



Don't Worry Be API

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THE WAY WE DO BUSINESS HAS CHANGED

THE NUMBERS TELL THE STORY (AND IT'S NOT OVER YET)

90%

of all data was created in the last 2 years [1]

BIG DATA

77%

of Americans own a smartphone [2]

MOBILE

85%

of customers making a major purchase start online [3]

SOCIAL

41%

of enterprise workloads are running on cloud [4]

CLOUD

29B

devices connected to the internet by 2022 [5]

IoT

\$284B

in mobile commerce in the US by 2020. [6]

API ECONOMY

[1] IBM, [10 Key Marketing Trends for 2017](#), Dec 2016. [2] Pew Research Center, [Mobile Fact Sheet](#), Jan 2017. [3] Synchrony Financial, [2016 Major Purchase Study](#), Dec 2016.

[4] 451 Research, [Voice of the Enterprise: Cloud Transformation](#), September 2016. [5] Ericsson, [Ericsson Mobility Report](#), Nov 2016.

[6] Business Insider, [The Rise of M-Commerce: Mobile Shopping Stats & Trends](#), Dec 2016.

BY THE YEAR 2020

THERE WILL BE MORE THAN

26

BILLION
INTERCONNECTED
DEVICES

215

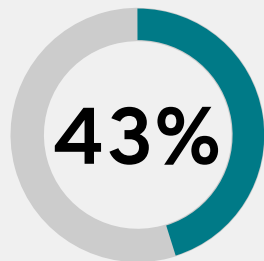
TRILLION
STABLE
CONNECTIONS

63

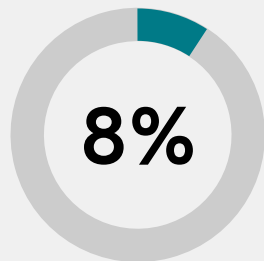
MILLION
CONNECTIONS
PER SECOND

MORE SOFTWARE: MORE DIGITAL TOUCHPOINTS

MORE INDEPENDENTLY DEVELOPED, SILOED, CUSTOMER FACING APPS



have **10 or more** digital touchpoints



have **100 or more** digital touchpoints

EVERY COMPANY NEEDS TO BE SOFTWARE COMPANY

Software is Eating the World

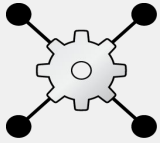
“The big question is always, do we car manufacturers learn to become tech companies more quickly than a tech company learns to be an automotive player?”

Peter Schwarzenbauer,
a member of the BMW management,
<https://www.nytimes.com/2017/02/08/business/germany-bmw-daimler-volkswagen-uber.html?smprod=nytcore-ipad&smid=nytcore-ipad-share>

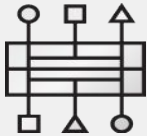
ENTERPRISE IT IS TRANSFORMING

To remain competitive, businesses to be capable of supporting current *and* next generation architectures.

Service Endpoints

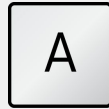


Webservices



APIs

Architecture

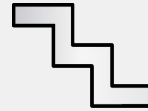


Monolith

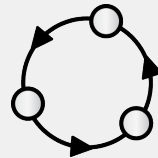


Microservices

Development Process



Waterfall

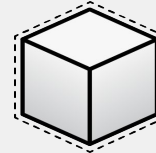


CI/CD

Deployment

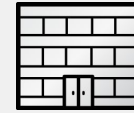


Server/VM



Container

Infrastructure



Data Center



Cloud

HOW DO APIs FIT INTO THIS?

WHAT IS AN API?

Application Programming Interface

A pre-written set of operations that a developer can use to add functionality in their application

