



GE VERNOVA

# MiCOM P40 Agile

## P543, P545

TICS

Tissues Conformance Statement - Edition 2

Software Version: 91

Publication Reference: P54x-TC2-EN-91-2.2



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# 1 IEC 61850 TISSUES CONFORMANCE STATEMENT

## 1.1 INTRODUCTION

This document provides a template for the Tissues conformance statement. According to the UCA IUG QAP the Tissue conformance statement is required to perform a conformance test and is referenced on the certificate.

This document is applicable for P543, P545 with firmware version 91.

## 1.2 MANDATORY EDITION 2 TISSUES

Below tables give an overview of the applicable mandatory TISSUES.

| Part 6 Tissue | Description  | Implemented Y/NA |
|---------------|--|------------------|
| 658           | Tracking related features  | Na               |
| 663           | FCDA element cannot be a "functionally constrained logical node" | Y                |
| 668           | Autotransformer modelling  | Na               |
| 687           | SGCB ResvTms   | Na               |
| 719           | ConfDataSet - maxAttributes definition is confusing              | Y                |
| 721           | Log element name   | Na               |
| 768           | bType VisString65 is missing                                     | Y                |
| 779           | object references  | Na               |
| 788           | SICS S56 from optional to mandatory                              | Na               |
| 789           | ConfLdName as services applies to both server and client         | Na               |
| 804           | valKind and IED versus System configuration                      | Y                |
| 806           | Max length of log name inconsistent between -6 and -7-2          | Na               |
| 807           | Need a way to indicate if "Owner" present in RCB                 | Na               |
| 823           | ValKind for structured data attributes                           | Y                |
| 824           | Short addresses on structured data attributes                    | Na               |
| 825           | Floating point value   | Y                |
| 845           | SGCB ResvTms   | Na               |
| 853           | SBO and ProtNs   | Na               |
| 855           | Recursive SubFunction  | Na               |
| 856           | VoltageLevel frequency and phases                                | Na               |
| 857           | Function/SubFunction for ConductingEquipment                     | Na               |
| 886           | Missing 8-1 P-types  | Na               |
| 901           | tServices as AP or as IED element                                | Y                |
| 936           | SupSubscription parameter usage is difficult                     | Y                |
| 1147          | tServices - FileHandling not consistent with -7-2                | Y                |
| 1185          | Valkind value Conf for EX FC data                                | Na               |
| 1284          | SCSM mapping may require a communication section in an ICD file  | Y                |
| 1328          | Limitation on the size of data type templates identifiers        | Y                |
| 1395          | Client LN attributes   | Na               |
| 1402          | ExtRef during engineering  | Na               |
| 1415          | SICS-S110 IID import mandatory for Edition2                      | Na               |
| 1419          | Support of IdName on other IEDs                                  | Na               |
| 1444          | Need to support fixed and SCT controlled Datasets                | Na               |
| 1445          | ConfReportControl and a fixed ReportSettings                     | Na               |

| Part 6 Tissue | Description   | Implemented Y/NA |
|---------------|---|------------------|
| 1450          | originalSclXxx computation rules                      | Y                |
| 1485          | Need to supercede Tissue 1398 to clarify SCT behavior | Na               |

| Part 7-1 Tissue | Description  | Implemented Y/NA |
|-----------------|--|------------------|
| 828             | Data model namespace revision IEC 61850-7-4:2007[A]                  | Na               |
| 948             | Enumeration (string) values format                                   | Y                |
| 1151            | Simulated GOOSE disappears after 1st appearance when LPHD.Sim = TRUE | Y                |
| 1396            | The use and configuration flow of LGOS and LSVS is unclear           | Y                |
| 1447            | Restriction on ENUMtypes in SCL                                      | Na               |
| 1457            | Multiple DOI nodes with the same name                                | Y                |
| 1468            | Re-use DO from other LN  | Y                |
| 1491            | CmdBlk blocks itself?  | Na               |

