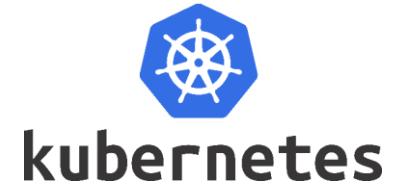


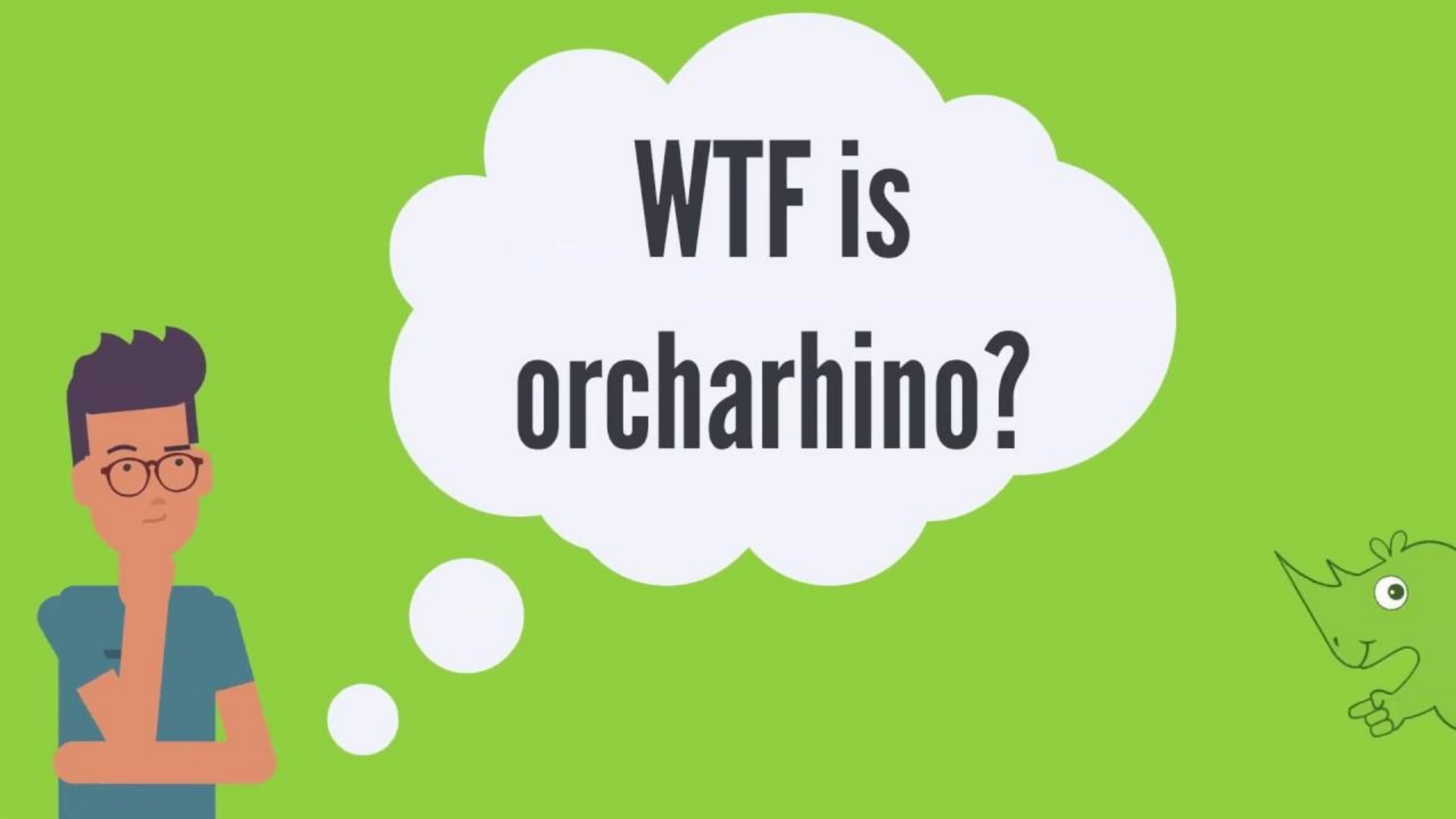
# Efficient server care with orcharhino

October 5<sup>th</sup>, 2022

Dr. Jonas Trüstedt

# orcharhino

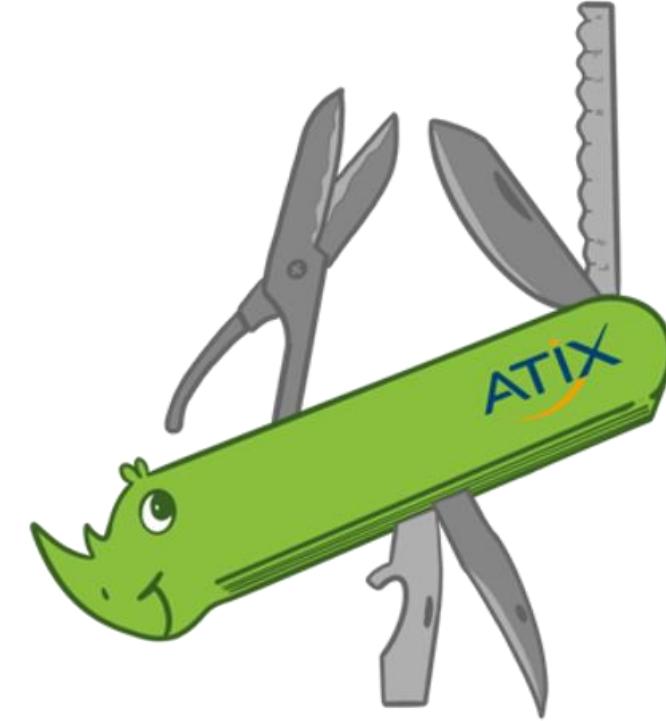




**WTF is  
orcharhino?**

## Orchestration of:

- Provisioning of new machines
- Repository server & management
- Release management - Staging through environments with frozen content-states
- Patch management
- Configuration management
- Reporting



- Provisioning of new machines
  - Virtual machines
  - Baremetal
