



## Vodafone Automotive Telematics the SLA challenge in IOT ecosystem

Enterprise Architecture  
November 7<sup>th</sup>, 2017



# Gigabit future

Changing the way we live and work

In **2025** the teenagers of today will be the young professionals innovating the way that we will be communicating and interacting with our information, our friends and the machines that help us.

They have NEVER known a world with a wire!

**Would they use a car like we did?**





Modern transportation is happening right now



IoT is reality and grows exponentially



The car industry is right in the middle of the digital transformation



Adoption is the key to drive further the vision of the connected car



# Our vision: connected, automated, shared and electric

The digital future of transportation will transform the way we live and work

## Connected

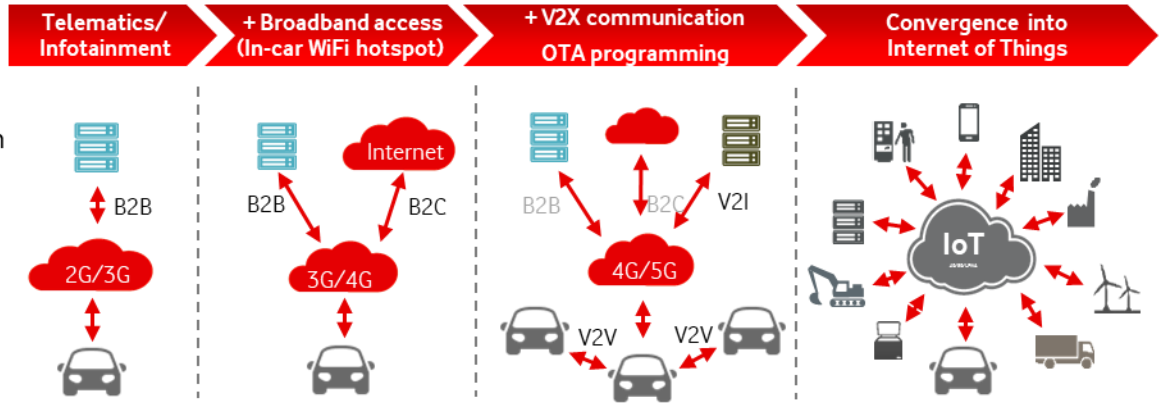
Vehicles communicate with each other, and with other elements of the transportation infrastructure ecosystem — from traffic signals to public transport scheduling and parking.

## Automated

Automation spreads throughout the journey — from today's lane assistance and automatic parking systems, to tomorrow's fully autonomous vehicles.

## Used and shared

Vehicles are used on-demand, paid for and insured accordingly. New behaviours blur the lines between individuals and even between personal and commercial use: ride sharing and car sharing behaviours are common.



To enable future connected cars, the following is required:

- M2M connectivity, Low latency networks such as 5G, Devices and backend handling Over-The-Air (OTA) Software updates, IoT platforms to deliver telematics services, telematics devices and sensors (e.g. ultrasonic sensors)
- Vodafone can deliver all these products and services



# Vodafone IOT

4G roaming  
70+  
countries  
100+  
networks

59m  
Connections

3G/2G  
roaming  
200+  
countries  
500+  
networks

1m<sup>new</sup>  
connections  
per month

Homes and  
offices

Retail

Healthcare

Public sector

Automotive

Utilities

Industrial and  
manufacturing





# Vodafone Automotive

We are a key supplier to all main global vehicle manufacturers, insurance companies and fleets

We provide all technology components needed for a connected car: Hardware, software and communication

## Our Manufacturing Business

We design, develop, manufacture and distribute parking assistance, antitheft systems and telematics control units (TCU)



in vehicle security and telematics



Vodafone Automotive's network of Secure Operating Centres – certified to work with local authorities

