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MiCOM P40 Agile

Px4x

PICS

Protocol Implementation Conformance Statement - IEC 61850 Edition 1

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CONTENTS

1	Protocol Implementation Conformance Statement (PICS)	3
1.1	Introduction	3
1.2	ACSI Basic Conformance Statement	3
1.3	ACSI Models Conformance Statement	4
1.4	ACSI Service Conformance Statement	5

1 PROTOCOL IMPLEMENTATION CONFORMANCE STATEMENT (PICS)

1.1 INTRODUCTION

This specification is the Protocol Implementation Conformance Statement (PICS) and presents the ACSI conformance statements as defined in Annex A of Part 7-2 of the IEC 61850 standard specifications.

1.2 ACSI BASIC CONFORMANCE STATEMENT

The basic conformance statement is defined in the table below.

Client-Server Roles		Client/ Subscriber	Server/ Publisher	Value/Comments
B11	Server side (of TWO-PARTY-APPLICATION-ASSOCIATION)		Y	
B12	Client side of (TWO-PARTY-APPLICATION-ASSOCIATION)			
SCSMs supported				
B21	SCSM: IEC 6185-8-1 used		Y	
B22	SCSM: IEC 6185-9-1 used			
B23	SCSM: IEC 6185-9-2 used			
B24	SCSM: other			
Generic substation event model (GSE)				
B31	Publisher side		Y	
B32	Subscriber side	Y		
Transmission of sampled value model (SVC)				
B41	Publisher side			
B42	Subscriber side			
– Y = supported N or empty = not supported				

Table 1: Basic conformance statement

1.3 ACSI MODELS CONFORMANCE STATEMENT

The ACSI models conformance statement is defined in the table below.

		Client/ Subscriber	Server/ Publisher	Value/Comments
If Server or Client side (B1) is supported				
M1	Logical Device		Y	
M2	Logical Node		Y	
M3	Data		Y	
M4	Data set		Y	
M5	Substitution			
M6	Setting group control		Y	
	Reporting			
M7	Buffered report control		Y	
M7-1	sequence-number		Y	
M7-2	report-time-stamp		Y	
M7-3	reason-for-inclusion		Y	
M7-4	data-set-name		Y	
M7-5	data-reference		Y	
M7-6	buffer-overflow		Y	
M7-7	entryID		Y	
M7-8	BufTim		Y	
M7-9	IntgPd		Y	
M7-10	GI		Y	
M7-11	conf-revision		Y	
M8	Unbuffered report control		Y	
M8-1	sequence-number		Y	
M8-2	report-time-stamp		Y	
M8-3	reason-for-inclusion		Y	
M8-4	data-set-name		Y	
M8-5	data-reference		Y	
M8-6	BufTim		Y	
M8-7	IntgPd		Y	
M8-8	GI		Y	
M8-9	conf-revision		Y	
	Logging			
M9	Log control			
M9-1	IntgPd			
M10	Log			
M11	Control		Y	
If GSE (B31/32) is supported				
M12	GOOSE	Y	Y	
M13	GSSE			
If SVC (B41/42) is supported				
M14	Multicast SVC			
M15	Unicast SVC			
If Server or Client side (B11/12) is supported				
M16	Time	Y	Y	Time source with required accuracy shall be available.
M17	File Transfer		Y	

		Client/ Subscriber	Server/ Publisher	Value/Comments
Y = service is supported N or empty = service is not supported				

Table 2: Models conformance statement

1.4 ACSI SERVICE CONFORMANCE STATEMENT

The ACSI service conformance statement is defined in the table below (depending on the statements in Table 1).

