
# Network to Code

## Accessing Lab

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August 2023

## Change Log

| Version | Description | Date | Author(s) |
|---|---|---|---|
| 1.0 | Description of Changes | 8/7/2023 | Jeremy White |

# Contents

# Prerequisites

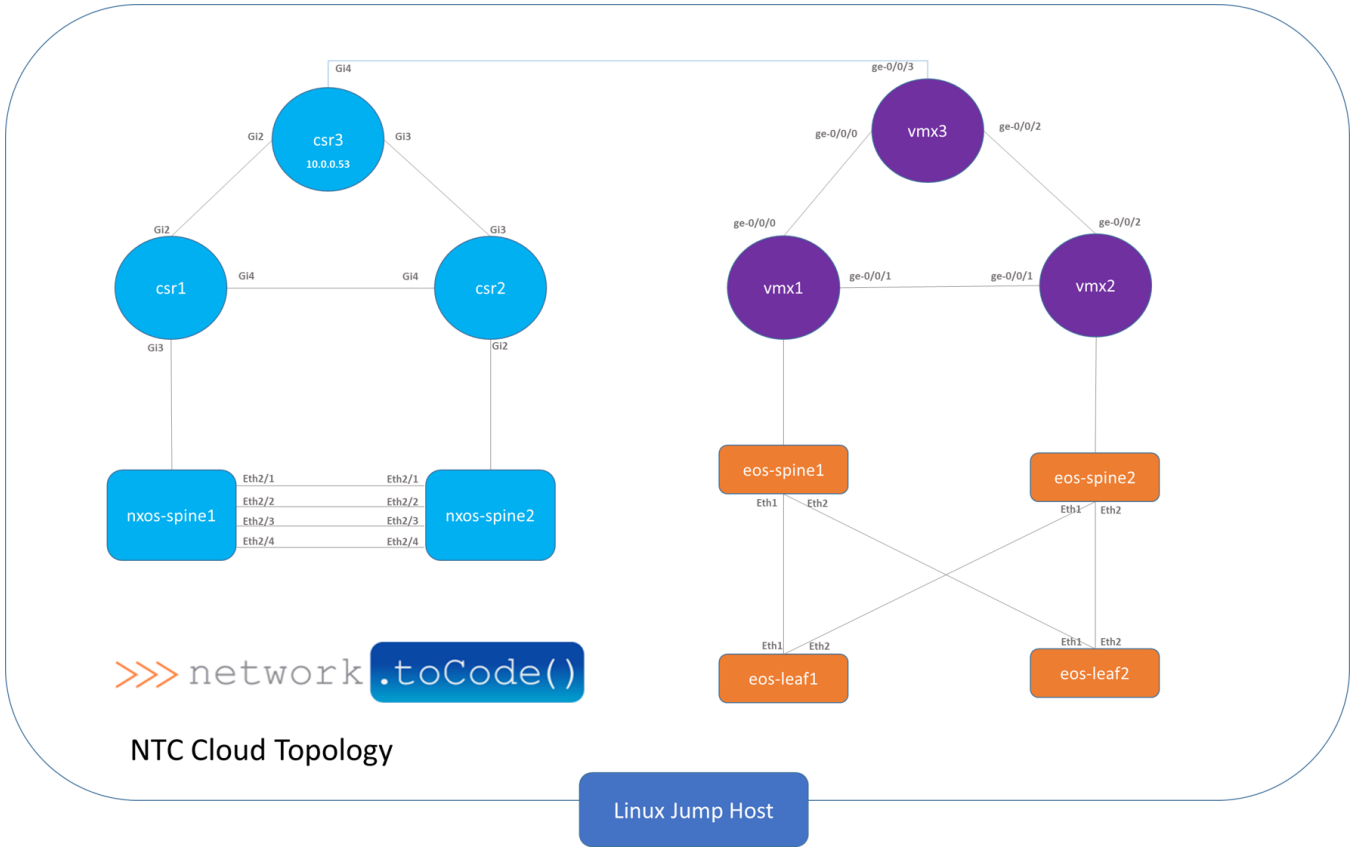
This should be done prior to starting your NTCU class and this section is for documentation purposes

## VPN Access

1. Submit request Internal IT request to be added to the CloudFlare WARP VPN group & mgdsvc-cloudflare-it-vpn (this group is required for accessing AWX).
2. Install CloudFlare WARP VPN Client & enroll device, instructions are here.

