

RED HAT
SUMMIT

Hybrid cloud management with Ansible and CloudForms

Subheading goes here

Presenter

Presenter's title

Date



MOISES RIVERA

Moises has been in Red Hat for more than 6 years and he is still as felt in love as the first day.

Works as a Solutions Architect in different verticals and his expertise is related with infrastructure, storage and cloud



X
KEEP
CALM
AND
BE A
FOODIE



VICTOR ESTIVAL

Victor joined Red Hat back in 2015 as a CloudForms Specialist Solution Architect for EMEA and since 2017 work for the BU

Victor used to work with AIX for a long time until he discovered THE CLOUD in 2010.

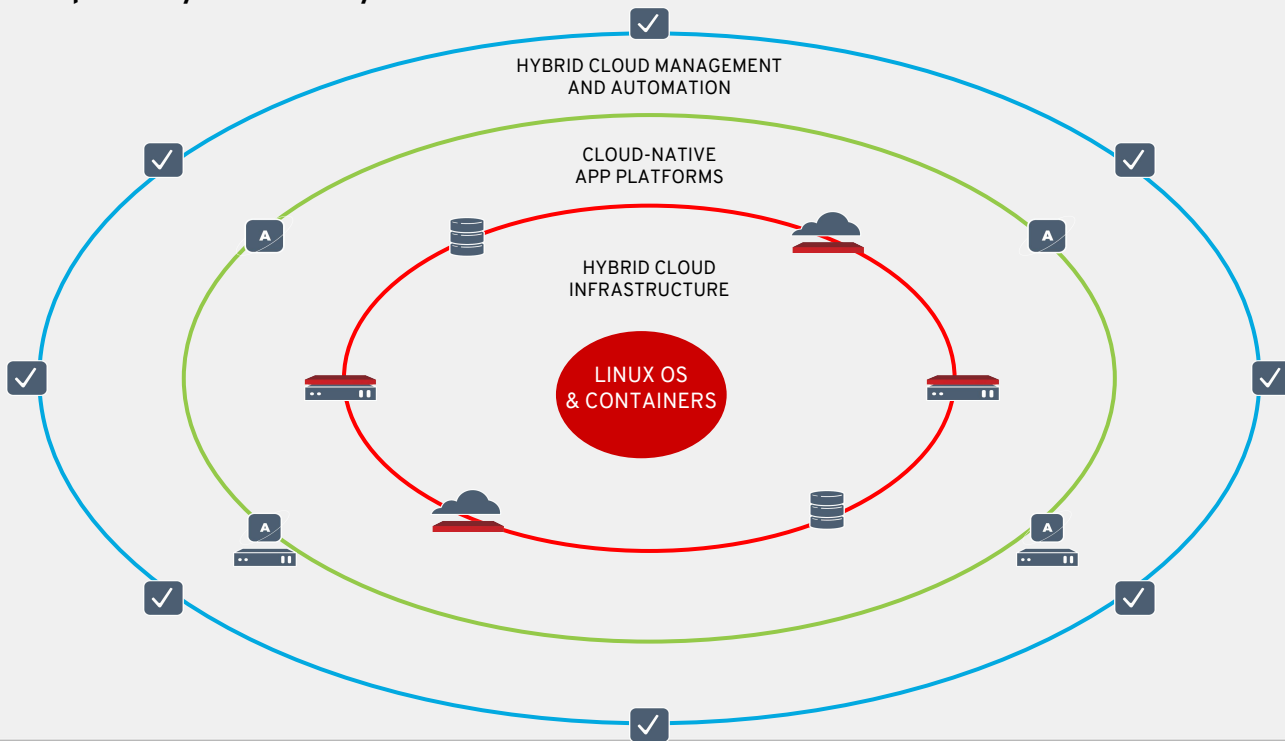


STAR WARS



MANAGEMENT & AUTOMATION

reducing complexity of the hybrid cloud



AUTOMATION IS CRITICAL

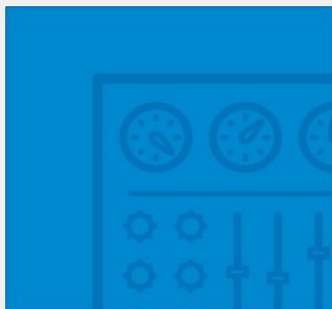
86%

Automation is either mission critical or very important to their future Cloud strategy

79%

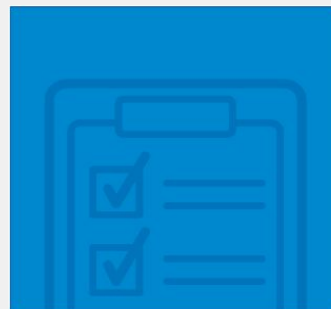
Of IT organizations will need to deploy new management and automation software between now and 2020

CLOUDFORMS DELIVERS SERVICES ACROSS HYBRID ENVIRONMENTS



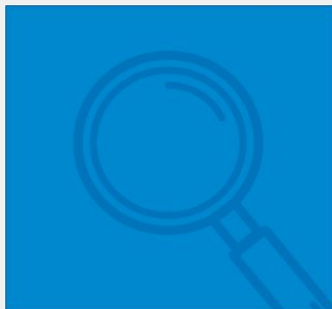
SERVICE AUTOMATION

Streamline complex service delivery processes, saving time and money.



POLICY & COMPLIANCE

Draws on continuous monitoring and deep insights to raise alerts or remediate issues.



OPERATIONAL VISIBILITY

Complete lifecycle and operational management that allows IT to remain in control.



UNIFIED HYBRID MANAGEMENT

Deploy across virtualization, private cloud, public cloud and container-based environments.

