

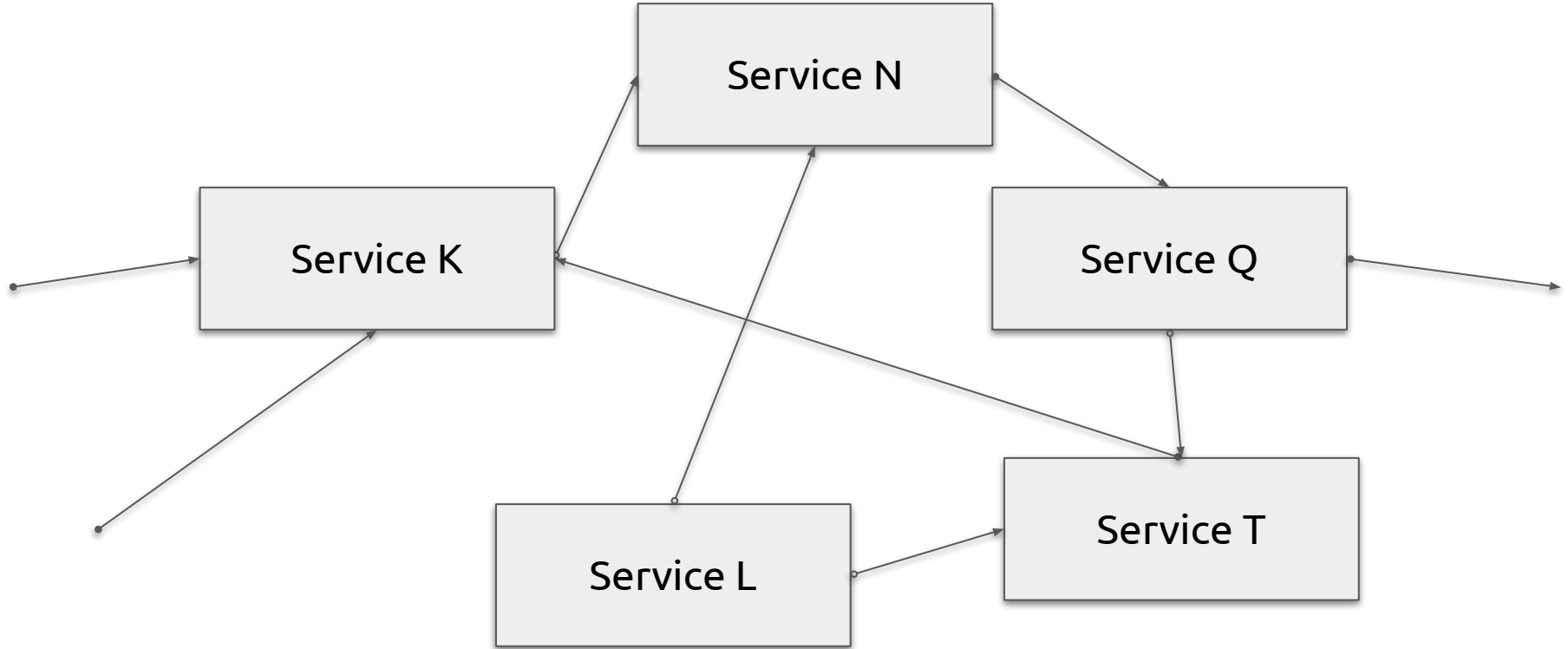
IT Infrastructure services

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One playbook

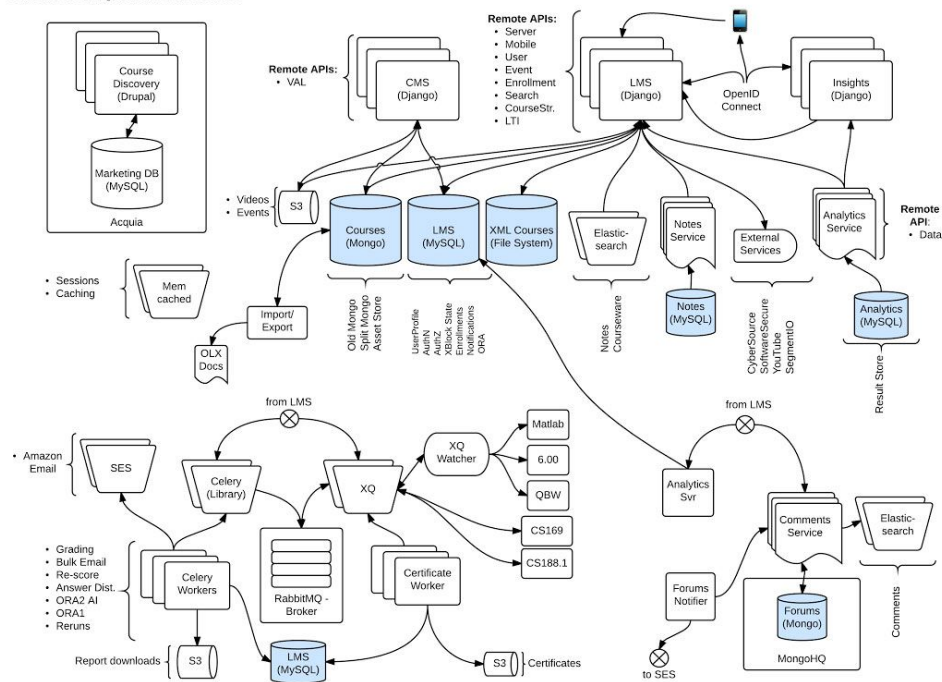
```
---  
- hosts: ...  
  tasks:  
    - ...  
  
- hosts: ...  
  tasks:  
    - ...
```

Small infrastructure



Not that small

edX CMS, LMS, Insights Architecture 03.23.2015



Problems

- One playbook doesn't scale well
- Hard to maintain
- Complicated team work

Ansible roles

A way to group the resources to provision a service or group of services

Portable components to share between plays or other projects

Also, a way to isolate the resources

Example roles: `webserver`, `database_server`, `ssh_server`, `apache`, `mysql`

Resource grouping and isolation

```
templates/  
  apache.conf.j2  
  ports.conf.j2  
  bind.conf.j2  
