



Establishing and operating NBN Co's B2B interface

Martin Pittard, Industry Integration Manager

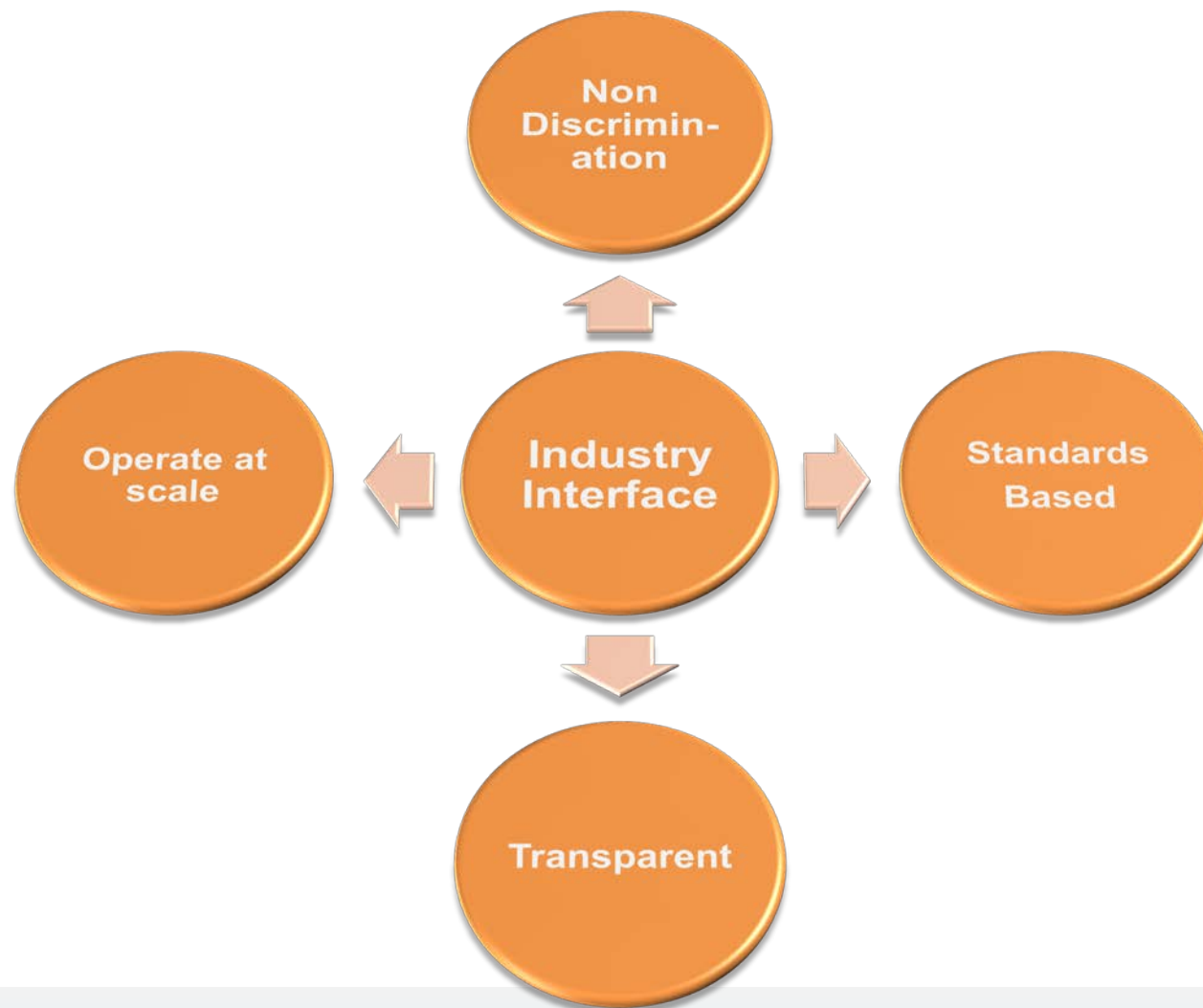
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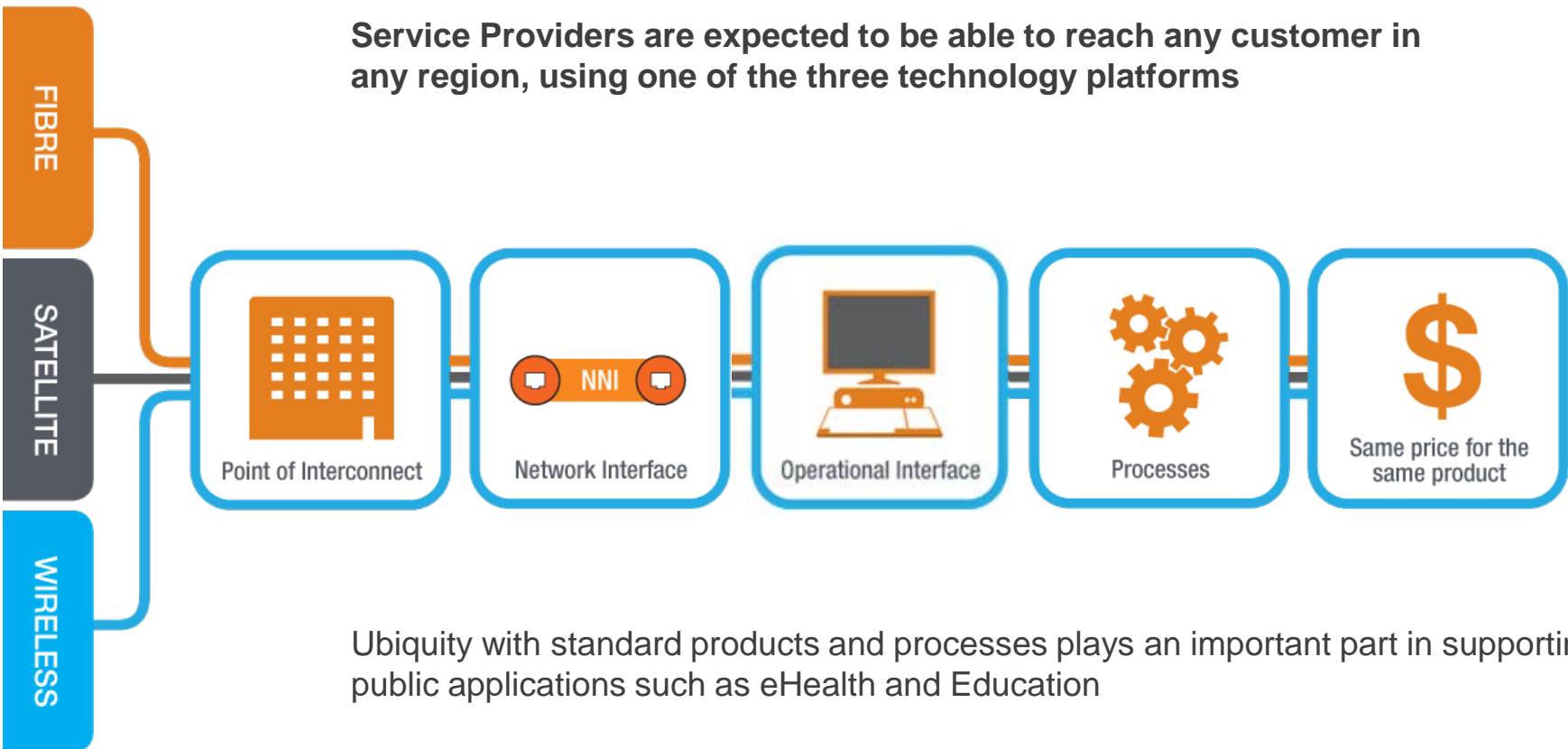
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Operational Interface Principles



Universal & Standardised

Service Providers are expected to be able to reach any customer in any region, using one of the three technology platforms

