Protocol Implementation Conformance Statement for the IEC 61850 interface in SEL-710

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1 General

The following ACSI conformance statements are used to provide an overview and details about SEL-710-5 with firmware R100:

— ASCI basic conformance statement,

— ACSI models conformance statement,

— ACSI service conformance statement

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

2 ASCI 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
Client-Server roles				
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	**Subcriber** side		—	

–
Y = supported
N or empty = not supported

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 **Server or Client** side (B11/12) supported				
M1	**Logical device**		Y	
M2	**Logical node**		Y	
M3	**Data**		Y	
M4	**Data set**		Y	
M5	**Substitution**			
M6	**Setting group control**			
	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	
M13	**GSSE**			

		Client/ Subscriber	Server/ Publisher	Value/ Com-ments
If **SVC** (41/42) is supported				
M14	Multicast SVC			
M15	Unicast SVC			
If **Server or Client** side (B11/12) supported				
M16	**Time**		Y	
M17	**File Transfer**			
Y = service is supported N or empty = service is not supported				

4 ACSI service conformance statement

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

Table A.3 – ACSI service Conformance statement

	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			
S10	GetDataDirectory	TP		Y	
S11	GetDataDefinition	TP		Y	
Data set					
S12	GetDataSetValues	TP		Y	
S13	SetDataSetValues	TP			
S14	CreateDataSet	TP			

	Services	AA: TP/MC	Client (C)	Server (S)	Comments
S15	DeleteDataSet	TP			
S16	GetDataSetDirectory	TP		Y	

Substitution					
S17	SetDataValues	TP			

Setting group control					
S18	SelectActiveSG	TP			
S19	SelectEditSG	TP			
S20	SetSGValues	TP			
S21	ConfirmEditSGValues	TP			
S22	GetSGValues	TP			
S23	GetSGCBValues	TP			

Reporting					
Buffered report control block (BRCB)					
S24	Report	TP		Y	
S24-1	data-change (dchg)			Y	
S24-2	qchg-change (qchg)			Y	
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)			Y	
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	
S36	GetReference	TP			
S37	GetGOOSEElementNumber	TP			

	Services	AA: TP/MC	Client (C)	Server (S)	Comments
S38	GetGoCBValues	TP		Y	
S39	SetGoCBValues	TP			
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					
S45	SendMSVMessage	MC			
S46	GetMSVCBValues	TP			
S47	SetMSVCBValues	TP			
Unicast SVC					
S48	SendUSVMessage	TP			
S49	GetUSVCBValues	TP			
S50	SetUSVCBValues	TP			

Control					
S51	Select				
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			
S58	SetFile	TP			
S59	DeleteFile	TP			
S60	GetFileAttributeValues	TP			

Time					
T1	Time resolution of internal clock			20	nearest negative power of 2 in seconds
T2	Time accuracy of internal clock			7 18	For SNTP For IRIG-B
				Y	T1 for IRIG-B
				Y	T2 for IRIG-B
				Y	T3 for IRIG-B
				Y	T4 for IRIG-B
					T5
T3	Supported TimeStamp reso-	-		7	For SNTP

	Services	AA: TP/MC	Client (C)	Server (S)	Comments
	lution			18	For IRIG-B