  db.zone.j2  
  db.zone2.j2  
  mysql.conf.j2
```

```
roles/  
  common/  
    tasks/  
    handlers/  
    files/  
    templates/  
    vars/  
  webservers/  
    tasks/
```

Role structures

```
roles/web_server/  
  tasks/  
    main.yml  
  templates/  
    apache.conf
```



```
# File: tasks/main.yml  
- name: Configure Apache  
  template:  
    src: apache.conf  
    dest: /etc/apache2/...
```


Role structures

roles/web_server/

handlers/ ← handlers are read from **main.yml**

files/ ← files are searched in this directory

tasks/ ← tasks are read from **main.yml**

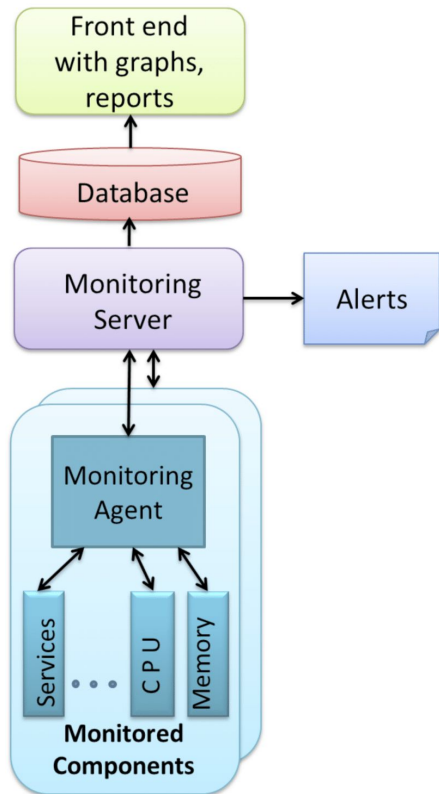
templates/ ← templates are searched in this directory

vars/ ← variables are read from **main.yml**

Playbook structures

- name: Deploy DB server
 - hosts: db_servers
 - roles:
 - ssh_server
 - mysql_server