  - Cloud-instances
- Multiple provisioning mechanisms
  - Networkbased
  - Imagebased
- Provisioning based on patchlevel of environment



Orchestration of  
• Hypervisors  
• Cloud providers



Google Cloud Platform

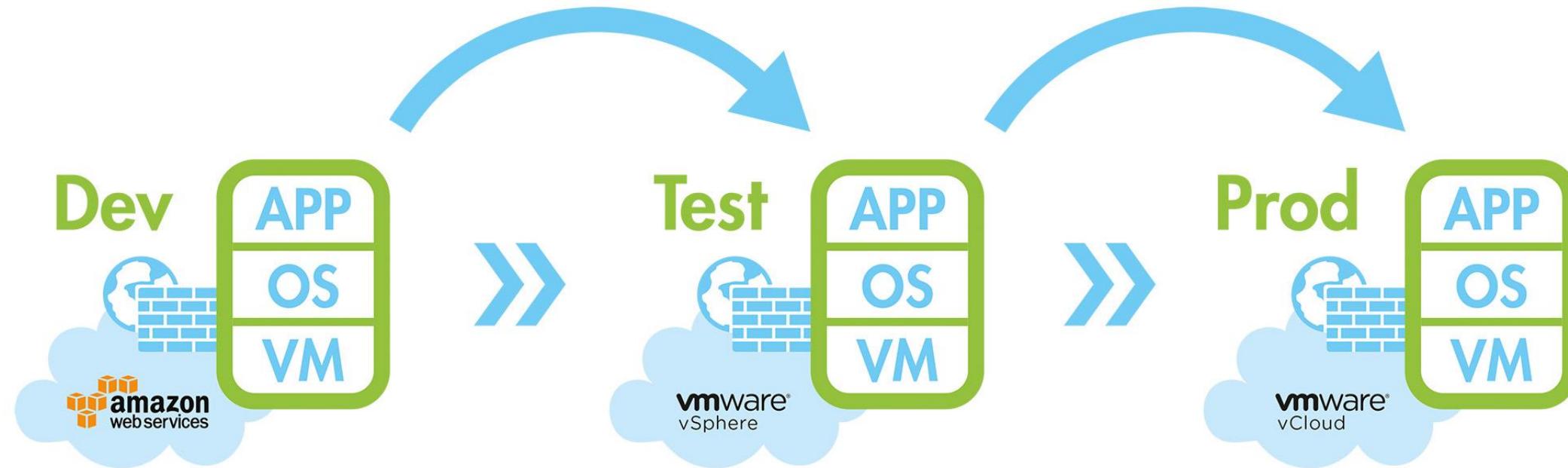
# Repository-mirror for common Linux distributions



- Mirror for rpm- and deb-repositories
- Client for all common enterprise linux OS
- Frozen repository states



# Release management: staging of new (package) releases



# Patch management



## Installable Errata

Security:

