IOT CONFORMANCE VALIDATION FRAMEWORK

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CTI Support to Technical Bodies – Three Best Practices

**Technical Bodies**
- 3GPP
- AERO
- ATTM
- BRAN
- CLOUD
- DECT
- eHEALTH
- ERM
- ESI
- HF
- INT
- ITS
- LI
- M2M
- MTS
- PLT
- SCP
- STQ
- TETRA
- TISPAN ...

**SPECIFICATION**
- Application of best practice specification methods, techniques and tools

**VALIDATION**
- Validation of standards as an active part of the development process. Mainly through interoperability events

**TESTING**
- Development of standardised test specifications for key technologies
Overview

To provide an IoT Conformance Validation Framework for industry

First prototype implementation available with 6LoWPAN conformance test suite

Next steps

- Completion of 6LoWPAN conformance test suites
- Addition of more conformance test suites such as CoAP etc

Partners
Live trials of IoT
Conformance Validation Framework

Concept

• Extensible with future IoT protocol tests

• Tests implemented in TTCN-3
• TTCN-3 is a ITU-T standard (for global use)
• Compatible with all TTCN-3 tools

• Multi link layer support

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Test Configuration

- 6lowpan Abstract Test Suite written in TTCN-3 (independently of the link-layer)
- IEEE 802.15.4 adapter and PHY adapter implemented in separate modules

Sample test cases implemented so far:

- Ping6
- Ping6 with header compression
- Ping6 with 6lowpan fragmentation
- Use of Eui64 link layer addresses vs. short (16 bits) addresses
If you are interested in CoAP or 6LoWPAN conformance tests then contact

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