BECOMING A DIGITAL LEADER THROUGH CULTURE, PROCESS & TECHNOLOGY

THOMAS CAMERON, RHCA
Digital Transformation Strategist
THE PATH TO DIGITAL LEADERSHIP
IT TAKES MORE THAN JUST TECHNOLOGY TO MOVE THE BUSINESS FORWARD

CULTURE
Collaborative
Transparent
Open

PROCESS
Agile
Continuous
Iterative

TECHNOLOGY
Open source
Hybrid
Connected
LOOK AT PROCESSES ACROSS THE BUSINESS
DEVELOPMENT, BUSINESS, AUTOMATION, & SECURITY PROCESSES
PROCESS CHANGES & IMPROVEMENT
AS YOU CHANGE CULTURE, UPDATE THE WAYS YOUR TEAMS CONNECT

AGILE

CONTINUOUS

ITERATIVE

AUTOMATED

“The moral is that it is necessary to innovate, to predict the needs of the customer, give him more.”

W. EDWARDS DEMING

Cambridge, Massachusetts: MIT Center for Advanced Educational Services
1. **Open your culture.** Transparency, collaboration, & consistency are requirements.

2. **Automate as much as you can.** Eliminating manual tasks gives you time to innovate.

3. **Get the right platform.** Containers are the best way to package apps for DevOps, & container platforms provide the needed automation.
TAKE A NEW APPROACH
BIG BENEFITS, SMALL STEPS

TRADITIONAL

- Maybe
- Probably not
- Slow
- Months to years
- Team of teams
- Very high
- DANGER

DEVOPS

- CULTURE OF INNOVATION: Yes, infectiously
- AGILITY: Definitely
- SPEED TO VALUE: Fast
- DEV LIFE CYCLE: 1-3 months
- PEOPLE NEEDED: Small team
- INFRASTRUCTURE COST: None
- RISK: Low
DEVOPS WORKS BETTER WITH CONTAINERS
BRING TOGETHER CULTURE, DEVELOPMENT PROCESS, & MODERN TECHNOLOGY

DEVOPS

- Culture centered on collaboration & openness
- Uses automation to deliver applications faster
- Requires a dynamic, programmable platform

CONTAINERS

- Technology to package & isolate apps with the files they need to run
- Reduces conflict by separating areas of responsibility
- Open source way to orchestrate app development & deployment
“Changing, improving, and adapting how customers engage and interact with an enterprise often impacts how business processes are designed, how the workforce collaborates in response, and how business partners in kind must react to new opportunity and ways of doing business.”

451 RESEARCH
The Enterprise in Motion: Phenomena Transforming Business Process Management & Mobility
Carl Lehmann & Chris Marsh
Dec 2016
BENEFITS OF MODERN BUSINESS PROCESSES
THEY BRING CONSISTENCY, COLLABORATION, & BETTER DECISIONS

IMPROVED ORCHESTRATION
Between systems of engagement & systems of record to help knowledge workers collaborate

INCREASED AUTOMATION
Centralize & control processes to make manual tasks & decisions consistent

ENABLED LOB
Let line of business (LoB) users participate in app development directly

DEEPER ANALYSIS
Collect & analyze data so you can present business metrics & recommended actions
IMPROVING YOUR PROCESSES HAS REAL ROI
ONE CUSTOMER’S RETURN ON INVESTMENT AFTER UPDATING BUSINESS PROCESSES

- Reduced development life cycle by 75%
- Lowered development costs 60%
- Increased market reach by 50%

In order to have broad benefits, you must have broad adoption.

Empower development teams, production teams, & the lines of business with a common language.

Today’s architecture is constantly changing. Automation lets IT teams pull traditional environments into modern times.

ADAPT YOUR ARCHITECTURE
IMPROVE CROSS COLLABORATION
PROMOTE ADOPTION
AUTOMATE PROCESSES & SERVICES
ACCELERATE SERVICE DELIVERY & IMPROVE USER EXPERIENCE

- Provisioning & configuration
- Orchestration
- Compliance reporting & mitigation
- Drift detection & management
- Container scanning & management
IMPROVE SECURITY PROCESSES

PUT SECURITY POLICY & PROCEDURES AT THE HEART OF YOUR BUSINESS

- Identify security requirements & governance models
- Build security in at the start
- Revise, update, remediate as the landscape changes
- Deploy to trusted platforms with enhanced security capabilities
- Automate systems for security & compliance

Security policy, process, & procedures

DESIGN

BUILD

RUN

MANAGE

ADAPT
BARCLAYS ADOPTS AGILE CULTURE

PROCESS STORY: BUILDING MODERN APPS IN A MODERN ORG

A DevOps approach & a modern, self-service aPaaS environment

“We want to become the bank of the future. We want to be more dynamic in the way we produce applications & make better use of our underlying hardware & software, as well as our staff.”

