



# Automated Migration from Proprietary Integration Platforms to Red Hat JBoss Fuse

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# Background



# Open Source - Significant Enterprise IT Asset

Fig. 1: Prioritizing innovation

Please prioritize your primary IT and business goals for Open Source Software.

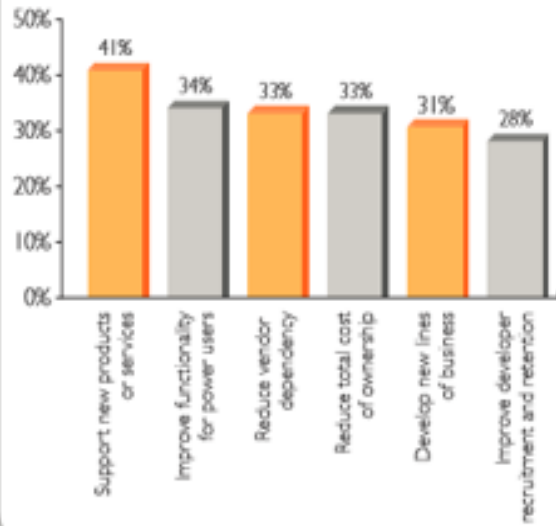


Fig. 2: Open source supports applications

To what extent does open source support applications in your enterprise?

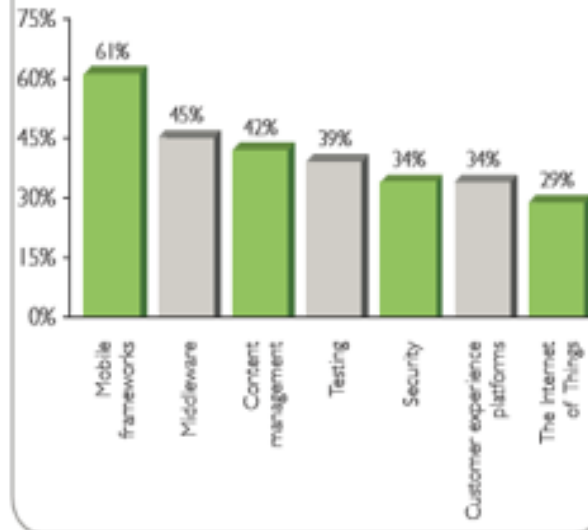
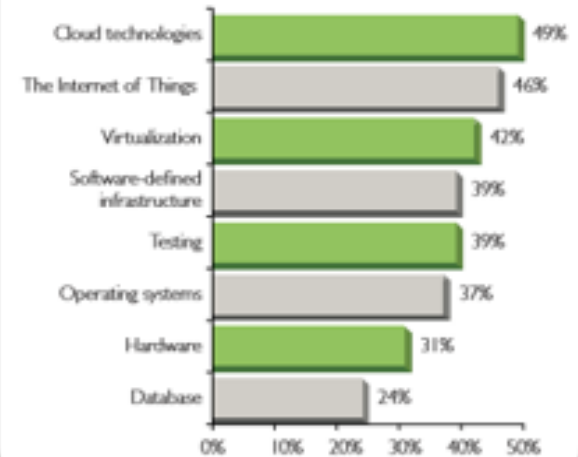


Fig. 3: Open source supports critical infrastructure

To what extent does open source support infrastructure in your enterprise?



## • Middleware

- Leads the adoption @ No.2
- A key role in achieving business goals called for open source

\*\* Based on Open Source Era - Oxford Economics Study in Collaboration with Wipro, 2015

# Wipro's Focus on Migration to Open Source

## Application

- Web Application & Portal Migration
- Middleware Migration
- Containerization

## Data

- Big Data Migration
- DB Migration – RDBMS & NoSQL
- Reports Migration

## Infrastructure

- Operating System Migration, Virtualization
- Migration to Open Monitoring
- Migration to Software Defined Infrastructure

Cloud Migration

# Red Hat and Wipro Alliance:

## Overcome problems with proprietary middleware



- **Red Hat JBoss Middleware**
- Lowers cost with a flexible subscription model
- Deploys across traditional data center, virtualized and cloud environments
- Easily scales to meet growing demands
- Ensures continuous innovation with a basis in community-powered open source code



- **Wipro Migration Solution**
- Lowers risk with proven tools and methodology
- Provides faster time to deployment
- Improves standardization with pre-tested templates and workflows



# Migration Drivers



# Challenges in Legacy/Proprietary Middleware

## Cost

- High annual support costs
- Expensive upgrades that impact new application budgets

