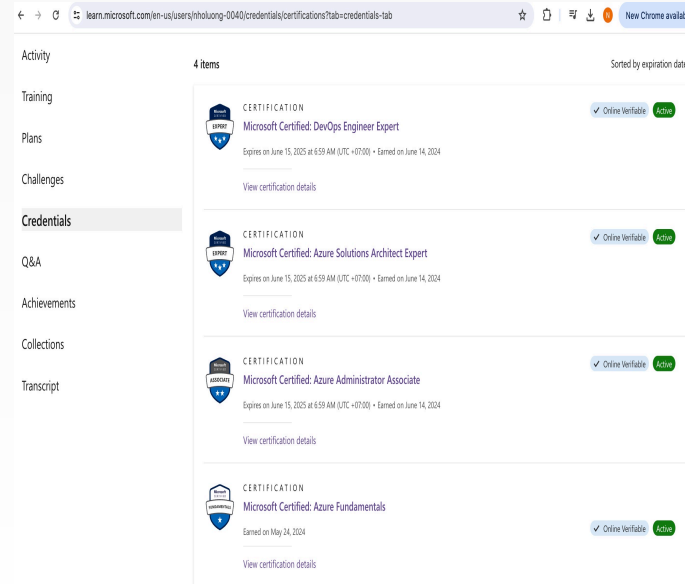
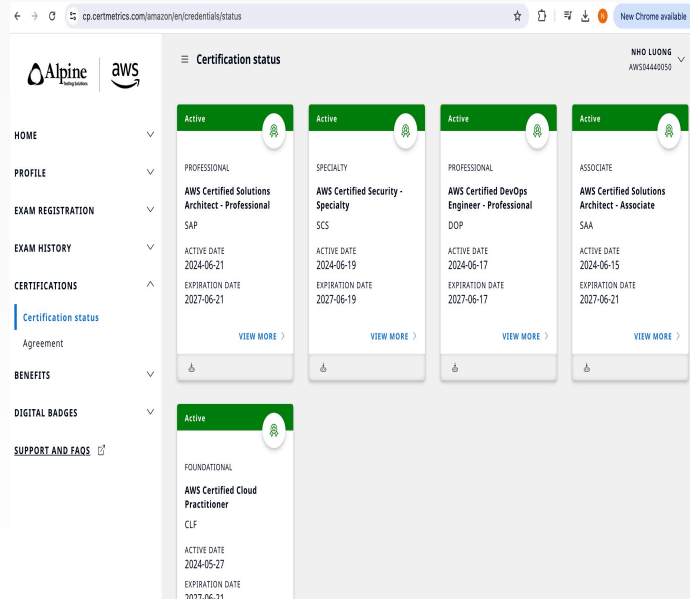


