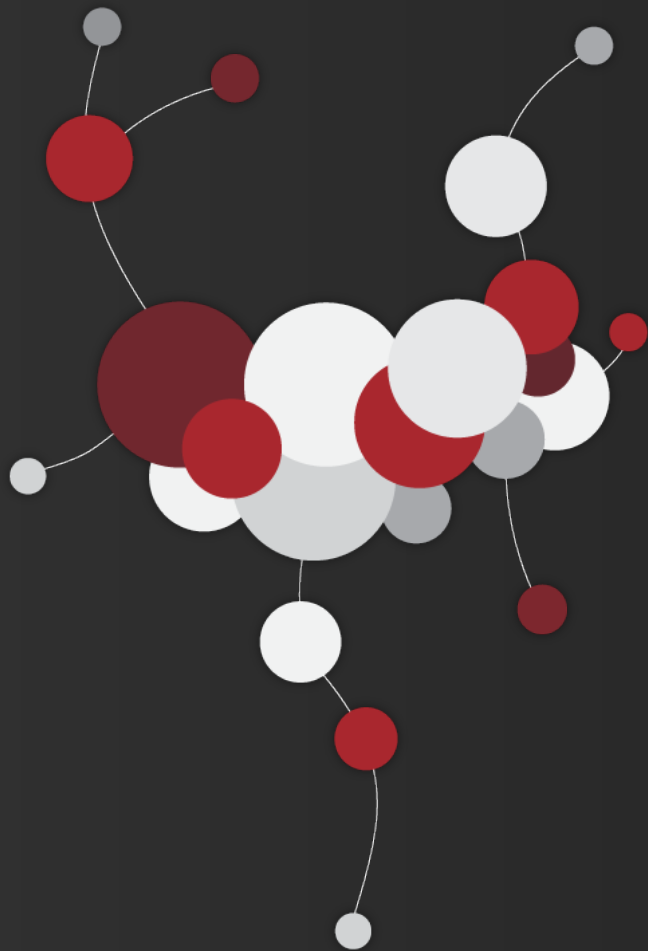




**spearhead**  
systems

**Check\_MK Conference**



# Check\_MK & Ansible

A step towards self healing IT systems

# A bit about us



## IT Service Provider

- Full stack monitoring
- Cloud
- HPC
- Security
- Training & Coaching

# A bit about us



## Check\_MK initiatives

- Some checks
- Romanian translation

- 
- <https://github.com/spearheadsys>
  - <https://github.com/orgs/spearheadsys/people/mariuspana>
  - <https://www.youtube.com/user/spearheadsystems>
  - <https://www.youtube.com/channel/UCJW5NSgY-G99Czbu4FJzVGQ>

