

Anatomy of a Digitally Transformed Organisation

Glenn Smyth – Founder & CE,
Fragile to Agile

**BIL-T CONFERENCE
ARCHITECTURE OF
TOMORROW**

"The best way to predict your future is to invent it" – Frank Herbert

Fragile to Agile



Today's Agenda

- About Fragile to Agile
- Background/Context of Digital Transformation
- Where are we now? Traditional (or Analogue) Architecture
- Where do need to be? Digitally Transformed Organisation Key Features and Critical Success Factors
- How do we get there?
 - Target state and roadmap
 - Exceptions Based STP
- Successful Outcomes
- Summary

About Fragile to Agile

WHY

We exist to help visionary leaders transform their organisation's agility to enable them to survive and thrive in an age of rapid and constant change

HOW

We do this by helping them architect their enterprise to become more adaptable, flexible and responsive

WHAT

We offer consulting and management services based on proprietary frameworks and methodologies. Our Enterprise Architecture approach helps businesses and government make the one last big change they need to become permanently agile organisations

About Fragile to Agile

Our Clients



About 60% in South Australia, 15% Interstate and 15% overseas

abotiz
Equity Ventures

Background/Context

Digital Transformation Globally

Digital Transformation (DX) Defined

The application of 3rd Platform and related technologies to fundamentally improve all aspects of society. For business this means:

TRANSFORM...

New sources of innovation and creativity to enhance experiences and improve financial performance. Simply modernizing the technology underpinning existing systems is not transformation.

...DECISION MAKING...

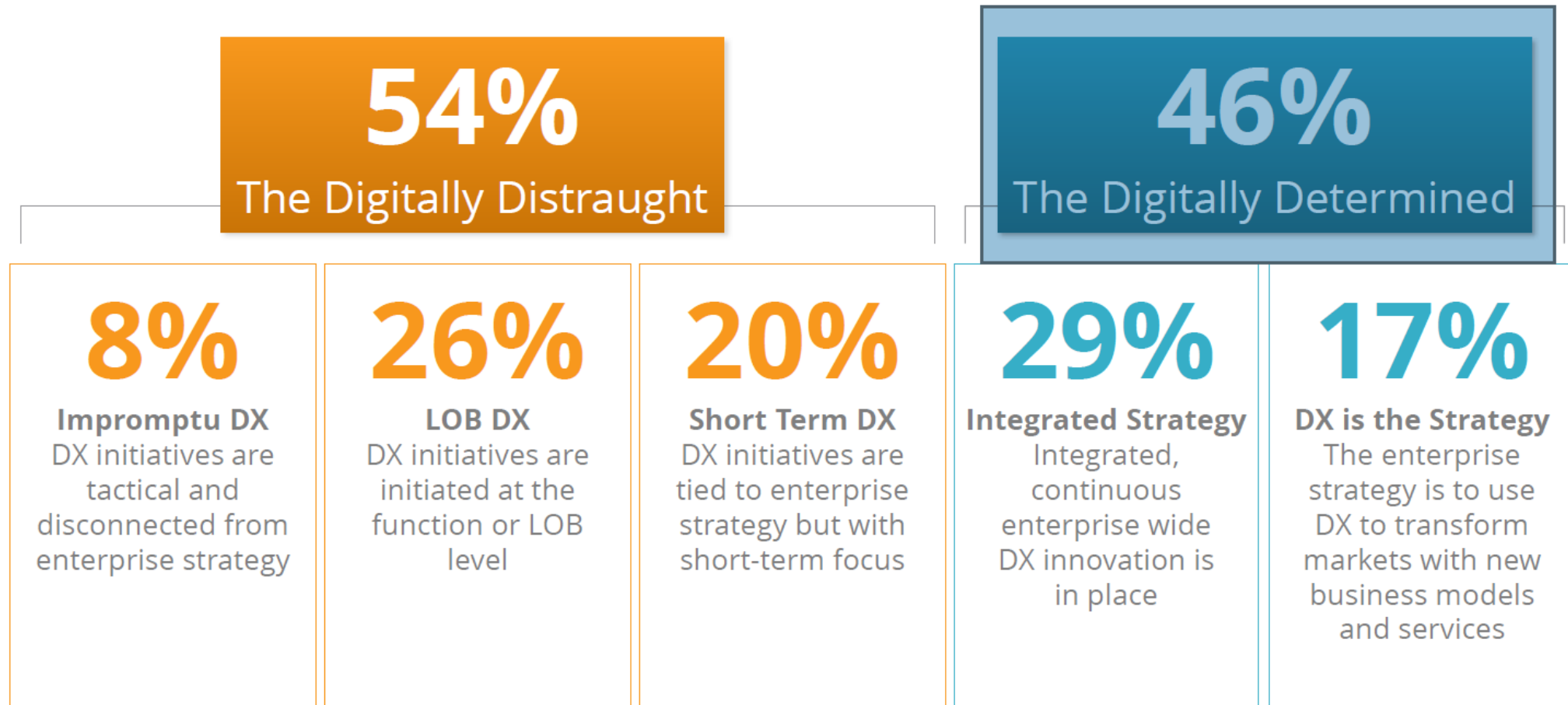
Using information to create an evidence based culture. Companies should plan on doubling the productivity of their knowledge workers by using information more effectively.

...WITH TECHNOLOGY

Digital transformation is not to be confused with digital technologies, however, it does use 3rd Platform technologies such as Cloud, mobility, Big Data, and social as well as Innovation Accelerators including IoT, robotics, and 3D printing.



The Digitally Distraught v. Digitally Determined



What Is Agile?

The Strategic Promise of Digitally Transformation



Adaptable

- Able to adjust to new conditions



Flexible

- Able to be easily modified as circumstances differ



Responsive

- React quickly and positively to change

Adaptability the most important as the current rate of change is exponential and as Charles Darwin said:
“It Is Not the Strongest of the Species that Survives But the Most Adaptable”

Assertion: A Digitally Transformed organisation is an agile organisation and vice-versa

Relationship of Enterprise Architecture to Digital Transformation

EXHIBIT 2 At digital leaders, enterprise-architecture teams make more valuable contributions.

Benefits of enterprise-architecture team's work, % of respondents rating "high" or "very high"

■ Digital leaders within or beyond industry ■ Other companies

IT benefits (eg, improving integration, increasing standardization)



Business-process benefits



Source: Enterprise Architecture Survey, a joint survey from McKinsey and Henley Business School

“Digitally Determined” organisations rate the value of EA higher than the “Digitally Distraught”

Relationship of Enterprise Architecture to Digital Transformation

EXHIBIT 1

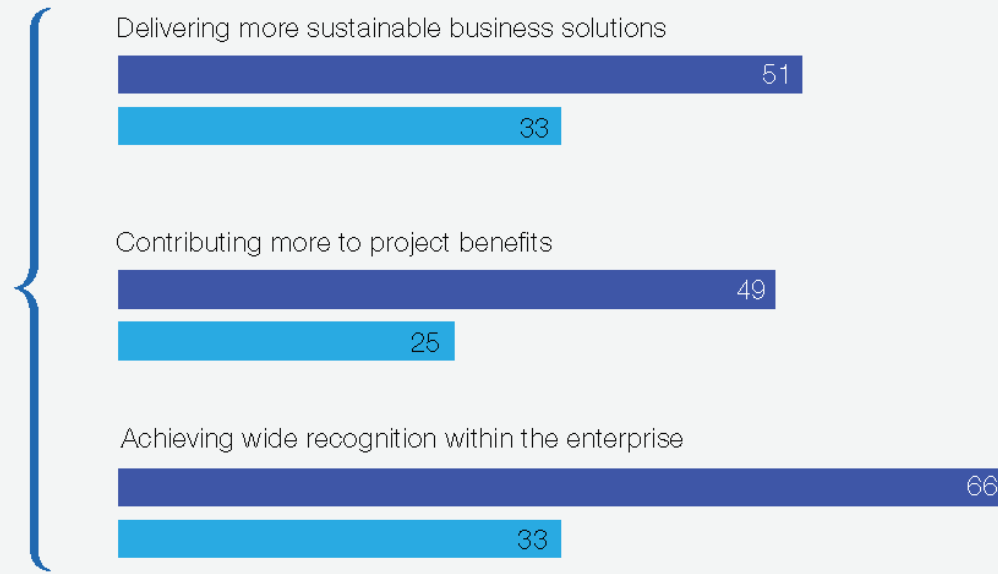
The enterprise-architecture department brings more value to companies when it spends extra time on strategic planning.

Average allocation of enterprise-architecture team's capacity, % of time



Enterprise-architecture team's effectiveness, % of respondents

■ Companies that spend more time than average on strategic planning
■ Other companies



Note: Figures may not sum to 100%, because of rounding.

Source: Enterprise Architecture Survey, a joint survey from McKinsey and Henley Business School

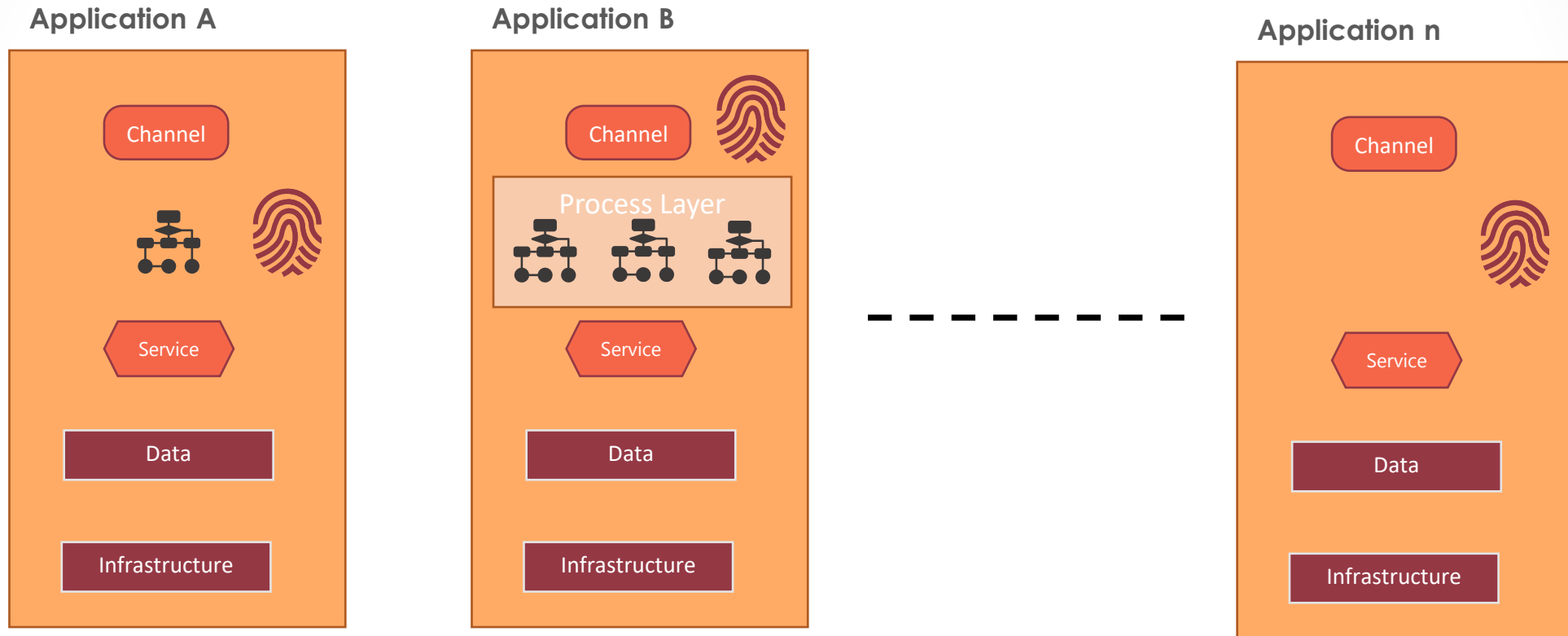
The organisations that get the maximum value from EA are those that think and act more strategically