SIMON CASHMORE
Head of PaaS Middleware Engineering, Barclays
May 2017
OUR VISION:
TECHNOLOGY
MOVING TO OPEN TECHNOLOGY
GIVES YOU THE FLEXIBILITY YOU NEED FOR THE FUTURE

INTEGRATED

HYBRID

OPEN

INTEROPERABLE

Everything must work together.
BRINGING OPEN SOURCE INNOVATION TO THE ENTERPRISE
OUR TECHNOLOGY VISION IS OPEN, HYBRID CLOUD
APPS & ENVIRONMENTS ARE INTEROPERABLE & FLEXIBLE
THE FUTURE IS HYBRID & MULTICLOUD

DEVELOPER ENVIRONMENT & TOOLING

MIDDLEWARE

CONTAINER PLATFORM

TRADITIONAL OS  VIRTUALIZATION  PRIVATE CLOUD  PUBLIC CLOUD

LINUX FOUNDATION (OS PLATFORM)

SOFTWARE-DEFINED STORAGE

MANAGEMENT & AUTOMATION
62% OF ORGS WILL BE MULTICLOUD BUT INTEGRATION LEVELS VARY

- 38.4%: Will focus primarily on a single cloud environment
- 20.4%: Will have multiple different cloud environments, but little to no interoperability between the environments
- 12.6%: Will have multiple cloud environments to migrate workloads or data between cloud environments
- 28.6%: Will have multiple cloud environments where the delivery of a single business function across the different cloud environments is seamless

Source: 451 Research Voice of the Enterprise, Cloud Transformation Q1 2017
WE’VE MADE THIS MOVE TO OPEN BEFORE

- PROPRIETARY UNIX
- PROPRIETARY MIDDLEWARE
- PROPRIETARY SINGLE CLOUDS

- RED HAT® ENTERPRISE LINUX®
- RED HAT® JBOSS® MIDDLEWARE
- OPEN HYBRID CLOUD
BMW GROUP LOOKS TO SERVICES FOR SPEED

TECHNOLOGY STORY: HYBRID CLOUD WITH MICROSERVICES, CONTAINERS, DEVOPS

Built a container-centric hybrid cloud platform using agile DevOps methodologies

- Point scaling handles fluctuating demand for BMW ConnectedDrive
- Reliable, continuous service for drivers

Unified management for VMware and OpenStack environments, public cloud platforms

- Science-as-a-Service for startups, researchers
- Management, security improvements keep the focus on research
THE JOURNEY TO OPEN HYBRID CLOUD
IT’S A DIFFERENT JOURNEY FOR EVERYONE
BUT HERE’S WHAT IT LOOKS LIKE FOR ONE FINANCIAL SERVICES CUSTOMER

STANDARDIZED OPERATING ENVIRONMENT

Traditional physical environment

Strategic virtualization

Test private cloud

Production/managed private cloud

CONTAINERS FOR EVERYTHING

Strategic hybrid cloud infrastructure

AUTOMATION & DEVOPS PROCESSES
HOW WE GET THERE

LINUX FOUNDATION ACROSS ALL ENVIRONMENTS

HYBRID CLOUD INFRASTRUCTURE & MANAGEMENT

CONTAINERS & CLOUD-NATIVE APP PLATFORMS
COMMON OPERATING PLATFORM

- A common foundation for Red Hat platforms
- The first step toward cloud-based infrastructure, platforms, and applications
- Part of traditional OS, virtualization, private cloud, and all public clouds
The best approach to cloud computing
A secure environment, managed across multiple footprints
Presence of multiple vendors prevents public cloud lock-in
CONTAINERS ARE LINUX

- Next-generation application platform for existing and new apps
- Portable across the hybrid cloud
- Container companies must be Linux companies
ARCHITECTURAL “FABRIC” CONSIDERATIONS

STANDARD OPERATING PLATFORMS & PROCESSES

HYBRID CLOUD INFRASTRUCTURE & MANAGEMENT

CONTAINERS & CLOUD-NATIVE APP PLATFORMS

AUTOMATION / ANSIBLE

ORCHESTRATION / KUBERNETES

CONTAINERS / LINUX

VIRTUALIZATION / KVM
INFRASTRUCTURE
STANDARDS-BASED, OPEN SOURCE SOLUTIONS

RED HAT ENTERPRISE LINUX
Operating system (OS) foundation for infrastructure and apps

RED HAT VIRTUALIZATION
Flexible virtualization built on Linux

RED HAT OPENSTACK PLATFORM
Datacenter software for building private cloud

RED HAT OPENSSHIFT
Container platform for developing, hosting cloud-native applications