# Deploying Lab Environment

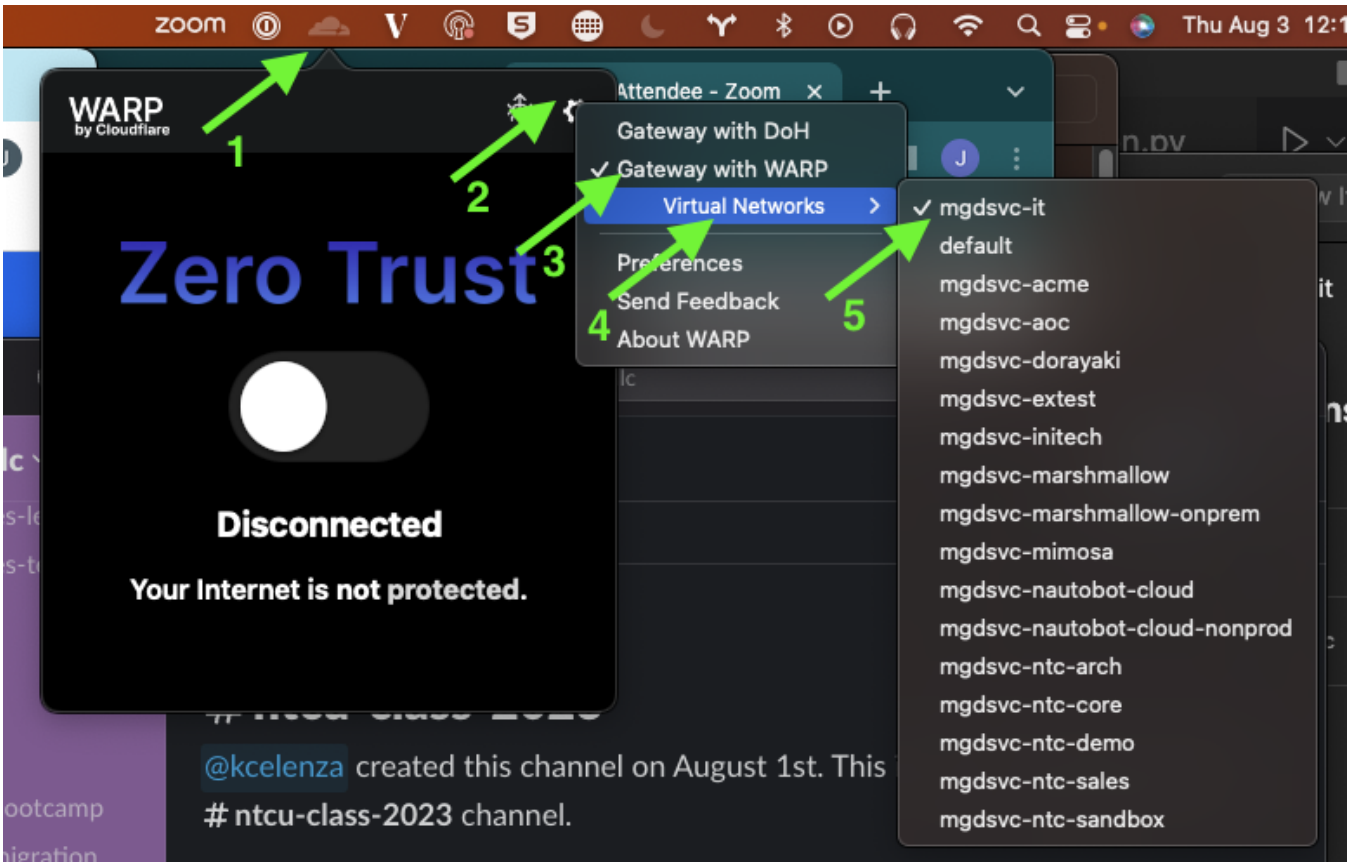
All labs are hosted as container based network labs with a collection of Juniper, IOS, Nexus, & EOS devices in the following topology.



