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**RED HAT
OPEN INNOVATION LABS**

**AN IMMERSIVE RESIDENCY
IN THE ART OF MODERN
APPLICATION DEVELOPMENT**



CATALYZE INNOVATION

Learn to build software the Red Hat way,
during an immersive residency,
in a space designed for speed and innovation.

Page 1
**THE RACE TO KEEP UP WITH
ACCELERATING CHANGE**

Page 2
**DEVOPS: FUELED BY
OPEN SOURCE**

Page 3
**OPEN INNOVATION LABS:
A SPACE TO INNOVATE**

Page 4
**TRADITIONAL I.T. VS.
OPEN INNOVATION**

Page 5
**PICTURE YOURSELF
AS A RESIDENT**

Page 7
**WHY RED HAT OPEN
INNOVATION LABS?**

Page 8
WHAT WE BELIEVE

Page 9
LESSONS WE'VE LEARNED

Page 10
TAKE THE FIRST STEP

Page 11
**SCHEDULE A
DISCOVERY SESSION**

THE RACE TO KEEP UP WITH ACCELERATING CHANGE

How can IT move faster?



In today's fast-moving business world, standing still means falling behind. IT teams are racing to quickly introduce new features and services that delight customers and help employees work smarter. Success hinges on constant innovation.

Speeding up software release cycles takes more than new tools. The fact is, it's not just what you do, but how you do it. Success requires a new way of working that involves tools, people, and process.



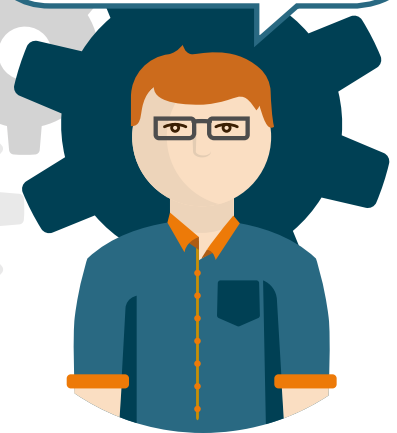
"One-third of top 20 firms in industry segments will be disrupted by new competitors within five years."

IDC FutureScape: Worldwide CIO Agenda 2016 Predictions

*The infrastructure for your project **WON'T BE READY FOR A COUPLE WEEKS.***

*Everything development and operations teams need to know to work together is **RIGHT HERE IN THIS 400-PAGE DOCUMENT.***

*That feature was a project requirement when we started, but **NOBODY NEEDS IT ANYMORE.***



DEVOPS: FUELED BY OPEN SOURCE

Go faster, with better quality

DEVOPS IS ABOUT BREAKING DOWN WALLS BETWEEN YOUR TEAMS, NOT ONLY BETWEEN DEVELOPMENT AND OPERATIONS, BUT ALSO BETWEEN TEST, SECURITY, AND STAKEHOLDER.

IT teams are innovating faster and improving quality with DevOps.

The approach is to achieve major change little by little instead of all at once—adjusting direction as you go. DevOps and open source have much in common. Both depend on cultural transformation as much as code. The principles:



Participation

Engaged communities are better at adopting change.



Open

Open standards preserve business agility.



Transparent

Transparency forces honesty and authenticity.



Shared

Shared problems are solved faster.

As the leading enterprise open source company, Red Hat has been living these principles since 1993.

Customers ask us how to build apps the Red Hat way. Now you can learn what we've learned during an immersive residency at Red Hat Open Innovation Labs.



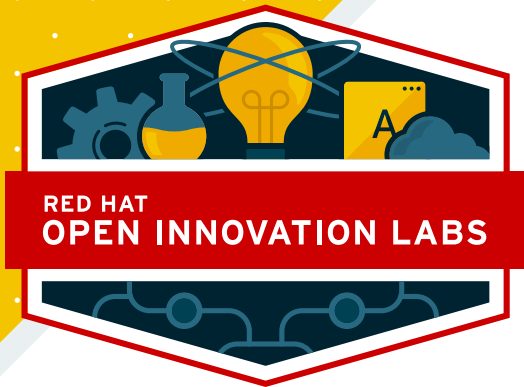
“ “ ” ”

“At the end of the day, when we talk about technology change ... it’s really about people and organizational cultures, first and foremost. Then it’s about how those people get stuff done together.”

