Competitive analysis of configuration management tools

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Who am I

Hacker

FreeBSD developer and sysadmin

Software developer

Configuration management lover

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WTF is configuration management software

Software to establish and maintain the consistency of the functionality, performance and configuration attributes of a product or service throughout its entire operational life

Big 4

Puppet

Offers:

Service and server orchestration

Automation of configurations

Viewing and generation of reports

Code management

Node management

Role based access control

Pros:

Powerful reporting tools

Complete and friendly user interface

It has a well developed documentation

It is a very complete and stable solution§

Multi-master architecture

Cons:

Ruby skills are required

Requires the installation of an agent

The learning curve is high

Some tasks require the use of CLI

Very difficult for beginners

Chef

Offers:	Pros:	Cons:
Chef INFRA	Stable platform and tools	High learning curve
Chef INSPECT	Approach based on compliance and security	Initial setup can be tricky
Chef HABITAT	Good documentaion	Sometimes 2 Chef tools are required
Chef AUTOMATE		

IT and Cloud automation

Automation for DevOps workflows

Administration of "Compliance & Security" to comply with policies and regulations

Automatied CD workflow

Ansible

Offers:

Simplified provisioning

Configuration management

Appliction deployment

Automated CD workflows

Simplified orchestration

Integration of compliance with security policies

Pros:

No agents are required

Simple remote runs

Simple installation and administration

Sequential execution order

Push model

Cons:

More focus on orchestration

SSH might be slow

Requires SSH and Python on both ends

SaltStack

Offers:

Orchestration and automation for CloudOps

ITOps automation

SecOps automation

Monitoring of applications and infra with “self-healing” capabilities

Pros:

Very good choice for compliance and security

Fault tolerant, thanks multi-master

High scalable (up to 10.000 minions)

Easy to install

Very fast, safe and light

Cons:

Less developed documentations

Very simple web interface

Not mature as Puppet/Chef

Which one you should choose:

The answer is – there ain’t no answer

Which one is better:

The answer is – there ain’t no answer

Whatever feels the nicest to you and for your company.

Seriously.

My (un)biased opinion (1):

Chef if you have a lot of Windows

Ansible of you want to go agentless

Salt (my favorite) if you deal with Linux (pull+push)

Puppet is a plate of spaghetti

My (un)biased opinion (2):

Chef if you’re in mixed Linux/Windows environments

Salt for large Linux environments

Ansible for small Linux environments or for rapid development

Puppet if you’re a Ruby/Puppet DSL guru or you have a mentor ☺

New players

Mgmt config: https://github.com/purpleidea/mgmt

Mimic: https://github.com/bwplotka/mimic

Pulumi: https://www.pulumi.com/

Dhall: https://dhall-lang.org/

Cuelang: https://cuelang.org/

Configrd: https://configrd.io/

Thank you and Happy Hacking!

See you at EuroBSDCon 2020 in Vienna:

https://2020.eurobsdcon.org/

Q & A?