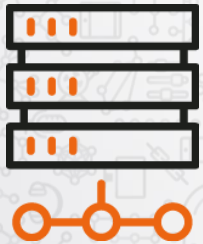
1.2 Why Network Automation



Why Network Automation

- Make changes faster with reliable outcome.
- More Scalable
- Network and Business Agility with less vendor lock-in
- Deliver business results

Next: Why Ansible?

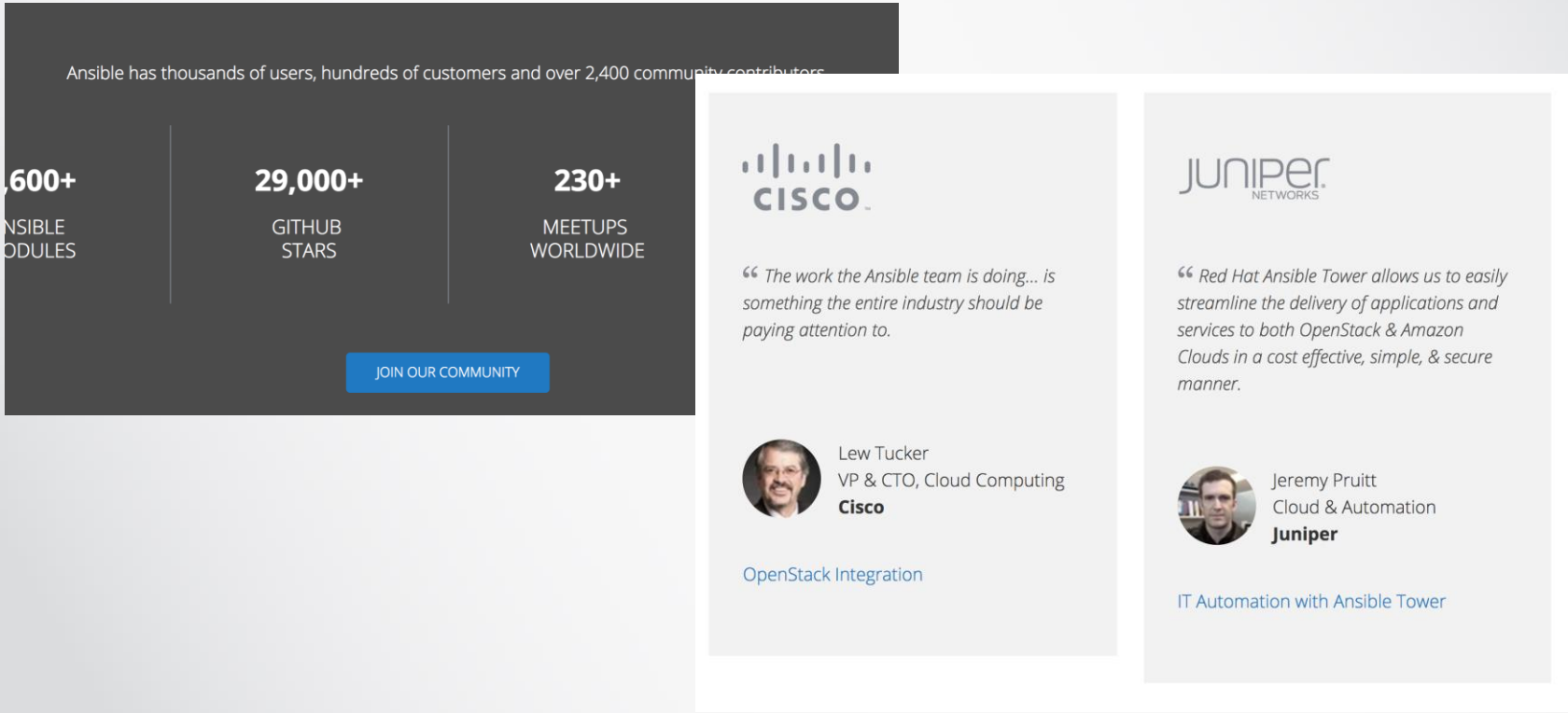
Course Objectives

Introduce Ansible from Beginning

“Up and Running” with Network Devices

Save Time + Be More Productive

Why Ansible?