RED HAT STORAGE
Scale-out, software-defined storage spanning the hybrid cloud
APPLICATION PLATFORMS
MODERNIZE, BUILD, & MANAGE WHAT USERS NEED

RED HAT JBOSS EAP
Modernize & build applications using Java EE™ tools & frameworks

RED HAT OPENSSHIFT CONTAINER PLATFORM
Develop, test, & host enterprise cloud applications consistently

OPENSSHIFT.io
Plan & build cloud services in a complete development environment (IDE) with a hosted, integrated toolchain

RED HAT MOBILE PLATFORM
Develop & deploy mobile apps using open, standard toolkits—while centralizing control over security, integration, & policy
MIDDLEWARE
INTEGRATE, AUTOMATE, & ACCELERATE DATA, APPLICATIONS, & PROCESSES

INTEGRATION
- Red Hat JBoss® Fuse
- Red Hat JBoss AMQ
- Red Hat 3scale API Management

AUTOMATION
- Red Hat JBoss BPM Suite
- Red Hat JBoss BRMS

DATA MANAGEMENT
- Red Hat JBoss Data Grid
- Red Hat JBoss Data Virtualization

APPLICATION SERVICES
- Red Hat JBoss Enterprise Application Platform
- Red Hat JBoss Developer Studio
- Red Hat OpenShift Application Runtimes
MANAGEMENT & AUTOMATION
FOR THE MODERN ENTERPRISE

RED HAT CLOUDFORMS
Deliver services across hybrid cloud environments

RED HAT INSIGHTS
Proactively identify problems & prevent critical issues

RED HAT SATELLITE
Easily maintain & update your Red Hat environment

RED HAT ANSIBLE AUTOMATION
Automate IT processes & centralize governance
OUR SUBSCRIPTION MODEL
DELIVERS CONTINUOUS VALUE

CUSTOMER PORTAL
Award-winning knowledgebase of solutions, docs, & technical guidance

KNOWLEDGE
Our expertise, plus the knowledge of customers, partners, & communities

WORLD WIDE
We have support centers & offices across the globe, & materials in multiple languages

CERTIFICATION
Employers recognize the value of Red Hat training & certification

PRODUCT SECURITY
Dedicated teams of experts monitor, identify, & remediate potential threats

EXTENDED LIFE CYCLE
Extended life phase or extended life-cycle support subscriptions may be available
COMPREHENSIVE SERVICES
WE CAN HELP YOU, NO MATTER WHERE YOU ARE (OR WHAT YOU NEED)

TRAINING & CERTIFICATION
Hands-on certifications & exams for 40+ courses, including automation & containers

SUPPORT
Tools, planning, & support are available 24x7 through our award-winning Customer Portal

CONSULTING
Design through project management to align process & IT, with on-site or remote delivery

HARDWARE, SOFTWARE, & CLOUD CERTIFICATION
Certified public cloud providers, hardware platforms, apps, & containers
OPEN INNOVATION LABS
A HANDS-ON ENVIRONMENT FOR RAPID INNOVATION & REAL BUSINESS RESULTS

EXPERIMENT
Rapidly build prototypes, do DevOps, & be agile

IMMERSE YOUR TEAM
Work side-by-side with experts in a residency-style engagement

INNOVATE
Bring modern application development back to your team
ANY APPLICATION. ANY ENVIRONMENT. NO LOCK-IN.
THANK YOU

plus.google.com/+RedHat
linkedin.com/company/red-hat
youtube.com/user/RedHatVideos
facebook.com/redhatinc
twitter.com/RedHatNews
BARCLAYS ADOPTS DEVOPS

MODERN APPLICATIONS & AGILE PROCESSES

easiER AG CREATES BETTER PATIENT EXPERIENCE
USING OPEN SOURCE CULTURE FOR FAST INNOVATION
LENOVO TRANSFORMS WITH CLOUD PLATFORM

TECHNOLOGY STORY: CLOUD SERVICES

Provisioning before: 10 manual procedures + 1 week
Provisioning after: 1 automated system + 10 minutes

HOW THEY DID IT

Built a fast, consistent, and unified Platform-as-a-Service environment based on Red Hat OpenShift Container Platform

MACQUARIE TRANSFORMS DIGITAL BANKING

CULTURE STORY: DEVOPS

Improved developer productivity by more than 50%
Can deploy new features & updates in minutes (not hours)

HOW THEY DID IT

Implemented Platform-as-a-Service to modernize legacy apps & deploy microservices in containers. The solution also uses software-based storage, cloud management, & automation.
BANK AUDI BUILDS INNOVATIVE PLATFORM

TECHNOLOGY STORY: INFRASTRUCTURE MODERNIZATION & STANDARDIZATION

Server provisioning time went from 1 week to 7 minutes
Increased productivity over 100% by reducing complexity

