
The bridge to possible

# The ABCs of Enterprise Networking Programmability

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LTRCRT-2157

# Your instructors today

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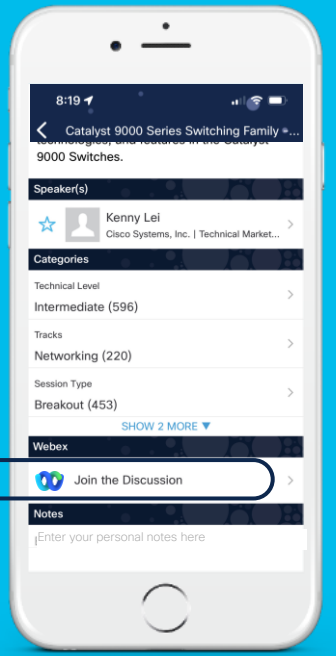
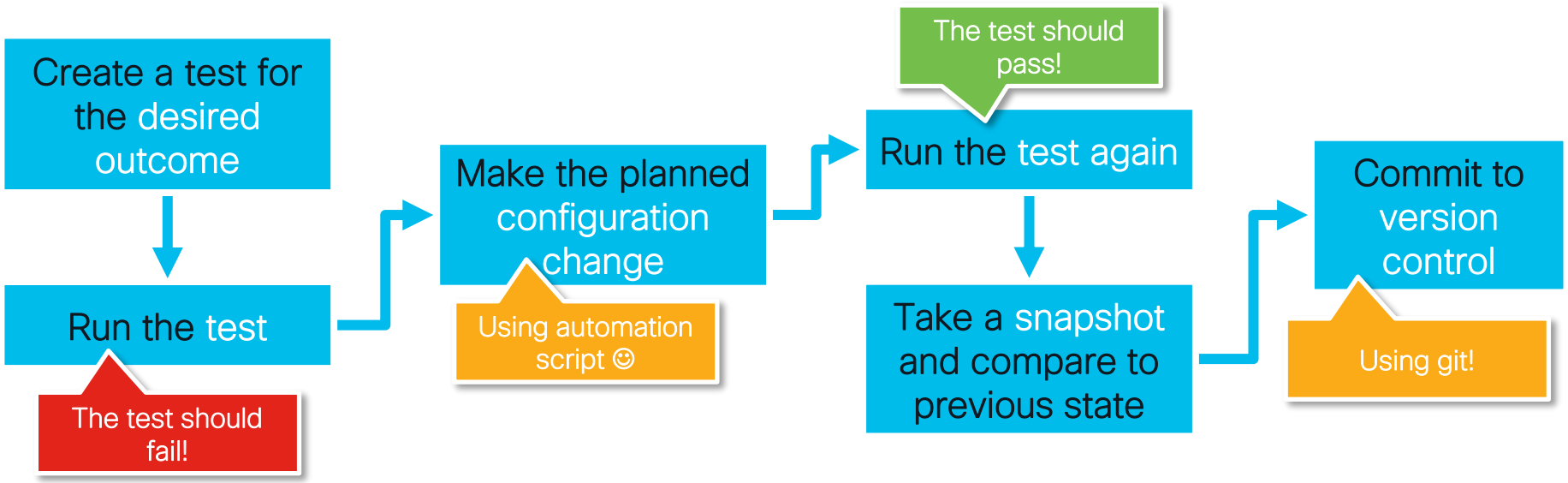


# Lab

- Setting up the Automation Environment
  1. Version Control Using Git
  2. Network Validation with pyATS
- Your first steps to Automation
  3. Configuration Management with pyATS
  4. Configure Devices using Jinja2 Templates
- Advance your Automation Skills
  5. Explore YANG Models with YANG Suite and NETCONF
  6. Write Python with YANG Models and RESTCONF
  7. [BONUS] Configure Interfaces Using pyATS Models

# Overview of the lab task setup

## Test-Driven Automation



# Have fun with the lab!

We are here to help!

