

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/>