84

Bug Fix:

203

Enhancement:

30



## Installable Updates

25 ▲ 69 ─ 9 + 221 ⚒

486

54 ▲ 136 ─ 5 + ⚒

486

54 ▲ 136 ─ 5 + ⚒

827

84 ▲ 227 ─ 30 + ⚒

855

101 ▲ 235 ─ 30 + ⚒

388

50 ▲ 100 ─ 5 + ⚒

390

52 ▲ 100 ─ 5 + ⚒

203

84 ▲ ─ 30 + 751 ⚒

240

154 ▲ ─ 1 + 891 ⚒

240

155 ▲ ─ 1 + ⚒

# Information of the current patch-status of all systems

- Information of available (security) patches/errata
- Trigger (scheduled) installation via GUI/CLI/API
- Control consumed subscriptions and attached repositories

→ Control over Packages, Patches & Releases



Integration of different tools:

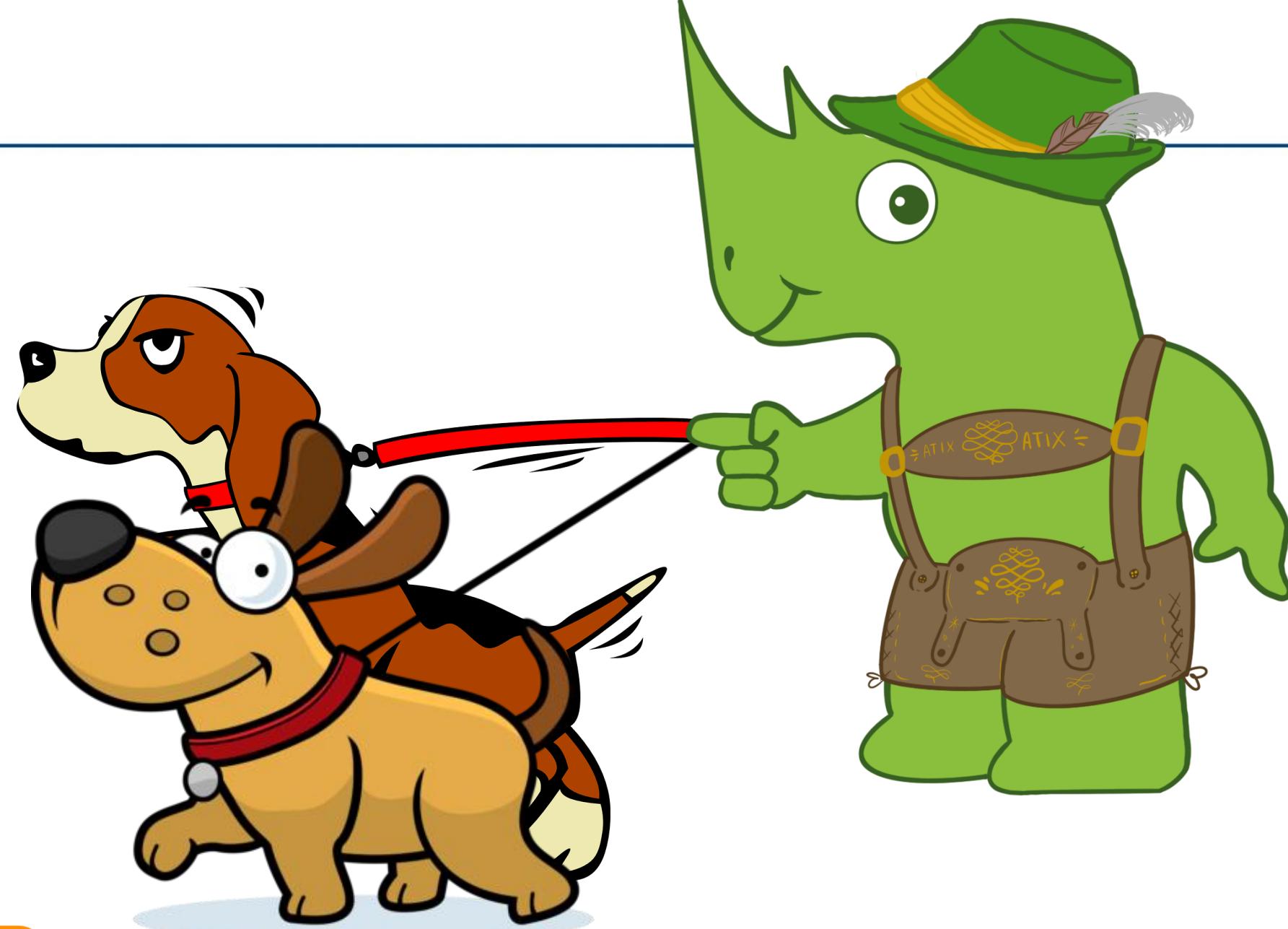
- Ansible
- Puppet
- Saltstack

→ Combination possible



**ANSIBLE**



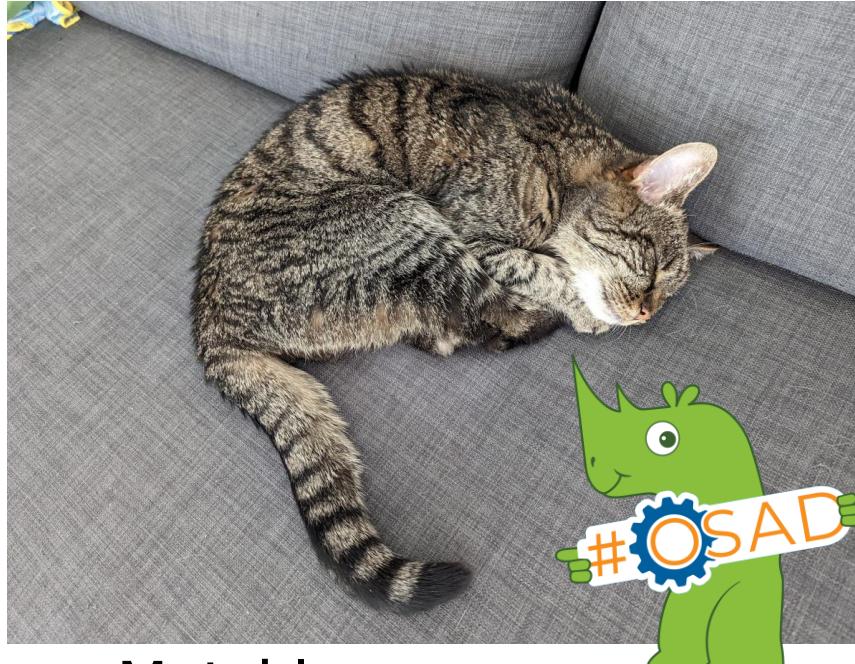


# Pets vs Cattle

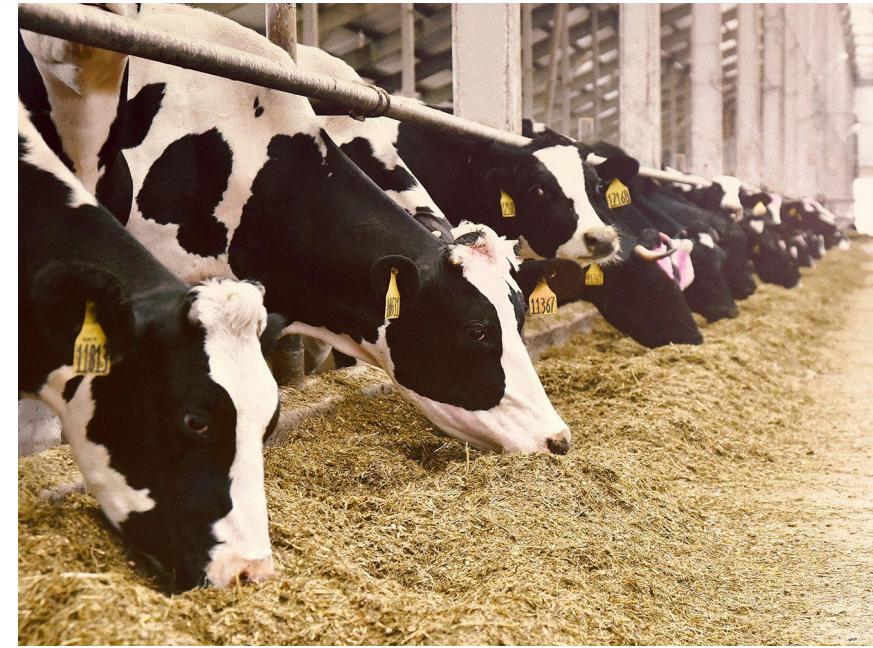


**VS**





VS



- Immutable
- Replicated
- Automatically built/configured
- Replaced by newer versions
- e.g. containers

# Why should I use **orcharhino** ?



Usual initial state:

- Many (pet) server with missing repository management
- Security issues due to very old package versions
- Limited automation in current workflows
- Missing capacities of admins to manage all servers manually

