Westpac GROUP
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WESTPAC GROUP ESB POWERS DIGITAL TRANSFORMATION USING IBM INTEGRATION SOLUTIONS

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Contents

Westpac Group

- Westpac Banking Corporation (Westpac) was founded in 1817 and was the first bank established in Australia.
- Westpac Group has branches and controlled entities throughout Australia, New Zealand and the near Pacific region and maintains offices in key financial centres around the world including London, New York, Hong Kong and Singapore
- As at 31 March 2013, the Westpac Group employed approximately 36,000 people (full time equivalent basis) in Australia, New Zealand and around the world, and had global assets of A$677.5 billion.
- Westpac is ranked in the top 5 listed companies by market capitalisation on the Australian Securities Exchange Limited (ASX). As at 31 March 2013, our market capitalisation was A$95.5 billion
- For the six months to 31 March 2013, the Westpac Group's reported net profit after income tax was A$3,304 million
- About 570,000 people and institutions in Australia and overseas are Westpac shareholders.

Integration Transformation journey at Westpac Group

The Westpac Group ESB plays a central role in service integration across a heterogeneous, multi-divisional organisation

Pre-2009: Very heterogeneous integration environment, lots of point-to-point, several EAI-style buses based on multiple technologies, not standard-based, inter-operability challenges

2009: The SOA/ESB program was launched to address these issue and create a Common Service Orientation framework to simplify integration, create reusable services and improve agility.

2011: Once the program concluded the challenge was to ensure the benefits from this investment continued to grow and support the organisation's objectives.

2012: Group Integration Strategy developed to guide Westpac Group's SOA journey and ensure it supports Westpac Group's 2017 objectives.

2014: Over 100 business services in production. Westpac new Online Banking platform launched powered by 65 services

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Problem domain

A 'Common Service Orientation' platform is a key foundational capability to enable simplification and support business transformation programs

The 2009 Westpac Group IT Strategy identified the complexity of the bank's technology environment as a significant impediment to delivering business agility. It recommended the establishment of a 'Common Service Orientation' capability as part of the strategy to simplify the technology landscape and support a range of transformation programs the bank was embarking upon.

A 'Common Service Orientation' platform was seen as a way to achieve simplification of our integration capability, reduce duplication as well as deliver a robust, foundational capability that will underpin business agility and provide costs benefit through the reuse of services.

This enterprise platform and the standards upon which it is based also provide the basis on which access to services on divisional buses is being achieved.

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The Solution: Westpac Group ESB

Group Enterprise Service Bus (Group ESB) is Westpac's Common Service Orientation Platform

The SOA/ESB Program was kicked-off in 2009 to deliver the Group ESB, to support a number of strategic initiatives.

Group ESB provides a common service capability for enterprise and application services. It is implemented using open standards on a robust, highly available, scalable and secure platform.

Group ESB provides a solid, flexible foundation to support Westpac's ongoing customer service revolution objectives.

