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# SaltStack Master-Minion Architecture & Service Management

## Contents

## 1. Setting up Salt Master & Minions

First, we require 2 instances of Amazon Linux 2023 AMI. One for salt-master and another for salt-minion. We also require an instance of Microsoft Windows Server 2025 Base AMI for salt-minion.

The task of EC2 provisioning can be automated with `ansible-playbook`. Ensure you have `amazon.aws` collection installed with `ansible-galaxy collection list`. If not, run `ansible-galaxy collection install amazon.aws`.

Also ensure you have `aws cli` preconfigured before running the playbooks. If not, create access key from AWS console and run `aws configure` on the terminal.

Git Repository for the playbook: aryan-madhavi/ansible-saltstack
Run the playbook with: `ansible-playbook -i hosts launch-salt-cluster.yml`.
Use the `-v` flag if required.

Note:

- Config file for master and minion services are stored in `/etc/salt/master` and `/etc/salt/minion` respectively in Linux.
- By default salt-master searches for state files in `/srv/salt/` in Linux.
- Config file for minion service is stored in `C://Program Data/Salt Project/Salt/conf/minion` for default installation in Windows.

## 2. Accepting minion keys

SSH into the salt-master instance and run the following commands:

```
$ sudo su -
$ salt-key -L
```

Now, you will see a list of unaccepted keys. One from the linux minion and another from windows minion. Accept them by running the following command for each key:

```
$ salt-key -a ‘key-id’
```

You may also accept all unaccepted keys with a single command:

```
$ salt-key -A
```

The salt master-minion architecture has been successfully setup.

## 3. Running Salt Commands

**Test the connection** between the master and the minions.

$ salt '*' test.ping

**Working with Services**

| Description | Command |
|---|---|
| Start | `salt '<minion-id>' service.start <srvc_name>` |
| Stop | `salt '<minion-id>' service.stop <srvc_name>` |
| Restart | `salt '<minion-id>' service.restart <srvc_name>` |
| Status (Running?) | `salt '<minion-id>' service.status <srvc_name>` |
| List | `salt '<minion-id>' service.get_all <srvc_name>` |
| Detailed Info | `salt '<minion-id>' service.info <srvc_name>` |

**Working with Grains**

| Description | Command |
|---|---|
| List minion ids | `salt '<minion-id>' grains.item` |
| List all grains | `salt '<minion-id>' grains.items` |
| Get specific grain | `salt '<minion-id>' grains.get <grain>` |