Chef vs. Puppet vs. Ansible vs. Saltstack: A Complete Comparison

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Chef vs. Puppet vs. Ansible vs. Saltstack

Summary: *Chef, Puppet, Salt Stack, and Ansible are the top 4 DevOps Configuration Management tools. Choosing one over another can be a bit of a challenging task. No worries. This blog is all the best DevOps tools. Read to know their common points and differences.*

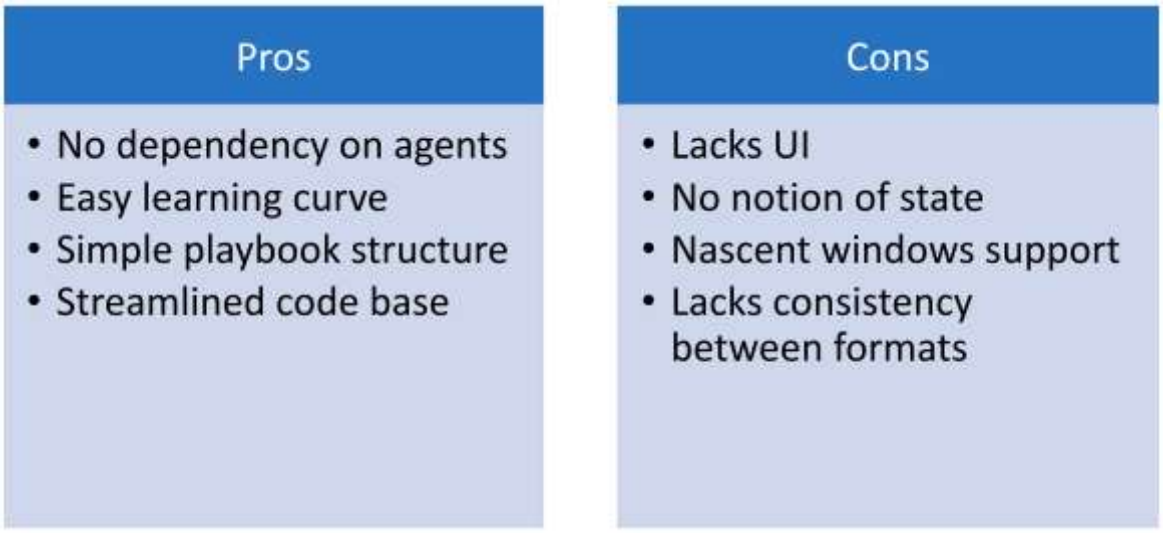
The Internet has a list of popular DevOps “configuration management tools.” These tools allow you to deploy, configure, and manage servers with great ease. These are simple to use and potent enough to automate complex multi-tier IT application environments. The best four tools include Chef, Puppet, Ansible, to SaltStack.

Choosing the right **DevOps tool** for your enterprise need and environments is a bit cumbersome. Therefore, if you are also looking for Chef vs. Puppet vs. Ansible vs. SaltStack, then your search ends here. It includes a briefing and comparison. Have a look:

