Middleware automation using ansible

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Software Engineer, Red Hat

Who am I ?

Just a regular software engineer with a laptop and free internet access.

Fixing, burning and developing things

WildFly

Red Hat
JBoss Enterprise
Application Platform

Flexing my DevOps skills
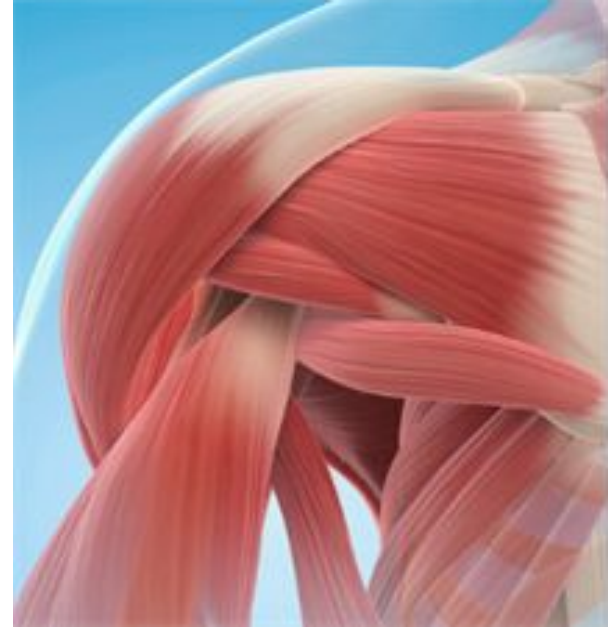
Olympus and Central CI

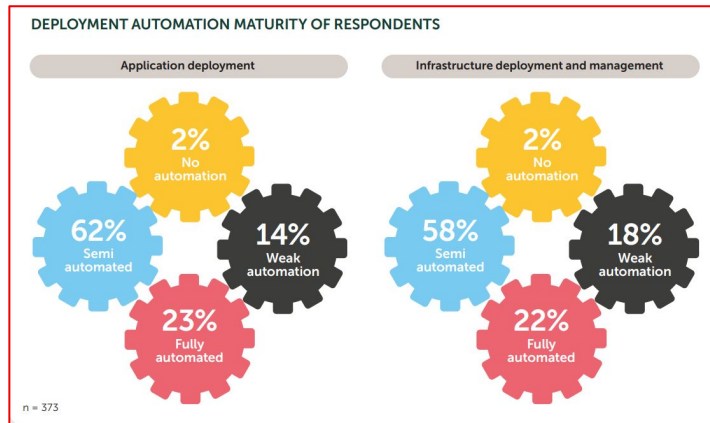Automating with our star, Ansible

Ansible Middleware

What is middleware ?

" Middleware is software that enables one or more kinds of communication or connectivity between applications or application components in a distributed network. By making it easier to connect applications that weren't designed to connect with one another, and providing functionality to connect them in intelligent ways, middleware streamlines application development and speeds time to market. "   ~ IBM

Middleware helps developers build applications more efficiently. It acts like the **connective tissue between applications, data, and users**.

There is still a huge amount of middleware

THAT HAS NOT BEEN AUTOMATED SUSTAINABLY

DEPLOYMENT AUTOMATION MATURITY OF RESPONDENTS

Application deployment
- 2% No automation
- 62% Semi automated
- 14% Weak automation
- 23% Fully automated

Infrastructure deployment and management
- 2% No automation
- 58% Semi automated
- 18% Weak automation
- 22% Fully automated

n = 373

Gartner expects that up to 15% of enterprise applications will run in a container environment by 2024, up from less than 5% in 2020, hampered by application backlog, technical debt and budget constraints.

"The bottleneck will be the speed at which applications can be refactored and/or replaced," Mr. Warrilow said.

Why GitOps Is Becoming Important For Developers

26/08/2020

InsightfulAccountant

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One Too Many Zeros: The Cost of Human Error

January 22, 2020
12:05 AM

RSS   Print

Yes, we all make mistakes. Human error is all part of the human experience. However, how much

Cloud automation is the key to getting infrastructure provisioning right

Latest News   Publishe

Lack of automation costs enterprises millions

By Ian Barker   Published 3 months ago   Follow @IanDBarker
1 Comment   Share   Tweet!