Organisational Anatomy

Traditional/"Analogue" Organisation

Vertically Layered Architecture (Application-Centric)

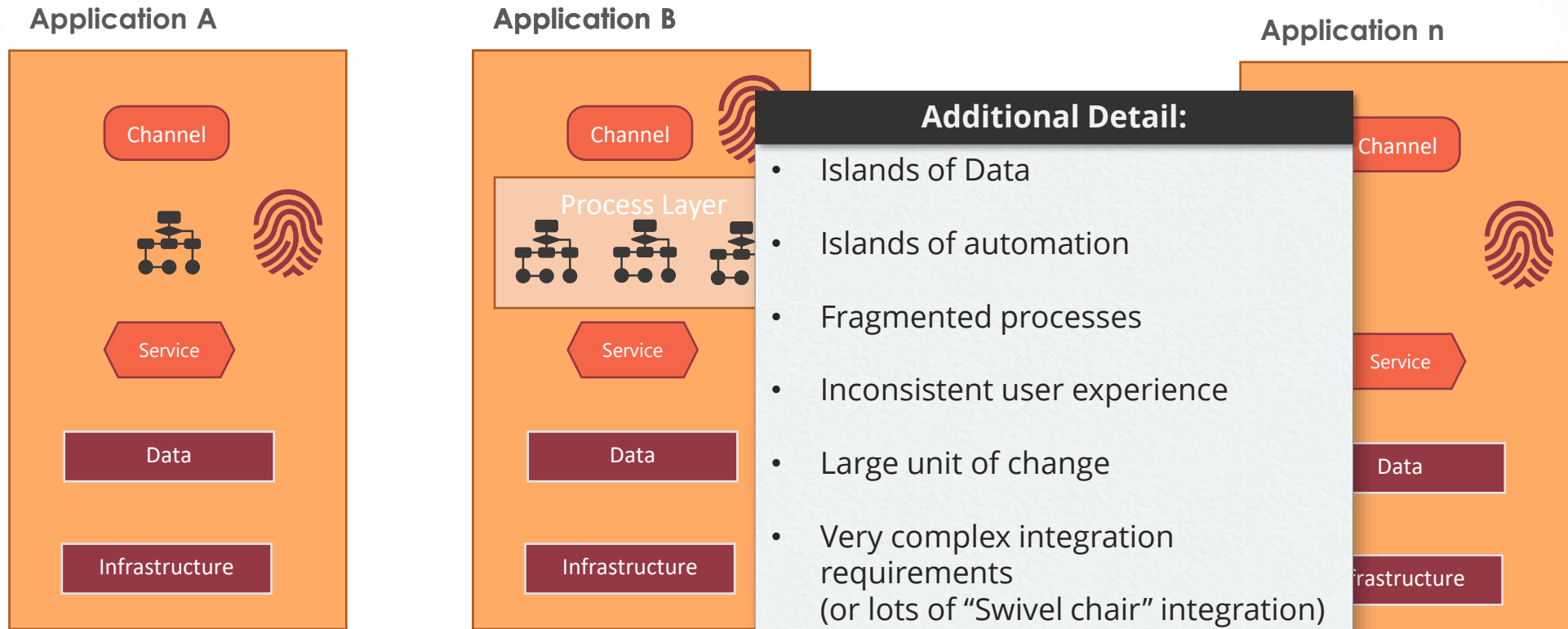
Might refer to this as pre-digital (analogue) architecture



Applications fragment overall environment and “hardwire” together channel logic, business services, data and infrastructure

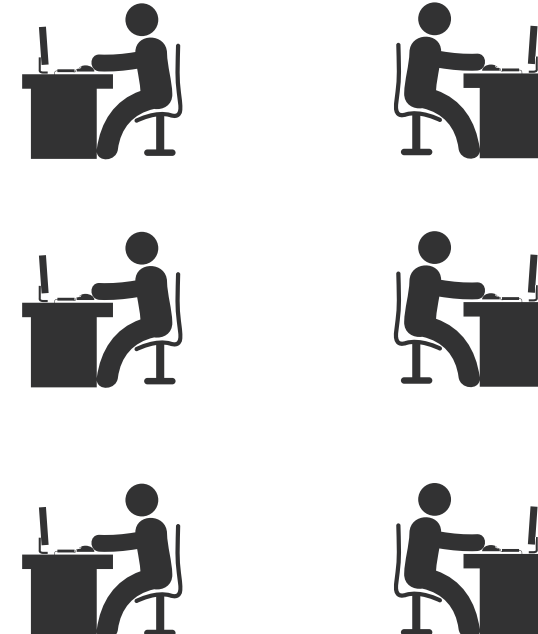
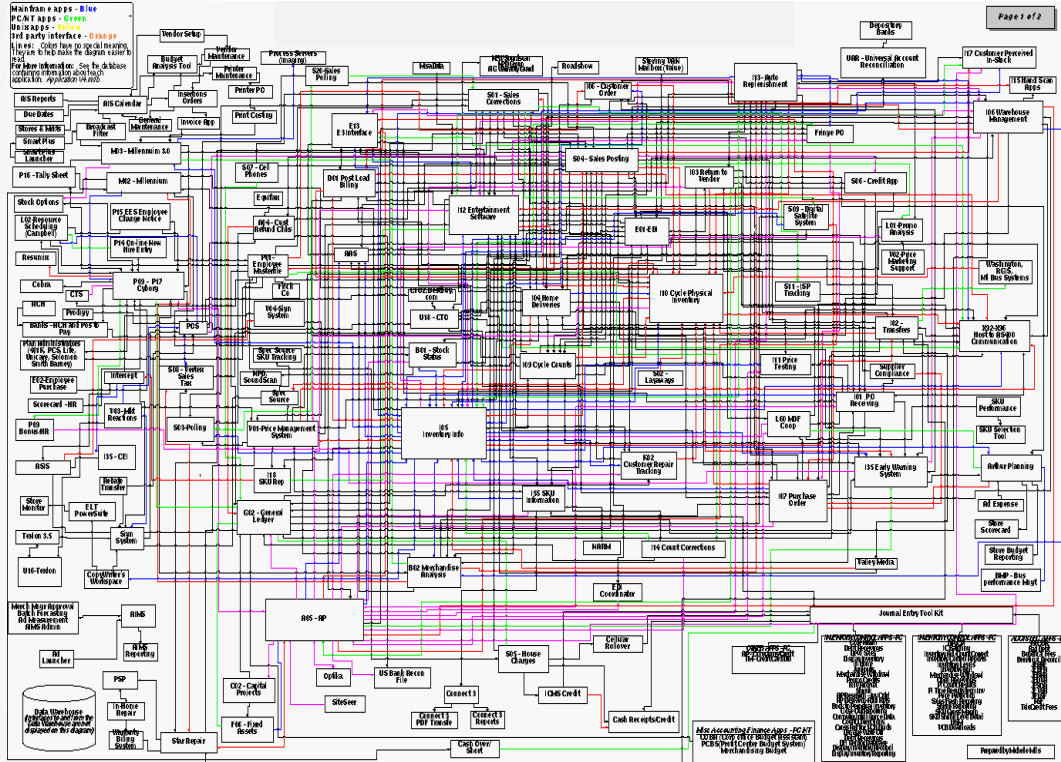
Vertically Layered Architecture (Application-Centric)

Might refer to this as pre-digital (analogue) architecture



Applications fragment overall environment and "hardwire" together channel logic, business services, data and infrastructure

Vertically Layered Architecture - Application-Centric or analogue?



Large organisations end up here

Small/Medium organisations end up here

Assertion: Application-centric organisations are inherently Fragile as they are wide open to digital disruption

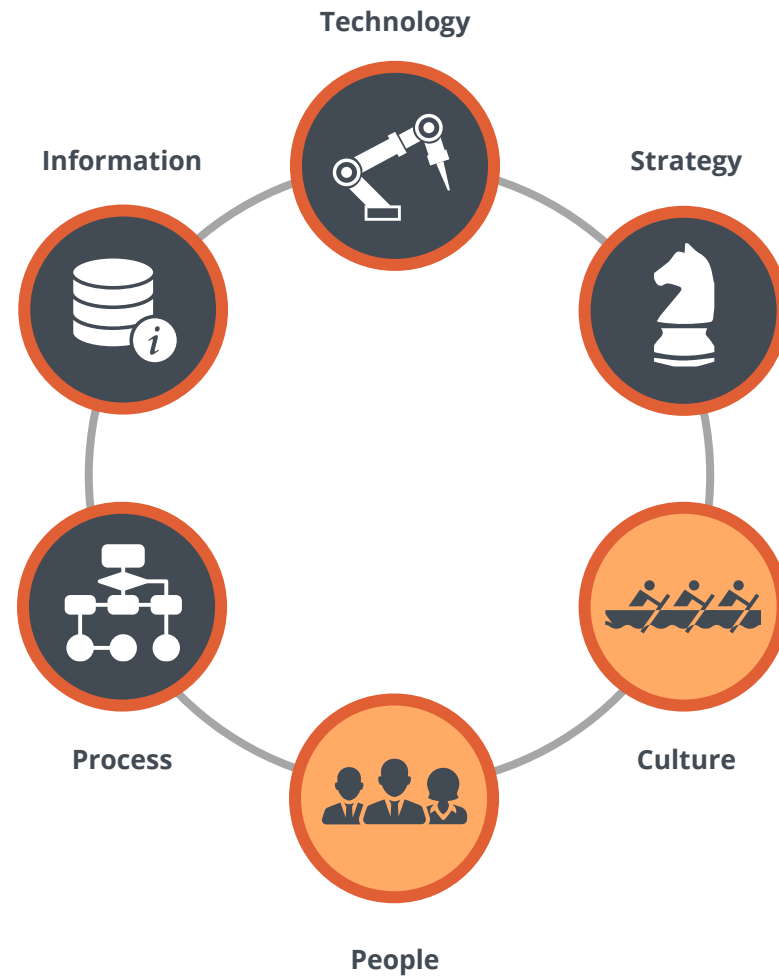


Organisational Anatomy

Critical Features of a Digitally Transformed Organisation

<https://www.youtube.com/user/FragiletoAgile2>

DISCLAIMER 1: Six Aspects to a Digitally Transformed Organisation



Assertion: All aspects required to be truly Digital (and Agile)

DISCLAIMER 2 : Unapologetically Nirvana

- This is a deliberately a statement of what perfection looks like
- Most organizations will never reach this perfection
- It's your "North Star", "Beacon on the Hill"
- Critical success factor is to design the transformation to deliver value quickly and often
- Difficult piece, outside of a planned ("Digital") transformation is to fund the key enabling platforms/technologies
- Significant benefits all the way on the journey if mapped out well
- We will see case study at the end of what can be achieved even when only ~30% of the way there

