Interop ITX

May 15-19
MGM Grand
Las Vegas

Practical Network Automation Hands-On Workshop

A hands-on workshop aimed at getting you launched into the world of network automation

Your speakers today

- Scott Lowe (VMware)
- Kirk Byers (Twin Bridges Technology)
- Jere Julian (Arista)
- Matt Oswalt (StackStorm)

How this workshop is organized

- I'll cover some introductory material and an overview of the workshop
- Kirk Byers will cover using network automation to retrieve configuration information from network devices
- Jere Julian will show you how to use templates to build standardized network device configurations
- Matt Oswalt will discuss validation and testing to ensure things work as intended

Before we start

- Facilitators will be available throughout the room during all hands-on sessions to help you with any issues/problems/questions
- There's a GitHub repository that contains files to allow you to replicate the workshop environment (https://github.com/lowescott/itx2017-net-auto-workshop)
- USB flash drives are floating around the room with some takeaway materials for you
- Please exercise common courtesy (silence mobile devices, step outside if you need to take a call, etc.)

If you're interested in following along and have *not* yet received a student login, please raise your hand now.

Class infrastructure

- Everyone will use a student login to access an AWS instance that has all the necessary tools pre-installed
- Network equipment pods have 3 devices pre-provisioned (one each of Arista, Juniper, and Cisco devices)
- Your student login is pre-configured to use the correct network equipment pod

Takeaway materials

- USB keys are circulating through the room with some takeaway items for every attendee:
  - A VirtualBox-formatted VM with network automation tools pre-installed
  - An instance of Arista vEOS
  - A Vagrant configuration to turn up the environment
- The VirtualBox VM is a mirror of the AWS instances used in this workshop
- Don’t let your automation journey stop here!

A quick intro to Git

Git

- A distributed version control system (DVCS) originally created to manage the source code for the Linux kernel
- The most widely used DVCS today, powers GitHub and GitLab
- You'll want to get accustomed to using some sort of version control for your network automation artifacts (scripts, templates, etc.).

Git (continued)

- A few basic commands will get you started:
  - `git init` (to initialize a new Git repository)
  - `git clone` (to make a copy of a repository for your use)
  - `git add` (to prepare changes to be committed to the repository)
  - `git commit` (to commit changes to the repository)
  - `git push` and `git pull` (to work with remote repositories like GitHub)
- You'll see us using/referring to Git/GitHub throughout this workshop

Some Git resources

Git cheatsheet (by Kirk Byers):
http://github.com/ktbyers/pynet-ons-mar17/tree/master/git

Git tutorial:
https://try.github.io

Git tutorial from Tower (Mac client):
https://www.git-tower.com/learn/

Ready to get started?