## Product Life

- Products nearing End of Life, Outdated versions no longer supported

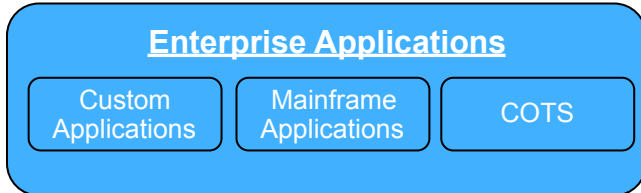
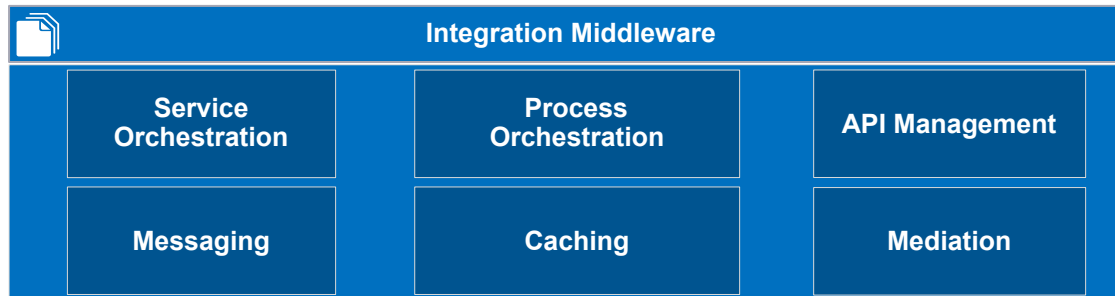
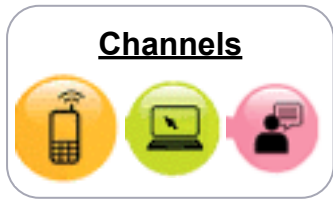
## Scalability

- Difficult to deploy across traditional data center, virtualized and cloud environment
- Difficult to scale for growing demands

## Innovation

- Difficult to cater to unforeseen emerging requirements

# Future Ready?



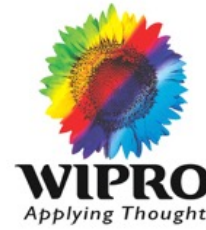
Implications on Middlewa re

- Cloud deployment Support

- Light Weight

- Ease of SaaS





# How Automation Can Help



# Migration - Risks & Challenges

## Knowledge

- Lack of documentation or documentation not up to date
- Availability of SME with source platform knowledge

## Logistics

- Effort estimation and Migration planning

## Compliance

- How do I ensure all logic is migrated over?
- Ensure everything works as before

## Impact

- Minimize consumer impact

And I have to Migrate ASAP !

