Minio - Distributed Mode

Ansible role to deploy and configure Minio in distributed mode

Peter Murphy

My Company

Table of contents

My Company

1. Home

1.1 Role Name

minio_install

1.2 Description

Role to install and configure Minio in distributed mode

1.3 Dependencies

None

1.4 Information

Author	Company	License	Minimum Ansible Version
Peter Murphy	My Company	None	2.9

2. Defaults

2.1 main.yml

2.1.1 minio_server_install_volume_groups

Volume Group settings ...

```
vg_min:
  pv: /dev/sdd
```

2.1.2 minio_server_install_volumes

Logical volume variable settings ...

```
lv_min:
  drive: vg_min
  size: +100%FREE
```

2.1.3 minio_server_install_dir_mounts

Directory for logical volume mount ...

```
/var/lib/minio:
  src: /dev/vg_min/lv_min
```

2.1.4 minio_server_datadirs

Minio server data directory ...

```
/var/lib/minio
...
```

2.1.5 minio_user

Minio user ...

```
minio
...
```

2.1.6 minio_group

Minio user group ...

```
minio
...
```

2.1.7 minio_server_download_base_url

Base URL to download minio from ...

```
https://dl.minio.io/server/minio/release/linux-amd64
...
```

2.1.8 minio_server_bin

Minio server bin directory ...

```
/usr/local/bin/minio
...
```

2.1.9 minio_server_envfile

Path to the file containing the ENV variables for the Minio server ...

```
/etc/default/minio
...
```

2.1.10 minio_port

Minio server port ...

```
'9091'
```

2.1.11 minio_server_opts

Additional Minio server CLI options ...

```
''
```

2.1.12 minio_access_key

Minio access key ...

```
''
```

2.1.13 minio_secret_key

Minio secret key ...

```
''
```

2.1.14 minio_server_env_extra

Additional environment variables to be set in minio server environment ...

```
''
```

3. Vars

3.1 main.yml

3.1.1 minio_server_download_url

URL to download minio from ...

```
'{{ minio_server_download_base_url }}/minio'
```

3.1.2 minio_server_addr

Minio server listen address ...

```
:{{ minio_port }}
...
```

4. Tasks

4.1 Flow

```
graph LR
main.yml(main.yml) --> minio/users.yml(minio/users.yml)
main.yml(main.yml) --> volumes.yml(volumes.yml)
main.yml(main.yml) --> minio/minio.yml(minio/minio.yml)
main.yml(main.yml) --> minio/firewall.yml(minio/firewall.yml)
volumes.yml(volumes.yml) --> directories.yml(directories.yml)
```

4.2 Tasks: main

4.2.1 main.yml

- Set proxy server if defined

- Configure Minio user

- Configure logical volumes

- Download, Install and Configure Minio

- Configure Firewall

4.3 Tasks: users

4.3.1 minio/users.yml

- Create Minio group

- Create Minio user

4.4 Tasks: file-system

4.4.1 volumes.yml

- Configure LVM volume groups

- Configure LVM logical volumes

- Create the xfs filesystems

- Create directories

- Create list of mounted devices

- Mount and bind a volume

4.4.2 directories.yml

- Get status of the FS object

- Create directory if not already created

4.5 Tasks: minio

4.5.1 minio/minio.yml

- Get the Minio server checksum

- Download the Minio server

- Generate the Minio server envfile

- Create the Minio server systemd config

- Create the Minio server init.d config

- Enable and start the Minio service

4.5.2 minio/firewall.yml

- Enable firewalld

- Open firewall ssh port

- Open firewall minio ports

5. Handlers

5.1 main.yml

- Reload minio systemd
- Restart minio
- Reload firewalld service

6. Appendix

6.1 References

Description	Link
Distributed Minio QuickStart Guide	https://docs.min.io/docs/distributed-minio-quickstart-guide.html
Peter Murphy	https://www.linkedin.com/in/peter-murphy-61493974/
ansible-mdgen	https://pypi.org/project/ansible-mdgen/