Assertion: Better to Know what Nirvana looks like and compromise that have no idea

DISCLAIMER 3 : Nothing new to see here

- A lot of this may seem familiar – True - the basic pattern has been around for over 20 years – good patterns have a habit of surviving
- It's all about the timing – Things are VERY different now
- Business Context:
 - Digital Transformation
 - COVID/WFM push
 - Channel innovation – Augmented reality, Voice etc.
 - Disaggregation of the business model – Boundaries of an enterprise blurring
 - Supply chain disruption adaptability
 - Data Science
 - Not just an efficiency play – now also a business model play and in some cases survival play
- Technology Context:
 - Lighter weight products/tools available – e.g., API Management tools versus ESBs;
 - Low-code platforms
 - Domain-driven architecture
 - Agile delivery methods
 - Big data, AI/ML
 - Microservices
 - DevOps
 - Cloud/SaaS/PaaS/IaaS
 - API enablement/roadmap (almost) universal in software solutions
- Learnt the lessons of the past – e.g., Minimal Viable Product rather than “boil the ocean”
- Most importantly, the pattern is fractal in nature – while today talking about whole of organisation the same pattern can be repeated in an individual solution area or Business Unit and then expanded across organisation

Assertion: The “ducks have all lined up” and the time is now right. The real question is how far and fast you want to go

Horizontally Layered Architecture (Service-Centric)

Identity & Access Management



Channel Management



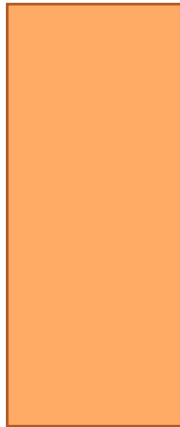
Business Process Management



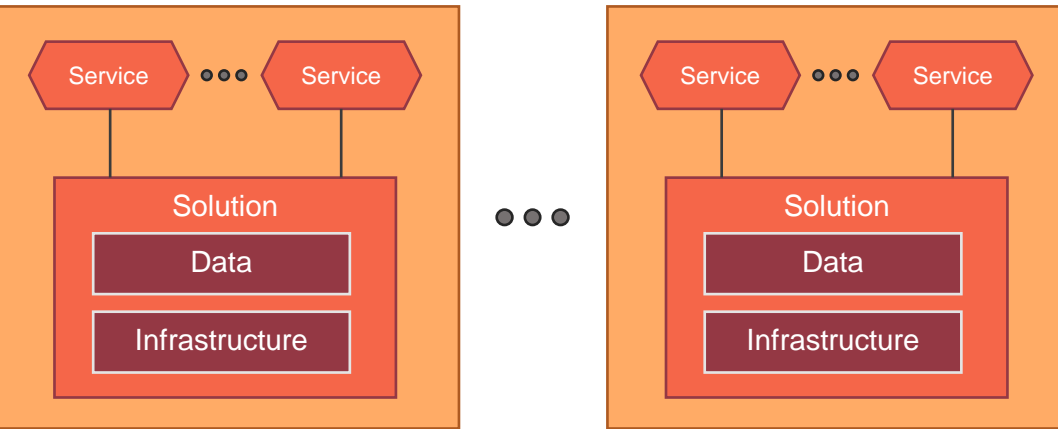
Integration Layer



External Entities



Service Providers



AI Engine



“Big Data” Store



IOT Data



External Market Data



Horizontal layering of functionality with clear boundaries of responsibility for each layer

Horizontally Layered Architecture (Service-Centric) – Channel Layer

Identity & Access Management



Channel Management



Business Process Management



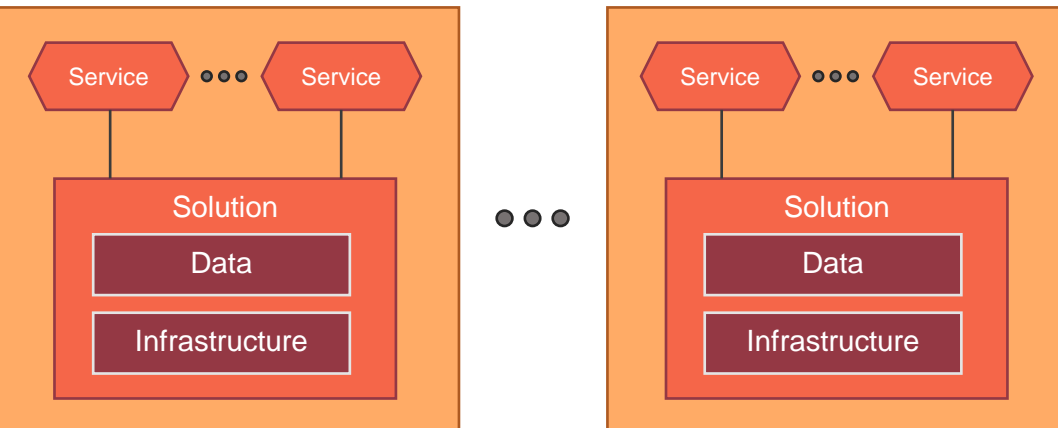
Integration Layer



External Entities



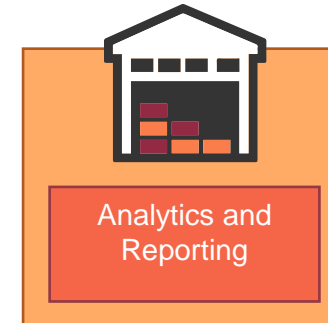
Service Providers



AI Engine



“Big Data” Store



IOT Data



External Market Data



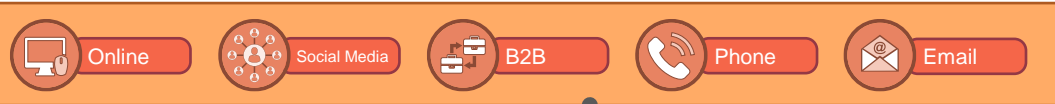
Separation of Channels and channel logic from rest of your systems critical to future proofing/adaptability

Horizontally Layered Architecture (Service-Centric) – Channel Layer

Identity & Access Management



Channel Management



AI Engine



Business Process Management



Critical Success Factors:

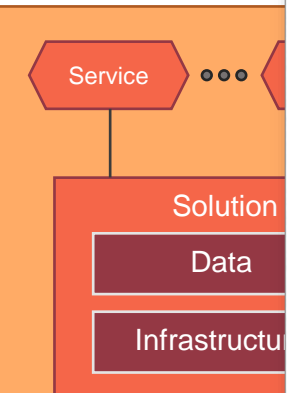
Integration Layer



External Entities



Service Provider



- Channel Independent
- No business logic in the channel solutions
- No business data stored in the channel solutions
- Customer-centric design – “outside-in” design
- Re-envisioned digital interaction – not just putting paper forms online
- All inbound information converted to digital format at the channel
- All outbound data in digital native format

Separation of Channels and channel logic from rest of your systems critical to future proofing/adaptability

Horizontally Layered Architecture (Service-Centric) – Process Layer

Identity & Access Management



Channel Management



Business Process Management



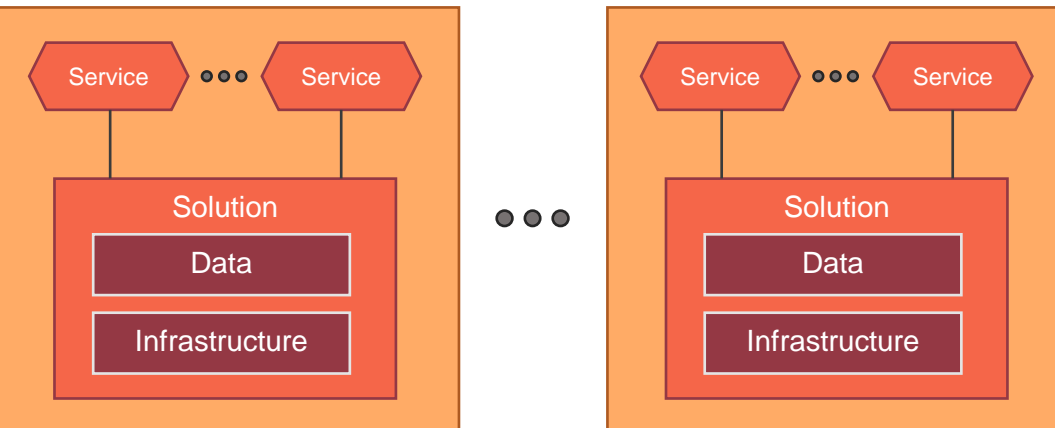
Integration Layer



External Entities



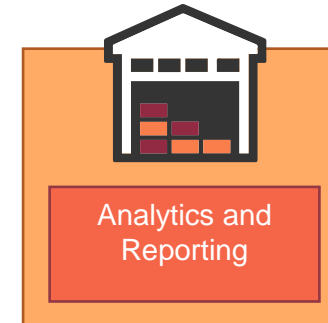
Service Providers



AI Engine



“Big Data” Store



Analytics and Reporting

IOT Data

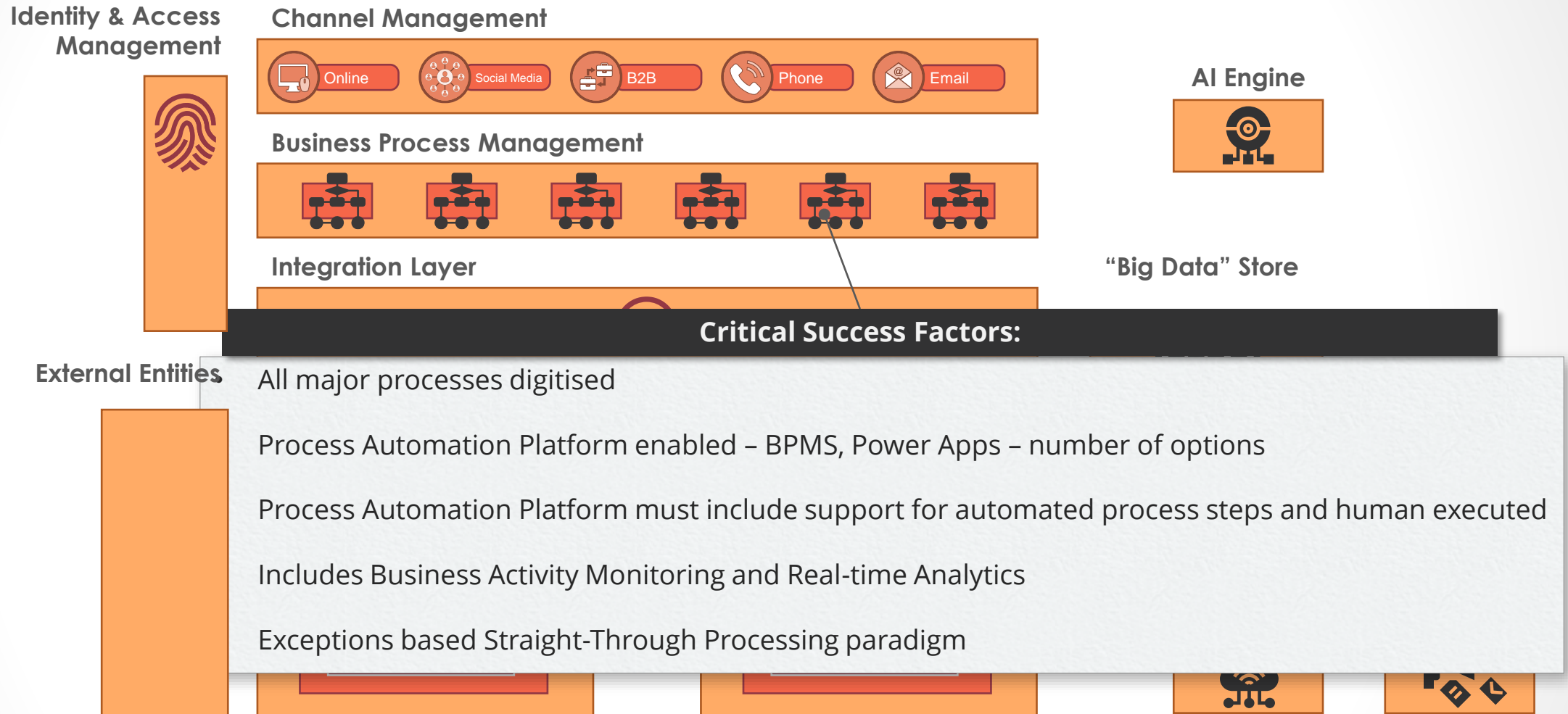


External Market Data



All major processes extracted from point solutions, re-envisioned as digital and implemented on a process automation tool