| Part 7-2 Tissue | Description   | Implemented Y/NA |
|-----------------|---|------------------|
| 728             | BRCB: Could PurgeBuf be set when RptEna=TRUE?           | Y                |
| 778             | AddCause values - add value not-supported               | Y                |
| 780             | What are unsupported trigger option at a control block? | Y                |
| 783             | TimOper Resp-; add Authorization check                  | Na               |
| 786             | AddCause values 26 and 27 are switched                  | Y                |
| 820             | Mandatory ACSI services (use for PICS template)         | Y                |
| 858             | typo in enumeration ServiceType                         | Na               |
| 861             | dchg of ConfRev attribute                               | Na               |
| 1050            | GTS Phycomaddr definition in SCL                        | Na               |
| 1071            | Length of DO name                                       | Na               |
| 1127            | Missing owner attribute in BTS and UTS                  | Na               |
| 1202            | GI not optional   | Na               |
| 1232            | EntryID needs clarification                             | Y                |
| 1242            | NTS definition  | Na               |
| 1307            | Segmented report with Buffer overflow                   | Y                |
| 1428            | MTS and NTS should use svOptFlds                        | Na               |
| 1630            | Attributes in CDC=LTS do not match 8-1 definition       | Na               |

| Part 7-3 Tissue | Description  | Implemented Y/NA |
|-----------------|--|------------------|
| 697             | persistent command/PulseConfig   | Y                |
| 698             | Wrong case is BAC.dB attribute   | Na               |
| 711             | blkEna freeze data update while setting its quality to operaterBlocked | Na               |
| 722             | Units for 'h' and 'min' not in UnitKind enumeration.                   | Y                |
| 919             | Presence Condition for sVC   | Na               |
| 925             | Presence of i or f attribute - Problem with writing                    | Na               |
| 926             | Presence Conditions within RangeConfig                                 | Na               |
| 954             | Data attributes with FC=CF should have trgOp=dchg                      | Y                |
| 1078            | CMV.t update if rangeAng changed                                       | Na               |

| Part 7-3 Tissue | Description                     | Implemented Y/NA |
|-----------------|---------------------------------|------------------|
| 1565            | db = 0 behaviour                | Y                |
| 1578            | dataAttribute NameSpace content | Y                |

