

CON6891 - Evolution to API-Driven B2B

Overview and Customer Case Studies

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Program Agenda

- 1 Introduction
- 2 Oracle B2B Overview and Roadmap
- 3 Customer Case Studies
- 4 Q&A

A man with a beard and mustache, wearing a dark suit, light blue shirt, and dark tie, is looking at a tablet. The background is a bokeh of city lights at night. The image is overlaid with a teal geometric pattern.

Oracle B2B

Overview and Roadmap

Oracle Cloud Platform

Comprehensive

Open





Integrated




Hybrid

Oracle
Public Cloud



Oracle
Data
Center

-  Data Management
-  Application Development
-  Enterprise Integration
-  Data Integration

-  Analytics and Big Data
-  Content & Experience
-  Identity & Security
-  Systems Management

Oracle Cloud
at Customer



Built on High Performant Oracle Cloud Infrastructure

Oracle Cloud Integration

Simplicity

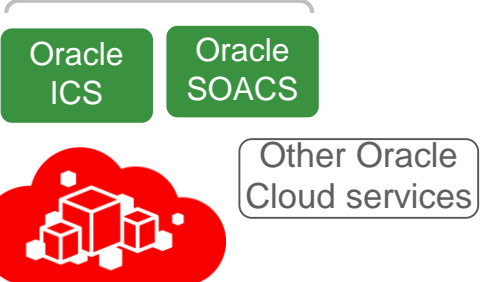
Innovation

Acceleration



Oracle B2B on Cloud

Oracle Cloud Services



Purchase Orders
Product Specifications

HTTP
SOAP
File

ebMS
AS4
AS2

Passenger
Reservations

Tax Records

Trading Partners



Suppliers



Manufacturing
Partners



VAN
Networks



Airlines



Government

Secure, automated exchange of business information with your trading partner community



Oracle B2B Cloud Service

Comprehensive B2B Platform on the Cloud



Key Features

- **B2B Integration in the cloud:** Allows B2B trading partner, document and channel management through a cloud based portal
- **Supports on-premise and cloud-based deployments :** B2B data flows can be moved between on-premise and cloud deployments very easily
- **Scalability:** Easily provision additional resources to scale as needed
- **Low maintenance:** Automated backup and recovery, single click patching

Benefits

- Easily expose B2B integration to internal and external consumers
- Provides security to protect backend systems
- Rapid and fully automated provisioning
- Secure, Highly Available with Clustering

Oracle B2B

Available on-premise and on Cloud



- **Rich Feature Support**

- Thousands of prebuilt, customizable EDI documents
- Multiple communication options such as AS2, FTP
- Value added features such as EDI Batching, Trading Partner Downtime and Self Service

- **Modern, Integrated, Scalable Solution**

- Tightly integrated with other SOA components
- End to end visibility with integrated reporting
- Highly scalable for most demanding SLAs

- **Easy to Use**

- UI based configuration with command line tools for automation, message recovery and resubmission

What's Next?

Next Generation B2B Needs

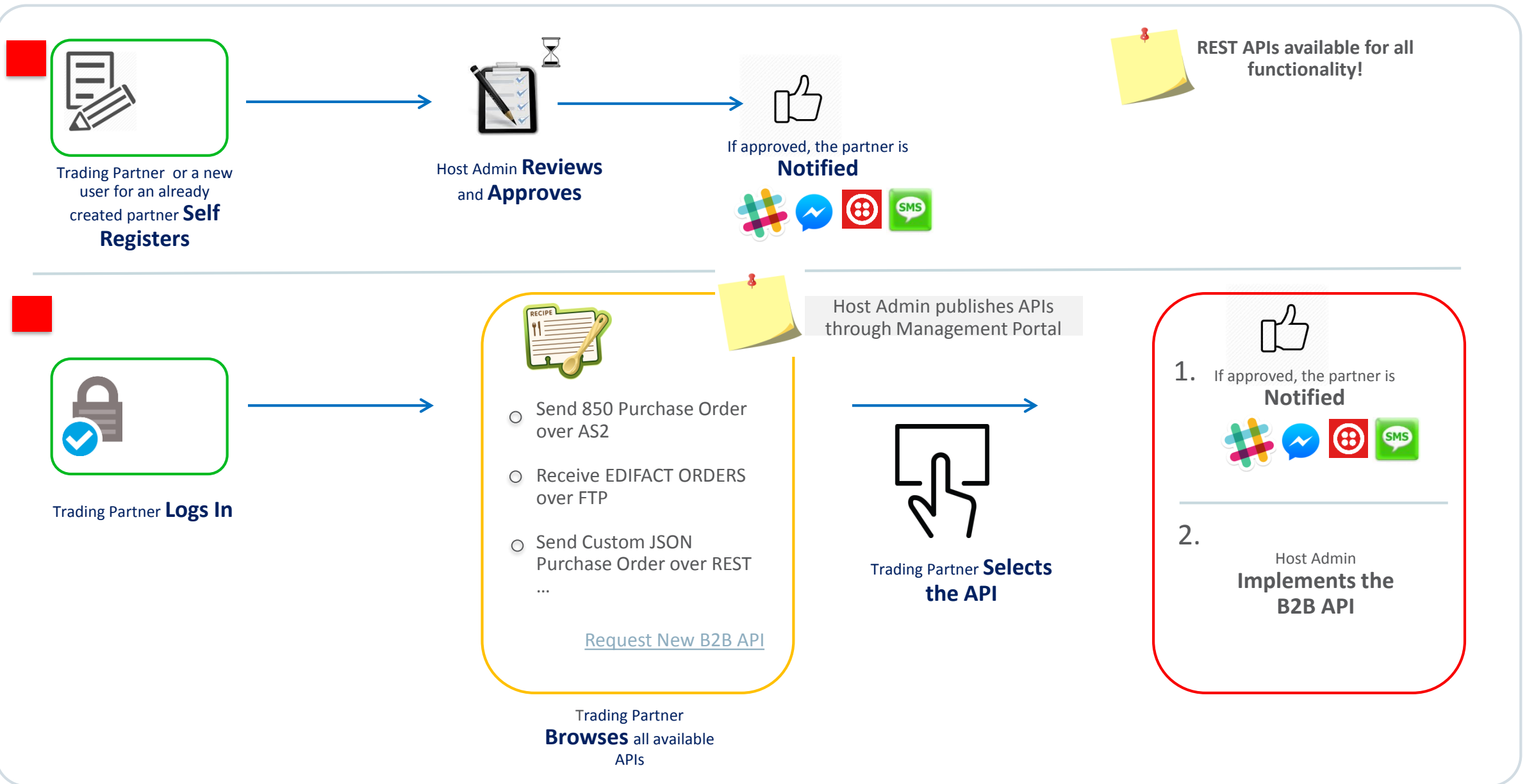


- Cloud based
- API Driven
 - Partner interactions
 - Backend services
- Agile and fast
- Real time analytics and decision making
- Omni channel support
- On-premise, cloud and hybrid deployments

Next Generation API Driven B2B

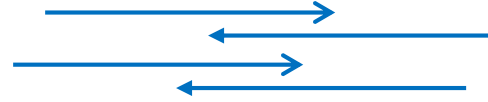
- Self registration and discovery of B2B flows through a Self Service Portal
- Comprehensive support for API driven B2B and classic B2B integration
 - REST and JSON
 - Classic B2B protocols such as EDI, AS2, ebXML
- Real-time tracking and monitoring
- Secure, built for extreme performance
- Modern, micro services based, light weight
- Elevated user experience
- Hybrid deployment, multi channel support







Trading Partner



Trading Partner **Tests**
the selected APIs with
Host (or Mock Services)