Horizontally Layered Architecture (Service-Centric) – Process Layer



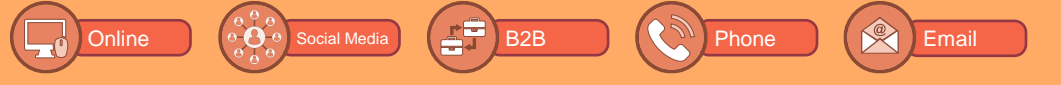
All major processes extracted from point solutions, re-envisioned as digital and implemented on a process automation tool

Horizontally Layered Architecture (Service-Centric) – Integration Layer

Identity & Access Management



Channel Management



Business Process Management



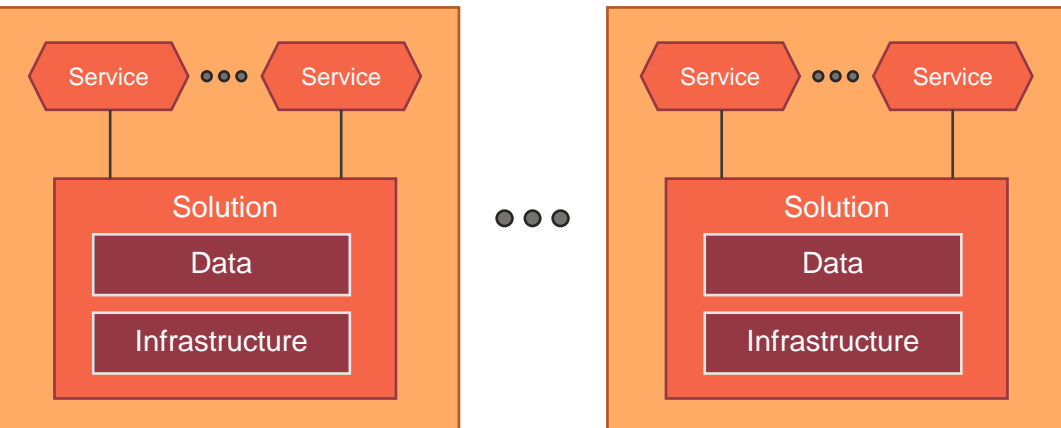
Integration Layer



External Entities



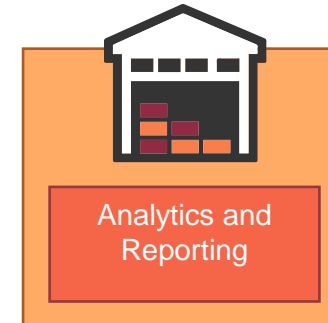
Service Providers



AI Engine



“Big Data” Store



Analytics and Reporting

IOT Data

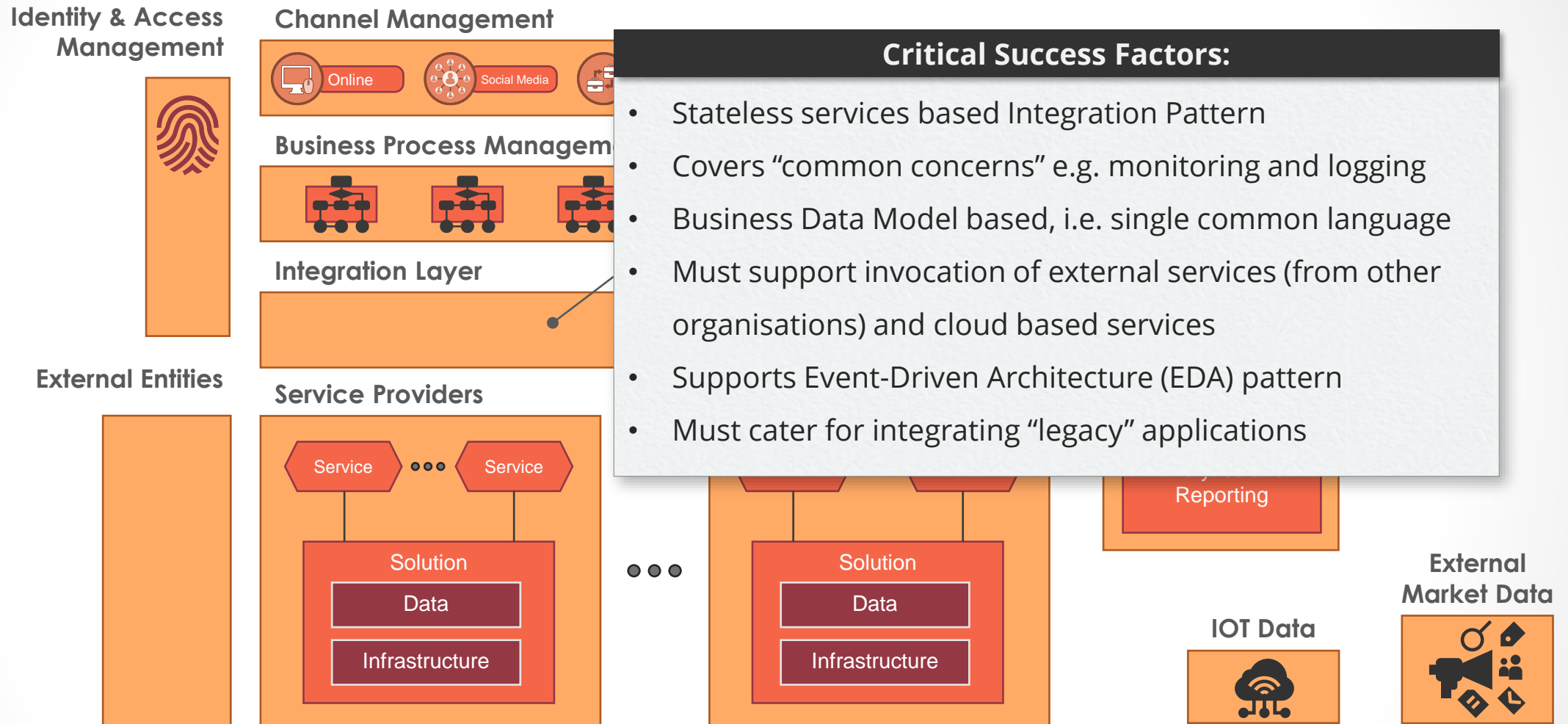


External Market Data



Exposes services/APIs for consumption by process layer and externally (via channel systems); consumes external services/APIs

Horizontally Layered Architecture (Service-Centric) – Integration Layer



Exposes services/APIs for consumption by process layer and externally (via channel systems); consumes external services/APIs

Horizontally Layered Architecture (Service-Centric) – Services Layer

Identity & Access Management



Channel Management



Business Process Management



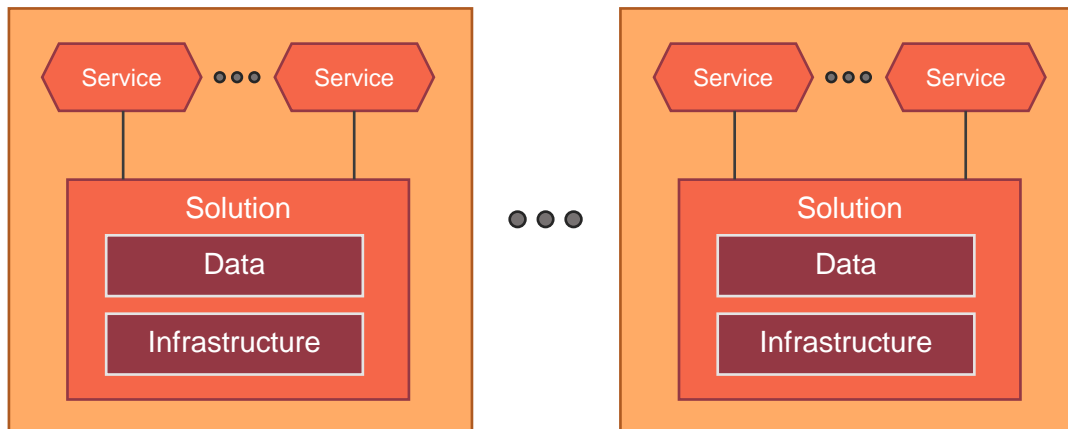
Integration Layer



External Entities



Service Providers



AI Engine



“Big Data” Store



IOT Data



External Market Data



Exposes business logic from solutions (internal and external) to the integration layer to be “wrapped” as services/APIs

Horizontally Layered Architecture (Service-Centric) – Services Layer

Identity & Access Management



Channel Management



Business Process



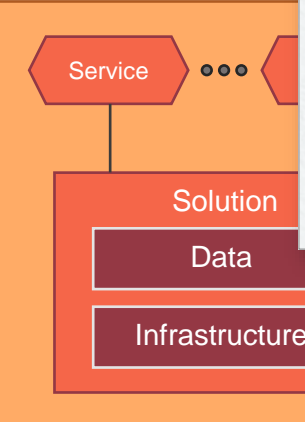
Integration Layer



External Entities



Service Providers



Critical Success Factors:

- This layer exposes business services to the integration layer
- Contains all the non-process flow business rules/logic
- They must be true business/enterprise services
- They must be atomic, stateless and leave the business in a consistent state
- They can then be called from the process layer or directly from the channel layer as required
- They can be provided by in-premise solutions, cloud solutions, outsourcing partners or external service providers
- Getting the granularity of the services right is one of the most important critical success factors and the hardest bit to get right

External Market Data



IOT Data



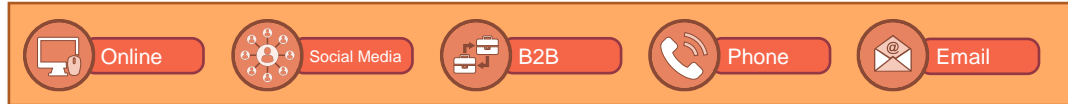
Exposes business logic from solutions (internal and external) to the integration layer to be “wrapped” as services/APIs

