Ansible Networking

First Steps - An Introduction

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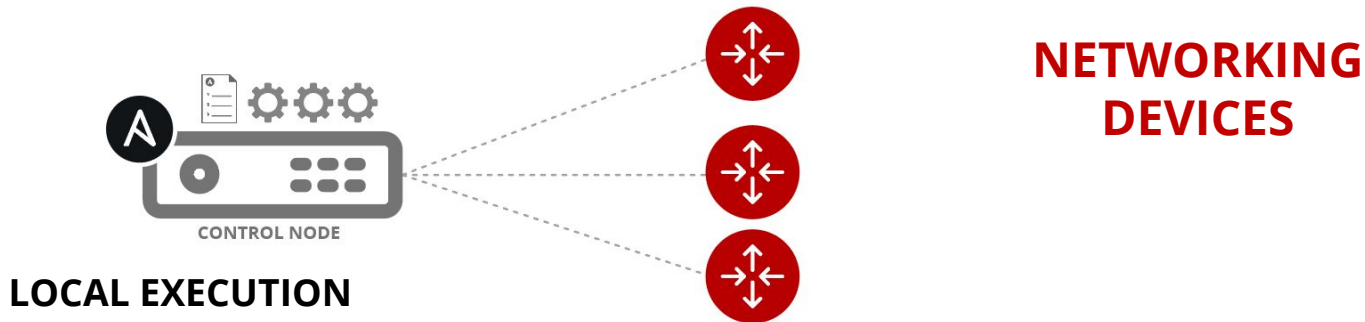GPTE

**http://bit.ly/apac-ansible**

Overview - 5 slides to lab time!

1. Networking Module Execution
2. Ansible Networking Modules
3. network_cli and NETCONF
4. Ansible Networking Modules
5. Lab Time

Networking Module Execution

Module code is executed locally on the control node

LOCAL EXECUTION

NETWORKING DEVICES

Module code is copied to the managed node, executed, then removed

REMOTE EXECUTION

LINUX/WINDOWS HOSTS

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Ansible Networking

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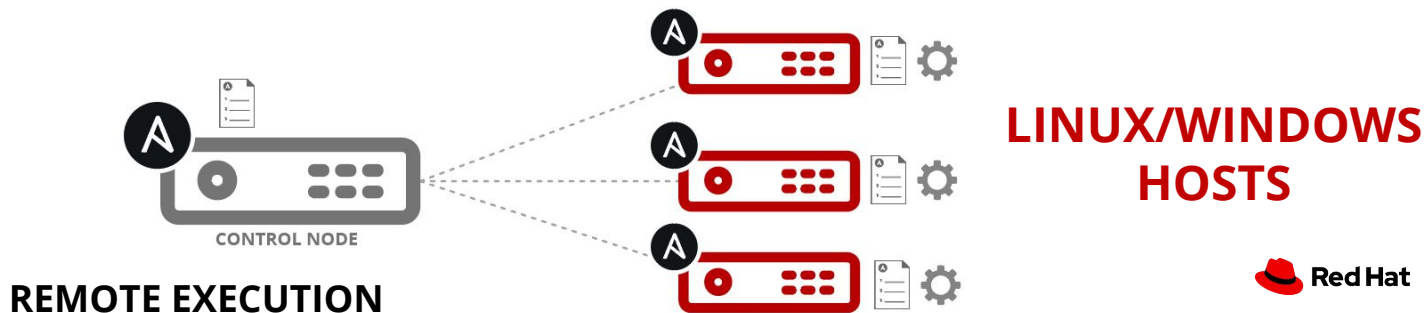
`network_cli` and **NETCONF**

- Ansible 2.5 introduced 2 new Connection Types
- Network Modules now appear to behave much more like Server Modules
  - NETCONF
  - network_cli
- network_cli connection syntax

```
- name: Backup router config
  hosts: routers
  connection: network_cli
  gather_facts: no

  tasks:
  - name: Get running configuration
    cli_command:
      command: show run
    register: r_backup
...
```

Ansible Device Connectivity:

`ansible_network_os`

- Both network_cli and NETCONF require you to specify the **`ansible_network_os`** inventory variable
  - Informs Ansible what type of platform network device conforms to
  - **`ansible_network_os`** vendor specific e.g. eos, ios, junos etc

```
[arista]
eos ansible_host=192.168.2.10 ansible_connection=network_cli ansible_network_os=eos
[juniper]
junos ansible_host=192.168.2.20 ansible_connection=netconf ansible_network_os=junos
```

Network Platform	`ansible_network_os`
Arista EOS	eos
Cisco IOS	ios
...	...