Monitoring

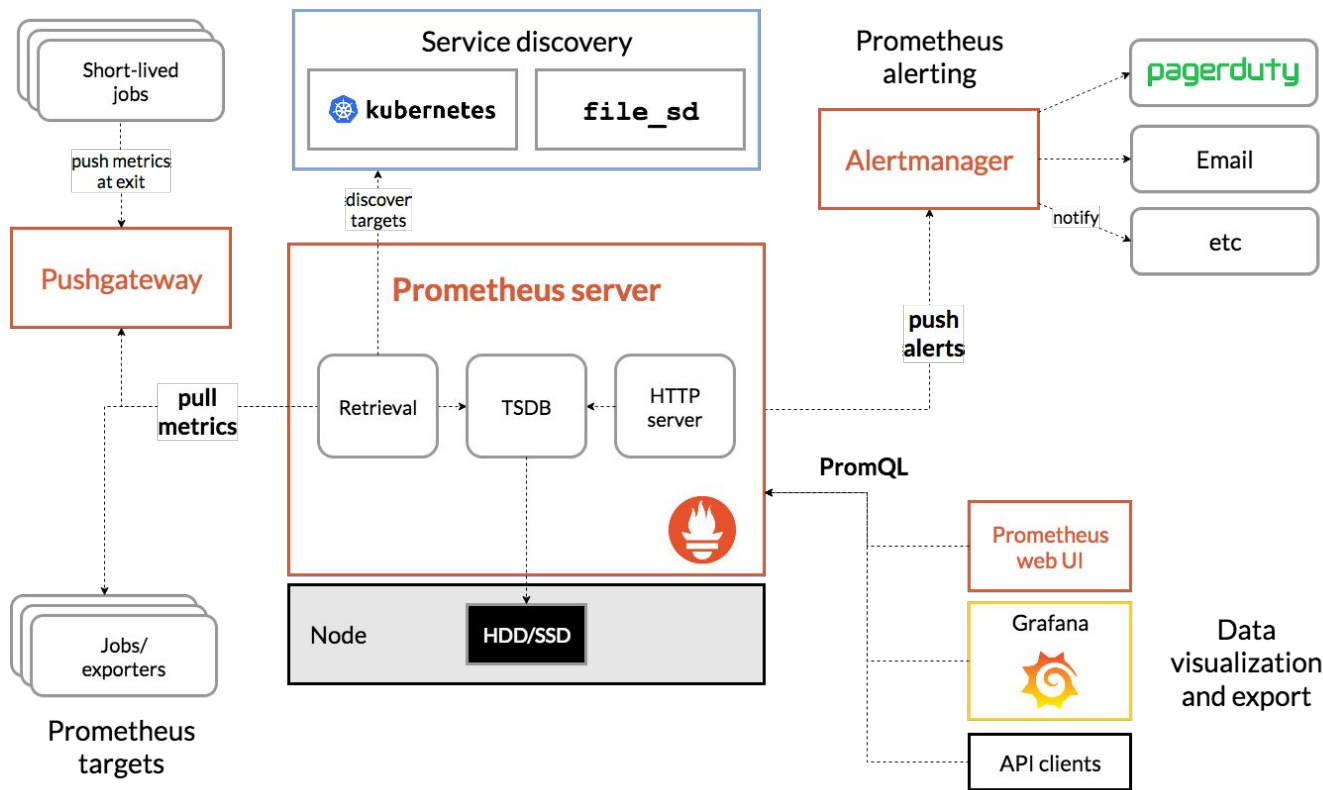


- Agent (server specific)
- Agentless (ssh, snmp)

Monitoring applications

Long list here, doesn't fit the screen :(

Prometheus



Prometheus