Horizontally Layered Architecture (Service-Centric) – Data Layer

Identity & Access Management



Channel Management



Business Process Management



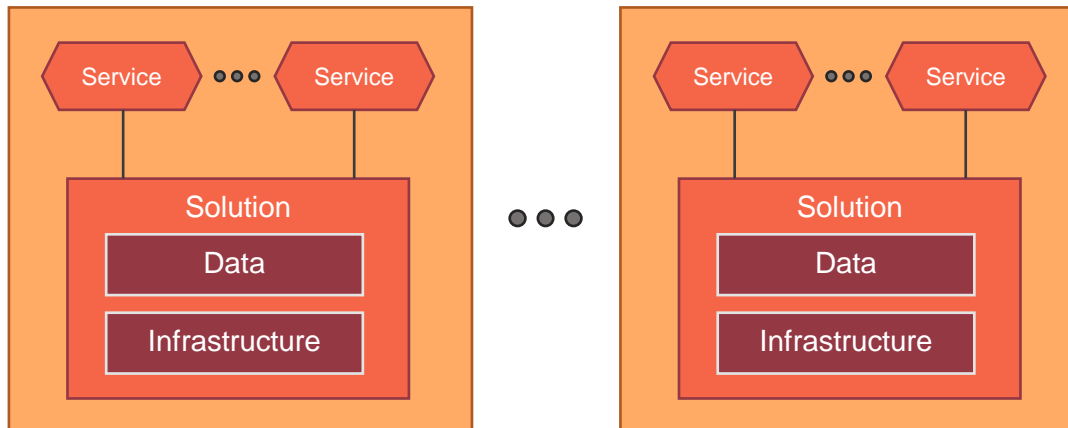
Integration Layer



External Entities



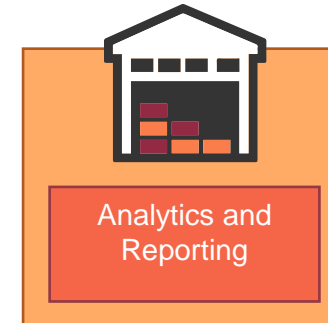
Service Providers



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“Big Data” Store



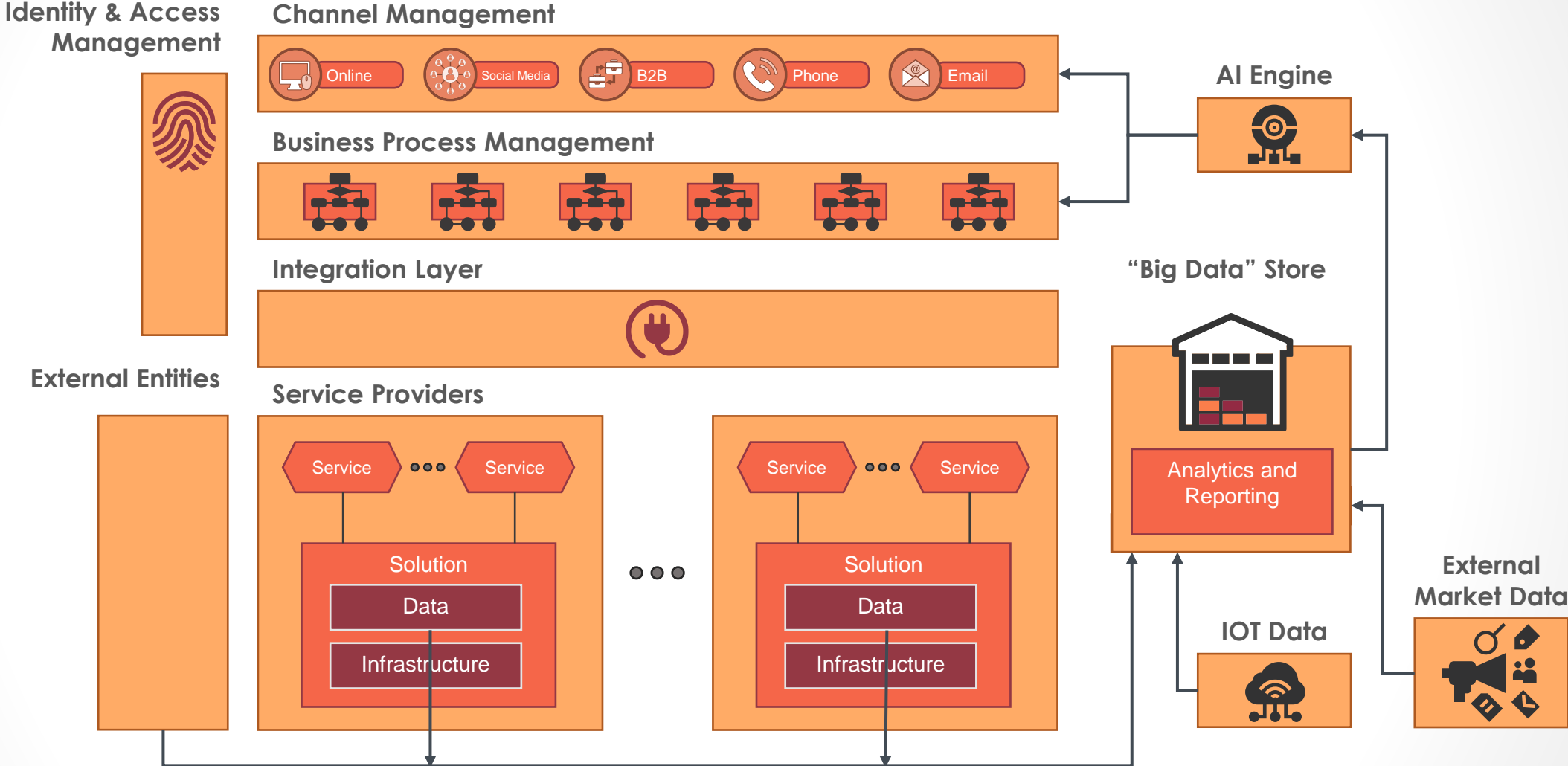
IOT Data



External Market Data



Horizontally Layered Architecture (Service-Centric) – Data Layer



It's not just about having lots of information/data it's about it's quality and using it in anger, in real-time

Data-Driven - Information Hierarchy

Term	Definition	Example
Data	Data is raw material for data processing and relates to facts, events and transactions.	23121976
Information	Information is data that has been given meaning by way of a relational connection.	23 rd December 1976
Knowledge	Knowledge is the collection of information such that its intent is to be useful. Knowledge has useful meaning, but does not in itself infer further knowledge.	My partner's birthday is the 23 rd December 1976
Understanding	Understanding is a cognitive and analytical process which synthesises new knowledge from previously held knowledge. If knowledge is "memorising" then understanding is "learning".	I must not forget the significance of this day.
Wisdom	Wisdom is an extrapolative, non-deterministic, non-probabilistic process. It asks questions to which there is no easily achievable answer or maybe no answer at all.	If I forget my partner's birthday I will be in trouble for which the punishment will be severe!

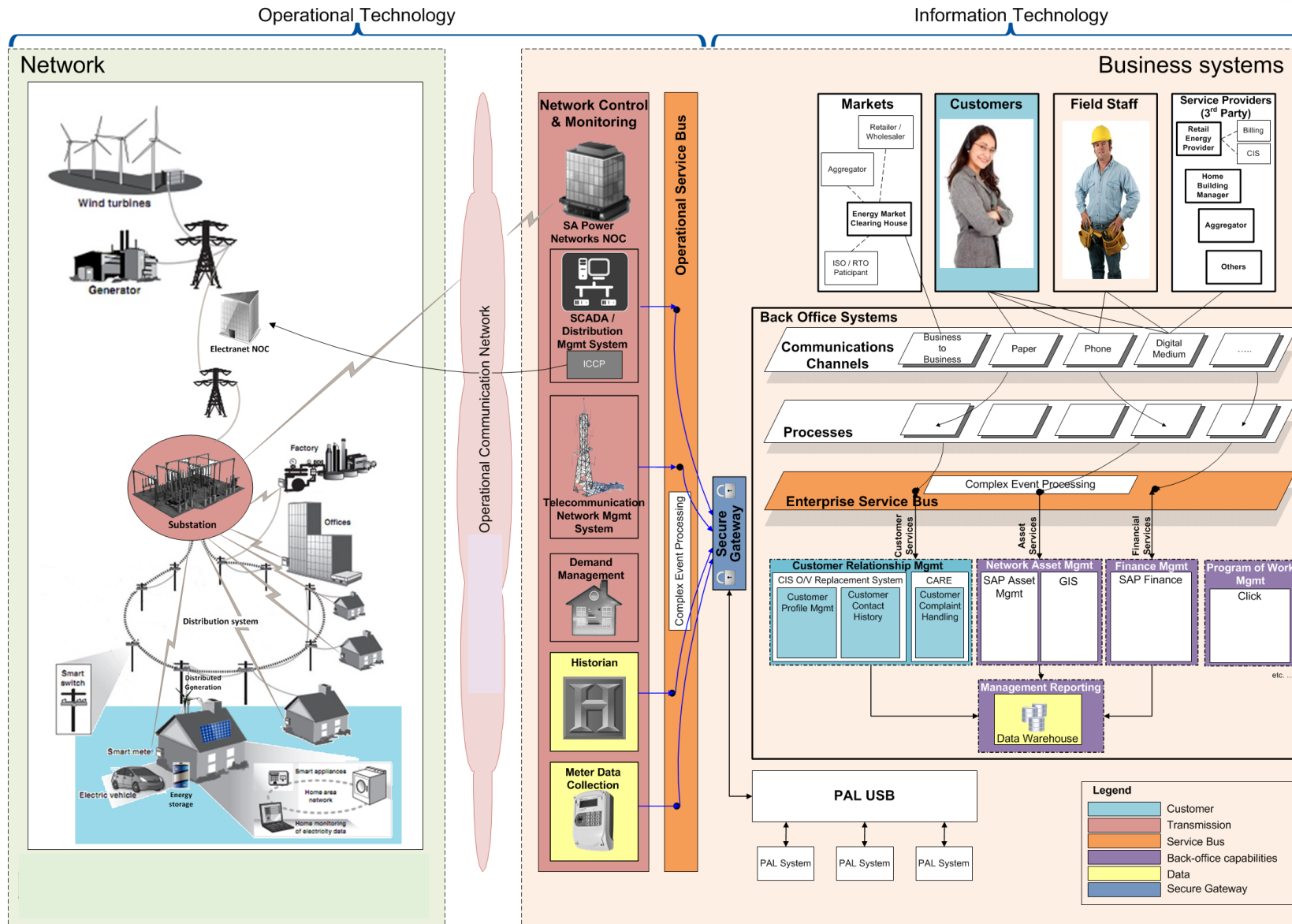
Assertion: Without achieving at least the understanding level AI efforts will be futile