1. Host TP

2. Mock Services



If all tests pass, Trading
Partner **Deploys and
is Active**



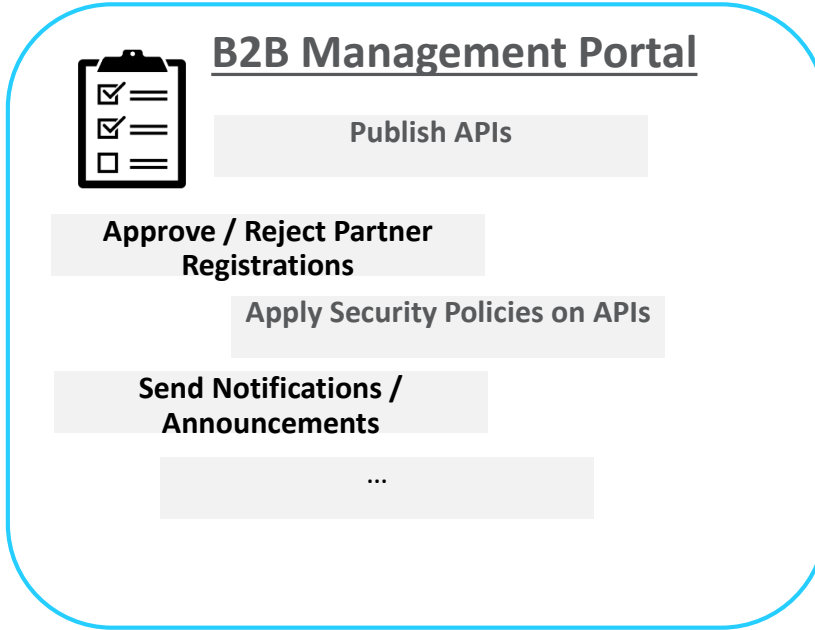
Trading Partner has access
to **Monitoring and
Dashboards**



REST APIs available for all
functionality!



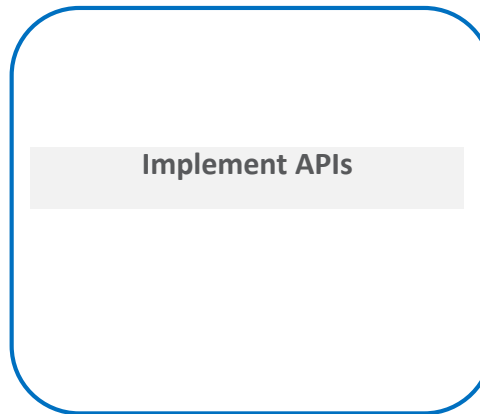
Host Admin **Logs In to Management Portal**



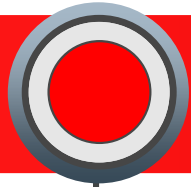
REST APIs available for all functionality!



Host Admin **Logs In to Implementation Solution**



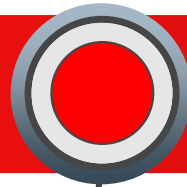
Roadmap



CY15

SOA Suite Cloud Service (GA)

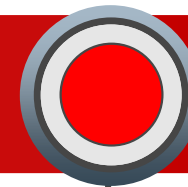
- GA with 4 Domain types:
 - SOA Infra
 - Service Bus
 - SOA Infra + Service Bus
 - API Manager
- Automated provisioning
- Cloud Tooling for Patching/ Backup-Recovery / Scale-Out
- Integration with DBCS and Storage Service
- Cloud Adapters



CY16

B2B Cloud Service

- Available as part of SOA Suite Cloud Service
- New Domain type: **B2B**
- All functionality in B2B on-prem now available in Cloud



CY18

Partner Self Service Portal

- Self registration and discovery of B2B APIs
- ### **API Driven B2B**
- API Driven B2B partner interactions and API Driven backend services
 - B2B as part of Oracle Integration Cloud
- ### **New protocols**
- Support for new documents/exchanges

A man with a beard and mustache, wearing a dark suit, light blue shirt, and dark tie, is looking down at a smartphone he is holding. The background is a blurred cityscape at night with bokeh lights. The image is overlaid with a teal geometric pattern.

Customer Case Studies



Agenda

- About Silver Spring Networks
 - Our Business Systems Roadmap
 - SOA Cloud in Roadmap
 - SOA Cloud Project
 - Architecture
 - Volume
 - Lessons Learned
- 
- 

Introduction



Small, agile, nimble IT Enterprise Applications Team

- Hari Jobanputra, Director, Enterprise Applications/Systems, IT
- Vamshi Lakkakula, Sr. Applications/Software Engineer, IT



Silver Spring Networks is the largest platform provider of critical infrastructure, transforming utilities, cities, and hundreds of millions of lives



24.3
MILLION
ACTIVE IoT
DEVICES

COVERING
~60M
PEOPLE

600M

DAILY RECORDS,
OR **220B** PER YR

ACROSS
1.5M
SQ MILES ON
5 CONTINENTS

>99% UPTIME

4B DAILY BYTES

About Silver Spring Networks



Proven, multi-application networking for critical infrastructure

- More than a decade of innovation and global success
- The industry's most proven solution for networking critical infrastructure, transforming energy grids, cities and hundreds of millions of lives
- Volume leader with 24M+ devices connected on five continents, processing more than 200B secure transactions per year
- Open ecosystem for devices, applications and resellers with 125+ partners
- Industry-leading technology, with 239 patents awarded, 142 pending

- ✓ Smart grid product of the year - **Gen5**
- ✓ Smart grid product of the year - **SilverLink**
- ✓ American Tech award – **Street lights**



Proven. Chosen. Worldwide.