The Solution: Westpac Group ESB

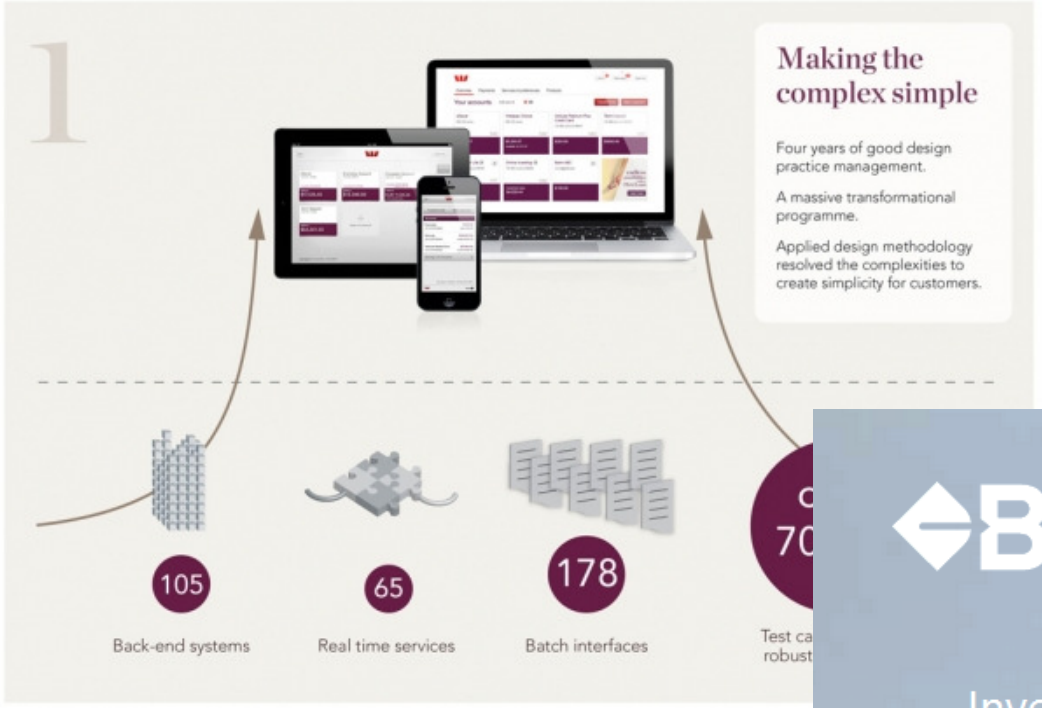
The solution is providing tangible benefits

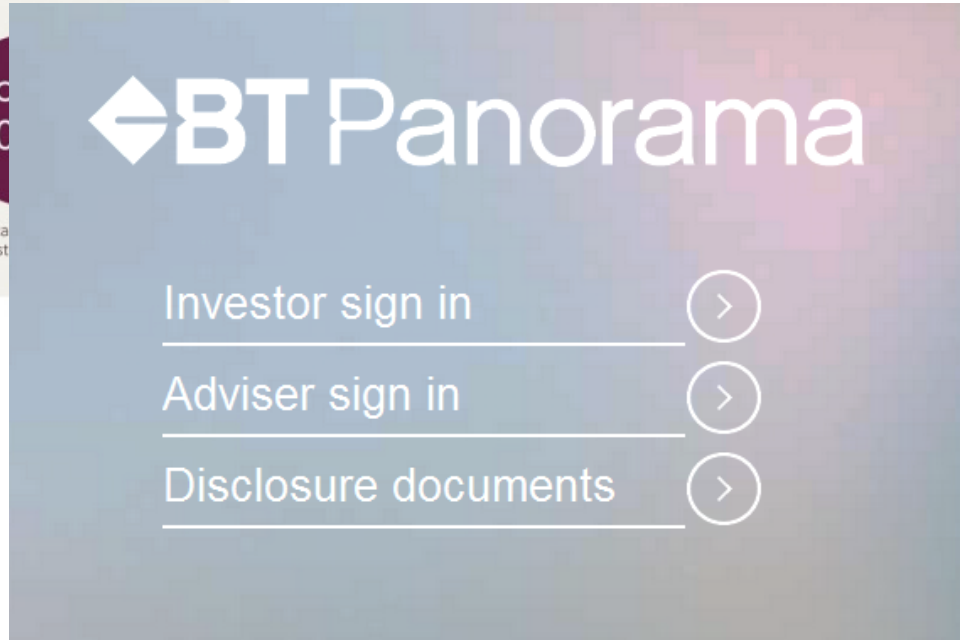
Group ESB has been supporting large and small programs since its implementation in 2010 e.g. Westpac Branch Teller Replacement, Cards Consolidation, Compliance and Regulatory, Global Customer Master, Deposits, Call Centre Desktop Upgrade and Online Transformation.

The business services in production today cover key processes related to customer administration, sales and service, product management, marketing, risk management and compliance. Some of these services act as brokers for functions exposed by our partner's platforms.

This portfolio of enterprise business services is delivering favourable levels of reuse with most new projects finding some or all of their service needs already exists. This is realising direct time and cost savings and business agility benefits.