## Our Telematics Business

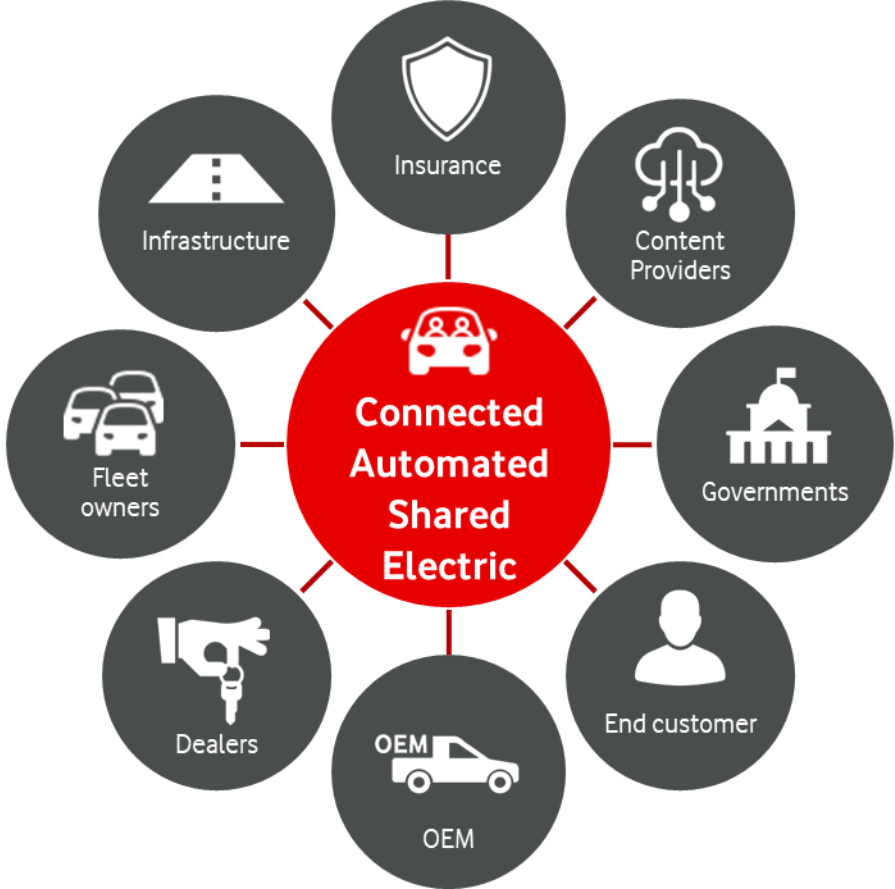
We design and deliver telematics products and services for stolen vehicle recovery, road safety, new innovative insurance products, security assistance, eco driving and remote maintenance and control of the car.



already working with Vodafone Automotive products & services



# Ecosystem and connected consumer



## Connected Car

Technology oriented indirect capture of client behaviour