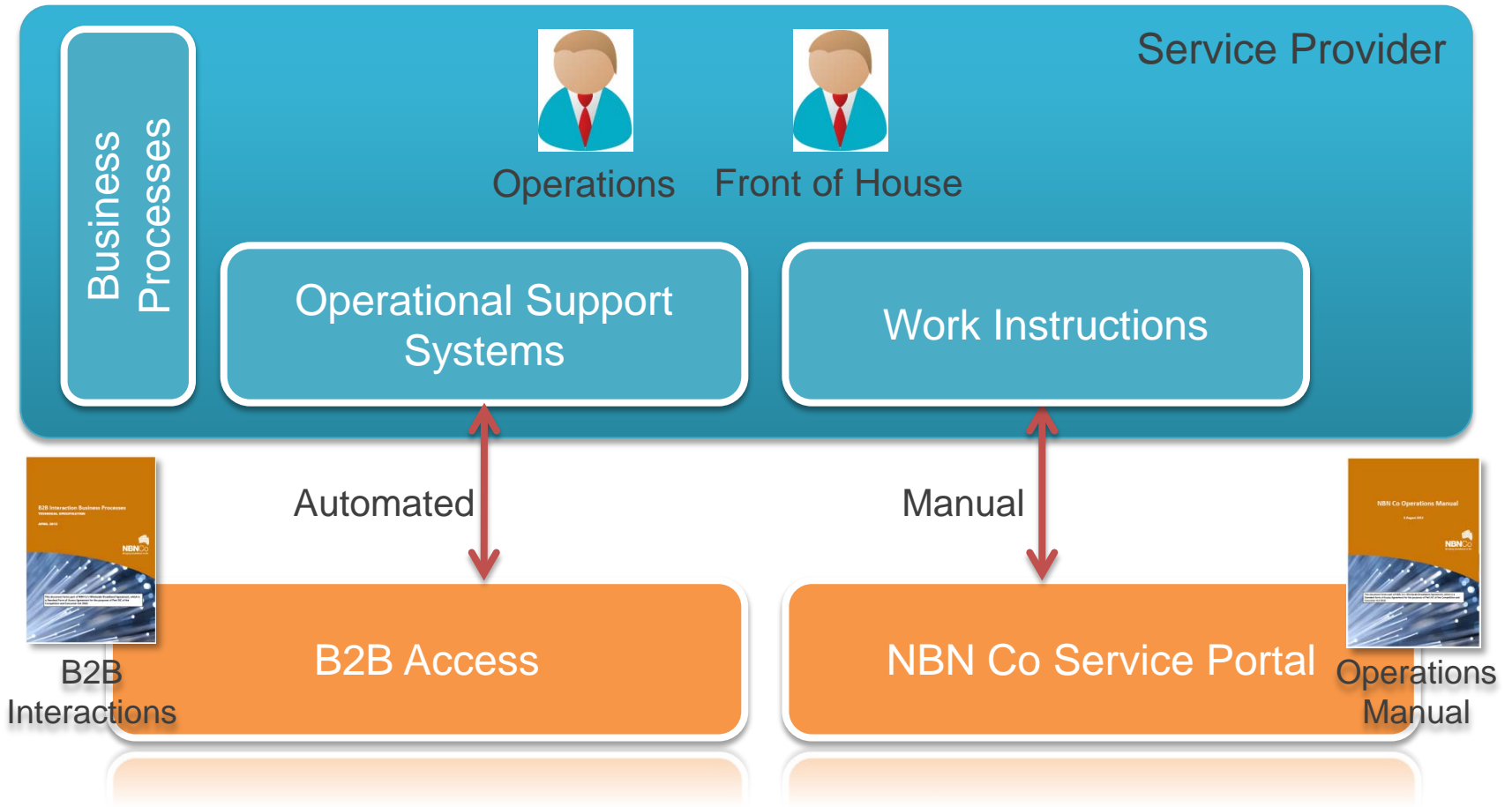


Ubiquity with standard products and processes plays an important part in supporting public applications such as eHealth and Education

This is as important as the speed and throughput improvements

Industry Interface Channels

Ensuring non-discrimination



Service Providers may choose to use either the Service Portal only, or in combination with the B2B Access.



Indicative Capability Roadmap - August 2012

Disclaimer: Scope & timelines represent NBN Co's current position and are subject to change.

Broadband & Telephony ▶

• NNI: chassis diversity, multi-bearer LAG, extended range optics

• Additional AVC TC1 & TC4 speeds. Open access UNI-V

Product

Multicast ▶

• NFAS Introduction

Business Services ▶

• NFAS Introduction

Tagged & Priority Tagged framing

Access Seekers should refer to the Product Roadmap published under the WBA Product launch dates are subject to notification in accordance with the WBA

Q2 2012

Q3 2012

Q4 2012

APR

MAY

JUN

JUL

AUG

SEP

OCT

NOV

DEC

Release

● Scheduled

● Planned

R3b

R4a

R4b

R4c

R5

Stand alone address search & service qualification
Billing invoices, event files, adjustment files
Order Service Level Management (jeopardy/delay notifications)
Enhanced NNI (chassis diversity & multi bearer LAG)

B2B Trouble Ticket (create ticket & notification)
Business Services introduction
Additional AVC Traffic Class 1 speed tiers: 0.3, 0.5, 1, 2, 5Mbps
Open Access UNI-V support (TR-069)

NFAS Multicast feature introduction
Multicast domain introduction
Open Access UNI-V support (second UNI-V port)
Appointment management (SharePoint replacement & appointment status)

Enhanced Appointment management (including notifications)
Enhanced Trouble Ticket (e.g. amend, query, advise resolution outcome)
Location dependent SQ
Tagged & Priority-Tagged UNI-D
Held order notifications

Capability

L2C

T2R

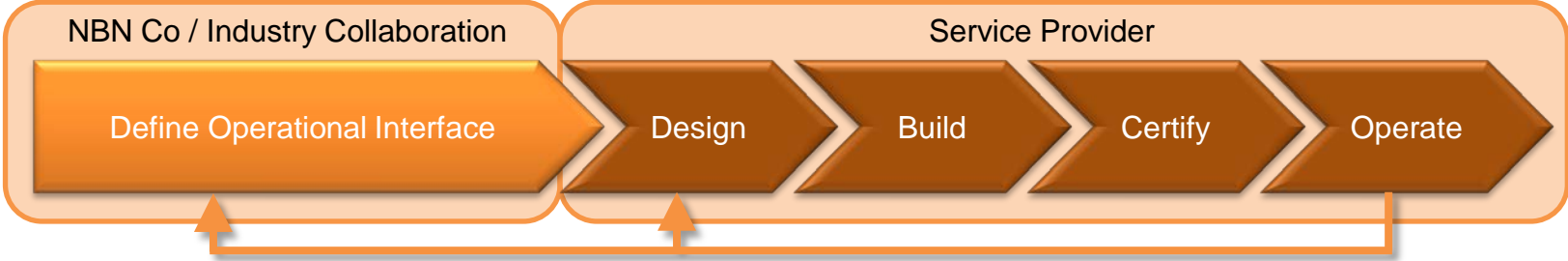
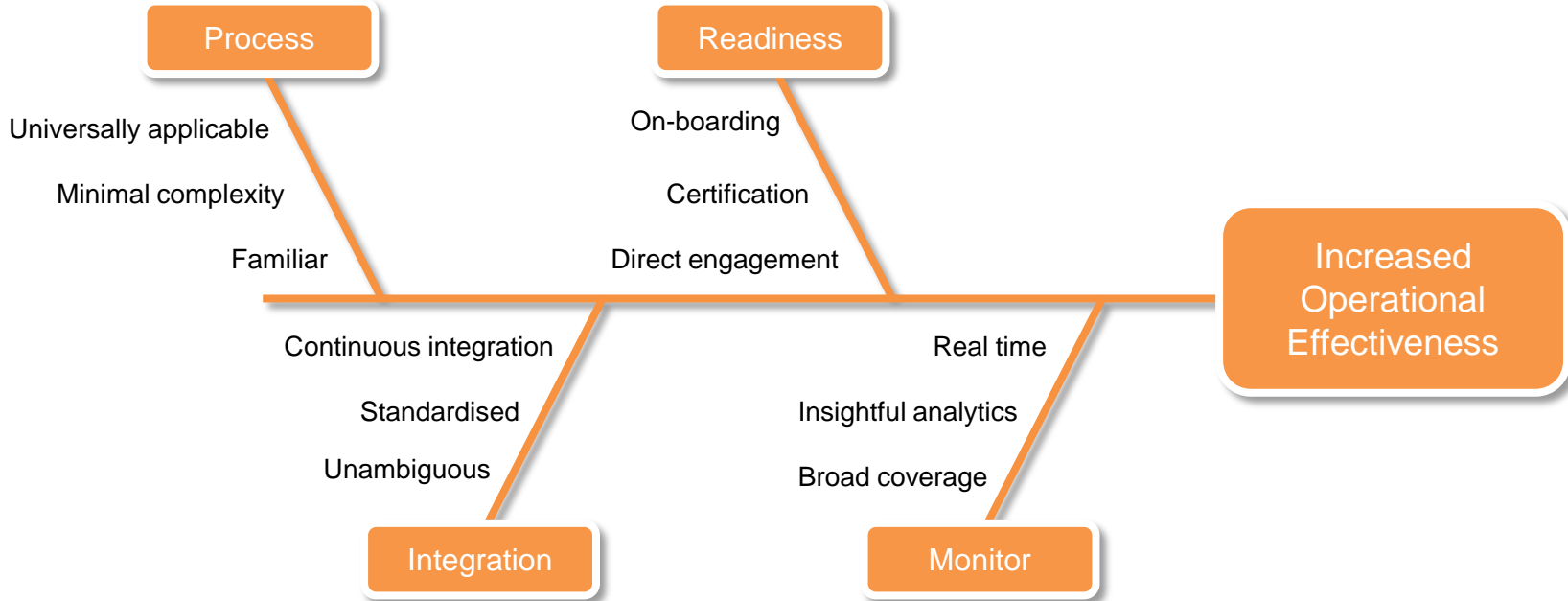
Service Portal