Silver Spring Networks

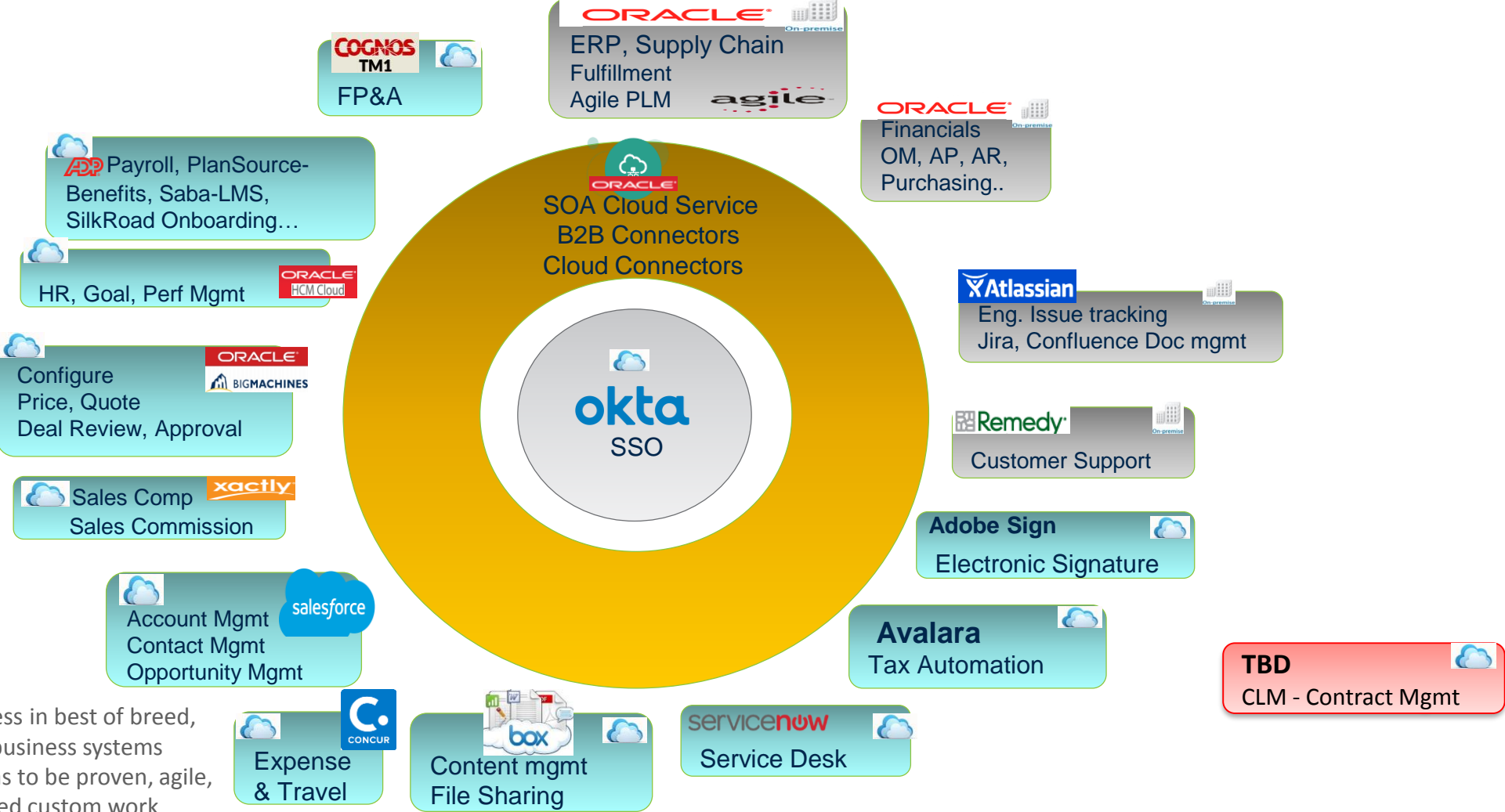


We create extraordinary value for our clients



Enterprise Business Systems Roadmap

Continuously Evolving



- Integration is key to success in best of breed, multi SaaS and on-prem business systems
- Integration technology has to be proven, agile, always current and reduced custom work

Cloud / SaaS First Principle

Business Case for Oracle SOA Cloud

- Integration platform for Cloud and On-Prem integration
- Must upgrade of SOA 11g to SOA 12c
 - To support 256 bit Cipher requirements by B2B Contract Manufacturer
 - Transition from 32bit to 64bit
 - Support challenges with older release
- Address Over-deployment of B2B RosettaNet
- Higher level of SOA support
- Prepare for Growth
 - Build Higher Availability and Redundancy

SOA @ Silver Spring Networks



SOA Suite - Integration platform for business applications / systems

- SOA Connects and integrates
 - Contract Manufacturers
 - Expense and Corporate Card Systems
 - Sales Systems
 - Quoting , Order Management
 - Logistics (Shipment tracking, RMA, Provisioning, Embargo Compliance)
 - HR Systems
 - Customer Support System
 - Oracle eBusiness Suite
 - FP&A system

SOA @ Silver Spring Networks – Transaction Volumes

- Types of Messages

- B2B - RosettaNet docs

- Inbound and Outbound

- 3A4 – Purchase Order

- 3A8 – Purchase Order Change

- Inbound Only

- 3B2 – Advance Shipment Notice (ASN)

- 3C3 – Customer Invoice

- SFTP Messages

- Shipment, RMA, Embargo Compliance, AD, Credit Transactions etc.

