

Find a suitable replacement for the notification channel, the idea is to move away from CORBA keeping in place the current API provided by Common Software.

The estimated considers 1 engineer full time dedicated to this task

1. Study current Notification Channel API **(2 week)**
  - a. Understand the designs patterns of the API
  - b. Understand the motivation and current use cases
  - c. Gather the requirements (functional and non-functional)
  - d. Familiarize with code implementing the API
2. Study alternatives to the CORBA Notification Service **(2 week)**
  - a. Check for alternatives that could meet the requirements
  - b. Prepare prototypes for each of the alternatives
  - c. Study the performance of each prototype
3. Implementation of the new Notification Channel API **(6 weeks)**
  - a. Implement in C++
  - b. Implement in Java
  - c. Implement in Python
4. Integration tests of the rest of the ALMASW with the new Notification Channel API **(2 weeks)**
  - a. Check that the rest of the ALMASW builds with new API
  - b. Perform some ALMASW regression testing with the new API
5. Extend functionality through a new API **(4 weeks)**
  - a. If the new framework extends the functionality of the NC create a new API to expose that
  - b. Document the new useful functionality

- ActiveMQ – <http://activemq.apache.org/>
- RabbitMQ – <https://www.rabbitmq.com/>
- Kafka – <https://kafka.apache.org/intro>
- Pulsar – <https://pulsar.apache.org/>
- ZeroMQ – <https://zeromq.org/>