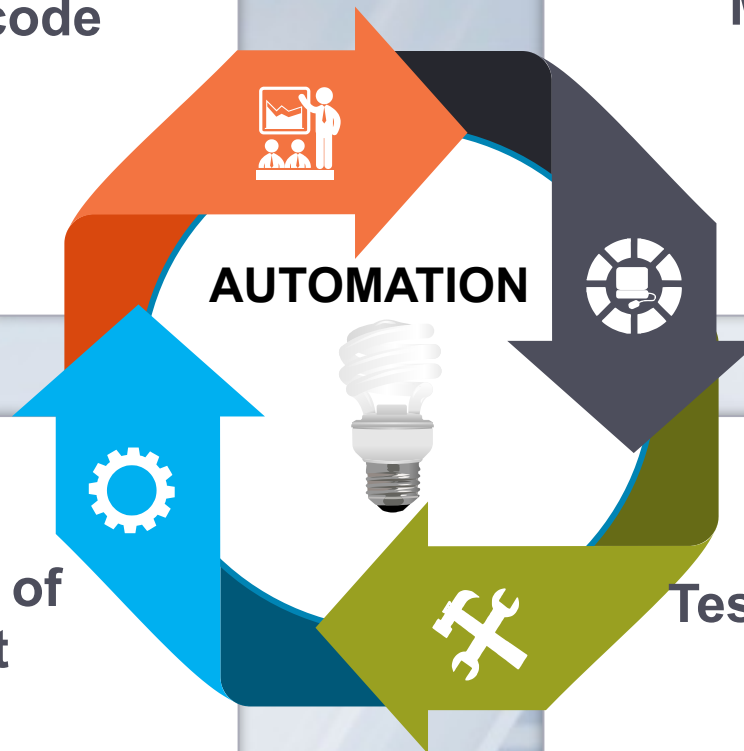
# Key Automation Strategies

Analyze existing code base

Minimize backend dependency via virtualization

Auto generation of code for target middleware

Test case reuse & test automation

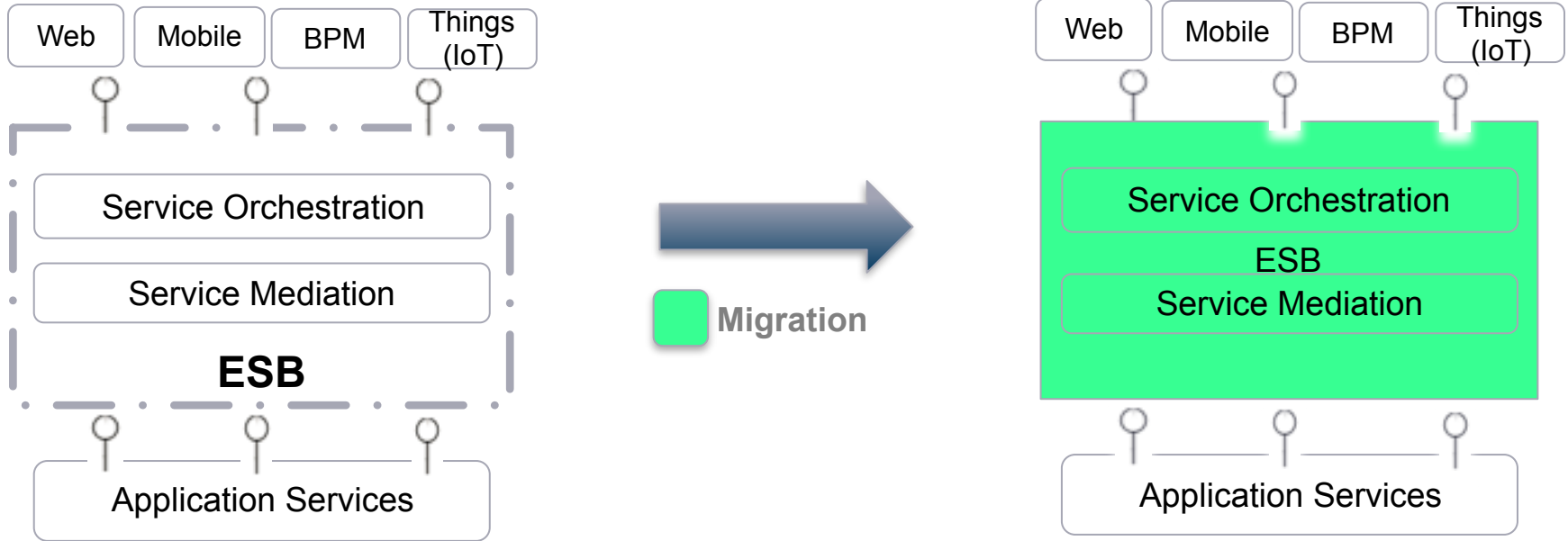




# Migration Scenarios



# Scenario – Platform Migration



## Context

- ESB/EAI platform is changed



## Automation Possibilities

- AS-IS interface analysis

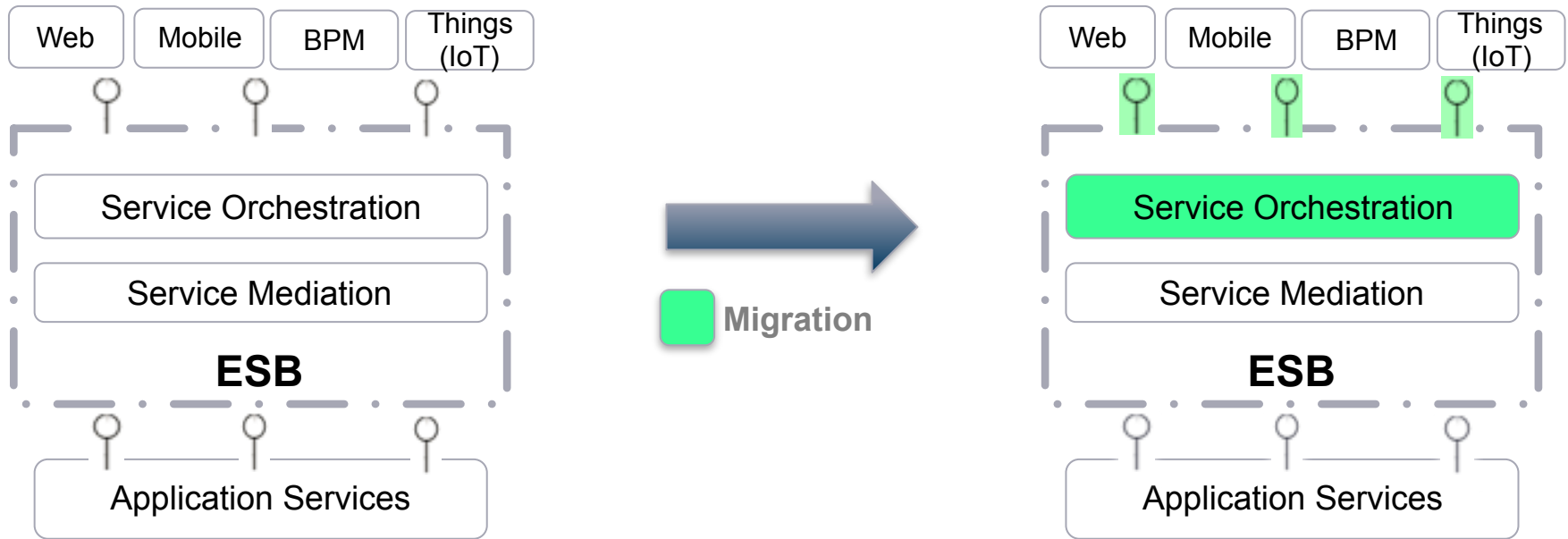


## Case Example

- Leading Energy

- No change