- SOAP Webservices

- Customer, Catalog, Projects, Agreements between Salesforce and Oracle EBS

- Order create and change between CPQ and Oracle

- AD and Oracle EBS to HCM employee updates

Direction	Max in a day	Average per day
OUTBOUND	~1000	~30
INBOUND	~300	~30

Direction	Max in a day	Average per day
OUTBOUND	~1000	~100
INBOUND	~1000	~100

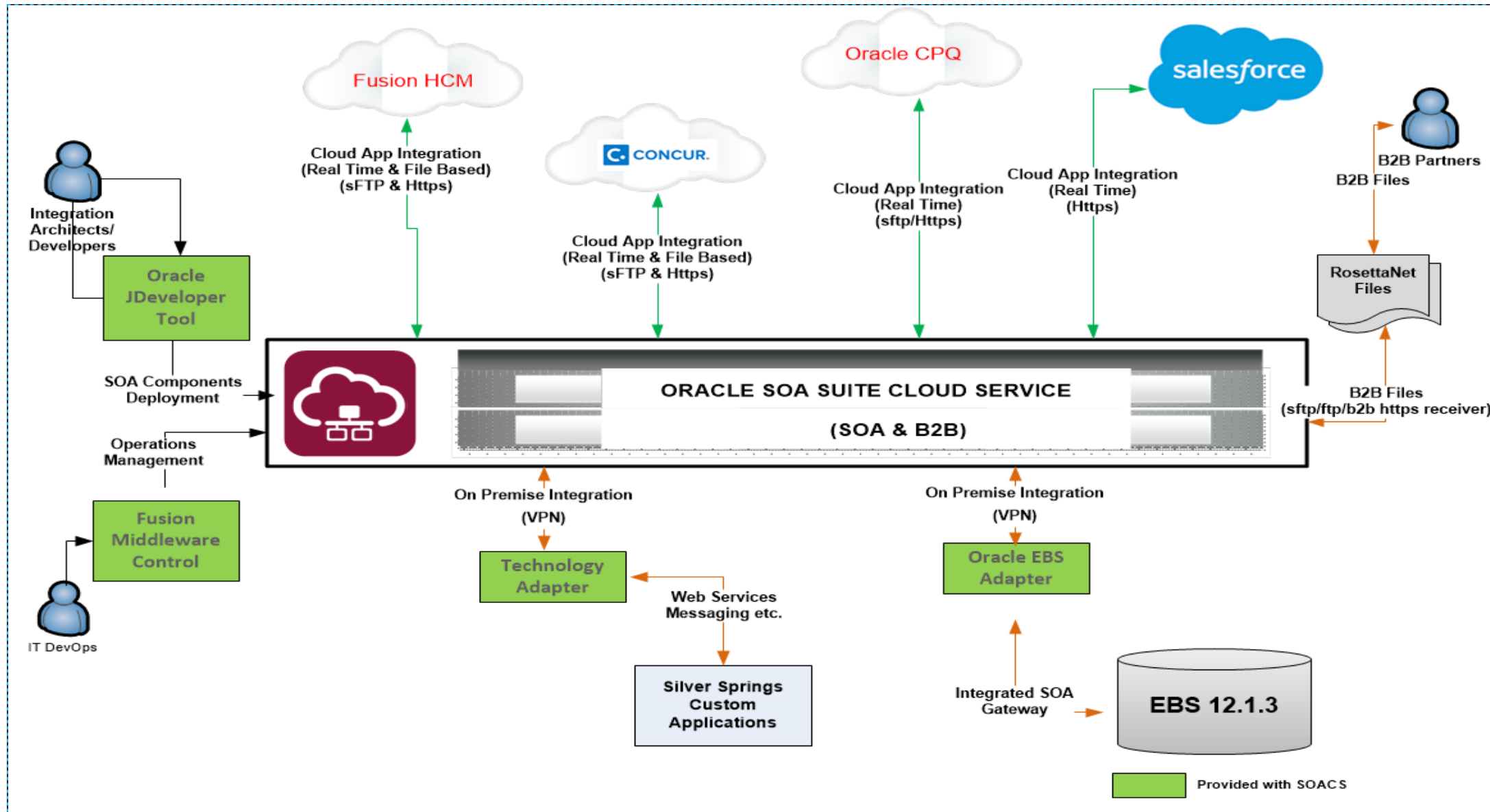
SOA Cloud Project



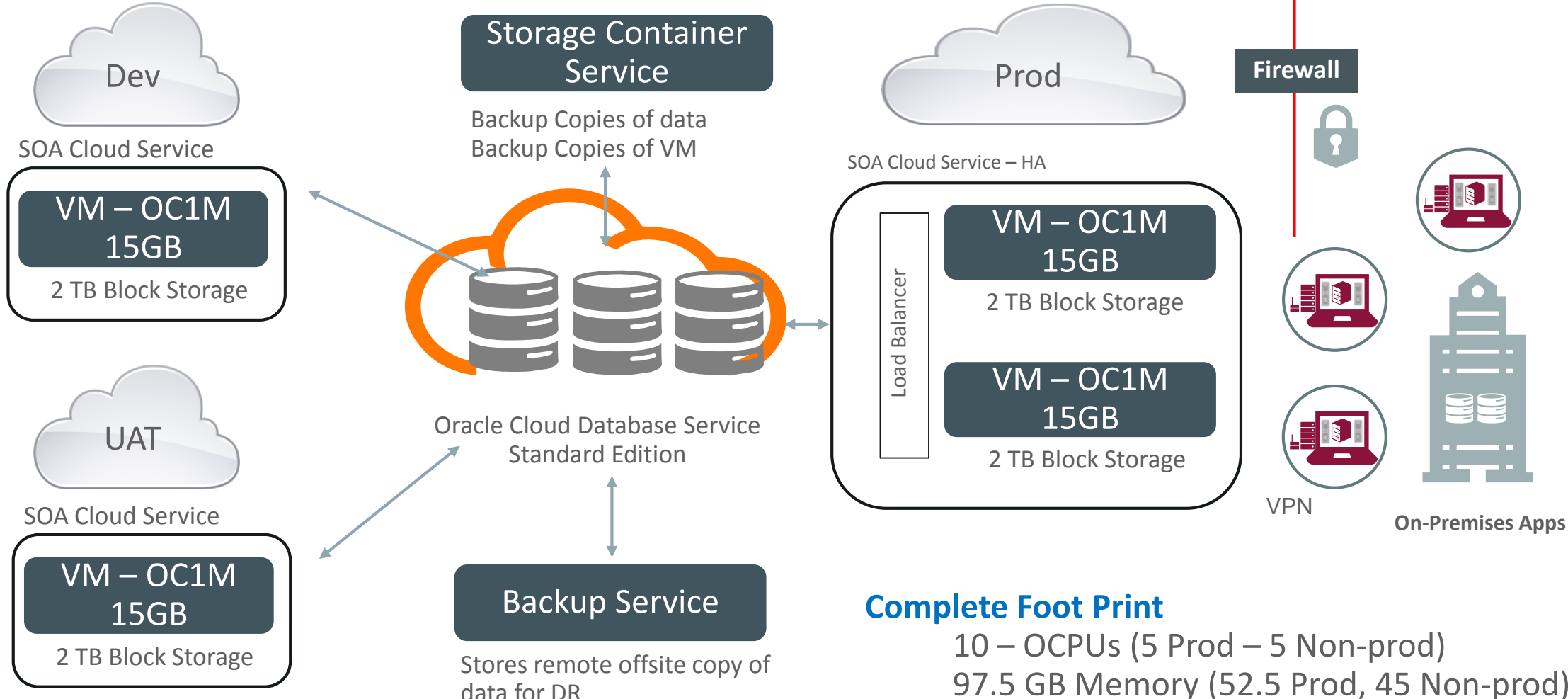
SOA Suite - Integration platform for business applications / systems

- Proof Of Concept – 2 to 3 months
- Contract work - Aug/Sep. 2016
- Dev env build - Sept. 2016
- UAT build - Nov. 2016
- Phased launch - 4th/5th Dec 2016, completed in Mar 2017
 - B2B integrations with CMs – Dec 2016
 - HR, Logistics – Jan 2017
 - CPQ and All other – Mar 2017
- More integrations in progress
 - Proof Of Delivery automation
 - Employee On/off boarding automation
 - Ongoing Enhancements

Architecture Diagram w/ SOA



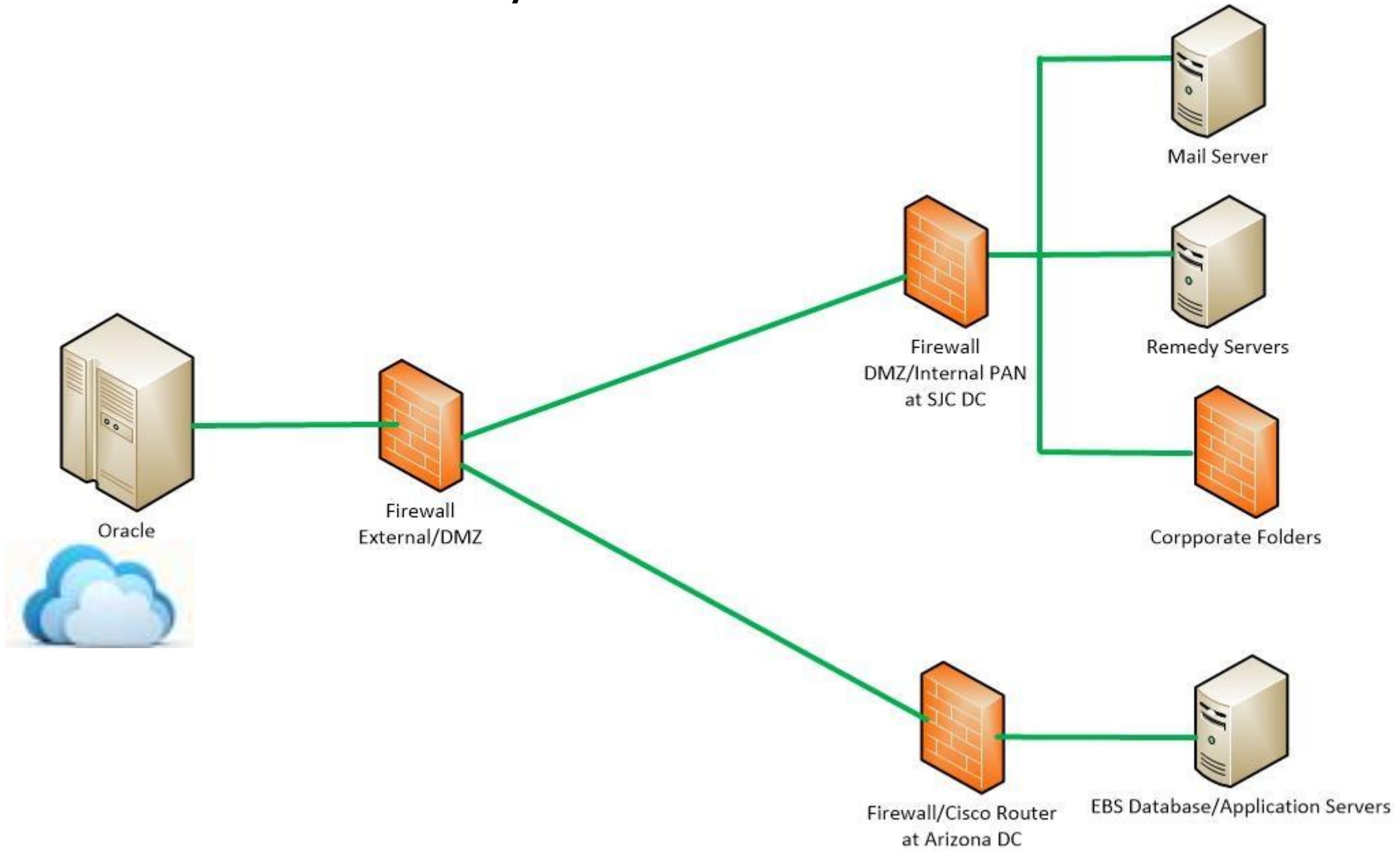
Silver Springs Environments in SOA Cloud