Credit: https://www.ansible.com/

Course Overview

- Hands-On, Lab-Based
- Installation to Up and Running
- Variables, Inventory, Playbooks, etc.
- Demonstration with Cisco, Arista, Juniper devices
- Write your own Module

OSPF Configuration Workflow

- Configure Basic OSPF
- Verifying OSPF Adjacencies
- Verifying the OSPF Database

Tracking Topology Changes

- When a new LSA is received it is checked against the database for changes such as...
  - Sequence number is used to:
    - track new vs old LSAs
  - Age is used to:
    - Keep information new
    - Withdraw old information
      - Periodic flooding occurs after 30 minutes
        - "paranoid" update
    - LSAs that reach MaxAge (60 minutes) are withdrawn
  - Checksum
    - Used to avoid transmission & memory corruption

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  - Age
    - Used to keep information new and withdraw old information
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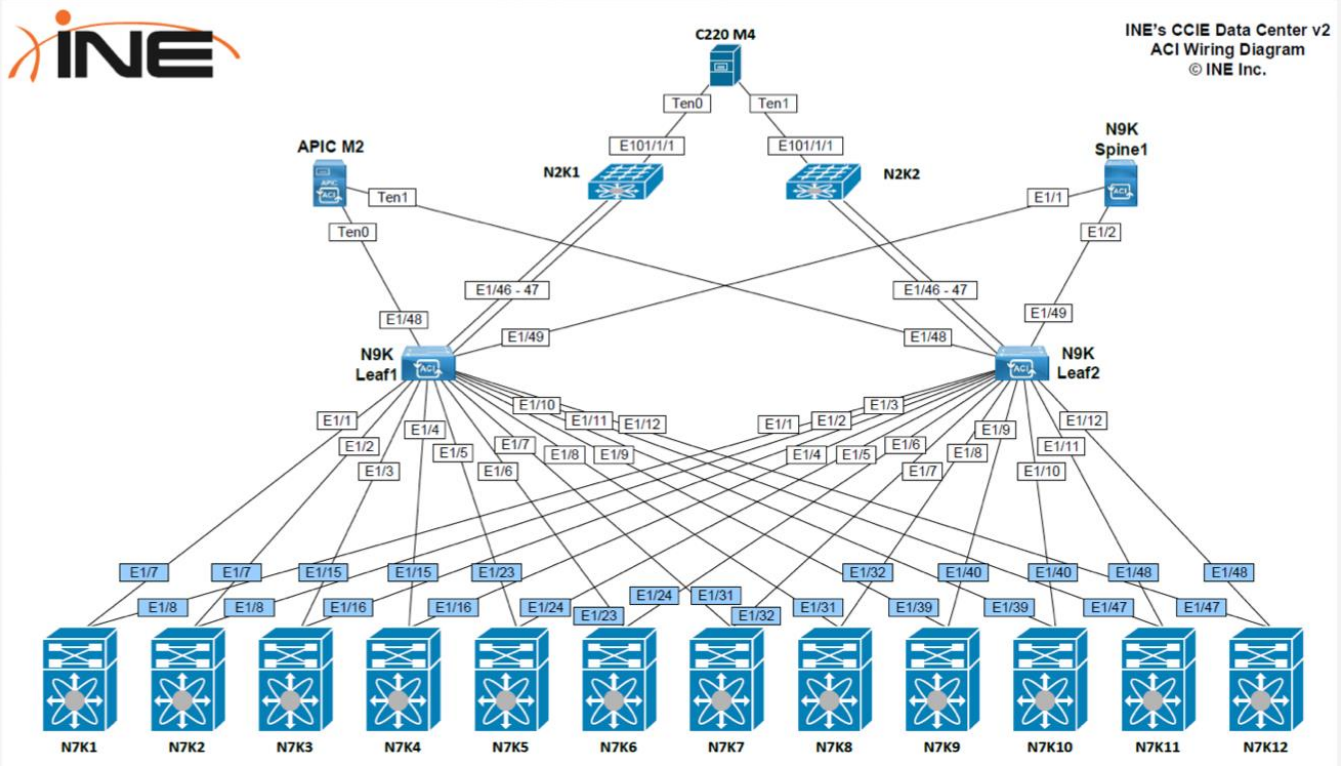
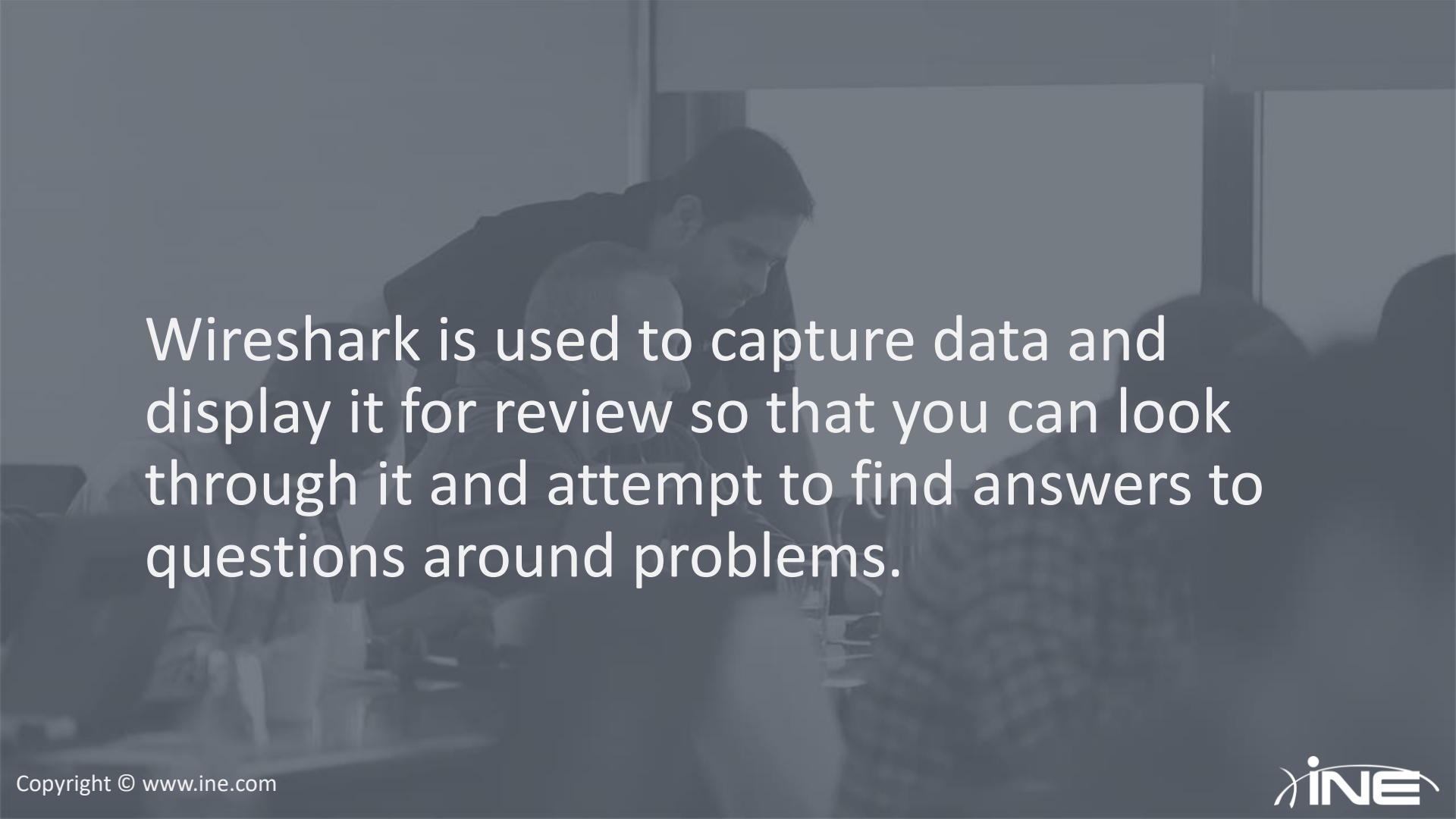


Product/Topology Diagram



Wireshark is used to capture data and display it for review so that you can look through it and attempt to find answers to questions around problems.