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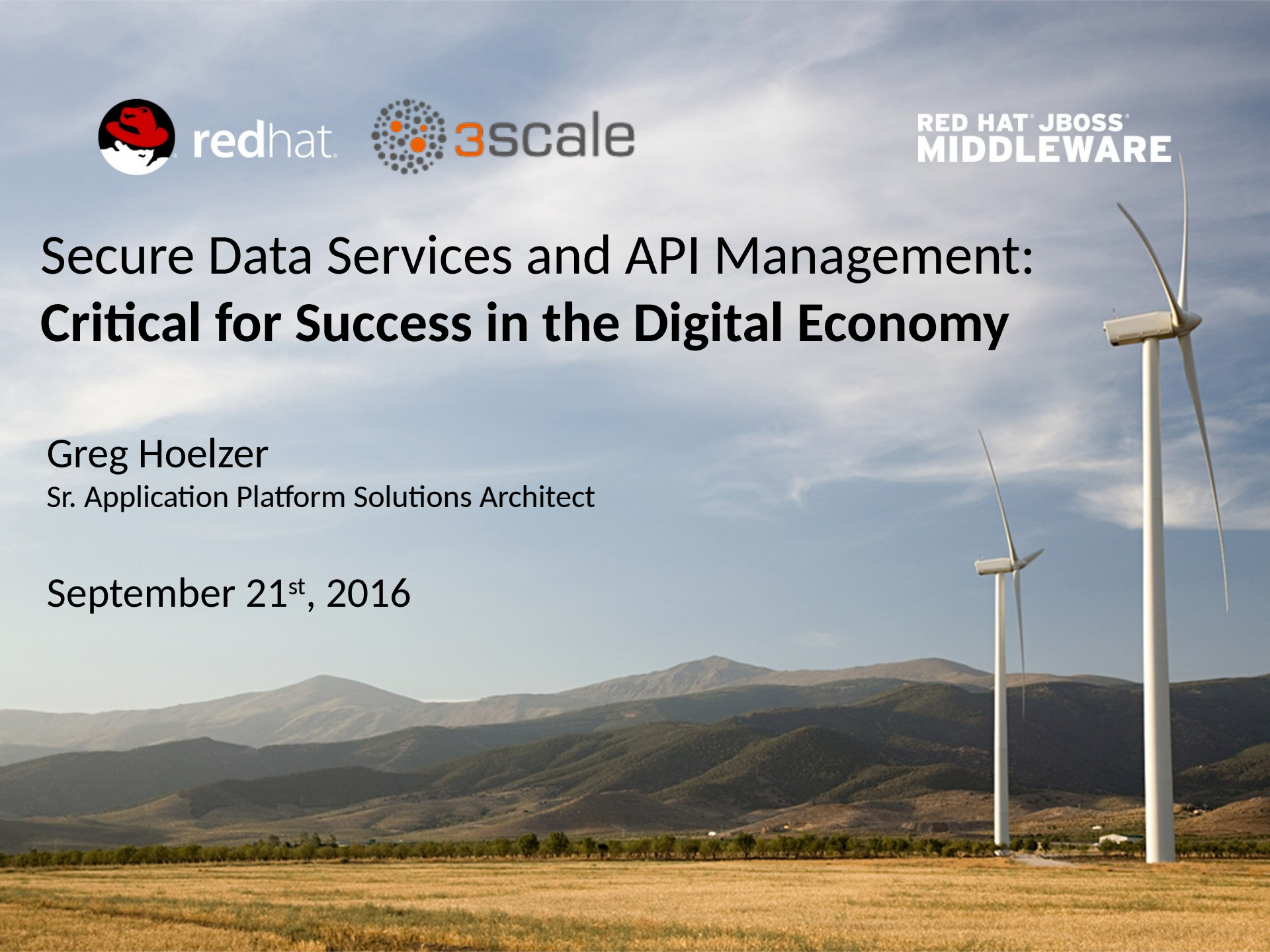
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MIDDLEWARE

# Secure Data Services and API Management: Critical for Success in the Digital Economy

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# EMERGING OPPORTUNITIES



*How do you plan to take advantage of these emerging opportunities?*

# AGENDA

- API Management and Business Benefits
- Red Hat and 3scale
- Full Stack API Solution
- Key Security Methods and Benefits

# WHAT IS A DATA SERVICE?

**Software services** that encapsulate operations on key **data entities** of relevance to the enterprise.

# WHAT IS THE PURPOSE OF A DATA SERVICE?

**Securely** expose **enterprise data** stored in multiple systems which require multiple interfaces or mechanisms to interact with them.

# WHAT IS AN API?

An interface to a **software component** that can be invoked over a communications network using **standards based** technologies.

# WHAT IS THE PURPOSE OF AN API?

Organizations can expose and leverage assets **more effectively**.

# WHAT IS DATA SERVICES AND API MANAGEMENT AND WHY DO WE NEED IT?

A Data Services API alone is just an interface – cf. a door.

You want:

- **Visibility:** Who enters your door?
- **Control:** Who can do what?