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Ansible Networking Modules

- Ansible has extensive support with hundreds of modules for Networking
- Broad support for a wide variety of vendors and devices

However 3 Core groups of Modules provide extensive capability

- *_facts e.g. ios_facts, eos_facts, junos_facts etc
  - Perform similar fact gathering function as setup module for servers
- *_command e.g. ios_command, eos_command, junos_command etc
  - *Similar* in function to command module
  - Allows Network Operators to talk to devices using familiar syntax

```
$ ansible cisco -m ios_command -a "commands='sh banner motd'" -c network_cli
```

- *_config e.g. ios_config, eos_config, junos_config etc
  - Allows Network Operators to configure devices using:
    - Familiar syntax
    - Configuration Files

Quick Plugs - Next Steps

- Checkout the **Ansible Networking Workshop**
  - https://rhpds.redhat.com/catalog/explorer
    - -> Workshops
      - -> Ansible Network Automation Workshop
- **Tomorrow**: Top 5 Use Cases and Demos for Ansible Automation
  - Wednesday 18th 1:00 - 2:00PM Grand 2 & 3, B1
  - Sean Cavanaugh
  - Nicholas Chia

Ansible Networking

12:40

◀ Search

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WED 18

Top 5 Use Cases And Demos For Ansible Network Automation

1:00 PM – 2:00 PM • Grand 2 & 3, B1

Presentation   Management & Automation

⭐ Bookmark   ✎ Note   ◖ Off   📅 Save

Spaces left: 118

This session is available for registration.   **Register**

Abstract/Synopsis

So you're not a network expert, but want to sell and demo Ansible Network Automation. No problem! The top use cases are simple enough for most all solution architects to speak to. In this session we will explain how Ansible Engine and Ansible Tower can be used with physical network devices such as switches, routers, firewalls, and load balancers and provide specific examples that can be demoed with prospective customers using Ansible Workshops in RHPDS as a demo framework.

Audience

Account Solution Architects; All Technical Roles;

🏠 Home   Sponsors   📅 Agenda   🔔 Notifications   ••• More

Access your lab via the GUID Grabber: http://bit.ly/rhte-ans-networking
Activation Key: **network**

Welcome to: Ansible Networking

Your assigned lab user is `student88`
Your password is `ansible`
Your IP is `54.169.42.48`

Let's get started! Please read these instructions carefully before starting to have the best lab experience:

- Save the above **user** as you will need it to access your lab's systems from your workstation.
- Consult the lab instructions *before* attempting to connect to the lab environment.
- **Lab instructions:**
  - https://github.com/redhat-gpte-devopsautomation/rhte2019-ansible-networking-lab.git
- You will need to use the user name **student88** to log into your lab environment.
- When prompted to do so by the lab instructions, you can SSH to your bastion host by opening a terminal and issuing the following command:

  ```
  $ ssh student88@54.169.42.48
  ```

- If **required** by the lab instructions, you can reach your environment's power control and consoles by clicking: here

WARNING: You should only click FORGET SESSION if **requested** to do so by a lab attendant.
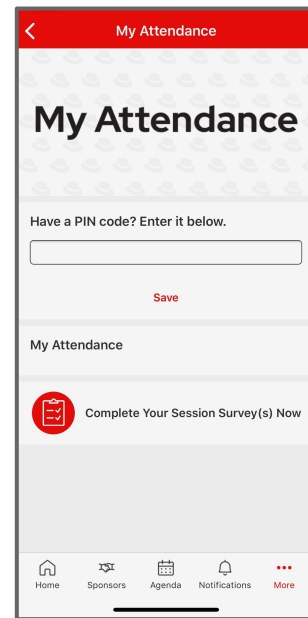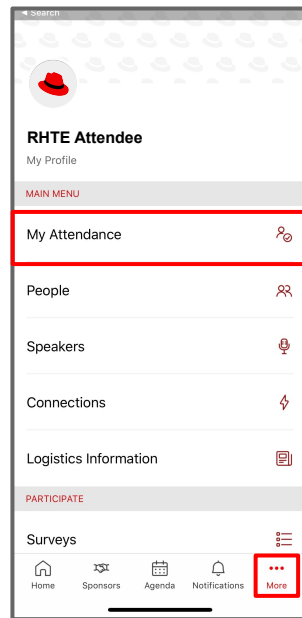
FORGET SESSION

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Code for Attendance + Session Survey

REGION - TIME

1. In the mobile app, go to the *My Attendance* page by clicking "*More*" at the bottom navigation bar

2. On the *My Attendance* page, please enter the below PIN code in the designated box

GRBTT

3. Tap *Save* to submit your PIN

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