# A bit about this presentation



IT is a tool

IT should make life easier

Self configuration

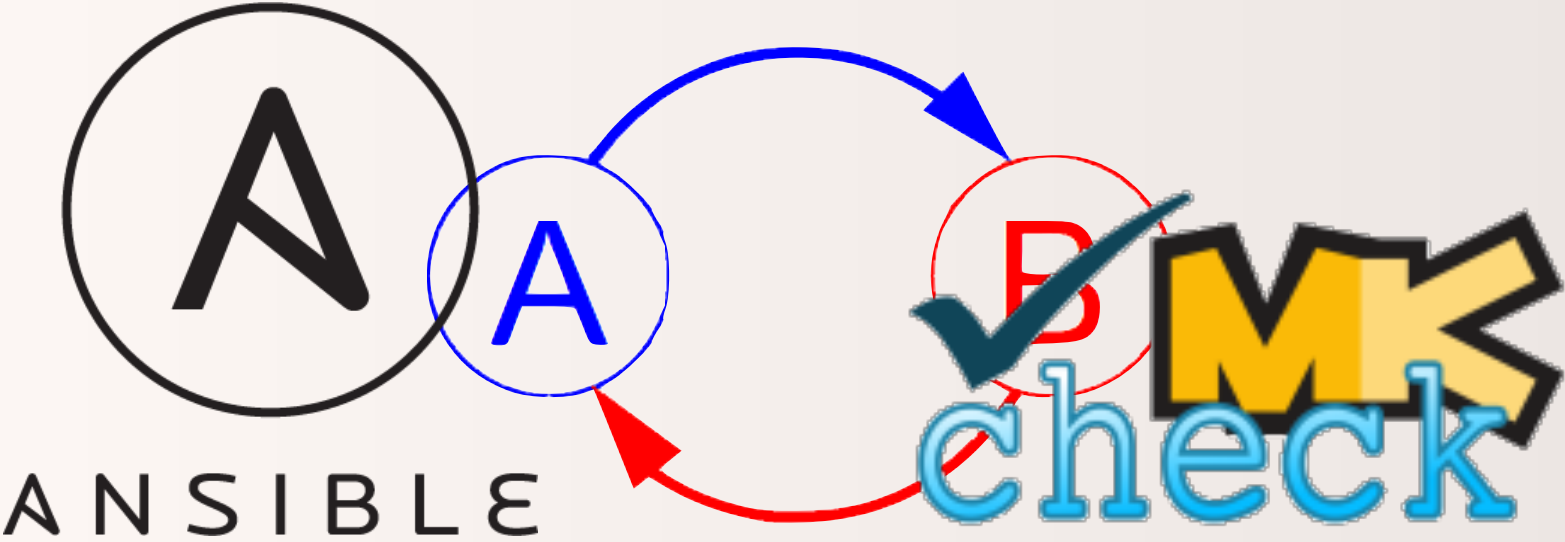
Self healing

# Caveats



Some things may not *work* properly  
Some things are a bit *ugly*  
Security *should* be thought out

# Feedback Loop



# A bit about Ansible



Ansible is an IT automation tool. It can configure systems, deploy software, and orchestrate more advanced IT tasks such as continuous deployments or zero downtime rolling updates.



# A bit about Ansible



Configuration Management  
Continuous Delivery  
Application Deployment  
Provisioning  
Security & Compliance