# BUSINESS DRIVERS FOR USING DATA SERVICES & API MANAGEMENT

Enabling mobile channels

Growing ecosystems

Increasing reach and distribution

Powering business models

Driving innovation and agility



[www.3scale.net](http://www.3scale.net)

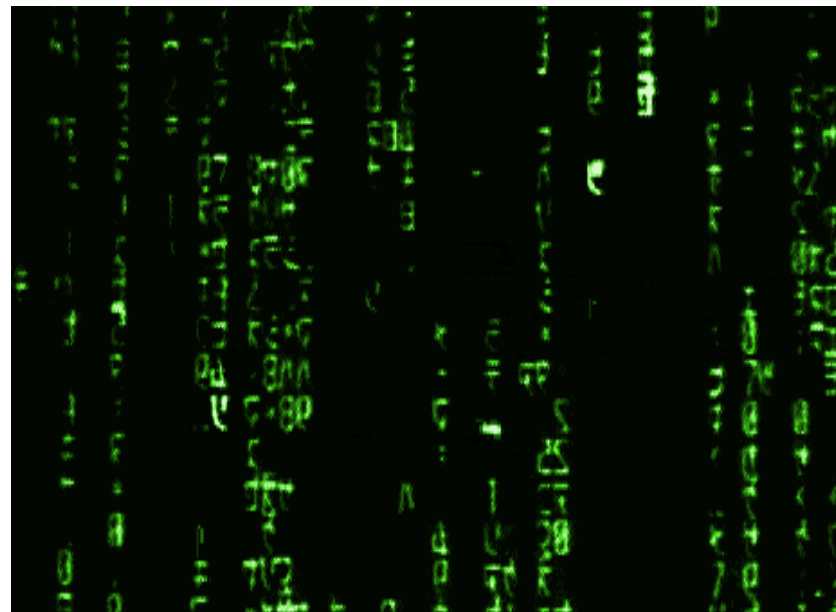
# API MANAGEMENT SETUP





# WELL DESIGNED DATA SERVICES and APIs

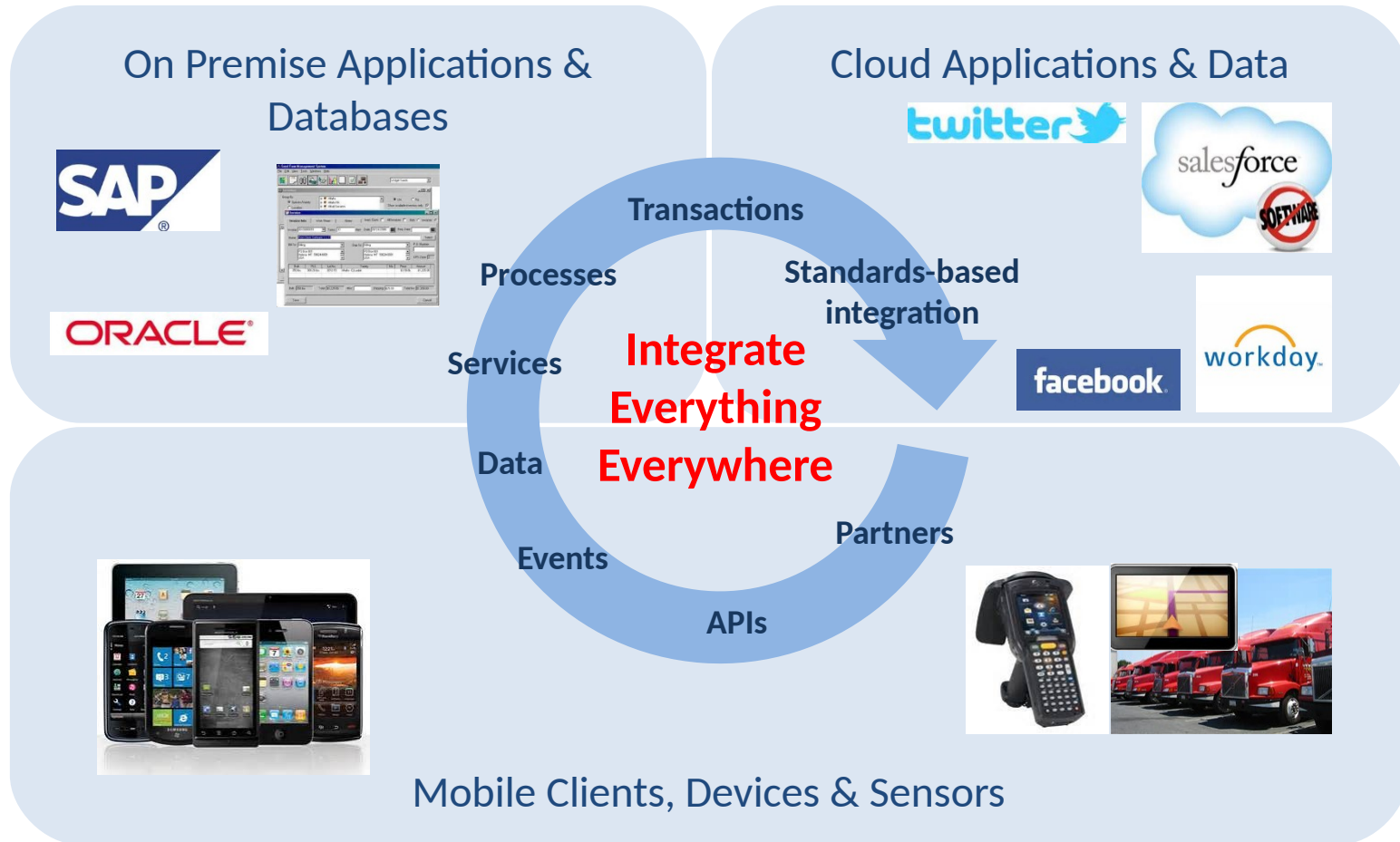
- Do something useful
- Hide the complexity
- Have a simple interface
- Are easy to share and reuse
- Are well documented
- Can be used both inside and **outside** the company
- Can be combined with other APIs