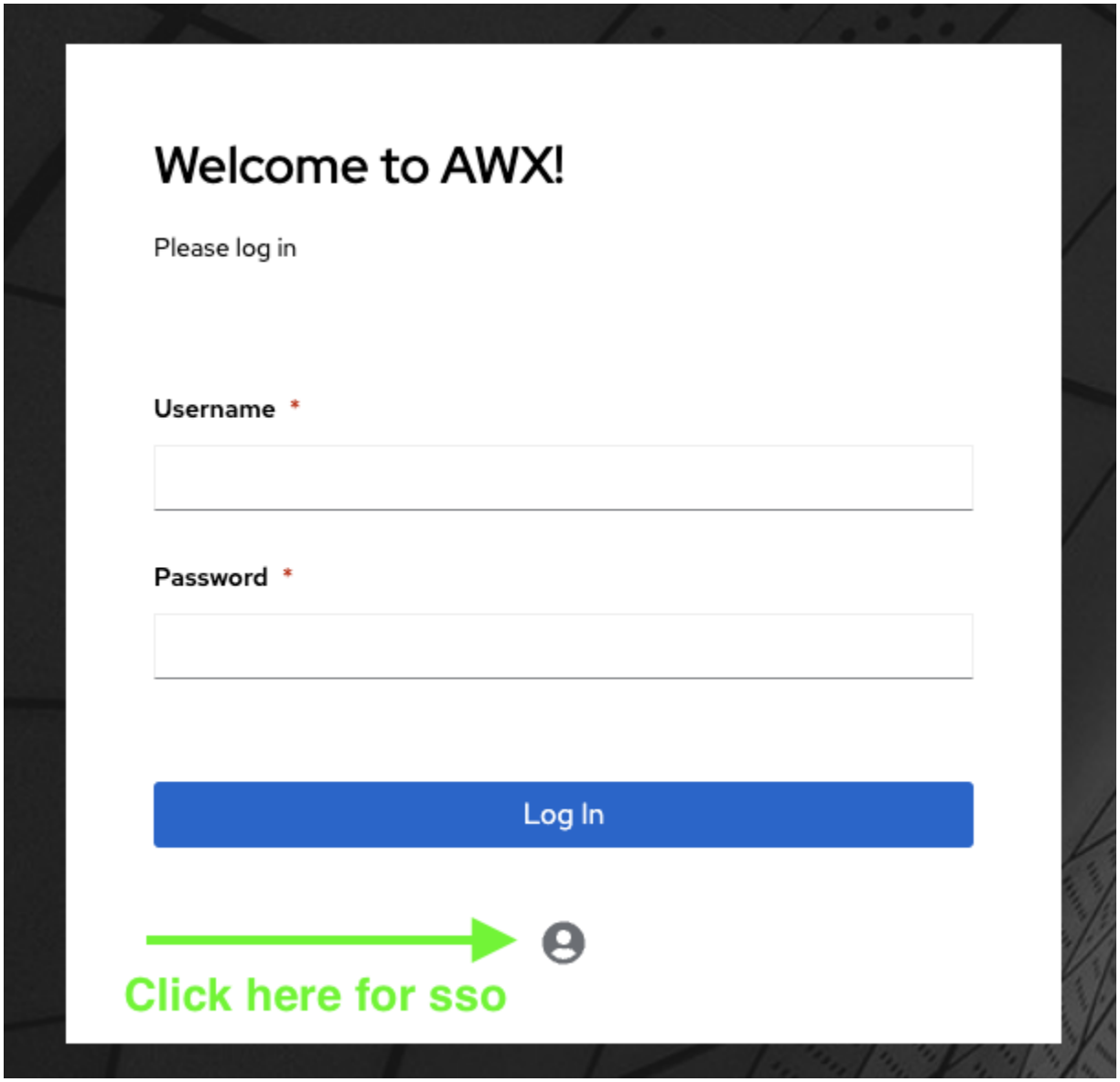

NTC Cloud Topology

## Accessing AWX

You must be on the CloudFlare WARP VPN and connected to the mgdsvc-it virtual network otherwise the link will not resolve in DNS.




1. Click the CloudFlare icon in the menu bar
2. Click the settings cog
3. Click Gateway with WARP
4. Click Virtual Networks
5. Click mgdsvc-it
6. Make sure the connection is toggled on and you are connected
    a. You MAY need to disable initially when connecting to public wifi that requires a captcha portal
7. Navigate to AWX
8. Click the sign in with SSO icon

a. 


9. IF this is your first time logging into AWX you will need to update your profile with your first and last name set, after doing so please notify your instructor to grant your access.
    a. You will not be able to proceed to the deploying a lab until this is completed

## Deploy Lab With AWX

1. After access has been granted you may need to log out and back into to AWX for permissions to take effect
2. Click Templates
3. Click **TRAINING-POD-CREATE**
4. Click Launch
5. Add your initials as the hostname prefix
    a. This will be used to construct the FQDN to access the training pod
6. The default password is **n3t2c0d3!**

    a. If you would like to not use the default password you provide a custom password before submitting
7. Do NOT change the Customer Name
8. Region can be updated to a close region if needed
    a. Take note of the region as it is needed to be able to spin down your lab when not in use.
9. Click next
10. Click Launch
11. This will take about 5 minutes or so to complete, once done you can access your lab with the the hostname prefix + .cloud.networktocode.com
    a. e.g IF my hostname prefix is jlw my FQDN will be **jlw.cloud.networktocode.com**