## Connected Driver

Vehicle relationship and additional service features

## Connected Consumer

Cross industry business models, Consumer insights and consumer relationships



# Vodafone automotive telematics platform at a glance



Vodafone Automotive Telematics Platform

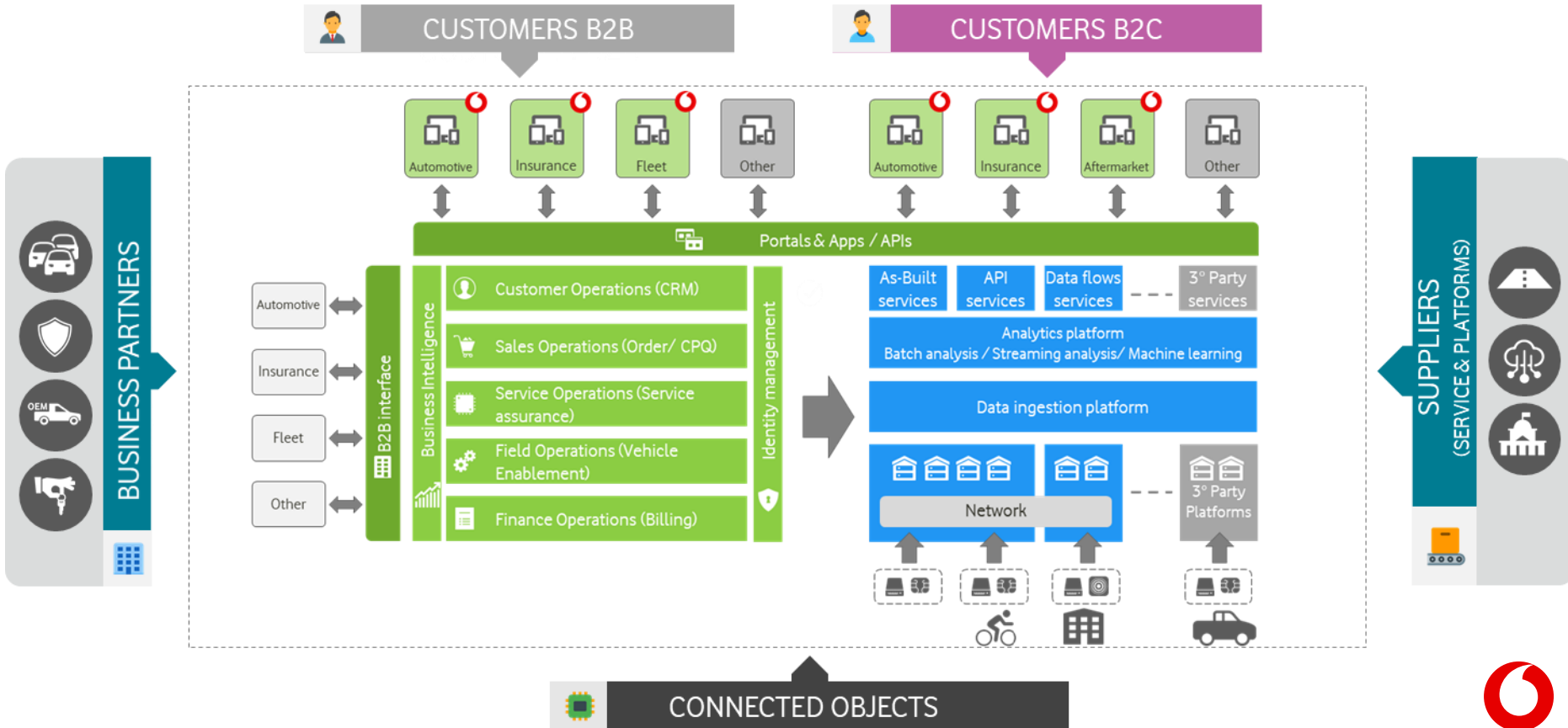
Enable customers to manage the whole IOT ecosystem by design