Implement **Enterprise-Grade** Security and Standards

# NEED: COMPREHENSIVE INTEGRATION PLATFORM

↑  
**YET lightweight, cost effective, agile, modular**

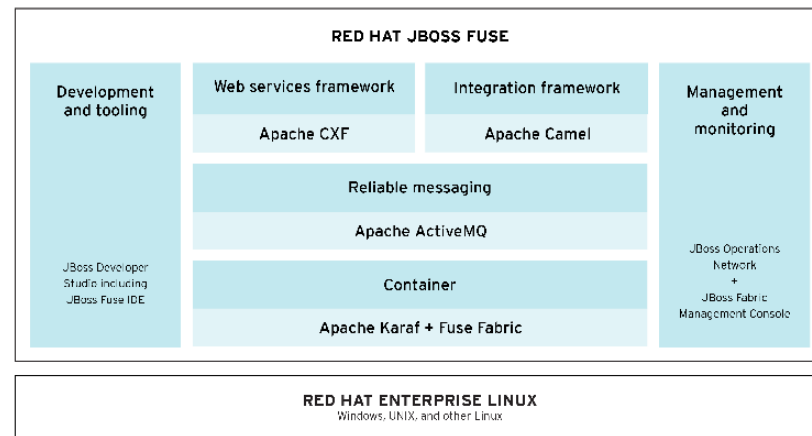
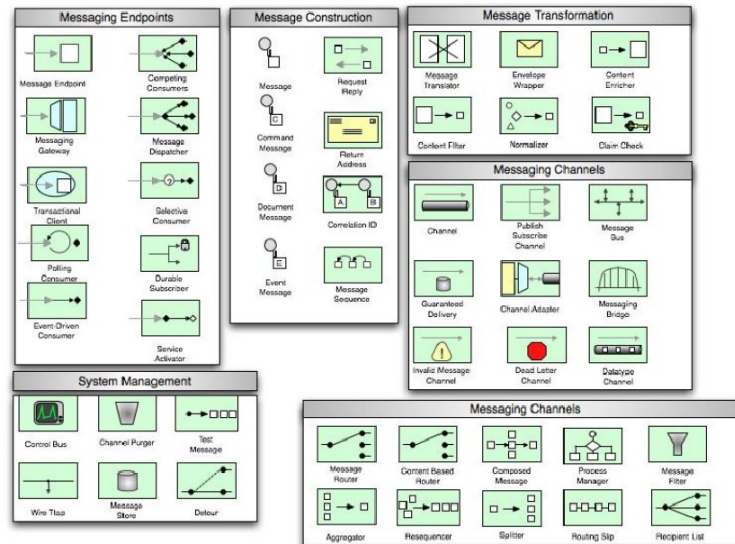


Rapidly address the growing number of touch points & reduce complexity

# JBOSS FUSE

## SIMPLIFY INTEGRATION FOR REAL-TIME ENTERPRISE

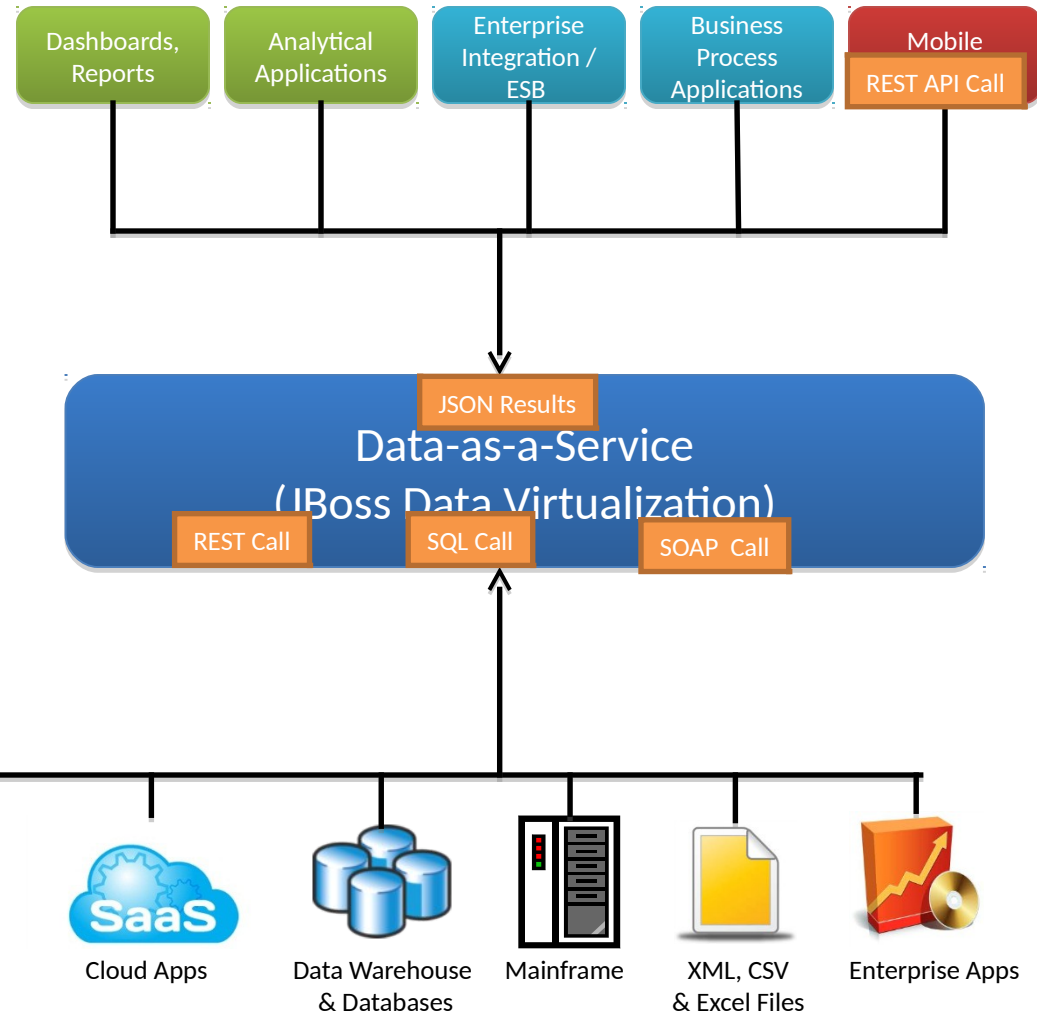
- Powerful Integration Framework based on known patterns
- You can focus on business problem
- Over 150+ Connectors
- Cloud Ready and Available



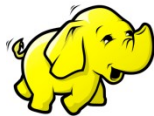
# JBOSS DATA VIRTUALIZATION REAL-TIME DATA-AS-A-SERVICE

- Standard based interface
- Contextual view of disparate source data
- Single point of access / integration
- Reuse of Data

But you cannot achieve this by writing more application code...