# Kubernetes Orchestration

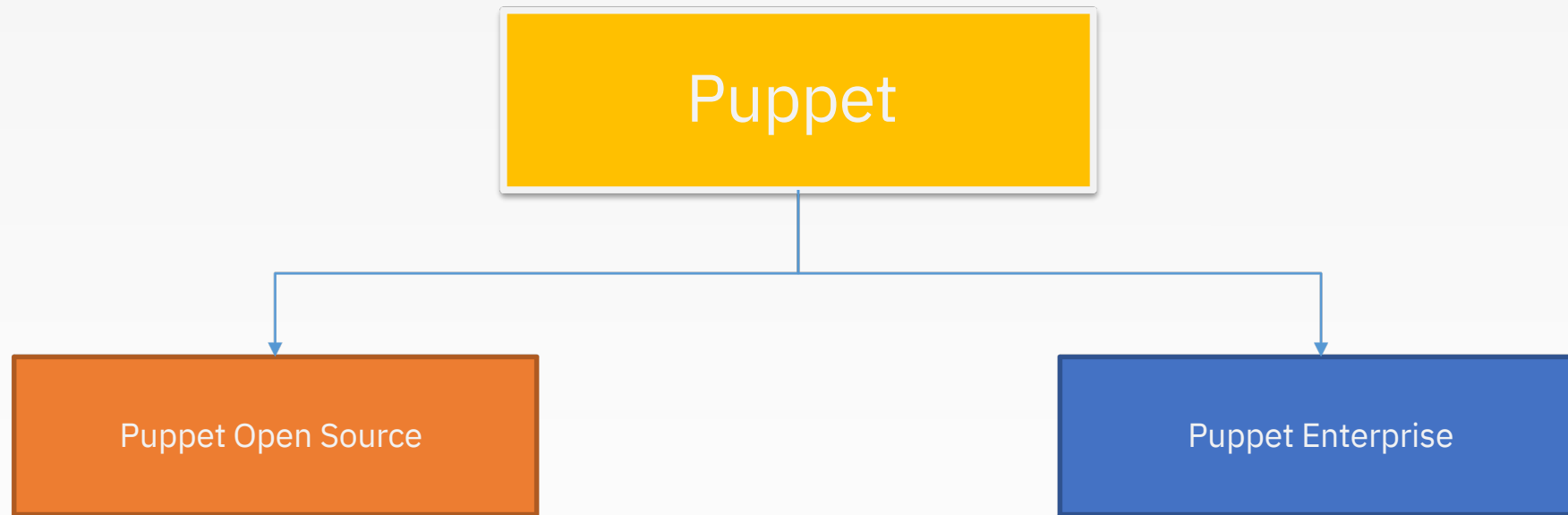
Author: Nho Luong

Skill: DevOps Engineer Lead



# Puppet Architecture

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# Puppet's architecture Overview

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- You can configure systems with Puppet either in a client-server architecture, using the Puppet agent and Puppet master applications, or in a stand-alone architecture, using the Puppet apply application.

# Catalog

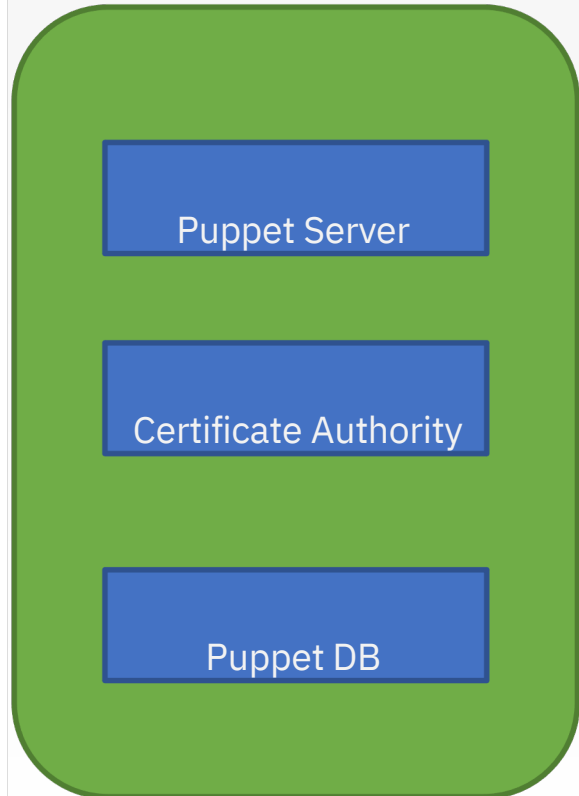
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- A catalog is a document that describes the desired system state for one specific computer. It lists all of the resources that need to be managed, as well as any dependencies between those resources.

# Puppet Master-Agent Architecture

Master



**Communicate by using SSL certificates**

An agent node sends facts to the master and requests a catalog.



The master compiles and returns the node's catalog using the sources of information the master has access to.

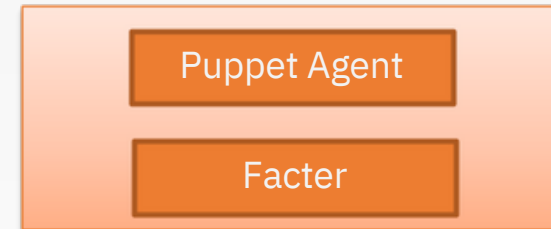
The agent applies the catalog to the node by checking each resource the catalog describes.



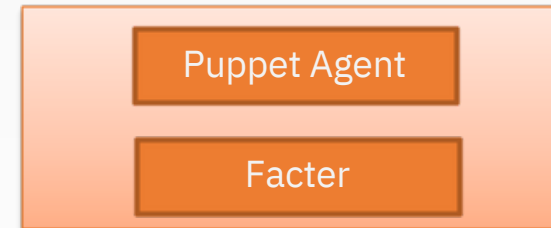
The agent sends a report back to the master.



