

Puppet

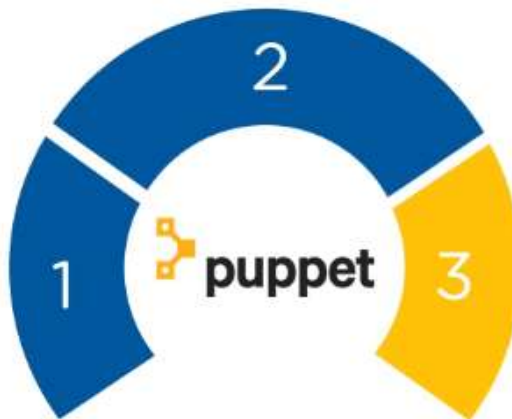
# What is Puppet?



Puppet is also used as a deployment tool



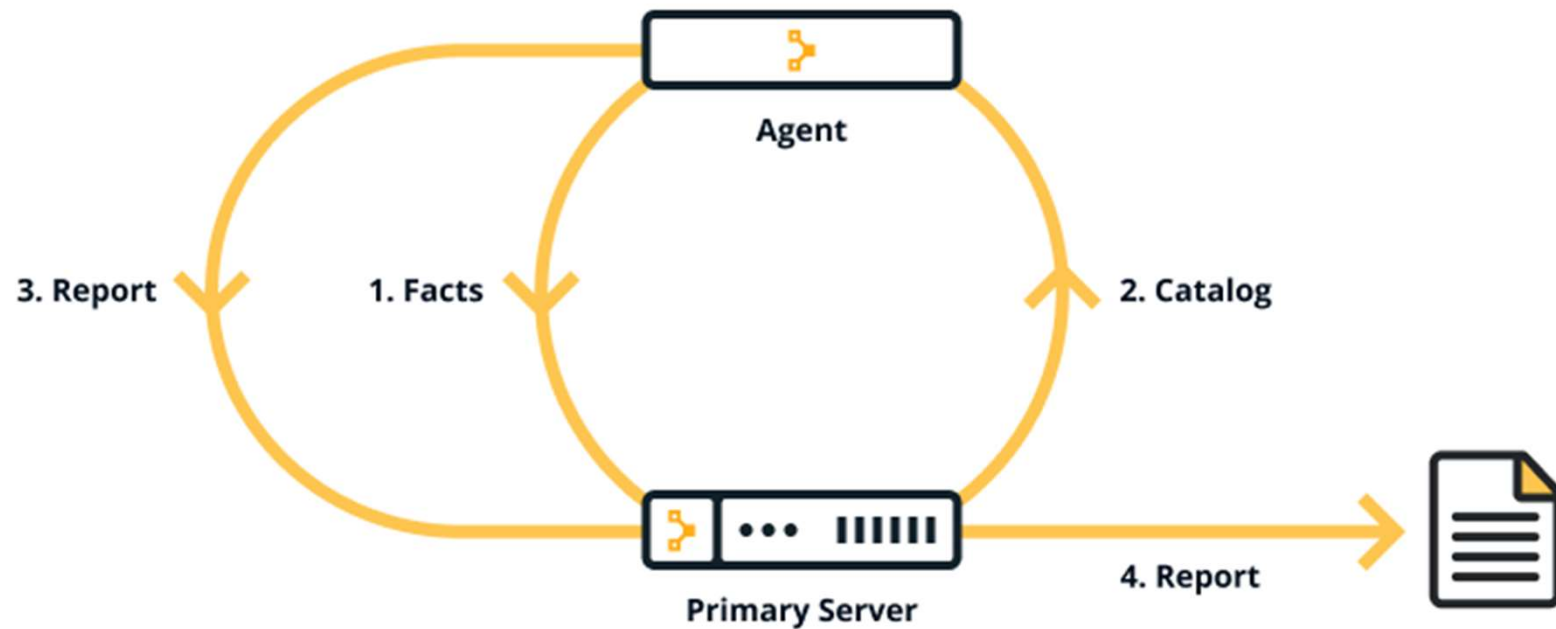
Puppet is a configuration management tool