**Data Sources  
Siloed & Complex**



Hadoop



NoSQL



Cloud Apps



Data Warehouse  
& Databases



Mainframe



XML, CSV  
& Excel Files



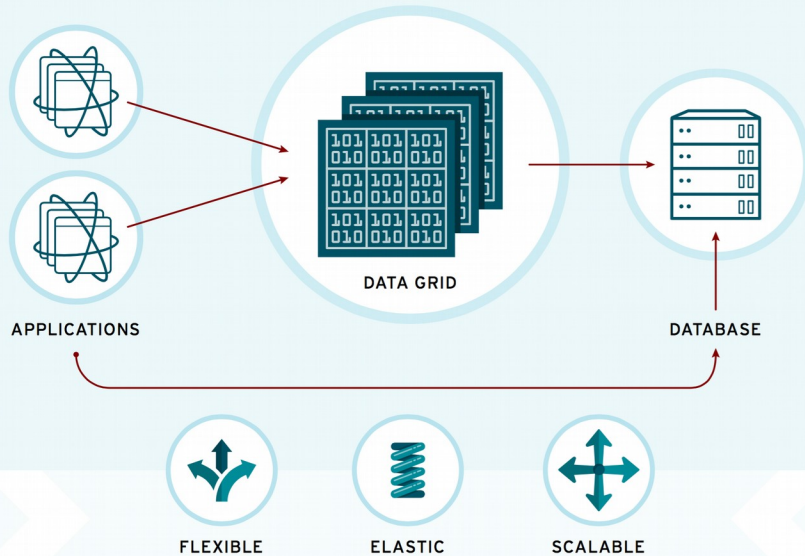
Enterprise Apps

# JBOSS DATA GRID

## REAL-TIME DATA NEEDS IN ANY INDUSTRY

### SUPERCHARGE YOUR APPLICATIONS

An in-memory distributed database that grants applications extremely fast access to frequently accessed and changing information. It's a flexible, elastic, and scalable layer between applications and relational databases.



### DEPLOY IN WEB-SCALE APPS AND HYBRID CLOUD ENVIRONMENTS



Online self-service for more customers.



Consistent service and accurate information even during traffic spikes.



Flexible applications that take advantage of hybrid environments.

### ACHIEVE REAL PERFORMANCE BENEFITS

**1,200**  
SIMULTANEOUS USERS

Solve 15 requests per second<sup>1</sup>

**200,000%**  
FASTER

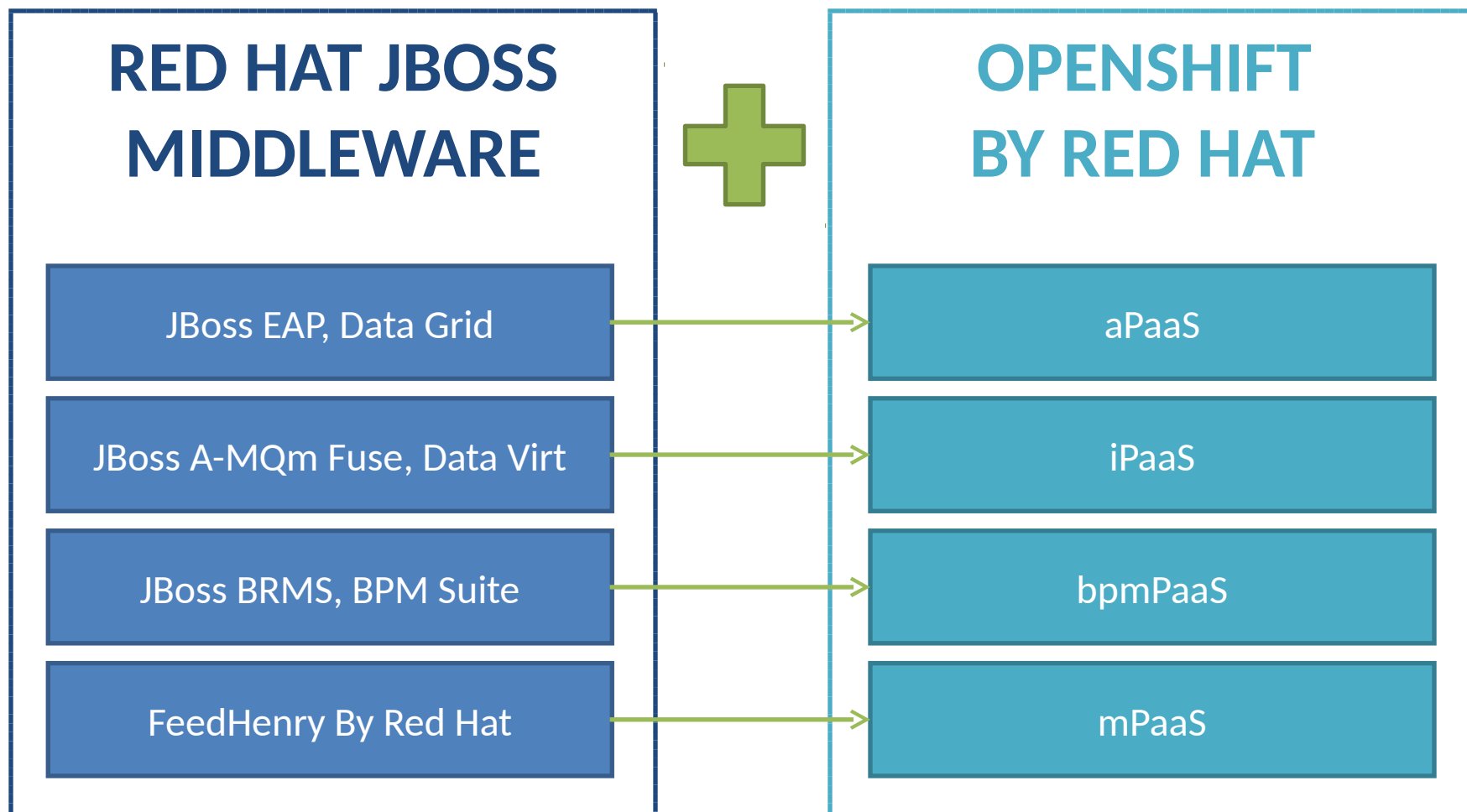
Improve response time from over 10 seconds to 50 milliseconds<sup>2</sup>