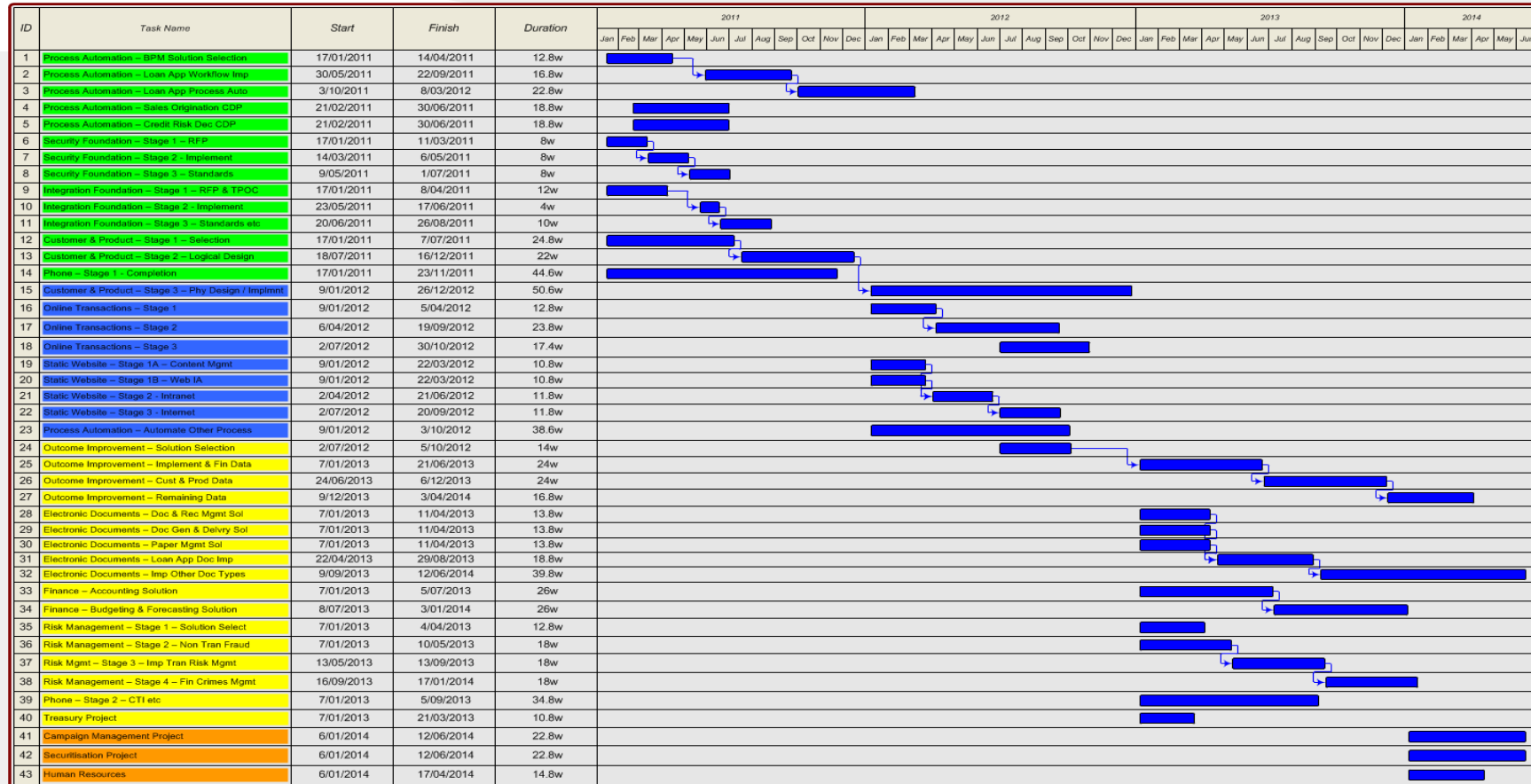
How do we get there?

Target State, Roadmap & Exceptions-Based Straight-Through-Processing (STP)

Target State Architecture



Roadmap



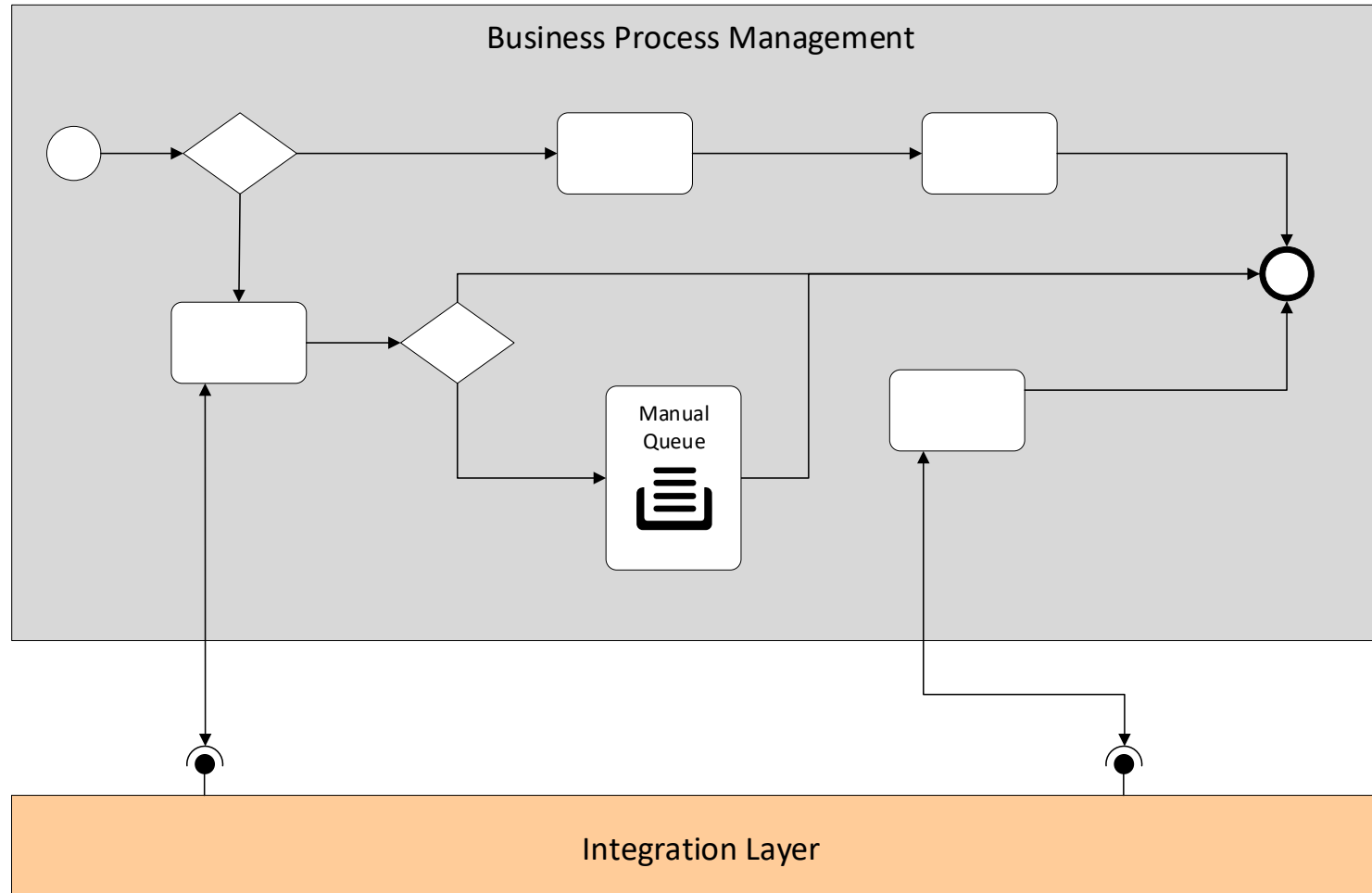
■ Phase 1 - Foundation
 ■ Phase 2 - Core
 ■ Phase 3 - Reporting
 ■ Phase 4 - Finalisation

Solution Roadmap Project Gantt

Without a target state and a roadmap to get to it (EA) the Digital Transformation will build tomorrows legacy

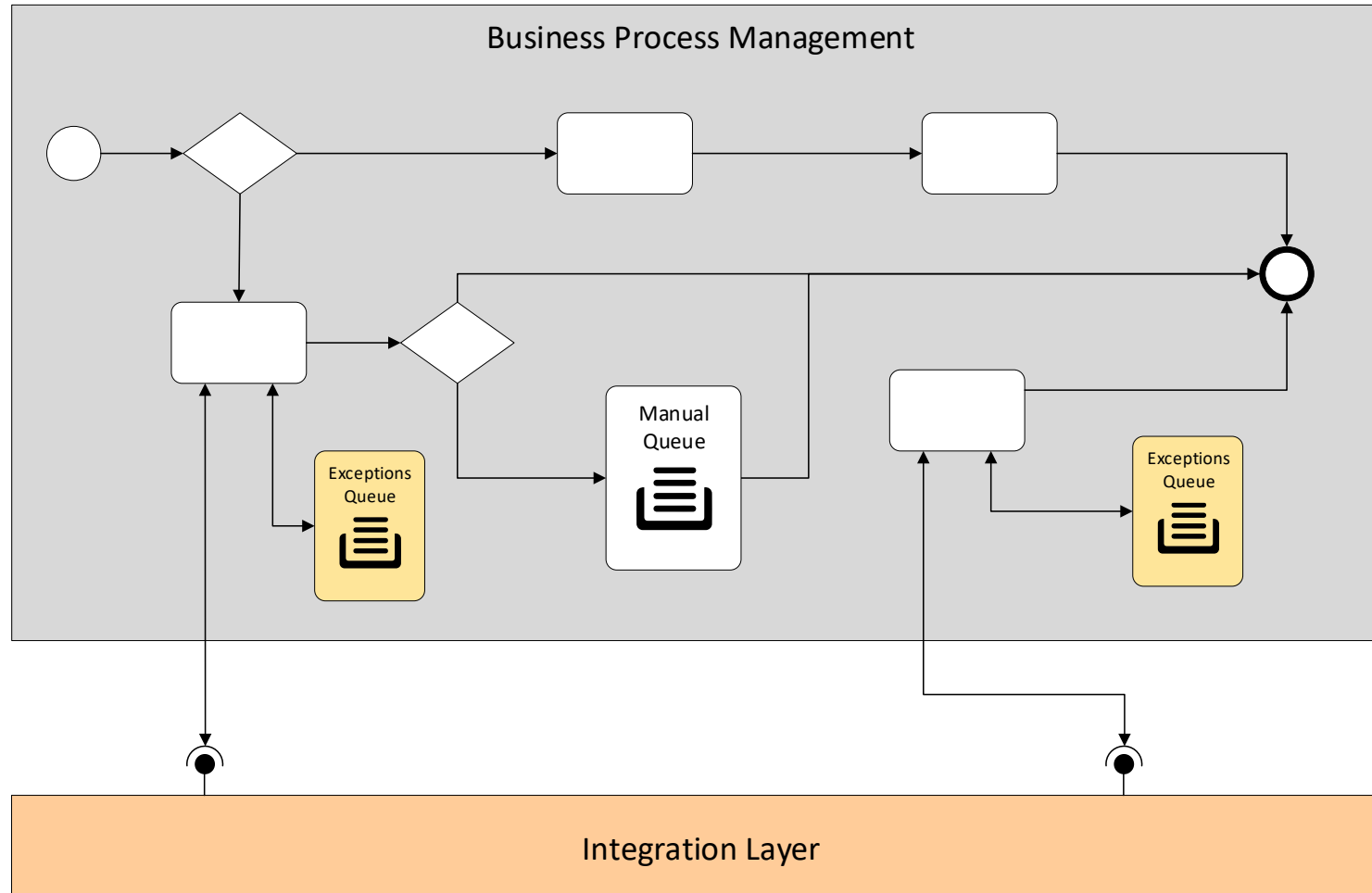
Exceptions Based Straight Through Processing (STP) Explained