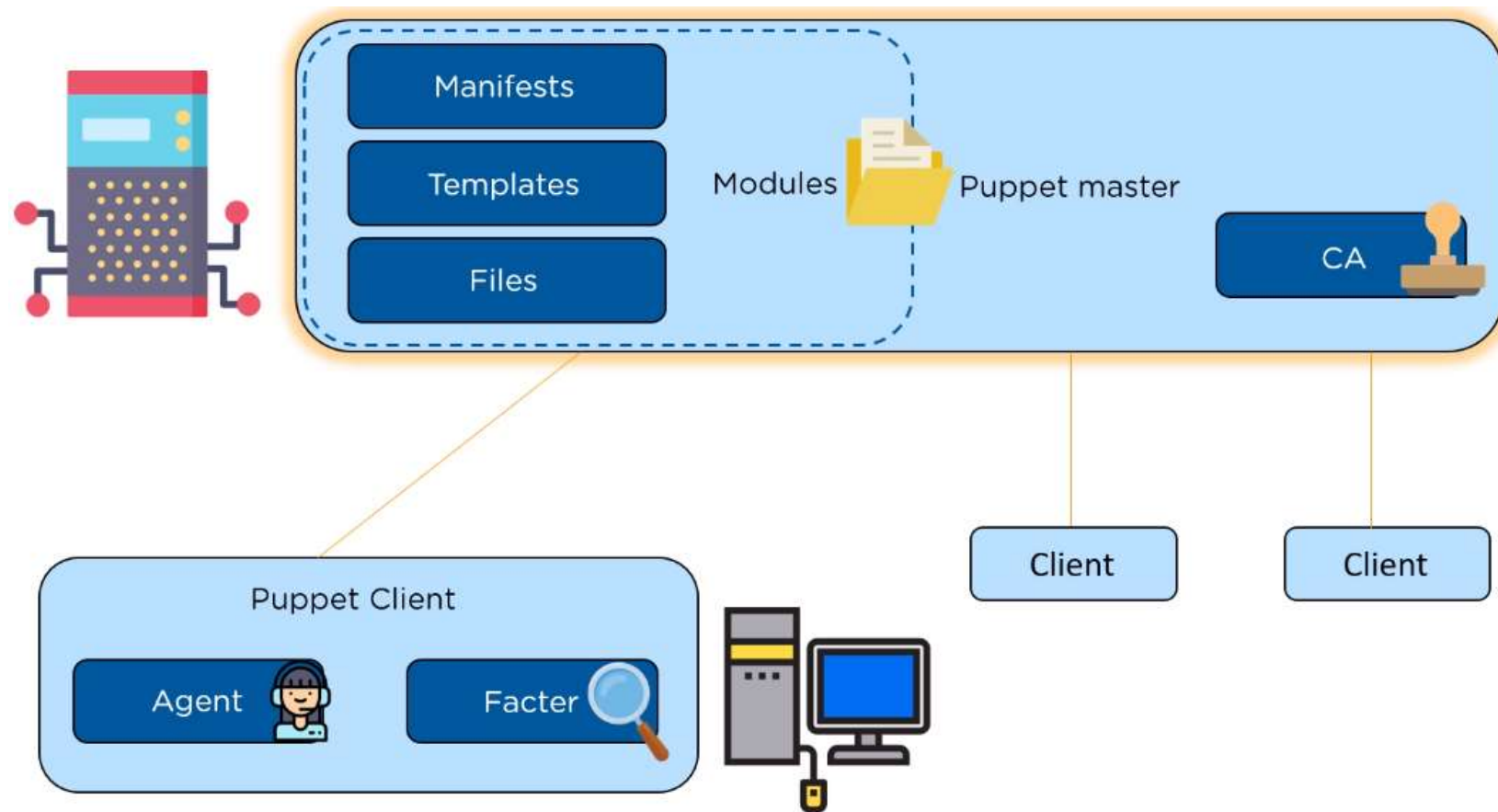
Puppet implements infrastructure as code