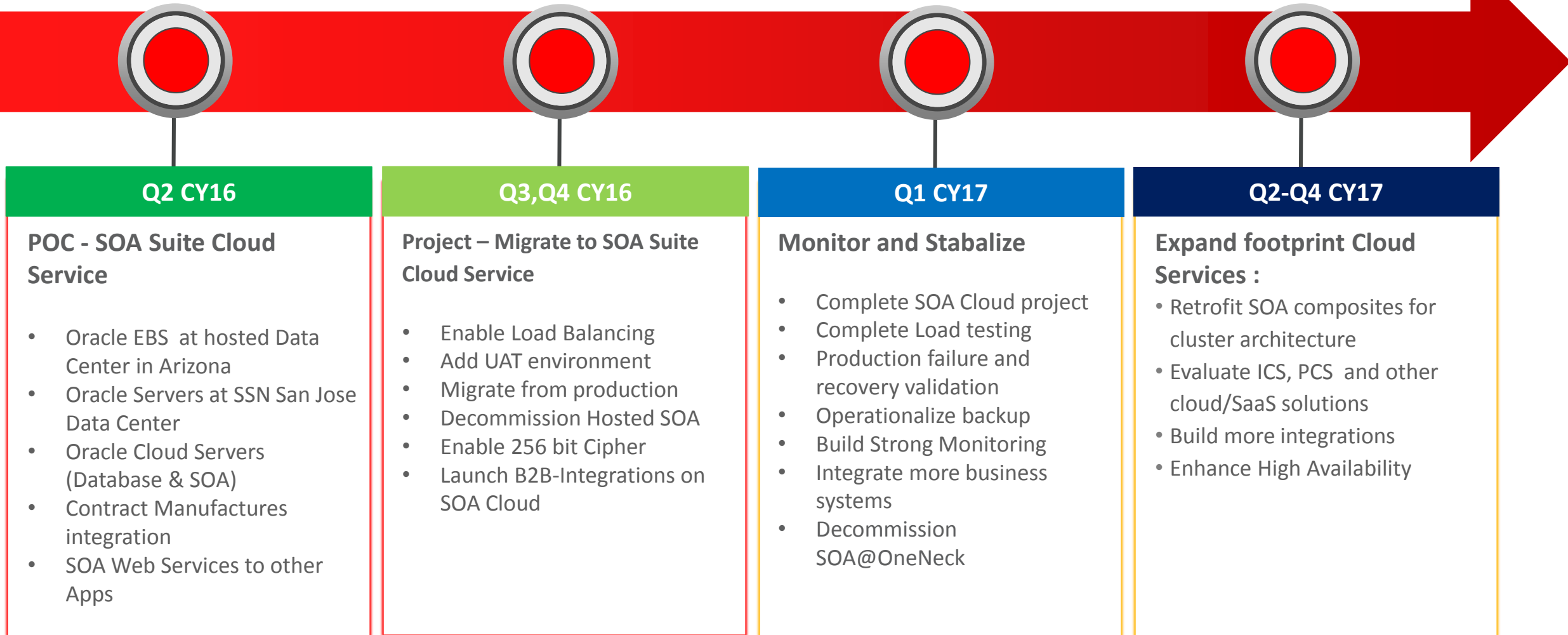
Complete Foot Print

- 10 – OCPUs (5 Prod – 5 Non-prod)
- 97.5 GB Memory (52.5 Prod, 45 Non-prod)
- 16 TB Storage (8TB Prod, 8TB Non-Prod)
- 8 TB of Backup Storage

SOA Cloud Connectivity details



SOA Suite Cloud @ Silver Spring Networks – Roadmap



Lessons Learned - SOA Cloud Project

- Load test and validate Prod env
- Launch during non-critical period
- Build strong partnership with CSM
 - Keep Cloud operations and Support team informed about go live plans
 - Don't hesitate to escalate early
- Plan and test for Future Growth
 - Test cluster architecture thoroughly
- Build small composites to test bandwidth, network latency and load
- Network planning, review and optimization
 - Engage Oracle A-team & Cloud Operations for network review
 - Reduce hops between Oracle EBS and SOA Cloud
- Plan and build monitoring upfront
- Engage with experienced sales-engineer and support personnel

Key Differences / Benefits - SOA Cloud Service



SOA Cloud Service	SOA Hosted / On-Premise
Public Cloud – Agility and Scalability	Hosted @ Hosting provider
Reduced effort of SOA administration and monitoring (Customer is responsible)	SSNI responsible for all SOA administration
Hassle free backup and recovery	Hosted/owned infrastructure to archive
Always Current - Upgrades included and reduced admin effort (Customer managed)	SSNI owns SOA upgrade – significant effort
Reduces Database license cost and administration	SSNI allocates Database licenses for SOA
Higher SLAs – 99.95%	SSNI manages SLA



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October 3, 2017

Suresh Sharma

Integration Process Management (IPM) Technology Leader

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Platinum Partner
Cloud Premier
North America

Friction Free Economy

Labor, Information and Money move easily, cheaply, and almost instantly



Cognizant: A Remarkable Success Story...

Founded in 1994 (CTSH, Nasdaq)

Headquarters: **Teaneck, NJ**

Revenue
\$13.49 Bn in 2016 (up 8.6% YOY)

Revenue Mix
NA: 78.4%, UK: 9.5%, Europe: 6.7%,
RoW: 5.5%



~ **260,200** employees (Dec 2016)

20,000+ Projects in 40 countries

100+ Global Delivery Centers

35+ Regional Sales Offices

1,500+ active customers



Ranked **9th** among the **Forbes Fast Tech 25**



Member of the Fortune 500
Ranked at **#230** on list in 2016



Ranked at **#281** in **FT Global 500** in 2015



'**Leader**' in 'The Forrester Wave™':
North American Applications Outsourcing Services, Q1 2014'



'**Global Leader and Star Performer**' in Healthcare Payer IT Outsourcing

The Customer - A Large Global Logistics Company in Europe

Background

The Customer is a **Global Logistics provider** headquarter in **Europe**

- **Supply chain management services** company and leading provider of freight forwarding
- Spread across **75+ countries** - dealing with multi geography logistic providers and suppliers
- 2016 Revenue ~**\$35 Billion USD**