B2B

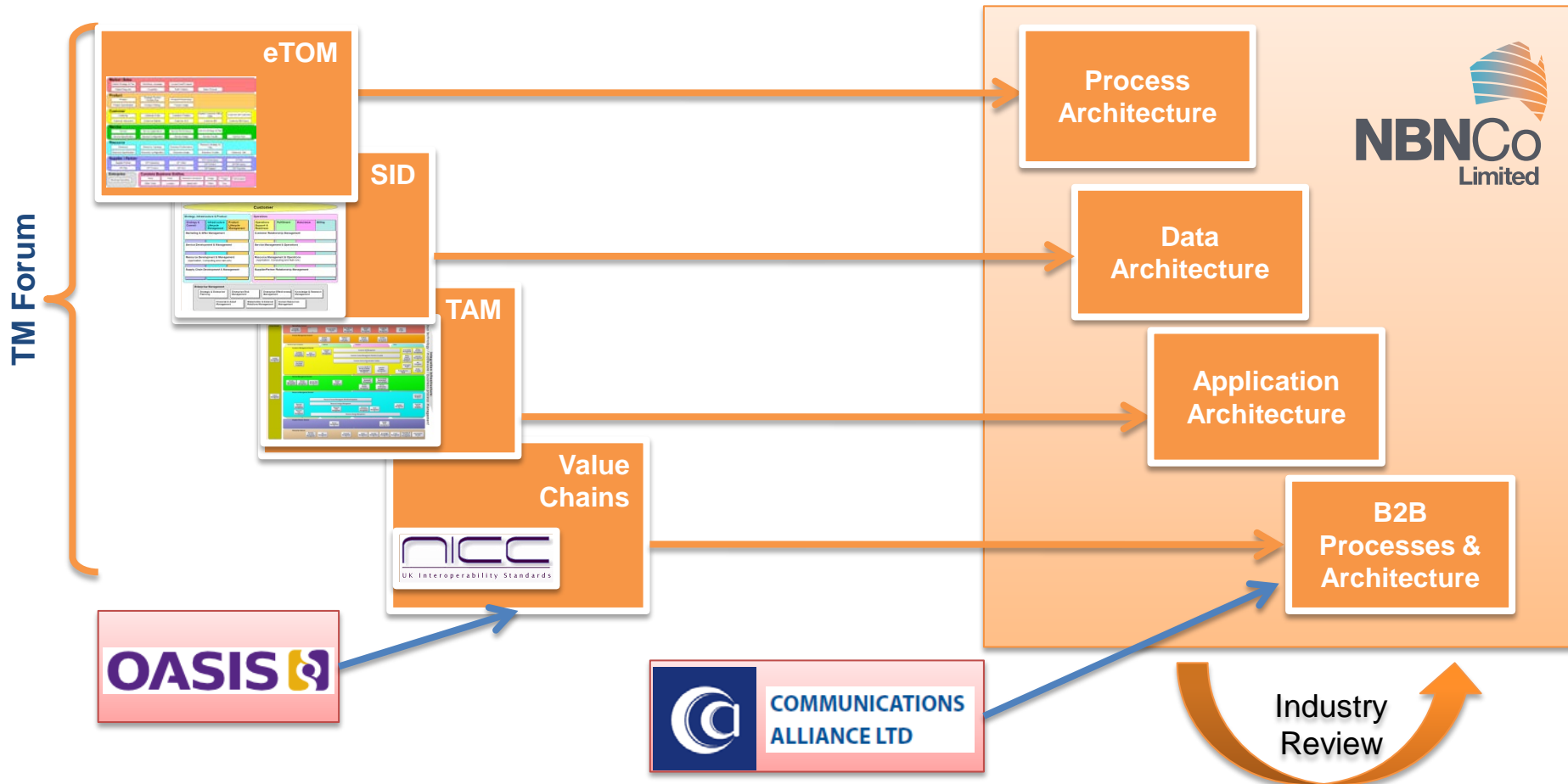
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Drivers of B2B Operational Effectiveness



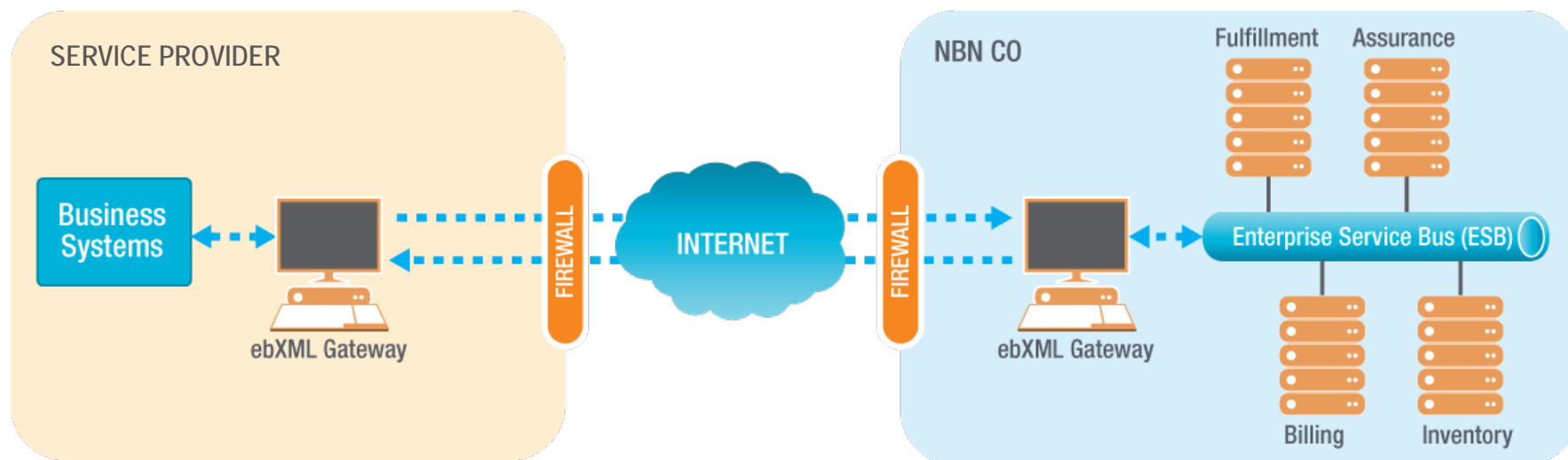
Adoption of best practice reference frameworks, models and standards



Adopting & adapting for a startup wholesale only, access infrastructure provider.
 Extending to support large scale complex Network Construction.