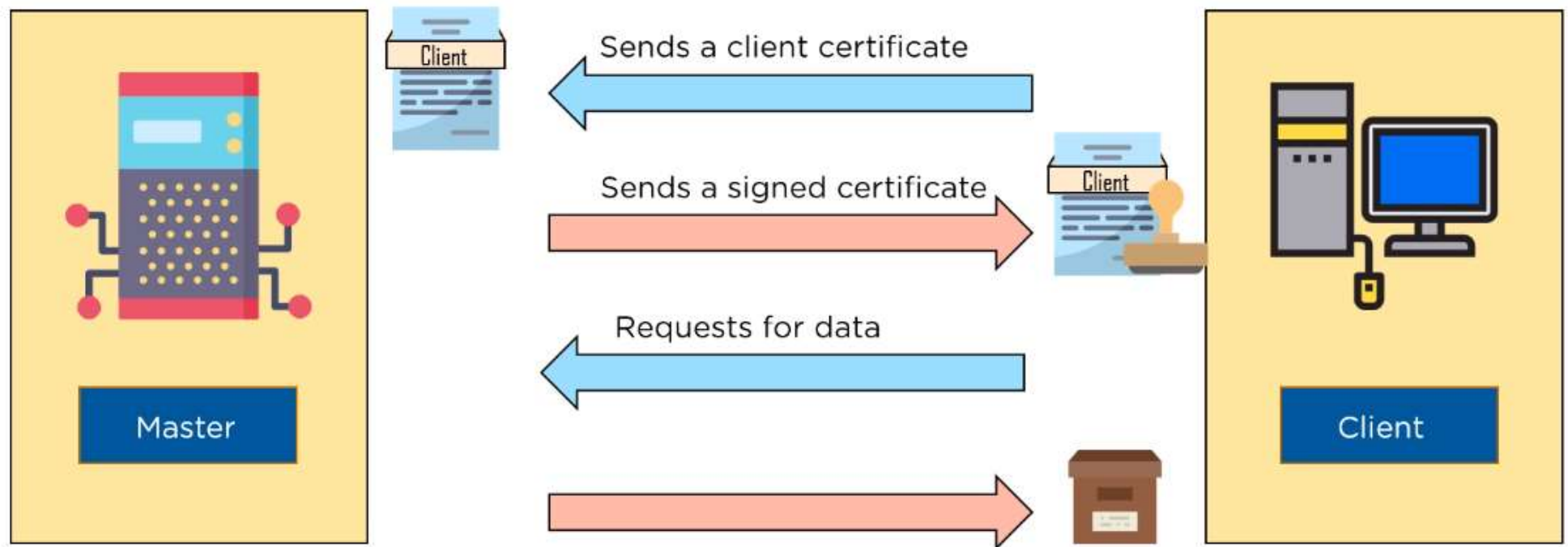
# Puppet Architecture



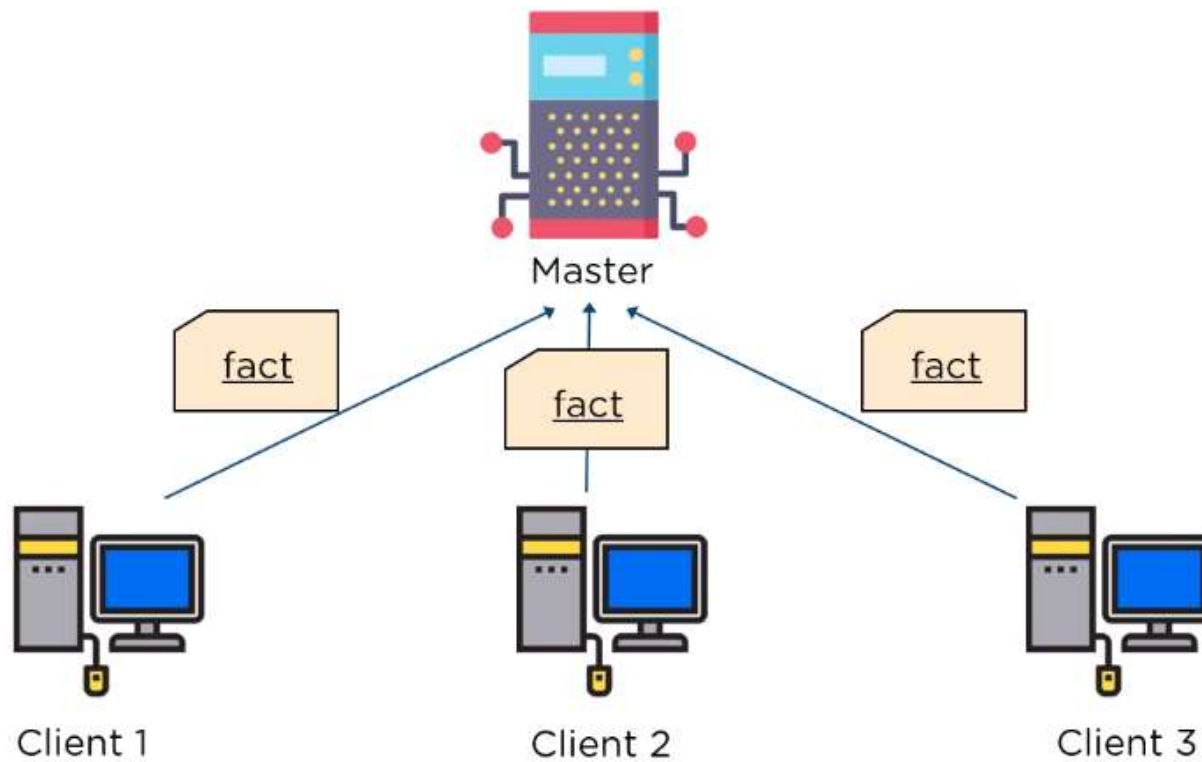
