Cisco CCNP TSHOOT Exam Overview, Study and Preparation

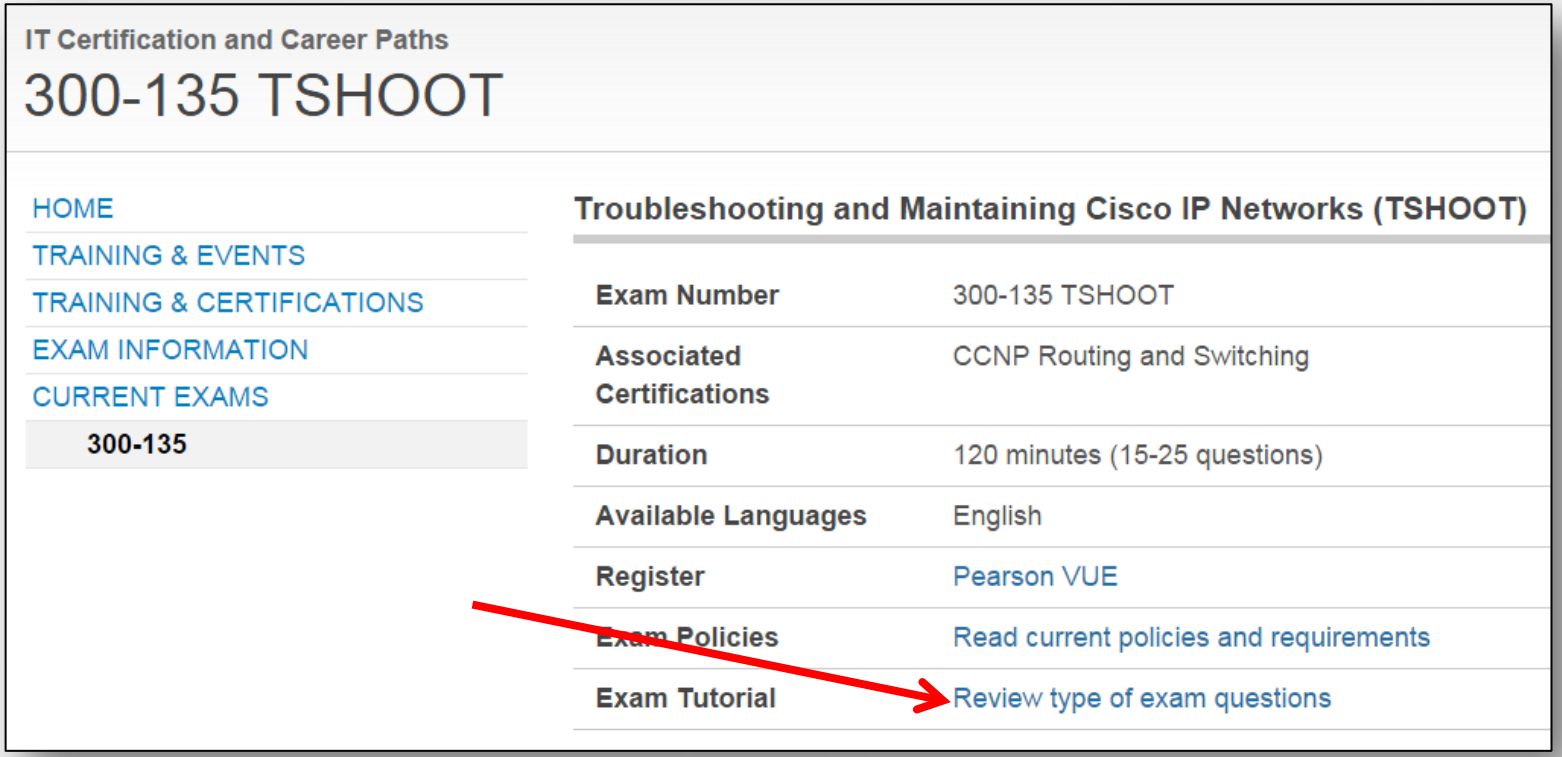
Agenda

- What the exam is like.
- Testing environment: What to expect
- Leveraging Cisco's Resources
- Troubleshooting Strategy
- Top Five Areas for Study