The central part of the diagram is a large red rectangle. At the top center is the white Vodafone logo. Below it, the text 'Vodafone Automotive Telematics Platform' is written in white. Underneath that, the text 'Enable customers to manage the whole IOT ecosystem by design' is also written in white.

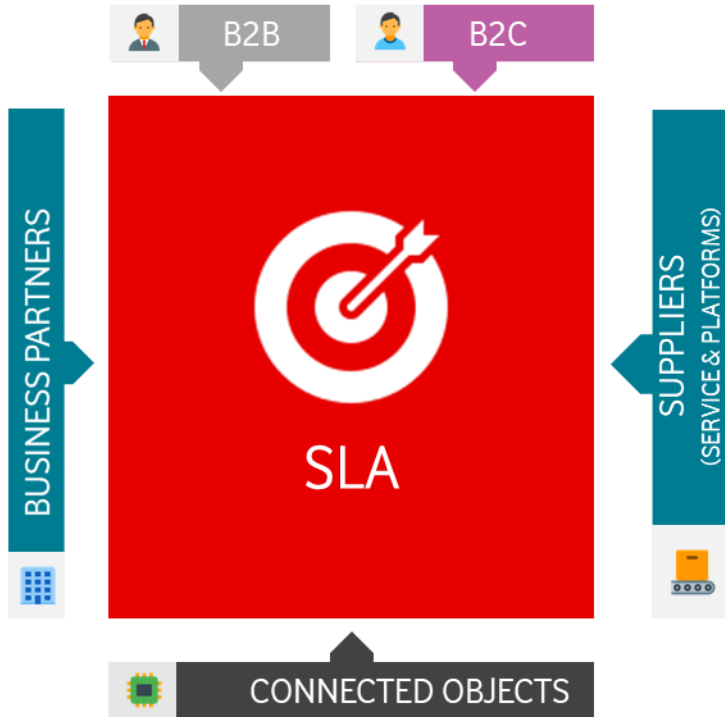







# How system architecture supports VA business






# The SLA challenge



## Zero delivery downtime

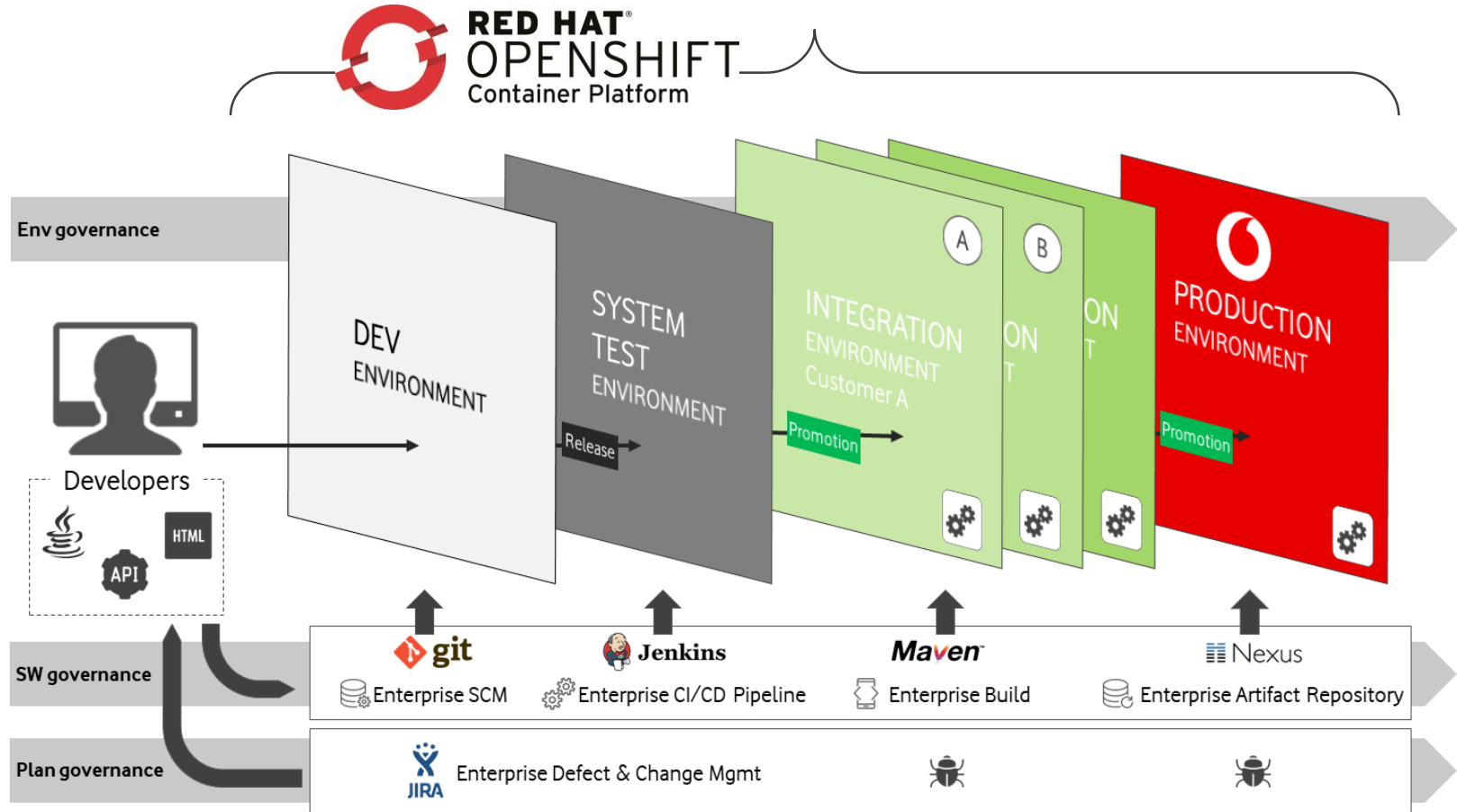
-  Automate delivery to integration and production
-  Deliver only what is necessary
-  Deliver exactly when is necessary

