PRESS RELEASE

open62541

Online survey on Open Source OPC UA project triggers call for another project phase

The Open Source licensed implementation of OPC UA *open62541* is a certified and industry-grade SDK including a PubSub implementation suitable for TSN. It is maintained at Fraunhofer IOSB, Germany with contributions from a large world-wide developer community. Part of these contributions were organized by the Open Source Automation Development Lab (OSADL) eG in a total of three project phases and the necessary funds were raised. These contributions are, among others

- Brokerless OPC UA Pub/Sub via IP multicast and the binary message encoding format according to draft of part 14 of the OPC UA specification
- Integration of the publisher in a regular OPC UA server with additional real-time interrupting
- Implementation of the subscribers as standalone software
- Successful certification of an example server according to the "Micro Embedded Device Server" profile by OPC Foundation
- PubSub implementation as stand-alone server
- Providing certification prerequisites according to the "Full Embedded Profile" by OPC Foundation
- Security support for the UADP protocol

Recently, OSADL conducted an online survey to find out which functionalities of the SDK users think should be implemented next if another project phase were to be launched. The results were clearly in favor of launching a fourth project phase. This phase – similar to the other phases – will be managed as a so-called "mixed funded" OSADL project. The term "mixed funded" means that funding will not only come as usual from the OSADL budget raised through membership fees, but that participating companies (OSADL members and non-members) will mainly contribute to the project. Unlike in the other project phases, in this phase it is possible for the first time not only to make a financial contribution, but also to provide development resources.

Tasks and priorities

The project activities are broken down into work packages as described below. All following software components planned to be developed and support planned to be delivered will be governed under the conditions of the Letter of Intent:

1. **High priority**

   - Load and store information data model at run time through configuration file (not statically compiled in firmware)
   - Implement "reverse connect feature" as described in "OPC 10000-7 - Part 7: Profiles", chapters 6.6.5 Reverse Connect Server Facet and 6.6.75 Reverse Connect Client Facet
   - Complement the ongoing project to update the OPC client/server release to version 1.05 without overlapping with the parts already commissioned
   - Implement support of PubSub state machine according to OPC10000-14, chapter 6.2.1

2. **Medium priority**

   - Companion specification selection in the build system for fast integration
   - Automatic size-reduction of the information model by white-listing and dependency resolution

3. **Low priority**

   - Further CPU and memory optimizations for resource constrained devices (identify, document and implement optimizations for low memory and CPU footprint)

To achieve these goals, a call for participation of phase #4 of the previously designed community project is now launched, and interested parties are invited to participate as in the successful previous phases #1, #2 and #3. In detail, the participating company signs a Letter of Intent to contribute at Silver, Gold, Platinum or Diamond level. When the funding threshold is reached, the Letter of Intent is converted into a grant agreement and active software development is started.

Further information:
Software project open62541: https://open62541.org
OSADL Open Source OPC UA project: https://osadl.org/OPCUA
Phase #4 of the project: https://osadl.org/OPCUA4
Letter of Intent of phase #4: https://www.osadl.org/LoI4

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