Self-service and cl
are essential to De
transformations. C
finding they can n
get access to infra
and run their appl
or third-party com

Red Hat

Security spotlight:
The cost of human error and the advantages of automation

Why government agencies are reconsidering manual approaches to managing security and how intelligent automation helps prevent potential threats from costly security gaps

Red Hat
Ansible Automation Platform

So, What's next ?

How to bring cloud level of automation and comfort, in more traditional environment ?

Haniel
@haniel211

Aside from that, I would much rather spend a few hours learning & struggling with Ansible than spend hours bored with manually configuring infrastructure/middleware. I just wish my org would be more open-minded and adopt a growth mindset instead of being intimidated by new tech

8:14 PM · Oct 8, 2020

Is it difficult to automate middleware products ?

Most of the Middleware products are typically not available through package management systems

Often complex and have many components and dependencies

Difficult to maintain the versioning

Difficult customization and integration.

But we have our hero, ansible middleware to rescue !

Ansible makes Runtimes easier to leverage,
making adoption easier and use stickier
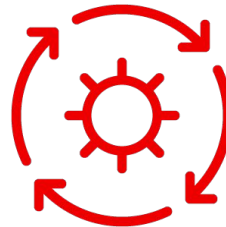
Why ansible and middleware need each other

Finding the Win-Win

Ansible needs Middleware because:

- Middleware & the workloads on top are a great workload with **a big footprint**
- **Moves out** of the **Infrastructure** domain
- Directly touches the **business**

Middleware needs Ansible because

- There is a large need to **automate the lifecycle management of middleware** and the workloads on top
- Existing tools are outdated/retired
- Latest tools completely focus on Containers
- **Manual processes and scripts are brittle, hard to maintain and typically hard to master**

Introduction to ansible middleware

What is it all about?

Utilize the power of Ansible automation to orchestrate the installation, configuration and management of Enterprise Middleware.

What it **is**:
- A team of automation enthusiasts
- Collections for automating middleware products
- 6+ years old, well tested and verified.
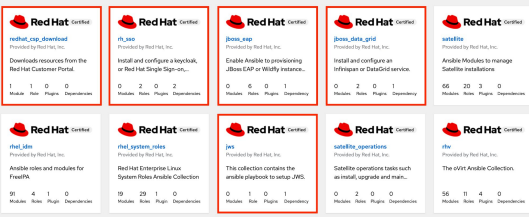- Open source project

What it **isn't**:
- Covering the whole middleware portfolio
- Extra costs
  (if you subscribed to Ansible and products above)
- Vaporware

