Future Curriculum Roadmap

Keeping RHA ahead of the curve.

Philip Sweany,
Curriculum Architect

Red Hat

Agenda

- RHEL 9 is Coming!
- Preparing Students for Modern IT
- Automation is Standard and Expected
- Kubernetes is Dominant and Mature
- Cyber Security is Now in Demand
- Red Hat Remote Exams are a Success!

RHEL 9 is Coming!

- RHEL 9 course development in early 2022.
- RHCSA & RHCE track courses are the priority.
- No **major** technology changes not already seen.

Red Hat Enterprise Linux 9 Course Development

RHCSA Track is priority. RHCE Track will be concurrent.

RHCSA Track

RH124 Admin I
RH134 Admin II
RH199 Rapid Track

RHCE Track

RH294 RHEL Automation with Ansible

Introductory

RH024 Technical Overview
RH354 New Features

Red Hat

No major technology changes in RHEL 9

The updated courses will include changes added since the RHEL 8.2-based courses.

Containers have matured and are now everywhere.
Containers in RHEL enables Edge with RHEL servers.

- Podman 2.0 has a new REST API, works in rootful and rootless environments, provides a docker compatibility layer.
- Increased support for LUKS encrypted containers.
- Maturing of podman, buildah, skopeo toolsets.
- udica: generate SELinux policies for containers.
- CRIU: ("krre-oo") checkpoint/restore in userspace. Can freeze a running container and checkpoint state to disk.
- Create custom RHEL images for Edge servers. A RHEL for Edge image is an rpm-ostree image that includes system packages for remotely installing RHEL on Edge servers.

New features and bug fixes have been continuously introduced into the latest RHEL 8 minor releases.

- Expanded support for common IPv6 use.
- Support for now-ubiquitous NVDIMM devices.
- HDD, SSD, USB additions to drive DB for smartmontools.
- BIND DNS updated; cloud, IPv6, security.
- LVM can now manage VDO volumes.
- Mirror DNF transactions between systems.
- Image Builder backend now uses osbuild-composer, replaces lorax-composer, provides REST APIs for building.
- Numerous security enhancements, OpenSCAP, STIG.
- Expanded use of the RHEL Web Console.
- New and enhanced System Roles.

Preparing Students for Modern IT

- Linux remains the primary skill focus in IT.
- Evolution of the Linux Admin Role.
- Red Hat Enterprise Linux Tracks.

Linux remains the primary skill focus in IT

Linux images, led by RHEL, are de facto for containers, cloud, and Edge.

Linux Track

Cloud Track

Container Track

Linux Track		Cloud Track		Container Track
Performance Tuning Troubleshooting Security	RHCA	Private Cloud Deployment Artificial Intelligence Machine Learning Edge Computing	RHCA	OpenShift Administration Container Security Day 2 Operations DevOps Pipelines
Systems Management Ansible Automation	RHCE	Ansible Automation	RHCE	Ansible Automation
Linux Administration	RHCSA	Linux Administration	RHCSA	Linux Administration

Evolution of the Linux Admin Role

The changes are more like re-engineering than being only an expansion of duties.