Good APIs Are

Are simple to use

Easy to understand

Clearly documented

Follow accepted standards

Have a well managed lifecycle

MODERN APIs ARE

Mission critical to business

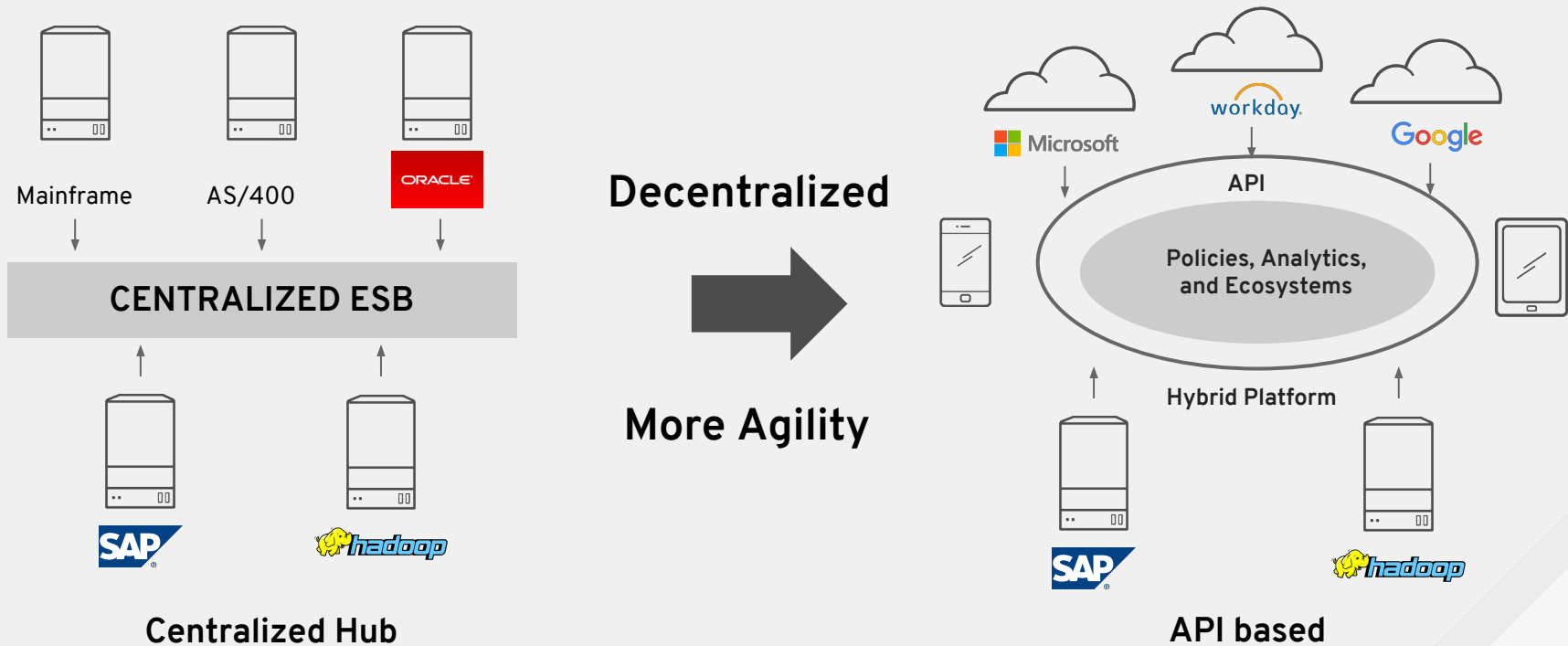
Important to your customers and partners

Fundamental to company agility and competitiveness

Essential for web & mobile UIs

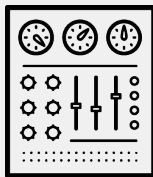


API DRIVEN INTEGRATION

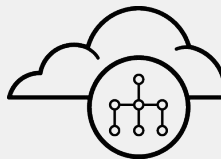


WHERE DO YOU START?

