Delivering a Tailored Solution –
Best of Breed Business Applications

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Executive Summary – Best of Breed as a Core Strategy

There is a constant increase in both the pace of economic and market change, and the challenges that modern organizations face. As these challenges increase in both scale and frequency, the part of the organization that is responsible for technology solutions to enable business processes is also under pressure.

The changing business landscape has a direct impact on the choice of technology solutions and many organizations are finding that a single product isn't capable of meeting their particular needs. Alongside this fact, organizations increasingly have to reinvent what they do on a regular basis and this too puts increased pressure on the back office systems they use.

In this paper we look at the technological changes that are making it increasingly practical for organizations to create highly customized aggregations of multiple discrete products and in doing so to achieve a bespoke technology menu that best supports the particular organization's needs.

Context – Unprecedented Change

To understand the technological needs of modern organizations, it is important to have an understanding of the macro context within which organizations exist. While an in-depth look at societal and economic trends is outside the scope of this report, it is worth taking a brief look at the multi-dimensional pressures organizations are under.

Briefly these pressures fall under several different classes:

- Demand for agility – organizations have to innovate with ever-greater velocity and frequency. № longer is it viable for an organization to rely on a "business as usual" modus operandi
- Economic pressures – organizations and the departments within them are being tasked with delivering more, for less. This is particularly apparent for the IT department
- Limited opportunity for CapEx – it is increasingly difficult for business units to obtain approval for capital expenditure as the focus shifts to tying expenditure tightly to revenue via an OpEx model
- Mobility and remote working – the rise of mobile devices and an increasing occurrence of remote and team-based work is demanding that technology solutions can be accessed anywhere, anytime and on any platform
- Generational changes – the next generation to enter the workforce will have grown up using flexible tools in their consumer lives. They will demand this same flexibility in the tools they use in their working lives

All of these changes taken together give rise to a requirement for business technology to be flexible, customizable and readily integrated with other solutions. We are fortunate that at the same time, technological changes are enabling these requirements to be met.

The Rise and Rise of APIs

With traditional on-premises software, integrating third party applications into the core solution is painful, time consuming and expensive process. It generally requires significant specialized developer time and creates one-off integrations.

Not only is the initial integration difficult however but when the software is upgraded, often the integrations will be rendered inoperable necessitating yet another series of development projects.

This fact has two direct results on organizations using traditional software:

- They have a tendency to insert manual processes in place of software integrations, creating inefficiencies and excess labor costs
- They have a tendency to defer software upgrades meaning they are unable to take advantage of new developments and are trapped within legacy versions of software

While inflexible software is a problem in and of itself, it is exacerbated by the broader macroeconomic trends facing organizations. The global financial crisis, a demand for ever-increasing levels of innovation and the rise of highly specific organizations delivering niche products to small markets has meant that these organizations have ever more specific needs that their technology products must fill. While in generations past it was relatively easy to fit a monolithic solution to the needs of a slow-moving business in a traditional industry, that is no longer the case. Rapidly moving organizations need a range of solutions that can meet their very specific needs.

This sub-optimal situation is being remedied by Application Programming Interfaces (APIs). An API is simply a methodology to specify how discreet software components should interact with each other. Modern software is built with open APIs as a central part of its architecture making it a simple and straightforward task to create integrations between disparate software products.

The recent growth of Application Programming Interfaces (APIs) has also had a secondary effect in that it has enabled the creation of large and diverse ecosystems of software vendors. It is the availability of this plethora of options that we will now examine.

No One is Vanilla –
The Rise of Uber Contextual Use Cases

In the past decade we have seen the rise of entirely new classes of business – from streaming video services to crowd-funded manufacturing. From companies providing packaged services from third party vendors to subscription car lease companies. While these examples are hugely diverse, they all share one thing, the technology solutions they need to power their highly specific business models are also highly specific.

Quite simply, the use case for modern business applications have become highly contextual. This trend mirrors other parts of a business' technology choices – in the same way that users are demanding to bring their own choice of devices into the workplace, organizations are making use of different database and infrastructure options and agile development has encouraged the adoption of lighter-weight but more appropriate solutions, so too do business applications need to be specific to particular functional requirements the business might have.

As mentioned in the previous section, the increasing trend towards software being built with open APIs has enabled these highly individualized and contextual integrations to occur. Rather than relying on one vendor's version of a perfect software fit, and the possible problems that can arise from that approach, organizations can mix and match from a vast selection of software options. But this growth of discrete yet integrated solutions has an impact on the software vendors themselves that is beneficial to their customer base.

Lowering the Cost of Integrations

In a legacy software world, most integrations are custom built. Clearly this is a particularly inefficient way of doing things as it means that developers need to code every integration from scratch. The rise of ecosystems of best of breed software however has made repeatable integrations the norm rather than the exception.