Linux Admin 2005

- Physical systems
- Bespoke
- Edge of network
- Bash scripting
- Waterfall

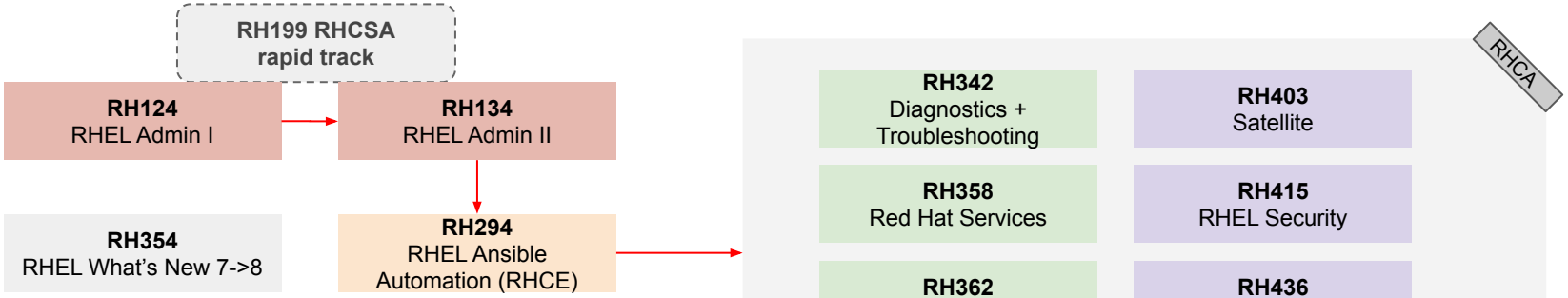
Linux Admin 2012

- Add virtualization
- Enterprise apps
- SELinux, KVM
- Satellite
- Agile

Linux Admin 2019

- Add public & private cloud
- Containers & Kubernetes
- Automation / Ansible
- SRE
- DevOps

Red Hat Enterprise Linux Tracks



ROADMAP

RH104 ?
Linux End Users

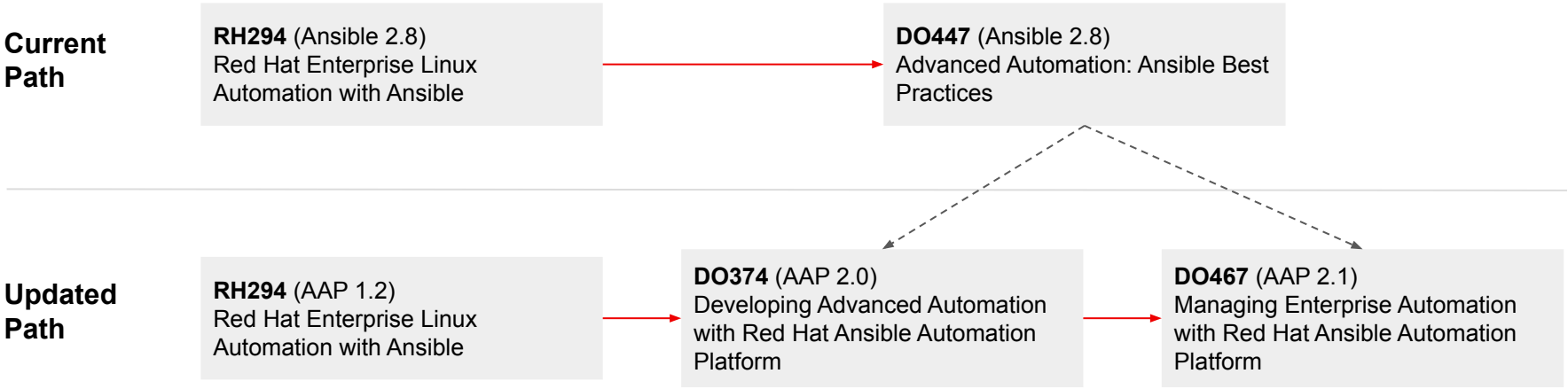
RH445
RHEL for SAP Solutions

Automation is Standard and Expected

- Significant Change: Ansible Automation Platform 2.
- Ansible Automation Platform Track.