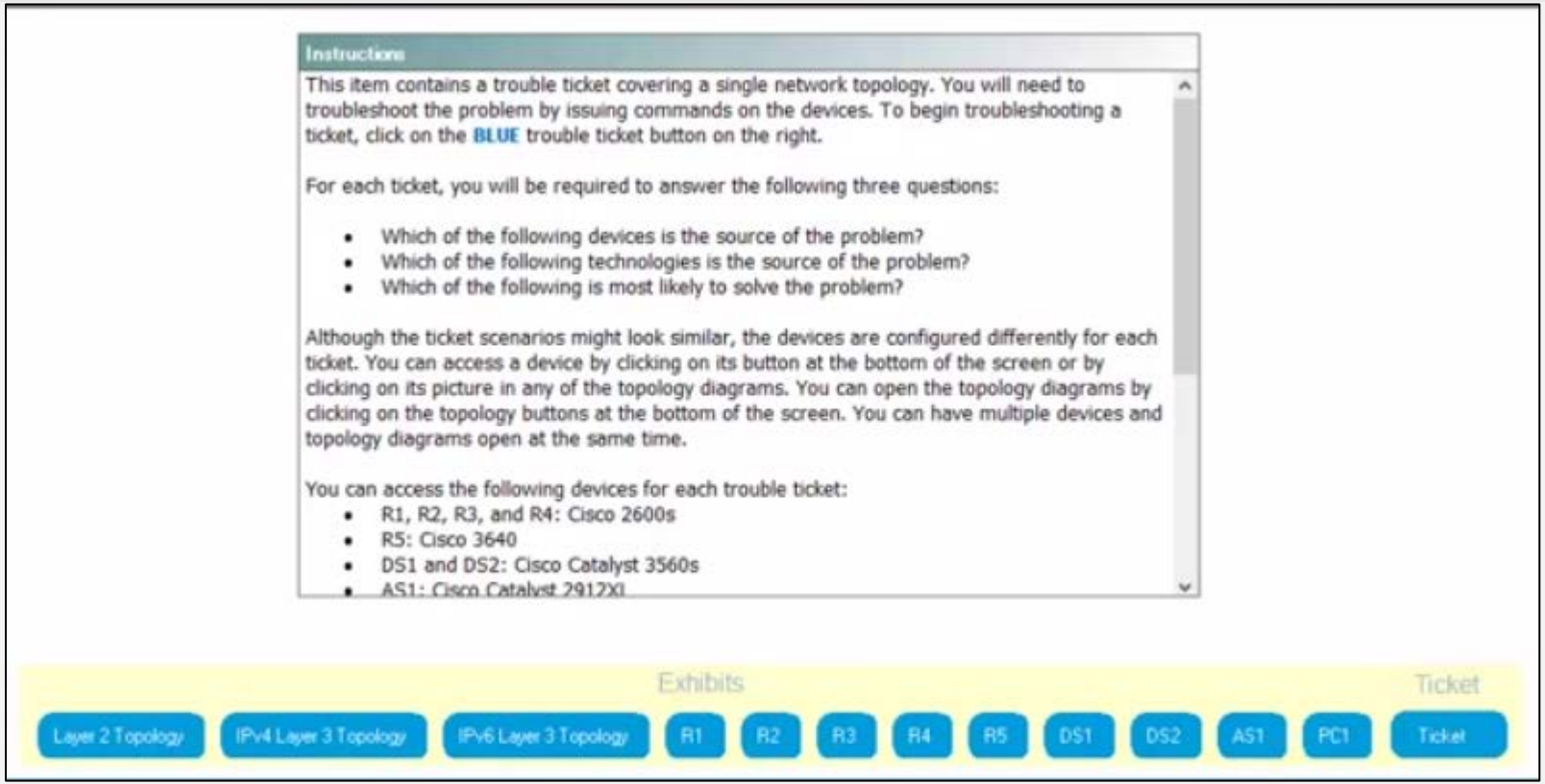
Facts about the TSHOOT Exam

- TSHOOT exam:
  - Troubleshooting and Maintaining Cisco IP Networks
  - Exam# 300-135
  - Duration: 120-minutes
  - Qty of Questions: 15-25
  - Majority of questions are Simulations
  - Passing Score: 846/1000

What do the questions look like?