# Scenario – Partial Migration (Layer)



## Context

- Multiple products used to

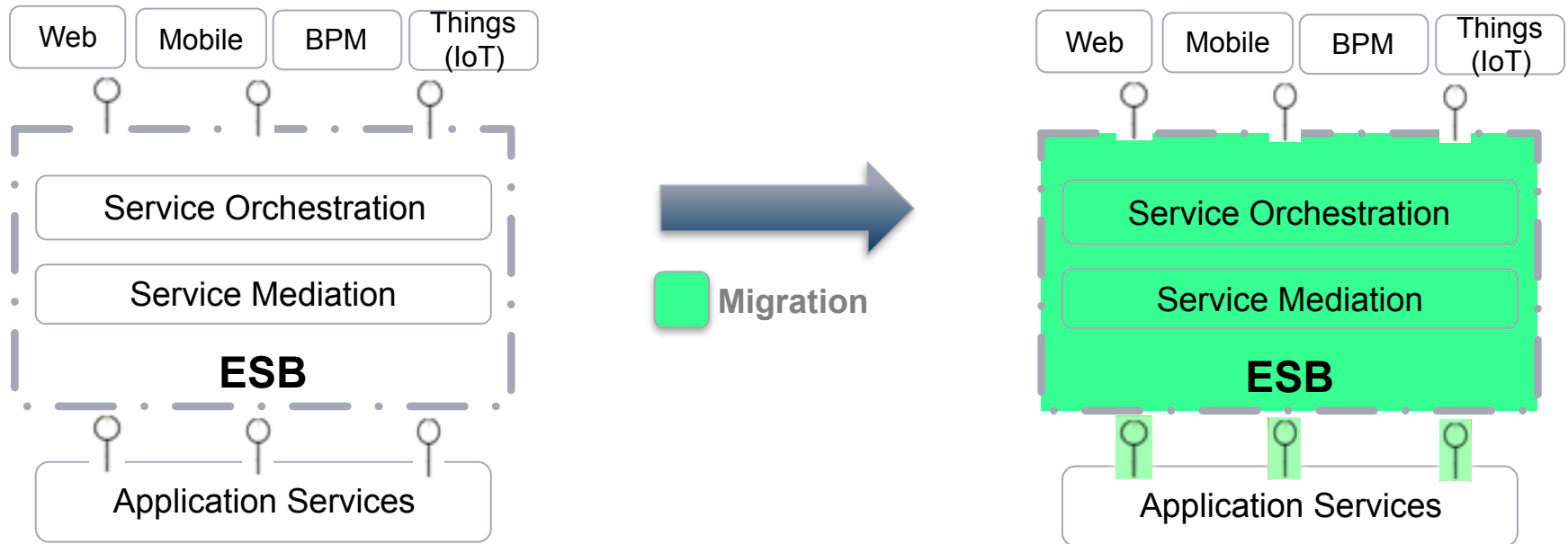
## Automation Possibilities

- AS-IS interface analysis

## Case Example

- A leading Insurer in

# Scenario – Platform Migration and Simplification



## Context

- ESB platform is fully migrated

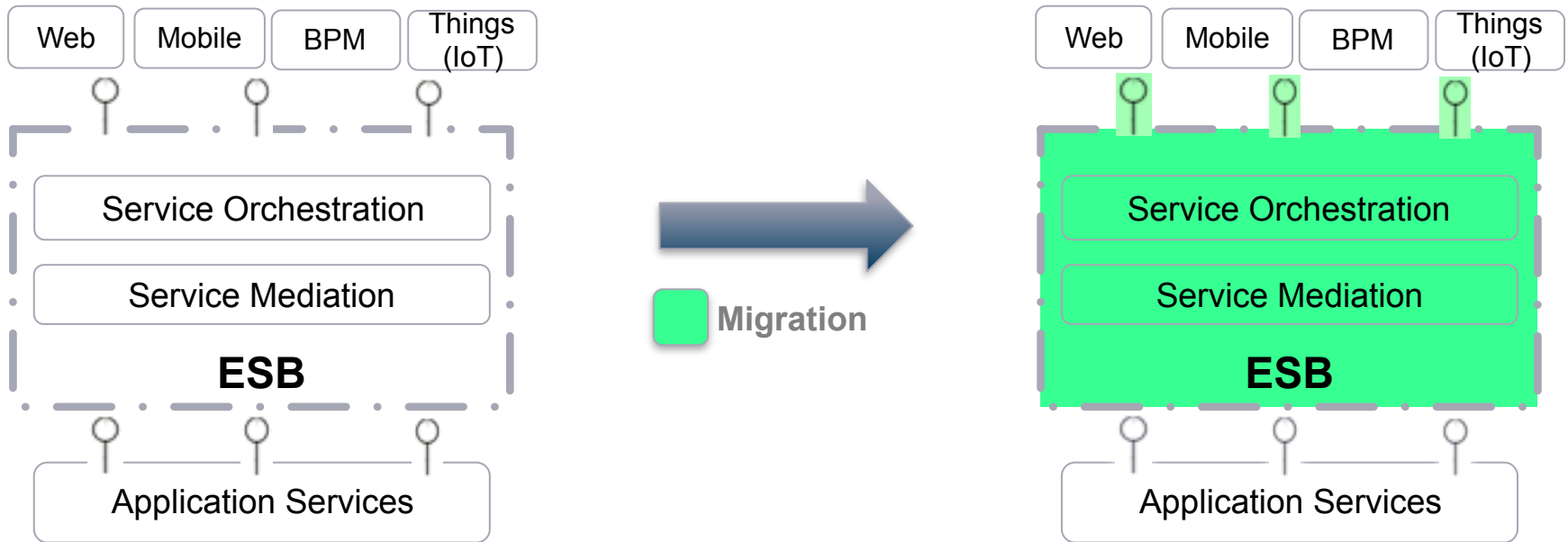
## Automation Possibilities

- AS-IS interface analysis

## Case Example

- A leading mobile

# Scenario – Migration & SOA Adoption



## Context

- ESB platform is fully migrated

## Automation Possibilities

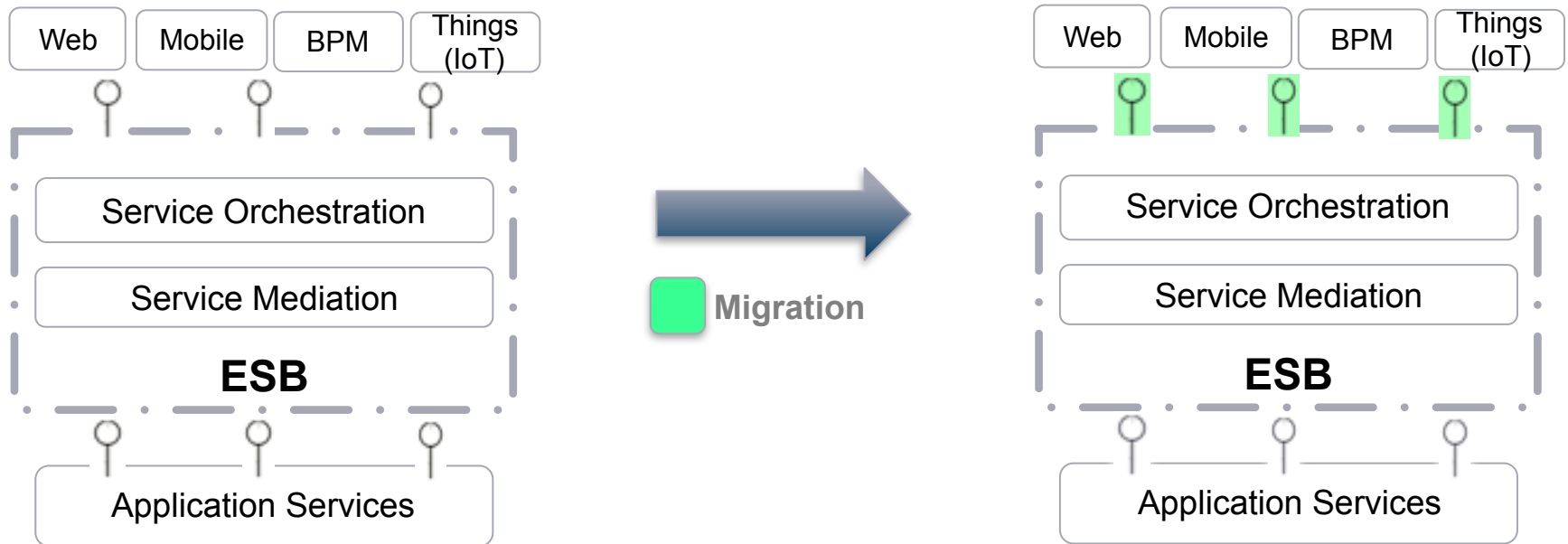
- AS-IS interface analysis

## Case Example

- A leading utility major



# Scenario – Restification



## Context

- No platform change

## Automation Possibilities

- Automation of WADL/ Swagger generation

## Case Example

- A leading financial services firm is



# Solution – Migration Automation Tool Set



# Wipro Migration Solution

## A Comprehensive Offering



One of the most comprehensive kits of specialized migration & assessment tools that simplifies the migration process, reduces risk and adds predictability