Dr. David Bray

Chief ventures officer,
National Geospatial Intelligence Agency





A SPACE TO SPUR CHANGE IN I.T.

Innovation flourishes in an environment where:

- » **The watchwords are: Try. Learn. Modify.**
- » **You can make a small investment and fail fast**
—or win quick.
- » **It's okay to not know everything in advance.**

Red Hat Open Innovation Labs is that kind of space. We've distilled the best of open source tools, methods, and culture into an environment designed for speed and innovation. Join us for a collaborative residency designed to help you more rapidly deliver innovative software.

Who

3-6 of your engineers and project owners.
Work side-by-side with Red Hat mentors. Learn by doing. Then bring your knowledge back to your team.

Where

Our place (Boston, London, Singapore) or yours (pop-up lab).
At Red Hat Open Innovation Labs we make sure that, wherever we are, the environment reflects our core tenets: collaboration, sharing, adaptability, and renewal.

What

The infrastructure and software tools you need for rapid experimentation and prototyping.
Expect 1-3 months to build a prototype or migrate an existing application to take advantage of modern cloud computing. Leave with the skills and methods to catalyze innovation in your organization.

Why

To be as nimble as a startup.
Tools alone don't transform application development. It's what you do with them. Labs is a space where it's safe to test a hypothesis, learn from the results, and modify the approach.

LOW CYCLE TIME

We've automated just about everything to make it easy to experiment and quickly get feedback.

HIGH CODE QUALITY

Testing is built into the pipeline.

REPEATABILITY

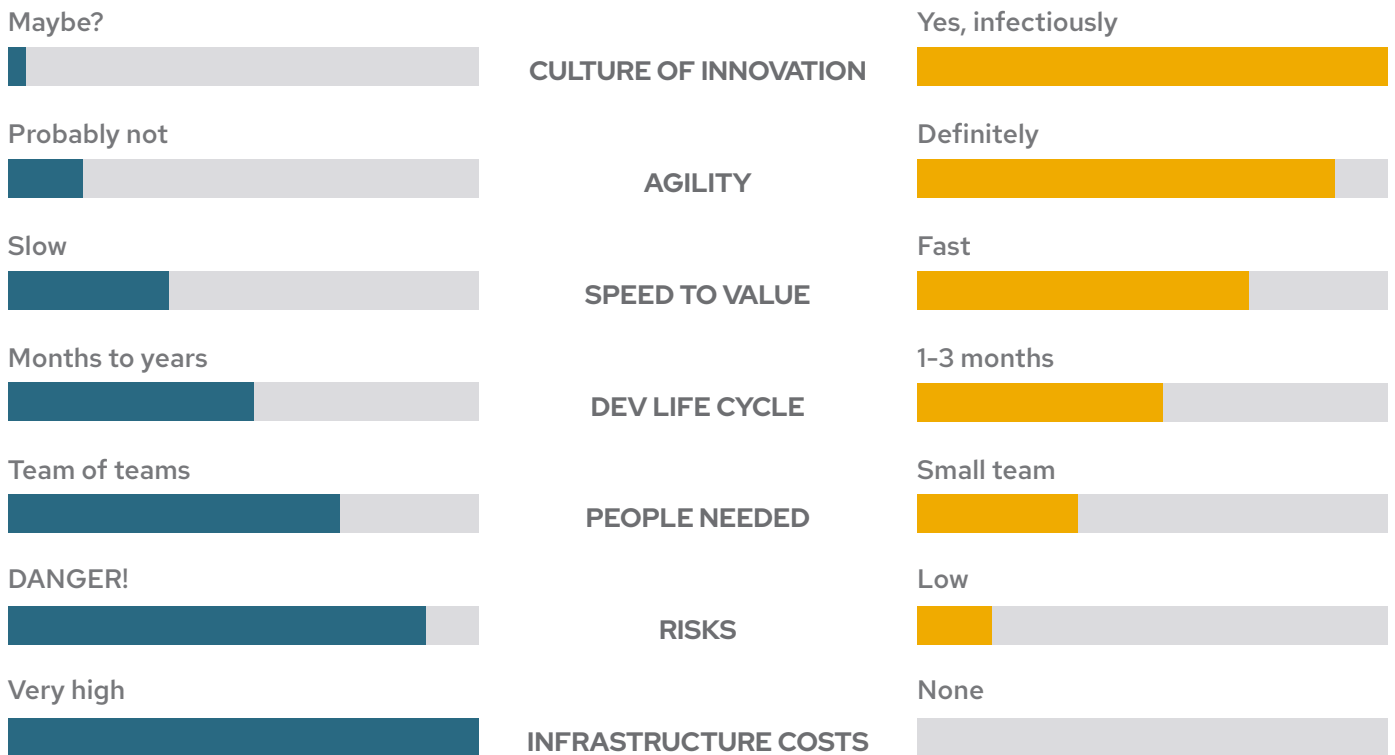
You'll learn to use containers and image management throughout the pipeline. Applications work the same way in production as they do in development or test.



