

TEC-ED/SW Final Presentation Days

CFDP SW Library Implementation

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09/06/2016

Issue/Revision: .

Reference:

Status: N/A

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Development of an on-board SW library implementing the CCSDS File Delivery Protocol functionality

- Targeting multi-core architectures, in particular GR740 quad-LEON4 processor
- Designed on top of PikeOS, RTEMS OS and Linux
- Verification against ESA CFDP Reference software and executing the developed library on GR740 prototype (Cobham Gaisler GR-CPCI-LEON4-N2X board)

- Consortium composed of Enea Services Rumania Srl (prime) and Airbus DS Germany (subcontractor)
- Initial contract amount 200K€, 42K€ added in a CCN to support RTEMS OS
- Initial duration 24 months, extended to 26 with CCN to support RTEMS OS
 - Actual contract duration 25 months

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CFDP IP-Core Implementation

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09/06/2016

Issue/Revision: .

Reference:

Status: N/A

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Development of an reusable VHDL IP-Core implementing the CCSDS File Delivery Protocol functionality

- Goal is to add the IP-Core to the ESA IP-Cores library
- Support various silicon technologies (reprogrammable and one time programmable FPGAs, DARE 180 ASIC)
- Verification again ESA CFDP Reference software

- Prime Contractor TU Braunschweig
- Initial contract amount 250K€, 50K€ added in a CCN to extend support for latest revision of CFDP standard and for uplink operations
- Initial duration 18 months, extended to 24 with CCN
 - Actual contract duration 52 months