Juulia Santala

Palmer Sample

John Capobianco

# Conclusion

- In this lab, we have learned the ABCs of Network automation:
  - The value of **version control** and how it applies to network configuration management
  - How pyATS can transform **network testing**
  - The new way of handling network configuration through **Model Driven Programmability** –via NETCONF and RESTCONF with YANG models
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# Thank you

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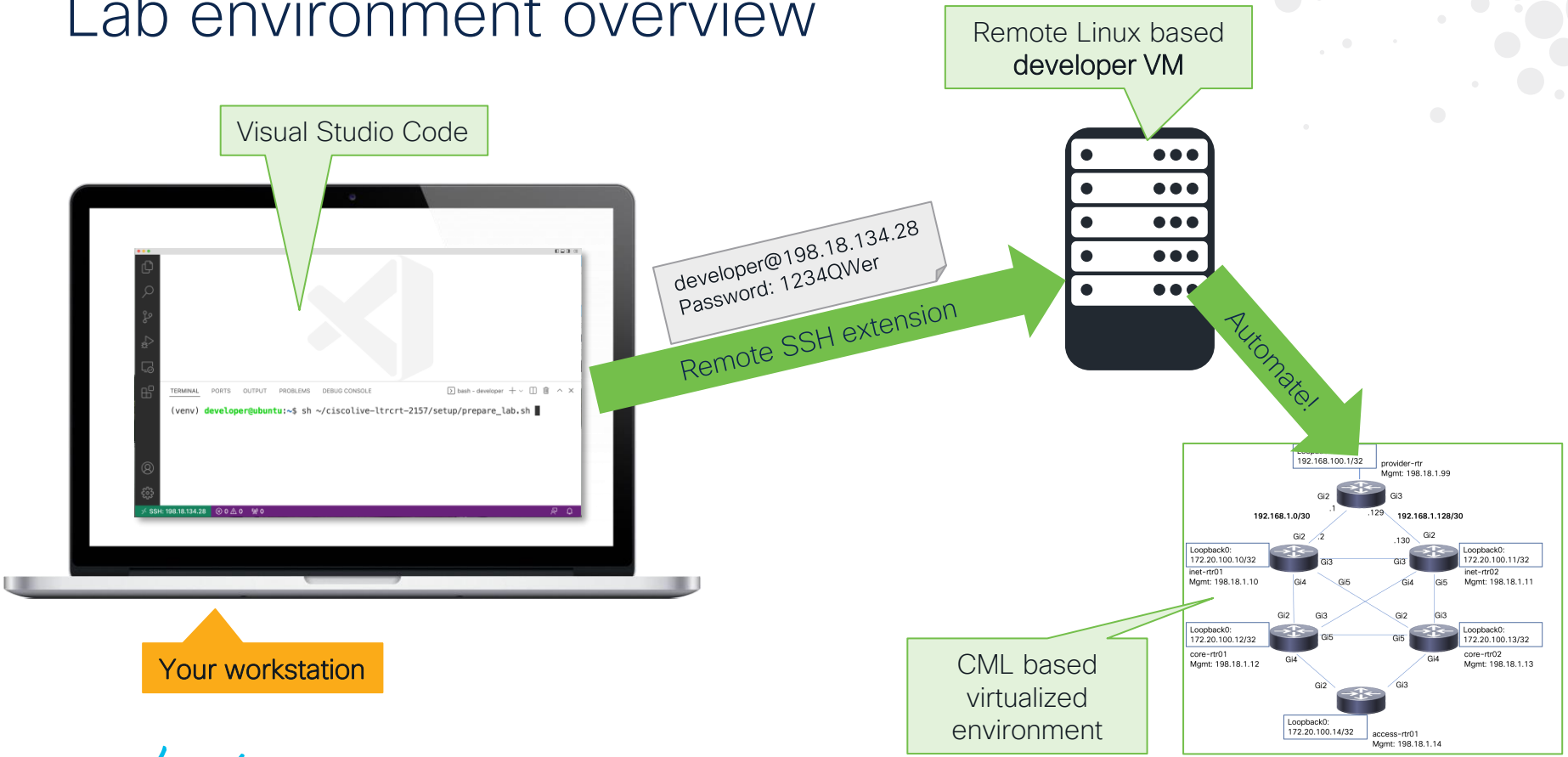
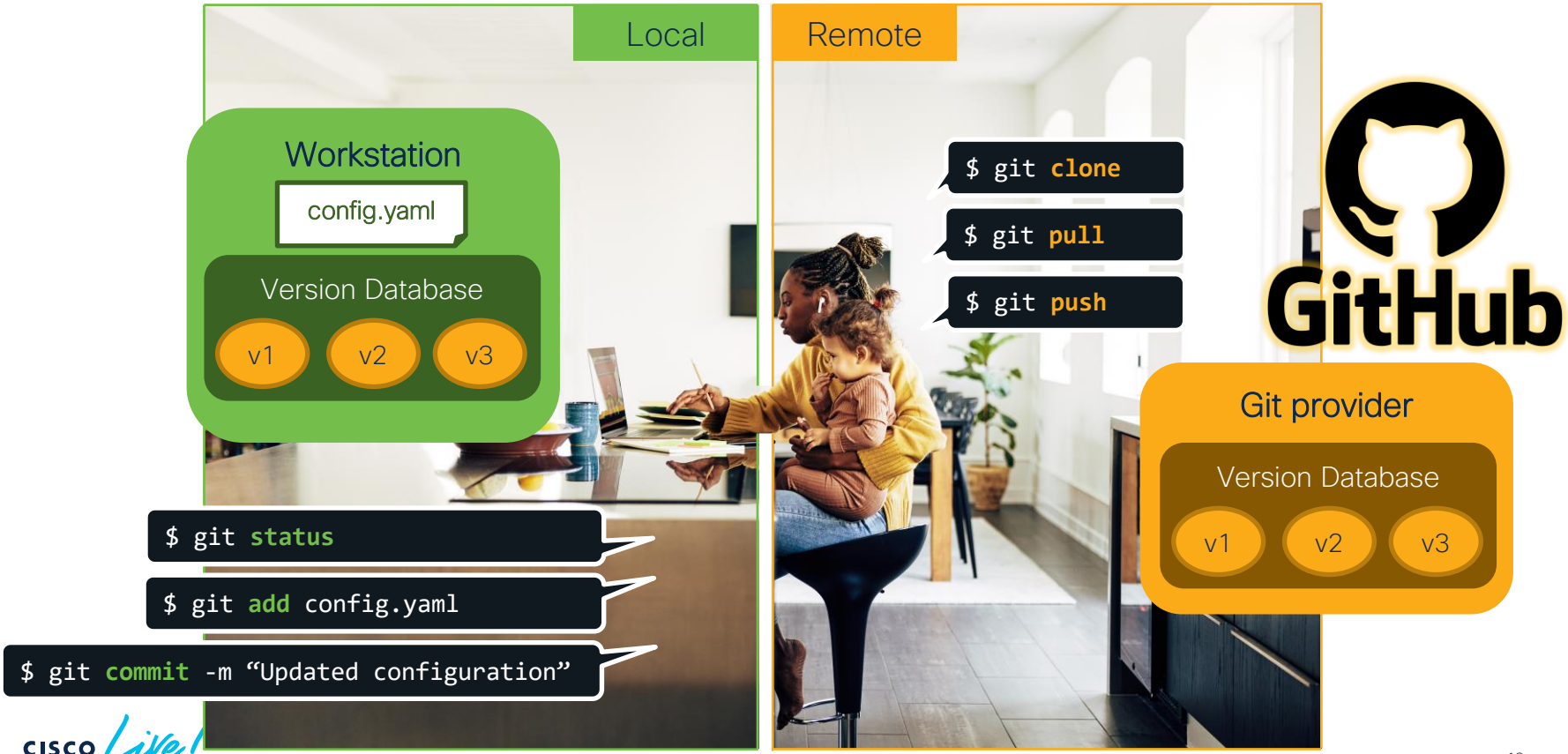
# Helper Slides

