SUPPORTING INNOVATION AND STABILITY IN SOLUTIONS DEVELOPMENT WITH OPEN SOURCE PLATFORMS

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WHAT DO FINANCIAL SERVICES FACE?
SOLVING TODAY’S CHALLENGES

- Increasing client expectations
- Complex regulatory landscape
- Longer time to revenue
- Intense competitive pressures
THE RESPONSE IS..

- Deliver superior client experiences
- Agility to keep pace with required change
- Reduce costs and increase operational efficiency
- Innovate to remain relevant
TRANFORMATION BEYOND TECHNOLOGY
IN VOLVES TRANSFORMING I.T. AND BUSINESS

NEXT-GENERATION ARCHITECTURE
New ways of developing, delivering, and integrating applications

CLOUD-NATIVE PLATFORMS
Modernize existing and build new cloud-based infrastructure

DEVOPS & CULTURAL CHANGES
More agile process across both IT and the business
CONTINUOUS IMPROVEMENT

APPLICATION ARCHITECTURE
- Monolithic
- N-Tier
- MICROSERVICES

DEVELOPMENT PROCESS
- Waterfall
- Agile
- DEVOPS

APPLICATION INFRASTRUCTURE
- Datacenter
- Hosted
- CLOUD

CONTAINERS
CONTAINER AS THE MEAN OF VALUE DELIVERY

- Enable efficiency and automation for microservices, but also support traditional applications
- Enable faster and more consistent deployments from development to production
- Enable application portability across 4 infrastructure footprints: physical, virtual, private & public cloud
CONTAINERIZER BUSINESS MICROSERVICE

THE FUNCTIONAL LEGO BLOCKS

BUSINESS LOGIC
STATE
IDENTITY

MANAGED API
COMMUNICATION
MIDDLEWARE
WHERE TO DEPLOY? JUST EVERYWHERE

ALL KINDS OF APPS AND ENVIRONMENTS, INCLUDING CONTAINERS

- TRADITIONAL
- CLIENT-SERVER
- INTERNET
- CLOUD
- PHYSICAL
- VIRTUAL
- PRIVATE CLOUD
- PUBLIC CLOUD
YOUR PEERS SAY THESE ARE THEIR TOP PRIORITIES AND CHALLENGES

- Optimize the IT you have
- Integrate apps, data, and processes
- Add and manage cloud infrastructure
- Build more modern applications
HERE'S WHAT YOUR PEERS SAY ARE THEIR TOP PRIORITIES AND CHALLENGES

**BALANCING INNOVATION AND OPTIMIZATION**

1. Optimize the IT you have
   - **Gain Efficiency**

2. Integrate apps, data, and processes
   - **Improve Productivity**

3. Add and manage cloud infrastructure
   - **Increase Agility**

4. Build more modern applications
   - **Move Faster**
WHY OPEN SOURCE?

WHAT IS THERE FOR ME?
IT’S NOT JUST CODE; IT’S CULTURE

Collaboration

Transparency (both access and the ability to act)

OPEN SOURCE CULTURE

Shared problems are solved faster

Working together creates necessary standardization

+ OPEN SOURCE CULTURE
OPEN SOURCE FUELS RAPID INNOVATION
FROM COMMUNITY TO ENTERPRISE

Contribution

RED HAT ENTERPRISE LINUX
RED HAT VIRTUALIZATION
RED HAT OPENSTACK PLATFORM
RED HAT ENTERPRISE LINUX ATOMIC HOST
RED HAT STORAGE
RED HAT SATELLITE

fedora
oVirt
RDO
ATOMIC
GLUSTER
ceph
FOREMAN
CentOS
openstack

1,000,000+ PROJECTS

JBoss Community
FuseSource
FEEDHENRY
origin
ManageIQ

RED HAT JBOSS MIDDLEWARE
RED HAT MOBILE
RED HAT OPENShift
RED HAT CLOUDFORMS

ANSIBLE
ANSIBLE by Red Hat

RH0064-3
WHY NOT OPEN SOURCE BANKING?

Common Svc Architectural Frameworks

- Deposits
- Lending
- KYC
- AML

1,000,000+ PROJECTS

IP vs. OSS

- Trading
- Wealth
- Payments
- Clearing
WHY NOT OPEN SOURCE BANKING?

Common Svc
Architectural
Frameworks

Deposits
Lending
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AML

1,000,000+
PROJECTS

Trading
Wealth
Payments
Clearing

IP
vs.
OSS

Mutualized Svc

Compliance
Auditing
FS Objects
DApps

FS Compliant Cloud
Safe Storage
Immutable Ref Data
WHY NOT OPEN SOURCE BANKING?

Common Svc Architectural Frameworks
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Mutualized Svc
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- FS Objects
- DApps

STD FSI Platforms
- FS Compliant Cloud
- Safe Storage
- Immutable Ref Data

IP vs. OSS
- Trading
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STD FSI Platforms
- PHYSICAL
- VIRTUAL
- PRIVATE CLOUD
- PUBLIC CLOUD
CRITICAL FEATURES FOR INNOVATIVE PLATFORM

Self-Service

Multi-language

Automation

Collaboration

Seamless

Standards-based

Web-scale

Open Source

Enterprise Grade

Secure
MUST HAVE
TO RUN THE WORLD
WITH OPEN SOURCE
OPEN IS NICE, SECURITY IS MUST
NEED TO BALANCE INNOVATION AND STABILITY
OSS YES ... YET SAFE & STABLE

- User Interfaces
- Getting Changes Accepted Upstream
- Secure Value Chain
- Rapid Iteration
- Brilliant Innovation
- Community Development
- Solving Common Challenges Through Collaboration
- QA and Integration
- Predictable, Stable Life-Cycle Management
- Support
WE BELIEVE THAT
OPEN UNLOCKS THE WORLD POTENTIAL.

DO YOU?
THANK YOU

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linkedin.com/company/red-hat
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Additional material
# Red Hat security advisories and vulnerabilities for 2016

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>CRITICAL ADVISORIES</th>
<th>IMPORTANT ADVISORIES</th>
<th>CRITICAL VULNERABILITIES</th>
<th>IMPORTANT VULNERABILITIES</th>
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<tr>
<td>All products</td>
<td>110</td>
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<tr>
<td>Red Hat Enterprise Linux 5,6,7</td>
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<td>&gt; Red Hat Enterprise Linux 6 (all)</td>
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- **37%** of all Critical advisories were for Red Hat Enterprise Linux supplementary channels (Java, Flash, and others).
- **100%** of Red Hat Enterprise Linux Critical issues had updates the same or next day after public knowledge.
SOFTWARE SUPPLY-CHAIN SECURITY
From FinTech POVs to FSI Production

Trusted code repos

body of evidence

CCB RAPID ATO

AUTOMATED QUALITY

ODP OPENSHIFT “SOFTWARE FACTORY”
CONTINUOUS INTEGRATION & DEPLOYMENT PIPELINE

CI/CD PIPELINE (JENKINS)
- IMAGE BUILD & DEPLOY
- PROMOTE TO TEST
- PROMOTE TO UAT
- PROMOTE TO PROD

INTEGRATED IMAGE REGISTRY

OPENSSHIFT CLUSTER
- NON-PROD
  - DEV
  - TEST
  - UAT

CONTAINER CLUSTER
- PROD

SERVICE MANAGER
- GO LIVE?

SERVICE:
- ServiceNow
- JIRA Service Desk
- Zendesk
- BMC Remedy