



Protocol Implementation Conformance Statement (PICS)	
PICS for Server Test Procedures for Edition 2	C264 DS Agile V7
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# Protocol Implementation Conformance Statement (PICS)

## PICS for Server Test Procedures for Edition 2

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## 1 GENERAL

The following ACSI conformance statements are used to provide an overview and details about C264 with firmware system version DS Agile V7:

- ACSI basic conformance statement,
- ACSI models conformance statement,
- ACSI service conformance statement

The statements specify the communication features mapped to IEC 61850-8-1 and IEC 61850-9-2.



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## 2 ACSI BASIC CONFORMANCE STATEMENT

The basic conformance statement is defined in Table A.1.

**Table A.1 – Basic conformance statement**

		Client/ Subscriber	Server/ Publisher	Value/ Comments
<b>Client-Server roles</b>				
B11	<b>Server</b> side (of TWO-PARTY-APPLICATION-ASSOCIATION)	—	Y	
B12	<b>Client</b> side of (TWO-PARTY-APPLICATION-ASSOCIATION)	Y	—	
<b>SCSMs supported</b>				
B21	<b>SCSM:</b> IEC 61850-8-1 used	Y	Y	
B22	<b>SCSM:</b> IEC 61850-9-1 used	N	N	Deprecated Ed2
B23	<b>SCSM:</b> IEC 61850-9-2 used	N	N	
B24	<b>SCSM:</b> other	N	N	
<b>Generic substation event model (GSE)</b>				
B31	<b>Publisher</b> side	—	Y	
B32	<b>Subscriber</b> side	Y	—	
<b>Transmission of sampled value model (SVC)</b>				
B41	<b>Publisher</b> side	—	N	
B42	<b>Subscriber</b> side	N	—	
– = not applicable Y = supported N or empty = not supported				



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### 3 ACSI MODELS CONFORMANCE STATEMENT

The ACSI models conformance statement is defined in Table A.2.

**Table A.2 – ACSI models conformance statement**

		Client/ Subscriber	Server/ Publisher	Value/ Comments
If <b>Server</b> side (B11) and/or <b>Client</b> side (B12) supported				
M1	<b>Logical device</b>	N	Y	
M2	<b>Logical node</b>	N	Y	
M3	<b>Data</b>	N	Y	
M4	<b>Data set</b>	N	Y	
M5	<b>Substitution</b>	Y	Y	
M6	<b>Setting group control</b>	N	N	
<b>Reporting</b>				
M7	<b>Buffered report control</b>	Y	Y	
M7-1	sequence-number	Y	Y	
M7-2	report-time-stamp	Y	Y	
M7-3	reason-for-inclusion	Y	Y	
M7-4	data-set-name	Y	Y	
M7-5	data-reference	Y	Y	
M7-6	buffer-overflow	Y	Y	
M7-7	entryID	Y	Y	
M7-8	BufTm	Y	Y	
M7-9	IntgPd	Y	Y	
M7-10	GI	Y	Y	
M7-11	conf-revision	Y	Y	
M8	<b>Unbuffered report control</b>	Y	Y	
M8-1	sequence-number	Y	Y	
M8-2	report-time-stamp	Y	Y	
M8-3	reason-for-inclusion	Y	Y	
M8-4	data-set-name	Y	Y	
M8-5	data-reference	Y	Y	
M8-6	BufTm	Y	Y	
M8-7	IntgPd	Y	Y	



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		Client/ Subscriber	Server/ Publisher	Value/ Comments
M8-8	GI	Y	Y	
M8-9	conf-revision	Y	Y	
	<b>Logging</b>	N	N	
M9	<b>Log control</b>			
M9-1	IntgPd			
M10	<b>Log</b>			
M11	<b>Control</b>	Y	Y	
M17	<b>File Transfer</b>	N	Y	
M18	<b>Application association</b>	Y	Y	
M19	<b>GOOSE Control Block</b>	Y	Y	
M20	<b>Sampled Value Control Block</b>	N	N	
If <b>GSE</b> (B31/32) is supported				
M12	<b>GOOSE</b>	Y	Y	
M13	<b>GSSE</b>	N	N	Deprecated Ed2
If <b>SVC</b> (B41/42) is supported				
M14	Multicast SVC			
M15	Unicast SVC			
For all IEDs				
M16	<b>Time</b>	Y	Y	Time source with required accuracy shall be available. Only Time Master are SNTP (Mode 4 response) time server. All other Client / Server devices require SNTP (Mode 3 request) clients
Y = service is supported				
N or empty = service is not supported				



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## 4 ACSI SERVICE CONFORMANCE STATEMENT

The ACSI service conformance statement is defined in Table A.4 (depending on the statements in Table A.1 and in Table A.3).