# Ansible & Check\_MK

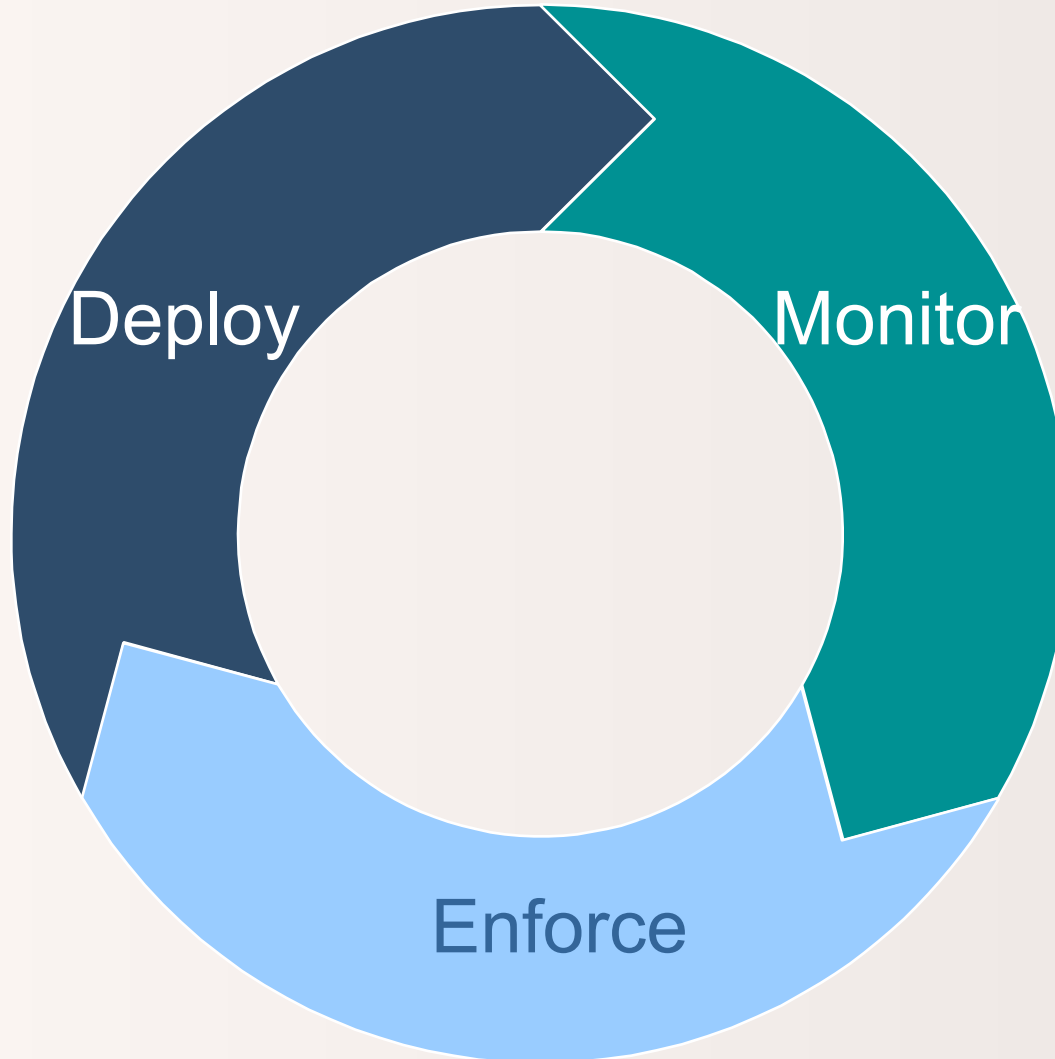


*We model* our IT infrastructures using Ansible.

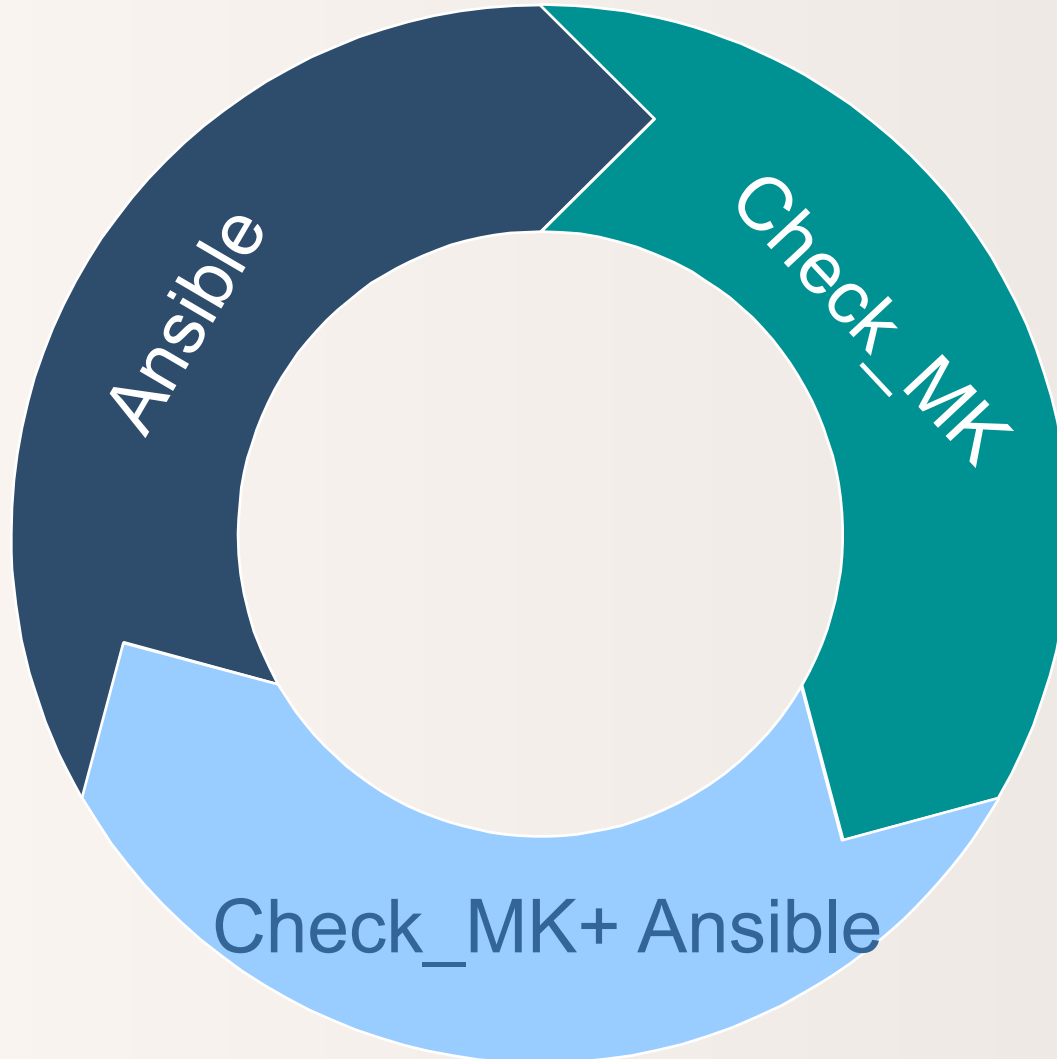
We define what our servers should look like and what their state should be.