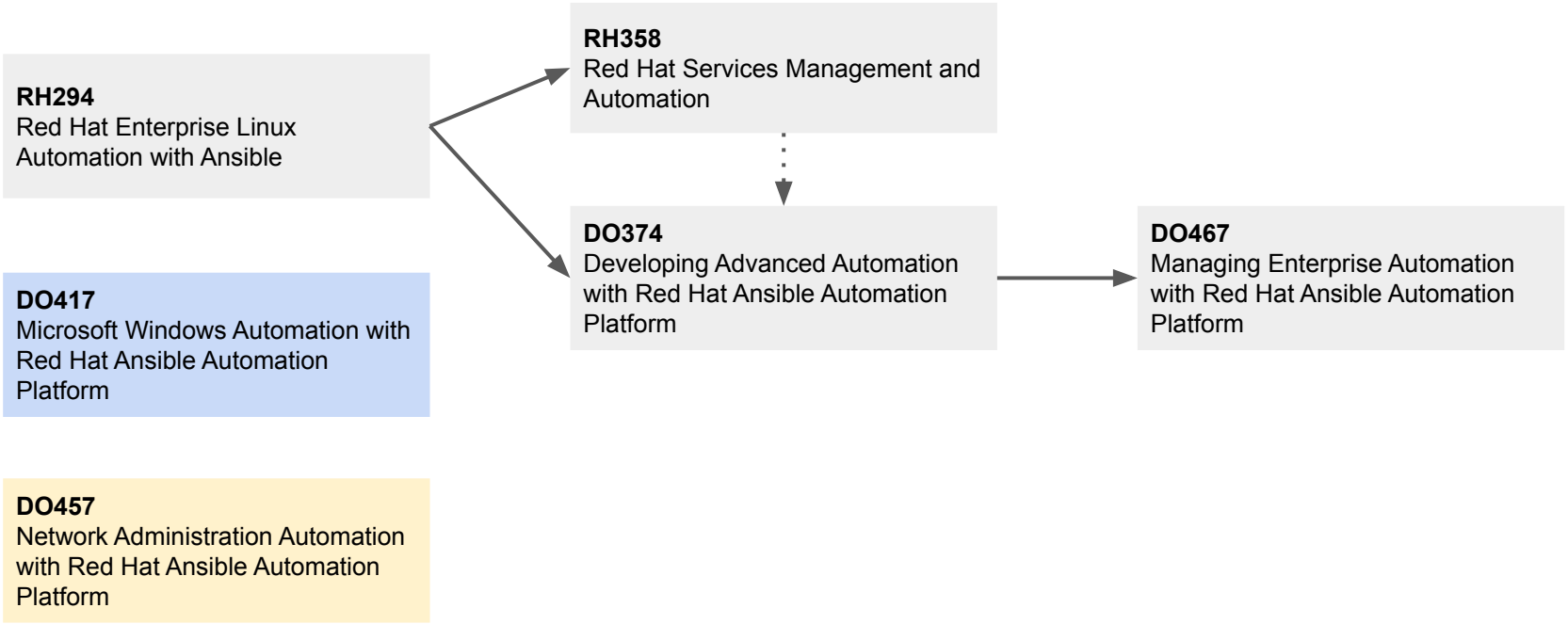
Significant Change: Ansible Automation Platform 2

Ansible Automation Platform has these components: Ansible Engine, Ansible Tower, Content Collections, and more.



Ansible 2.0 is quite a bit more than a large refactoring effort.
https://www.ansible.com/blog/ansible-2.0-launch "Ansible 2.0 Has Arrived"