HYBRID CLOUD MANAGEMENT



DEVELOPER



OPERATIONS



SYS/CLOUD
ADMIN



COMPLIANCE

CloudForms

Self Service
Provisioning,
Service Catalog,
Ops Console

Discovery,
Monitoring &
Relationship
Mapping

Governance,
Reporting,
Cost,
Inventory



PUBLIC CLOUDS



HYBRID INFRASTRUCTURE
ON-PREMISE/PRIVATE CLOUD

AUTOMATE EVERYTHING

RED HAT ANSIBLE

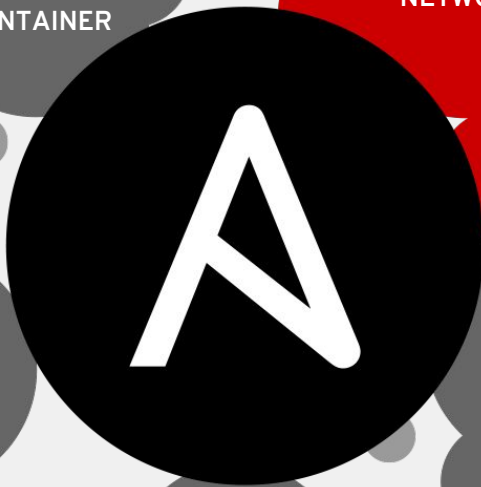
THE MOST POPULAR OPEN SOURCE AUTOMATION PLATFORM

Goal:

Unify provisioning, configuration, and application deployment

Result: Ansible

A python-based command line engine that interprets and executes YAML-based “Playbooks” that contain one or more “plays” or tasks.