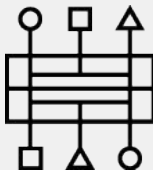
THERE'S OPPORTUNITY EVERYWHERE



OMNICHANNEL
EXPERIENCE



CLOUD-NATIVE
APP INTEGRATION



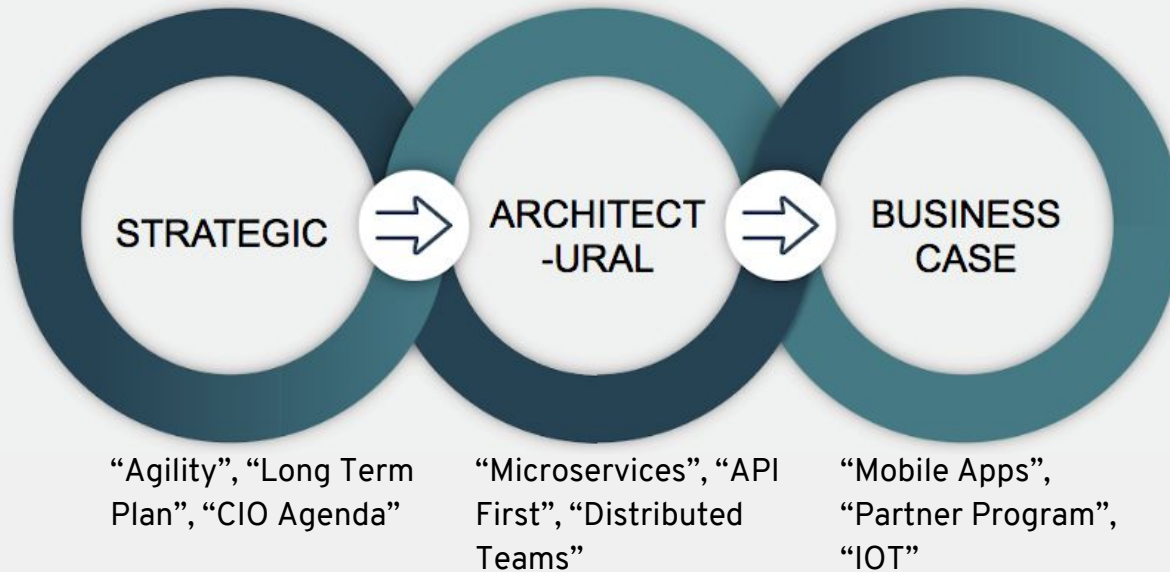
API-LED
COLLABORATION



SOFTWARE-AS-A-SERVICE
INTEGRATION

HOW DO YOU START?

START AT ANY POINT, BUT TRACK THE REST



PLANNING AN API

QUESTIONS TO ASK

WHY?

Why do we want to create APIs?

WHAT?

What outcomes do we want from our APIs?

HOW?

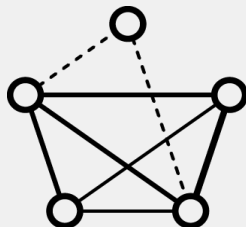
How will we implement our APIs?

WHY?

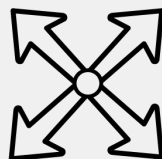
Why do we want to create an API?



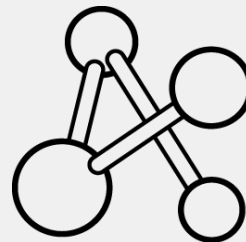
**New
Channels**



**Grow
Ecosystems**



**Increase
Reach**



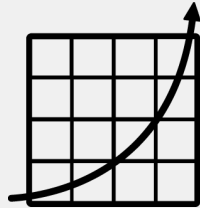
**New
Business
Models**



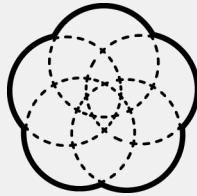
**Internal
Innovation**

WHAT?

What outcomes do we want to achieve with this API?



Add Value



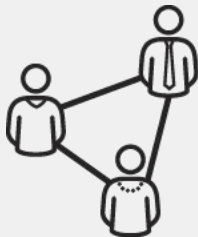
**Increase
Collaboration**



**Improve
Agility**

HOW?

How will we design and implement this to achieve our API goals?



People



Standards



Language



Promotion

BEST PRACTICES

Focus on the value of the API

Have a clear business model

Design and implement for the user

Plan to manage the API

Developer experience is a priority

Promote the API & drive adoption

Maintain the API - think about change

IMPLEMENTING AN API STRATEGY

COMPONENTS OF AN API STRATEGY

API Strategy

**API
Development**

**API Lifecycle &
Deployment**

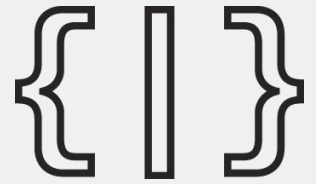
API Management

Tooling, Standards

**CI/CD, Testing, Resilience,
Scaling**

**Secure, Manage, Monitor,
Monetise**

API DEVELOPMENT



Focus on standards...