Ansible Automation Platform Track

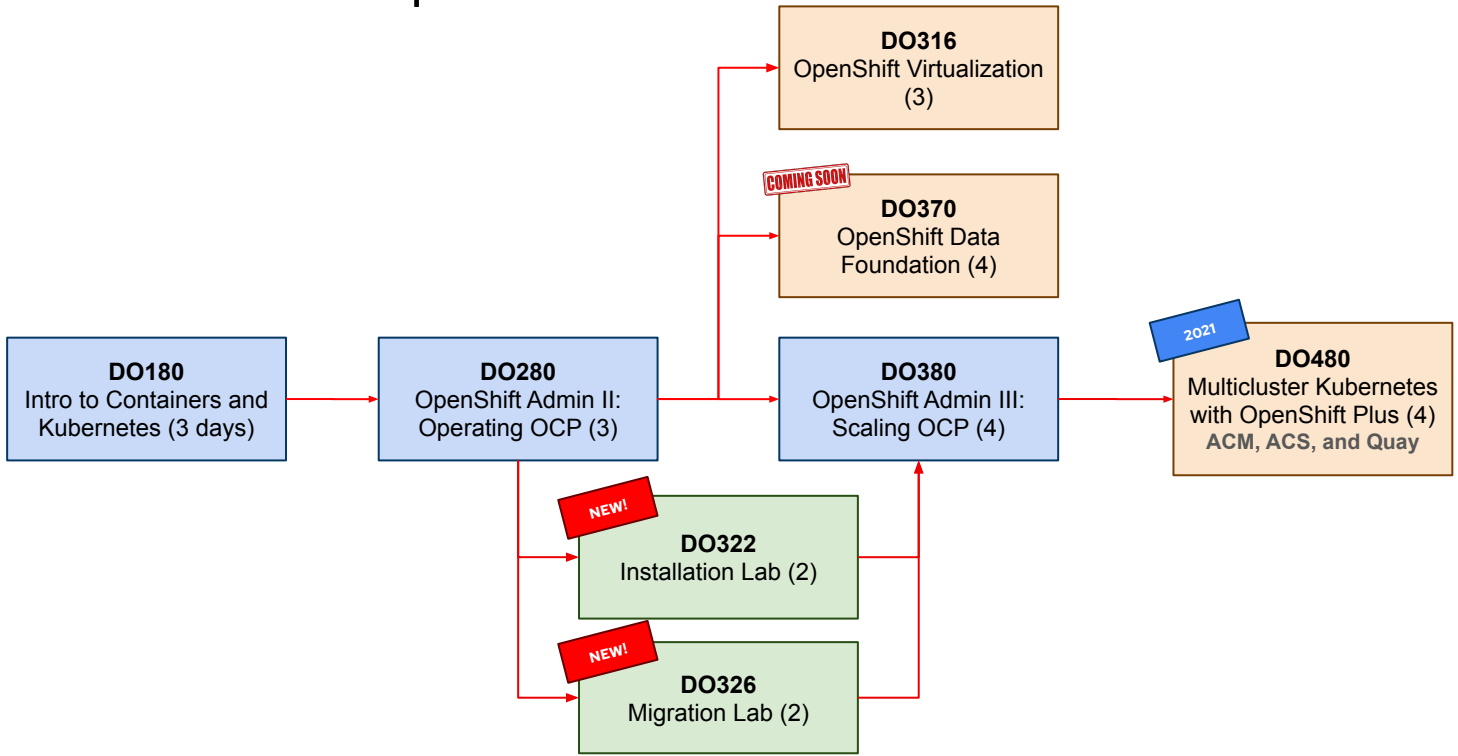


Red Hat

Kubernetes is Dominant and Mature

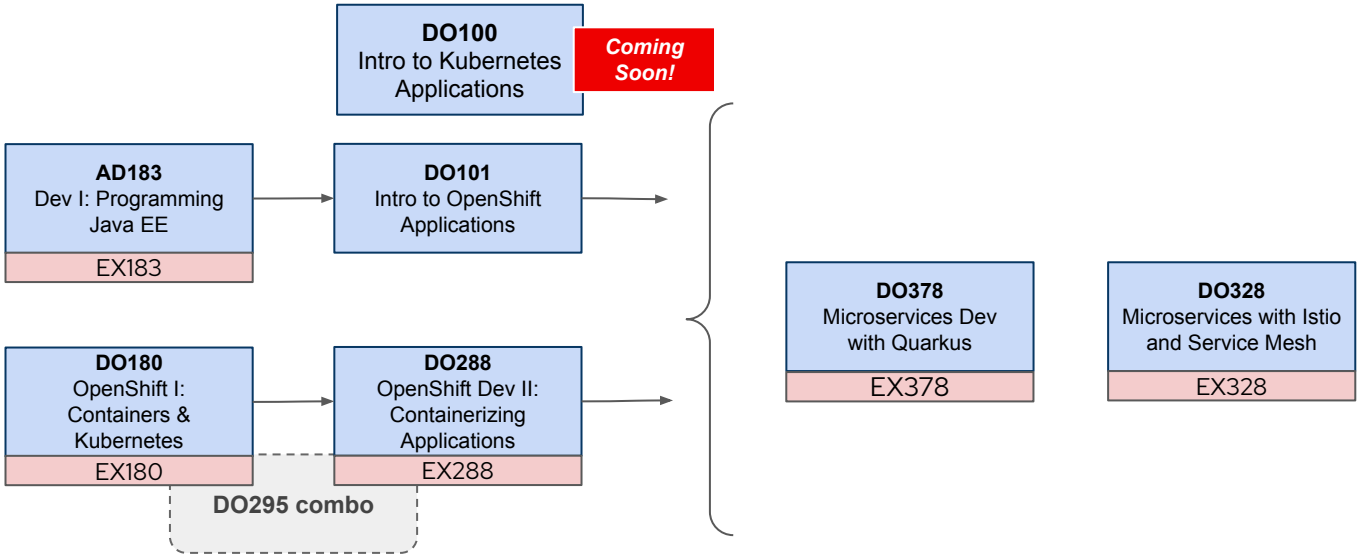
- Kubernetes is significant to enterprise admins and to our core teaching curriculum.
- OpenShift Administration Track.
- OpenShift Developer Track.