**40%**  
SAVINGS

Reduce existing database licensing costs<sup>3</sup>

1. <http://www.redhat.com/en/files/resources/en+hib-helps-ostie-binario-prepare-future-healthcare-12090147.pdf>  
2. <http://www.redhat.com/en/files/resources/en+hib-helps-ostie-binario-prepare-future-healthcare-12090147.pdf>  
3. <http://bit.ly/AppScale>

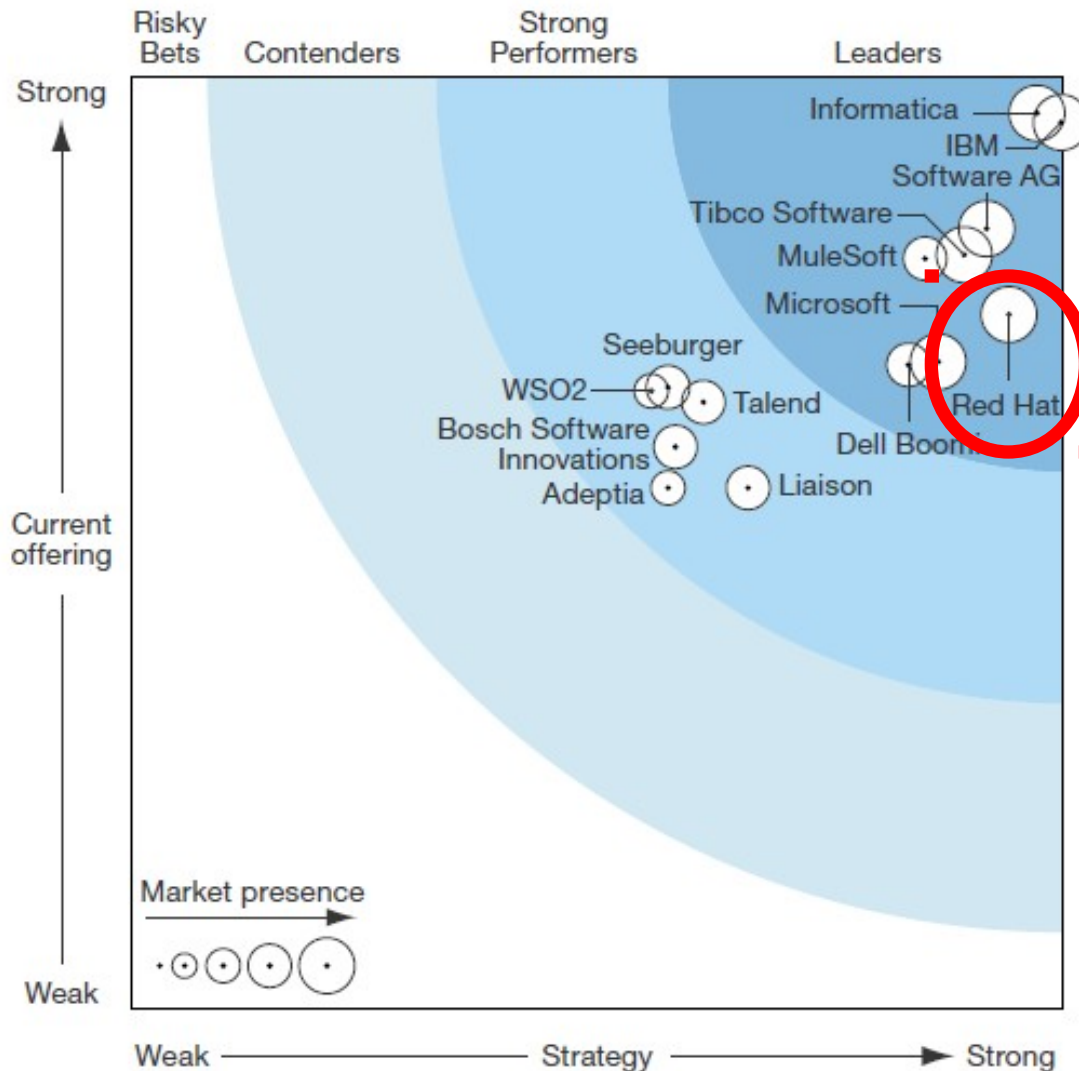
# JBOSS xPaaS SERVICES FOR OPENS SHIFT ENTERPRISE WHERE MIDDLEWARE MEETS CLOUD



# LEADER IN INTEGRATION SOLUTIONS



Figure 6 Forrester Wave™: Hybrid<sup>2</sup> Integration: Deep Integration, Q1 '14



Red Hat leader in 3 categories:

- ✓ Deep Integration
- ✓ Cloud Integration
- ✓ Internet of Things (IoT)