Why We Contend Digitally Transformed and Agile Are So Strongly Linked



Exceptions Based Straight Through Processing (STP) Explained

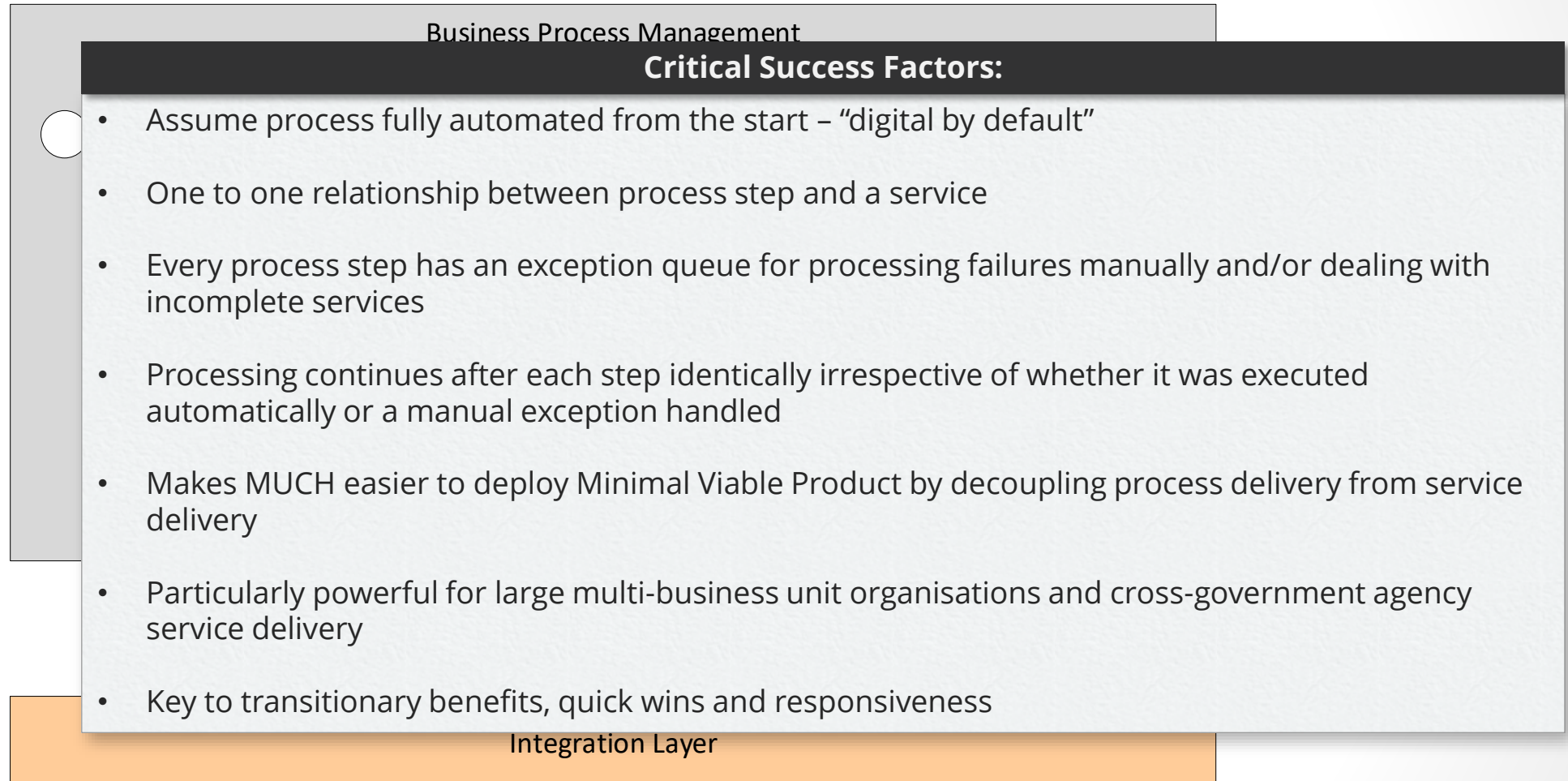
Why We Contend Digitally Transformed and Agile Are So Strongly Linked



Assume every step can be automated; manual queue where not; exceptions queue where partially automated (MVP)

Exceptions Based Straight Through Processing (STP) Explained

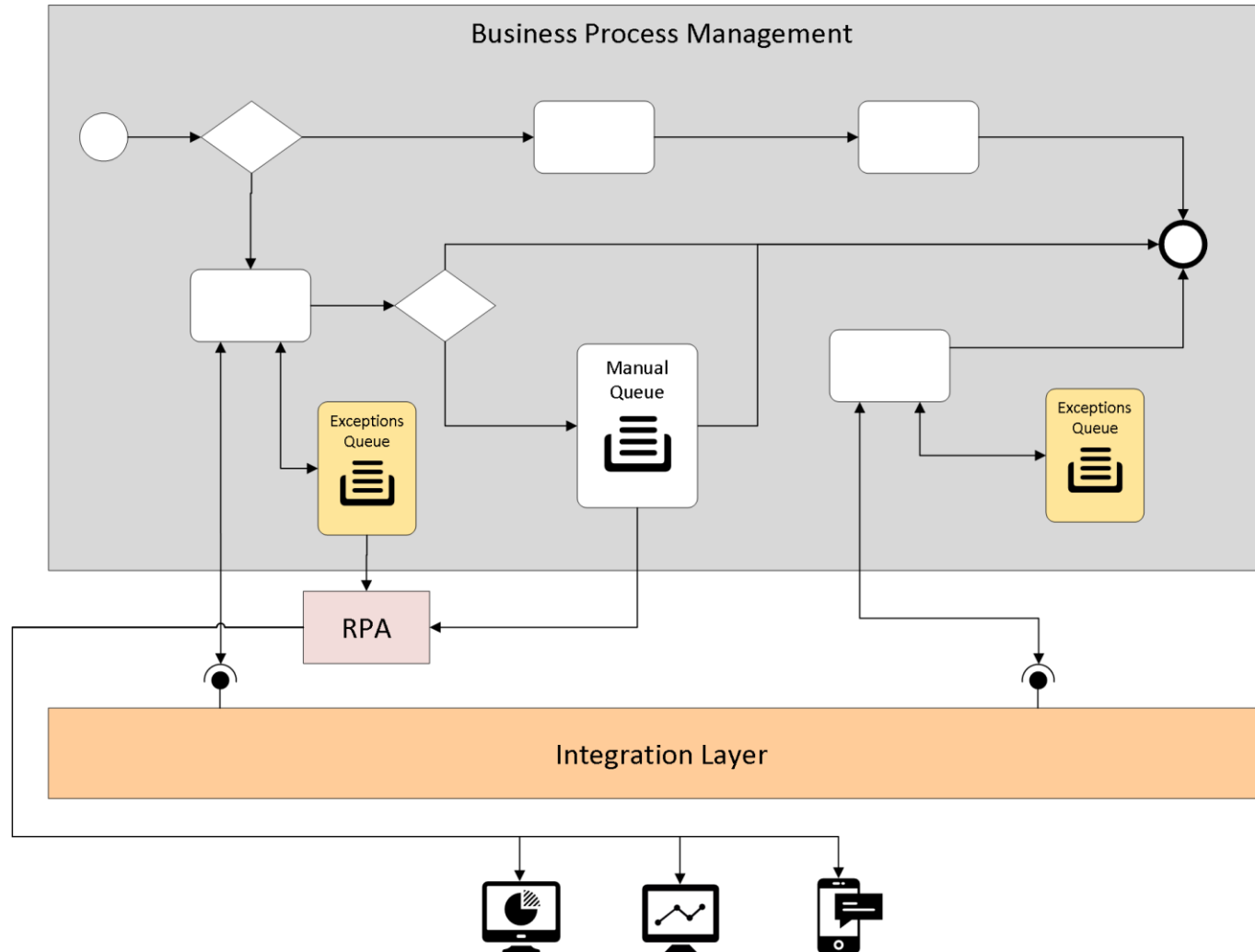
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Assume every step can be automated; manual queue where not; exceptions queue where partially automated (MVP)

Exceptions Based Straight Through Processing (STP) Explained

Robotic Process Automation Opportunity (and the only one!)



This is the ONLY place where Robotic Process Automation (RPA) should be used but if volume justifies it can be major quick win

Successful Outcomes

ME Bank – Who is ME?



Owned by the industry superfunds

Customer Base: 300,000 (then - now 590,000)

Product

- 27 separate products, including both legacy and new
- Retail, Business and Wholesale Product Groups
- Transaction Accounts
- Savings
- Investment
- Credit Card
- Unsecured Personal Loan
- Home Loans
- Business Lending
- Leasing

Channels

No Branches (NOW!)

Call Centre

Online

Mobile Lenders

Workplace Banking

Brokers

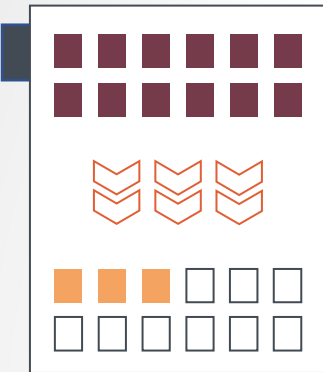
Partnerships



Link to:

[Pega ME Bank Video.](#)