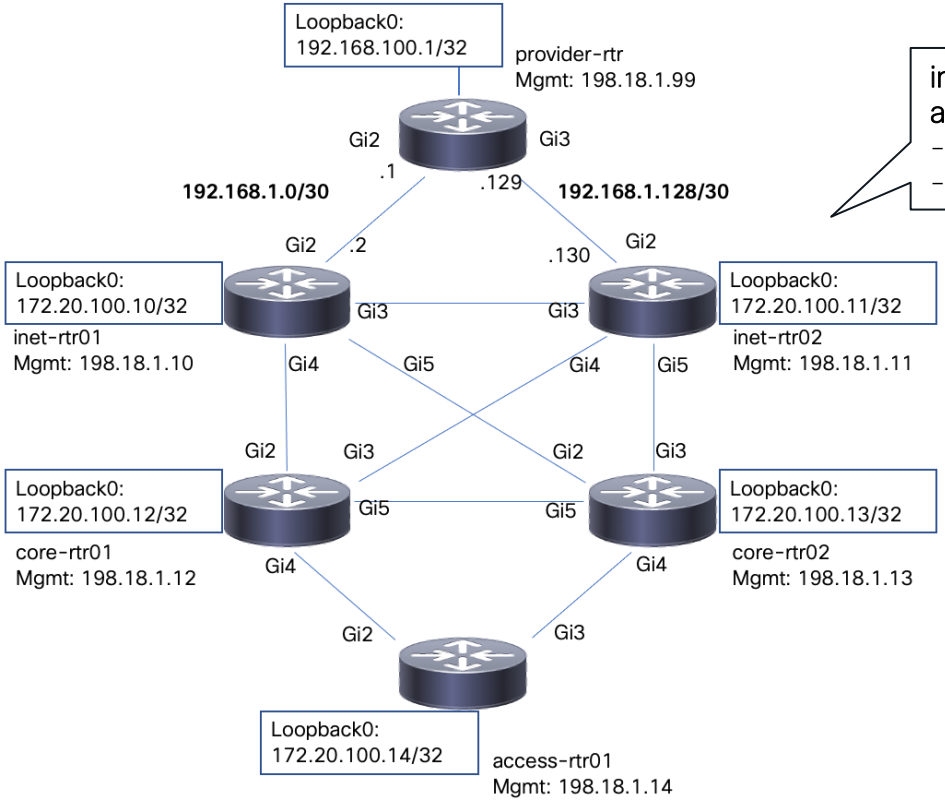
# Lab environment overview



# Version Control Using Git



# Lab Topology




inet-rtr02, core-rtr02 and access-rtr01 credentials:
- Username: cisco
- Password: cisco

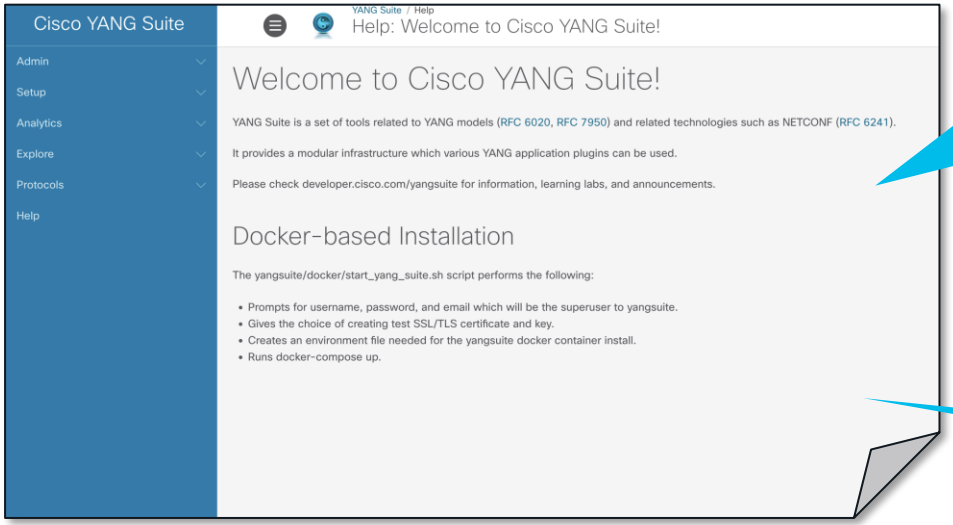
# Activity 4: NTP Information for Jinja2 Templates

| Device | NTP Servers | NTP Source |
|---|---|---|
| inet-rtr02 | 192.168.100.1 | Loopback0 |
| core-rtr02 | 172.20.100.10<br>172.20.100.11 | Loopback0 |
| access-rtr01 | 172.20.100.12<br>172.20.100.13 | Loopback0 |

# Activity 5: iBGP Information for YANG Suite

| Device | Neighbor | AS Number | Source |
|---|---|---|---|
| inet-rtr02 | 172.20.100.10 | 65000 | Loopback0 |