New Westpac Live (Online Banking) and BT Panorama (Wealth) platforms leverage Group ESB services

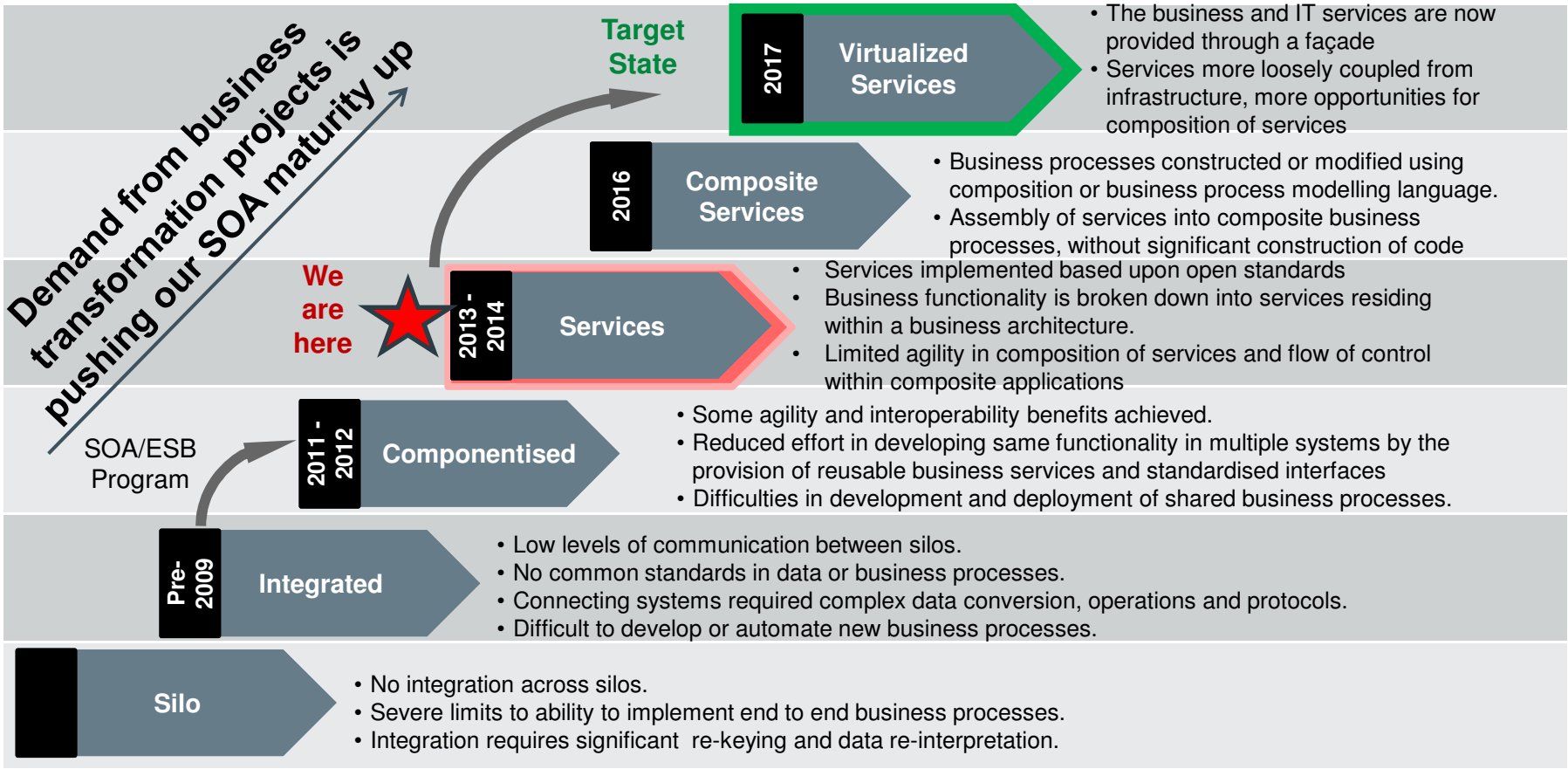




SOA maturity

Current maturity: 'Services'

Target level: 'Virtualised Services', by 2017.



