Notification Channel Replacement

Initial Presentation

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Overview

1. Problem
2. Background: Previous work with DDS implementation
3. Possible options for replacement
4. Chosen solution and approach
   a. Activities chronogram
5. Expectations and final thoughts

Problem

★ Obsolescence of current technology CORBA, used in ACS.

    ★ Notification Channel.

Problem

Objective: Find a replacement for the notification channel. Move away from CORBA while keeping in place the current API provided by Common Software.

Background

- ★ Data Distribution Service (DDS) as an alternative to CORBA Notify Service.
- ★ Problems:
  - ★ Handling of event objects.
  - ★ Python not supported.

Suitable Options for Replacement

★ ActiveMQ
★ RabbitMQ
★ Kafka
★ Pulsar
★ ZeroMQ

Chosen Solution

About ActiveMQ

* Open source, multi-protocol, Java-based messaging server.

* Connectivity from C, C++, Python.

* Supports different protocols.

* Two versions: ActiveMQ Classic and Artemis.

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Approach

★ Initial study of current software and technology.
★ Design.
★ Implementation:
    ★ Language: C++.
    ★ Maintain current API.
★ Testing.
★ Results and documentation.

Chronogram

	Week 1 Jan 18-22	Week 2 Jan 25-29	Week 3 Feb 1-5	Week 4 Feb 8-12	Week 5 Feb 15-19	Week 6 Feb 22-26	Week 7 Mar 1-5	Week 8 Mar 8-12
Formulate Plan of Action	■							
Get to know ACS and Notification Channel	■							
Learn about ActiveMQ	■	■						
Design and planification of implementation		■						
Implement Replacement			■	■	■	■		
Testing						■		
Results and Corrections						■	■	
Documentation and Report							■	■

Thoughts and Expectations

* ★ Hard work and a lot of learning
* ★ Gain experience
* ★ Make a contribution to the scientific community

Questions, Ideas or Suggestions