3.1 Ansible Overview

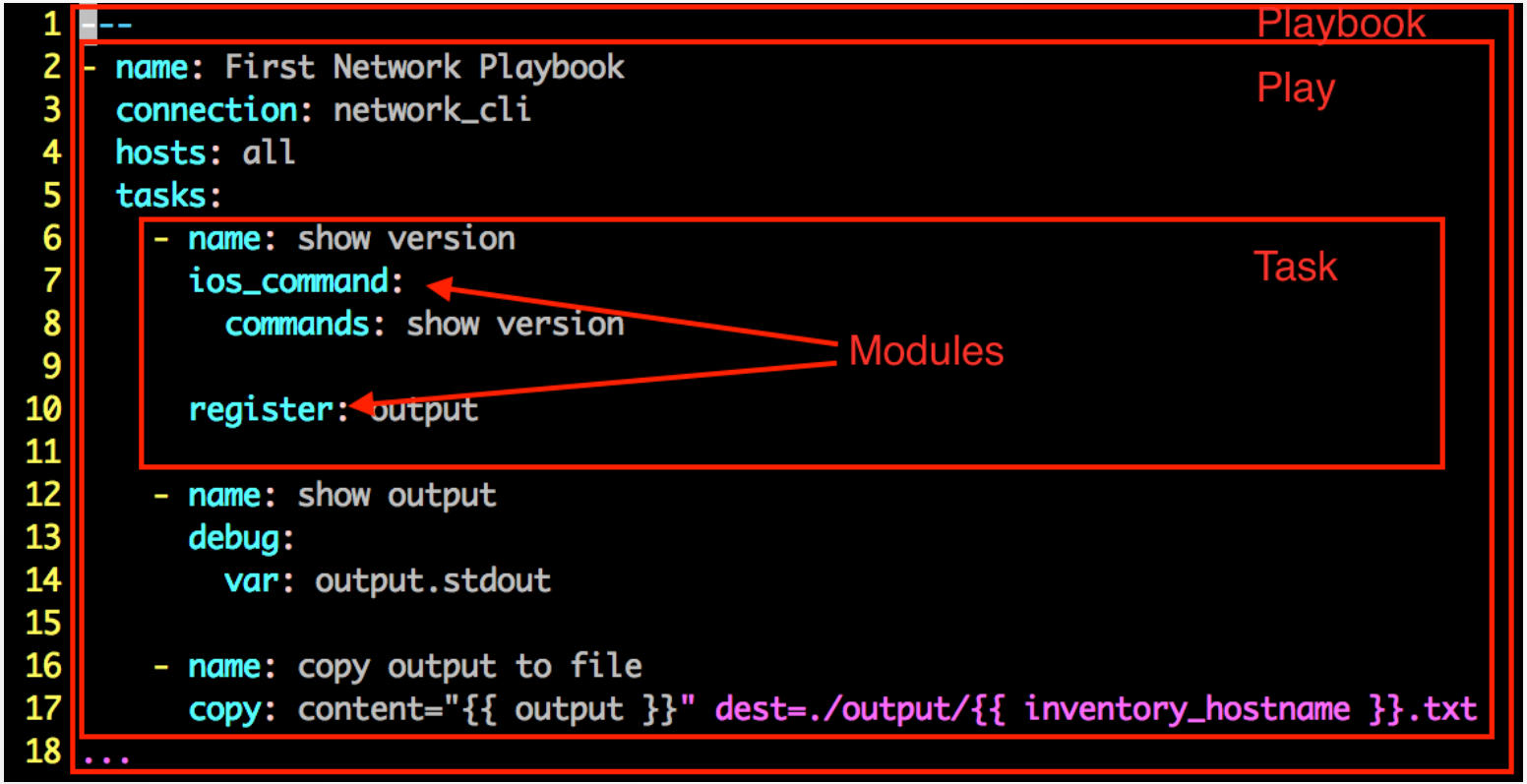
Overview

- More Declarative (high level) than Imperative (low level)
  - ”How do you want your egg this morning?”
- YAML and INI formatted files
  - https://docs.ansible.com/ansible/2.5/reference_appendices/YAMLSyntax.html
- Inventory: Your hosts
- Variables: What is different about your host?
- Playbook: Orchestrator of what you want to do.
- Be aware of some of the defaults