This leadership position is reflective of all JBoss Integration Technologies:

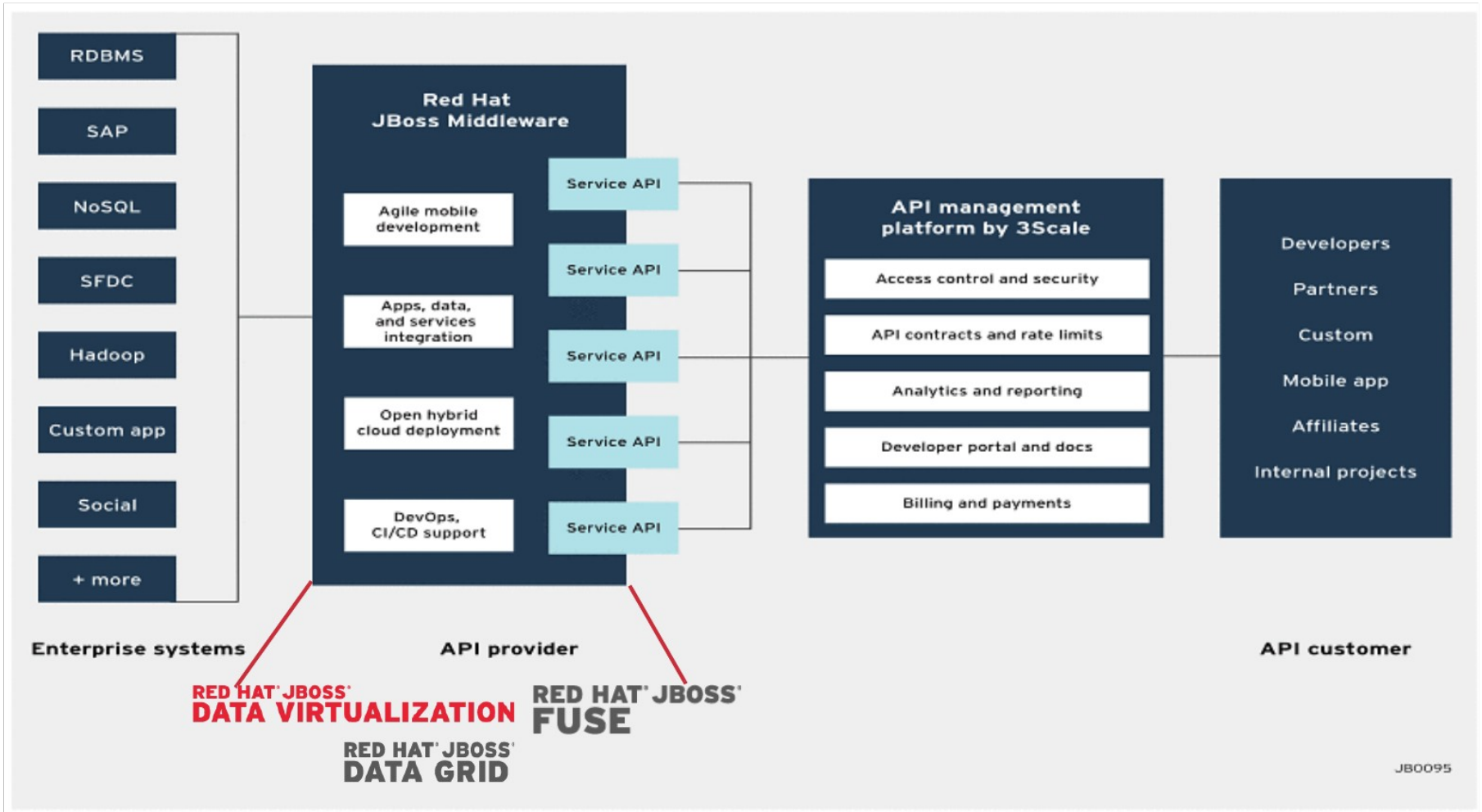
- ✓ JBoss Fuse
- ✓ JBoss A-MQ
- ✓ JBoss Data Virtualization
- ✓ JBoss Data Grid\*