	Ed.	Services	AA: TP/MC	Client (C)	Server (S)	Comments
Server						
S1	1	ServerDirectory	TP		Y	
Application association						
S2	1	Associate			Y	
S3	1	Abort			Y	
S4	1	Release			Y	
Logical Device						
S5	1	LogicalDeviceDirectory	TP		Y	
Logical Node						
S6	1	LogicalNodeDirectory	TP		Y	
S7	1	GetAllDataValues	TP		Y	
Data						
S8	1	GetDataValues	TP		Y	
S9	1	SetDataValues	TP		Y	
S10	1	GetDataDirectory	TP		Y	
S11	1	GetDataDefinition	TP		Y	
Data set						
S12	1	GetDataSetValues	TP		Y	
S13	1	SetDataSetValues	TP			
S14	1	CreateDataSet	TP			
S15	1	DeleteDataSet	TP			
S16	1	GetDataSetDirectory	TP		Y	
Substitution						
S17	1	SetDataValues	TP			
Setting group control						
S18	1	SelectActiveSG	TP		Y	
S19	1	SelectEditSG	TP			
S20	1	SetSGValues	TP			
S21	1	ConfirmEditSGValues	TP			
S22	1	GetSGValues	TP			
S23	1	GetSGCBValues	TP		Y	

	Ed.	Services	AA: TP/MC	Client (C)	Server (S)	Comments
Reporting						
Buffered report control block (BRCB)						
S24	1	Report	TP		Y	
S24-1	1	data-change (dchg)			Y	
S24-2	1	qchg-change (qchg)				
S24-3	1	data-update (dupd)				
S25	1	GetBRCBValues	TP		Y	
S26	1	SetBRCBValues	TP		Y	
Unbuffered report control block (URCB)						
S27	1	Report	TP		Y	
S27-1	1	data-change (dchg)			Y	
S27-2	1	qchg-change (qchg)				
S27-3	1	data-update (dupd)				
S28	1	GetURCBValues	TP		Y	
S29	1	SetURCBValues	TP		Y	
Logging						
Log control block						
S30	1	GetLCBValues	TP			
S31	1	SetLCBValues	TP			
Log						
S32	1	QueryLogByTime	TP			
S33	1	QueryLogByEntry	TP			
S34	1	GetLogStatusValues	TP			
Generic substation event model (GSE)						
GOOSE-CONTROL-BLOCK						
S35	1	SendGOOSEMessage	MC		Y	IED supports GOOSE publish & subscription.
S36	1	GetReference	TP			
S37	1	GetGOOSEElementNumber	TP			
S38	1	GetGoCBValues	TP		Y	
S39	1	SetGoCBValues	TP		Y	
GSSE-CONTROL-BLOCK						
S40		SendGSSEMessage	MC			
S41		GetReference	TP			
S42		GetGSSEElementNumber	TP			
S43		GetGsCBValues	TP			
S44		SetGsCBValues	TP			
Transmission of sampled value model (SVC)						
Multicast SVC						

	Ed.	Services	AA: TP/MC	Client (C)	Server (S)	Comments
S45	1	SendMSVMessage	MC			
S46	1	GetMSVCBValues	TP			
S47	1	SetMSVCBValues	TP			
Unicast SVC						
S48	1	SendUSVMessage	TP			
S49	1	GetUSVCBValues	TP			
S50	1	SetUSVCBValues	TP			
Control						
S51	1	Select			Y	
S52	1	SelectWithValue	TP		Y	
S53	1	Cancel	TP		Y	
S54	1	Operate	TP		Y	
S55	1	Command-Termination	TP		Y	
S56	1	TimeActivated-Operate	TP			
File transfer						
S57	1	GetFile	TP		Y	
S58	1	SetFile	TP			
S59	1	DeleteFile	TP		Y	Only from /dr_unextracted/ Operation may only be performed on .cfg files.
S60	1	GetFileAttributeValues	TP		Y	
Time						
T1	1	Time resolution of internal clock			10	Nearest negative power of 2 in seconds.
T2	1	Time accuracy of internal clock				T0
					10	T1
						T2
						T3
						T4
						T5
T3	1	Supported TimeStamp resolution	-		10	Nearest negative power of 2 in seconds.

Table 3: Service conformance statement

AA: Application association type

TP: Two part (for MMS)

MC: Multicast (for GOOSE and SMV)



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