YAML

- Starts with “---” and end with “…”
- All members of a list are lines with the same indentation level with ‘-’ and a space
- A Dictionary are lines with the same indentation level with (key: value) pair
- Indentation is important

Playbook



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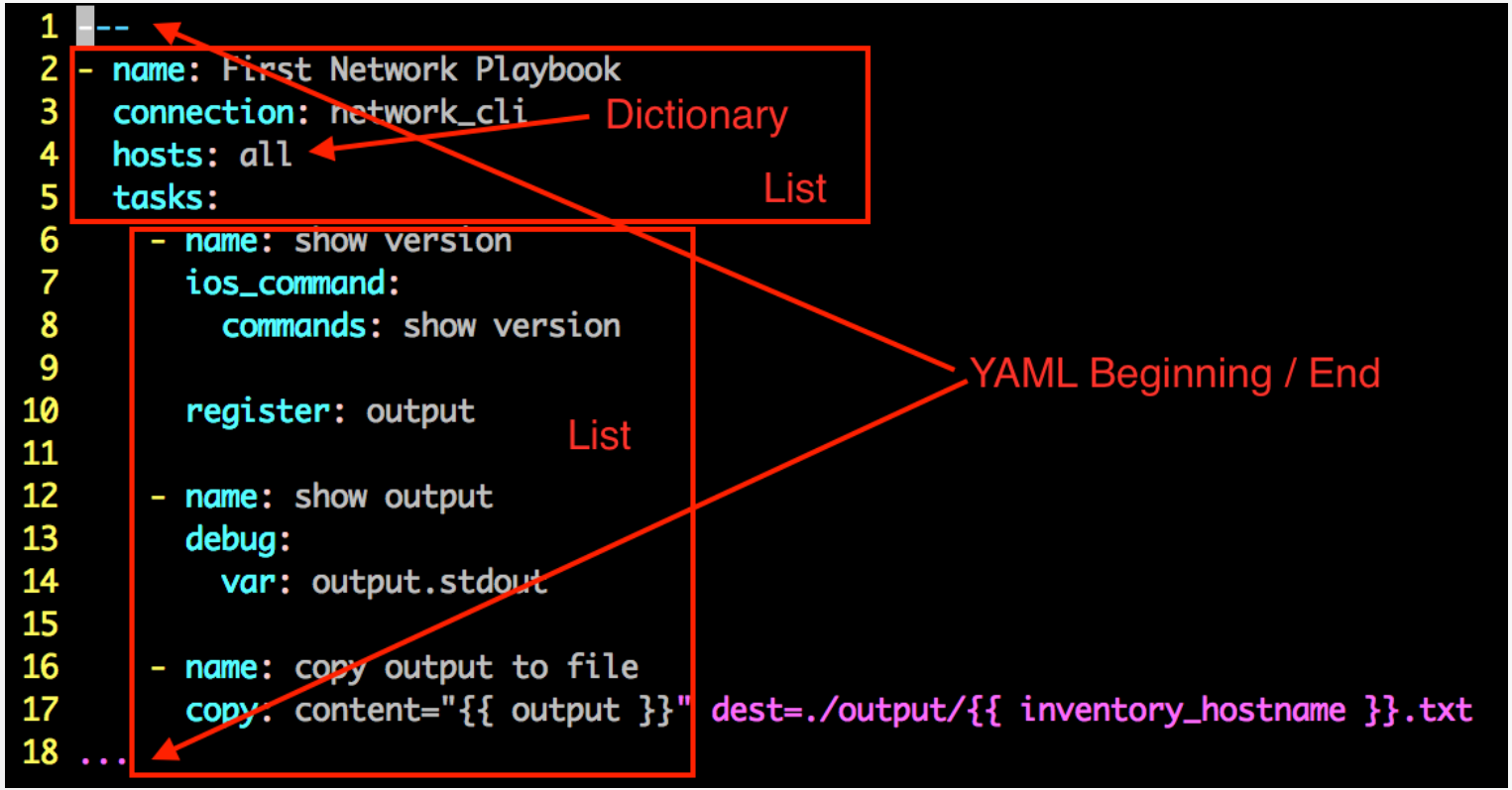