Introduction: Ansible, Chef, Puppet, and Saltstack

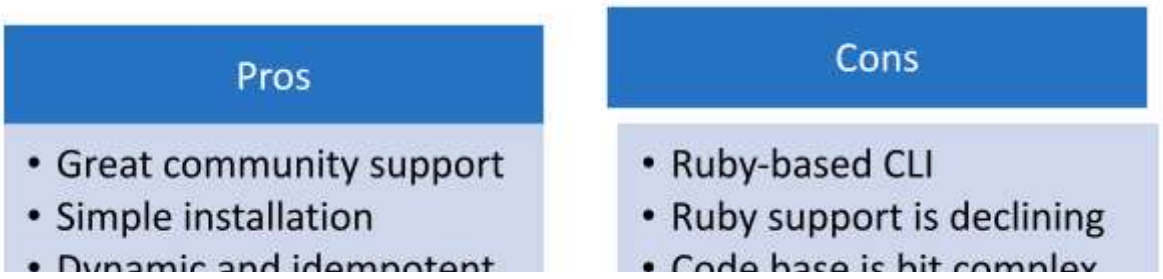
Ansible

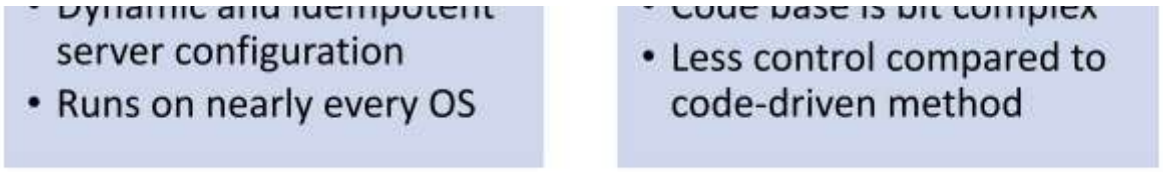
Ansible simplifies complicated orchestration and configuration management tasks. It is in Python language and allows users to script commands in YAML as a necessary programming paradigm. Ansible offers several push models to send command modules to nodes through SSH, which runs sequentially.



Puppet

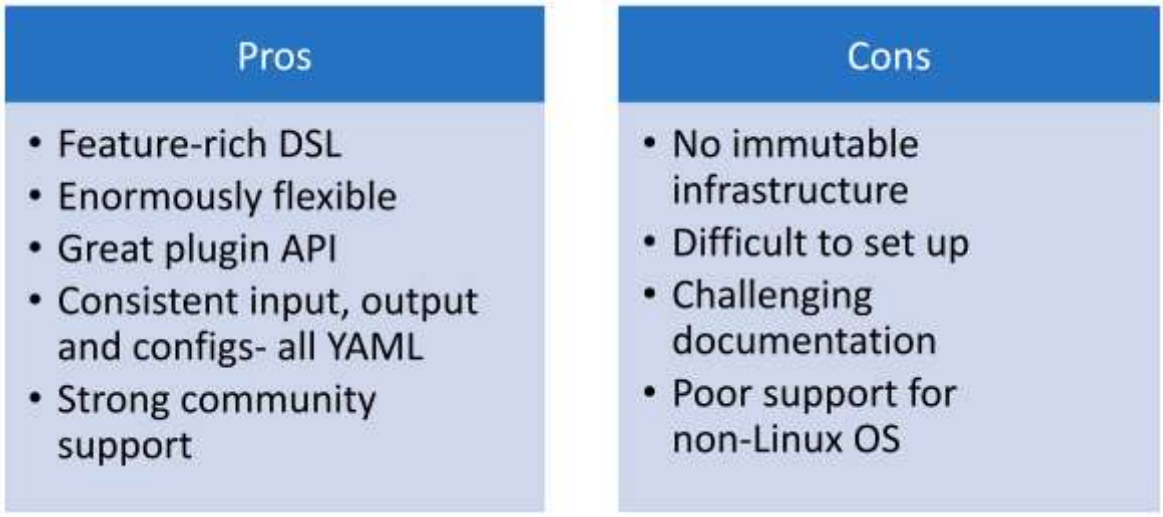
Puppet is a full-fledged configuration automation and deployment orchestration solution. It's an open-source tool based on Ruby. For working, it counts on a customized Domain Scripting Language (DSL) nearer to JSON. It runs as a master-client setup and uses a model-driven approach. Large enterprises use it widely to automate sysadmins who spend ages configure, provision, troubleshoot, and maintain server operations.





