

Materia

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What is Materia

- A GitOps tool for orchestrating applications with Quadlets
- Takes a Repository of “Components” as its source of truth and reconciles hosts to have their assigned components
 - It automatically installs and removes files as needed
 - Interpolates “Attribute” data into templated files
 - Starts, stops, and restarts services as they’re installed or updated
 - Can perform more complicated steps like migrate data between volumes
- Heavily inspired by Puppet/OpenVox and Ansible
- “Materia” comes from the alchemical term “prima materia” or “first material”.
 - It’s the base material on your servers from which your systems grow
 - Because if Kubernetes is like magic, then maybe Quadlets are like alchemy



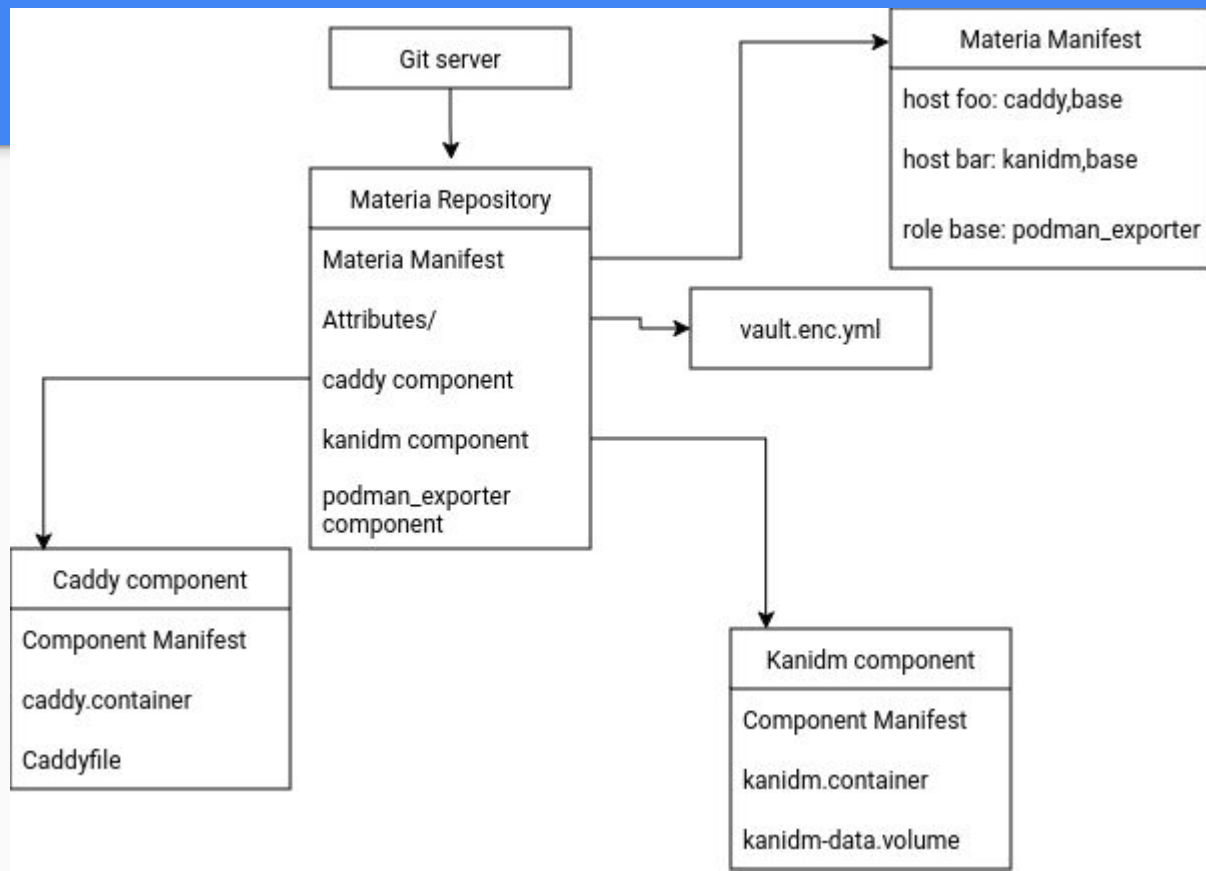
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Materia Repository Diagram

A repository is made up of:

- A Manifest defining what components go to what hosts and other metadata
- Components that contain Quadlets and other files
- And “attributes” that can be templated into components



But what does Materia actually do?

1. Sync the remote repository (whether its an actual remote Git repo or a local file path)
2. Determine which components should be installed on the host and what files should be installed/updated/removed
3. Generate a plan to install new components, remove old ones, and update changed ones.
4. Execute the plan
5. Verify services are started and stopped as needed

Demo

https://github.com/stryan/materia_demo

More Info

- Main website and documentation: <https://primamateria.systems>
- Main repository: <https://github.com/stryan/materia>
- Example Materia Repository:
https://github.com/stryan/materia_example_repo
- Matrix Room: <https://matrix.to/#/#materia:saintnet.tech>