Ansible Configuration and Deploy Thin Clients

How to Create Ansible server,inventory and run the tasks ❓

Ansible Server Creation:

- Ansible can run on various operating systems, including Linux distributions like Ubuntu, CentOS, or Red Hat Enterprise Linux (RHEL). Choose an operating system that you are familiar with and that is supported by Ansible.
- Install the (Linux Debian or Ubuntu) Operating system
- Then Run the below Mentioned the command
    - root@debian:~# cd /
    - root@debian:~# apt update
    - root@debian:~# sudo apt install nano
    - root@debian:~# apt install python3
    - root@debian:~# apt-get install python3 python3-pip -y
    - root@debian:~# sudo apt-get update
    - root@debian:/# sudo apt-get install ansible -y
    - root@debian:/# ansible --version
        - ansible 2.10.8 (Checke the Version Ansible installed or not)
    - root@debian:/# wget https://raw.githubusercontent.com/ansible/ansible/stable-2.11/examples/ansible.cfg
    - root@debian:/# mkdir win_ssh
    - root@debian:/# cd win_ssh/
    - raghu@debian:/win_ssh$ touch host.inils
- Once run this command Ansible will installed on the server

Ansible Inventory File:

- Once Installed the Ansible Server the go the host.ini file
    - root@debian:/win_ssh# nano host.ini
    - The Host Inventory file must be there in below mentioned the refernce format only

```
  GNU nano 5.4
[win]
10.20.106.5




[win:vars]
ansible_user=User
ansible_password=User
ansible_connection=ssh
ansible_shell_type=cmd
ansible_ssh_common_args=-o StrictHostKeyChecking=no -o UserKnownHostsFile=/dev/null
ansible_ssh_retries=3
ansible_become_method=runas
```

-
            - **[win]** ------------ Host Group name .we can add any name like [windowsoutlet] **No Space**
                - **10.20.106.5** -------- Client IP address (Windows or Linux machine IP address), we can add multiple IP addresses.
            - **[win:vars]** --------   win belongs to the host group name. **For example: if we use the host group name [windowsoutlet], [windowsoutlet:vars] must be used.**
                - **ansible_user=User -----** Enter the Thin client user Name
                - **ansible_password=User --** Enter the Thin client user Name
                - **ansible_connection=ssh -** Remote Connection.**We are using ssh only** keep like that.
                - **ansible_shell_type=cmd** Keep like this
                - **ansible_ssh_common_args=-o StrictHostKeyChecking=no -o UserKnownHostsFile=/dev/null** Keep like this
                - **ansible_ssh_retries=3   Keep like this**
                - **ansible_become_method=runas** Keep like this
    - Once this file is ready, press **CTRL+S** & **CTRL+X**
    - then check whether Ansible can reach the host or not
        - Run this command on the Ansible machine:

- **root@debian:/win_ssh# ansible win -i host.ini -m win_ping**

```
root@debian:/win_ssh# ansible win -i host.ini  -m win_ping
10.20.104.22 | SUCCESS => {
    "changed": false,
    "ping": "pong"
}
root@debian:/win_ssh#
```

- If Ansible can reach the host, it displays **SUCCESS** Msg.

Ansible Task Creation using Playbook YAML :

- **Create New file (root@debian:/win_ssh# touch DesktopforHP.yml) or (root@debian:/win_ssh# nano DesktopforHP.yml)**
- then create the task with the yaml programme
  - Refernce Document URL: **Ansible Modules**
  - **Example YAML Programme:**

```yaml
- name: Run executable and restart on Windows host
  hosts: win
  gather_facts: false
  tasks:
    - name: Run PowerShell script
      win_shell: powershell.exe -ExecutionPolicy Bypass -File 'C:\openssh\HP Disable filter.ps1'

    - name: Restart the system
      win_shell: shutdown /r /f /t 0
      async: 0
      poll: 0

    - name: Wait for system to come back online
      wait_for_connection:
        delay: 30
        timeout: 300

    - name: Create directory
      win_file:
        path: 'C:\Test'
        state: directory

    - name: Copy wallpaper image
      win_copy:
        src: /win_ssh/image test.jpg
        dest: C:\Test\image test.jpg

    - name: Set Wallpaper using PowerShell
      win_shell: |
        $key = 'HKCU:\Control Panel\Desktop'
        Set-ItemProperty -Path $key -Name Wallpaper -Value "C:\Test\image test.jpg"
        rundll32.exe user32.dll,UpdatePerUserSystemParameters

    - name: Run PowerShell script
      win_shell: powershell.exe -ExecutionPolicy Bypass -File 'C:\openssh\HP Enable Filter.ps1'

    - name: Restart the system
      win_shell: shutdown /r /f /t 0
      async: 0
      poll: 0
```

- Once this file is ready, press **CTRL+S** & **CTRL+X**

Deploy the task YAML file to all Thin Clients :

- Once the host inventory and YAML task file have been created, run the task with this Command
  - **root@debian:/win_ssh# ansible-playbook -i host.ini DesktopforHP.yml**

```
root@debian:/win_ssh# ansible-playbook -i host.ini DesktopforHF.yml

PLAY [Run executable and restart on Windows host] ************************************************************

TASK [Run PowerShell script] ********************************************************************************
changed: [10.20.104.22]

TASK [Restart the system] ***********************************************************************************
changed: [10.20.104.22]

TASK [Wait for system to come back online] ******************************************************************
ok: [10.20.104.22]

TASK [Create directory] *************************************************************************************
changed: [10.20.104.22]

TASK [Copy wallpaper image] *********************************************************************************
changed: [10.20.104.22]

TASK [Set Wallpaper using PowerShell] ***********************************************************************
changed: [10.20.104.22]

TASK [Run PowerShell script] ********************************************************************************
changed: [10.20.104.22]

TASK [Restart the system] ***********************************************************************************
changed: [10.20.104.22]

PLAY RECAP **********************************************************************************************
10.20.104.22               : ok=8    changed=7    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0

root@debian:/win_ssh# []
```

○ After run that command the task is executed. See the Reference Image above image above