



# COMMUNITY DAY

MÉXICO

14 de junio de 2025 | Ciudad de México

ROAD TO DEVOPS:  
FROM SYSADMIN TO CLOUD

# Automation 101

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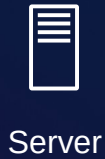
Geek by nature, Linux by choice, Fedora of course!



**If you want to master something, teach it. The more you teach, the better you learn. Teaching is a powerful tool to learning.**

**- Richard Feynman**  
Theoretical Physicist  
(1918-1988)

# SysAdmins vs Programmers



Server



Servers



Backups



Network



Database



Users



Programming language



Source code



Git repository



JSON script



## Devops



# Automation 101

**SysAdmins:** *"If you typed it twice, you should have scripted it once."*

## Principios de la Automatización:

- La regla del **Pensamiento algoritmico**
- *Todo es un sistema. (Nada sucede por magia).*
- La regla de **los cuellos de botella (bottlenecks)**
- *Las malas decisiones se propagan.*
- La regla de la **autonomía**
- *El ser humano siempre desempeña un papel.*

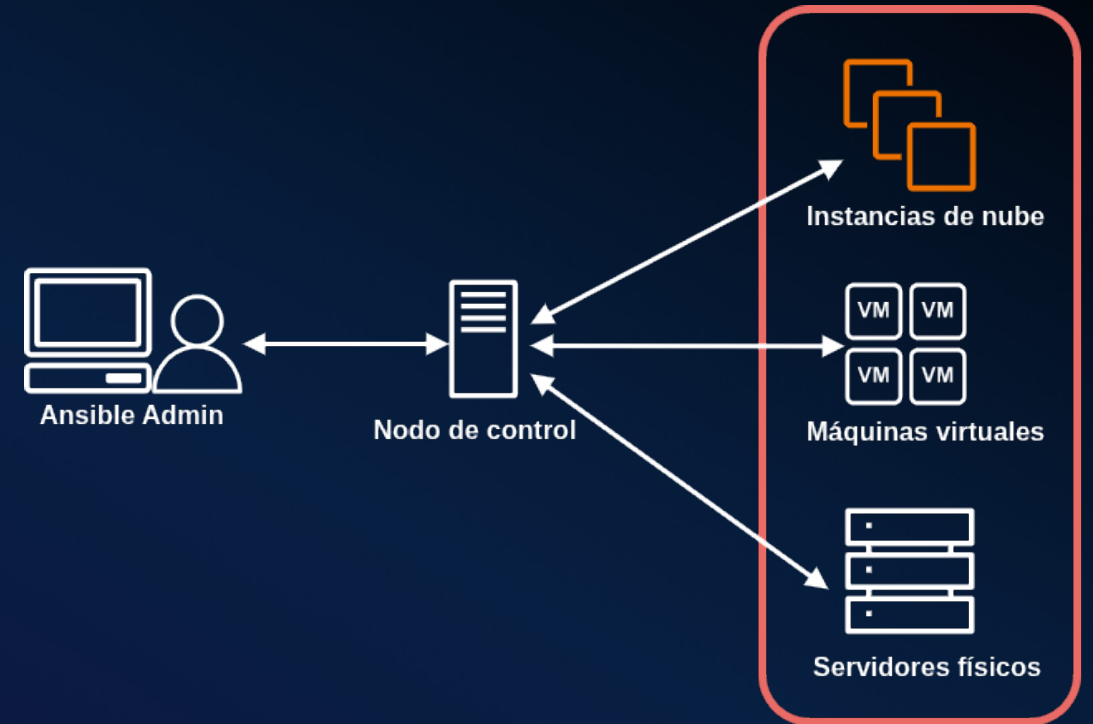


# Automation 101

## Ansible

- Creado en 2012
- Basado en relaciones de confianza con SSH
- Unidades de trabajo:
  - Tasks → *Tarea simple*
  - Plays → *Grupo de tareas*
  - Playbook → *Múltiples plays*