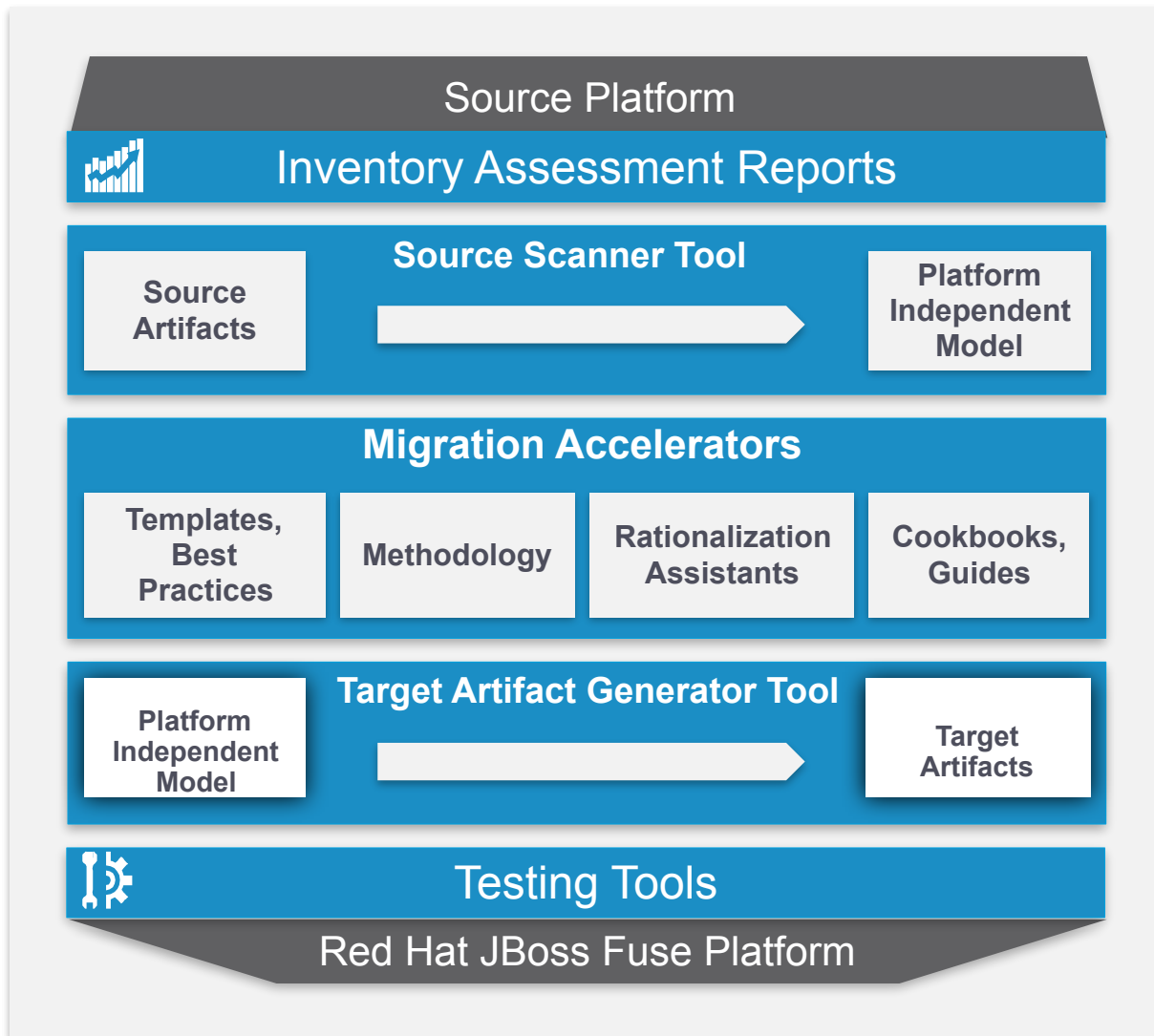


Intellectual property based tool, which enables cost and time savings



Rationalizing assistants which act as a catalyst to simplify and accelerate migration during the life cycle of middleware project