It Works – ME Bank Outcomes



NEW PRODUCT TIME TO MARKET

12 MONTHS

DOWN TO

3 MONTHS

AT <10% OF THE COST



Of all deposit account opening processes are now Straight Through Processed

AFTER TAX
NET PROFIT
GROWTH

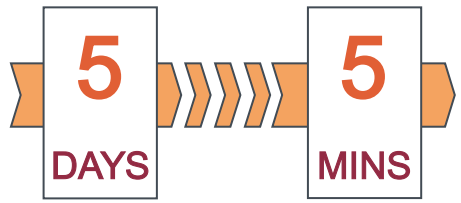
25%

IN

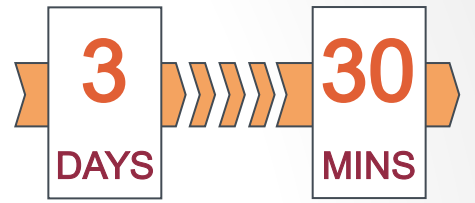
12 MONTHS

After Program completion - Costs held relatively flat

NEW DEPOSIT ACCOUNTS



HOME LOAN DECISIONS



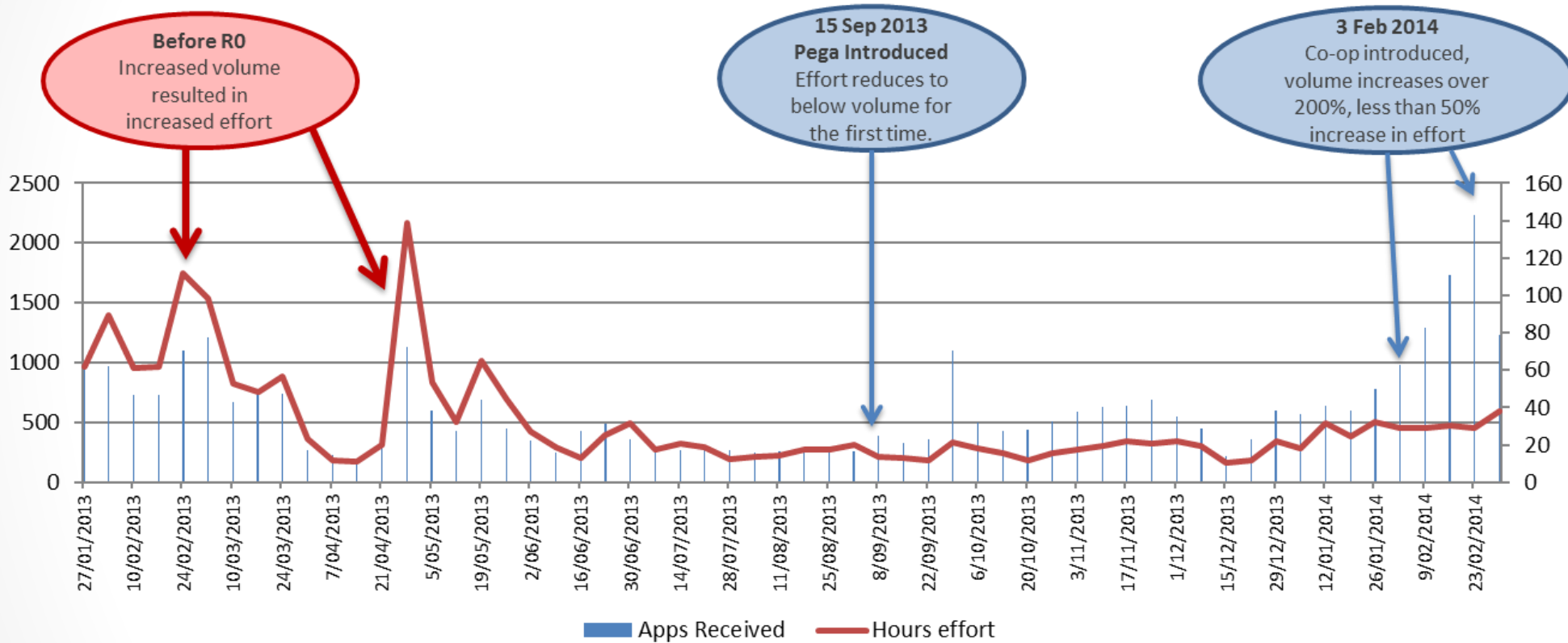
Goal of increasing to double digits in the medium term as new platforms delivered by the Program are further leveraged.

“When we planned transformation we had the option to renovate the house or build a new one. While more challenging, we chose the latter. The new systems are state-of-the-art and will keep ME competitive well into the future. The result is a brand-new piece of banking architecture that’s been built to be updated – future-proofing the Bank. That’s a structural advantage other organisations would be envious of.”

Jamie McPhee, CEO, ME Bank

ME Bank – Benefits Realised

Reduction in effort by 73%*



ME Bank – Benefits Realised

- *Financial:*

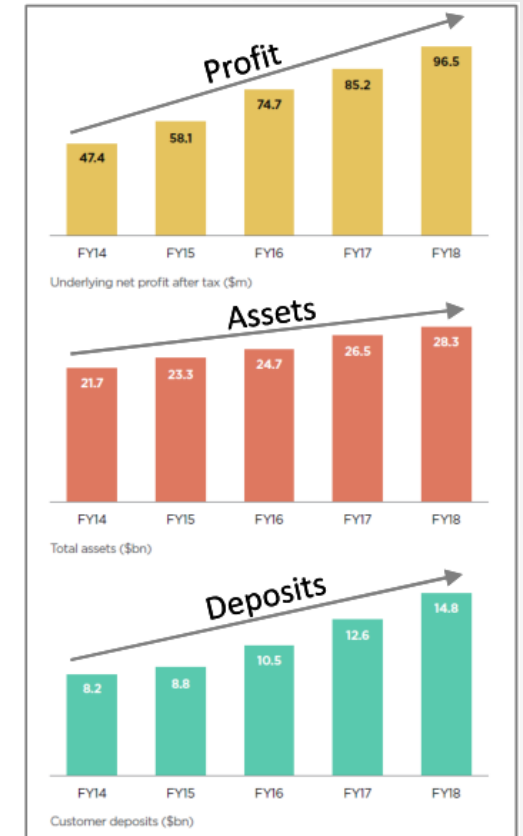
- ROI has grown from 5% to 8.4% with the goal of reaching double digits
- Net Profit Up 25% in the first 12 months whilst Holding Costs remain flat
- Significantly improved Cost-to-Income Ratio = High 90's to below 60's
- 98.7% of all deposit Account opening processes now automated from 4 person hours manual effort
- New Product development reduced to less than 10% previous costs

- *Operational:*

- Transaction Account completely online = ZERO human intervention
- Deposit processing previously took 5 days now completed in 5 minutes
- Loan Application took minimum of 3 days now reduced to 30 minutes

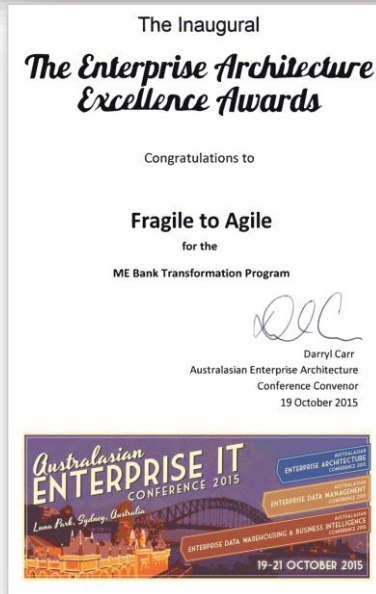
- *Competitiveness:*

- Time to Market for New Products = 3 months versus 12 months previously
- Improved ability to rapidly adapt to Changing Market Conditions
- Better positioned to meet the Demands of Digital Customers



We have proven that a modern technology environment (Digitally Transformed), correctly architected for the organisation, delivers a step change in efficiency; time-to-market; cost-to-income, customer satisfaction and critically agility

ME Bank Case Study – Awards



Best Bank Award – 2018

Mozo recognised ME as the most successful bank over the last 12 months. Having picked up awards for best value in home loans, credit cards, savings accounts and term deposits, ME was found to have the widest range of highly-ranked products of any bank.

Money Magazine Award – 2019

Money magazine, Money Minder of the Year is awarded to the provider most likely to have an account that delivers value for money and includes personal transaction accounts, children's accounts, regular saver accounts, online saving accounts and term deposits

Canstar Award - 2017

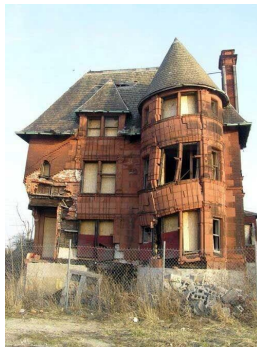
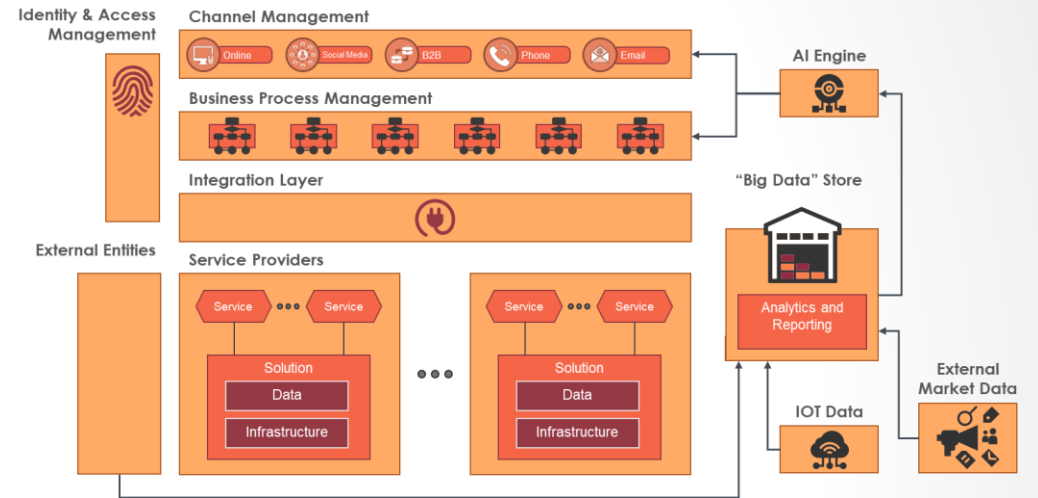
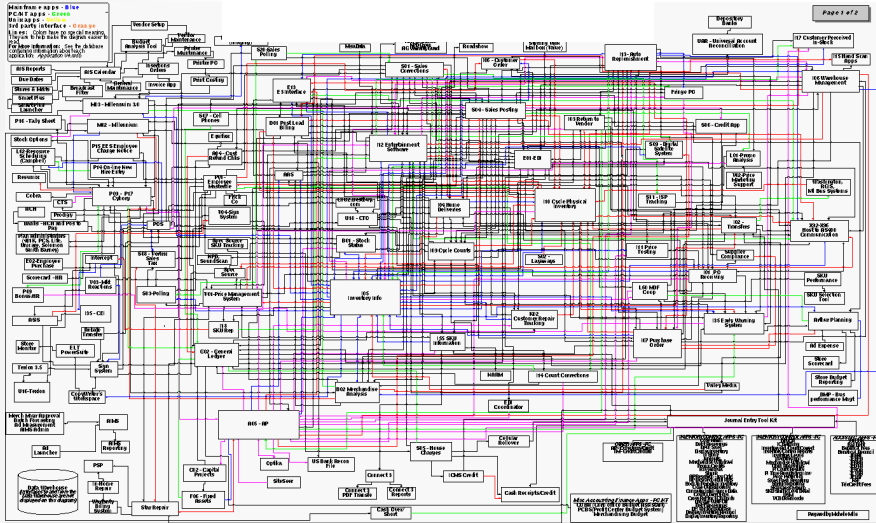
Canstar ranks transaction accounts based on value-for-money measures and then awards a star rating according to rank. The top accounts will be awarded a five-star (or outstanding) rating

ME Bank's Mark Gay named Finance CIO of the year – 2016

Large-scale transformation effort nabs prize. A five-year, sweeping overhaul of ME Bank's IT infrastructure has earned its chief information officer Mark Gay the top prize in the Finance category of the iNews Benchmark Awards

Summary

Summary – Traditional ICT to Digitally Transformed/Agile



Summary

Key Take-aways

- Digital Transformed = Agile = Digitally Transformed
- Horizontal layered and service based architecture not application-centric
- Channel independence is critical due to level of innovation in channels
- Re-envisioned “digital first” processes implemented on a process automation platform
- Exceptions Based Straight Through Processing key design paradigm
- Integration layer required to expose/consume internal/external services/APIs
- Integration layer is both a ticket to play in the digital economy externally and internally the bridge between the new world (higher layers) and the old world (legacy service providers) during transition
- Target state and executable roadmap, with frequent delivery and quick wins, mandatory – They will change but you still need to have them

Done right it will be the last transformation you'll need as thereafter you will be positioned for continuous evolution

Thank You – Questions?



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Fragile to Agile

