## TISSUES Implementation Conformance Statement for the IEC 61850 interface in SEL-849

January 16, 2013

UCA International Users Group Testing Sub Committee

> Template version 0.2 Date: October 7, 2008

## 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 SEL-849 with firmware version R100.

## **Mandatory Intop Tissues**

During the October 2006 meeting IEC TC57 working group 10 decided that:

- green Tissues with the category "IntOp" are mandatory for IEC 61850 edition 1
- Tissues with the category "Ed.2" Tissues should not be implemented.

Below table gives an overview of the implemented IntOp Tissues.

Part	Tissue Nr	Description	Implemented Y/na
8-1	116	GetNameList with empty response?	Υ
	165	Improper Error Response for GetDataSetValues	Υ
	183	GetNameList error handling	Υ
7-4	None		
7-3	28	Definition of APC	na
	54	Point def xVal, not cVal	na
	55	Ineut = Ires ?	Υ
	60	Services missing in tables	na
	63	mag in CDC CMV	Υ
	65	Deadband calculation of a Vector and trigger option	N
	219	operTm in ACT	na
	270	WYE and DEL rms values	Υ
7-2	30	control parameter T	Υ
	31	Туро	na
	32	Typo in syntax	na
	35	Typo Syntax Control time	na
	36	Syntax parameter DSet-Ref missing	na
	37	Syntax GOOSE "T" type	Υ
	39	Add DstAddr to GoCB	Υ
	40	GOOSE Message "AppID" to "GoID"	Υ
	41	GsCB "AppID" to "GsID"	na
	42	SV timestamp: "EntryTime" to "TimeStamp"	na
	43	Control "T" semantic	Υ
	44	AddCause - Object not sel	Υ
	45	Missing AddCauses (neg range)	na
	46	Synchro check cancel	na
	47	"." in LD Name?	Υ
	49	BRCB TimeOfEntry (part of #453)	Υ
	50	LNName start with number?	Υ
	51	ARRAY [0num] missing	na
	52	Ambiguity GOOSE SqNum	Υ
	53	Add DstAddr to GsCB, SV	na
	151	Name constraint for control blocks etc.	Υ
	166	DataRef attribute in Log	na
	185	Logging - Integrity periode	na
	189	SV Format	na
	190	BRCB: Entryld and TimeOfEntry (part of #453)	Υ
	191	BRCB: Integrity and buffering reports (part of #453)	Υ

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Part	Tissue	Description	Implemented
	Nr		Y/na
	234	New type CtxInt (Enums are mapped to 8 bit integer)	na
	275	Confusing statement on GI usage (part of #453)	Υ
	278	Entryld not valid for a server (part of #453)	Υ
Part 6	1	Syntax	na
	5	tExtensionAttributeNameEnum is restricted	Υ
	8	SIUnit enumeration for W	Υ
	10	Base type for bitstring usage	Υ
	17	DAI/SDI elements syntax	Υ
	169	Ordering of enum differs from 7-3	na

NOTE: Tissue 49, 190, 191, 275 and 278 are part of the optional tissue #453, all other technical tissues in the table are mandatory if applicable.

NOTE: Editorial tissues are marked as "na".

NOTE: Final proposal on tissue 45 is not defined yet

## **Optional IntOp Tissues**

After the approval of the server conformance test procedures version 2.2 the following IntOp tissues were added or changed. It is optional to implement these tissues.

Part	Tissue	Description	Implemented
	Nr		Y/N/na
8-1	246	Control negative response (SBOns) with LastApplError	Y
8-1	545	Skip file directories with no files	Y
7-2	333	Enabling of an incomplete GoCB	na
7-2	453	Combination of all reporting and logging tissues	N
6	245	Attribute Rptld in SCL	Y
6	529	Replace sev - Unknown by unknown	na