TSHOOT Simulations



The testing environment

- Sign in
- Store all electronics
- Admin Login to PC
- Exam Tutorial (10-15 mins)
- Start the exam
- Receive your Score Report

Finding Cisco's Resources

https://learningnetwork.cisco.com

1. Login →
2. Certifications →
3. Professional →
4. Routing and Switching →
5. TSHOOT Exam

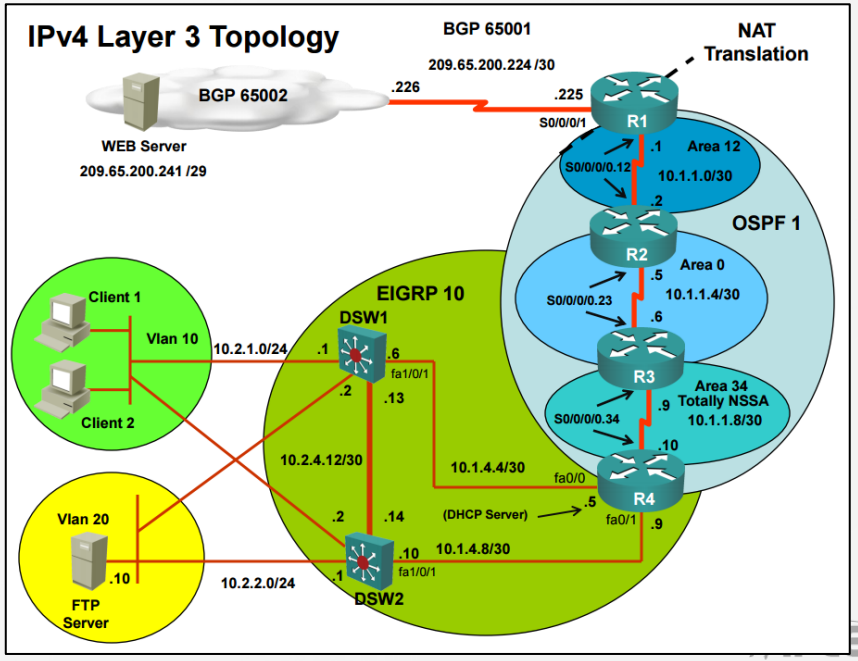
Leveraging Cisco's Resources

https://learningnetwork.cisco.com/docs/DOC-6738

- TSHOOT Topology
  - Provided online
  - Mirrors the topology you'll see in the real exam.
- Topic Blueprint
  - Not all topics in blueprint will show up in Simulations
  - Compare Blueprint against Topology
- Exam Interface Demo

TSHOOT Topology

- Memorize it!!
- IPv4/v6 addresses never change from ticket-to-ticket!
- Draw it before start-of-exam.