Next: Examples

OSPF Configuration Workflow

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

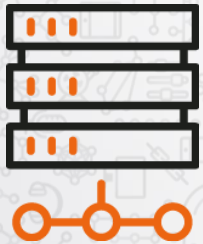
New in Version 2

"Up and Running" with Network Devices

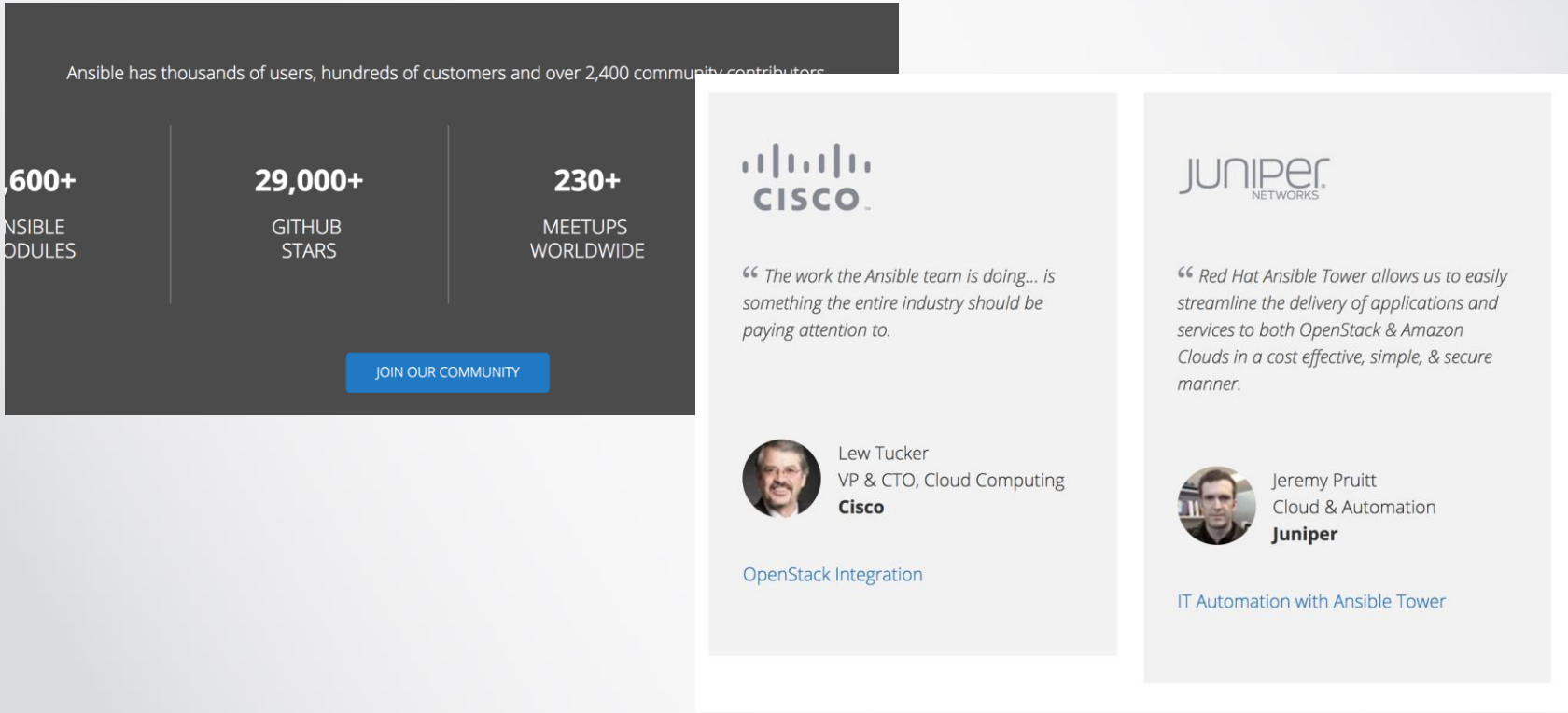
Save Time + Be More Productive

Prerequisites

- (optional) Basic Networking Knowledge



Why Ansible?