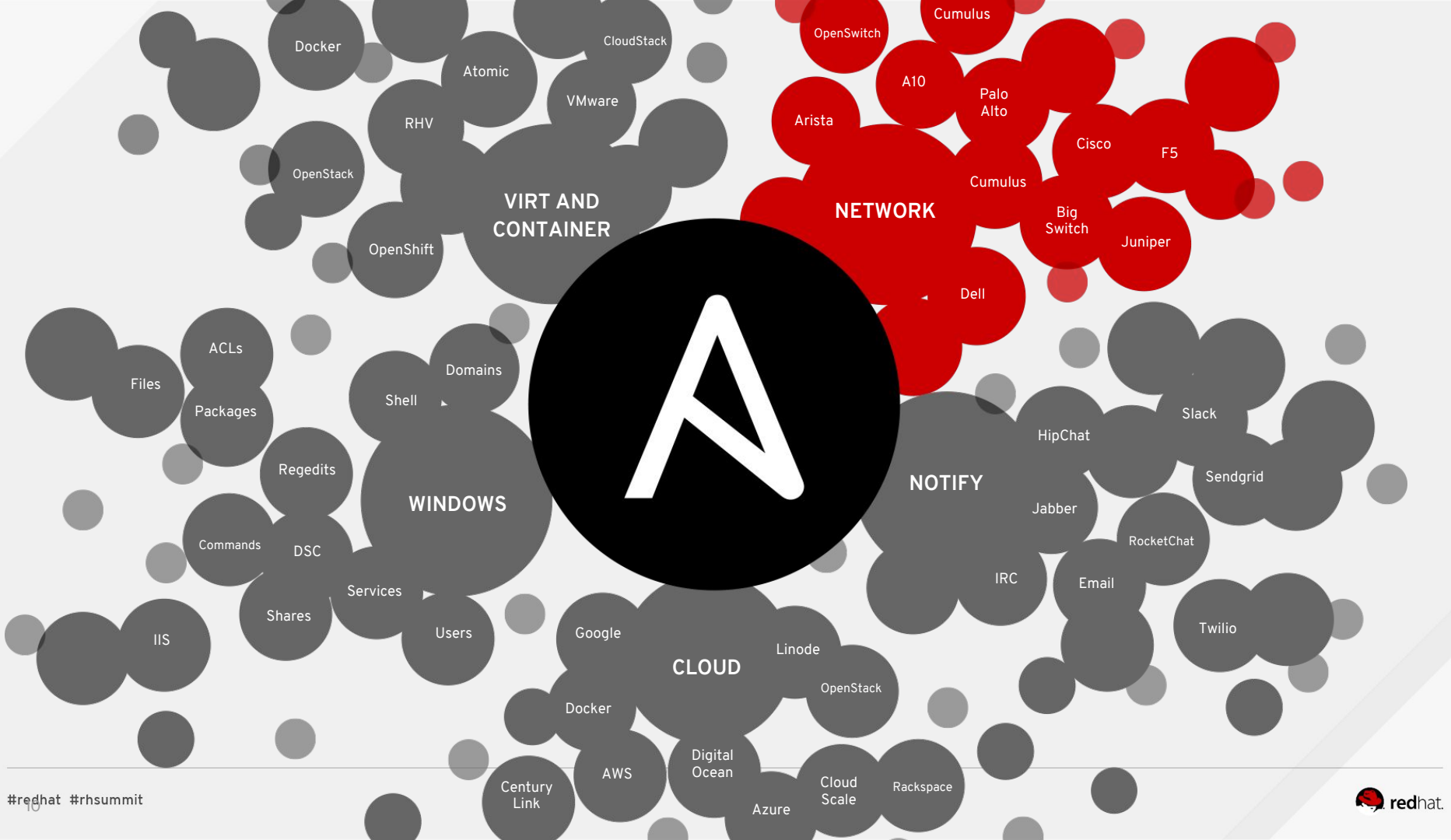
**VIRT AND
CONTAINER**

NETWORK

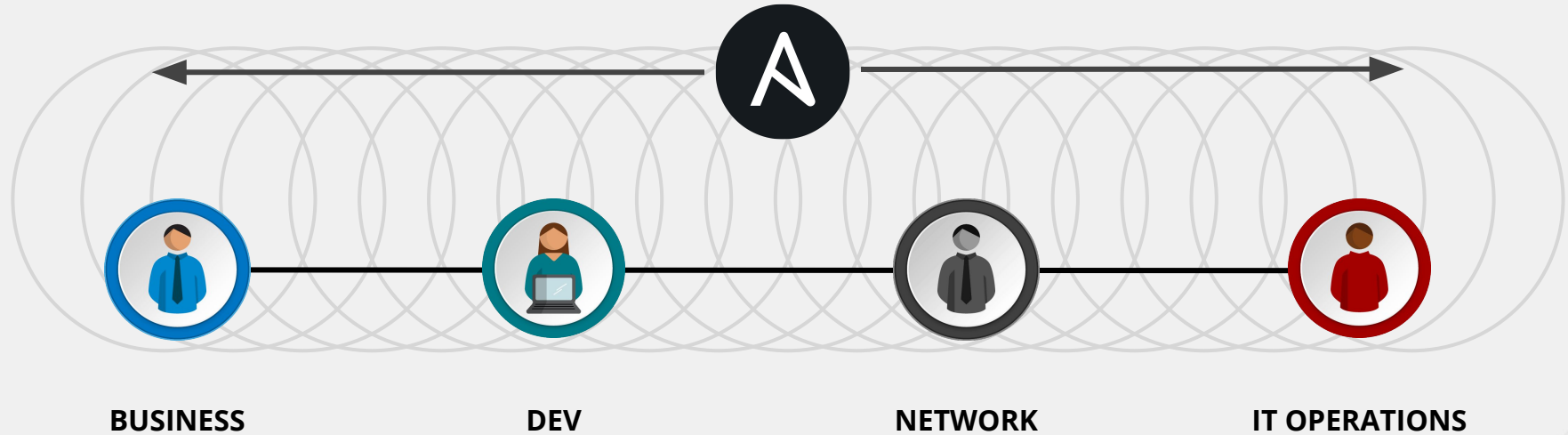
WINDOWS

NOTIFY

CLOUD



THE UNIVERSAL LANGUAGE

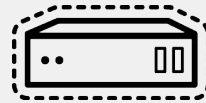


DAY 1 DEPLOYMENT DEMO

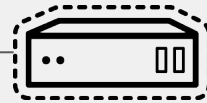
ENVIRONMENT



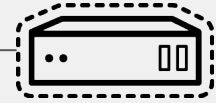
ituser



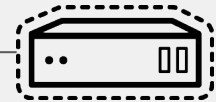
CloudForms



RHVM



RHV HOST1



RHV HOST X

TASKS

- Task #1. Deploy VMs.
 - CF will deploy abundle made of:
 - 1 LB on RHV
 - 1 Web Server on RHV
 - 1 Web Server on OSP