# Wipro Migration Framework



## Key Benefits



**Optimize Time and Effort:**  
Automated tools reduce migration time. . Up to 30% in time & effort savings

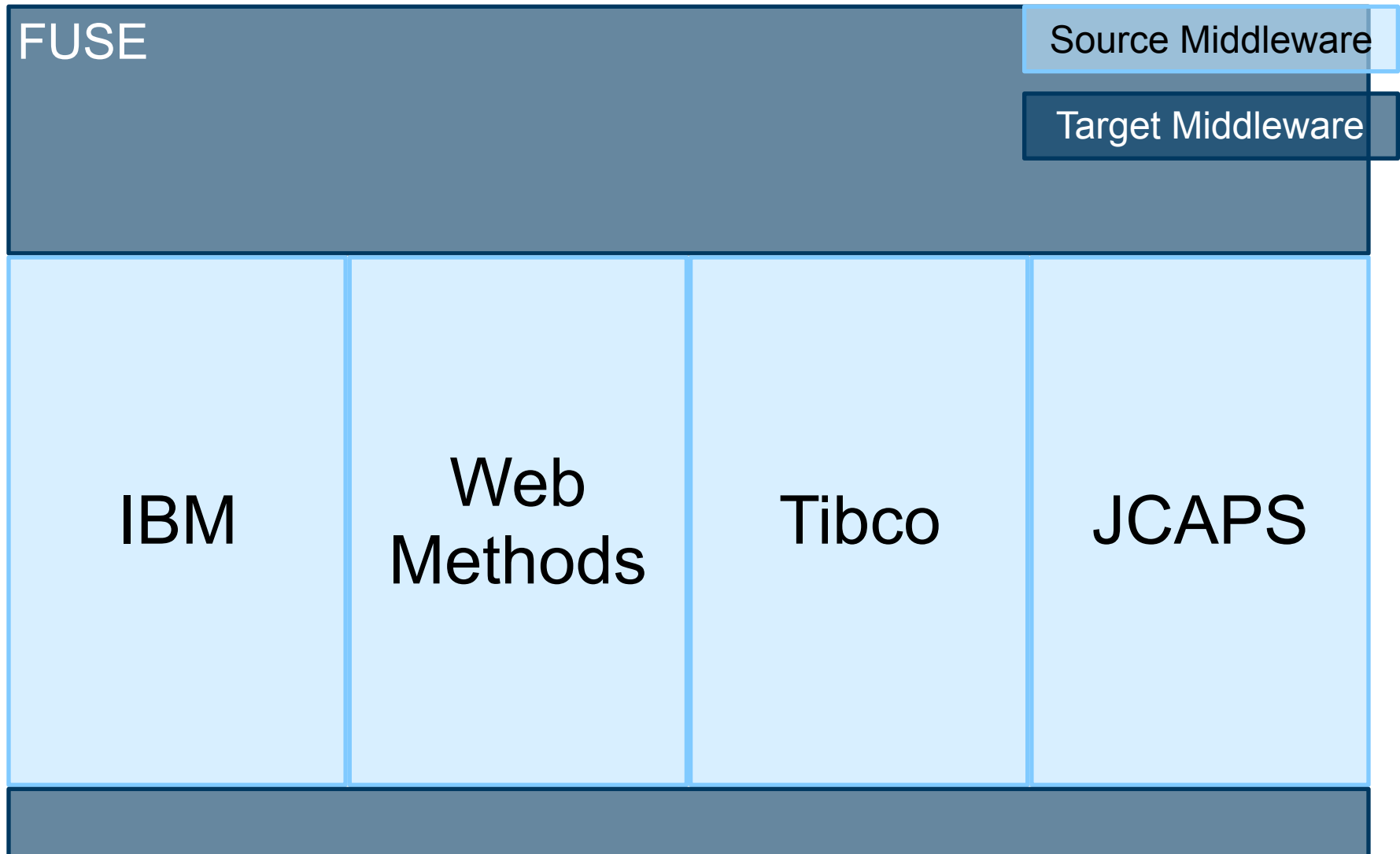


**Error & Risk Reduction:**  
Automated tools facilitate artifact migration

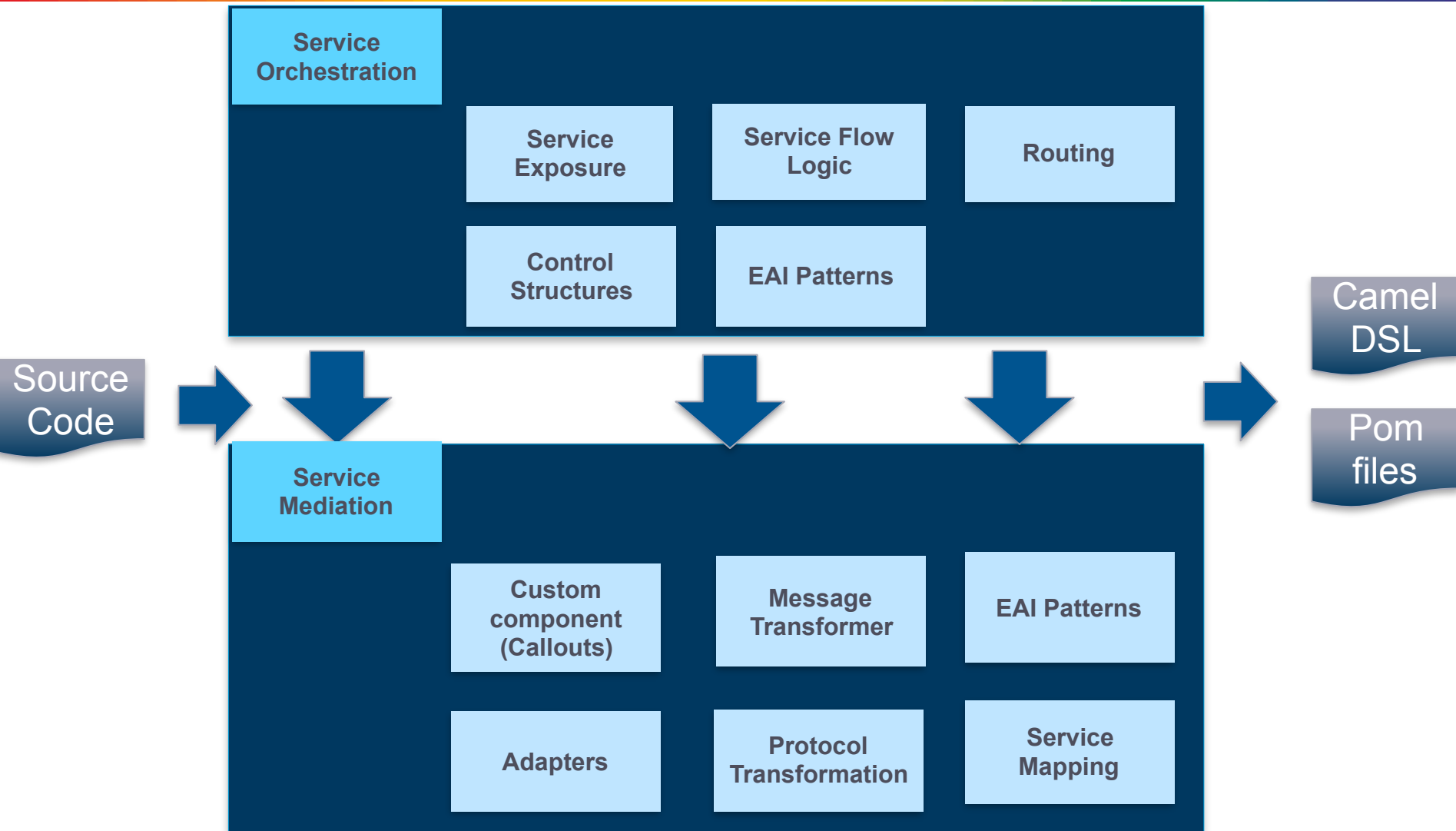


**Improved Reliability:**  
Proven Methodology addresses Key Critical Success Factors

# Middleware Products Supported



# Automation – Concepts Migrated



# Middleware Migration – Test Solution Highlights

- Early Testing
- Dedicated Technical Coverage
- Functional End to End Coverage
- Security and Performance
- Scientifically Proven Coverage



Higher Quality



Automation

- DevOps integrated automation
- Automated Regression and Progression
- Code Coverage Report Automation
- Automated Test Data by Virtualization