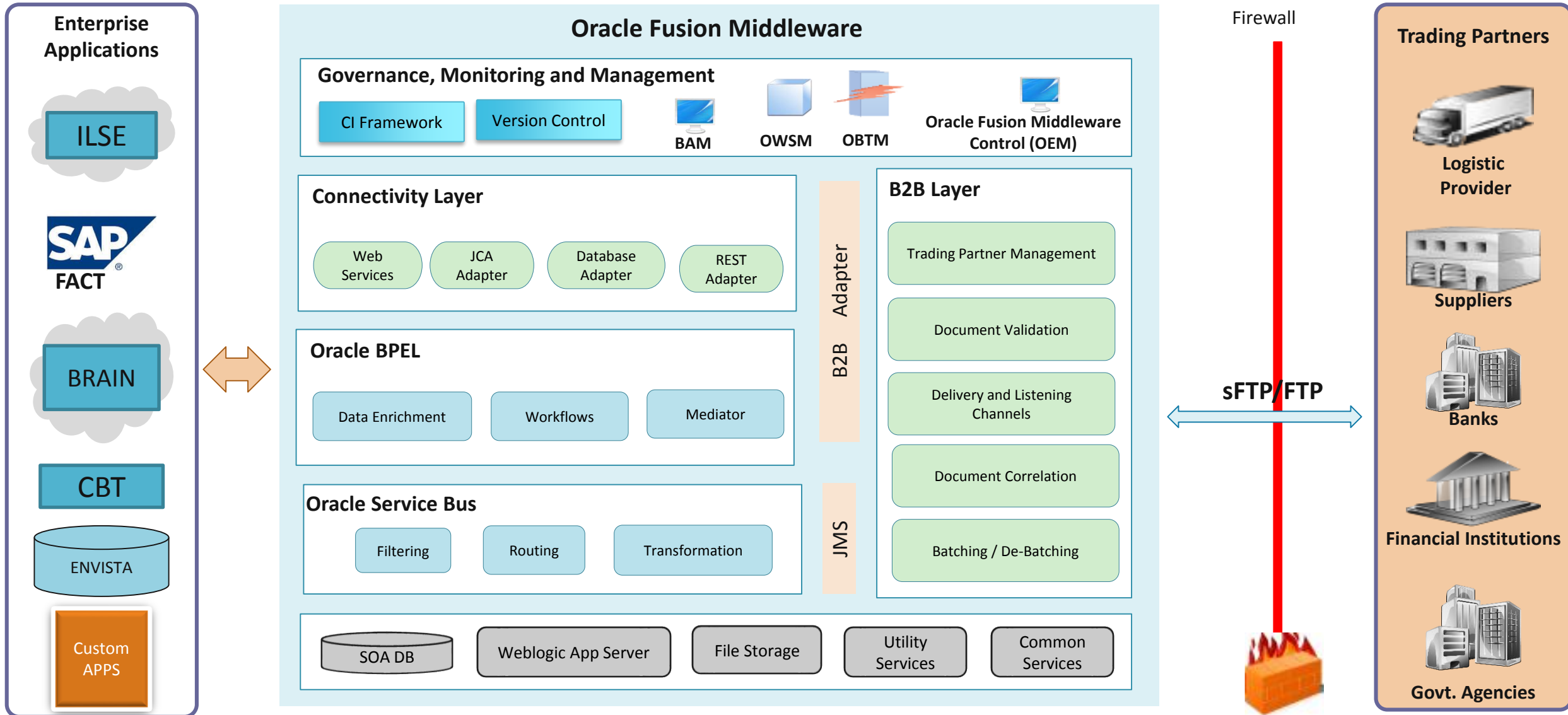
Business Need

- Providing seamless **interaction between Business partner and ILSE** (Freight Forwarding System)
- Improving process efficiency (specifically **partner onboarding**) and improve operating margins
- Support **new generation of business partners** with enhanced agility, response time and e2e monitoring

Goal

- Enable customers to lead market competition by reducing their operational costs in optimized Inventory storage

Solution Landscape



Solution Overview

- Traditional centralized EDI HUB for Supply Chain transaction between multi geo business units and its trading partners -- Logistic providers and suppliers
- Secured data transfer over FTP for Traditional EDI
- EDI Transaction:- IFTFCC, IFTSTA, IFTMIN, IFTMBF, CONTRL, VERMAS
- API Interaction using OAuth 2.0 for API invocation with on-premise / cloud applications
- Oracle BAM to capture KPI s – Item Fill Rate, Delivery Status
- Leverage Oracle BTM and OEM for OOB monitoring and management capability



Value to Customer

- **Cost saving** through Streamlined and standardization of processes across Organization
- **Standardized partner onboarding** process using common EDI platform & common maps
- **Better planning** with partners (logistic providers) and better Pricing from vendors.
- **Reusability, Global standards** for all divisions, managed SLAs – Transaction Volume etc.
- Managed services, **centralized pool** of knowledgeable resources
- **Reducing the total cost of ownership** with infrastructure
- Cognizant **value accelerator frameworks** delivered **quicker time to market** solution with consistent and measured quality



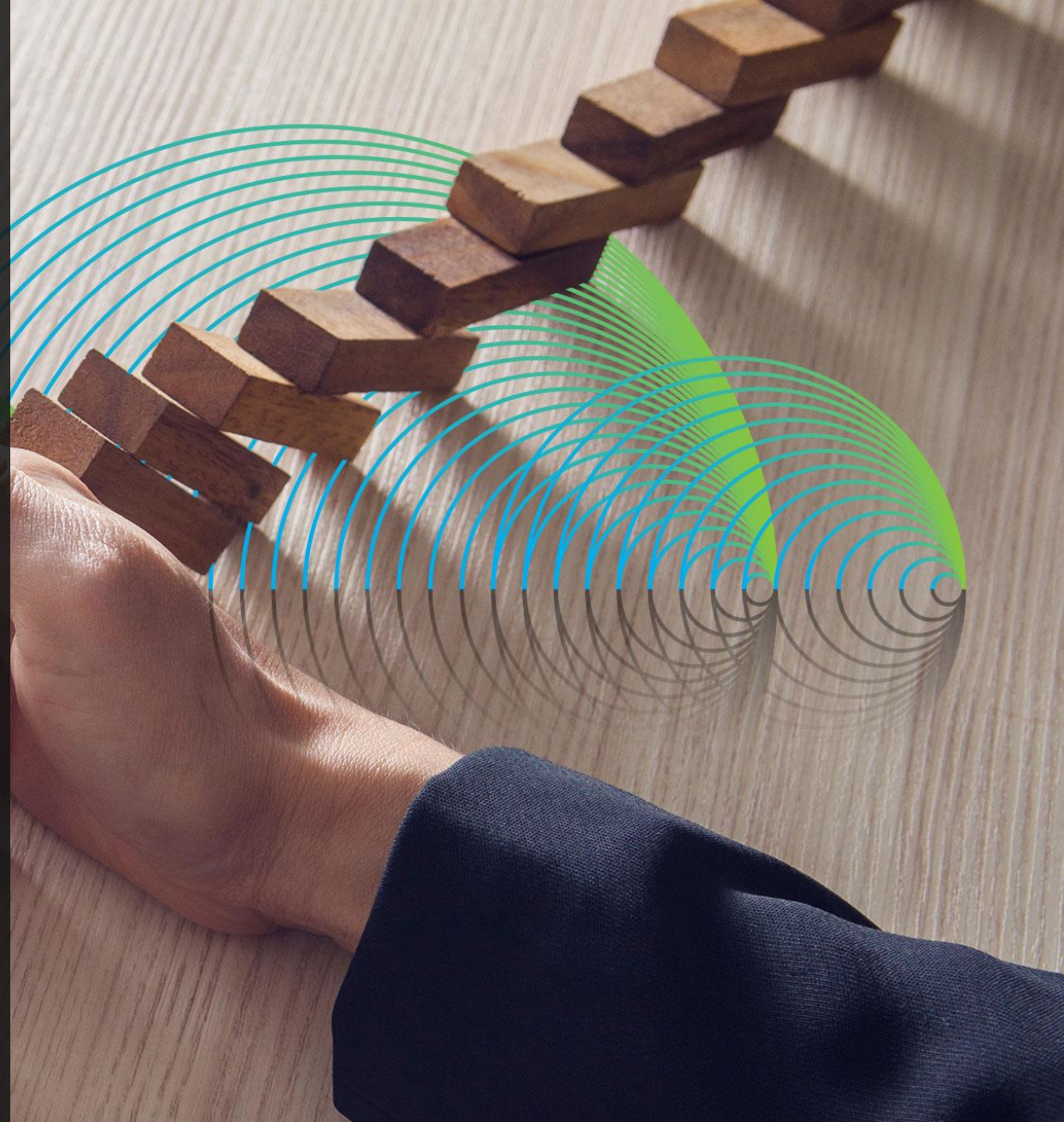
Key Challenges with Traditional B2B Setup

- Need for **Self Service** Supplier onboarding
- Readiness of **EDI HUB** towards Digital expectations
- Enterprise B2B **strategy alignment** with B2B partners and Suppliers Digital initiatives
- B2B exchanges are **very expensive** to maintain
- **Long on-boarding** processes for Trading Partners
- **B2B Exchange** players govern the terms for Small / Medium organization
- **Multiple levels** of data transformation