# Puppet Architecture



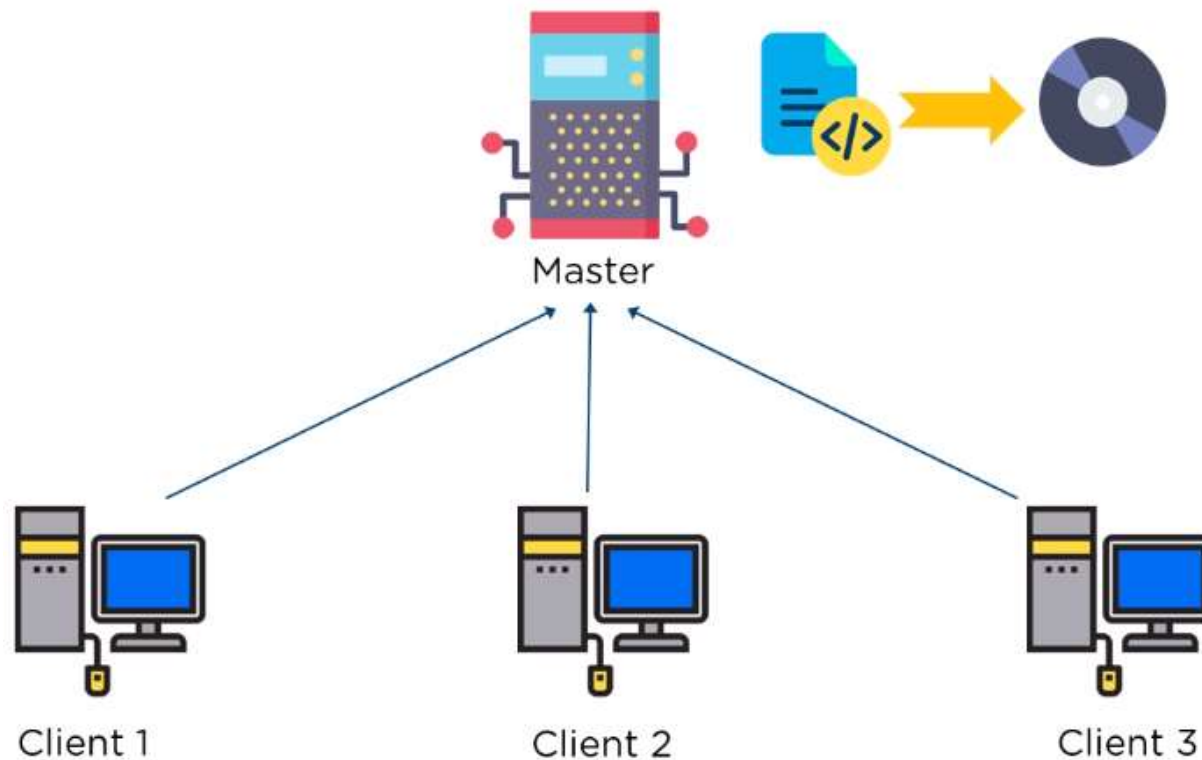
# SSL Certification