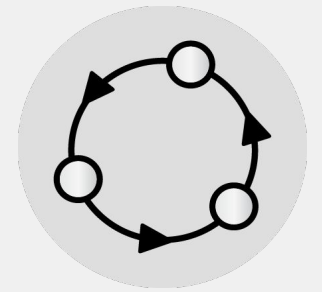
...but leverage your internal skills

Use a toolchain that developers want

Let the developers focus on delivering value

Focus on consumer experience

API LIFECYCLE & DEPLOYMENT



LIFECYCLE

CI/CD

Versioning

Automated Testing

Automated Build

Configuration

Management

DEPLOYMENT

Scaling

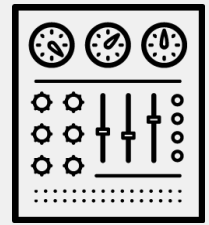
Failover

Automated Deploy

Self Service Provisioning

Hybrid Cloud

API MANAGEMENT



CONTROL

Security

Rate Limiting

Policy Enforcement

App & User

Management

VISIBILITY

Analytics

App & User Tracking

Traffic Alerts

Engagement

Developer Support

ENTERPRISE

Distributed

Multi-Department

Multi-Environment

Scalability

Webhooks

HOW CAN WE HELP?

API IMPLEMENTATION WITH RED HAT

API Strategy

API
Development

API Lifecycle &
Deployment

API Management

Tooling, Standards

CI/CD, Testing, Resilience,
Scaling

Secure, Manage, Monitor,
Monetise



RED HAT® JBOSS®
MIDDLEWARE



API DEVELOPMENT FROM RED HAT

RED HAT®
DECISION
MANAGER

RED HAT®
FUZE

RED HAT® JBOSS®
ENTERPRISE
APPLICATION PLATFORM

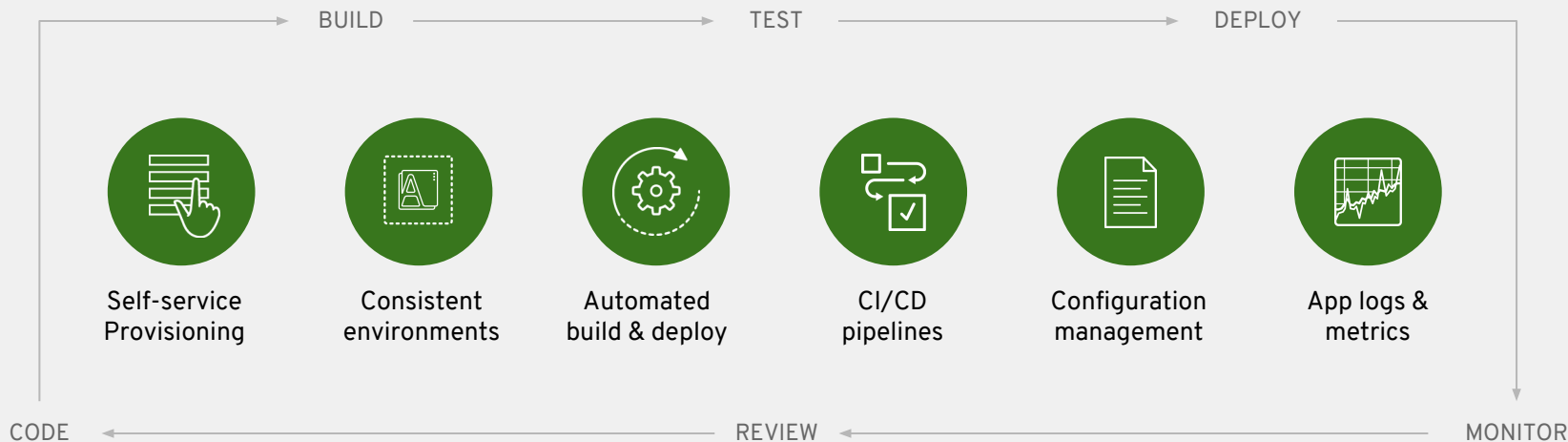
RED HAT®
PROCESS AUTOMATION
MANAGER

RED HAT®
AMQ



RED HAT®
DEVELOPMENT
SUITE

API LIFECYCLE & DEPLOYMENT FROM RED HAT




SCALING CONTAINERS **RED HAT OPENSIFT** RELIABLE HYBRID CLOUD

API MANAGEMENT FROM REDHAT





API Consumers
(App Developers)