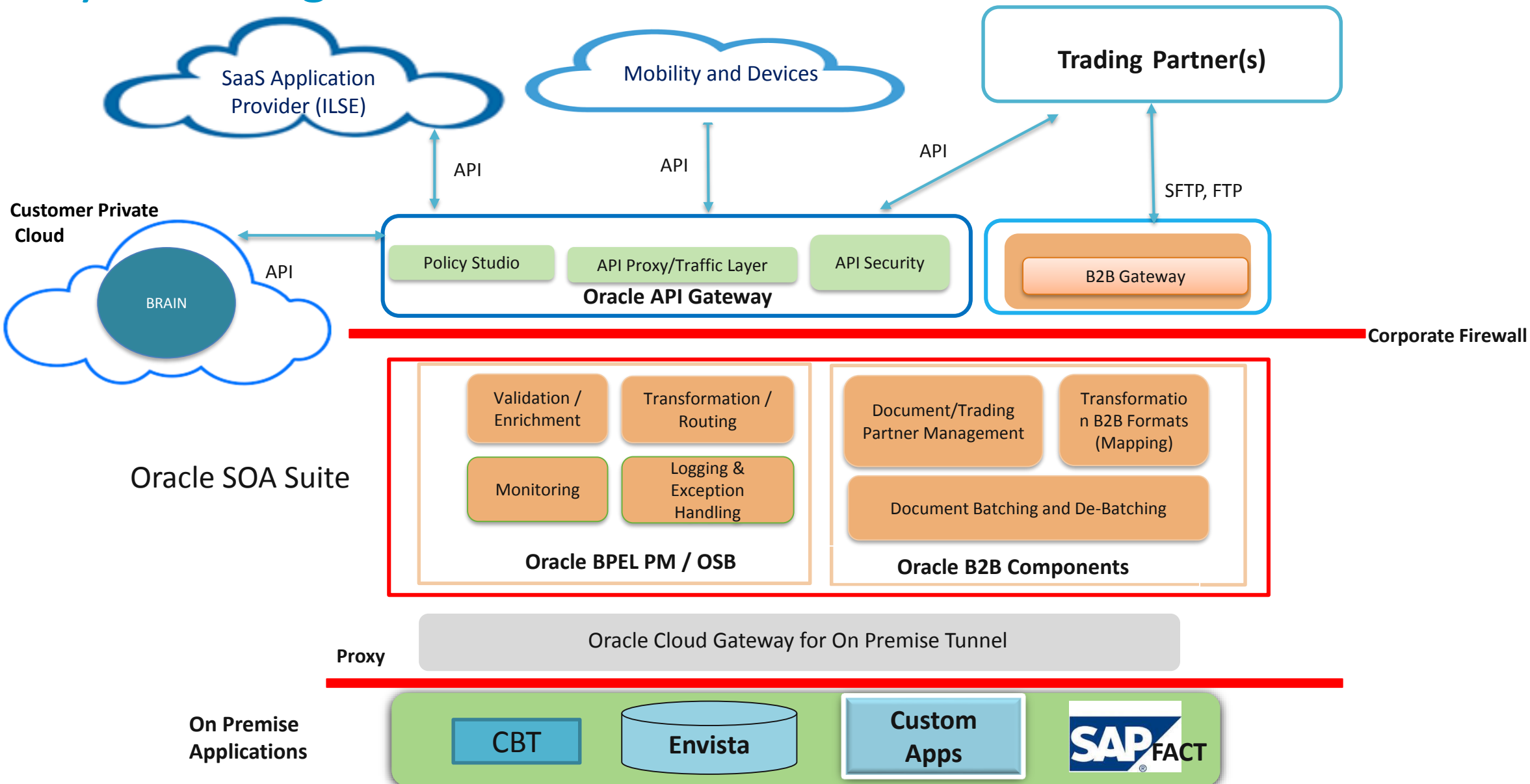
Above Challenges compelling the customer to stay competitive in the digital era by adopting
“API driven B2B”

Characteristics of API Driven B2B

- B2B Objectives are still the same, EDI is not going away
- Self Service Partner Portals to achieve faster partner onboarding
- Partner integrations using RESTful API enabled for B2B communication
- Convenient and simple APIs to make business process integration across enterprise in a seamless manner



Hybrid Integration Solution – API Driven B2B



Expected Benefits of API Driven B2B

- **Simplifies on-boarding** as backend logic encapsulated as APIs and can be reused for different partners
- Enabling the enterprise services to **Digital Avenues**
- **New Business Channels** - social, mobile and cloud platforms.
- **Increased Business Revenue** through linking various channels
- Focus on **Core Business Area** and utilize the APIs from External World

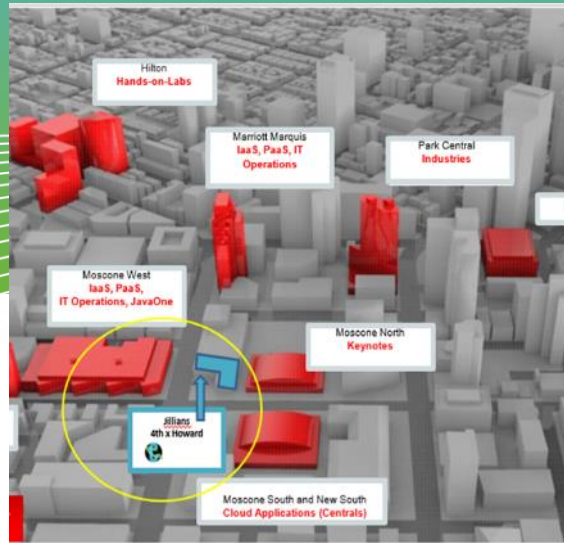
In nut shell one step further to
“**Friction Free Economy**”

Join our leadership at our Digital Innovations Center @ Jillians

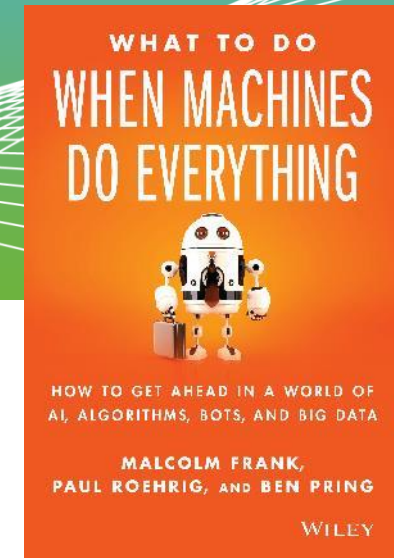
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Join us at Jillian's and receive an E-book version of "**What to do When Machines Do Everything**", by Malcom Frank, Ben Pring, and Paul Roehrig



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Thank You

Suresh Sharma: Suresh.Sharma@cognizant.com



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CLOUD SOLUTIONS



B2B - Modernizing using API

Nishi Deokule

Agenda

- Introduction
- Pain Points
- Modern B2B implementation Limitation
- Modern B2B - Technical Architecture
- Business benefits
- Road Map

Introduction



- Name : Nishi Deokule – nishi@getresourceinc.com
- Company – GetResource Inc. - <http://www.getresourceinc.com>
- Role – Founder member & Chief Enterprise Architect
- Total 24+ years of industry experience
 - Worked as SOA Architect/Product Manager/Product Marketing at Seebeyond/Sun/Oracle, BEA and Vitria

<https://www.linkedin.com/in/nishideokule>

<https://twitter.com/GetResourceInc>



GetResource Inc.

GetResource Inc.

GetResource Inc. is an enterprise IT and business solutions company that specializes in Oracle Fusion Middleware implementation.

GetResource Inc. is also Bootcamp/Training delivery partner with Oracle Partner Network team and Oracle University. We have trained nearly 8000+ consultants.

ORACLE SERVICES OFFERING

- Oracle SOA/Healthcare implementation
- Cloud migration and integration
- Modern Integration
- Business-to-Business enabler
- Oracle Character recognition implementation
- IOT – Internet of Things implementation



Problem Statement

- Client is large supply chain company which deals with large number of third party vendors
- Client process nearly hundred thousand electronic documents a day.
- Item data across boundaries
 - On-premise application dependencies
 - Cloud Application dependencies
- Adopting to Modern Integration paradigm
- Communication strategy dependent on Hub Vendors
- Lack of reusability
- Lack of flexibility
 - Tight coupling between Internal application and external HUB
- High Maintenance Cost – File storage and FTP servers
- Longer time for Trading Partner on-boarding