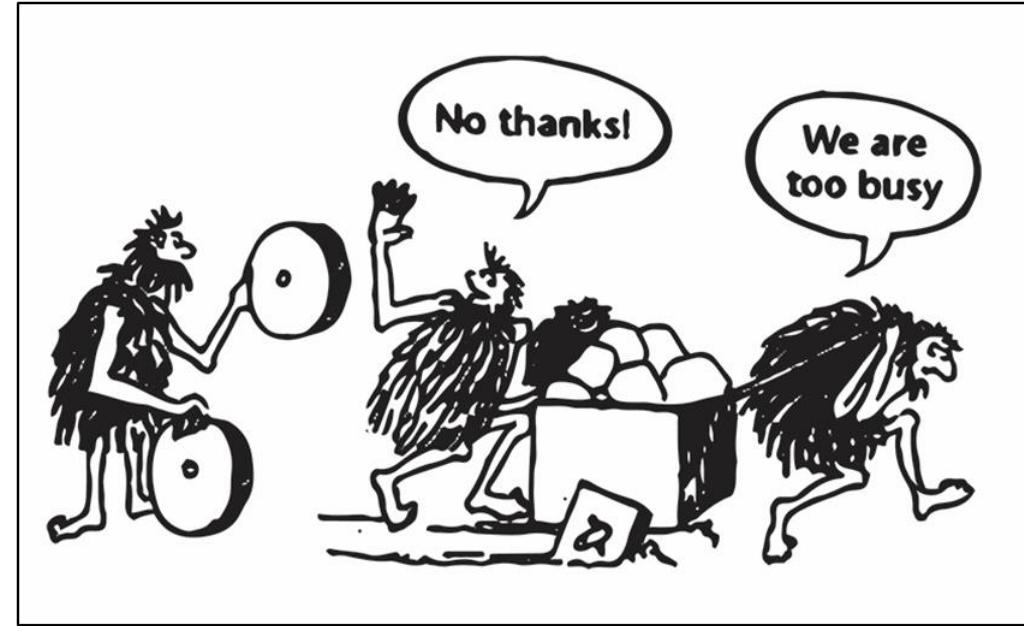
→ Improving workflows step by step with orcharhino

Steps to take care of your pet servers:

1. Decide to improve/automate things
2. Setup orcharhino including repos
3. Switch from old repos to orcharhino repositories

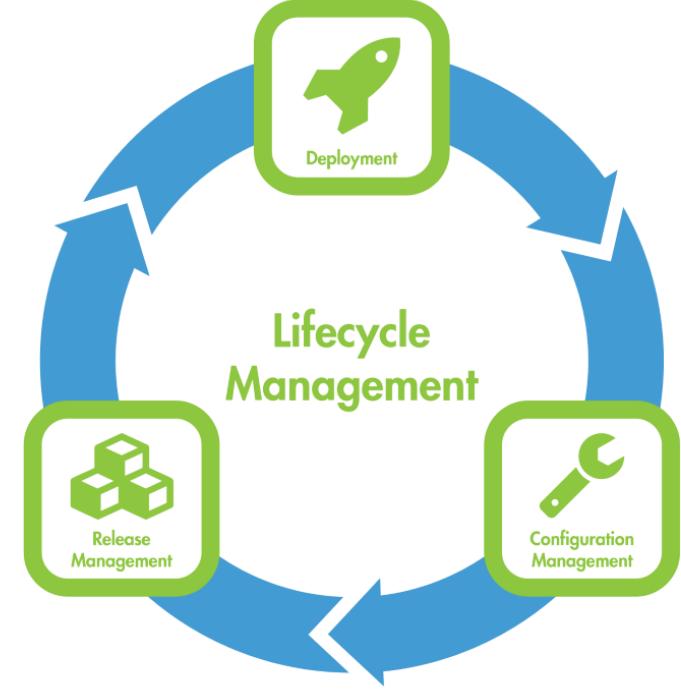
What can you do now?

- Overview over available updates & errata
- Trigger updates via SSH/Ansible
- Create frozen repo states with staging



Moving towards immutable infrastructure (cattle):

- Standardize environment/machine types
  - Automate provisioning
  - Integrate configuration management
  - Automate release management of repositories
- Machine can be rebuild with same configuration  
→ Persistent data usually needed



## orcharhino a tool for orchestration:

- Automated provisioning
- Release management
- Patch & errata management
- Integration of configuration management
- Possibility to take care of your pet servers and adopt immutable infrastructure aspects