OpenShift Administration Track



Red Hat

OpenShift Developer Track



Red Hat

Cyber Security is Now in Demand

- Red Hat Core Competencies
- Curriculum Plan Ideas

Red Hat Core Competencies in Security

Defining a Cyber Security Curriculum.

Cyber Security is commonly defined as eight domains of security knowledge:

1. Security and Risk Management
2. Asset Security
3. Security Architecture and Engineering
4. **Communications and Network Security**
5. **Identity and Access Management**
6. Security Assessment and Testing
7. **Security Operations**
8. **Software Development Security**

Curriculum Plan Ideas

Some parts we have and some need to be built.

Significant, relevant security content already exists or can be repurposed:

- RH362 Red Hat Security: Identity Management
- RH415 Red Hat Security: Linux in Physical, Virtual, and Cloud
- DO380 OpenShift III course update will be DevSecOps
- DO425 Container Security (layered Linux security)
  RHEL Deployment and Security on Cloud Platforms
- Security Automation with Red Hat Insights and Ansible Automation Platform
- Numerous security topics from RHCSA content.

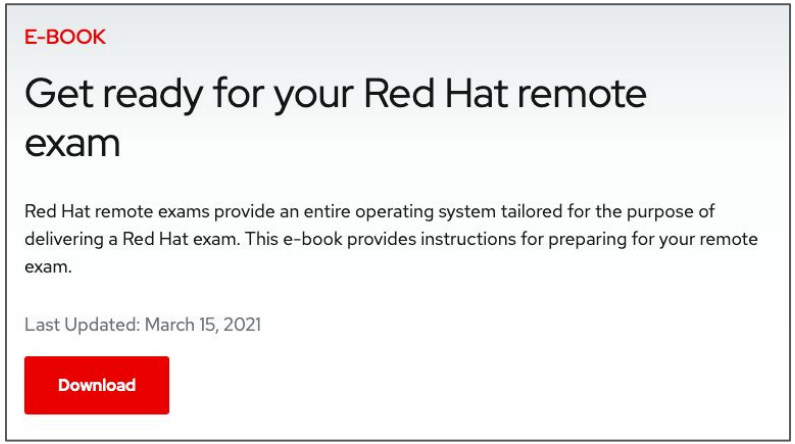
Red Hat Remote Exams are a Success!

- Greater convenience than ever before.
- Virtually any exam on your timeframe.
- Prepare a remote exam ISO in advance.
- Requires meeting system requirements.
- Chat support for exam preparation.

Learning about the new Red Hat remote exams

Taking exams from the comfort of home.

https://www.redhat.com/en/resources/remote-exams-preparation-ebook



Red Hat

Prepare a remote exam ISO in advance.

Provides an entire operating system tailored for the purpose of delivering a Red Hat exam.

2-3 days prior to your exam:

1
Check system requirements »

2
Download and create a remote exam ISO »

3
Boot to the remote exam live ISO and configure your internet and other settings »

4
Log into the exam environment »

5
Run a compatibility test* in the remote exam live environment ISO

Make sure to run the compatibility test at the time of day your exam is scheduled to get the most accurate evaluation possible.

If system requirements are not met, you will have to reschedule your exam.

Red Hat

Chat Support for Exam Preparation

Literally, the link is on the PDF.

Red Hat

Thank you!

Red Hat is the world's leading provider of enterprise open source software solutions. Award-winning support, training, and consulting services make
Red Hat a trusted adviser to the Fortune 500.


linkedin.com/company/red-hat


youtube.com/user/RedHatVideos


facebook.com/redhatinc


twitter.com/RedHat

Red Hat