Check\_MK ensures that services and states match our desired model.

# Ansible & Check\_MK



# Ansible & Check\_MK



# A bit more about Ansible



## Inventory

- simple text file
- inventory plugin

## Playbooks

- simple, elegant orchestration

## Ad hoc parallel task execution

- `ansible all -m ping`

# Ansible inventory example



```
192.168.0.1
```

```
[test]
```

```
10.88.88.192
```

```
our.internal.host.com
```

```
[webservers]
```

```
www[01:50].example.com
```

```
jumper ansible_port=5555 ansible_host=192.168.1.50
```

```
[atlanta]
```

```
host1 http_port=80 maxRequestsPerChild=808
```

```
[southeast:children]
```

```
atlanta
```

# Ansible playbook example



---

- hosts: loadbalancers  
roles:
  - common
  - loadbalancer
  
- hosts: webservers  
roles:
  - common
  - content

# Ansible playbook example (cont.)



---

- yum: name=ntp state=installed  
tags:
  - packages
- service: name=ntpd state=running enabled=yes  
tags:
  - ntpd
- template: src/opt/tpl/ntp.j2 dest=/etc/ntp.conf  
notify:
  - restart ntpd



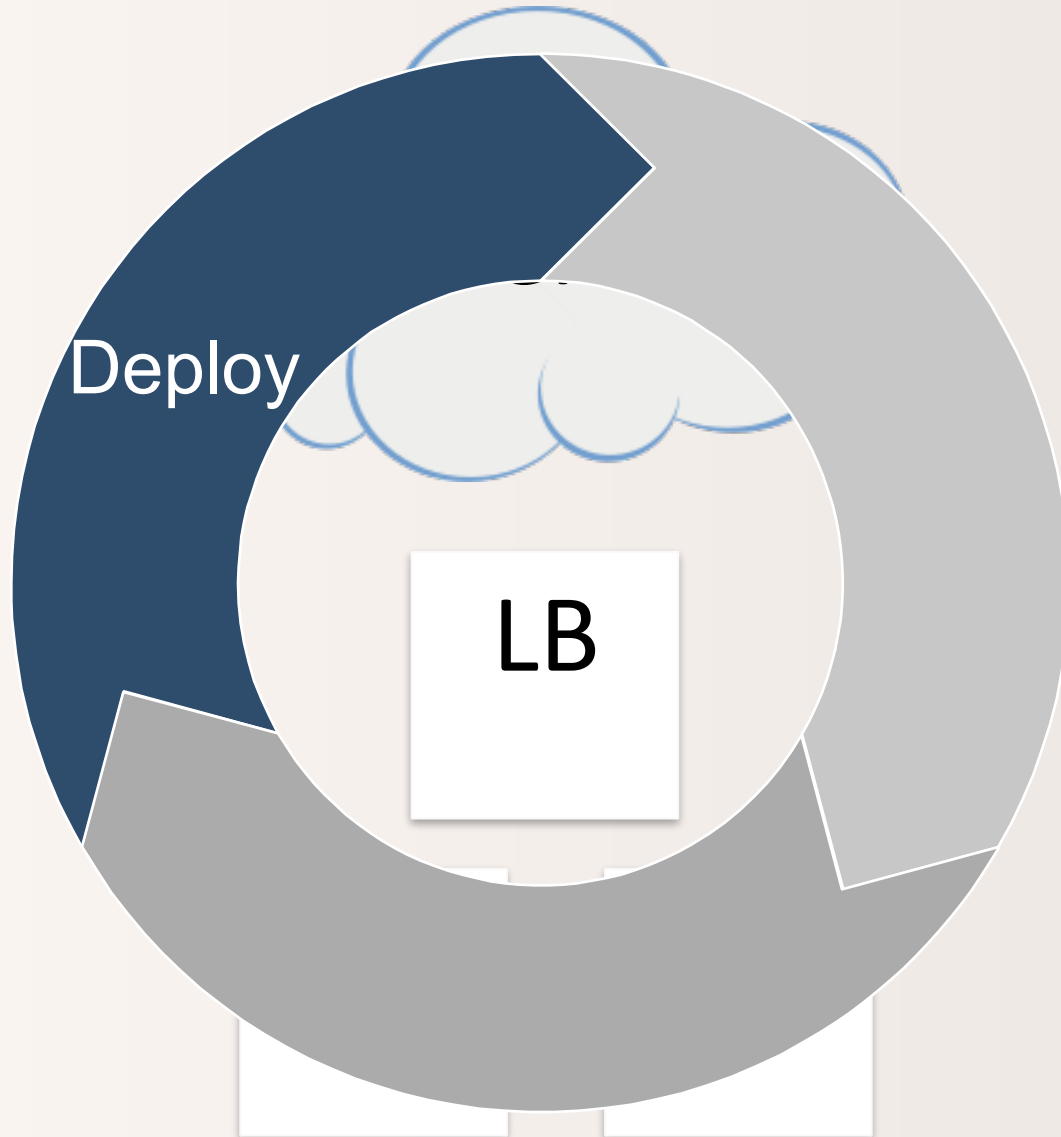
# Ansible playbook example (cont.)