DAY 2 OPERATIONS DEMO

ANSIBLE TOWER



TOWER EMPOWERS TEAMS TO AUTOMATE

CONTROL

Scheduled and centralized jobs

KNOWLEDGE

Visibility and compliance

DELEGATION

Role-based access and self-service

SIMPLE

Everyone speaks the same language

POWERFUL

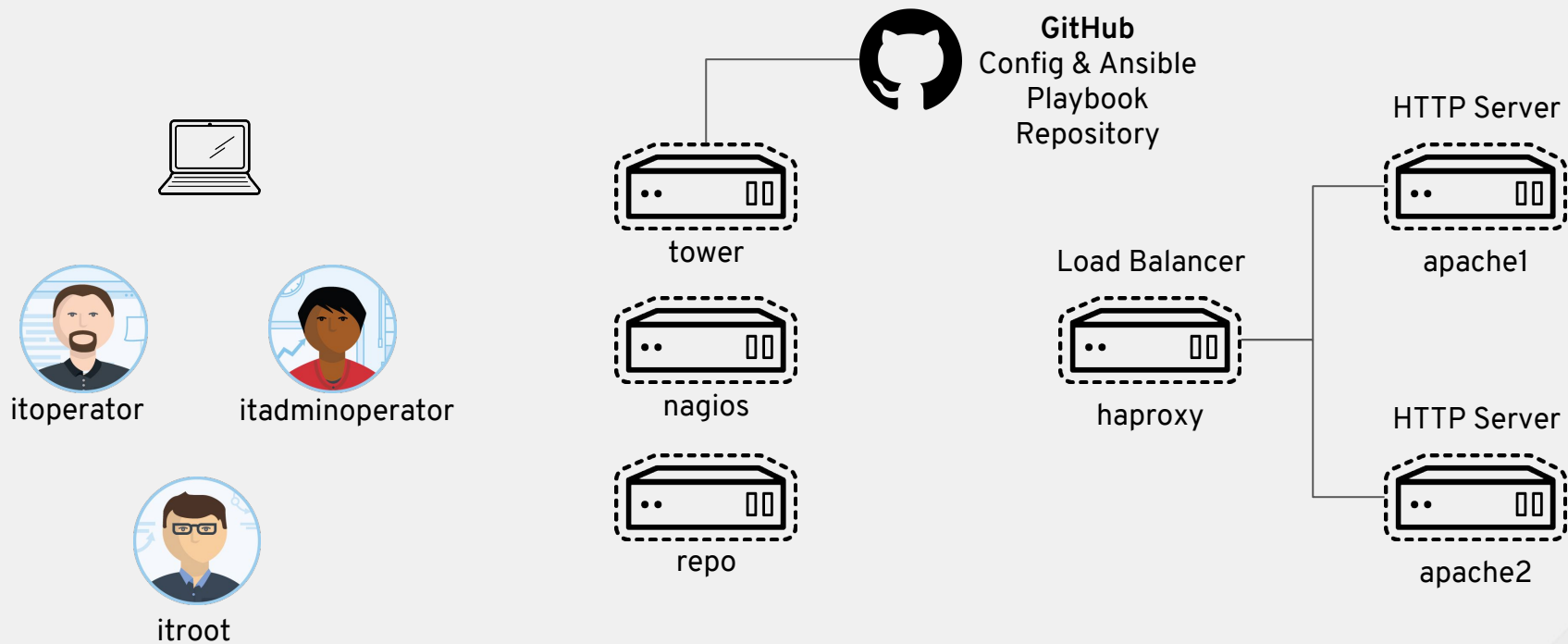
Designed for multi-tier deployments

AGENTLESS

Predictable, reliable, and secure

AT ANSIBLE'S CORE IS AN OPEN-SOURCE AUTOMATION ENGINE

ENVIRONMENT



DUTIES