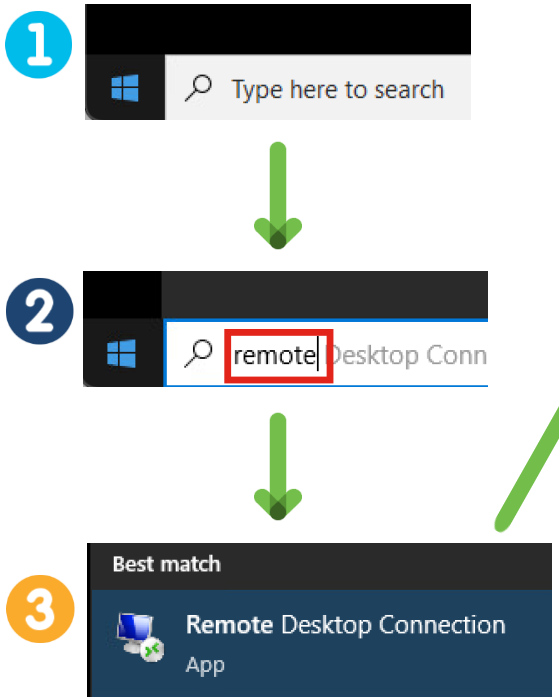
# Activity 5: Accessing YANG Suite

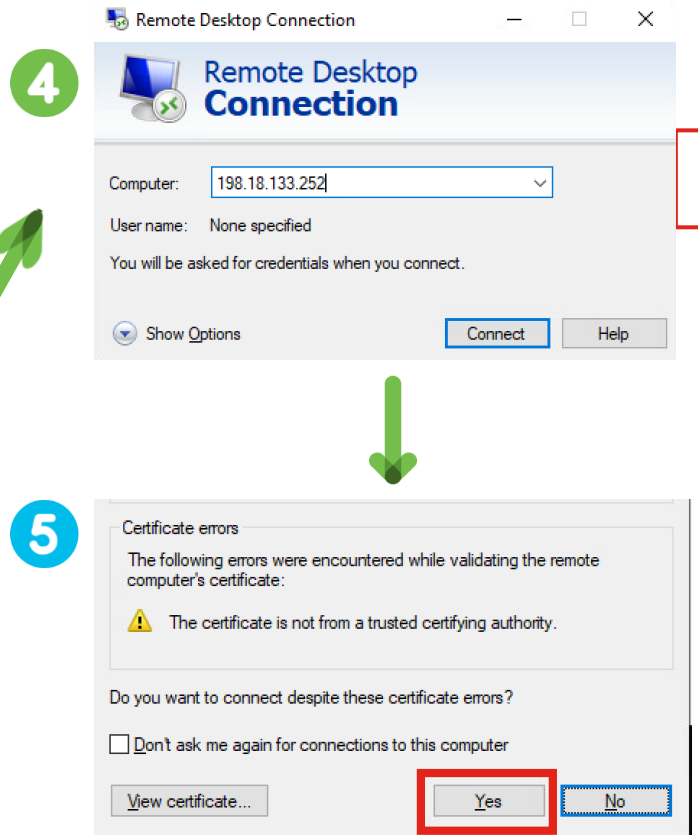



http://198.18.134.28:8480
Username: **developer**
Password: **1234QWer**

If slow connection, use through Windows workstation RDP (198.18.133.252, Administrator/C1sco12345)
-> Ask instructor to help ☺

# Activity 5: Accessing YANG Suite Using RDP




Computer: 198.18.133.252
Administrator / C1sco12345

NOTE: Browser will open to CML tab. Use new tab for YANG Suite (no CML access)

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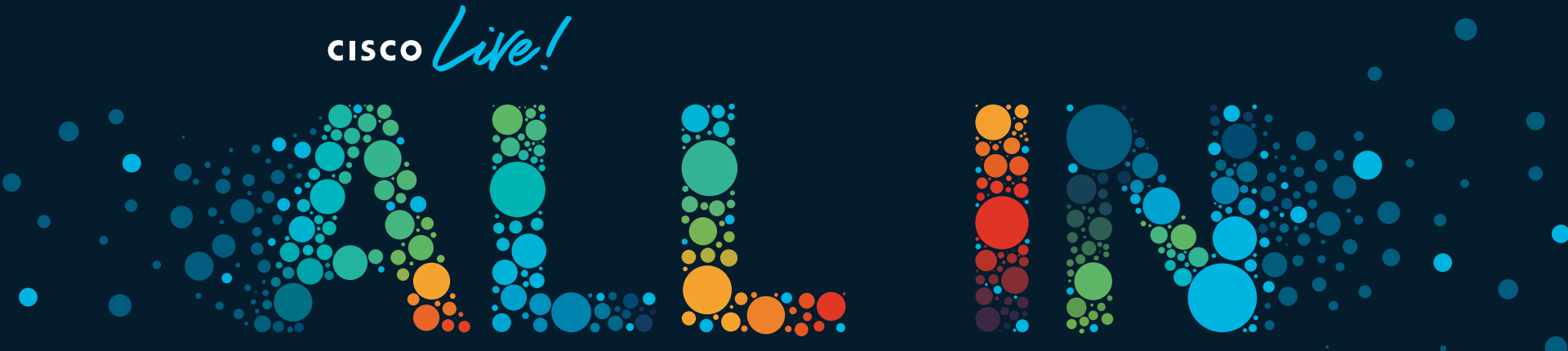
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ALL IN