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Inspection Record

Test procedures for GOOSE Performance rev1p1_23Sep2010

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1. Reviewed Documents

Ref	Document id	Rev	Document title
[1]	-	Ver. 1.1	Test procedures for GOOSE Performance
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2. Review Group

Name	Dept	Role	Preparation	
			Time	Issues
UCA IEC61850 Testing Subcommittee		Reviewer		
Marijn Flohi UTINNOVATION LLC		Reviewer		
Marcin Wycinka AREVA		Reviewer		
Fred Steinhauser OMICRON		Reviewer		
Richard Schimmel /		Author		n/a
Stephan Gerspach		Author		n/a

3. Review Type

Ref	Review Type
[1]	Technical Inspection
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4. Related Issues

Syntax for table below:

- Each remark and issue found during the review get's an entry **#N**
- The author added a comment to the review remark with entry #N.1 and whether the change is accepted, rejected or partially accepted.
- The discussion during the review meeting is recorded in entry #N.2
- By putting the initials into the Appr. column, the comment is accepted and will be implemented according to the description into the document.

Nr	Location	Description	Found by	Appr
1	3.1.1	Published GOOSE used for PING-PONG: Propose to specify which element of published dataset should be used for PING-PONG purposes (as the "PONG" response) – the last one of the Normal/Large DS?	Marcin Wycinka	
1.1		Correct, the idea was to use always the last element. I added the description from chapter 3.1.2 to 3.1.1 as well.	SG	
1.2		**Agreed during review meeting 2011-01-11**	**ALL**	
2	3.1.1 3.1.2 3.1.3	APPID=3001, Since the agreed value of APPID is same for all Goose messages, propose to move it to 3.1 (General message definitions)	Marcin Wycinka	
2.1		Correct APPID definition will be moved from Chapter 3.1.1, 3.1.2 and 3.1.3 to 3.1. in addition the APPID will be marked as hex value, 0x3001	SG	
2.2		**Agreed during review meeting 2011-01-11**	**ALL**	
3	3.1.1 3.1.2 3.1.3 3.1.4	It is not entirely clear to me why we propose such loooong and complicated IED names, in fact we could leave this (and the LD name) entirely open and just write: IEDNameLDName/LLN0GOGPFPPping..... And we could use the same IEDName and LDName for both test cases.	Fred Steinhauser	
3.1		I removed the GoCB ref everywhere because it doesn't matter. Only the dataset and GoCB name remain.	SG	
3.2		**Agreed during review meeting 2011-01-11**	**ALL**	
4	3.1.2 3.1.3 3.1.4	the description of the large dataset is a bit inconsistent. The text and the "structure description" describe the dataset in just different order. I suggest to modify the text in the following way: "20 booelan values with qualities and 20 DP values with qualities".	Fred Steinhauser	
4.1		Done the description is changed for the datasets in 3.1.2, 3.1.3 and 3.1.4.	SG	
4.2		**Agreed during review meeting 2011-01-11**	**ALL**	

Nr	Location	Description	Found by	Appr
5	3.1.2, Page 11	"booelan " should be "Boolean"	Marijn Flohi	
5.1		Done, corrected every there	SG	
5.2		**Agreed during review meeting 2011-01-11**	**ALL**	
6	Several	The abbreviation "DP" should be added to the Glossary in chapter 1.3	Marijn Flohi	
6.1		Done DP is added to Glossary	SG	
6.2		**Agreed during review meeting 2011-01-11**	**ALL**	
7	3.1.3	Propose to remove the statement "The 5 GOOSEs ... published by 5 IEDs". It can be generated by a GOOSE simulator or 1.2 or 5 (real)IEDs. From the DUT point of view it does not matter. The source of GOOSEs cannot even be verified by reviewing the network capture files.	Marcin Wycinka	
7.1		I would suggest to keep it in for the following reasons. -More realistic use case. -In case the GoCB's coming from same IED they will be always in sequence. -With the related SCD File the source IED's can be identified in the network traffic.	SG	
7.2		**Statement shall be removed and we should keep it open how the GOOSE messages are produced because for the DUT it doesn't matter.** **Agreed during review meeting 2011-01-11**	**ALL**	
8	3.1.3	"The 5 GOOSE control blocks are published by 5 IED's (each one publishing 1 GOOSE control block.". Why was this sentence added? What is the added value of having 5 IEDs publishing 1 GoCB each, instead of 1 simulator publishing 5 GoCBs, or 5 simulators publishing 1 GoCB each? If IEDs or multiple, physically separated GOOSE simulators are needed to perform testcases, the test setup described in chapter 2 should be updated to reflect this.	Marijn Flohi	
8.1		I think it will be a more realistic case then the Goose are distributed from several IED's (for example 5 IED's each one with 1 GCB). The description of the test setup should remain, because several IED can be simulated by one simulator.	SG	
8.2		**Statement shall be removed and we should keep it open how the GOOSE messages are produced because for the DUT it doesn't matter.** **Agreed during review meeting 2011-01-11**	**ALL**	
9	3.1.4, Page 12	"large dataset10" should be "large dataset7". Item 7 and item 10 describe exactly the same text, so item 10 is unnecessary	Marijn Flohi	
9.1		Done, item 10 is removed/replaced by 6.	SG	
9.2		**Agreed during review meeting 2011-01-11**	**ALL**	
10	3.1.4	Propose to remove the statement "The 100 GOOSEs … are published by 20 IEDs…" See comment 3	Marcin Wycinka	
10.1		OK, against to Nr. 5 or 6, I could agree here because the GoCBs anyhow will not be subscribed. But we can as well not leave it open. With the statement "The 100 GOOSEs … are published by 20 IEDs…" it is defined how the "background" traffic was produced. And as well here it is more realistic to distribute from several IED's.	SG	
10.2		**Statement shall be removed and we should keep it open how the GOOSE messages are produced because for the DUT it doesn't matter.** **Agreed during review meeting 2011-01-11**	**ALL**	