TRADITIONAL I.T. VS. OPEN INNOVATION



VS.



“By creating a shared space for testing and developing new open source solutions, I hope that [the Innovation Lab] will spur a culture of innovation within state government and lead the nation in using technology to bring the government closer to the people.”

Gavin Newsom
Lieutenant Governor of California



PICTURE YOURSELF AS A RESIDENT

Apply DevOps to a real business need

In Red Hat Open Innovation Labs, you can work on any type of project: legacy or greenfield.

Our platform bridges both environments.

» Modernize legacy applications

- Extend, optimize, scale, and orchestrate
- Connect to modern frameworks to make legacy applications easier to manage, test, and automate

» Develop cloud-native applications

- Develop on Platform-as-a-Service and Infrastructure-as-a-Service
- Transform how you design
- Adopt lean and agile principles
- Learn DevOps practices
- Learn to use microservices

Step 1

Decide what type of journey you'll take



Disruption.

Co-create an innovative or disruptive service or prototype.



Digital transformation.

Initiate meaningful change in your organization.



Road trip.

Experience modern application development and DevOps with an expert coach by your side.

Step 2

Craft the plan for your journey

"I want [feature] so that I can [reason]."

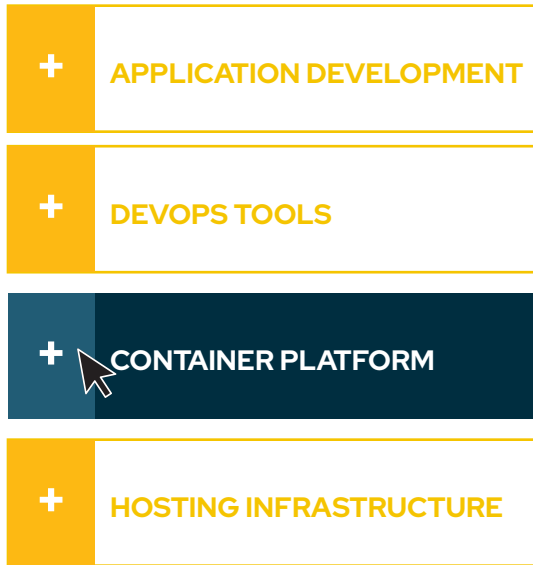
- » Decide which features you'll develop in Labs to create minimum viable product (MVP) that satisfies the need.
- » Learn design techniques like event storming, impact mapping, and domain-driven design.