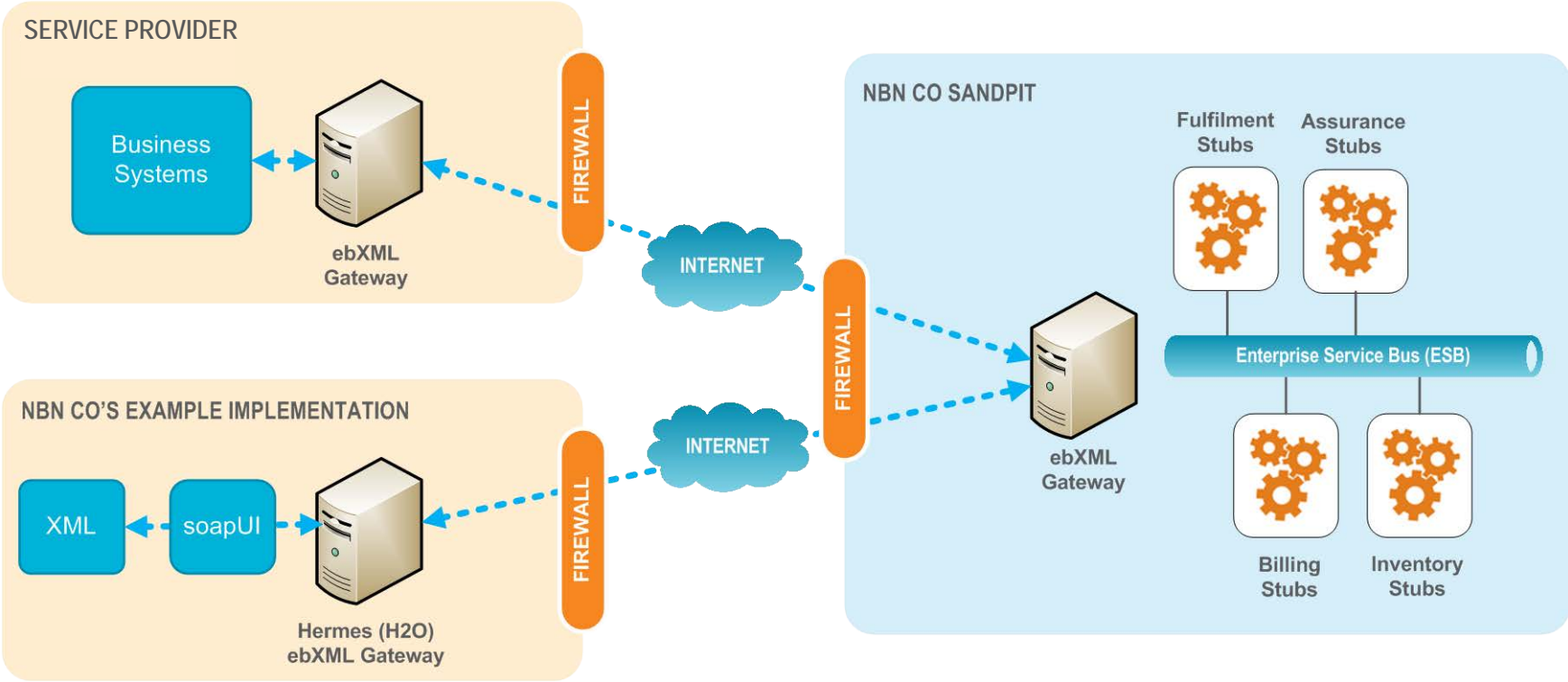
NBN Co B2B Architecture Overview

Standards Based Integration

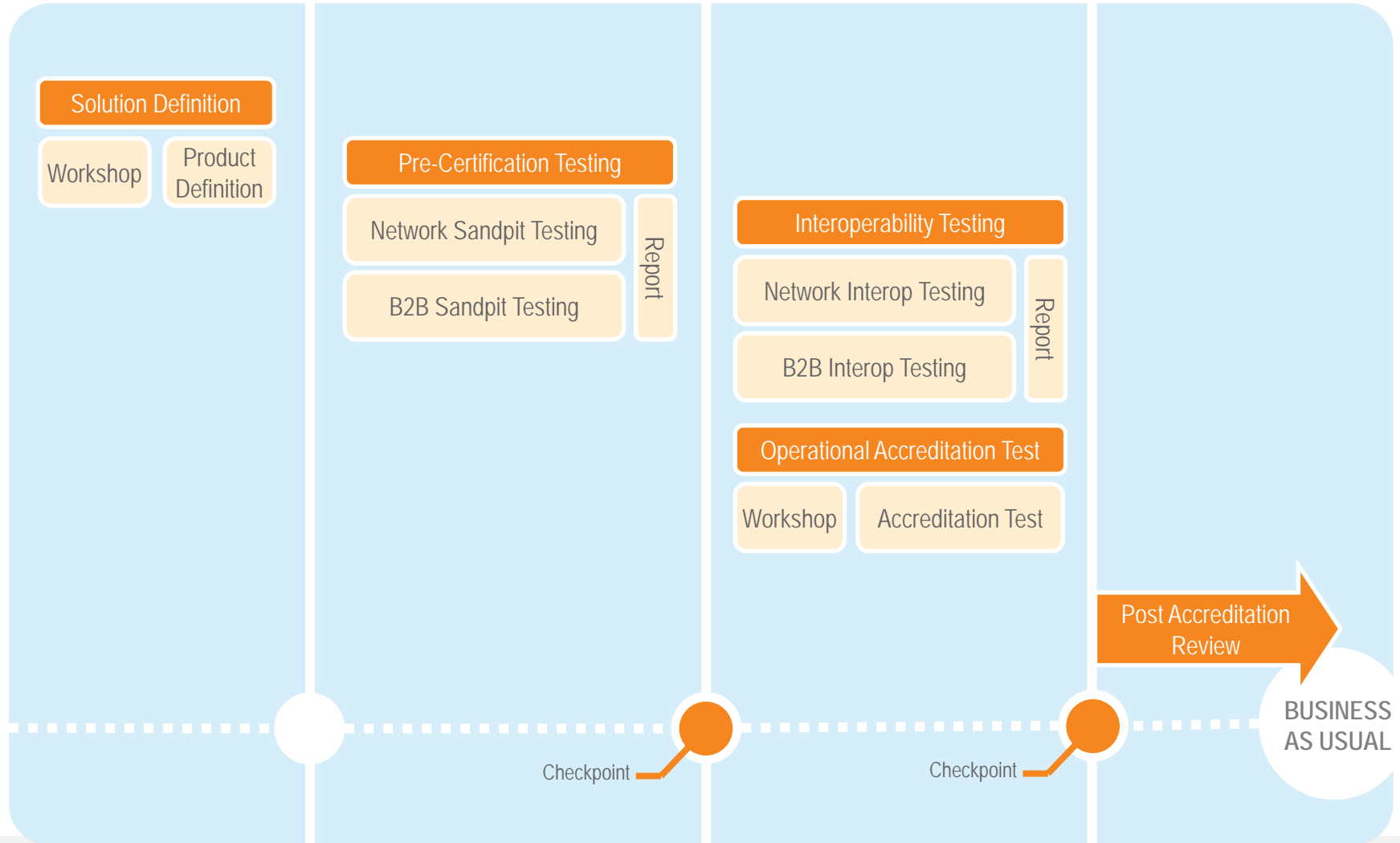


Component	Standards
ebXML Gateway	ebMS v2.0, CPP/CPA v2.0, SOAP 1.1, HTTP 1.1, XML
PKI Infrastructure	X.509 compliant digital certificates
SSL	SSL 3.0/TLS 1.0