Maturity assessment based on The Open Group Service Integration Maturity Model (OSIMM)

Note: OSIMM includes another level 'Dynamically Re-configurable Services' not shown here

http://www.opengroup.org/soa/source-book/osimmv2/model.htm

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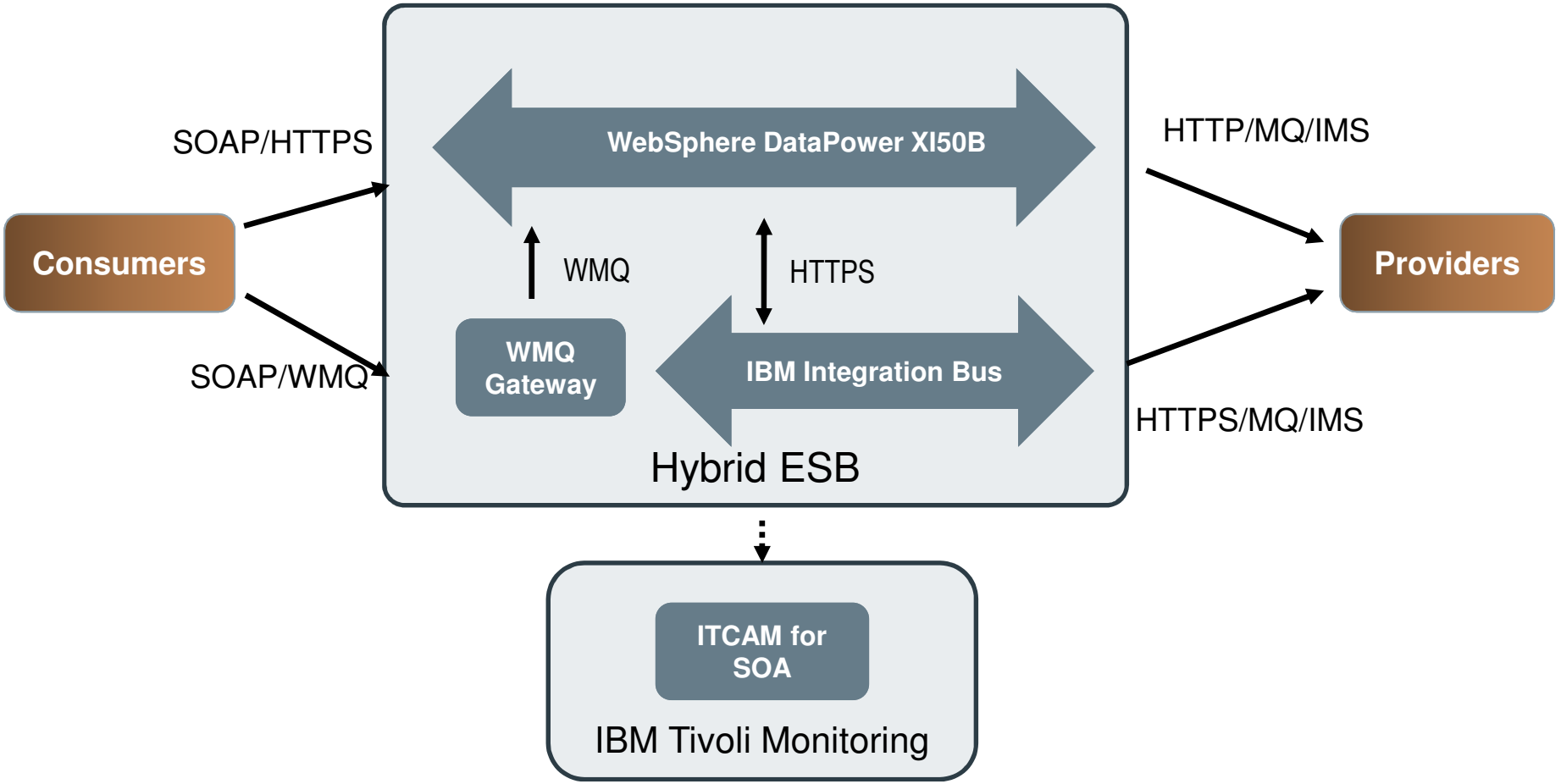
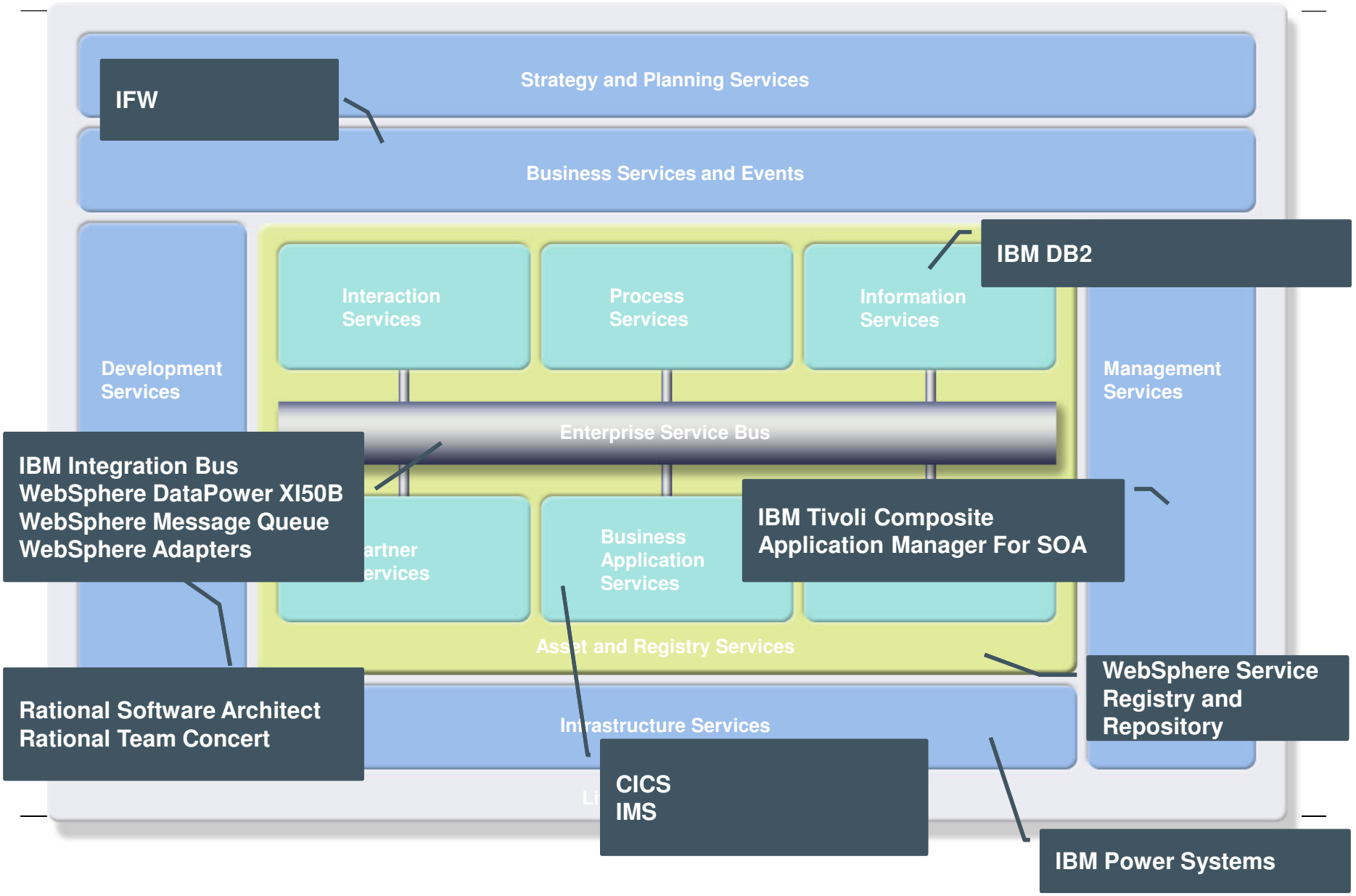
Logical component model



IBM SOA Foundation Reference Model



Key Architecture Decisions

- A hybrid ESB chosen consisting of WebSphere DataPower (WDP) and WebSphere Message Broker* (WMB).
- WDP is the primary gateway for all consumers
- WDP preferred for simple, atomic services
- HA within data-centre topology to provide redundancy which maximises the chance of traffic being served within the same site from consumers and providers.
- Active/Active across data-centres topology to provide scalability and active DR
- Hybrid ESB is capacity planned such that all Peak Load can be serviced off one data-centre

*WebSphere Message Broker was is now known as IBM Integration Bus (IIB)

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Lesson 1: An endorsed SOA vision & strategy is critical.