## Zero application outages

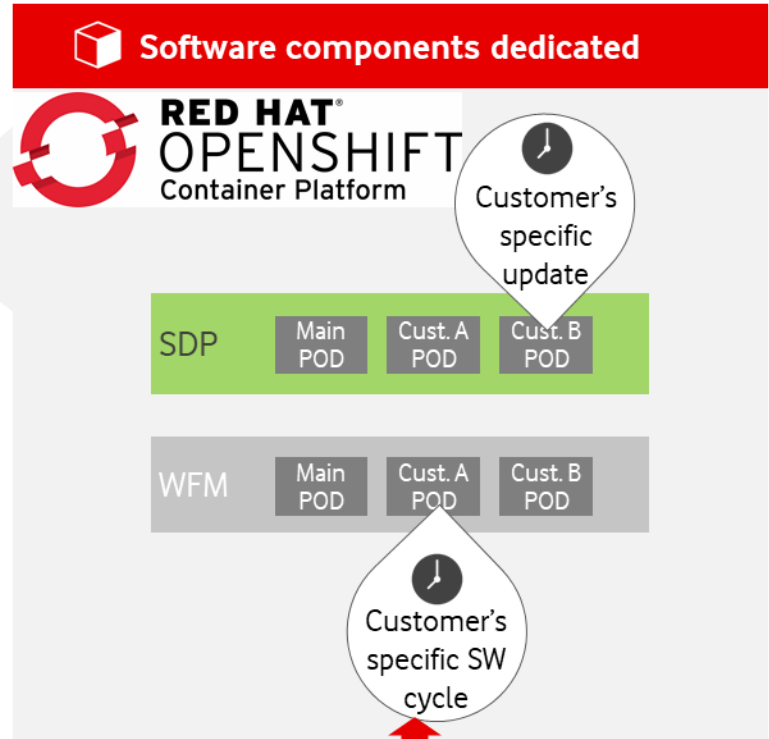
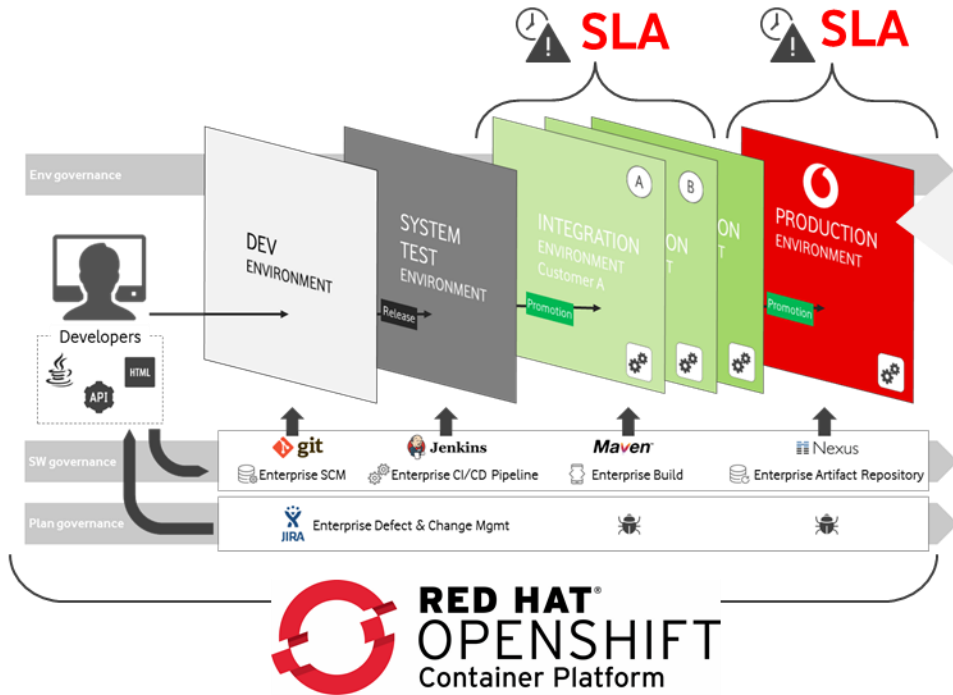
-  Control and manage workloads
-  Control and manage the whole stack
-  Automate no-regression tests