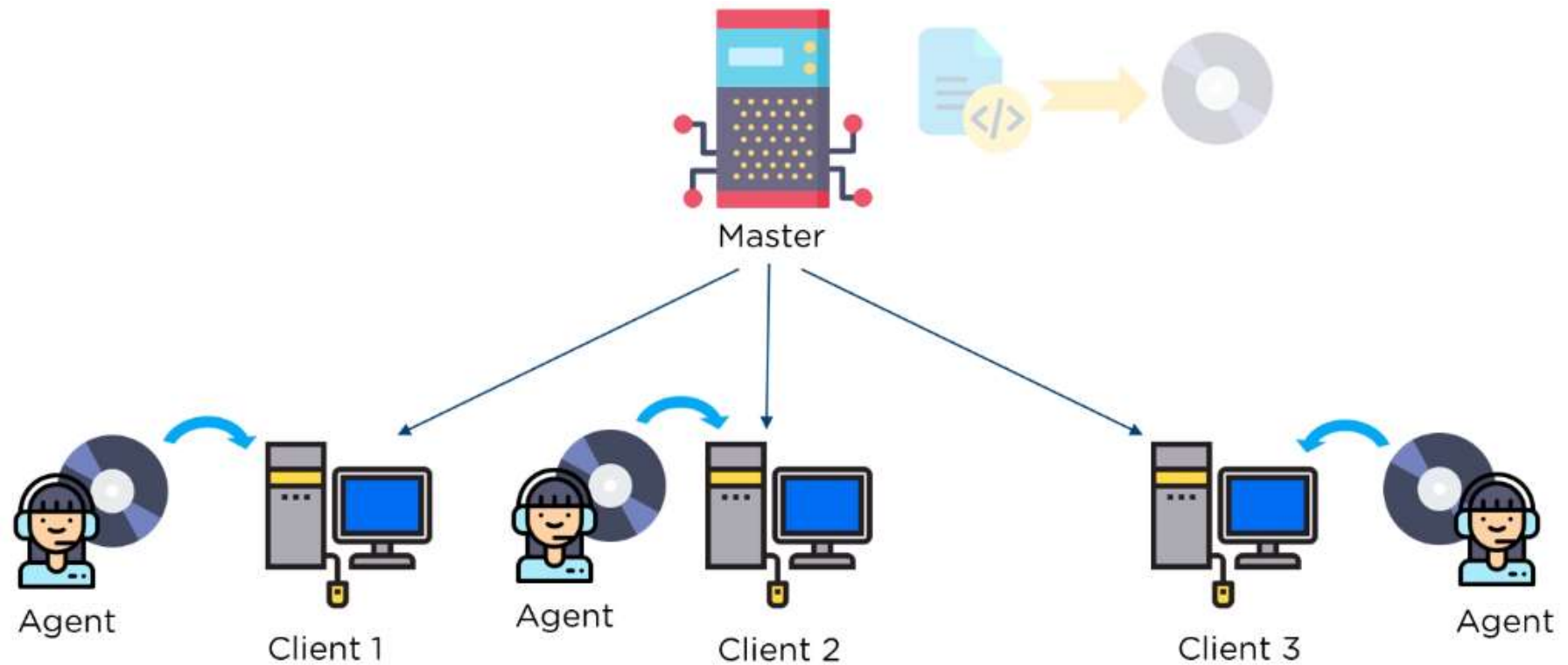
# Factor sends state of the client to master



