Test Procedures Change List (TPCL) for

IEC 61850 server test procedures revision 2.3

Version 1.2

UCA International Users Group

Testing Sub Committee

Date: August 17, 2011

**Introduction**

Problems that are uncovered during conformance testing that impact the IEC 61850 Standard are taken back through the TISSUES Process. However, there are some problems that relate only to the content of the Test Procedures. The UCAiug is the owner of the Test Procedures and so has the responsibility for tracking changes. Given the long time lag between major versions, we have a need to track interim changes that may impact testing. This "Test Procedures Change List (TPCL)" document specifies such interim changes. The UCAiug test sub committee reviews and approves each change. Changes resulting in new test procedures shall be specified in the next revision of the test procedures.

This list:
- Contains changes to the most recent (server) test procedures
- Indicate if a change is:
  - Accepted, resulting in a clarified test procedure (included after the change list table)
  - Denied
  - Added to the next revision
- Shall be used by recognized/accredited test labs
- Should be referenced in the test report only
- Is available at the UCAiug sharepoint for test sub committee members

**References**

Conformance Test Procedures for Server Devices with IEC 61850-8-1 interface,
Revision 2.3, August 17. 2011

**Approved Change List**

| ID | TEST CASE | CHANGE | FINAL PROPOSAL | RESULT |
|----|-----------|--------|----------------|--------|
| 1 | Mdl9? | Define the use of name spaces for Ed2 LN used in Ed1 devices | See clarified test procedure | |

**List of denied and next revision changes**

| ID | TEST CASE | CHANGE | FINAL PROPOSAL | RESULT |
|----|-----------|--------|----------------|--------|
| | | | | |

**Clarified Test Procedures (in alphabetical order)**

| sMdl9? | Ed2 data model extensions | ☐ Passed<br>☐ Failed<br>☐ Inconclusive |
|---|---|---|
| IEC 61850-7-1 clause 14 | | |

**Expected result**

The SCL file of the Ed1 device
- Shall use 7-3 Ed1 CDC's also for the Ed2 LN Data objects
- Shall use INS/INC/ING instead of ENS/ENC/ENG
- Shall NOT use 7-3 Ed2 specific CDC's as for example: VSS, VSG, TSG as ORG
- Shall only use the part 8-1 Ed1 basic data types (for example no INT64)

The use of name space is as follows:
- ldNs = IEC 61850-7-4:2003
- Ed1 LN don't need a lnNs
- Ed2 LN shall have lnNs = IEC 61850-7-4:2007

Presence and order of Data Objects (DO)
- Ed1 LN shall have the mandatory DO's according to Ed1
- Ed2 LN shall have the mandatory DO's according to Ed2
- Ed1 LN shall have the DO's in the same order as specified in Ed1
- The order of DO's for Ed2 LN is not required anymore and not verified

The use of dataNs is as follows
- A private DO in any Ed1/Ed2 LN shall have a private dataNs value
- A private DO in a private LN does not need a dataNs
- An Ed1 DO in a Ed1 LN does not need a dataNs
- An Ed2 DO in a Ed2 LN does not need a dataNs
- An Ed2 DO in an Ed1 LN shall have dataNs = IEC 61850-7-4:2007

Note: the presence of the name space attribute is not a valid criterion anymore. Also the value of the name space is important. When a name space is not needed it means: the name space is not present or the name space is present with the same value as the name space on the higher level

**Test description**
Scan SCL file for Ed2 extensions: LN and DO.

**Comment**
Ed2 LN class' that have a mandatory DO with and Ed2 specific CDC are not allowed

**Revision History**

| Revision | Changes |
|----------|---------|
| 1.0 | Initial version |
| 1.1 | • Updated expected behavior in CtlN2 to allow reset of select timeout again. However the recommended behavior is a negative respond on the second select (and this behaviour will be mandatory in the next version of the server test procedures).<br><br>• Update test FtN1 to test for both empty and invalid file names in a GetFileAttributeValues.<br><br>• Updated Srv6, removed EX at step 2 because its already used in step 1 |
| 1.2 | • Updated server test specification to version 2.3 and removed all TPCL elements<br>• Removed text "This list: …should be referenced in the test report only" (the TPCL is now referenced on the conformance certificate). |
| 1.3 | • Add verification of Ed2 LN in Ed1 devices |