Enablers Oracle tools

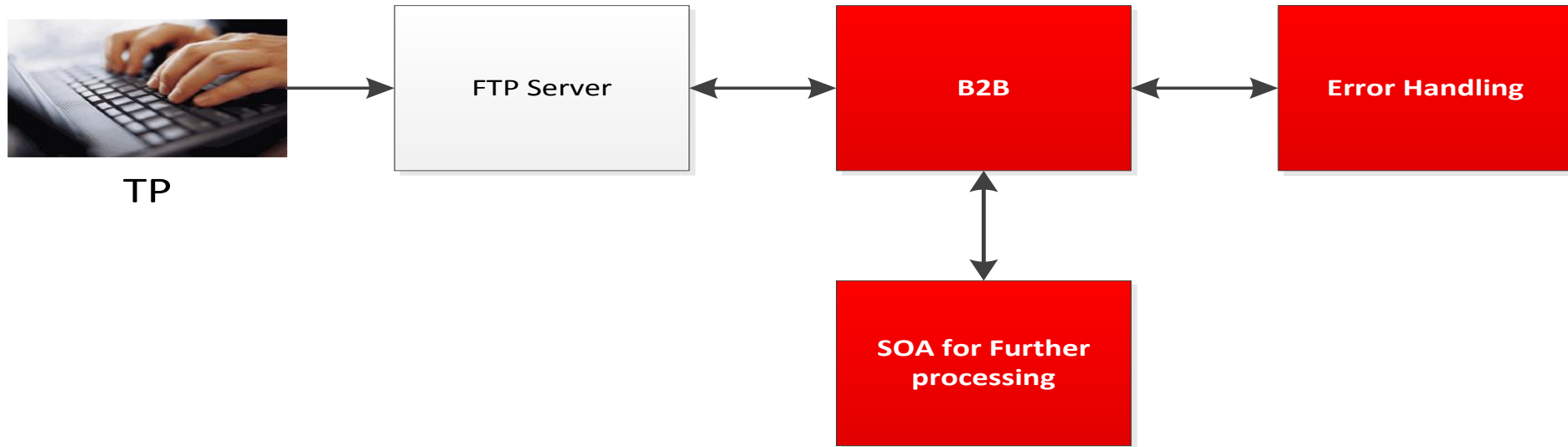
- Oracle B2B addresses the electronically trading with vendors/suppliers
 - Oracle B2B, as a component of the SOA Suite, provides:
 - EDI Business Document Translation (850, 856, 214, 940, 945)
 - Instance Tracking, Visibility and Auditing
 - Secure Connectivity
 - Trading Partner Management (Profiles / Agreements)
- SOA Suite provides:
 - A Unified Business Process Platform
 - End-to-End Instance Tracking, Visibility and Auditing
 - Integrated Process Intelligence
 - Process and Service Governance
 - Consolidated Security
 - Reusability, De-coupling of end application
 - Many to Many communication
 - Communication with REST API's
- DOCCS
 - Add features related to client
 - Cloud storage

Modern B2B - Technical Implementation

Modernization initial B2B project implemented – File transfer with cloud products

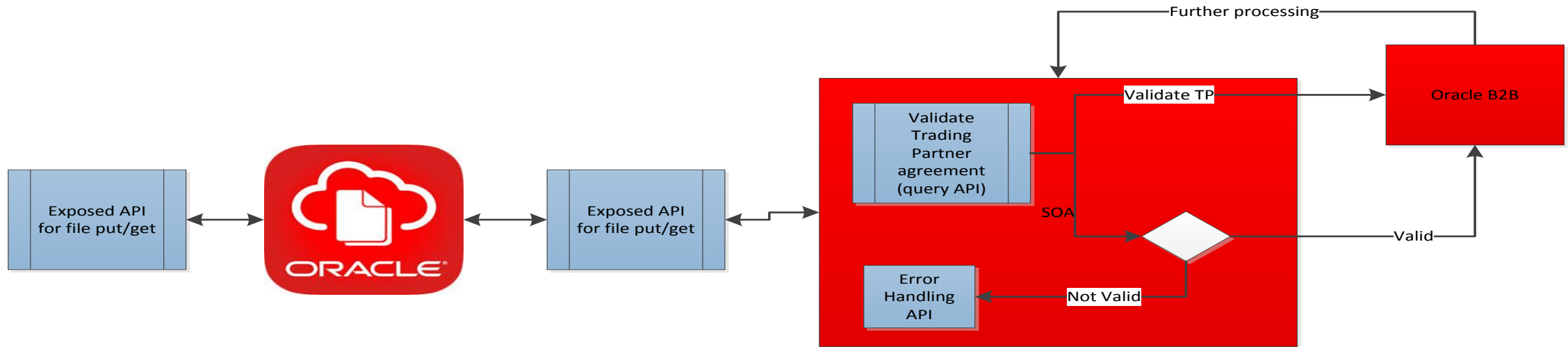
- Reduced on premise infrastructure
- Reduce cost
- Use modern integration tools like api's across integration with SOA and B2B
- Modern Integration paradigm
 - Client is planning on replacing FTP with Oracle Documents Cloud Service for file communication
 - Validate TP agreement before sending it to B2B.

Existing implementation



- Tight coupling with FTP server, any changes to directory structure will impact B2B and trading partner.
- Locked in with FTP server provider or on premises solution

Starting of Modernization



- B2B loose coupling with file server
- Cloud based file server
- Flexibility in managing cloud drives and storage
- Expose B2B transport protocol as API
- API access to put and get files
- Flexibility to migrate on premise B2B to Cloud

Starting of Modernization

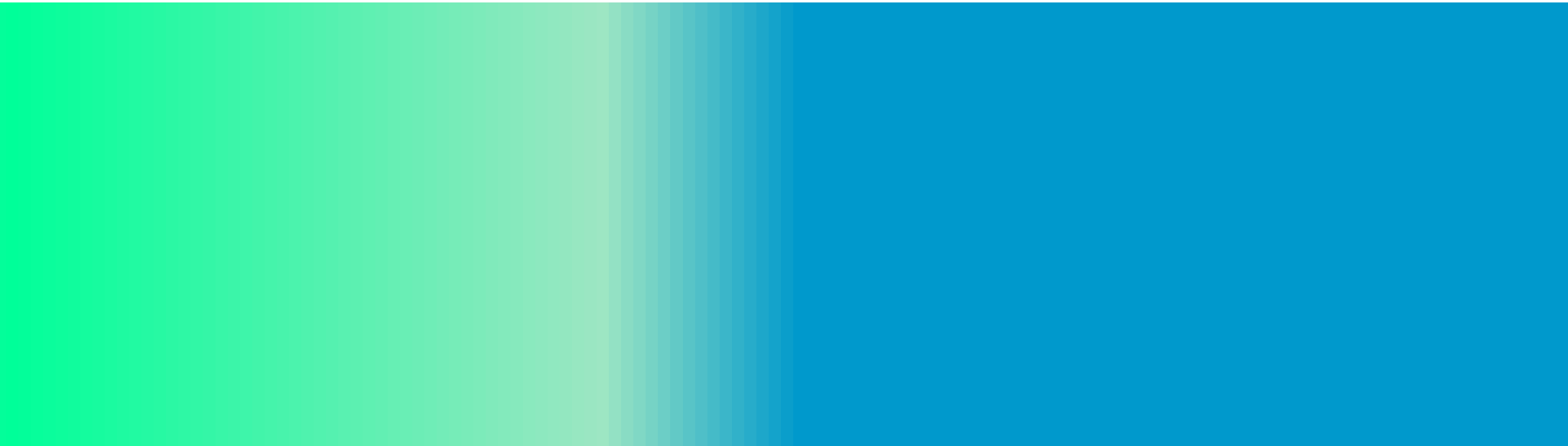
- B2B loose coupling with file server
- Cloud based file server
- Flexibility in managing cloud drives and storage
- Expose B2B transport protocol as API
- API access to put and get files
- Flexibility to migrate on premise B2B to Cloud
- Reduce messages to B2B
 - Use Query API to validate Trading partner agreement before sending the data to B2B

Business Benefit

- Cost benefit - COPEX vs OPEX
- Savings of 10% of IT infrastructure
- Reduce IT infrastructure foot print
- Customer satisfaction – Cloud solution is reusable in other regions of organization
- Oracle B2B provides daily reports on total number of transactions received
- Currently customer has increase the number of PO's processing from 10,000 to 15,000
- Average size of PO is approximately 1000 KB

Road Map

- Expose API's
 - for validation
 - for trading partner management
 - for other transport protocols
- Migrate on premise B2B to cloud
- Migrate on premise integration to cloud.





GET

RESOURCE

RESOURCES ARE COMPANY'S STRENGTH