\* Data Grid recognized in separate Forester Wave



# FULL STACK DATA SERVICES API SOLUTION

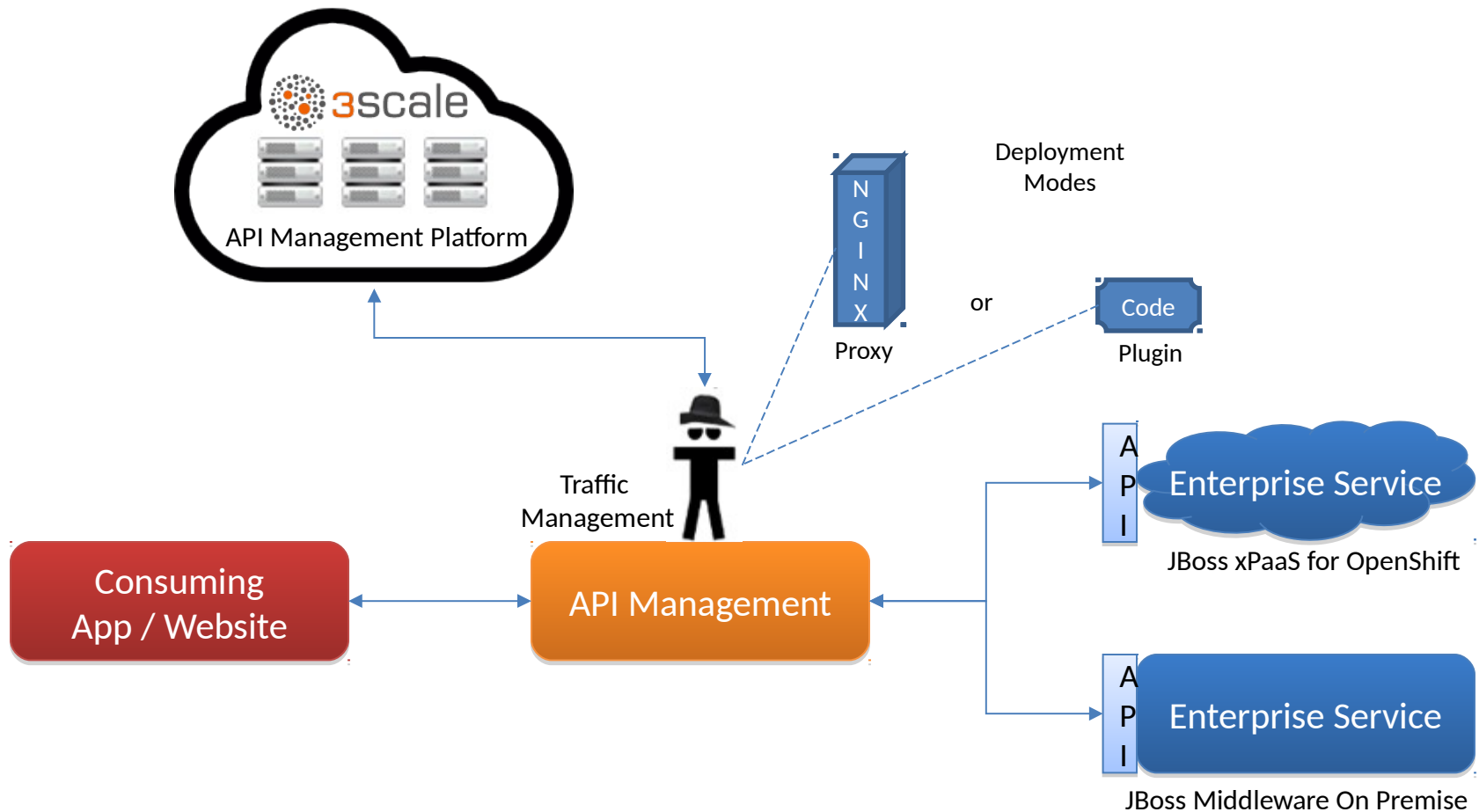
## Real-Time 3Scale/JBoss Data Services API Delivery Solution



