



Padme dcs

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Goals and technology choice

Goals

Easy to manage the experiment assets

- Configuration

- Version control

- Validity

- Operation conditions monitoring

- Single point operations management

“Easy” to write

Easy to add features

Adequate

Technologies

Python3

Bottle (<https://bottlepy.org>)

SQL database and simple ORM

Vue.js (<https://vuejs.org/>)

Deliverables

Command module

Monitoring and logging of operational data

Web interface, alerts, emergency actions

Functionality detail

Configuration management:

- Default configuration/multiple versions
- Device configuration/multiple versions
- Device connections topology

Monitoring:

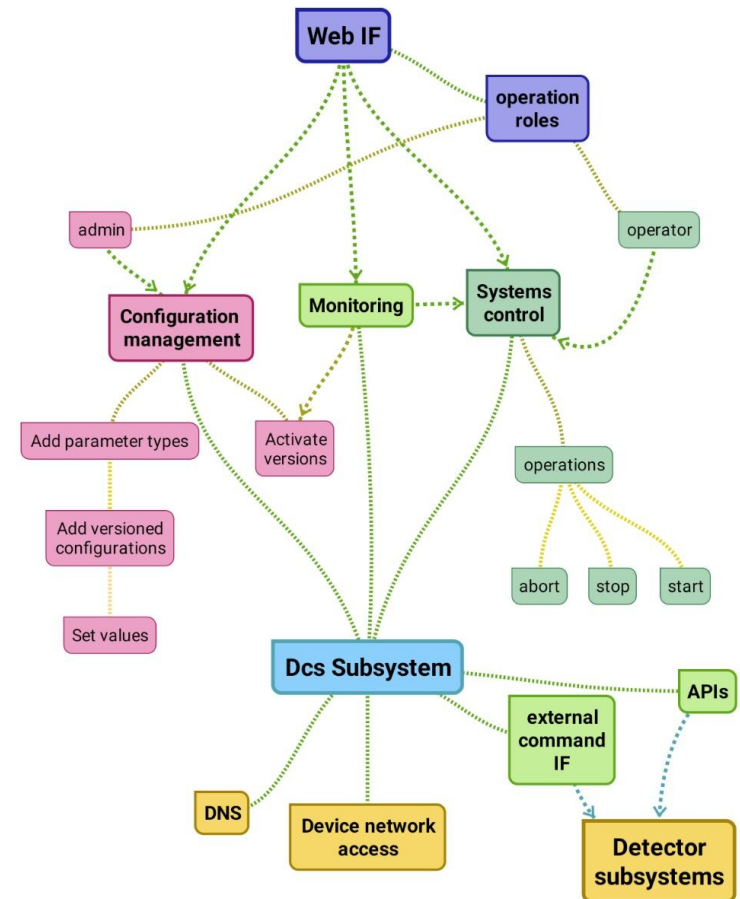
- Heartbeats
- Op conditions data collection and display
- Monitoring of parameter deviations
- Logging and reaction

Systems control:

- Interface with current text-based utilities or libraries

Access control:

- Users and roles



Architecture overview

Web service - UI

Configuration store (database)