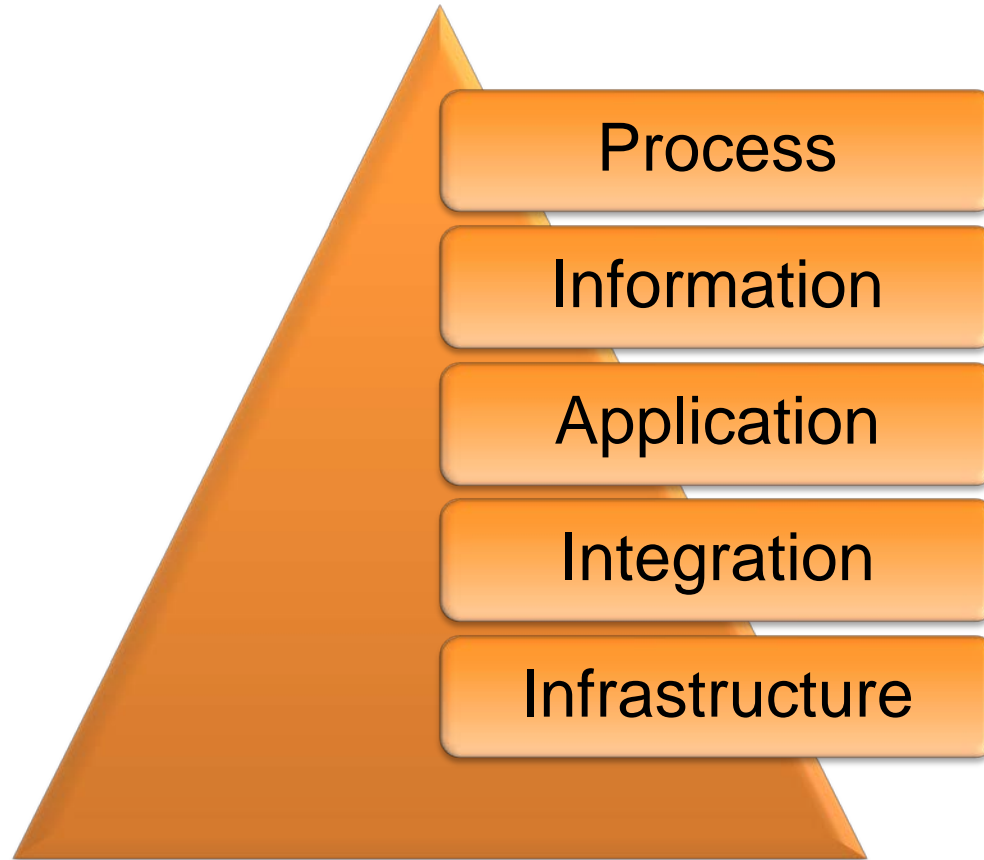
NBN Co B2B Sandpit



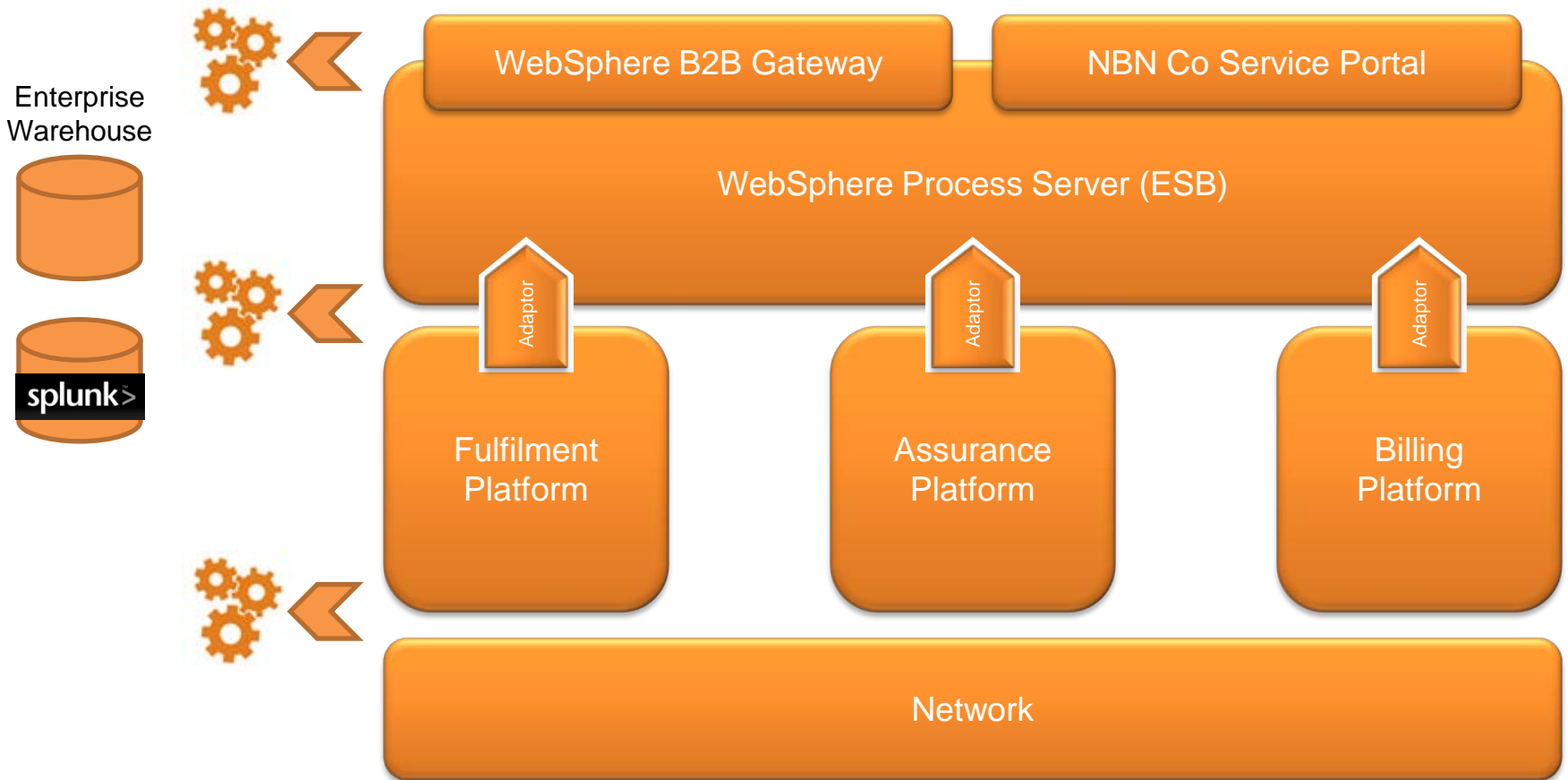
On-Boarding Journey



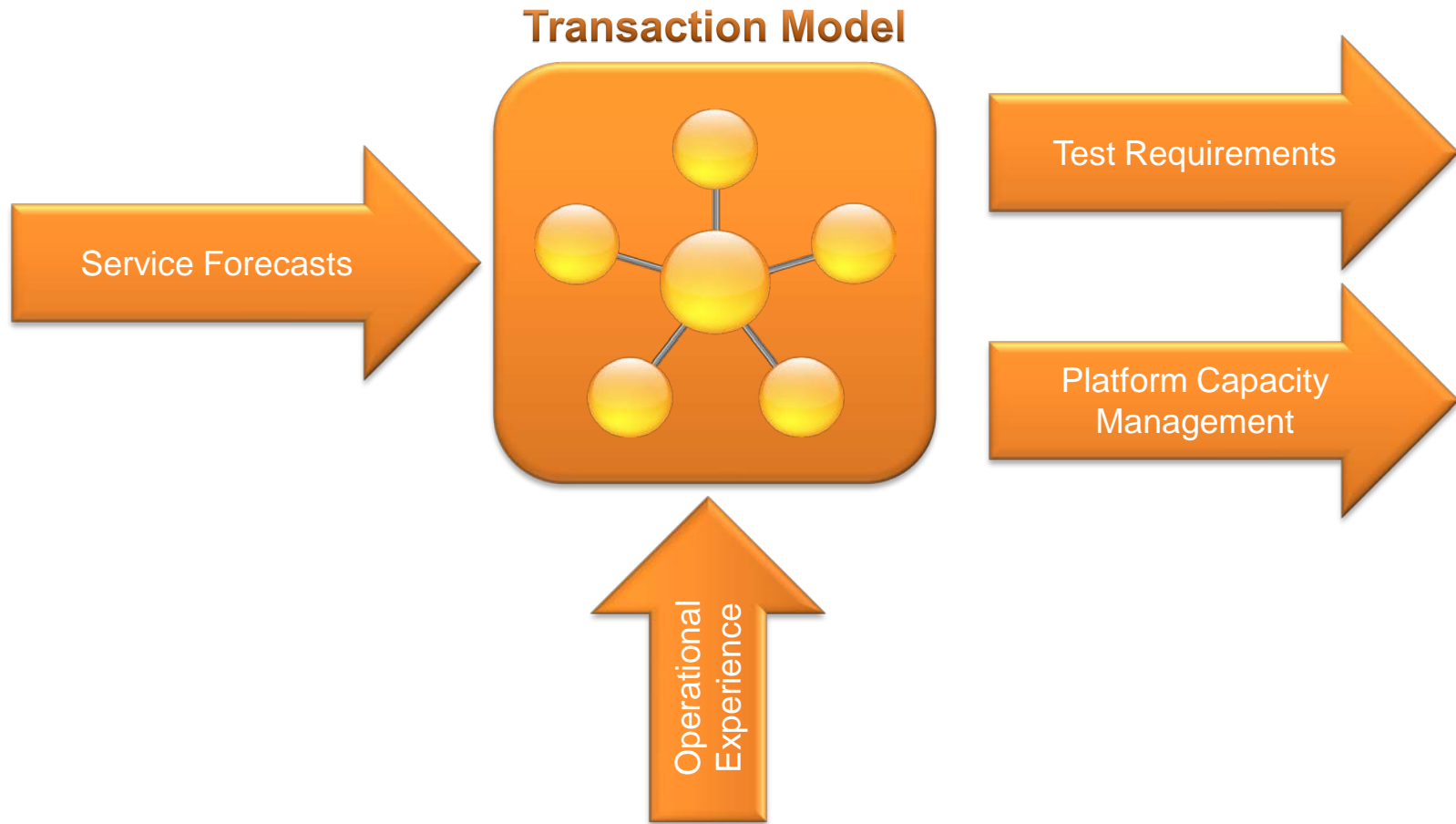
Enterprise Operational Monitoring Foundation