Step 3

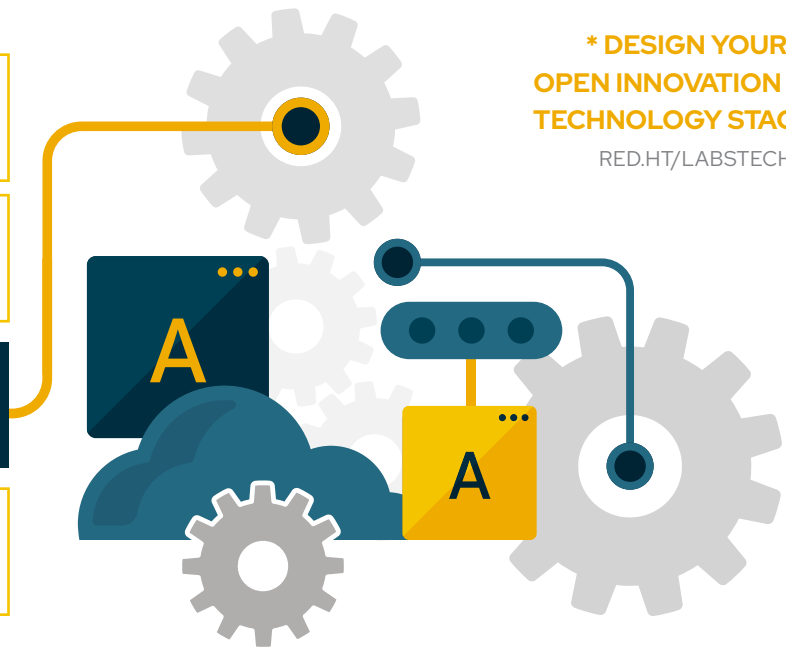
Begin development right away

Build your environment in minutes, using the Ansible automation engine. Set up in a public cloud (Amazon Web Services, Microsoft Azure, Google Cloud) or a private cloud (Red Hat Virtualization, OpenStack®, bare metal). Select the right application framework, tools, and platforms for your organization with a few clicks. Then watch your ideas come to life.





*** DESIGN YOUR OWN
OPEN INNOVATION LABS
TECHNOLOGY STACK AT:
[RED.HT/LABSTECHSTACK](https://red.ht/labstechstack)**



Step 4 Regularly evaluate progress

We'll work in a timeboxed fashion. After working for the agreed period of time to complete a goal, we'll stop and evaluate. Continue or shift directions.

Get fast feedback. You'll demo at every sprint interval, presenting what you've built to your stakeholder community.

Step 5 Demo your product

At the close of the residency, share the MVP with your larger team—and celebrate!

Step 6 Become the catalyst for innovation

» People

- Experience with agile, DevOps, and modern application development
- Post-residency training
- Test vouchers