HOW THEY DID IT

Moved from a complex UNIX architecture to standardized Linux on x86 hardware

ATOS HELPS UK GOVERNMENT SERVE CITIZENS

PROCESS STORY: INTEGRATION

UK gov departments can now share info in real time
Citizens get secure, digital data instead of phone, mail, or fax

HOW THEY DID IT

Connected department back offices to create a citizen view
& centralized data portal

JALISCO MODERNIZES PUBLIC SERVICES
TECHNOLOGY STORY: APP MODERNIZATION, STANDARDIZATION, & AUTOMATION

Increased the number of citizens served daily by 900%
Infrastructure expenses down by 60%; hardware costs reduced 100%

HOW THEY DID IT
Replaced old proprietary software with a modern IT environment based on Linux, integration, virtualization, & business process management solutions

STATE OF JALISCO IMPROVES PUBLIC SERVICES
TECHNOLOGY STORY: APP MODERNIZATION, STANDARDIZATION, & AUTOMATION

CABLEVISION
PROCESS STORY: INTEGRATION

Improved performance while cutting operational costs
Increased service quality & uptime

HOW THEY DID IT
Automated event correlation to determine problems
& identify failures in the network

AVIANCA
PROCESS STORY: INTEGRATION

AVIANCA
TECHNOLOGY STORY: INTEGRATION

Faster, more consistent business services for clients
Reduced total cost of ownership (TCO) by 50%

HOW THEY DID IT
Built an efficient, distributed ESB-based integration platform

EVERYONE WANTS A DIGITAL EXPERIENCE
BIGGER, BOLDER EXPECTATIONS FROM EVERYONE, EVERYWHERE

84% feel they are expected to address wider stakeholder needs.

77% say that technology is one of the top 3 influencers transforming stakeholder expectations for the business.

Source: Survey of 1,409 CEOs in 83 countries by PricewaterhouseCooper, 19th Annual Global CEO Survey, Jan 2016.
TOP 3 SPENDING PRIORITIES
CUSTOMER ORGANIZATIONS HAVE IN 2017

1. **70%**
   - CLOUD INFRASTRUCTURE

2. **50%**
   - SECURITY AND COMPLIANCE

3. **48%**
   - IT MANAGEMENT, AUTOMATION, ORCHESTRATION

Source: Red Hat Global Customer Tech Outlook 2017, Dec 2016,
BALANCING INNOVATION AND OPTIMIZATION
TOP PRIORITIES AND CHALLENGES WE HEAR FROM OUR CUSTOMERS

Optimize the IT you have
- Gain efficiency

Integrate apps, data, and processes
- Improve productivity

Add and manage cloud infrastructure
- Increase agility

Build more modern applications
- Move faster
TECHNOLOGY MAKES A BIG DIFFERENCE
NIMBLE, FLEXIBLE I.T. IS MORE RELEVANT THAN EVER
STRATEGIC ALLIANCE PARTNERS

Microsoft
IBM
Hewlett Packard Enterprise
Cisco
SAP
FLYTOGET BUILDS SMARTER SERVICES
PROCESS STORY: APIs & INTEGRATION

Better able to connect & collaborate with partners
Amplified development abilities through shared services

HOW THEY DID IT
Replaced their existing, complex integration solution with open source integration and API management from Red Hat.
COX AUTOMOTIVE OFFERS SPEEDY SELF-SERVICE

TECHNOLOGY STORY: CLOUD MANAGEMENT

$5 M in soft savings

Deliver IT resources in **15-20 minutes instead of 3 weeks**

**HOW THEY DID IT**

Updated infrastructure & big data approach; built portal with cloud management

OPEN API INFRASTRUCTURE & MANAGEMENT
APIs & MICROSERVICES FOR REUSABILITY, MODULARITY, AND POSSIBLY PROFIT

- Create standard routines, protocols, and tools for developing applications
- Create loosely coupled services that can be used by multiple applications
- See and control APIs across the enterprise
- Let teams deliver their own APIs and microservices—and share them with partners & customers
CONTAINERS ENABLE PORTABILITY & CHOICE
CONTAINERS GIVE YOU MORE CHOICES FOR APP DEPLOYMENT

- Eliminate configuration errors and "works fine on my machine" problems
- Isolate apps from underlying infrastructure
- Deploy consistently across dev, stage, and production
- Benefit from automation with orchestration and continuous integration and deployment (CI/CD) practices
AUTOMATE PROCESSES & SERVICES

AUTOMATION ACCELERATES SERVICE DELIVERY AND IMPROVES USER EXPERIENCE

- Provisioning & configuration
- Orchestration
- Compliance reporting & mitigation
- Drift detection & management
- Container scanning & management
MACQUARIE TRANSFORMS DIGITAL BANKING WITH DEVOPS PROCESSES

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