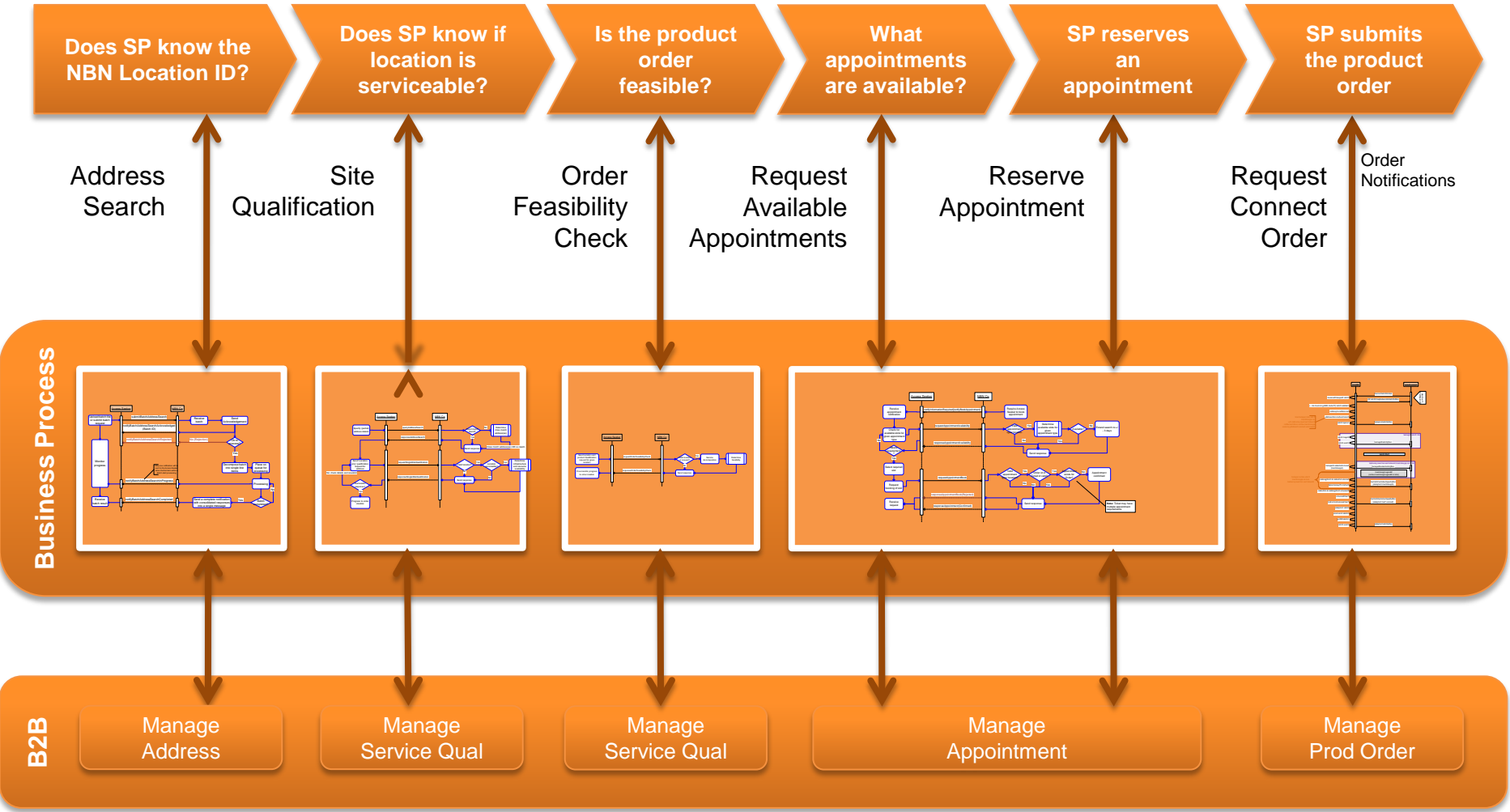
Enterprise Operational Monitoring Architecture



Predicative Modelling

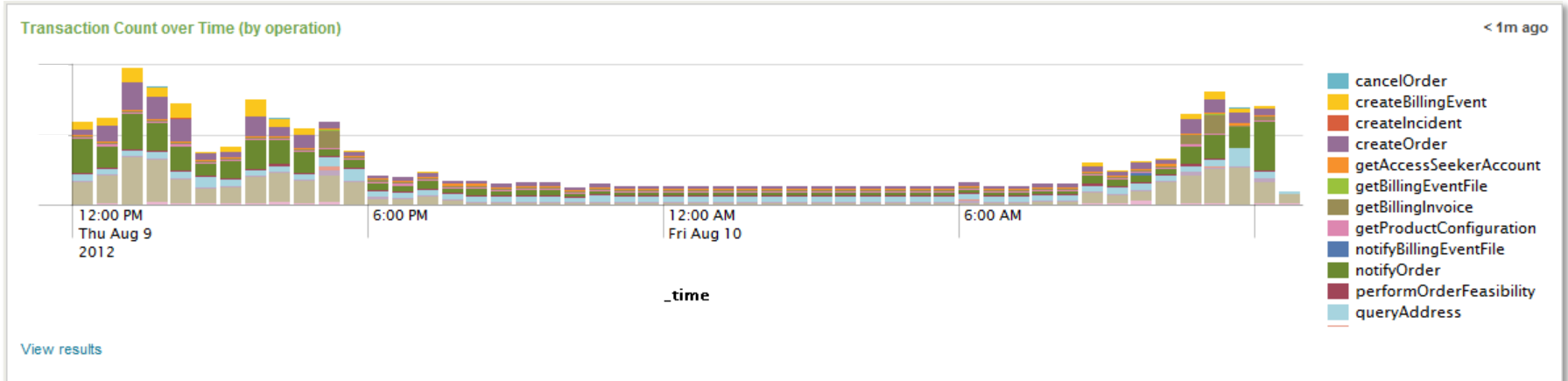


Example B2B Order Journey



Process Reporting

Example Transaction Overview



Transaction Response Time (Request/Response) < 1m ago

« prev **1** 2 next »

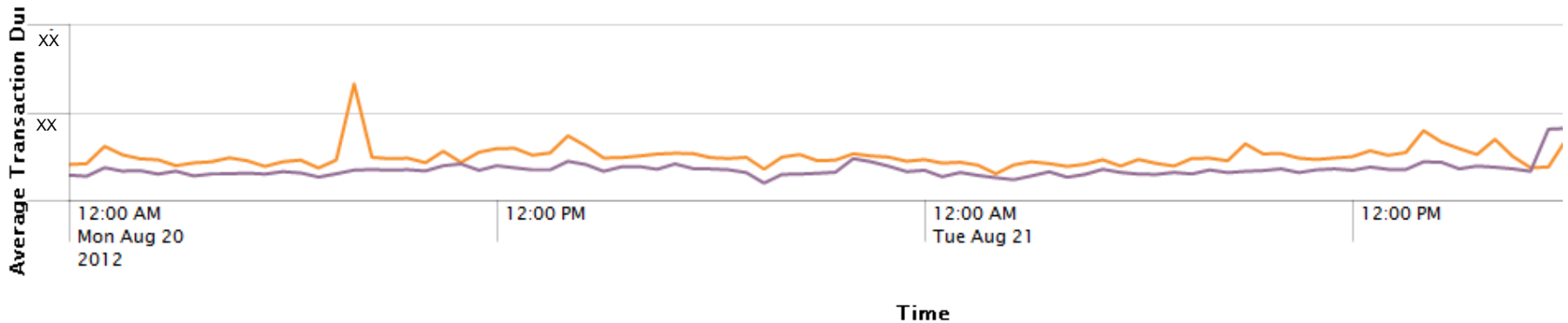
	activityName ↕	Response Times ↕	Transaction ↕ Count	Average Response ↕ Time	95th Percentile Response ↕ Time	Minimum Response ↕ Time	Maximum Response ↕ Time	Standard ↕ Deviation
1	cancelOrder		XXXX	X.XXXXX	X.XXX	X.XXX	X.XXX	X.XXXXX
2	createBillingEvent		XXXX	X.XXXXX	X.XXX	X.XXX	X.XXX	X.XXXXX
3	getAccessSeekerAccount		XXXX	X.XXXXX	X.XXX	X.XXX	X.XXX	X.XXXXX
4	getBillingEventFile		XXXX	X.XXXXX	X.XXX	X.XXX	X.XXX	X.XXXXX
5	getBillingInvoice		XXXX	X.XXXXX	X.XXX	X.XXX	X.XXX	X.XXXXX
6	getProductConfiguration		XXXX	X.XXXXX	X.XXX	X.XXX	X.XXX	X.XXXXX
7	performOrderFeasibility		XXXX	X.XXXXX	X.XXX	X.XXX	X.XXX	X.XXXXX
8	queryAddress		XXXX	X.XXXXX	X.XXX	X.XXX	X.XXX	X.XXXXX
9	queryBillingEventFiles		XXXX	X.XXXXX	X.XXX	X.XXX	X.XXX	X.XXXXX
10	queryBillingInvoices		XXXX	X.XXXXX	X.XXX	X.XXX	X.XXX	X.XXXXX

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Process Reporting

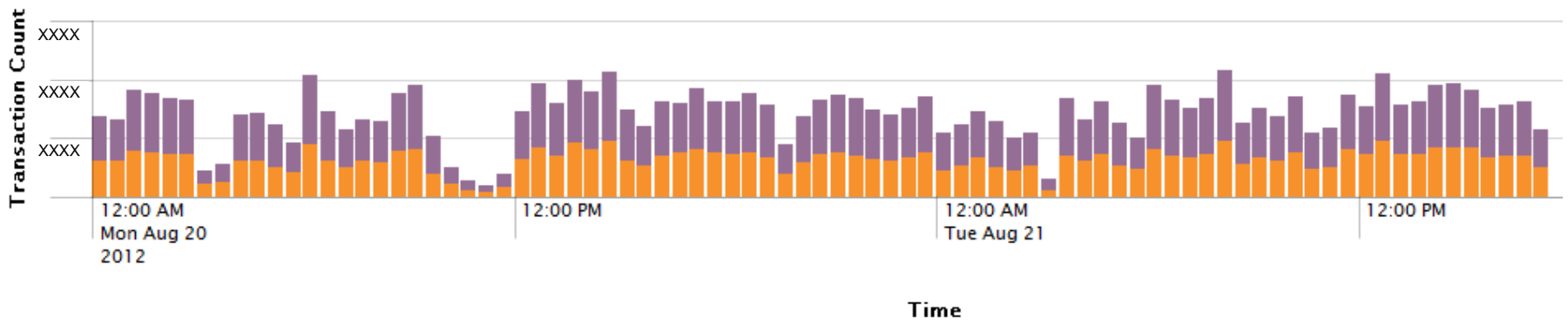
Example Response Time Against Load

Average Request/Response Duration by Operation over the period



[View results](#)