---

- name: restart ntpd  
service: name=ntpd state=restarted  
tags:
  - ntpd
  
- name: restart ssh  
service: name=sshd state=restarted  
tags:
  - sshd

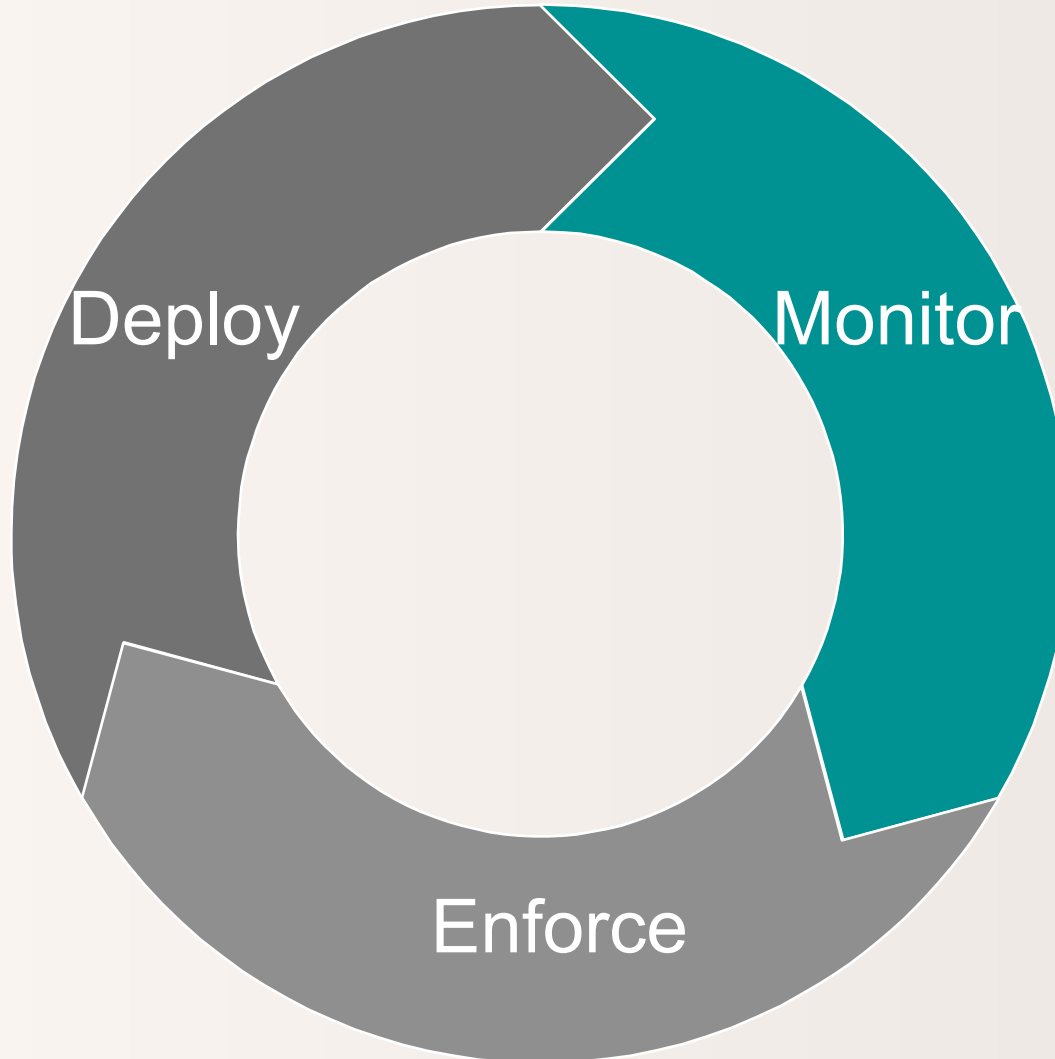
# Deploy phase



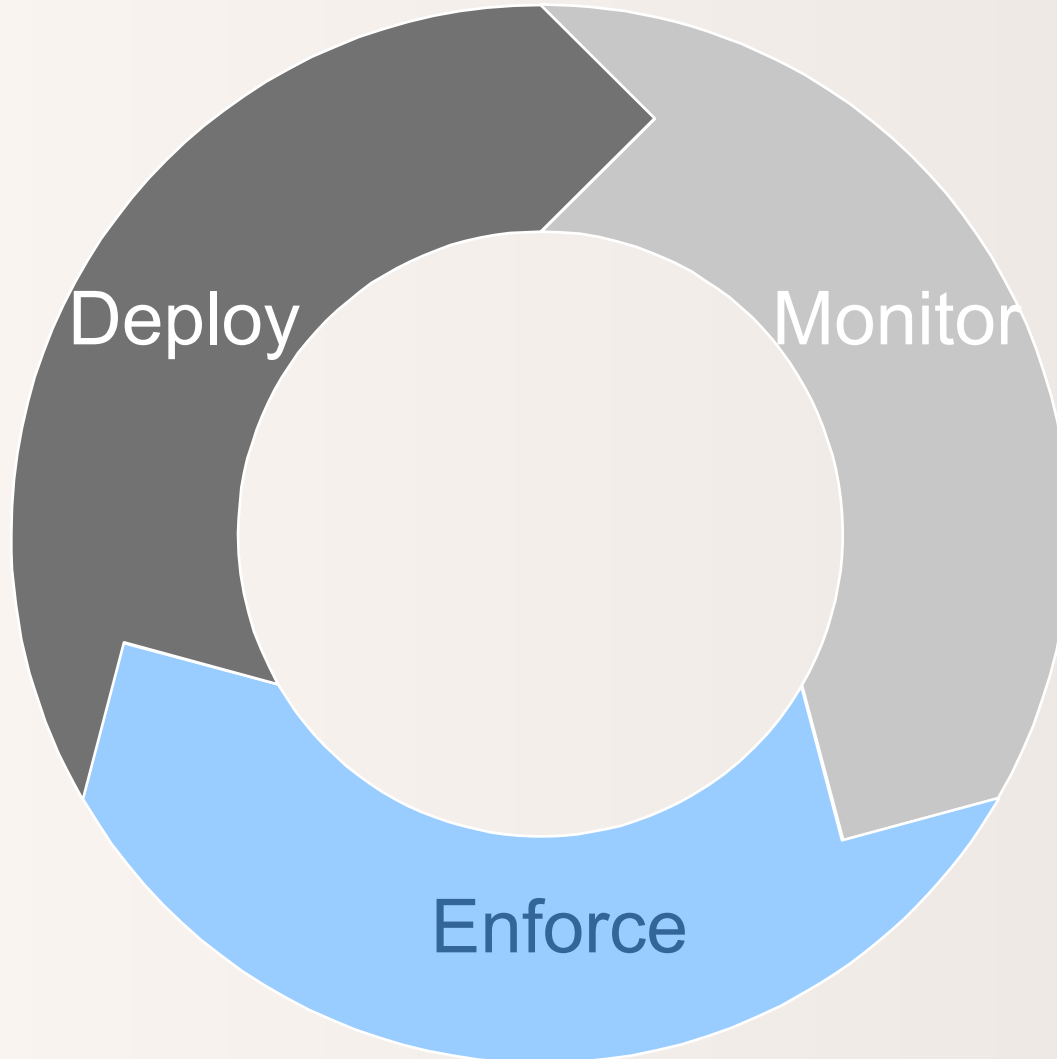
# Deploy phase (cont.)