TSHOOT Blueprint

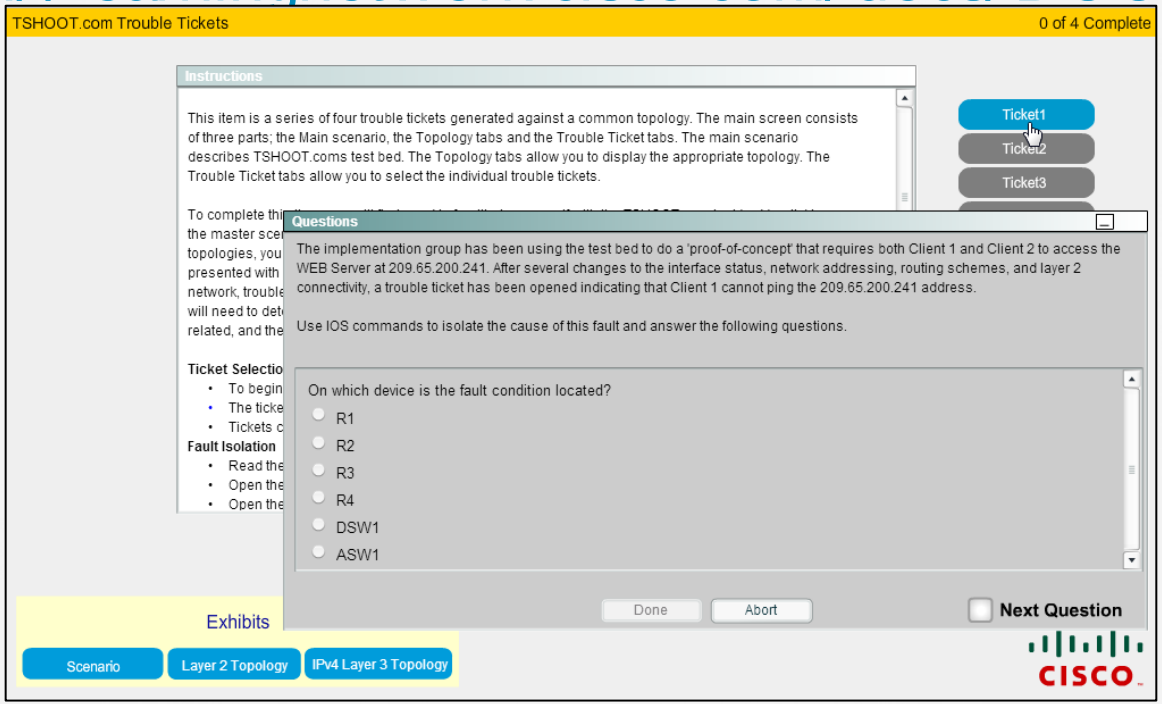
- Comparing the Blueprint against the Topology diagram can be very helpful.
- Some items in Blueprint clearly won't be part of the Simulations.
- Concentrate your time on those areas that COULD be part of the Simulations.

1.0 Network Principles	5%	Show Details
2.0 Layer 2 Technologies	40%	Show Details
3.0 Layer 3 Technologies	40%	Show Details
4.0 VPN Technologies	5%	Show Details
5.0 Infrastructure Security	5%	Show Details
6.0 Infrastructure Services	5%	Show Details

TSHOOT Exam Demo

» TSHOOT Practical Exam Demo

https://learningnetwork.cisco.com/docs/DOC-6738



Simlets and Testlets

- Questions that are NOT simulations fall into these categories:
  - Given the output of a “show” command, can you identify the cause of a problem?
  - Given the output of a “debug” command, can you identify the cause of a problem?
  - Misc questions (ROUTE/SWITCH-type questions)
- These types of questions may make up roughly 35-40% of total questions.

Simulations – Working within constraints

- Many of your IOS shortcuts will not be supported.
  - No permutations of “show run” supported such as:
    - “show run | section”
    - “show run interface”
- Screen real-estate is limited.
  - Alt/Tab not supported.
  - When you open a Telnet window, it will cover about 60% of your previous windows.
  - Windows you open will be constrained within main exam interface window.

Multiple issues to solve?