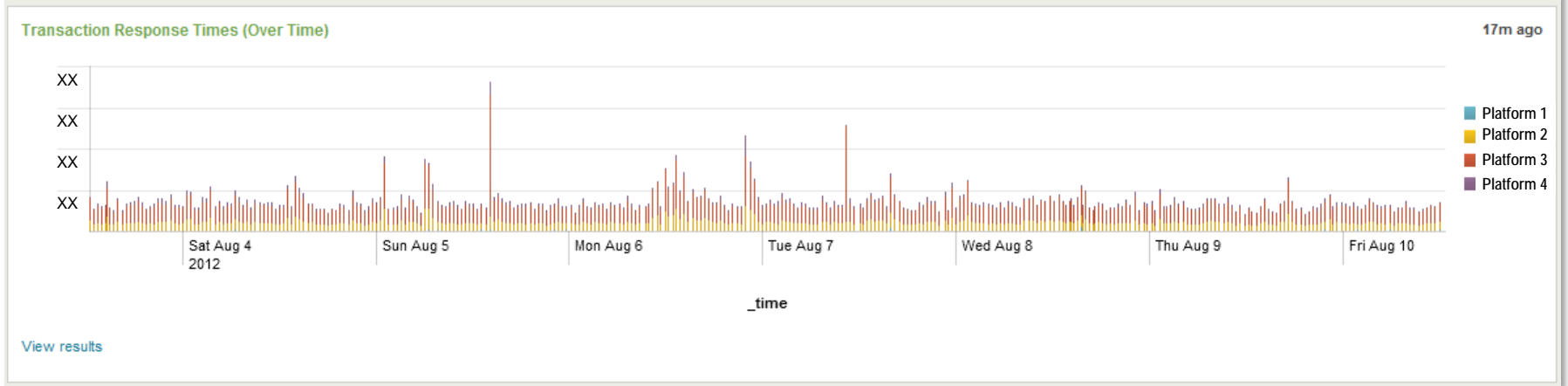
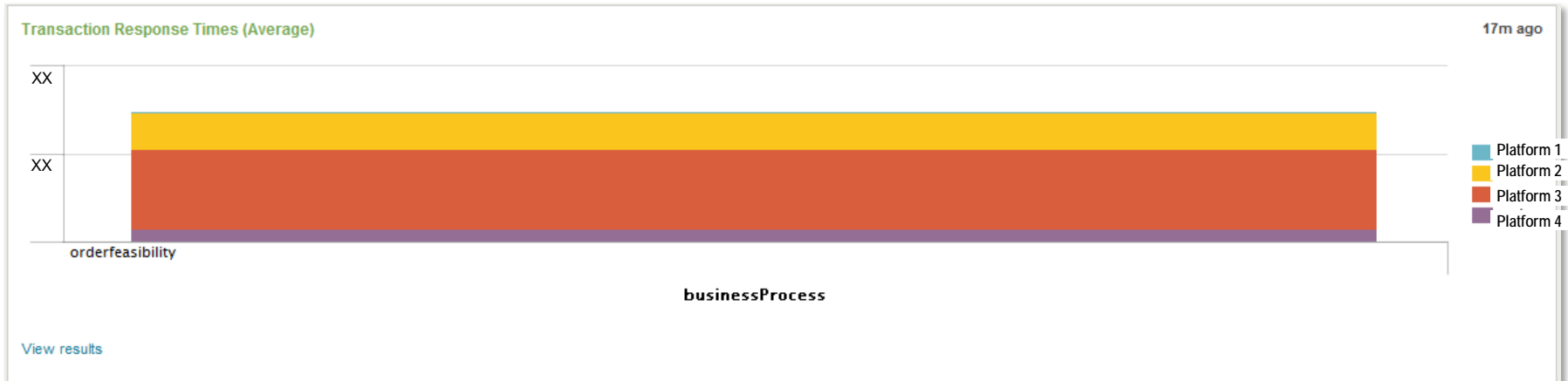
Transactions by Operation over the Period



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Process Reporting

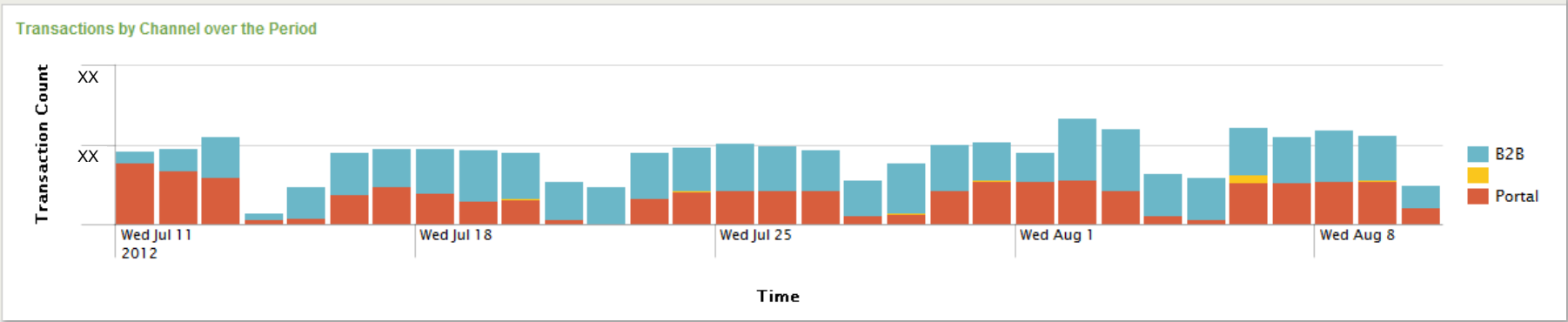
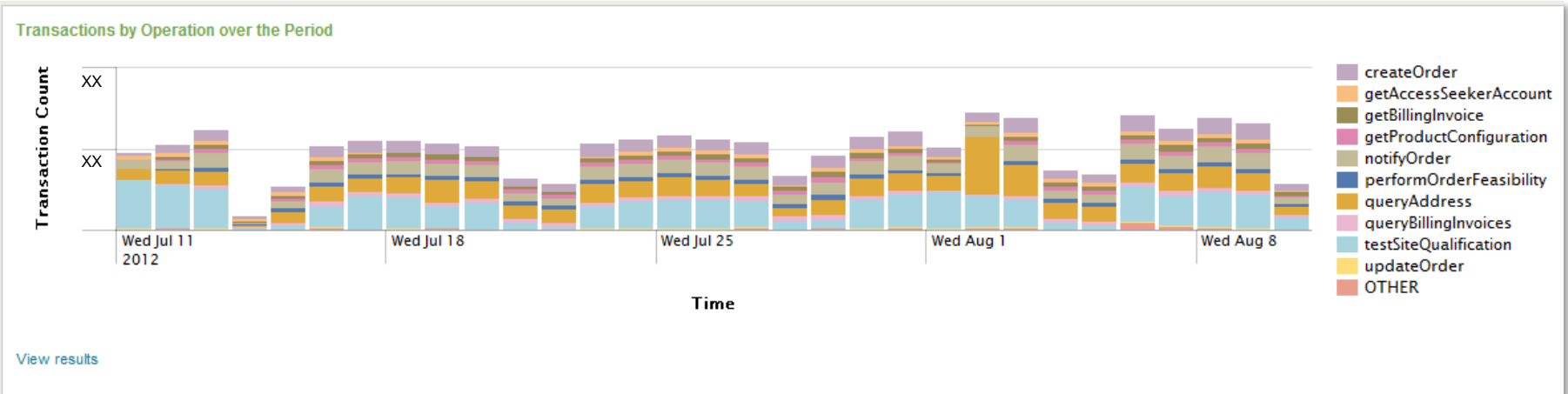
Example Transaction Response Time Breakdown



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Process Reporting

Example Channel Distribution



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Information Reporting

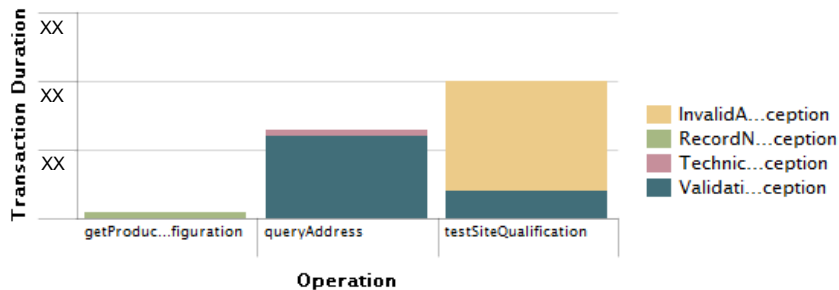
Example Top 10 Exception Reasons

Aggregate Exceptions



Service Provider Specific Exceptions

Unsuccessful Transactions



[View results](#)