# Based on facts master compiles manifests

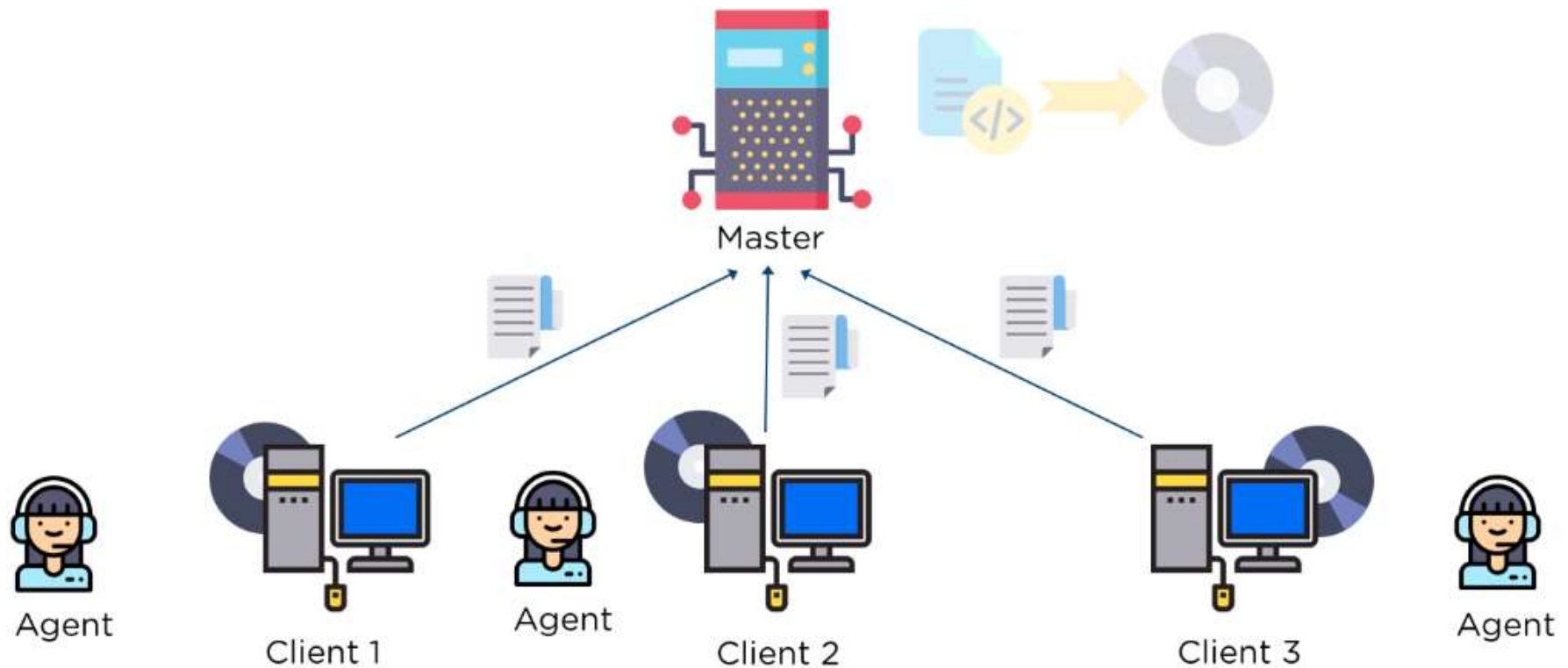


Agent on the client, executes the catalog

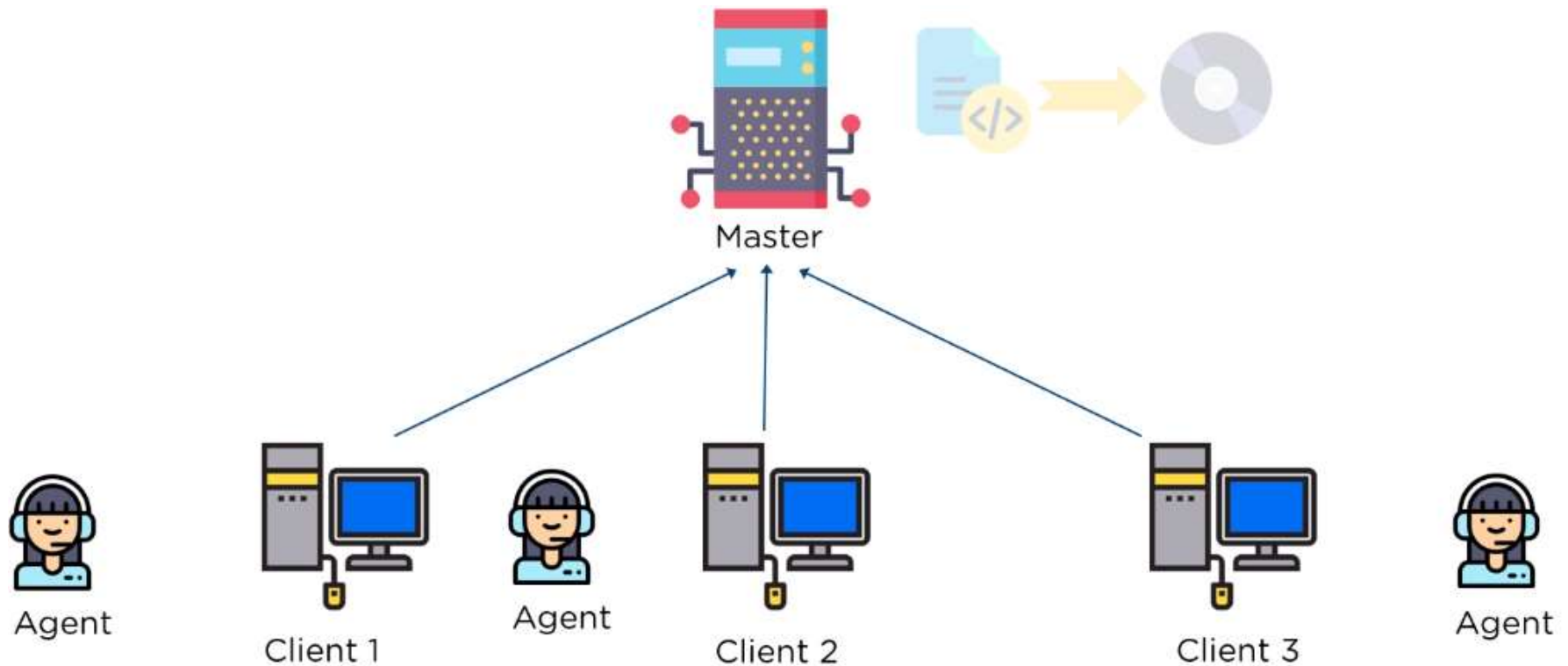




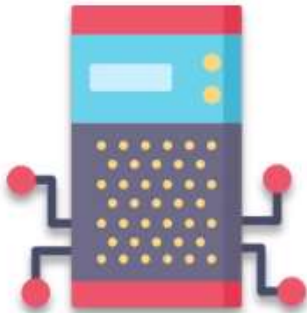
# Report is sent back to the master



Report is generated and sent every 30 minutes



# Puppet Setup



Server - CentOS 7

Install Puppet server

Start the Puppet server service

Sign the certificate

Write the manifest



Node - CentOS 7

Install Puppet agent

Start agent service and create SSL certificate

Run the agent. manifest/catalog are executed on the node

# Hands-On

- Refer: Puppet Setup and Hands On.txt

# Why use Puppet desired state management?

- Consistency
  - Troubleshooting problems with servers is a
    - time-consuming and
    - manually intensive process.
  - Without configuration management