» Technology

- Working prototype application
- Infrastructure as code (IaC)
- Feature backlog

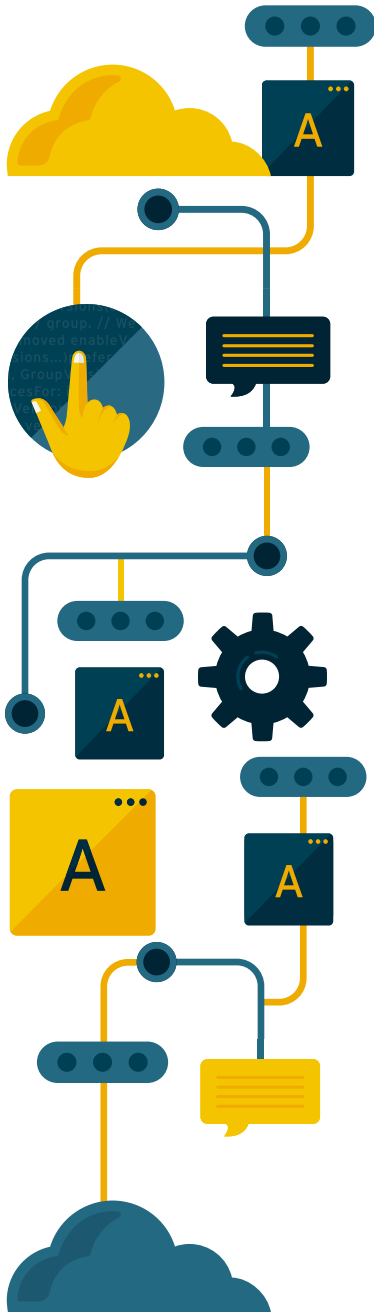
» Methodology

- Community-powered DevOps
- Container-based delivery pipeline



RED HAT OPEN INNOVATION LABS

More choice. More resources. More than tools.



» Culture

Immerse yourself in open source culture. The same principles that helped you decide *what* to develop now also apply to *how* to develop.

» Choice

Modernize legacy applications or develop new cloud-native apps. Our stack provides the tools for both types of development.

» Learning

Enjoy access to the full Red Hat stack and Red Hat Learning Subscription for 12 months.

» Innovate anywhere

Come to our Labs, or let us come to you—your offices or an offsite facility.

» Mentoring

Work side-by-side with leading experts of the open source world.

» Full stack of open source software

The infrastructure you'll use during your residency is open source from top to bottom—not just at the core. Everything you create during your residency uses open standards and application programming interfaces (APIs), giving you flexibility to avoid vendor lock-in.

An immersive residency with Open Innovation Labs gives you everything you need for modern application development.



WHAT WE BELIEVE

Open source culture powers open innovation



“““

"[Open Innovation Labs] really helped us jumpstart things and have absolutely exceeded our expectations ... take advantage of it if you have the opportunity."

John Hodgson, Senior director, Optum

“““

"The new techniques and tools ... and Red Hat experts [allow] us to move at a pace I never thought would be possible. I couldn't speak more highly of the whole experience."

K.L., Manager, Government Healthcare Company



LESSONS WE'VE LEARNED

From customers around the world on their journey to DevOps

- » Start small
- » Pick the right project: straightforward and not mission-critical
- » Experiment and iterate
- » Fail fast
- » Win quick
- » Market the success internally to bring about a change in culture
- » Build momentum with more investments

THE RED HAT CREDO

INDIVIDUAL ACTION

Innovation begins with individual action.

TOGETHER

Open source is about individuals coming together.

CULTURE

Open source is about more than tools; it's culture—one that enables innovation.

MERITOCRACY

Open source is driven by meritocracy: Let the best ideas win.

AUTOMATION

Automation leads to quick results.

MENTORING

Mentoring is important. When people exit our Labs, they're good stewards of DevOps—prepared to catalyze innovation in your organization.



TAKE THE FIRST STEP

Map your journey in a 1/2–1 day complimentary discovery session

» COLLABORATE

Your stakeholders and Red Hat Consultants

» CAPTURE

Your vision, challenges, opportunities, and goals

» ROADMAP

Learn how others have done it



TO SCHEDULE A
COMPLIMENTARY
DISCOVERY SESSION
AT YOUR LOCATION:

red.ht/labs





```
func init() { register
...Versions { if regist
...("No version is regist
... { panic(err)} if err := en
...ner than spread in each A
...RegisterGroup once we have
...VersionsToScheme(externalV
...version: preferredExternalVer
...runtime.SelfLinker(accessor),
...} func addVersionsToScheme
...kapi.Scheme) // add the enab
...Errorf("Version %s is not en
...oScheme(kapi.Scheme) defa
...s lists all known external vers
...ion{v1.SchemeGroupVersion)
...ion{} for _, v := range avail
...alVersions) == 0 { glog
...rnalVersions...); err !=
...ould be centralized
...ons and// regist
...ersion) error {
...upMeta{ Gro
...elfLinker
...} return
...oSch
... {
```