FROM WHERE YOU ARE TO WHERE YOU WANT TO BE

The open technology to help you realize your vision

Optimize - Modernize - Innovate
TRANSFORM
AGENDA

RED HAT MODERNIZATION AND MIGRATION SOLUTIONS ROADMAP

- Red Hat Modernization and Migration Solutions
- Infrastructure Migration Solution
- Application Modernization and Migration, Container Adoption
- Discovery and Analytics
- Q&A / discussion
RED HAT MODERNIZATION AND MIGRATION SOLUTIONS OVERVIEW
RED HAT MODERNIZATION AND MIGRATION

SOLUTIONS PORTFOLIO

**Infrastructure Migration**
- Infrastructure analytics
- VMWare to RHEV & OpenStack
- CentOS and Oracle Linux to RHEL

**App. Modernization and Migration**
- Application portfolio analysis
- Application server migration
- Migration factory
- Application modernization
- Break down monoliths
- Containerization
- Oracle JDK to OpenJDK

**Container Adoption**
- Container platform
- Infrastructure & automation
- Hybrid cloud infrastructure
- DevOps practices
- Cloud native application development
- Containerizing applications

**Agile Collaboration**
- Open Organization and Leadership
- Open Innovation Labs
- Open Practice Library
- Knowledge Sharing
- Communities of Practice

---

**Methodologies and best practices**

**Tooling to support the transformation process**

**Partnerships**
INFRASTRUCTURE MIGRATION SOLUTION

Mass-migration of Virtual Machines (V2V)
Boost cost savings
Many of our customers discover they can reduce costs by 40-50%, when compared to expanding their existing VMware infrastructure.

Reduce complexity and build foundation
Reduce complexity and build a modern foundation of infrastructure through hyperconverged Infrastructure, OpenStack, and Kubernetes orchestration.

Invest in transformation
Re-invest savings into multi-cloud management, automation, containers, or application modernization.

Use proven methodology
Adopt proven methodology to architect, automate, and execute large-scale business-critical workload migrations.
INFRASTRUCTURE MIGRATION SOLUTION
Discovery and assessment of your migration
INFRASTRUCTURE MIGRATION SOLUTION

Setting up a Red Hat® OpenStack environment sized for your migration
INFRASTRUCTURE MIGRATION SOLUTION

Install Red Hat CloudForms® and extend your networks
INFRASTRUCTURE MIGRATION SOLUTION

Setup multiple conversion hosts
INFRASTRUCTURE MIGRATION SOLUTION

Use the infrastructure mapping wizard to map both solutions.
INFRASTRUCTURE MIGRATION SOLUTION

Create your migration plan attached to an infrastructure mapping
INFRASTRUCTURE MIGRATION SOLUTION

Launch your migration
USING ANSIBLE FOR ADVANCED USE-CASES
Pre and post migration automation

MIGRATION PLAN

- WEB01
- WEB02
- APP01
- APP02
- DB01

Some use-case examples...

- Remove VM from load-balancer before the migration.
- Disable your monitoring during the migration.
- Change VM configuration or install packages post-migration.
- Automated testing post-migration.
- Convert to RHEL.
- Upgrade to RHEL8.
INFRASTRUCTURE MIGRATION SOLUTION

Demo time!

#redhat #rhsummit
INFRASTRUCTURE MIGRATION JOURNEY

- **Discovery Session**: 1-2 Days
  - Red Hat leads

- **Migration Pilot**: 8-12 Weeks
  - Collaborative

- **Migration at Scale**: Ongoing
  - Customer leads

#redhat #rhsummit
INFRASTRUCTURE MIGRATION SOLUTION

Release timeline

JAN '19
IMS 1.1
General Availability

JUNE '19
IMS 1.2
General Availability

SEP '19
IMS 1.3
General Availability
IMS 1.2 - ETA June

Available in CloudForms 4.8

- Migration throttling capabilities
- UI driven conversion host configuration
- Improved error management
IMS 1.3 - ETA Sept.
Still under review

- Warm VM migration (reduced downtime)
- Additional source and destinations
- Workload relationship
- Workload conversion and upgrade to RHEL
APPLICATION MODERNIZATION AND MIGRATION (AMM)
AMM - RECOMMENDED METHODOLOGY
Holistic, safe, business value driven

- Standard, proven, modular, repeatable, pragmatic methodology
- Step by step, low risk and highly efficient
- Scale up by leveraging collaboration with own teams and partners
TOOLING TO SUPPORT THE PROCESS
Use tooling for automation and making the right decisions

Pathfinder
Tooling & workshops to determine modernization strategy throughout the design phase