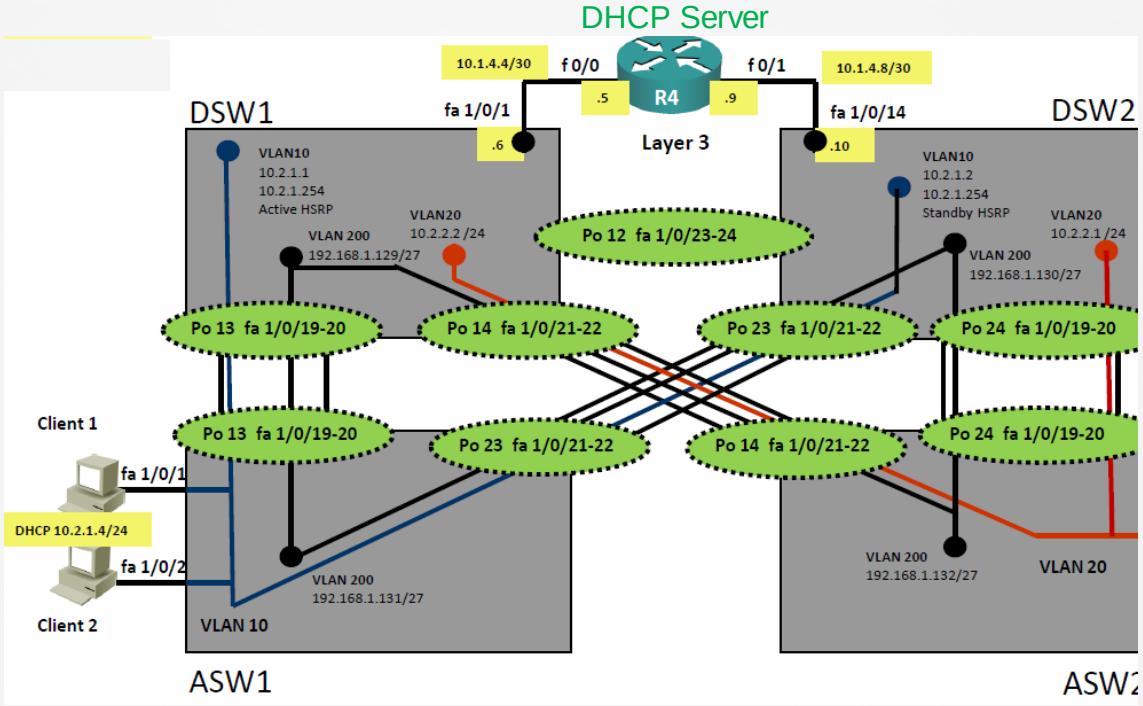
- There is only one issue to find in each ticket that will be preventing your pings.
- Once you have identified the device with the issue, don't waste any time on other devices.

Strategy – Finding the "Where"

- During Simulations…the first thing you need to identify QUICKLY is WHERE the problem is located (on which device).
- Cisco provides three different approaches:
  - Top-Down Approach
  - Bottom-Up Approach
  - **Divide and Conquer / Follow-the-path**

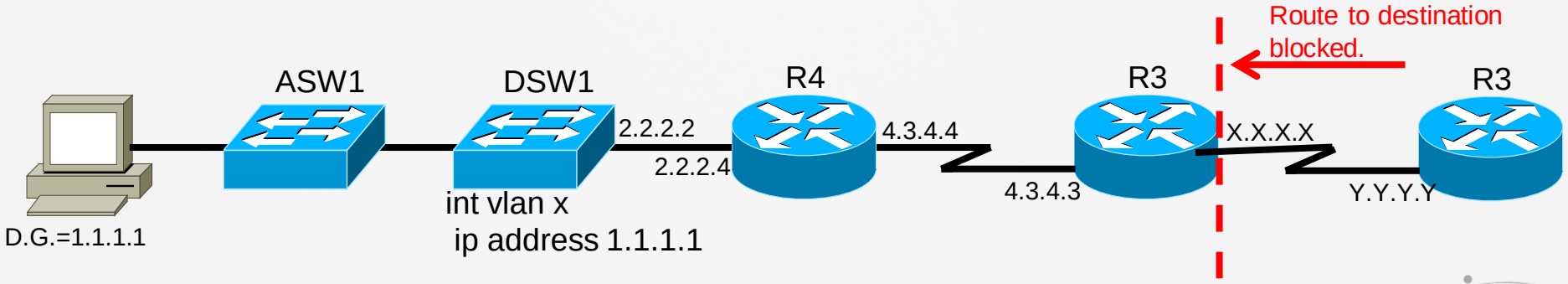
Strategy – Finding the "Where" (IPv4)

- IPv4 problem; Does Client have an IP address?
  - ✓ If no..troubleshoot DHCP between Client and R4.