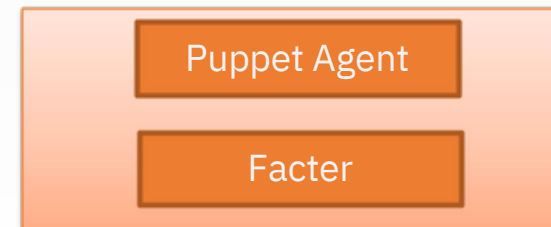
Managed Nodes



Managed Node



Managed Node



Managed Node



# Configuration Management

# Index

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What is Configuration

Management Pull

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based Model

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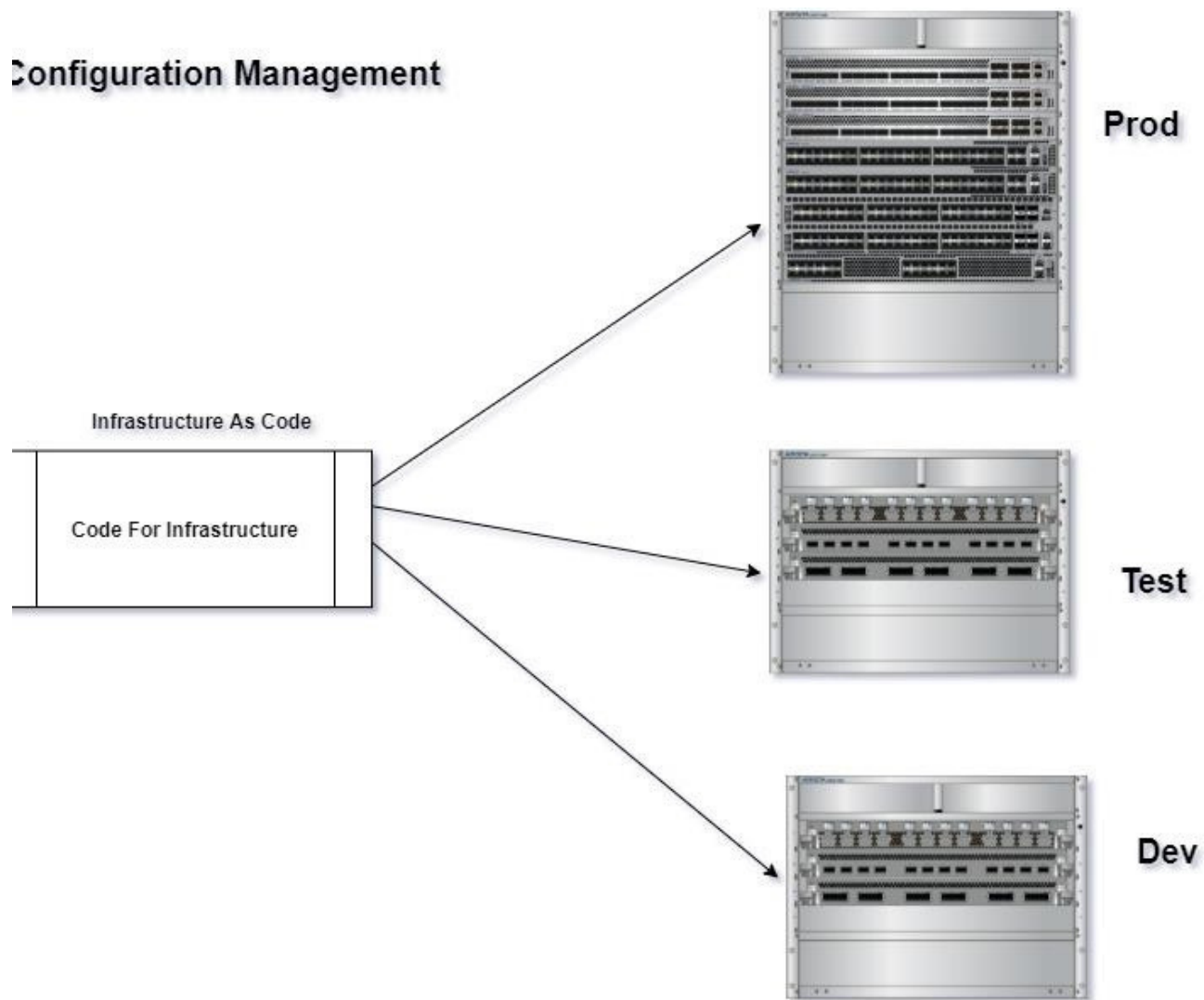
Push based Model

# What is Configuration Management(CM)

- CM is a systems engineering process for establishing and maintaining consistency of a product's performance, functional, and physical attributes with its requirements, design, and operational information throughout its life.



