Custom Template Filters for a Better World

Adam Johnson - me@adamj.eu

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Me

- DevOps/DBA at YPlan
- ► Ansible all the things!

Problem: Anonymous Instances



▶ No name, no tags, no CPU or network usage

Sneaky Amazon?



► Revenue boosting?

Naughty Jenkins!



► Oh Jenkins!

Solution

- ► Have clean_resources playbook every 15 minutes to clean all the things
- Added:

```
- name: delete anonymous instances
  ec2_sql:
    sql: DELETE FROM ec2_instances
        WHERE length(tags) = 0 AND age > 30 minutes
```

D'oh, ec2_sql doesn't exist!

Step 0

Add the actual play:

▶ Will delete **all** instances as-is!

Host variables:

```
"ec2_54_75_123_123.eu_west_1.compute.amazonaws.com": {
    "ec2_architecture": "x86_64",
    "ec2_client_token": "",
    ...
    "ec2_tag_Name": "my_fancy_machine",
    "ec2_tag_ansible_role": "web",
    ...
}
```

All tags start ec2_tag_

Drafted python function:

Create filter_plugins/my_plugins.py relative to playbook:

```
def filter_prefix(items, prefix):
    return [x for x in items if x.startswith(prefix)]

class FilterModule(object):
    def filters(self):
        return {
                'filter_prefix': filter_prefix,
                }
}
```

Add in to play:

```
- name: delete anonymous instances
hosts: ec2
tasks:
    - when: >
        hostvars[inventory_hostname].keys()
        | filter_prefix('ec2_tag_')
        | length == 0

local_action: ec2 state=absent
        instance_ids={{ ec2_id }}
```

Halfway!

Step 2 - AND age > 30 minutes

Also in host variables:

Step 2 - AND age > 30 minutes

Coding by Stack Overflow:

```
def aws_age_seconds(ec2_launch_time):
    # Strip trailing subsecond part
    launch_time = ec2_launch_time[:-len('.000Z')]
    # Turn into datetime
    time_format = "%Y-%m-%dT%H:%M:%S"
    time_tuple = strptime(launch_time, time_format)
    time_dt = datetime(*time_tuple[:6])
    # Return difference in seconds
    diff = datetime.utcnow() - time_dt
    return seconds_diff.total_seconds()
```

Add again to filter module

Step 2 - AND age > 30 minutes

Final play:

Problem: **SOLVED**

▶ Bye bye anonymous instances!



Thank you

► me@adamj.eu