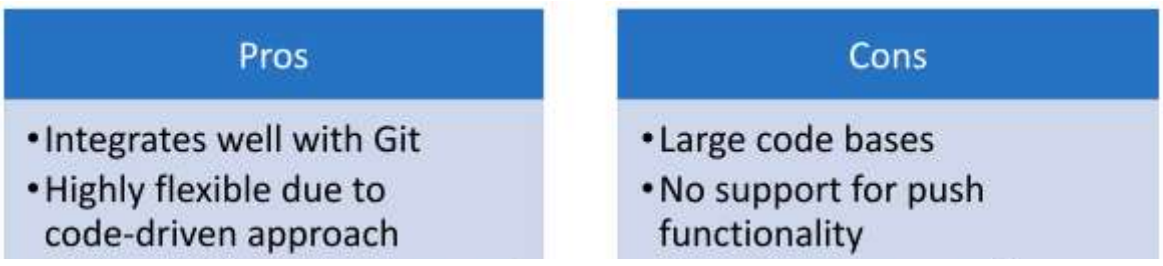
Saltstack

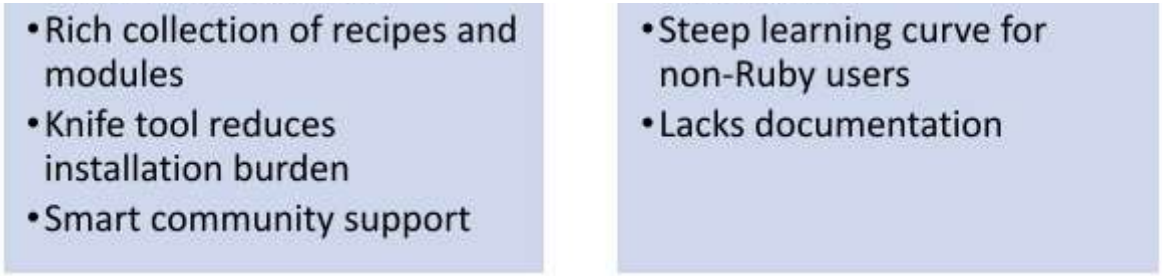
SaltStack configuration tool relies on a master-client setup model or a non-centralized model. SaltStack is available in Python programming language and uses the push model for executing commands via SSH protocol. The platform also allows to group together clients and configuration templates to control the environment easily. It enables low-latency and high-speed communication for remote execution and data collection in sysadmin environments.



Chef

The chef is an automation platform that provides an effective way to configure and manage infrastructure. The chef works on Ruby and DSL language for writing the configurations. Its architecture is like the Puppet master-agent model. It also uses a pull-based approach and an additional logical Chef workstation to control configurations from the master to agents. It provides a configuration in a Ruby DSL using a client-server architecture.





A Glimpse on Tool Capabilities

Each DevOps tool has its own set of capabilities that makes it unique. Have a look-

Ansible	Puppet	Saltstack	Chef
Streamlined provisioning	Orchestration	Automation for CloudOps	Infrastructure automation
Configuration management	Automated provisioning	Automation for ITOps	Cloud automation
App deployment	Role-based access control	Continuous code integration and deployment	Compliance and security management
Automated workflow for Continuous Delivery	Visualization and reporting	DevOps toolchain workflow automation with support for Puppet, Chef, Docker, Jenkins, and Git.	Automated workflow for Continuous Delivery
Security and Compliance policy integration	Configuration automation	Application monitoring and auto-healing	Chef-Server using RabbitMQ, AMQP protocol.
Simplified orchestration	Code and node management	Orchestration	Automation for DevOps workflow

Chef vs. Puppet vs. Ansible vs. Saltstack: A Quick Comparison to Know the Differences

Every platform in the chef vs. puppet vs. ansible battle has a different approach towards automation and configuration management. It includes minimal input from developers and sysadmins. Have a quick overview of differences between Ansible, Chef, Saltstack, and Puppet based on different parameters -

- Availability
- Configuration Language
- Setup and Installation
- Ease of Management
- Scalability

- Interoperability
- Pricing
- Cloud Support

Parameters	Chef	Puppet	Ansible	Saltstack
Availability	Yes	Yes	Yes	Yes
Configuration Language	DSL (Ruby)	DSL(PuppetDSL)	YAML (Python)	YAML (Python)
Setup and Installation	Moderate	Moderate	Very Easy	Moderate
Ease of Management	Tough	Tough	Easy	Easy
Scalability	HighlyScalable	HighlyScalable	HighlyScalable	HighlyScalable
Interoperability	High	High	High	High
Pricing	$13700	$11200-$19900	$10,000	$15,000(approx.)
Cloud Support	All	All	All	All

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Final Words

It is tough to say which one is best over another. Why? Because all these tools have a specific role. Their utilization depends entirely on configuration needs, support, and the convenience level to implement them. However, for better decision making, here is a tip: Choose Chef and Puppet as they are old and more established. It makes them perfect for large enterprises that value maturity and stability over simplicity. Ansible and SaltStack are decent options for fast and simple solutions while working in environments that do not need support for quirky features.

If you need help with Cloud and DevOps practices and tools, feel free to connect with Successive Technologies.

Ansible Saltstack Puppet Configuration Management