Red Hat Application Migration Toolkit
- Code analysis and potential issues identification during the assessment
- Making solutions to found issues repeatable (pilot and scale-out)
- Accelerate, simplify, standardize code changes (pilot and scale-out)
PATHFINDER ASSESSMENT TOOL

Assessing applications with a wider view of customer capabilities, business requirements and their future I.T. strategy
Catalyze large scale application modernizations and migrations

- Automate application analysis
- Support effort estimation
- Accelerate code migration
- Support containerization

<table>
<thead>
<tr>
<th>Oracle WebLogic Server</th>
<th>IBM WebSphere AS</th>
<th>Java EE &amp; JDK upgrades</th>
</tr>
</thead>
<tbody>
<tr>
<td>JBoss EAP upgrades</td>
<td>Cloud readiness, containerization</td>
<td>Pluggable: your own rules</td>
</tr>
</tbody>
</table>

| Command line interface | Web console | Eclipse plugin | Maven plugin |
Web Console: manage projects and applications
Web Console: issue type analysis and support for effort estimation
Web Console: determine application dependencies
Web Console: examine hints and introspect application source code
Eclipse plugin: task list, inline hints, support for code changes

#redhat #rhsummit
ROADMAP

Red Hat Application Migration Toolkit

- 4.3 (ETA August)
  - Target runtime selection matrix
  - Tomcat to JBoss Web Server (proposed)
- On the horizon:
  - VSCode and CodeReady integration (fall)
  - Project management tools (knowledge base, migration factory control)
- Longer term:
  - Quarkus
  - Containerization automation
  - Application onboarding within OpenShift / CodeReady

Pathfinder

- Simplify self-service experience
- Longer term: integration in overall toolchain (e.g. import and pre-population of data)
MIGRATION ANALYTICS
DISCLAIMER

This is Work in Progress and does not constitute in any way a binding or legal agreement or impose any legal obligation or duty on Red Hat.

This information is provided for discussion purposes only and is subject to change for any or no reason.
MIGRATION ANALYTICS

What is it?

Migration Analytics helps customers migrate their workloads to Red Hat platforms by analyzing their environment, using Red Hat’s data and analytics, to provide recommendations on how to migrate.
MIGRATION JOURNEY

- Evaluate
- Discovery Session
- Workload Review
- Migrate
IMPLEMENTATION
OUTPUT SAMPLES

Initial Savings Estimation

Workload Migration Summary
Workload Analysis
QUESTIONS?
migrate@redhat.com

CONSIDERING A TRANSFORMATION?
Schedule a modernization and migration discovery session
RELATED SUMMIT SESSIONS
& LABS
## Session Schedule

<table>
<thead>
<tr>
<th>Session Title</th>
<th>Date and Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automating VMware-based VM migrating to KVM using V2V and Ansible</td>
<td>Tuesday, 1:30 p.m. - 1:50 p.m.</td>
</tr>
<tr>
<td>Live migration: VMware to Red Hat Virtualization (CorpFlex)</td>
<td>Tuesday, 2:00 p.m. - 2:20 p.m.</td>
</tr>
<tr>
<td>Customer panel: Migrating apps and infrastructure with Red Hat transformation solutions</td>
<td>Tuesday, 3:45 p.m. - 4:30 p.m.</td>
</tr>
<tr>
<td>Automated workload migrations to Red Hat infrastructure</td>
<td>Wednesday, 10:30 a.m. - 11:15 a.m.</td>
</tr>
<tr>
<td>Red Hat migration and modernization solutions roadmap</td>
<td>Wednesday, 3:30 p.m. - 4:15 p.m.</td>
</tr>
<tr>
<td>Migrate from CentOS or Oracle Linux to RHEL in minutes</td>
<td>Thursday, 1:00 p.m.-1:45 p.m.</td>
</tr>
<tr>
<td>Instructor-led lab: Migrating from VMware to Red Hat platforms</td>
<td>Thursday, 2:00 p.m. - 4:00 p.m.</td>
</tr>
</tbody>
</table>
QUESTIONS & DISCUSSION
RED HAT MODERNIZATION AND MIGRATION

Solutions introduction and roadmap

May 8, 2019

Tobias Hartwig
Modernization & Migration Solutions
Horizontal Solutions Group
tobias@redhat.com

Miguel Pérez Colino
Solution owner, Migration Analytics
Horizontal Solutions Group
miguel@redhat.com

Marco Berube
Solution owner, Infrastructure Migration
Horizontal Solutions Group
mberube@redhat.com
THANK YOU

linkedin.com/company/Red-Hat

facebook.com/RedHatInc

youtube.com/user/RedHatVideos

twitter.com/RedHat