Ansible Setup Guide

This guide describes how to set up CentOS 8.x for my Ansible courses. The perfect setup consists of 3 different nodes:

- Control node: this is where Ansible is running
    - CentOS 8.x or similar
    - 1 GB RAM
    - 10 GB or more disk space
- 2 Managed nodes: these are going to be configured with Ansible
    - CentOS 8.x or similar
    - 1 GB RAM
    - 10 GB or more disk space

Setting up the base nodes

Ansible can be used in many different environments. This setup guide assumes you are manually installing Ansible in a virtual machine. To get started with VirtualBox, watch the following YouTube video: https://www.youtube.com/watch?v=4qwUHSaIJdY

Setting up control.example.com

1. Boot the virtual machine from the CentOS installation disk. From the menu, select **Install CentOS 8**
2. When prompted for the installation language, select English. Make sure you select the appropriate keyboard layout and click **Continue**
3. In the Installation Summary screen, click **Installation Destination**
4. In the window that opens now, you'll see the current (virtual) hard disk selected. Click **Done** to approve using it.
5. Back in the Installation Summary screen, select **Network & Host Name**
6. Make sure your network device is connected, if necessary, switch the slider to **On**. After switching it on, you should see that your network automatically gets an IP address from the DHCP server. Notice the address obtained here, you will need it in the next step. As example address, this manual assumes the address obtained is 192.168.4.64. In this address, we refer to 192.168.4 as the prefix in the rest of this manual. Notice the gateway IP address as well as the netmask in this output.
7. Click Configure to open the **Editing ...** window. In this window, select IPv4 Settings. From this window, set **Method** to **Manual**
8. Click **Add** to add an address configuration, and configure the following settings
    a. **Address**: set to **prefix.220** (e.g.: 192.168.4.200).
    b. **Netmask**: set to the netmask found in step 6 (e.g.: 24)
    c. **Gateway**: set to the Gateway found in step 6 (e.g.: 192.168.4.1)
9. Set **DNS Servers** to 8.8.8.8 and click **Done**
10. Set the hostname to **control.example.com**.
11. Back in the **Installation Summary** screen, select **Software Selection** and make sure to select **Minimal Installation**
12. Back in the Installation Summary screen, select **Begin Installation**

13. The installation will now begin, and you'll see the installer prompting for **User Settings**. Click User Creation, and make sure the following is entered/selected
    a. Full name: **ansible**
    b. User name: **ansible**
    c. Make this user administrator: selected
    d. password: password. You'll need to click **Done** twice, as the password is insecure
14. Set the root password to **password** as well.
15. Reboot when the installation is finished.

Setting up ansible1.example.com and ansible2.example.com
Apply the steps described above. The only differences are in step 8 and step 10. Make sure in these steps, to enter the following:

1. Click **Add** to add an address configuration, and configure the following settings
    a. **Address**: set to **prefix.221** (ansible1) and **prefix.222** (ansible2) (e.g.: 192.168.4.200).
    b. **Netmask**: set to the netmask found in step 6 (e.g.: 24)
    c. **Gateway**: set to the Gateway found in step 6 (e.g.: 192.168.4.1)
2. Set **DNS Servers** to 8.8.8.8 and click **Done**
3. Set the hostname to **ansible1.example.com** and **ansible2.example.com**

Completing control.example.com setup
After rebooting into the freshly installed control.example.com, log in as root and perform the following steps:

1. **yum install vim git bash-completion**
2. Open the /etc/hosts file with an editor, and enter the following. Make sure to change the IP addresses to IP addresses used in your environment
   192.168.4.220   control.example.com control
   192.168.4.221   ansible1.example.com ansible1
   192.168.4.222   ansible2.example.com ansible2
3. Type the command **visudo** and make sure the following line is included:
   %wheel   ALL=(ALL)   NOPASSWD: ALL
4. **ssh-keygen**. Press enter when prompted for a password
5. **ssh-copy-id ansible1.example.com**
6. **ssh-copy-id ansible2.example.com**
7. **scp /etc/hosts ansible1:/etc/hosts**
8. **scp /etc/hosts ansible2:/etc/hosts**