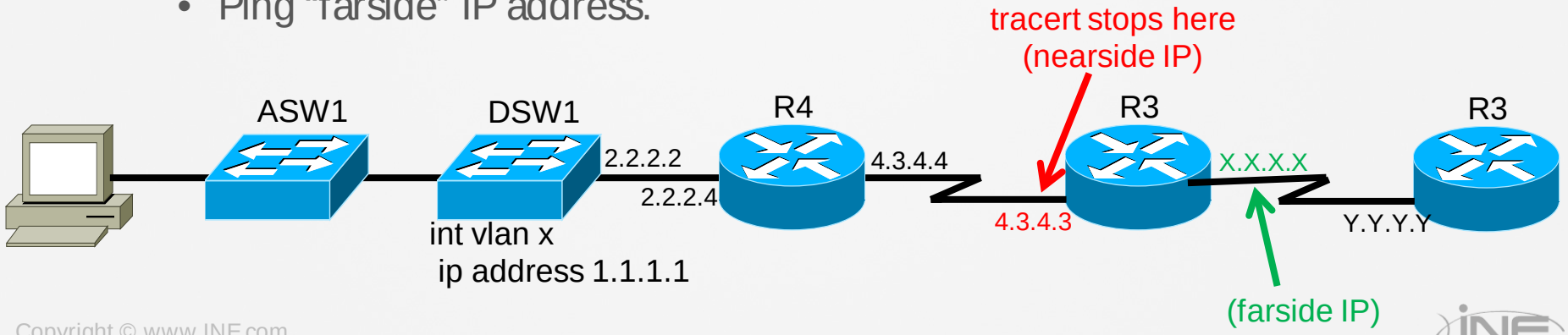
Strategy – Finding the "Where" (IPv4)

- If Client does have IP info, start with "tracert" from Client-1 PC to stated destination in Ticket (probably WEB Server).
  - **If traceroute stops at Client's Default-Gateway**, most likely an IP Routing Problem somewhere in the topology.
  - Start with routing device closest to PC and check routing tables.



Strategy – Finding the “Where” (IPv4)

- If “tracert” from Client-1 PC to stated destination in Ticket makes it any further than Default Gateway, probably NOT an IP Routing Problem.
  - Identify last IP address that responded. This will be the “nearside” IP of that device.
  - Ping “farside” IP address.



Strategy – Finding the “Where” (IPv6)

- If IPv6 problem, start by viewing IPv6 Routing Table on device that can’t ping.
  - No IPv6 route to destination? Troubleshoot IPv6 routing.
    - Begin with destination…does a Connected route exist?
    - Move hop-by-hop (from destination back to source) until you discover the first router that is missing the IPv6 route.
    - Now you’ve found your “Where”.
  - IPv6 route to destination DOES exist? Proceed with troubleshooting possible security restrictions with IPv6 pings.

Strategy – Finding the “What” (no ip on client)