**Table A.4 – ACSI service Conformance statement**

	Ed.	Services	AA: TP/MC	Client (C)	Server (S)	Comments
<b>Server</b>						
S1	1,2	GetServerDirectory (LOGICAL-DEVICE)	TP	Y	Y	
<b>Application association</b>						
S2	1,2	Associate		Y	Y	
S3	1,2	Abort		N	Y	
S4	1,2	Release		Y	Y	
<b>Logical device</b>						
S5	1,2	GetLogicalDeviceDirectory	TP	N	Y	
<b>Logical node</b>						
S6	1,2	GetLogicalNodeDirectory	TP	N	Y	
S7	1,2	GetAllDataValues	TP	N	Y	
<b>Data</b>						
S8	1,2	GetDataValues	TP	N	Y	
S9	1,2	SetDataValues	TP	N	N	
S10	1,2	GetDataDirectory	TP	N	Y	
S11	1,2	GetDataDefinition	TP	N	Y	
<b>Data set</b>						
S12	1,2	GetDataSetValues	TP	Y	Y	
S13	1,2	SetDataSetValues	TP	N	N	
S14	1,2	CreateDataSet	TP	N	N	
S15	1,2	DeleteDataSet	TP	N	N	
S16	1,2	GetDataSetDirectory	TP	Y	Y	



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	Ed.	Services	AA: TP/MC	Client (C)	Server (S)	Comments
<b>Substitution</b>						
S17	1	SetDataValues	TP	Y	Y	

<b>Setting group control</b>						
S18	1,2	SelectActiveSG	TP			
S19	1,2	SelectEditSG	TP			
S20	1,2	SetEditSGValues	TP			
S21	1,2	ConfirmEditSGValues	TP			
S22	1,2	GetEditSGValues	TP			
S23	1,2	GetSGCBValues	TP			

<b>Reporting</b>						
<b>Buffered report control block (BRCB)</b>						
S24	1,2	Report	TP	Y	Y	
S24-1	1,2	data-change (dchg)		Y	Y	
S24-2	1,2	quality-change (qchg)		Y	Y	
S24-3	1,2	data-update (dupd)		Y	Y	Event could never happen in server.
S25	1,2	GetBRCBValues	TP	Y	Y	
S26	1,2	SetBRCBValues	TP	Y	Y	
<b>Unbuffered report control block (URCB)</b>						
S27	1,2	Report	TP	Y	Y	
S27-1	1,2	data-change (dchg)		Y	Y	
S27-2	1,2	quality-change (qchg)		Y	Y	
S27-3	1,2	data-update (dupd)		Y	Y	
S28	1,2	GetURCBValues	TP	Y	Y	
S29	1,2	SetURCBValues	TP	Y	Y	

<b>Logging</b>						
<b>Log control block</b>						
S30	1,2	GetLCBValues	TP			
S31	1,2	SetLCBValues	TP			
<b>Log</b>						
S32	1,2	QueryLogByTime	TP			
S33	1,2	QueryLogAfter	TP			
S34	1,2	GetLogStatusValues	TP			





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	Ed.	Services	AA: TP/MC	Client (C)	Server (S)	Comments
<b>Generic substation event model (GSE)</b>						
GOOSE						
S35	1,2	SendGOOSEMessage	MC	Y	Y	
GOOSE-CONTROL-BLOCK						
S36	1,2	GetGoReference	TP	Y	Y	
S37	1,2	GetGOOSEElementNumber	TP	N	N	
S38	1,2	GetGoCBValues	TP	Y	Y	
S39	1,2	SetGoCBValues	TP	N	Y	
GSSE						
S40	1	SendGSSEMessage	MC			Deprecated in Edition 2
GSSE-CONTROL-BLOCK						
S41	1	GetReference	TP			Deprecated in Edition 2
S42	1	GetGSSEElementNumber	TP			Deprecated in Edition 2
S43	1	GetGsCBValues	TP			Deprecated in Edition 2
S44	1	SetGsCBValues	TP			Deprecated in Edition 2

<b>Transmission of sampled value model (SVC)</b>						
Multicast SV						
S45	1,2	SendMSVMessage	MC			
Multicast Sampled Value Control Block						
S46	1,2	GetMSVCBValues	TP			
S47	1,2	SetMSVCBValues	TP			
Unicast SV						
S48	1,2	SendUSVMessage	TP			
Unicast Sampled Value Control Block						
S49	1,2	GetUSVCBValues	TP			
S50	1,2	SetUSVCBValues	TP			

<b>Control</b>						
S51	1,2	Select		N	N	
S52	1,2	SelectWithValue	TP	Y	Y	
S53	1,2	Cancel	TP	Y	Y	
S54	1,2	Operate	TP	Y	Y	
S55	1,2	CommandTermination	TP	Y	Y	
S56	1,2	TimeActivatedOperate	TP	N	N	



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	Ed.	Services	AA: TP/MC	Client (C)	Server (S)	Comments
<b>File transfer</b>						
S57	1,2	GetFile	TP		Y	
S58	1,2	SetFile	TP		N	
S59	1,2	DeleteFile	TP		Y	
S60	1,2	GetFileAttributeValues	TP		Y	
S61	1,2	GetServerDirectory (FILE-SYSTEM)	TP		Y	

<b>Time</b>						
T1	1,2	Time resolution of internal clock			12	Nearest negative power of 2 <sup>-n</sup> in seconds (number 0 .. 24)
T2	1,2	Time accuracy of internal clock			T5	TL (ms) (low accuracy), T3 < 7) (only Ed2) T0 (ms) (<= 10 ms), 7 <= T3 < 10 T1 (µs) (<= 1 ms), 10 <= T3 < 13 T2 (µs) (<= 100 µs), 13 <= T3 < 15 T3 (µs) (<= 25 µs), 15 <= T3 < 18 T4 (µs) (<= 25 µs), 15 <= T3 < 18 T5 (µs) (<= 1 µs), T3 >= 20
T3	1,2	Supported TimeStamp resolution	-		12	Nearest value of 2 <sup>-n</sup> in seconds (number 0 .. 24)



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## REVISION HISTORY

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1.0	17102016	Christophe.Camélis	Initial version for final conformance test