    - Unable to make assumptions about infrastructure
  - Using Puppet, able to validate that Puppet applied the desired state you wanted.

# Why use Puppet desired state management?

- Automation
  - If you have
    - 100 or 1,000 servers,
    - a mixed environment, or
    - you have plans to scale your infrastructure in the future,
  - It is difficult to do this manually
- This is where Puppet can help you — to save you time and money, to scale effectively, and to do so securely.

# Key concepts behind Puppet

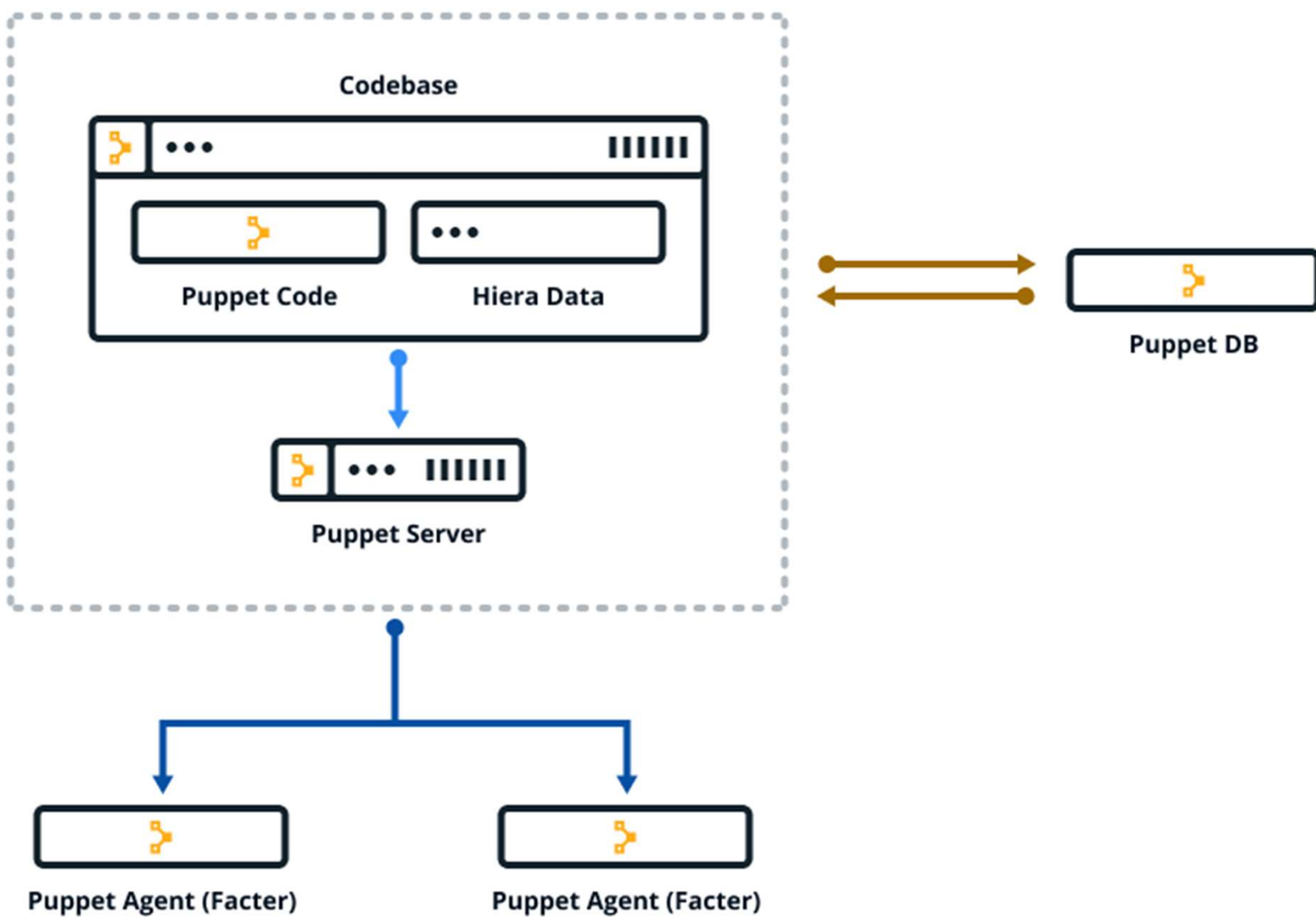
- Infrastructure-as-code
- Idempotency
  - The ability to repeatedly apply code to guarantee a desired state on a system, with the assurance that you will get the same result every time.
- Agile methodology
  - Working in incremental units of work and reusing code
- Git and version control