IT Operators



HTTP GET CONFIG

HTTP START

HTTP STOP

HTTP RESTART

IT Admin Operators



ENVIRONMENT DEPLOY

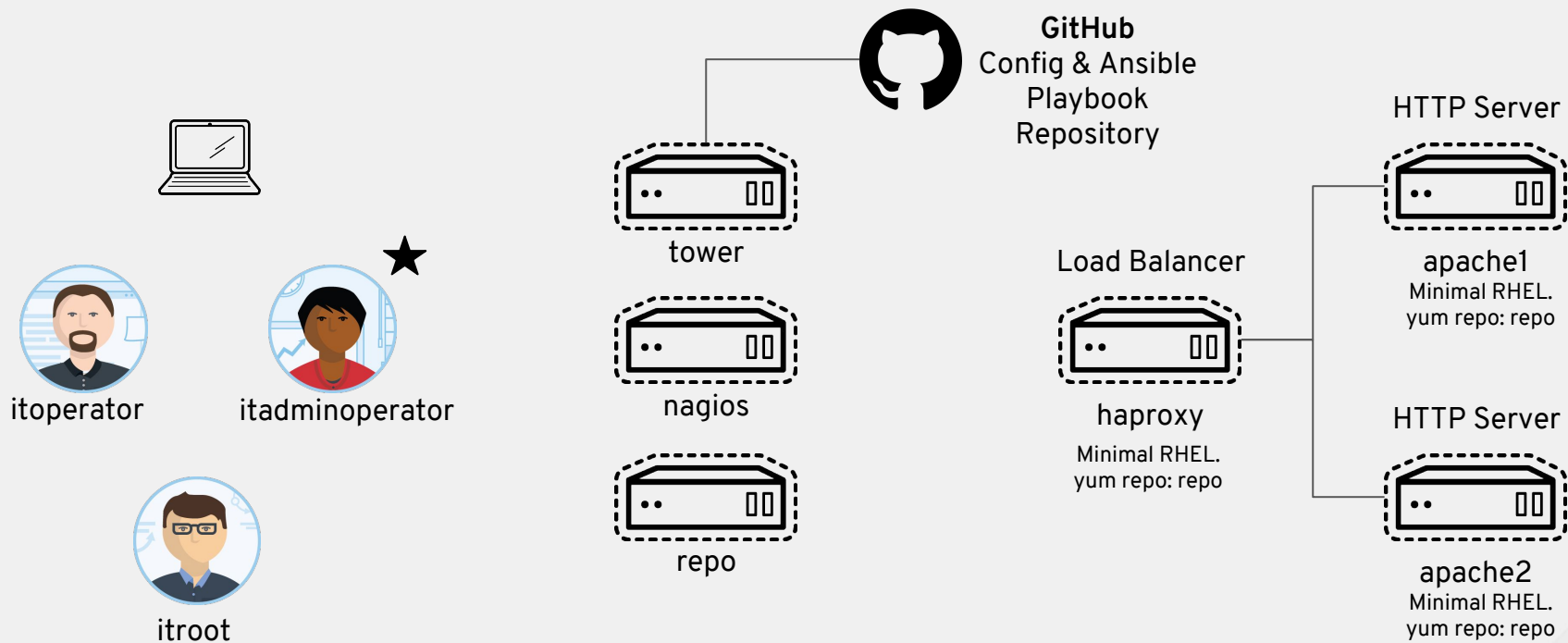
HTTP MODIFY CONFIG

TASKS

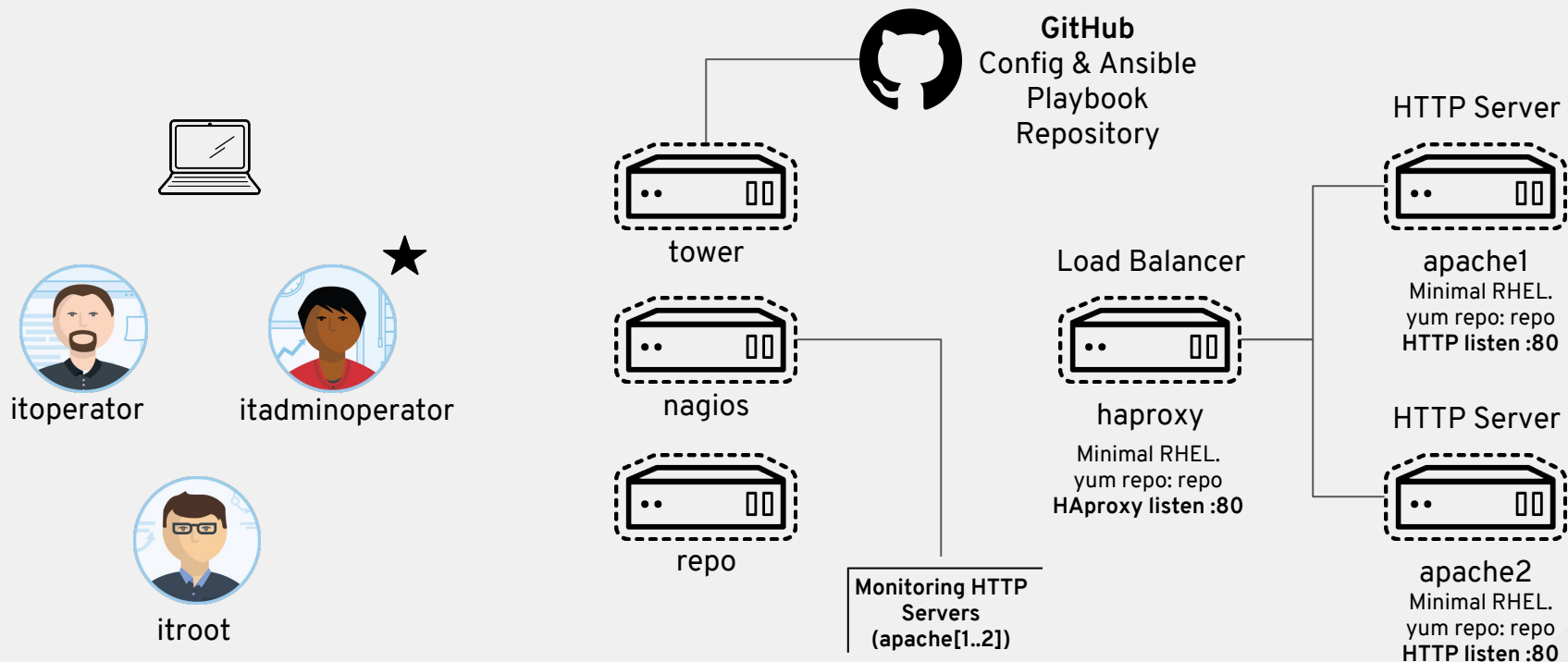
- Task #1. Environment Deploy.
 - Deploy HTTP Servers and HAproxy server.
- Task #2. Modify Configuration.
 - Modify HTTP configuration.
- Task #3. Integration with third party tools.
 - Run a Template using Ansible Tower API.