## Configuration Management



Configuration  
Management

# Pull and Push Models

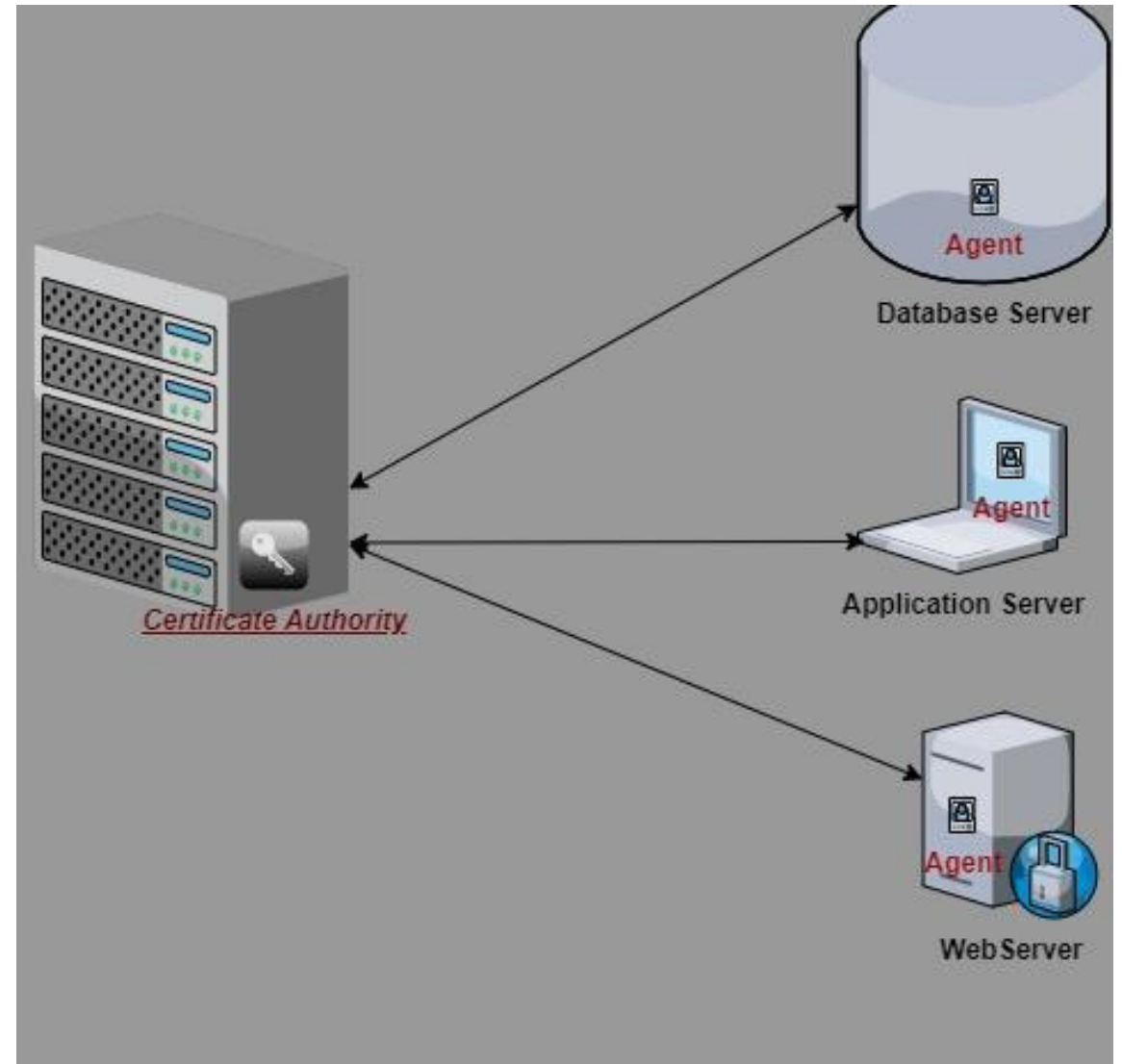
- Configuration Management

tools tend to implement one (or both) of these models of management. These are the ways a given configuration management tool actually *does the things* it has to do, like installing packages and writing files.