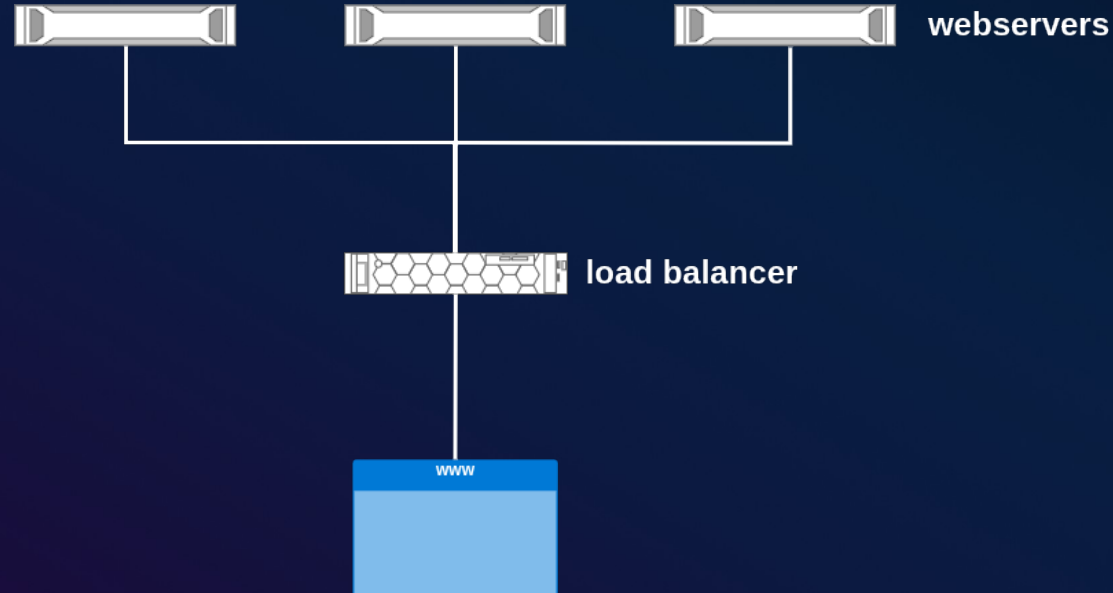
# ANSIBLE



# Automation 101

## Creating a load-balanced web service on cloud with Ansible

- <https://www.redhat.com/en/blog/creating-load-balanced-web-service-cloud-ansible>

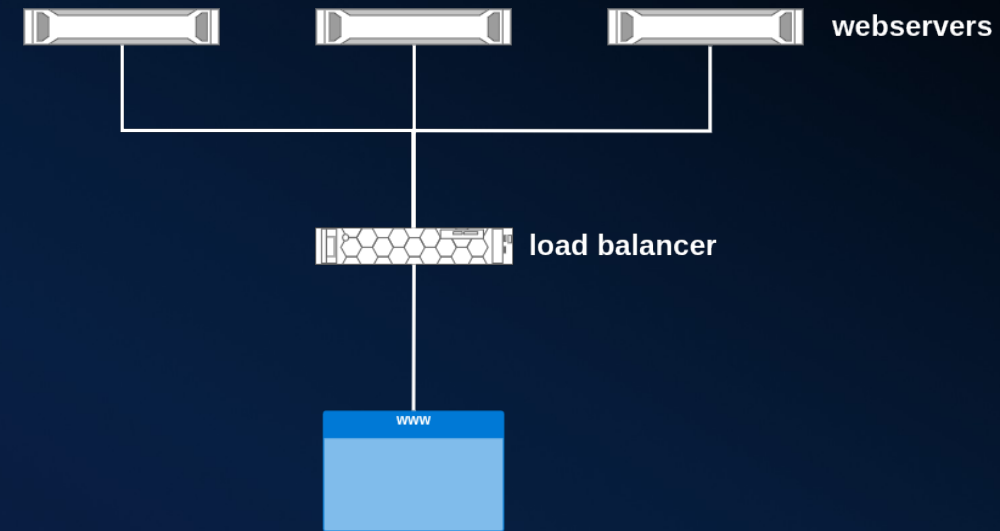




# Automation 101

## Servicio: Ansible playbooks

1. Una regla de **firewall** que permita el *tráfico http* a nuestras instancias.
2. Tres instancias de <SO> configuradas como web servers.
3. Un **balanceador de carga** configurado como *round-robin*.



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## Instancias: Ansible role

- Instale y habilite **apache** y **firewalld**
- Configure **apache** con una *página de inicio que muestre la dirección IP de cada instancia de AWS*
- Abra el puerto 80 (http)
- Reinicie **apache** y **firewalld** para confirmar la configuración.



```
apache_indexhtml.j2
<!-- {{ ansible_managed }} -->
<html>
<head><title>Apache is running!</title></head>
<body>
<h1>
Hello from {{ inventory_hostname }}
</h1>
</body>
</html>
```

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## Code

### Ansible role

```
$ tree myapache/
myapache/
├── defaults
│   └── main.yml
├── handlers
│   └── main.yml
├── meta
│   └── main.yml
├── README.md
├── tasks
│   └── main.yml
├── templates
│   ├── apache_httpdconf.j2
│   └── apache_indexhtml.j2
├── tests
│   ├── inventory
│   └── test.yml
└── vars
    └── main.yml
7 directories, 10 files
```

### Ansible playbooks

```
$ tree ansible-aws-apache-lb/
ansible-aws-apache-lb/
├── ansible.cfg
├── aws-apache.yml
├── aws-clean.yml
├── aws-lb-apache.yml
├── aws-lb.yml
├── inventory
├── LICENSE
└── README.md

0 directories, 8 files
```



# Automation 101

Demo Time!



# Referencias

## **Creating a load-balanced web service on cloud with Ansible**

<https://www.redhat.com/en/blog/creating-load-balanced-web-service-cloud-ansible>

## **Amazon.Aws - Ansible community documentation**

<https://docs.ansible.com/ansible/latest/collections/amazon/aws/index.html>

## **Amazon Web Services Guide - Ansible community documentation**

[https://docs.ansible.com/ansible/latest/collections/amazon/aws/docsite/guide\\_aws.html](https://docs.ansible.com/ansible/latest/collections/amazon/aws/docsite/guide_aws.html)

## **Ansible – GitHub Repo**

<https://github.com/ansible>



<https://github.com/rootzilopochtli/aws-automation-101>



# AWS Automation 101

## GitHub repo





# ¡Gracias!



Por favor, completa la encuesta de la sesión.

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