



PICS for DS Agile C264 V7 Rev A1.3	
PICS for Client/Server Test Procedures for Edition 2	DS Agile C264 V7
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# Protocol Implementation Conformance Statement (PICS)

## PICS for Client/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>	Y	Y	
M5	<b>Substitution</b>	N	Y	
M6	<b>Setting group control</b>	N	N	
	<b>Reporting</b>	Y	Y	
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	



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		Client/ Subscriber	Server/ Publisher	Value/ Comments
M8-7	IntgPd	Y	Y	
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	
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	N	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	Y	
S10	1,2	GetDataDirectory	TP	N	Y	
S11	1,2	GetDataDefinition	TP	N	Y	

<b>Data set</b>						
S12	1,2	GetDataSetValues	TP	N	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	N	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	
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			





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	Ed.	Services	AA: TP/MC	Client (C)	Server (S)	Comments
S33	1,2	QueryLogAfter	TP			
S34	1,2	GetLogStatusValues	TP			

<b>Generic substation event model (GSE)</b>						
<b>GOOSE</b>						
S35	1,2	SendGOOSEMessage	MC	-	Y	
<b>GOOSE-CONTROL-BLOCK</b>						
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	
<b>GSSE</b>						
S40	1	SendGSSEMessage	MC			Deprecated in Edition 2
<b>GSSE-CONTROL-BLOCK</b>						
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>						
<b>Multicast SV</b>						
S45	1,2	SendMSVMessage	MC			
<b>Multicast Sampled Value Control Block</b>						
S46	1,2	GetMSVCBValues	TP			
S47	1,2	SetMSVCBValues	TP			
<b>Unicast SV</b>						
S48	1,2	SendUSVMessage	TP			
<b>Unicast Sampled Value Control Block</b>						
S49	1,2	GetUSVCBValues	TP			
S50	1,2	SetUSVCBValues	TP			

<b>Control</b>						
S51	1,2	Select		N	N	SBOs is not managed.



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

<b>Time</b>						
T1	1,2	Time resolution of internal clock		12	12	Nearest negative power of 2 <sup>-n</sup> in seconds (number 0 .. 24)
T2	1,2	Time accuracy of internal clock		T5	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	12	Nearest value of 2 <sup>-n</sup> in seconds (number 0 .. 24)



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Version	Date	Author	Remarks
1.0	04052017	Christophe.Camélis	Initial version based on C264/GTW PICS used for certification
1.1	12062017	Christophe.Camélis	Update for C264 final client conformance test
A1.2	12062017	Christophe.Camélis	GetDataValues/SetDataValues/GetDataSetValues not supported Subtitution and FileTransfert are not managed
A1.3	28062017	Christophe.Camélis	GetServerDirectory(LD) is not managed.