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

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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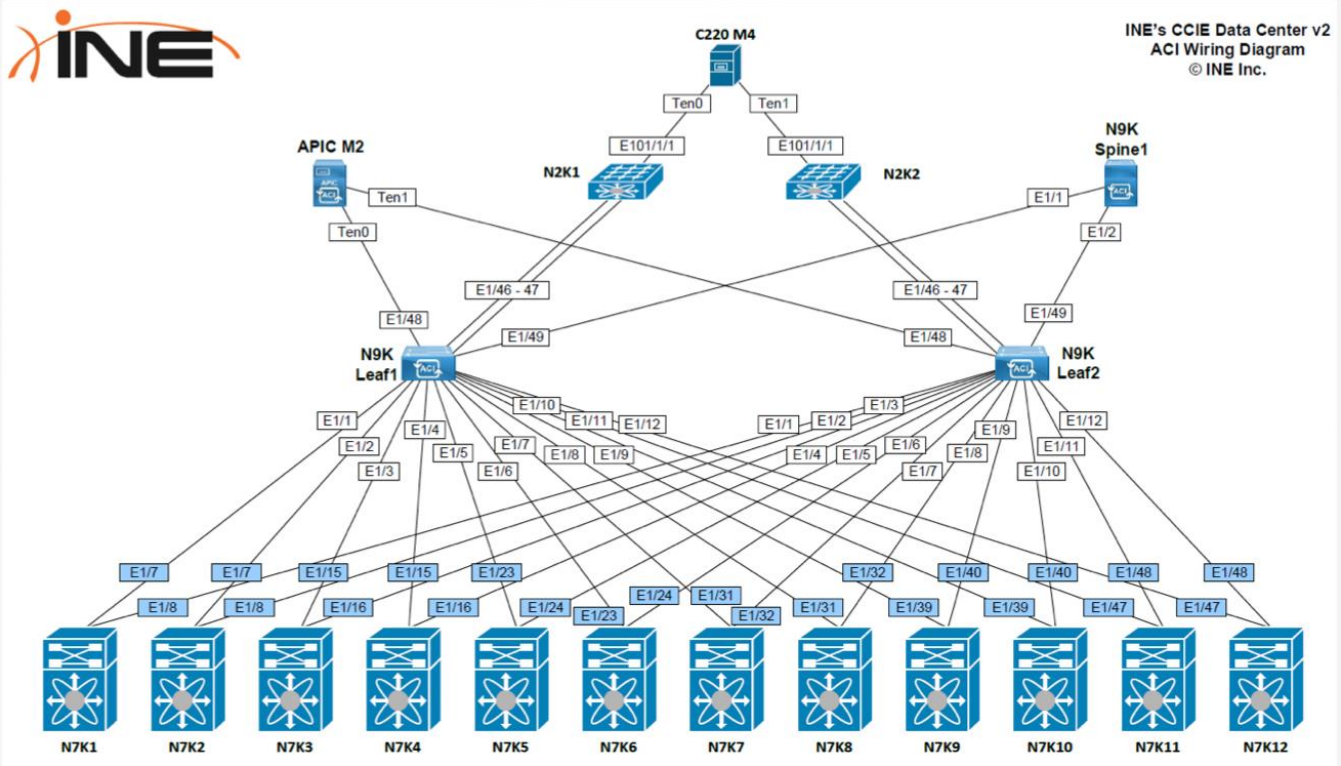
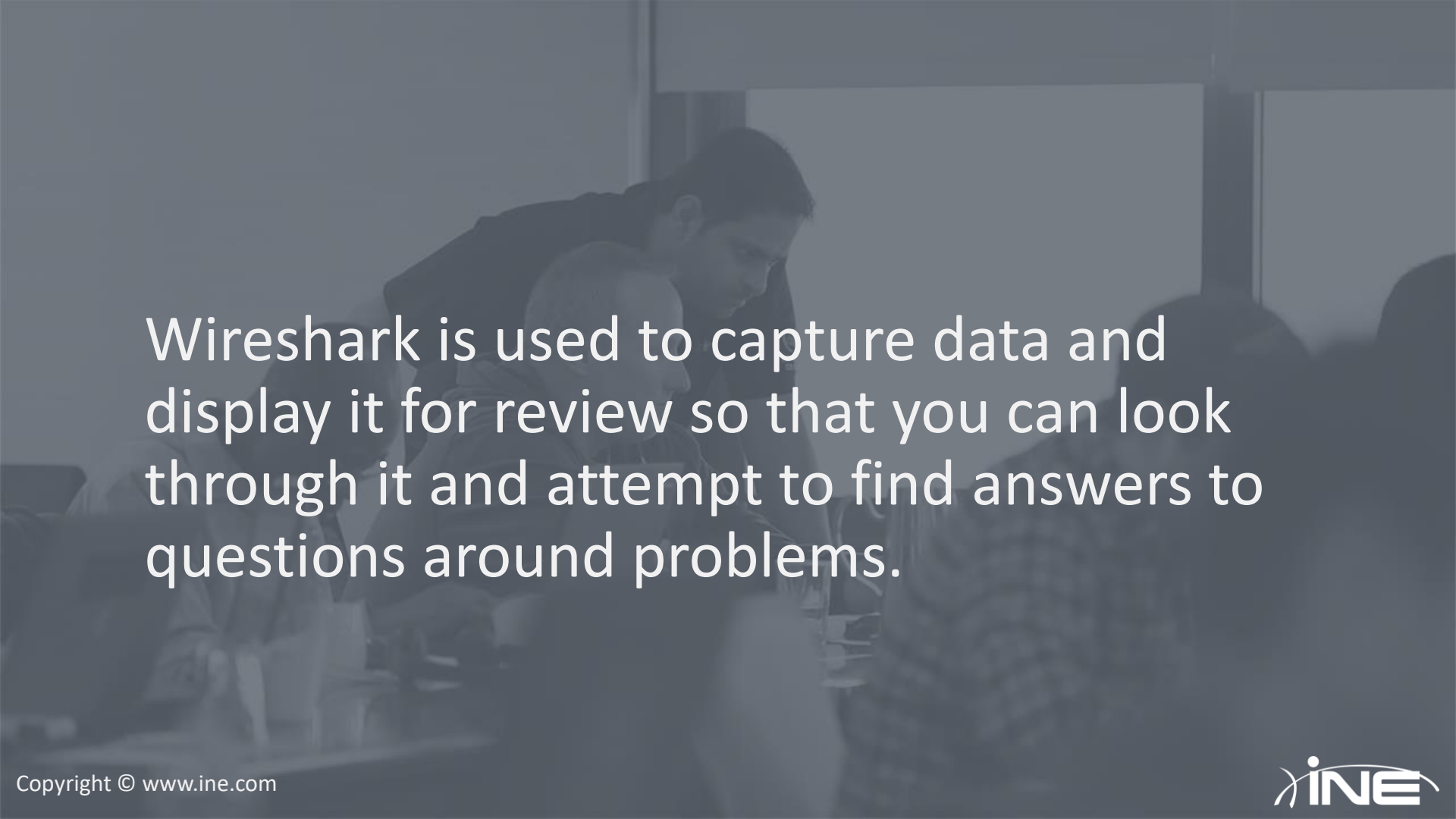


Product/Topology Diagram



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.