# The components that make up Puppet

- Puppet Server and Puppet agent
  - Configured in an agent-server architecture
  - Includes a built-in certificate authority for managing certificates
  - Performs the role of the primary node and also runs an agent to configure itself.
- Facter
  - Gathers facts about an agent node such as its hostname, IP address, and OS
- Hieradata
  - Separate data from the code and place it in a centralized location.
- PuppetDB
  - All data generated (for example facts, catalogs, reports) is stored in PuppetDB



## Primary Server



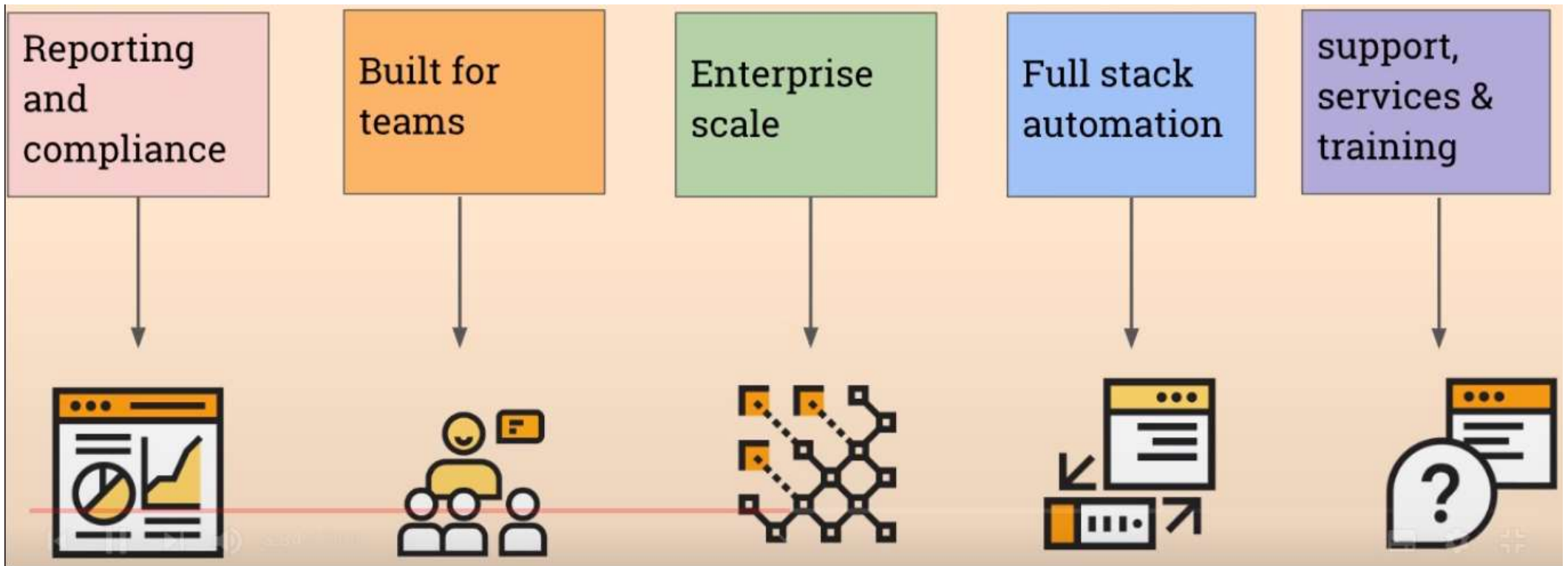


# puppet

Puppet Enterprise

Puppet Open Source

# Why Puppet Enterprise



Thanks