# Automated delivery in a B2C & B2B context



# One platform vs different customers' availability needs



Deliver only what is necessary



Deliver exactly when is necessary

**Flexibility to accommodate different SLA needs**



# The whole stack under control



**RED HAT®**  
**OPENSSHIFT**  
Container Platform



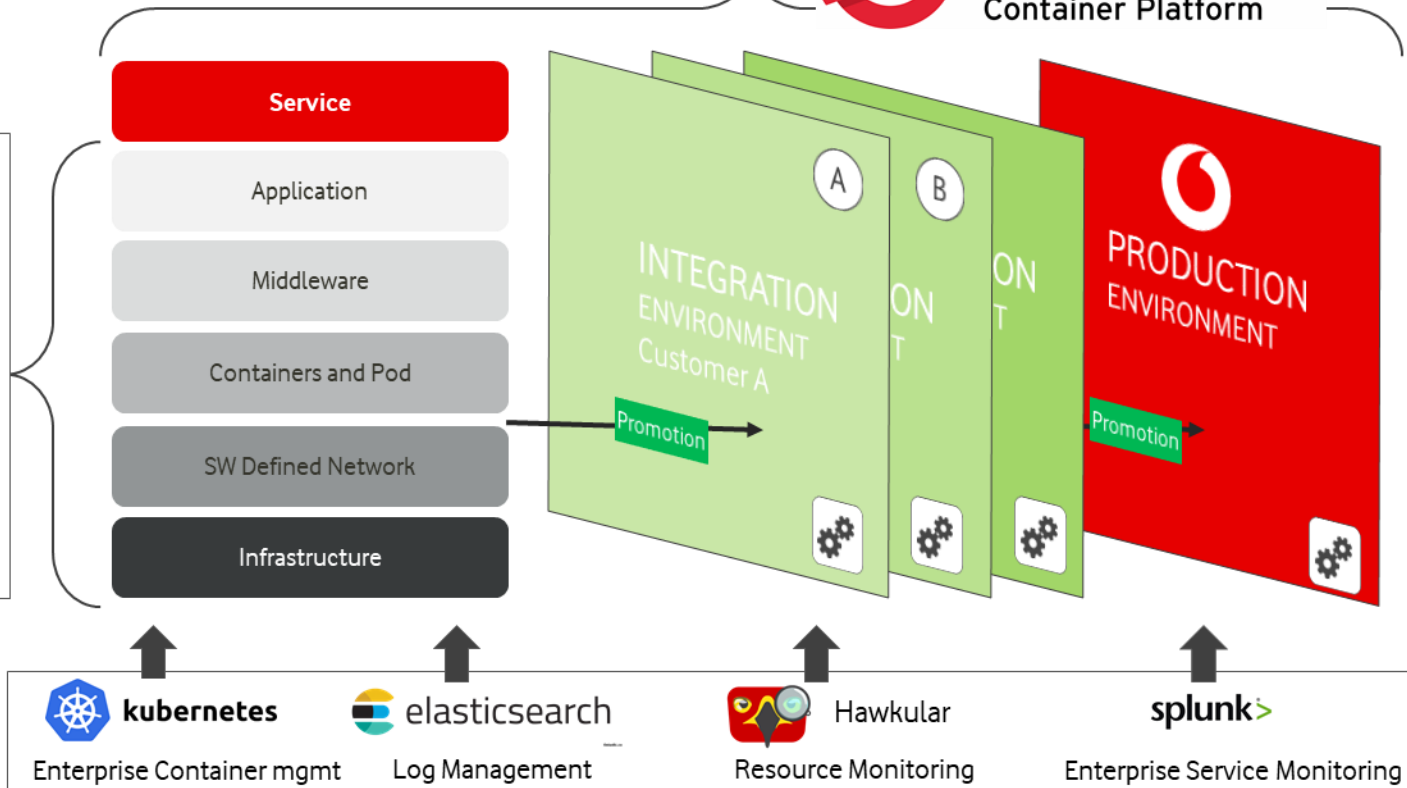
**RED HAT® JBOSS®**  
ENTERPRISE  
APPLICATION PLATFORM

**RED HAT® JBOSS®**  
BPM SUITE

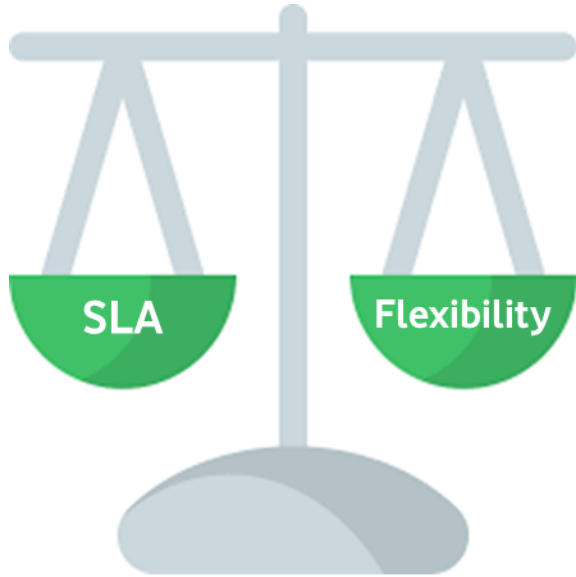
**RED HAT® JBOSS®**  
BRMS

**RED HAT® JBOSS®**  
FUSE

**RED HAT®**  
ENTERPRISE LINUX®



# Highlights to conclude



comprehensive Design



full Automation



end2end Control







**Thank you**