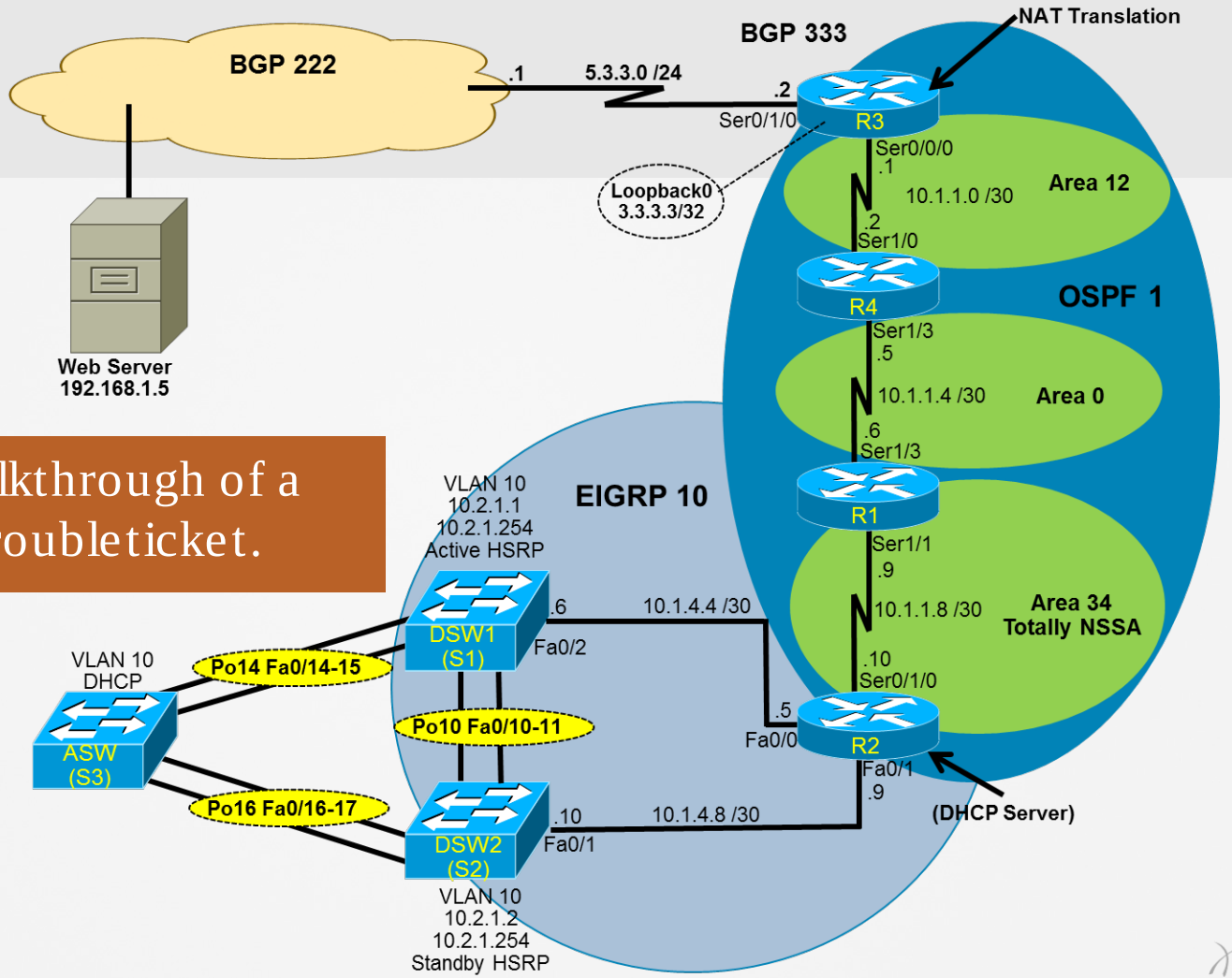
- If no IP information on Client your task is to identify:
  - Is the problem a connectivity problem?
  - Is the problem DHCP-related?
- Start with possible L3 connectivity problems, easier to diagnose.
- If L3 is okay, verify DHCP Configuration on Server.

Strategy – Finding the "What" (no ip on client)

- L3 and DHCP Server okay? Time for L2 Troubleshooting.
- Think about all of the layer-2 requirements that would be needed for PC-1 to reach "interface vlan 10" of DSW1 (*DHCP Relay Agent*).
  - ✓ Are all physical interfaces up?
  - ✓ VLANs (do they exist?)
  - ✓ VLAN Trunks (do they exist? Correctly configured?)
  - ✓ Security (DHCP Snooping? Port Security?)
  - ✓ Identify (via Spanning-Tree) the path that would be taken for PC1 to reach DSW1.
  - ✓ Check for any missing/misconfigurations along that path.

Technologies for Concentration

- Ensure you are very strong in the following technologies:
    1. Routing Protocol peering procedures (IGP and EGP)
        a) IPv4 Routing Protocols
        b) IPv6 Routing Protocols
    2. Route Redistribution
    3. Interpretting Access-Lists
    4. Layer-2 Configuration Problems that could lead to disconnectivity.
    5. Switching Security Features



Let's do a walkthrough of a TSHOOT troubleticket.

Any Questions?