- Service Virtualization
- Reduce Data Preparation overhead
- Continuous Build & Validation
- Reduced Defect Leak

Time to Market



Cost Efficiency

- Reduces Test Effort by 40%
- Reduces Cost of Quality
- Reduced Defect Ratio
- Higher Reusability of existing assets



# Migration Approach - Overview

## I. CONSULTING

### Assess

As-Is Platform Analysis

As-Is Operating Model Assessment

High Level Migration Roadmap Definition

DELIVER:  
ASSESSMENT  
REPORT



### Plan & Design

Reference Architecture

To-Be Operating Model Definition [If Needed]

Detailed Migration Roadmap Definition

DELIVER:  
ARCHITECTURE  
& PLAN



## II. MIGRATION

### Migrate

To-Be Platform Setup

Set-up Operating Model [If Needed]

Rationalization & Service Migration

Service Virtualization

Testing

DELIVER:  
MIGRATED  
PLATFORM



### Operate

Deployment

Cutover/ Go-Live

Environment Tuning

Warranty Support

Decommissioning

DELIVER:  
OPERATING  
PLATFORM



Iterate As Needed







# Demo Overview



# Scenario Overview

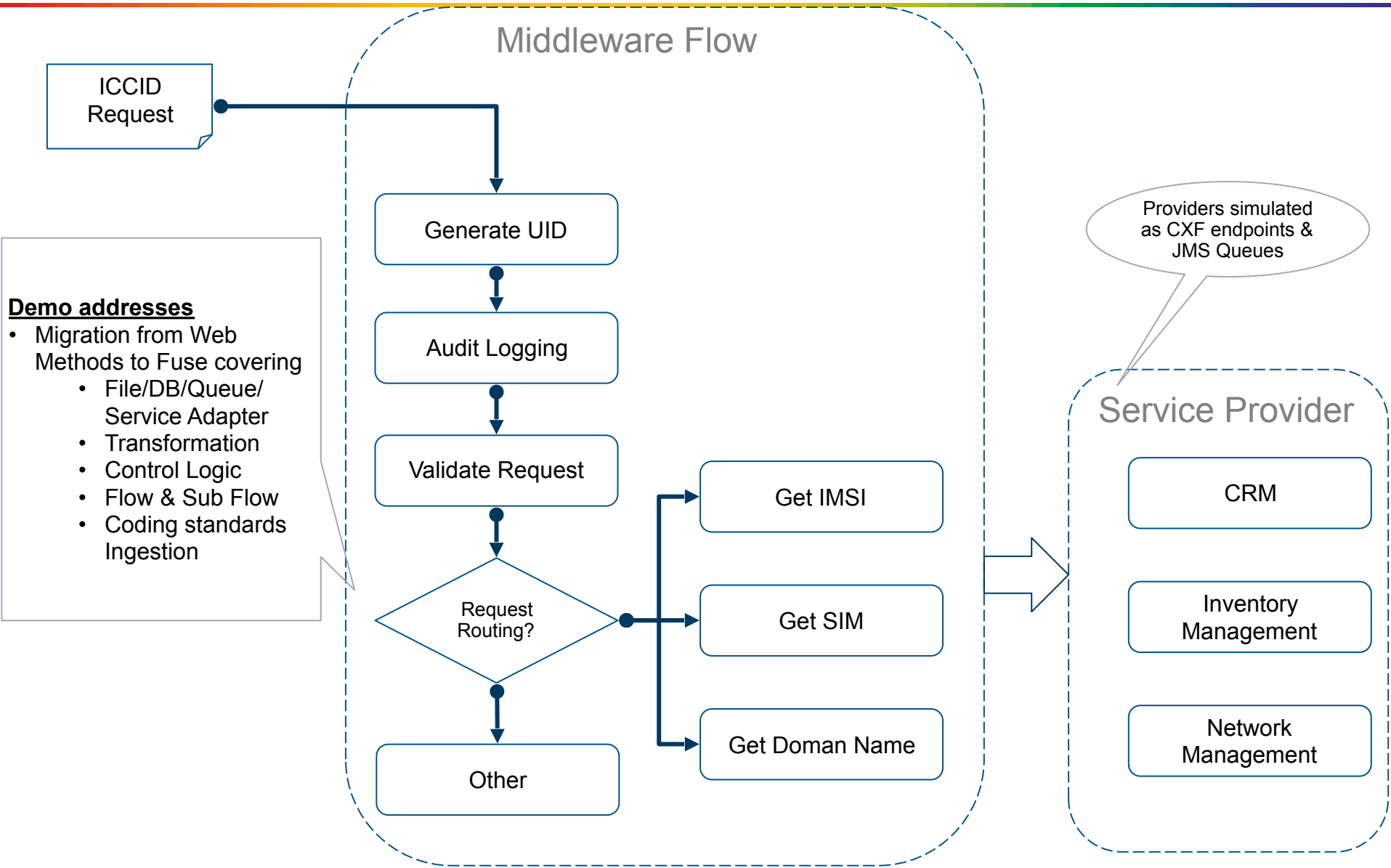
## Typical business service used in telecom scenarios like

- Number Portability
- Number Assignment & Lifecycle management
- Customer information management

## Service gets the following details based on ICCID (SIM Chip identifier)

- Customer & Product information
- SIM Information
- Mobile operator & Network information

# Use Case Overview





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