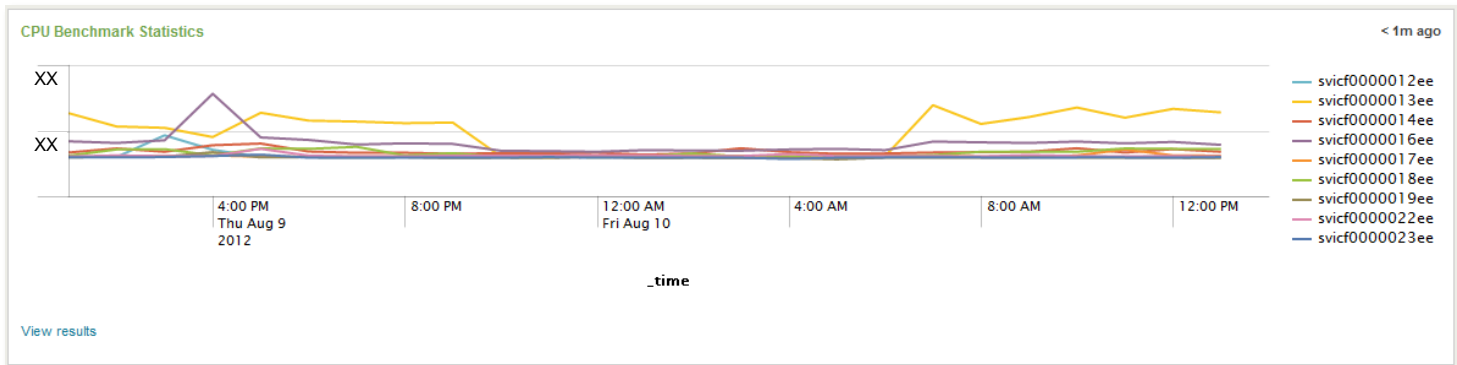
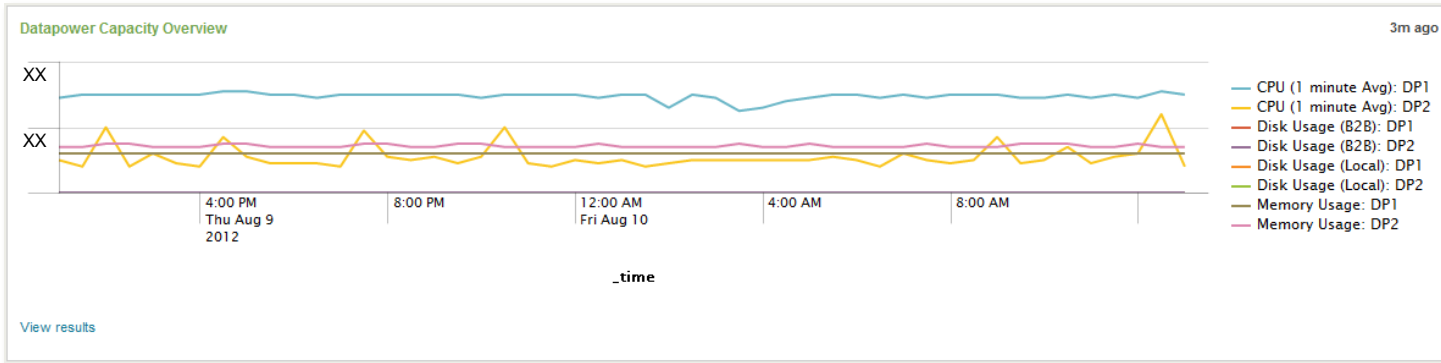
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Top 10 Exceptions

	Operation	Exception	Count
1	testSiteQualification	InvalidAddressException	XXXX
2	queryAddress	ValidationException	XXXX
3	testSiteQualification	ValidationException	XXXX
4	getProductConfiguration	RecordNotFoundException	XXXX
5	queryAddress	TechnicalException	XXXX

[View results](#)

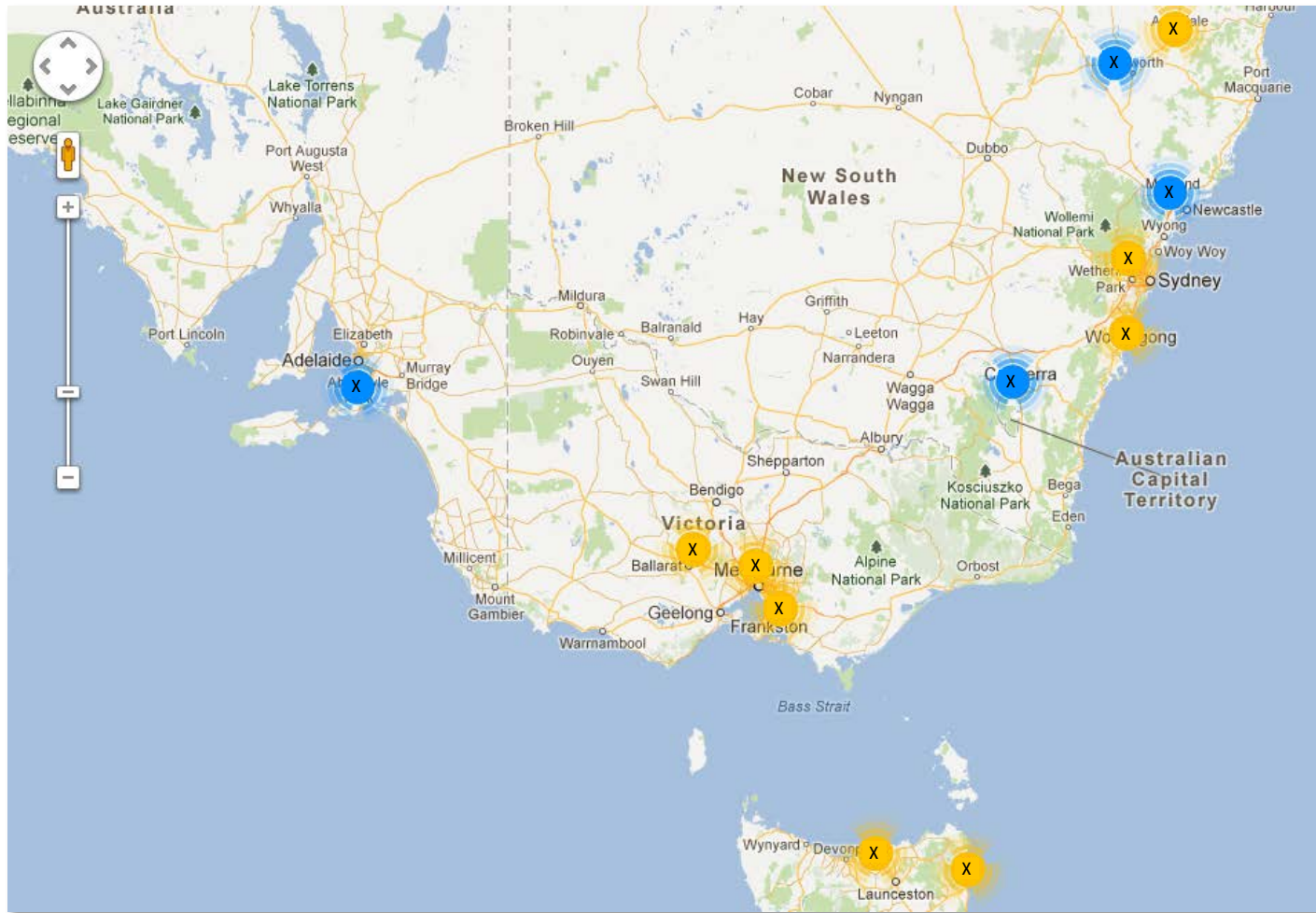
Infrastructure Reporting



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Blending Complex Datasets

Example Geographic Report



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Operational Monitoring Best Practices

- **Multi-channel ESB** to establish a standardised set of services to expose OSS capability. In-built monitoring and logging capabilities to facilitate analysis and monitoring of platform, system, application and business aspects of the OSS solution
- A **Global Correlation Identifier (termed NBN Correlation ID)** is essential for successful tracing of transactions through multiple systems.
- Use of a **Common Information Model** through the integration layer provides a consistent view of the data used for each business process
- **Common logging practices** across multiple platforms allows for a unified monitoring/reporting approach
- **Environment agnostic** solution to provide analysis and monitoring capability to development through to production environments
- **Standard data centre offering** to have the Splunk forwarder installed on all virtual machines to facilitate rapid integration of all environments and applications with the central Splunk infrastructure



NBNCo