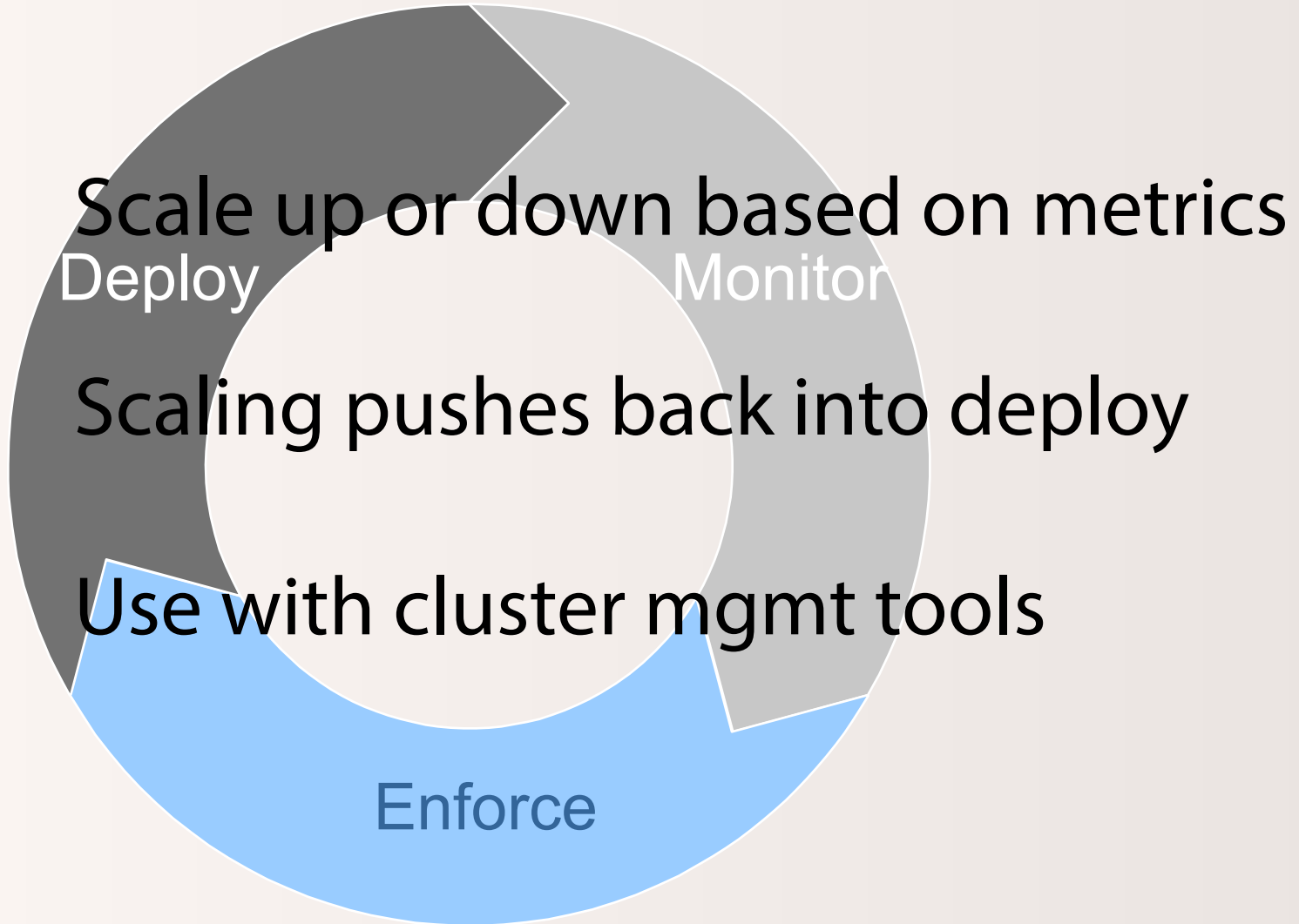
# Monitoring phase



# Enforce phase



# Enforce phase - autoscaling



# Demo



Danke schön



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