A clear vision statement and strategy enables all stakeholders views to be aligned and helped guide the required outcomes for execution. The vision and strategy was embedded within the standards, policies, principles, capabilities, RASCI and decision rights, operating model and execution strategy.

Westpac Group SOA Vision

Our vision is to become a Service-Enabled Financial Institution, where all functions and operations are easily accessible through a portfolio of well-defined, extensible services.

Lesson 2: Use industry reference models appropriately

The use of industry reference model helps contextualise, identify and define appropriate abstract enterprise service constructs to maximise the realisation stable enterprise services.

However, Industry Reference Models are abstractions based on the workings of many organisations in that particular industry. Their role is to act as reference models and they cannot be expected to be a perfect fit for any one organisation. You must be prepared to extend/adapt the reference model and its associated processes to optimise the value you can derive from them.

Lesson 3: Start Small, deliver value early

Building an enterprise SOA capability is a long-term proposition and it is very challenging to show a positive business case early. Once a broad-based commitment to SOA is achieved, it is important to be able to demonstrate benefits early and regularly. Picking the right-size chunks to start with is obviously critical to ensure success.

One approach to demonstrate the value of investment in SOA would be to integrate the SOA and BPMS capabilities. This delivers agility and productivity benefits to BPMS users by leverage business services to achieve straight-through processing.

Lesson 4: Invest in building up your people and processes

Delivering enterprise services require a broad range of skills. People from different teams with skills such as data modeling, business analysis, architecture and engineering skills need to work very closely together in a seamless manner to deliver the desired outcomes to our business partners.

We found that when we had appropriately skilled resources and efficient delivery and operations processes we were able to positively impact quality, cost and schedules.

Therefore it is important that an effective approach for these various teams to collaborate and deliver services is achieved as early as possible.

Lesson 5: SOA requires governance

We found that it was important to set up the *right* level of governance up front and evolve this as required

A governance framework is crucial to ensuring a stable, effective environment and to guide the capability towards the organisation's strategy and vision. Organisation-specific governance foundations such as principles, rules and patterns will need to be developed. These will take into account the organisation's objectives, culture, attitude towards building strategic versus tactical capabilities and maturity in working with models.

Lesson 6: Communication and Education

Like any new capability, there will be resistance to adopting the paradigm shift from a point-to-point integration mindset to a services mindset. Education is key to achieving broad adoption and achieving the benefits of alignment, compatibility and consistency across different stakeholder groups in the organisation.

An ongoing program of communication, education and training is needed to show stakeholders how SOA works and how to derive value from it.

Lesson 7: Collaborate with partners

Apart from product knowledge, our partners brought to us expertise and experiences from client sites all over the world. We value the strong relationship with our technology partners who share a common interest in ensuring out success and help us leverage the best value from out investment.

This does not replace the need for Westpac to be in the driver's seat at all times, building up our own team's expertise because we are in the best position to understand our organisation's needs and ensure they are met.

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Future areas of analysis

- The Westpac integration team is exploring how our capabilities need to evolve to deal changes brought by Social, Mobile, Analytics and Cloud.
- How do we leverage our integration solutions and SOA principles to further support our business objectives?
- How do we rapidly and securely integrate Mobile & Web apps with our Systems of Record?
- How are API's transforming businesses through exposing services as business API's? How do they enforce consumption policies and provide security, governance, lifecycle management, API monitoring, socialization and manage developer communities?
- How does the Internet of Things that enables systems to connect millions of endpoints in the Cloud affect financial institutions?

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