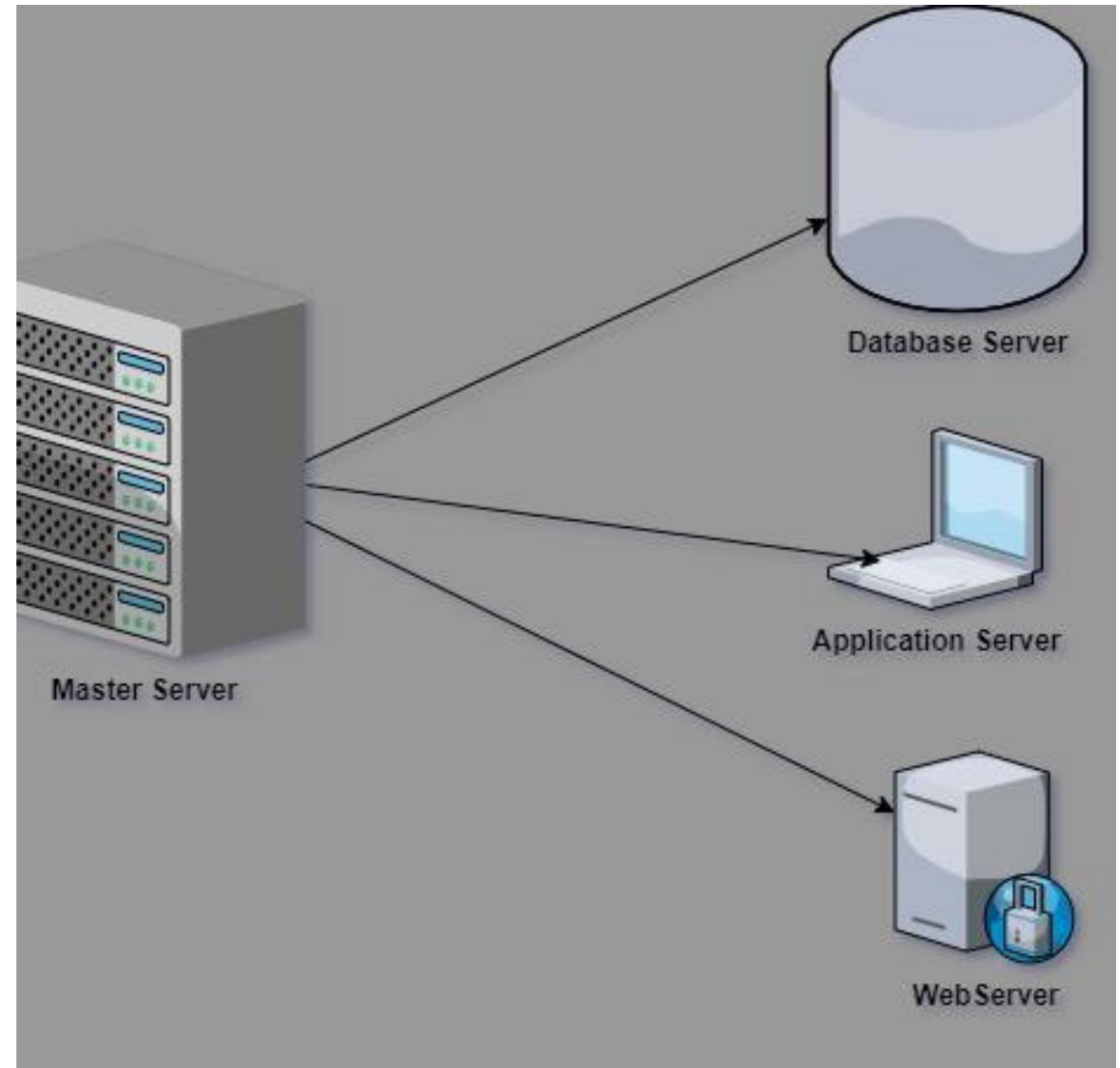
# Pull based Model (Puppet)

- The server being provisioned (node) runs an agent (daemon) that asks a central authority (master) if/when it has any updates that it should run.
- Requires a daemon to be installed on all machines *anda* central authority to be setup.



# Push based Model (Ansible)

- Centralized server pushes the **configurations** on the nodes





**Thank You**