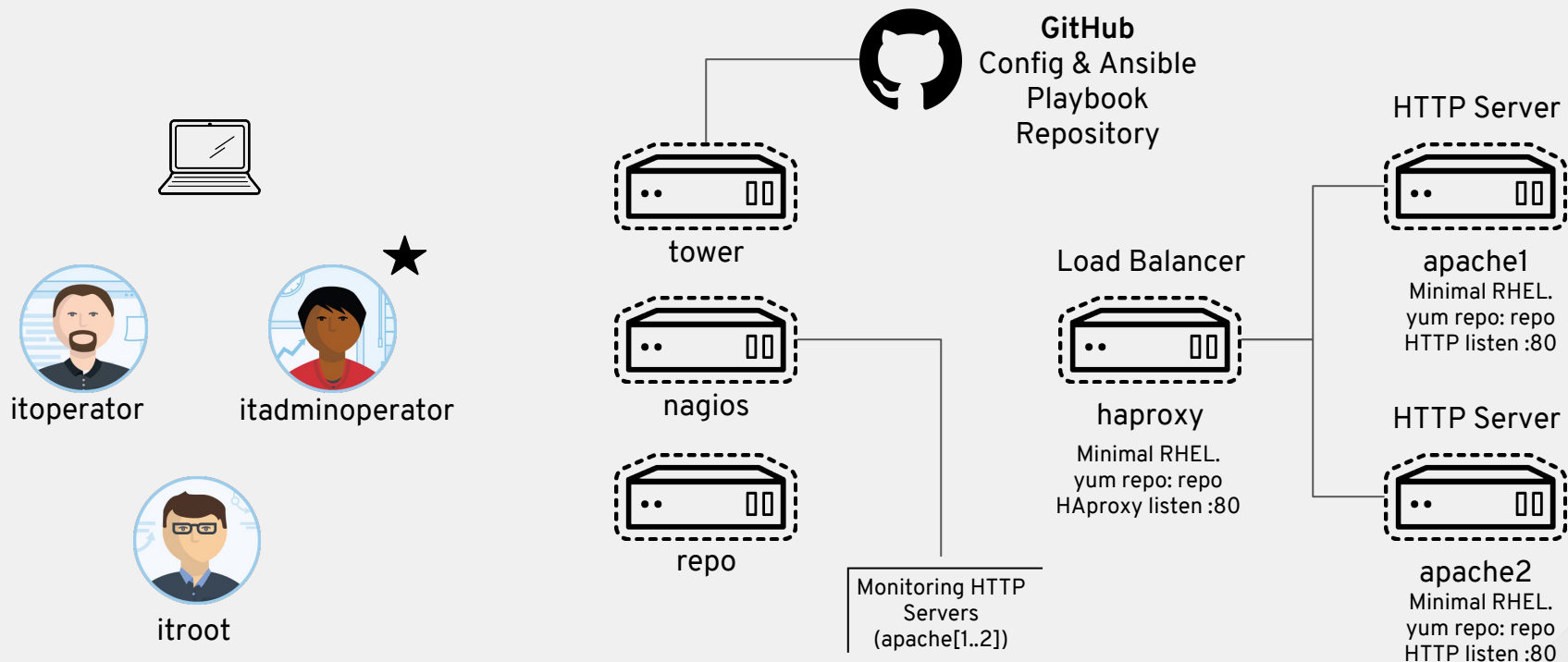
TASK #1 - Environment Deploy



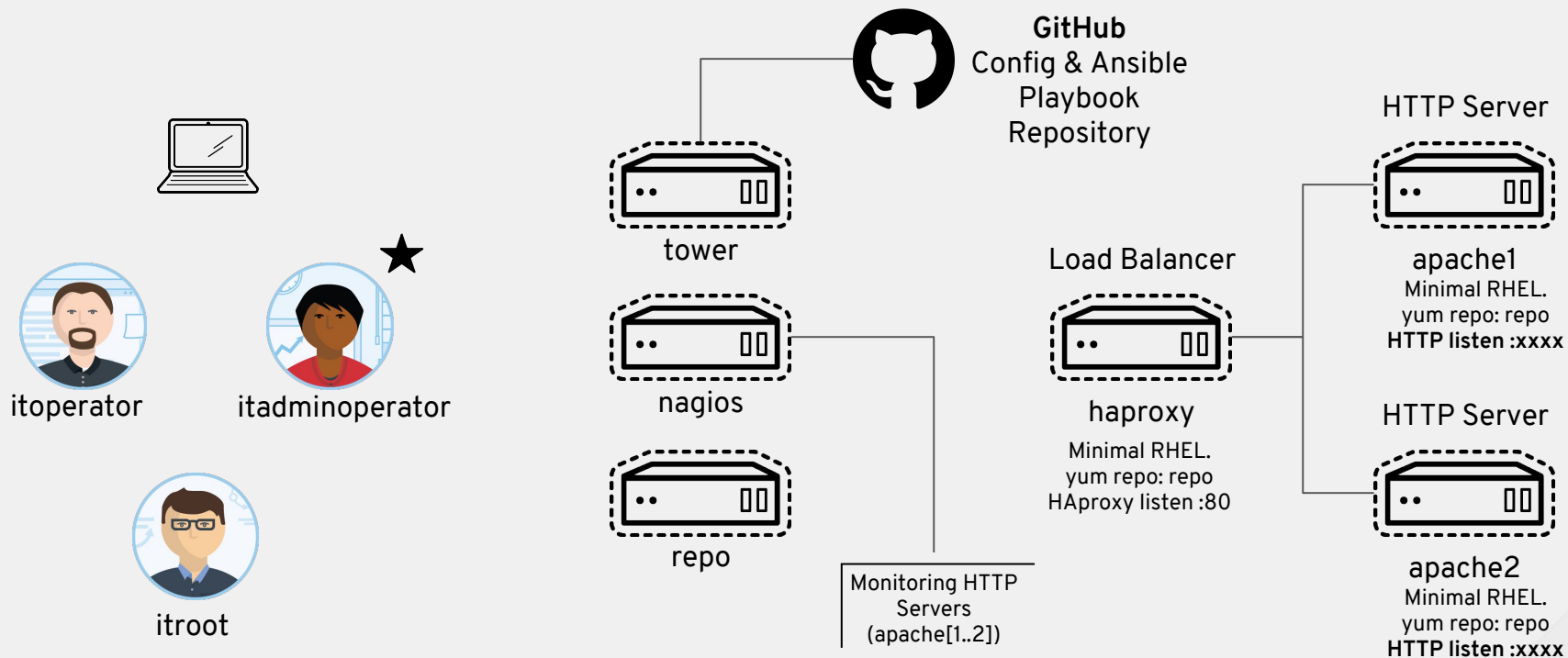
TASK #1 - Environment Deploy - After



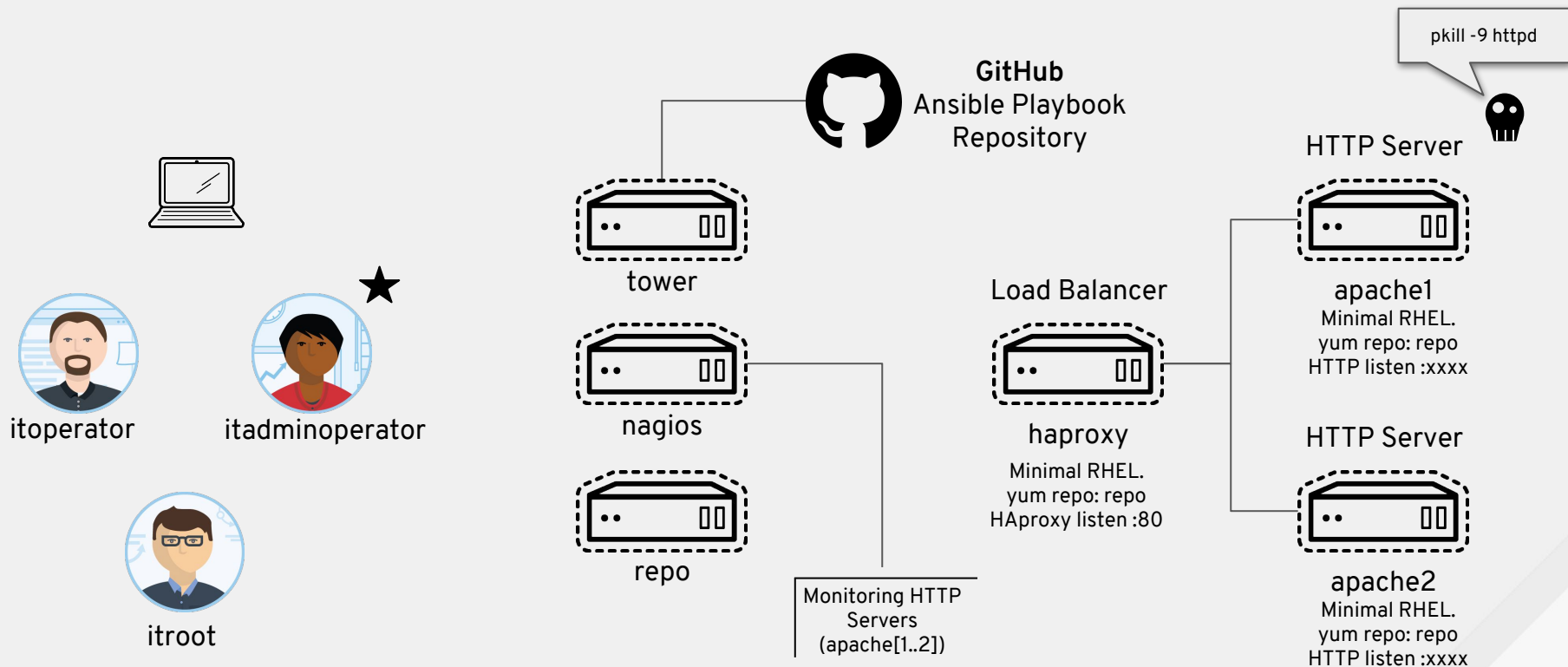
TASK #2 - Modify Configuration



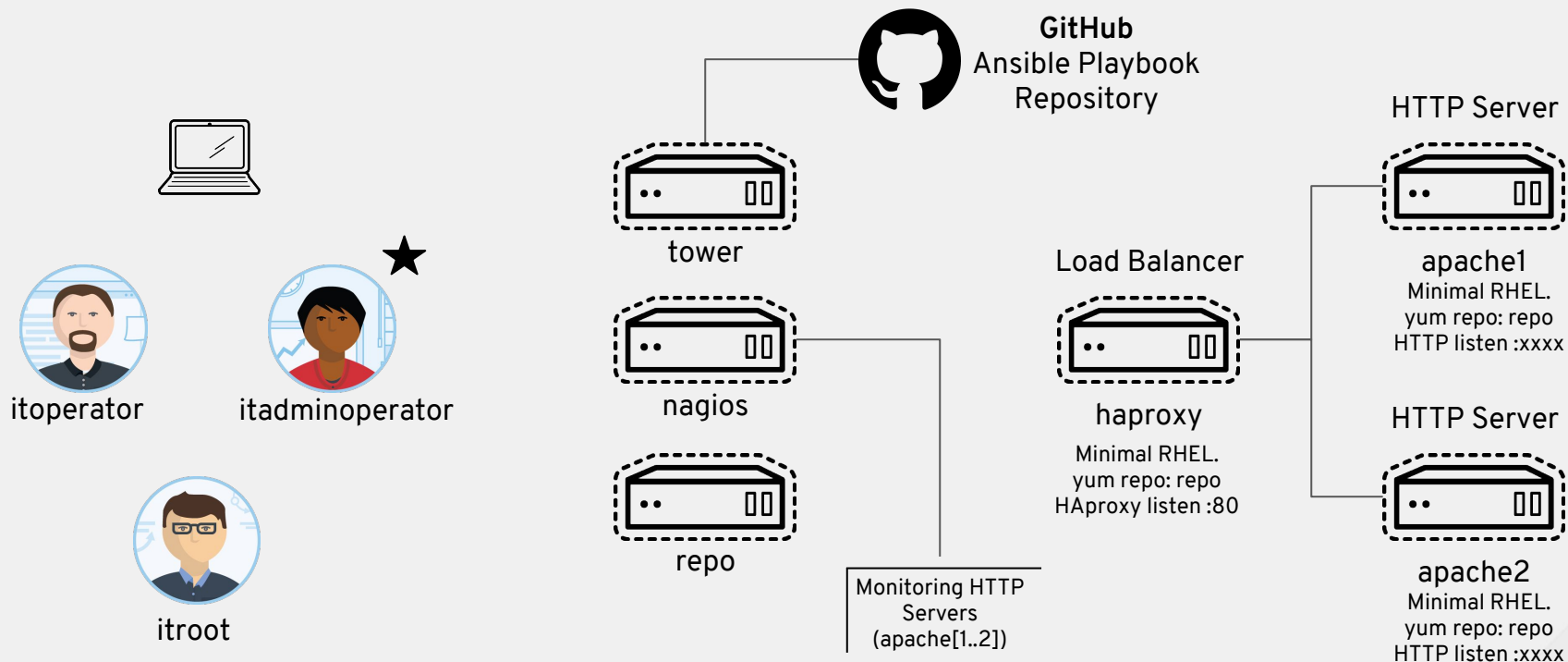
TASK #2 - Modify Configuration - After



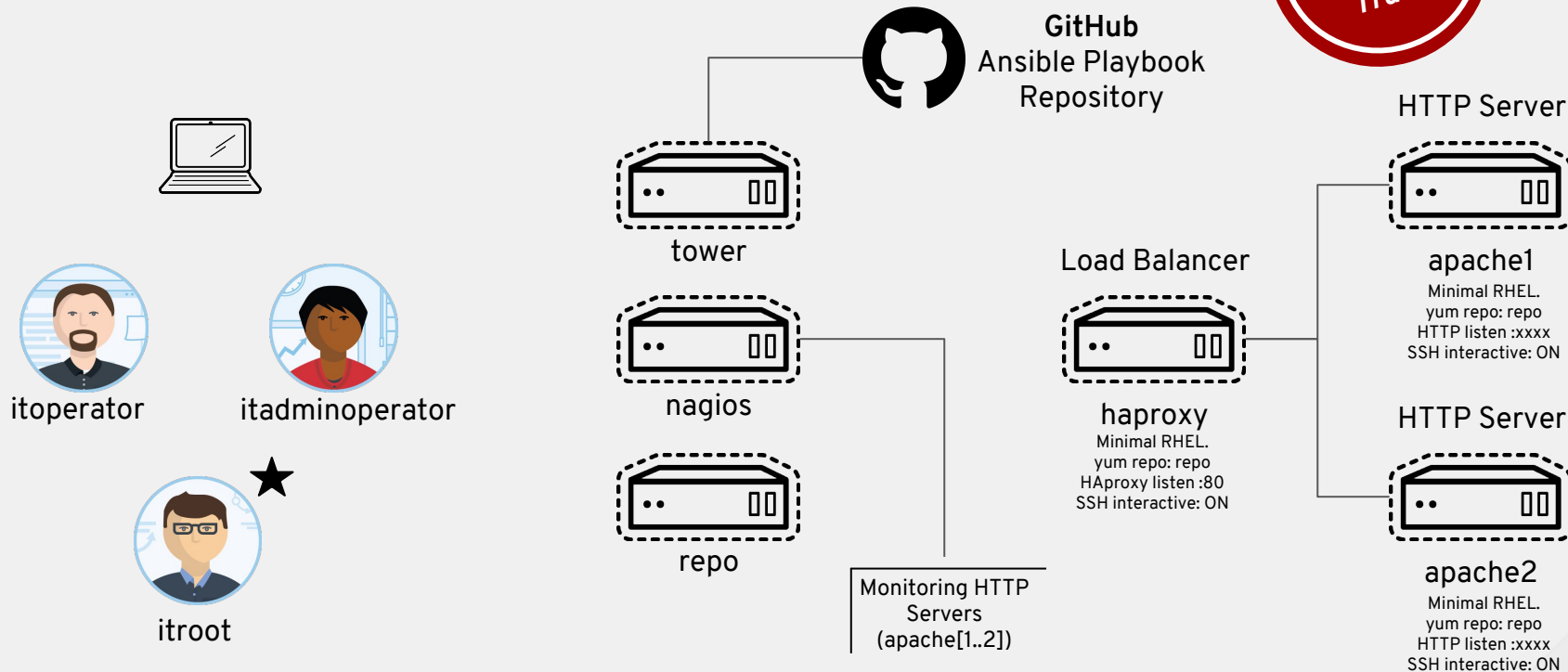
TASK #3 - Integration with Nagios



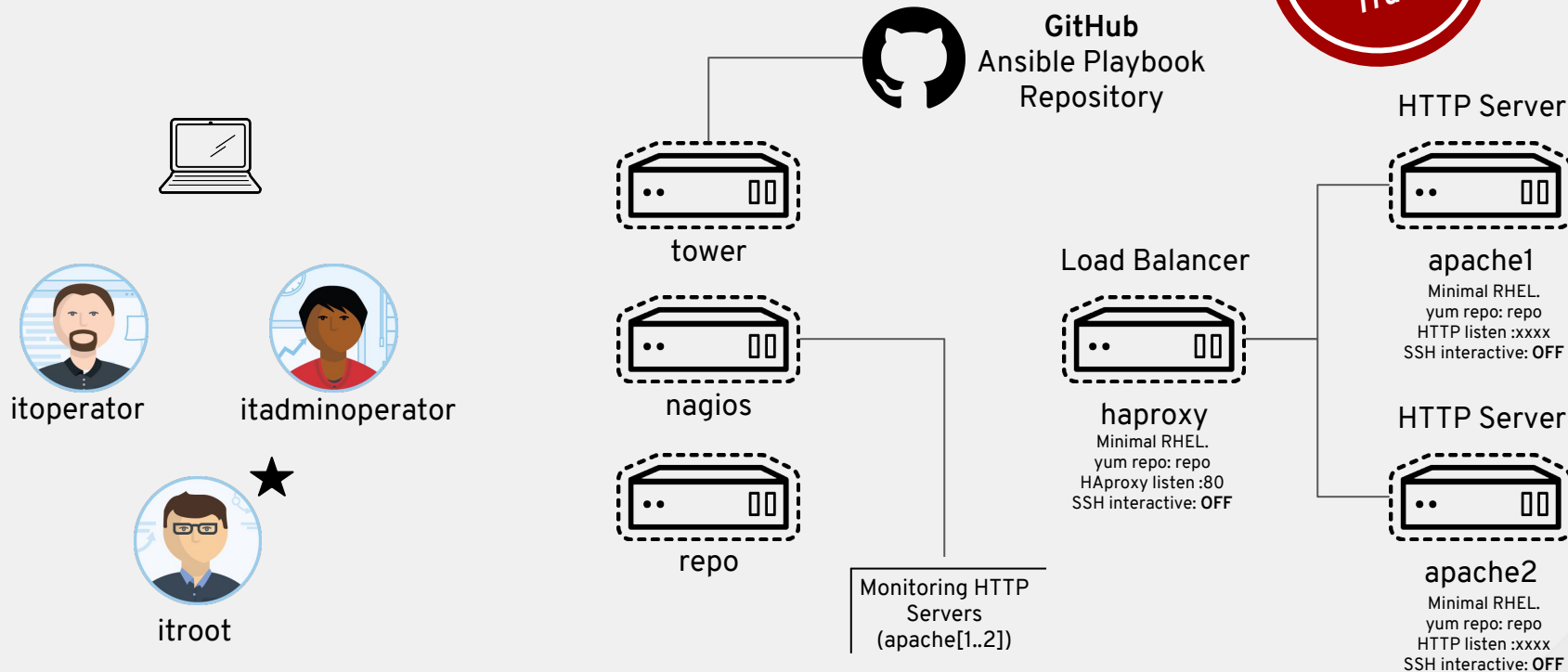
TASK #3 - Integration with Nagios - After



BONUS TRACK - SSH interactive connections (ON/OFF)



BONUS TRACK - SSH interactive connections (ON/OFF) - After



A challenge for you...

Why don't you try it at home?

<https://github.com/MoyRivera/dcFailover>

AUTOMATION & MANAGEMENT