Operation parameters collection

Operation parameters monitor

Command system

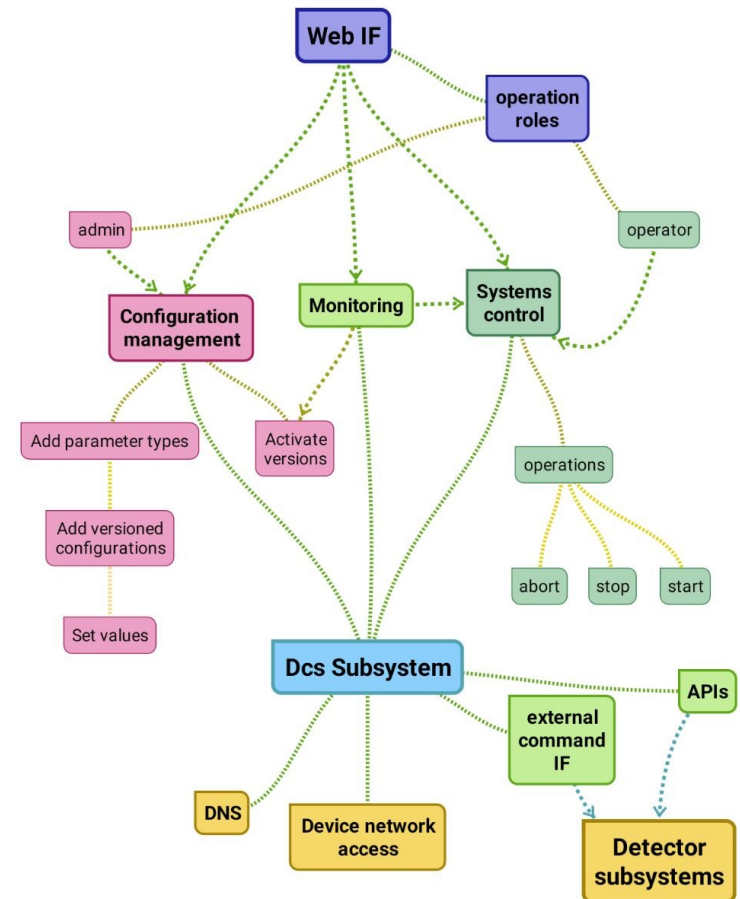
Dependencies

Addressing schemes

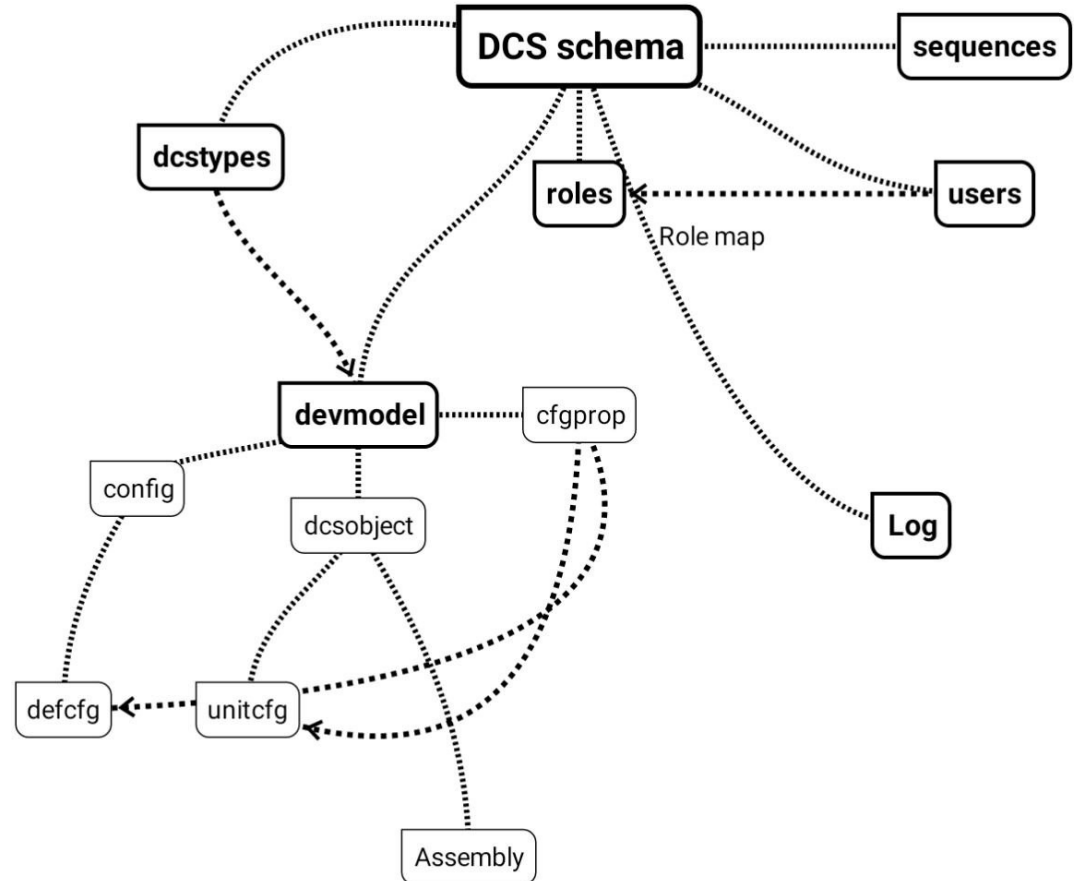
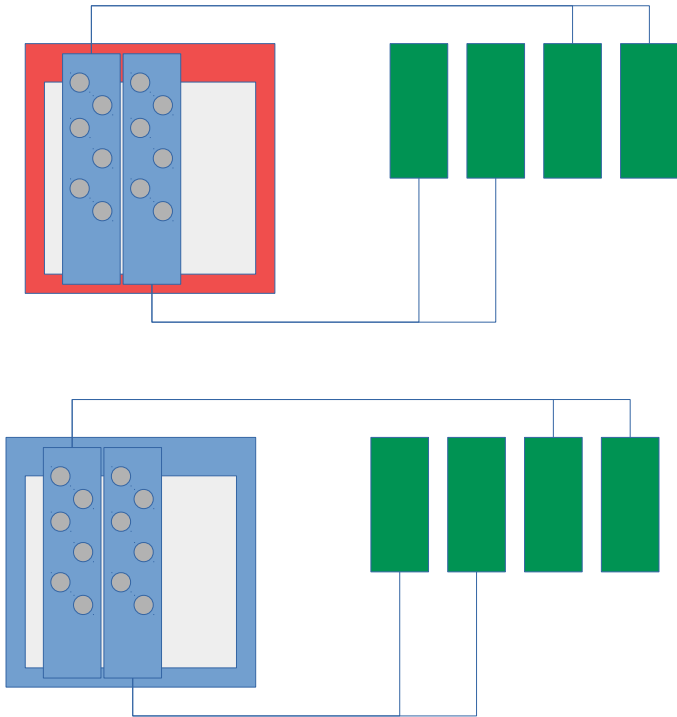
General

Network

Project APIs and utilities' interfaces



Database: user mgmt, device topology and configuration



Schedule

How long?

Hopefully by next Friday

- User management

- Configuration system

- Command backend

 - A prototype working with the SiPM detector controllers

- Simple Monitor backend

 - A prototype working with the SiPM detector monitoring capability

- Some documentation (how to add new command modules)

Complete system and Documentation

End of September?