

MiCOM P547

Phase Comparison Relay

P547/EN PC/B31

Software Version 57

PICS

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Notes:

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 Table 1.

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			
Notes 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 Table 2.

		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 (41/42) is supported				

		Client/ subscriber	Server/ publisher	Value/ comments
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	
Notes 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 Table 3 (depending on the statements in Table 1).

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

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

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

Table 3: Service conformance statement



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