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Nr	Location	Description	Found by	Appr
11	3.1.5, page 13	"The report control blocks shall be configured to send reports on data change and quality change with all supported optional fields." Support for quality change (or data change for that matter). Add a note explaining that as a minimum, one of these two trigger conditions must be supported and enabled.	Marijn Flohi	
11.1		Done, footnote added	SG	
11.2		**Agreed during review meeting 2011-01-11**	**ALL**	
12	3.2	Gpf4: Editorial – "Yes" should be "YES"	Marcin Wycinka	
12.1		Done	SG	
12.2		**Agreed during review meeting 2011-01-11**	**ALL**	
13	3.2	Add note2 to clarify whether publishing LARGE (pong) GoCB should be disabled or enabled while testing NORMAL (should NORMAL (pong) be disabled while testing LARGE?)	Marcin Wycinka	
13.1		OK Note is added to chapter 3.2. *"GOOSE Simulator will not publishing the LARGE GCB during NORMAL tests (Gpf1,3,5,7) and not publishing NORMAL GCB during LARGE tests (Gpf2,4,6,8). DUT will publishing in all test cases LARGE and Normal GCB."*	SG	
13.2		**Agreed during review meeting 2011-01-11**	**ALL**	
14	3.3	Plausibility check, do we need to verify that measured Troundtrip.max > declared Application scan cycle? (to avoid the case when a vendor specifies unrealistic value of scan cycle just to pass the performance test)	Marcin Wycinka	
14.1		OK, In principle I agree, but where is the border. I added the following comment to the plausibility checks." *In case the measured scan cycle is more than 1 ms below the documented scan cycle, the documented scan cycle shall be adjusted by the vendor. The adjusted documented scan cycle time has to be taken for the final performance calculation"*	SG	
14.2		**Agreed during review meeting 2011-01-11**	**ALL**	

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Nr	Location	Description	Found by	Appr
15	3.4, page 16	The table in 3.4 is not numbered. Also, the text above this unnumbered table describes "Performance class = P1 or P2/P3", these performance classes are not mentioned anywhere in the table, so I think this text can be removed	Marijn Flohi	
15.1		It is the documented Performance Class for the DUT. Changed the text to Documented Performance Class and Measured Performance Class.	SG	
15.2		**Agreed during review meeting 2011-01-11**	**ALL**	
16	3.5	The option "inconclusive" has been removed from the possible testcase results. In my opinion, this option should not be removed. Sometimes when performing a test, it can be that for some reason, it is not possible perform a testcase. In these situations, the testengineer should document the test to be inconclusive.	Marijn Flohi	
16.1		I don't agree. Before in the Goose test procedure version 1.0 there was only one test case with several different results. There it was OK that the test case could be inconclusive. I spitted everything up to several test cases. Now it is possible to run a test case or not. Inconclusive is not foreseen anymore.	SG	
16.2		**Add inconclusive again and change the titles of the test cases. Agreed during review meeting 2011-01-11**	**ALL**	
17	Certificate template, page 26	"This certificate summaries.." should be "This certificate summarizes the …."	Marijn Flohi	
17.1		Done.	SG	
17.2		**Agreed during review meeting 2011-01-11**	**ALL**	
18	Annex B:	Certificate: add the disclaimer from 1.2 "This test procedure is intended as a benchmark……..It does not test device under worst case load, worst network conditions…….."	I think originally this was Richard's comment.	
18.1		I suggest to avoid such statements on the certificate. We should keep the Certificate as simple as possible. For sure the testing environment and the conditions have t be described but this is done in the procedure.	SG	
18.2		**Agreed during review meeting 2011-01-11**	**ALL**	

Ref.	Decision	Approved by
[1]		
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REVISION

Rev. ind.	Page (P) Chapt.(C)	Description	Date Dept./Init.
1.0	all	Initial document template for comments	2010-11-25 / SG

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