Today, rather than approaching a specialist developer to create a one-off integration between two products, an organization can often find the integration as a standard function of the software being used. On the rare occasions that native integrations do not exist, a growing number of specialist integration platforms exist to help create the integrations.

Often these platforms include marketplaces where specific integration products can be shared between users. In this way the rise of APIs and the generally accepted approach towards integrations are resulting in an ever-increasing number of different pieces of software which can be integrated.

In a perfect example of economies of scale – this increasing availability of integrated products is significantly reducing the cost of integrating. As the cost drops more organizations are creating new integrations the virtuous circle continues to the point where any organization can create its own optimal solution by selecting the specific best of breed solutions that meet their needs and integrating them to meet their requirements. Integrations is the subject we will now turn to.

Selecting and Integrating –
Leveraging the New Ecosystems

If the previous generation of enterprise IT was typified by monolithic vendors selling selected solutions designed to trap customer in a "one size fits all" model, today's paradigm is significantly different. It is typified by two distinct trends, firstly the rise of loosely coupled ecosystems for business applications and secondly by a plethora of integration services. We will look at these two traits in turn.

Software Ecosystems

Possibly as a result of the fact that, due to the rise of cloud computing, it is easier than ever before to start a software company, today we see a huge blooming in the number of individual companies being formed to tackle specific functional problem areas.

With the great rise in the number of individual vendors providing business software, there has been a parallel rise in software "ecosystems" where discrete vendors commit to tight integrations, tailored bundled packages of applications and joint problem solving for specific customers. All of this has meant that, whereas in the past customers adopting a best of breed approach towards enterprise software would likely have been looking at a totally unsupported integration and deployment operation, today much of the heavy lifting around interoperability has already been resolved.

For the end users, this means that connecting discrete best of breed applications is no longer a scary proposition involving significant amount of consulting time – often these integrations are available "out of the box."

A Plethora of Integration Services

Easing the integration task even further is the fact that there exists numerous third party vendors who focus solely on providing a vast array of integrations between cloud services.

What this means for customers of cloud services is that, even if a native integration between discrete solutions doesn't exist, it is likely that a third party integration vendor will have a product that fits the bill. These third party integration services cover an amazing breadth of individual software products and workflows, meaning that best of breed integration alongside specific workflow models is doable and easier than ever before.

Summary –
Different Strokes for Different Folks,
Best of Breed as a Core Strategy

The rapidly changing and challenging environment that modern organizations exist within creates significant challenges and highly specific requirements from technology. This is even more so the case when it comes to business applications which run the transactional parts of the business.

At the same time as the environment has become more challenging, technological innovations, in particular the rise of the API, have made it increasingly easy to integrate discrete applications together.

While in the past different organizations had broadly similar technological requirements, today even the requirements of businesses within the same sector vary greatly. Given this need for highly specific solutions that match the user-requirements of a business, it is not surprising that organizations are utilizing a wide variety of individual solutions that deliver specific functional needs.

Organizations don't follow a cookie cutter approach to the way their businesses work, in the same way a cookie cutter approach to the technology solutions they use is at best likely to be a bad fit and at worst destine them to failure.

About Diversity Limited

Diversity is a broad spectrum consultancy specializing in SaaS, Cloud Computing and business strategy. Principal and founder Ben Kepes provides various services including;

- Commentary – Ben is a noted commentator about Cloud Computing and enterprise software – he has written for a broad selection of media outlets, and is often quoted as a subject matter expert and influencer
- Consulting – Ben is in demand with large organizations who turn to him for advice on technology starting, He spends time with both customers and vendors advising on all aspects of their strategy
- Advisory – Ben sits on a number of boards, both formal and informal. He enjoys helping startups get to market and grow to scale
- Investment – Ben is an investor in a number of different companies. These investments revolve around Ben's focus of delivering technology that can make a difference to how organizations work

About the author
Ben Kepes

Ben Kepes is a technology evangelist, an entrepreneur, a commentator and a business adviser. Ben covers the convergence of technology, mobile, ubiquity and agility, all enabled by the Cloud. His areas of interest extend to enterprise software, software integration, financial/accounting software, platforms and infrastructure as well as articulating technology simply for everyday users.

He is a globally recognized subject matter expert with an extensive following across multiple channels.

His commentary has been published on ReadWriteWeb, GigaOm, The Guardian and a wide variety of publications – both print and online. Often included in lists of the most influential technology thinkers globally, Ben is also an active member of the Clouderati, a global group of Cloud thought leaders and is in demand as a speaker at conferences and events all around the world.

As organizations react to the demands for more flexible working environments, the impacts of the economic downturn and the existence of multiple form-factor devices and ubiquitous connectivity, Cloud computing stands alone as the technology paradigm that enables the convergence of those trends – Ben's insight into these factors has helped organizations large and small, buy-side and sell-side, to navigate a challenging path from the old paradigm to the new one.

Ben is passionate about technology as an enabler and enjoys exploring that theme in various settings.