Developer Portal

- API Provider Branded
- API Description
- Signup
- ActiveDocs (OAS)

API Manager

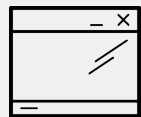



Admin Portal

- Dashboard
- Developer / Application / Key Management
- CMS
- Analytics
- Billing



API Provider
(Line Of Business / Product Manager, Developers, Writers, Ops)



Developer Apps

API Request



API Gateway

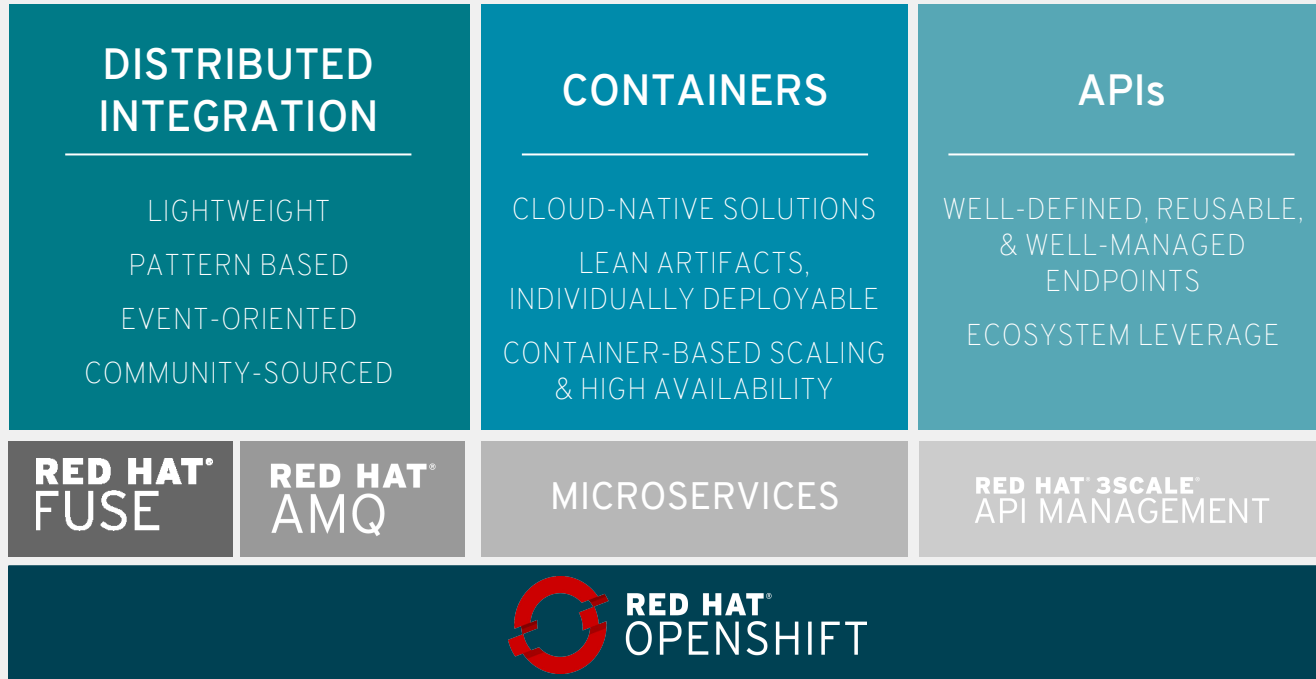
Authorized API Request



API Backend

Authorize &
Report Traffic

AGILE INTEGRATION



AGILE INTEGRATION IN PRACTICE



- Schiphol Airport aims for world class traveller experiences
- Using Red Hat Fuse to create the right API endpoints and then putting them in the hands of partners creates an extended team to deliver innovation
- Flight, baggage, reservation, and other data are available throughout the airport and to all partners
- APIs through Red Hat 3scale API Management provide the foundation for seamless handoff between the airport and its partners

AND FINALLY...



Bobby McFerrin
Don't Worry Be API

THANK YOU





MAIN TITLE HERE

SECONDARY TITLE HERE



MAIN TITLE HERE



MAIN TITLE HERE

MAIN TITLE HERE