JB0095

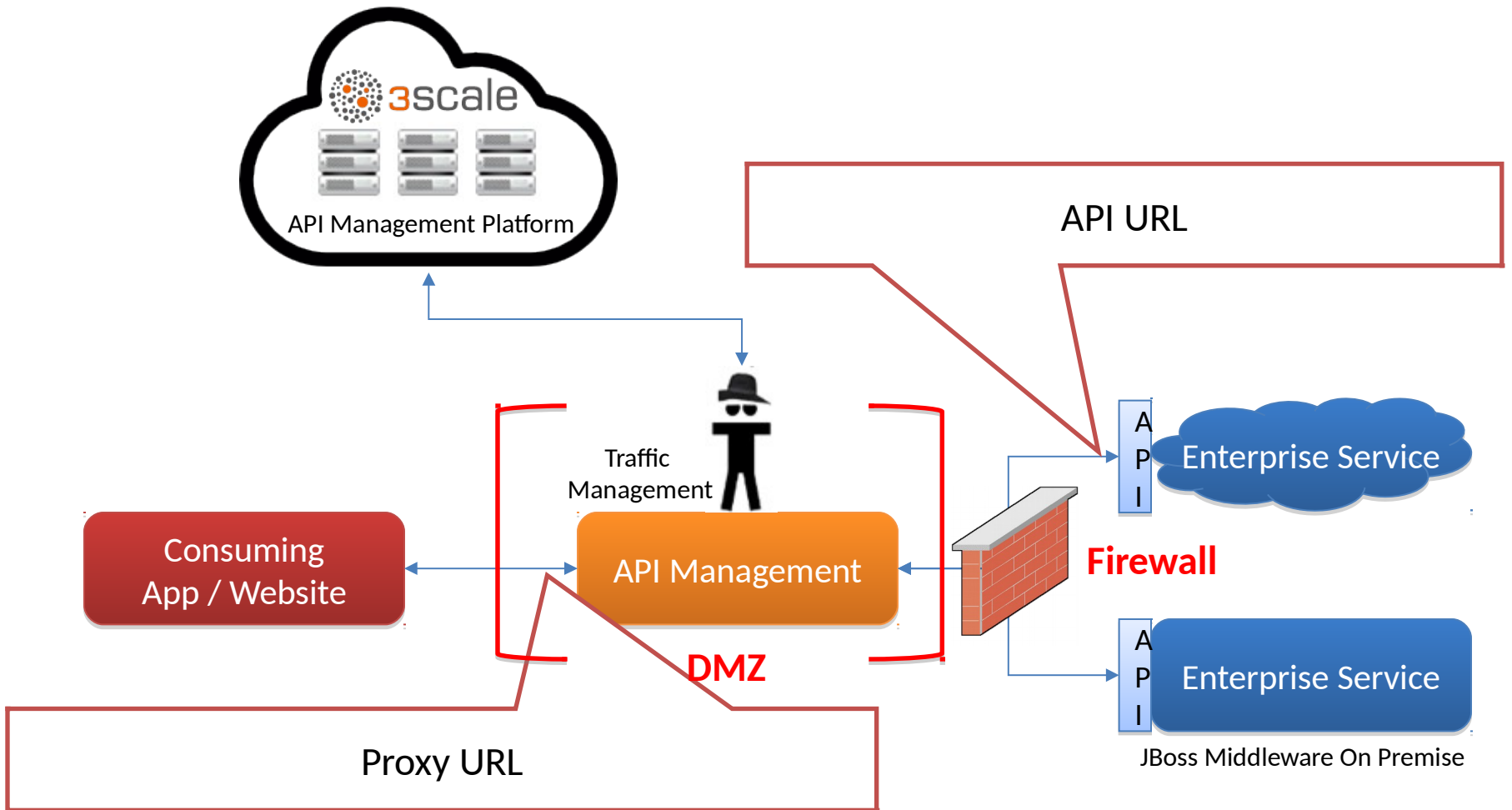
# FULL STACK DATA SERVICES API SOLUTION

## TYPICAL DEPLOYMENT SCENARIO



# FULL STACK DATA SERVICES API SOLUTION

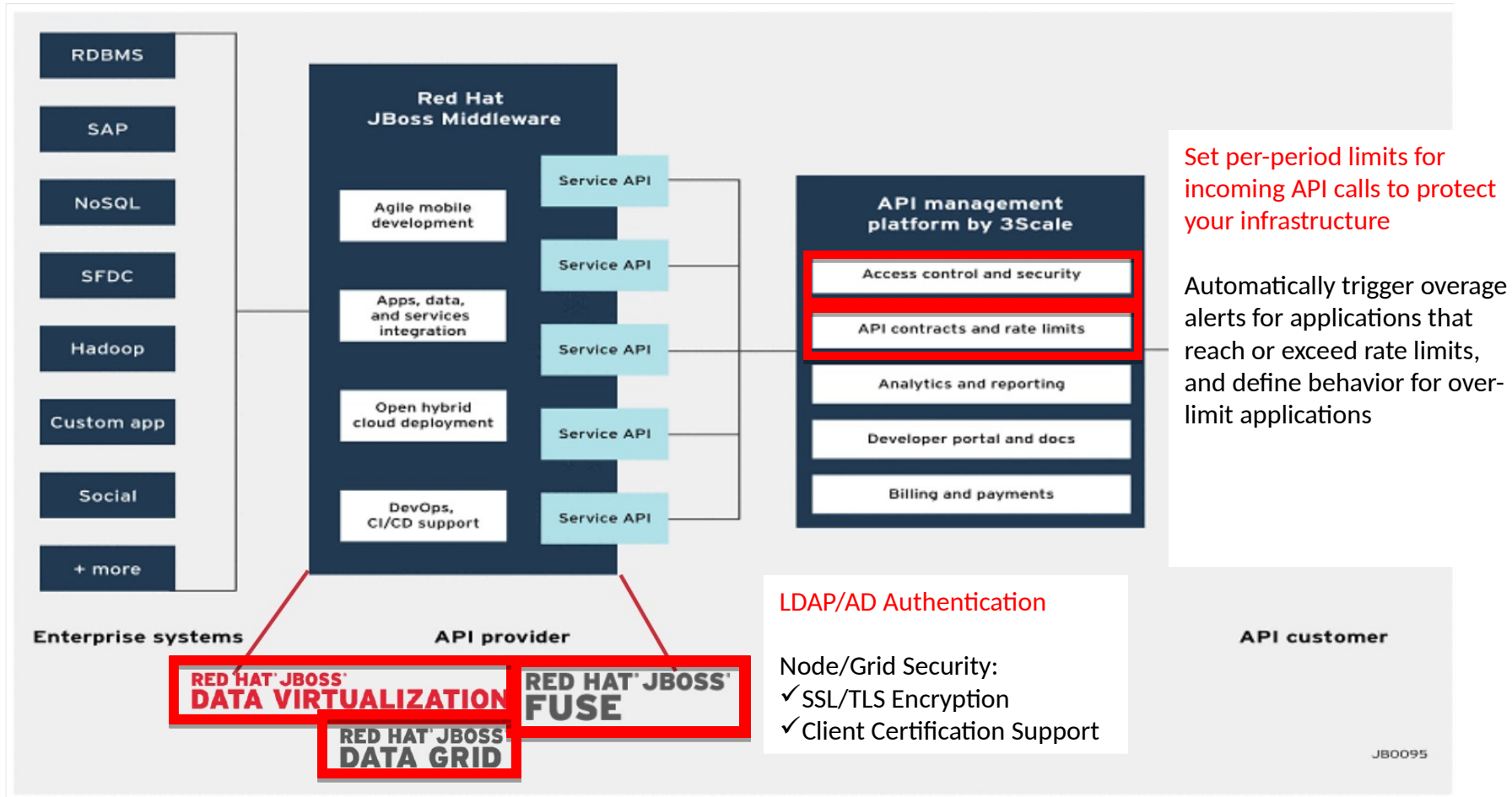
## Network Security Architecture



# FULL STACK DATA SERVICES API SOLUTION

## Security Access & Authorization Controls

Real-Time 3Scale/JBoss Data Services API Delivery Solution



# FULL STACK DATA SERVICES API SOLUTION

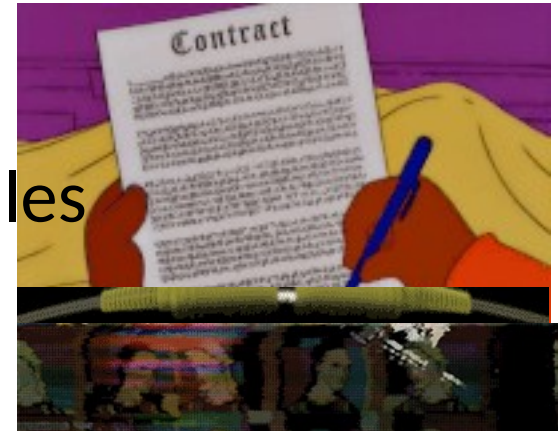
## Key Benefits over Legacy & P2P Solutions

Policy Driven and Standards Based

Untangle Network Access & Firewall Rules

Advanced Data Access Controls

Protection from Activity Spikes







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## Thank You