Come see us in the Red Hat booth in the Ecosystem Expo



RED HAT®
ANSIBLE®
Automation

RED HAT®
INSIGHTS

RED HAT®
SATELLITE

RED HAT®
CLOUDFORMS

————— *plus* —————

‘Management - What’s New’

New products under development

RED HAT
SUMMIT

THANK YOU



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ANSIBLE TOWER DEMO

Playbooks/Roles/uPlaybooks/Workflows

PLAYBOOK

```
---
- hosts: "{{ host_or_group }}"
  remote_user: root
  vars_files:
    - vars/httpd_vars.yml

  tasks:
    - name: Download and install httpd pkg
      yum: name={{ item }} state=present
      with_items:
        - apr
        - apr-util
        - httpd

    - name: Applying configuration
      template:
        src: templates/{{ file }}
        dest: {{ config_file_path }}

    - name: Activating service on boot
      service:
        name: httpd
        state: started
        enabled: yes
  ...
  ...
```

uPLAYBOOKs

apache-mng.yml

Start, Stop, Reload, Restart
HTTP service

site_deploy.yml

Deploy a site and the test page to
check the HTTP service

apply_conf.yml

Apply the configuration

apache_deploy.yml

Install and activate HTTP service

nagios-deploy.yml

Add the server(s) to RH Insights

WORKFLOWs

apache_deploy.yml

Install and activate HTTP service

apply_conf.yml

Apply the configuration

site_deploy.yml

Deploy a site and the test page to
check the HTTP service

apache-mng.yml

Start, Stop, Reload, Restart
HTTP service

nagios-deploy.yml

Add the server(s) to RH Insights