## Accessing Lab

Once the lab has been deployed you can SSH to the jump host via the FQDN & username of ntc (e.g. **ssh ntc@jlw.cloud.networktocode.com**), you will then be prompted for the password (either default OR if you changed it). SSH to each of the devices in the lab can be done using the hostname with the username of **ntc** and password of **ntc123** (e.g. **ssh ntc@csr1**).

The lab will have a container running Ubuntu, upon SSHing to the lab you will automatically be dropped into the shell of this container and if you need to exit out of the host completely you will need to run the exit command twice.

# Destroying Lab Environment

We ask that when you are not using the lab that you destroy the environment, this is NOT pausing the deployment but is actually deleting the virtual machine running the lab. Do make sure to commit any work that is in progress prior to destroying and there is **NO** chance to recover any lost data/progress.

1. Log into AWX
2. Click templates
3. Click **TRAINING-POD-DESTROY**
4. Click launch
5. Provide the same region and hostname prefix used when deploying the lab
6. Client next then launch

# Attaching VSCode To Lab

VSCode has a great extension ecosystem that gives you the ability to install extensions that make your like a LOT easier. The main extension we will be using is **Remote SSH**.

## Installing Remote SSH

1. Launch VSCode
2. Click Extensions on the left side

3. Search for **Remote SSH** (should be by Microsoft)
4. Click install

## Connecting VSCode Locally To Lab

1. Launch VSCode
2. Click the icon the bottom left side that looks like ><
3. Click **Connect To Host**
4. IF this is the first time connecting to the lab with this FQDN
    a. Click **Add New SSH Host**
    b. Type the same command you would use to SSH in a terminal session
        i. e.g. **ssh ntc@jlw.cloud.networktocode.com**
    c. This will add the host to your ssh configuration in your home directory
        **i. ~/.ssh/config**
5. Click the host you would like to connect to
6. Click **Open Folder** OR **Clone Repository**


>>> network .toCode()