Samba (SMB) Server Configuration Using Ansible

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Session - 51 Agenda:

Samba (SMB) Server Configuration Using Ansible:

Samba (SMB) or Server Message Block is a free software re-implementation of the SMB networking protocol, and was originally developed by Andrew Tridgell in December 1991. Samba provides file and print services for various Microsoft Windows clients and can integrate with a Microsoft Windows Server domain, either as a Domain Controller (DC) or as a domain member. As of version 4, it supports Active Directory and Microsoft Windows NT domains.

Configuration of Anonymous Samba Share Using Ansible:

Let's create an ansible playbook to setup the anonymous samba share on the managed node(s).

$ vim samba-server-anonymous.yml

```
---
- name: Samba Server Configuration Playbook
  hosts: node1
  become: true
  tasks:
    - name: Setting up the static hostname in the machine.
      hostname:
        name: samba.nehraclasses.local
        use: systemd

    - name: Installing the Samba Packages
      dnf:
        name: samba*
        state: latest

    - name: Creating the directory for the samba share.
      file:
        path: /srv/samba/anonymous
        mode: '0755'
        state: directory
        owner: nobody
        group: nobody

    - name: Managing SELinux label on the samba share directory.
      command: chcon -t samba_share_t /srv/samba/anonymous

    - name: Copying the samba configuration file on the managed node.
      template:
        src: smb.conf.j2
        dest: /etc/samba/smb.conf
        force: true

    - name: Allowing samba traffic in the firewall.
      firewalld:
        service: samba
        zone: public
        permanent: true
        immediate: true
        state: enabled
    - name: Starting & enabling the smb & nmb services.
      service:
        name: "{{ item }}"
        state: started
        enabled: yes
      loop:
        - smb
        - nmb
...
```

Now, install the ansible posix collection from the ansible galaxy before you execute the ansible playbook.
$ ansible-galaxy collection install ansible.posix

Now, we can execute the ansible playbook to setup the samba server on the managed node(s).
$ ansible-playbook samba-server-anonymous.yml

Now, open run prompt by pressing win + r key on your keyboard then type \\node1 and press enter key. It will show the anonymous share created on the node1 machine using ansible playbook.

Configuration of Secured Samba Share Using Ansible:
Let's create an ansible playbook to setup the secured samba share on the managed node(s).
$ vim samba-server-secured.yml

```
---
- name: Samba Server Configuration Playbook
  hosts: node1
  become: true
  tasks:
    - name: Setting up the static hostname in the machine.
      hostname:
        name: samba.nehraclasses.local
        use: systemd

    - name: Installing the Samba Packages
      dnf:
        name: samba*
        state: latest

    - name: Creating group for the samba users
      group:
        name: securedgroup
        state: present

    - name: Creating samba user with securedgroup membership.
      user:
        name: demo
        shell: /bin/bash
        groups: securedgroup
        append: yes

    - name: Adding the demo user to samba database and setting its password.
      shell: "printf 'redhat\nredhat\n' | smbpasswd -a demo"

    - name: Creating the directory for the secured samba share.
      file:
        path: /srv/samba/secured
        mode: '0770'
        state: directory
        owner: root
        group: securedgroup

    - name: Managing SELinux label on the samba share directory.
      command: chcon -t samba_share_t /srv/samba/secured

    - name: Copying the samba configuration file on the managed node.
      template:
        src: smb2.conf.j2
        dest: /etc/samba/smb.conf
        force: true
      notify: Restarting Services
```

```
       - name: Allowing samba traffic in the firewall.
         firewalld:
          service: samba
          zone: public
          permanent: true
          immediate: true
          state: enabled
       - name: Starting & enabling the smb & nmb services.
         service:
          name: "{{ item }}"
          state: started
          enabled: yes
         loop:
          - smb
          - nmb
     handlers:
        - name: Restarting Services
          systemd:
          name: "{{ item }}"
          state: restarted
          loop:
           - smb
           - nmb
...
```

Now, we can execute the ansible playbook to setup the samba server on the managed node(s).
$ ansible-playbook samba-server-secured.yml

Now, open run prompt by pressing win + r key on your keyboard then type \\node1 and press enter key. It will show the both the shares created on the node1 machine using ansible playbook.

Samba Client on Linux:
Login as root on the client machine (IP Address: 192.168.229.128) and set the static hostname in the machine & verify the same.
 # hostnamectl set-hostname sambaclient.nehraclasses.local
 # hostnamectl

Now, install samba client packages in the machine.
 # dnf install -y samba*

Now, create a directory where you can mount the samba secured share.
 # mkdir -p /opt/secured

Check the Samba Share on Client. (Here 192.168.229.129 is the samba server IP address.)
 # smbclient -L //192.168.229.129 -U demo

Mount the samba share using below command.
 # mount -t cifs -o username=demo,password=redhat //192.168.229.129/secured /opt/secured/

Now, verify the same.
 # df -hT

For permanent mounting please make an entry in /etc/fstab file.

Thank You