How to troubleshoot Internet being down for all users

Problem: no computers at a client site can access the Internet.

Solution:

1. Ask one of the users to open a command prompt, do an "IP config" and read you the IP address of the default gateway.

- If it is blank or starts with 169.254.x.x then you have a problem with the DHCP server. Verify the DHCP server is running and has available IP addresses.

Now, ask the user to ping the IP address of the default gateway.

- If you get 4 successful replies, proceed to step 3
- If this fails, ask the user to power cycle their firewall and try pinging the default gateway again. If it still fails, investigate what is wrong with the firewall. Things to check:
    - Indicator lights to make sure they are correct
    - Physical connections of all cables
    - Software configuration

After you can successfully ping the default gateway, ask the user to "ping 4.2.2.2"

- If you get 4 successful replies, proceed to step 4

- If this fails, ask the user to power cycle their cable / DSL modem or Internet router and try pinging "4.2.2.2" again. If it still fails, contact

the ISP and ask them to test the connection.

- NOTE: rebooting the modem / router could also take down client's telephone service depending on how they are configured.

- If the ISP says the connection tests good, then you might have a problem with the firewall or the connection between the firewall & modem / router.

  - Things to check:

    - Check the lights on the modem / router
    - Network cable from the firewall to the modem / router
    - WAN configuration on the firewall

After you can successfully ping "4.2.2.2," ask the user to "ping google.com"

- If you get 4 successful replies, you have Internet access
- If this fails with "Ping request could not find host..." then you have a DNS problem and proceed with DNS troubleshooting steps.
- If this fails with "Request timed out," there might be an Internet outage or routing issue; escalate the issue to a senior engineer.

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