Ansible Middleware Offerings

Ansible Collections

Distribution Channels
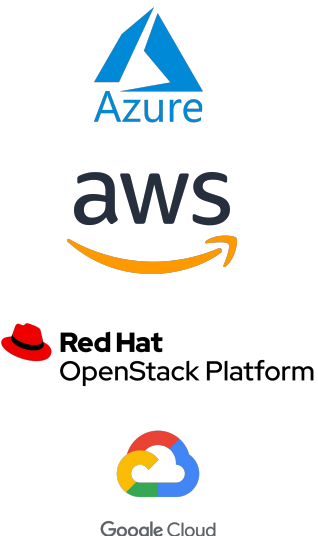
Cloud Enablement

Certified collections in Automation Hub

Upstream (First) Content

Okay! What about an example

Without using the collections

WildFly instance

Nginx

Web App

HTTPS

HTTP

SQL

SSO

RH SSO

External Datastore PGSQL, MySQL, Mongo etc

MOM (ActiveMQ)
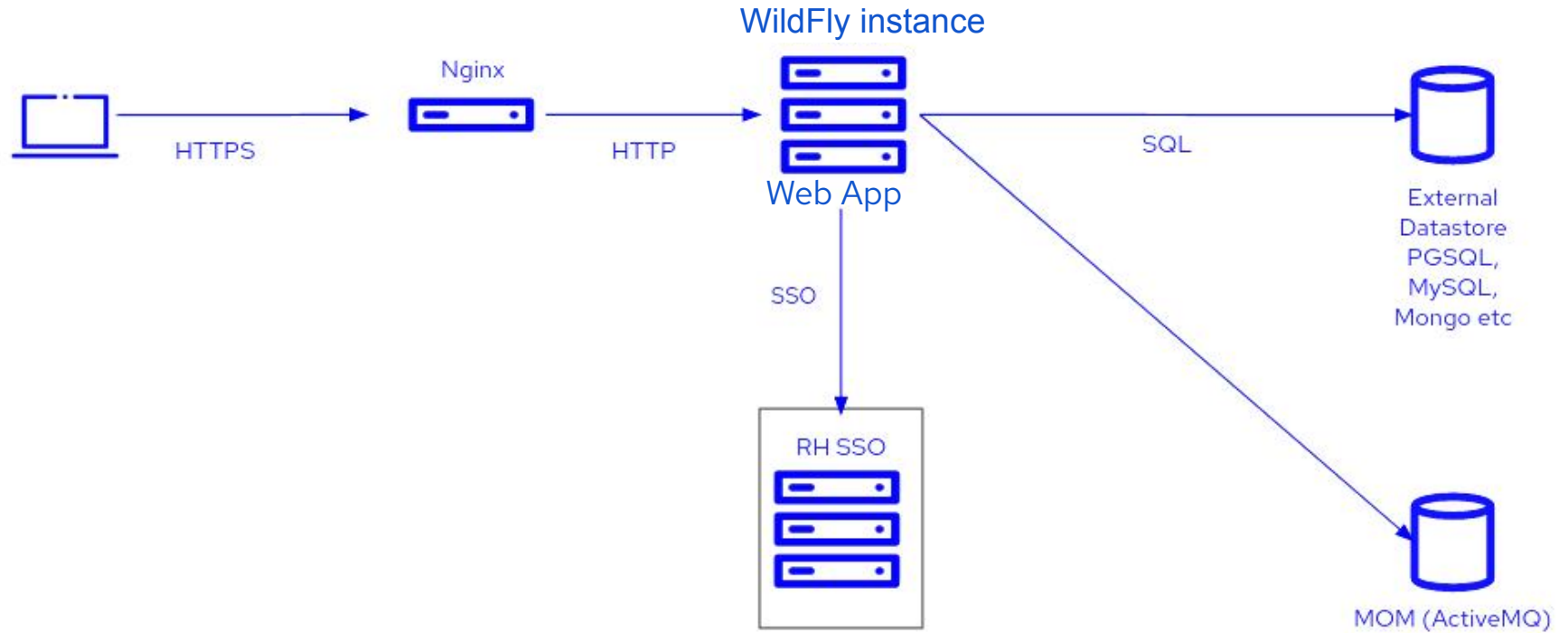
What are the difficulties

- Legal challenges

- Cloud cost and maintenance

- Difficult release process

- Manual setup is messy and involves high error risks.

What are the benefits

- Cost effective.

- Smoother release process.

- same level of comfort as a cloud infrastructure

- Makes your application first class citizen of Ansible ecosystem.

- Easy to use and easy to automate your current process.

Let's RUn a demo

How to connect with us

Want to learn more or collaborate with the Ansible Middleware team or community?

ansible-middleware-core@redhat.com

ansible-middleware@redhat.com

https://github.com/ansible-middleware

Engage with the team

Want to learn more about the Ansible Middleware project or have a potential customer?

Engage with the RH community

Methods for interacting with those interested in the Ansible Middleware project

Open Source Engagement

Methods for interacting with the community on Ansible Middleware solutions

Where can you find our contents

https://ansiblemiddleware.com

https://galaxy.ansible.com/
middleware_automation

https://github.com/ansible-middleware

https://console.redhat.com

https://github.com/ansible-middlewar
e/ansible-middleware-workshop

Coming Soon!

You are the hero, that "gotham" (ansible-middleware) needs

We need your help to:

1. **Test/integrate** the implementation for *your* product and your testing

2. create additional **demo**(s) and play with it.

1. Come and **contribute** with us.

1. **Mention the project** at local meetups and tell your friends/colleagues.

Question and Answer time

THANK YOU !

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