| Part 7-4 Tissue | Description   | Implemented Y/NA        |
|-----------------|---|-------------------------|
| 671             | mistake in definition of Mod & Beh                            | Na                      |
| 674             | CDC of ZRRC.LocSta is wrong                                   | Na                      |
| 676             | Same data object name used with different CDC                 | Na                      |
| 677             | MotStr is used with different CDC in PMMS and SOPM LN classes | Na                      |
| 679             | Remove CycTrMod Enum  | Na                      |
| 680             | SI unit for MHYD.Cndct  | Na                      |
| 681             | Enum PIDAlg   | Na                      |
| 682             | ANCR.ParColMod  | Na                      |
| 683             | Enum QVVR.IntrDetMth  | Na                      |
| 685             | Enum ParTraMod  | Na                      |
| 686             | New annex H - enums types in XML                              | Y                       |
| 694             | Data object CmdBlk  | Na                      |
| 696             | LSVS.St (Status of subscription)                              | Y                       |
| 712             | interpretation of quality operatorBlocked                     | Y                       |
| 713             | DO Naming of time constants in FFIL                           | Na                      |
| 714             | Enums for ShOpCap and SwOpCap                                 | Na                      |
| 715             | RBDR.ChNum1   | Na                      |
| 716             | TAXD text for condition                                       | Na                      |
| 724             | ANCR.Auto   | Na                      |
| 725             | Loc in LN A-group   | Na                      |
| 734             | LLN0.OpTmh vs. LPHD.OpTmh                                     | Na                      |
| 736             | PFSign  | Na                      |
| 742             | GAPC.Str, GAPC.Op and GAPC.StrVal                             | Na                      |
| 743             | CCGR.PmpCtl and CCGR.FanCtl                                   | Na                      |
| 744             | LN STMP, EEHealth and EEName                                  | Na                      |
| 772             | LPHD.PwrUp/PwrDn should be transient                          | Na (only support PwrUp) |
| 773             | Loc, LocKey and LocSta YPSH and YLTC                          | Na                      |
| 774             | ITCI.LockKey  | Na                      |
| 776             | LPHD.OutOv/InOv and LCCH.OutOv/InOv                           | Na                      |
| 800             | Misspelling in CSYN   | Na                      |
| 802             | CCGR and Harmonized control authority                         | Na                      |
| 808             | Presence condition of ZMoT.DExt and new DOs                   | Na                      |
| 831             | Setting of ConfRevNum in LGOS                                 | Na                      |
| 838             | Testing in Beh=Blocked  | Na                      |
| 844             | MFLK.PhPiMax, MFLK.PhPiLoFil, MFLK.PhPiRoot DEL->WYE          | Na                      |
| 877             | QVUB -settings should be optional                             | Na                      |
| 908             | ARIS.StrSeq – transient                                       | Na                      |
| 909             | Remove ANCR.ColOpR and ColOpL                                 | Na                      |
| 912             | Clarification of PwrRtg/VARTg                                 | Na                      |
| 920             | Resetable Counter is NOT resetable                            | Na                      |
| 932             | Rename AVCO.SptVol to AVCO.VolSpt                             | Na                      |
| 933             | Presence of LCCH.RedFerCh and RedRxCnt                        | Na                      |
| 939             | Change CDC for ANCR.FixCol                                    | Na                      |
| 991             | LGOS: GoCRef (as well as LSVS.SvCRef) should be mandatory     | Na                      |
| 1007            | PTRC as fault indicator - Update of description required      | Na                      |
| 1044            | TapChg in AVCO  | Na                      |

| Part 7-4 Tissue | Description  | Implemented Y/NA |
|-----------------|--|------------------|
| 1077            | Rename DOnames within LTIM   | Na               |
| 1256            | New DO for LTIM to set time "manually"                             | Na               |
| 1331            | Mod, Beh and Health with q=TEST, client can't receive their states | Y                |
| 1426            | Add two DO for leap seconds in LTIM                                | Na               |
| 1456            | Annex A and Mod/Beh/Health   | Y                |
| 1568            | ISAF.AlmReset ->transient  | Na               |

| Part 8-1 Tissue | Description  | Implemented Y/NA |
|-----------------|--|------------------|
| 770             | GoLD type mismatch 18.1.1 and 18.1.2.5.2   | Na               |
| 784             | Tracking of control (CTS)  | Na               |
| 817             | Fixed-length GOOSE float encoding  | Y                |
| 827             | Mandatory ACSI services (Part of 7-2 TISSUE resolution)                          | Y                |
| 834             | File dir name length 64  | Na               |
| 951             | Encoding of Owner attribute  | Na               |
| 1040            | More associate error codes   | Na               |
| 1178            | Select Response+ is non-null value   | Na               |
| 1324            | The response- for DeleteNamedVariableList is not defined                         | Na               |
| 1345            | Fixed-length GOOSE ASN.1 length encoding   | Y                |
| 1441            | Optional fields in buffered reports  | Y                |
| 1442            | Journal variableTag for ReasonCode   | Na               |
| 1453            | Purge buffer on write to BRCB  | Y                |
| 1454            | Reports can be transmitted before write (RptEna=true) is confirmed               | Na               |
| 1495            | GetVariableAccessAttributes error code   | Y                |
| 1500            | The response for DeleteNamedVariableList with a non-existent LN is not specified | Na               |
| 1626            | PICS for Information Report is incorrect   | Na               |

**Note:** Part 7.4 Tissues 675, 735, 772, 775, 776, 878 are not relevant for conformance testing.

Compare the TISSUE database for more details: <http://iec61850.tissue-db.com>





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