though there is an **informal** approval step wherein the Chief Architect signs off on solution designs for projects by way of **Design Authority**. The Chief Architect is entrusted by the IT Director to set standards via a small team of Solution Architects who work with BF's delivery partners to define proposed solutions. Group IT have overarching governance steps that put in place general purpose operational readiness gates, one of which is compliance with BF's security and regulatory controls. Availability of the Chief Architect is regularly listed in the risk registers of programmes, as whilst highly respected they are spread very thinly. The CTO has made specific reference to wanting to fix this issue.

The general perception of **Group-level governance is that it is to be avoided** where possible, and there is a perception in some quarters that governance as a general concept is a blocker to progress. A number of project teams are looking to adopt Agile principles, and their perception of IT governance is that this is “old school thinking”, and slows down the velocity of development. With Programme Management coming from the BF business, the balance of power is typically that if a project team says they need something, that generally trumps pushback from IT.

The Programme Management Centre of Competence (CoC) as a body is formed as a federation of Programme Managers who live within the BF business units. As a body they share knowledge and practices virtually and try to meet quarterly, though have limited liaison with IT outside of their day-to-day project delivery.

Architectural thinking

The Chief Architect and his team have general purpose document templates that they use to capture solution designs at a logical component level. A major victory for the architecture team was establishing these as mandatory standards to be used by BF projects, and many of the architecture team have used methodologies like TOGAF before. There are however **no standards beyond that high level** currently, as architectural methodologies within applications are seen as the domain of delivery and therefore at the delivery partner's discretion. There is currently **no common process for management of requirements or traceability** within solutions, with the risk that when the partner leaves, so also leaves the rationale for the system design.

Tools used to support solution design are a combination of Visio and Powerpoint documents shared via a Confluence site which forms the repository and discussion forum for the architecture team. Certain members of the team have used tools like Archimate in previous roles, and have suggested their use within BF.

The **siloes and project-oriented approach** to delivery means that **reuse is low within BF** in general. The Chief Architect and his team recognise that reuse is a sensible approach, but feel their hands are tied by project expediency. There is also a recognition at senior levels that efficiencies can be gained by increasing reuse of capability. BE has an initiative at **Group level to establish shared services**, though this is at its early stages. The previous attempt at SOA stalled as though some services were delivered, obtaining widespread agreement on data models and service definitions took significant up-front time and effort. The CTO has intimated that on a personal level they see the **API network approach as being a good quick win** for them personally — they want to be the person that delivers a concrete exemplar of shared services.

Growth of adoption of MuleSoft elsewhere in BE

Whilst it is still early days, the Group CIO has already intimated to the MuleSoft Account Executive (AE) that there is **great opportunity potential** in the wider business beyond BF if this initial rollout of the Anypoint Platform is a success. Both the Success and Account teams are naturally delighted to hear this.

The AE in particular is keen to showcase the **Anypoint** Platform's **mainframe integration capability** as BF have a large programme running to **sunset a legacy application**. They have struggled in the past to secure time from a Solution Engineer, so the AE is delighted to have a technical person on hand to support the campaigns they are building.