

RED HAT  
**SUMMIT**

# UPGRADING TO RED HAT ENTERPRISE LINUX 8

## Best practices

Jan Zeleny  
Engineering Manager  
May 2019

EXP  
AND



There are multiple ways to migrate to  
Red Hat<sup>®</sup> Enterprise Linux<sup>®</sup> 8.



# Why in-place upgrades?



Enter Leapp

# IN-PLACE UPGRADES

A viable alternative to reinstallation



## SKEPTICS SAY

- › Unstable results
- › Too hard to perform
- › Easier to reinstall



## LEAPP BRINGS

- › A lower bar of required seniority to perform an upgrade
- › Compatibility with Boom: snapshots and rollbacks

# IN-PLACE UPGRADES

A viable alternative to reinstallation



## SKEPTICS SAY

- › Opportunity to clean up the system and workloads
- › YUM upgrade



## LEAPP BRINGS

- › Reporting capability
- › Significant reduction of manual work
- › Easy extensibility

# IN-PLACE UPGRADES

A viable alternative to reinstallation



## SKEPTICS SAY

---

- › Hardware refresh



## LEAPP BRINGS

---

- › Viable choice in virtualized and cloud environments

# LEAPP

# INTRODUCING LEAPP

## Basic characteristics



CLI tool

---



Offline upgrades

---



2 use cases

---



Red Hat Enterprise Linux 8.0

---

Pre-upgrade analysis and report

---

Pre-upgrade analysis and upgrade  
(if no blockers)

Latest-to-latest → specific upgrade paths

---

The plan will be communicated ahead  
so that users can plan ahead

# PRE-UPGRADE ASSISTANT TO LEAPP

Change in the tooling explained



## Why?

---

- 2 disconnected tools:
  - ⚠ OpenSCAP does not fit the needs of pre-upgrade assistant
  - ⚠ redhat-upgrade-tool not developed & maintained in upstream anymore

- 
- The content (modules) is not transferable, anyway

## How?

---

- Single, purpose-built tool leads to consistency in experience
- Emphasis on extensibility

# INTRODUCING LEAPP

## Why not Ansible?

### FUNCTIONAL COMPARISON OF LEAPP AND ANSIBLE®

	Ansible®	Leapp
Final state	Known, predefined	Unknown, calculated
Execution	Fixed, predefined	Data-driven
Extensions	Code/declarations: converge into target state	Code, needs to handle complex decisions based on user input and previous system state
User interaction	Noninteractive	Interactive

# INTRODUCING LEAPP

## Some technical details

- › The original subscription stays attached to the system
- › Repo links are updated in the process
- › Base OS + application streams + custom repos
- › Extensibility:
  - Easy to reuse the existing code base
  - Easy to hook into the upgrade process
  - 10 phases to hook into

RED HAT  
**SUMMIT**

THANK YOU



[linkedin.com/company/Red-Hat](https://www.linkedin.com/company/Red-Hat)



[youtube.com/user/RedHatVideos](https://www.youtube.com/user/RedHatVideos)



[facebook.com/RedHatinc](https://www.facebook.com/RedHatinc)



[twitter.com/RedHat](https://twitter.com/RedHat)