

ICA0002: IT Infrastructure Services

Ansible Handlers

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Types of applications

Controlled by user

- Interaction via GUI actions or CLI commands

Controlled by system

- Run in background
- Interaction via configuration files (input) and log files (output)
- Called 'daemons' in UNIX ('services' in Windows -- idea is the same)

Daemons

- Apache HTTPd -- web server daemon ('d' stands for 'daemon')
- **syslogd** -- system logging daemon
- **sshd** (not **ssh**) -- SSH server daemon
- **mysqld** (not **mysql**) -- MySQL server daemon

Common things:

- Name ends with 'd' to indicate that the application is daemon
- Daemon reads configuration file only once -- while starting
- **If the configuration is changed, daemon needs to be restarted***

* Some daemons can reload the configuration on system signal

Example task: configure Nginx

- name: Nginx configuration
 ansible.builtin.copy:
 src: default.conf
 dest: /etc/nginx/sites-enabled/default

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 ansible.builtin.copy:
 src: default.conf
 dest: **/etc/nginx/sites-enabled/default**

Problem: service needs to be restarted to apply the changed configuration

Reload would also work here but the idea is the same

Example task: restart Nginx

- name: Restart Nginx
 - ansible.builtin.service:
 - name: nginx
 - state: restarted

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```
- name: Restart Nginx
  ansible.builtin.service:
    name: nginx
    state: restarted
```

Problem: Nginx will be restarted on every Ansible run!

Can the tasks share the state
with each other?

Ansible handlers

'Special' tasks that are **not** run by default

Handlers are called (notified) **by name** by other tasks

- If notified multiple times -- still run once
- Run in the order they are **defined** -- not the order they are notified
- Run after all tasks **in all roles** are completed

More:

https://docs.ansible.com/ansible/latest/user_guide/playbooks_handlers.html

Ansible handlers have the same syntax as tasks

- name: Nginx configuration ← 'Regular' task
 ansible.builtin.copy:
 src: default.conf
 dest: /etc/nginx/sites-enabled/default
 notify: Restart Nginx
- name: **Restart Nginx** ← Handler
 ansible.builtin.service:
 name: nginx
 state: restarted

Ansible handlers are defined in their own file

```
roles/  
  my_role/  
    files/  
      ...  
      handlers/  
        main.yaml  
    tasks/  
      main.yaml
```

Demo!

Questions?