



SyncML Implementation Conformance Statement Proforma

Version 1.0

Abstract

The SyncML Implementation Conformance Statement is designed to be used by vendors to show their level of conformance with SyncML specifications.

Note that if your product can perform as both a client and a server, you will need to fill out both sets of forms.



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Revision History

Revision	Date	Comments
1.0	2001-11-02	Finalized for release.



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1 Introduction

The purpose of this statement is to define a methodology for showing conformance with the SyncML Representation protocol [1], SyncML Sync Protocol [2] and appropriate transport. Vendors filling in this form will mark the items with either YES or NO, indicating whether the items are implemented or not. Mandatory items marked NO MUST have explanatory text.

NOTE: Server must be able to deal with with the two cases or packages 1 & 3 being sent seperately and combined.



2 Product Information

2.1 Device and Contact Information

Device Name & Version	Synthesis Sync Server V1.0 (SySync)
Company	Synthesis AG (www.synthesis.ch)
Contact Name	Lukas Zeller
Contact Phone	+41 1 440 66 01
Contact Email	luz@synthesis.ch
Transports supported	OBEX [experimental ¹] WSP [] HTTP [X]
Product is	Client [] Server [X]

2.2 Content Formats Supported

NOTE: If a server supports a data type listed below, it must also support the associated content format.

Data Type	Content Format	Supported (Y/N)
Contact	vCard 2.1	Y
	vCard 3.0 (optional)	Y, experimental ²
Calendar	vCalendar 1.0	Y
	iCalendar 2.0 (optional)	Y, experimental
Memos	text/plain	
Tasks	vTodo 1.0	
Email	message/rfc822	
	message/rfc2822	
	Message/rfc2045	

¹ OBEX is implemented as far as the RTK supports it. We consider that support experimental as it is mostly untested due to lack of client devices capable of doing OBEX-based SyncML. We would however like to try interoperating with an IrDA-based OBEX client, if one should be available at SyncFest #5.

² vCard 3.0 and iCalendar 2.0 are supported, but we consider support as experimental as it could not be tested otherwise than with SCTS, due to lack of client devices supporting these formats.



3 Server Conformance Tables

NOTE: Server SHOULD be able to log the XML and WBXML documents sent between the server and a client.

3.1 Representation Common Use Elements

Command	Required of Server		Implemented in Server	
	Sending	Receiving	Sending	Receiving
Archive	MAY	MUST	N	Y (see note ³)
Chal	MUST	MUST	Y	Y
Cmd	MUST	MUST	Y	Y
CmdID	MUST	MUST	Y	Y
CmdRef	MUST	MUST	Y	Y
Cred	MUST	MUST	Y	Y
Final	MUST	MUST	Y	Y
Lang	MAY	MAY	N	N
LocName	MAY	MAY	N	Y
LocURI	MUST	MUST	Y	Y
MsgID	MUST	MUST	Y	Y
MsgRef	MUST	MUST	Y	Y
NoResp	MAY	MUST	N	Y
NoResults	MAY	MAY	N	N
RespURI	MAY	MUST	Y	Y
SessionID*	MUST	MUST	Y	Y
SftDel	MAY	MAY	Y (see note ⁴)	Y (see note ⁵)
Source	MUST	MUST	Y	Y
SourceRef	MUST	MUST	Y	Y
Target	MUST	MUST	Y	Y
TargetRef	MUST	MUST	Y	Y
VerDTD	MUST	MUST	Y	Y
VerProto	MUST	MUST	Y	Y

*The maximum length of a SessionID is 4 bytes. Note that a client having an 8 bit incrementing SessionID counter is enough for practical implementations.

3.2 Representation Message container elements

Command	Required of Server		Implemented in Server	
	Sending	Receiving	Sending	Receiving
SyncML	MUST	MUST	Y	Y

³ Archive -Delete supported if archive -state is available in underlying database. If database does not support it, Server deletes item normally and returns Status 210 (specs are ambiguous here, pg 52 of representation specs suggests 210, pg 27 suggests failing delete with 501).

⁴ Soft delete sending is supported if underlying database supports visibility control. Server will send soft-deletes for items made invisible by the server.

⁵ Soft-Delete receive is supported by deleting map entry in server. This will cause soft-deleted items to re-appear after modification in server or slow sync - we think that this is useful behaviour; it's not entirely clear from specs if this is intended this way.



SyncHdr	MUST	MUST	Y	Y
SyncBody	MUST	MUST	Y	Y

3.3 Data description elements

Command	Required of Server		Implemented in Server	
	Sending	Receiving	Sending	Receiving
Data	MUST	MUST	Y	Y
Item	MUST	MUST	Y	Y
Meta	MUST	MUST	Y	Y

3.4 Representation Protocol command elements

Command	Required of Server		Implemented in Server	
	Sending	Receiving	Sending	Receiving
Add	MUST	MUST	Y	Y
Alert	MUST	MUST	Y	Y
Atomic	MAY	MAY	N	N
Copy	MAY	MUST	N	Y
Delete	MUST	MUST	Y	Y
Exec	MAY	SHOULD	N	N
Get*	MUST	MUST	Y	Y
Map	MAY	MUST	N	Y
MapItem	MAY	MUST	N	Y
Put*	MUST	MUST	N ⁶	Y
Replace	MUST	MUST	Y	Y
Result*	MUST	MUST	Y	Y
Search	MAY	MAY	N	N
Sequence	MAY	MUST	N	Y
Status	MUST	MUST	Y	Y
Sync	MUST	MUST	Y	Y

*Minimum requirement for a SyncML device is to support Put, Get, and Result when exchanging device information.

3.5 Device Info

Element Type	Required of Server		Implemented in Server	
	Sending	Receiving	Sending	Receiving
CTCap	SHOULD	MUST	Y	Y
CTType	MUST	MUST	Y	Y
DataStore	MUST	MUST	Y	Y
DataType	MAY	MUST	Y	Y
DevID	MUST	MUST	Y	Y
DevInf	MUST	MUST	Y	Y
DevTyp	MUST	MUST	Y	Y

⁶ Sending PUT is not supported because it is not needed; server never has a reason to send DevInf without being asked by client with a GET command.



DisplayName	MAY	MAY	Y ⁷	Y
DSMem	MAY	SHOULD	N	Y
Ext	MAY	MAY	N	N
FwV	MAY	SHOULD	Y	Y
HwV	MAY	SHOULD	Y	Y
Man	MAY	SHOULD	Y	Y
MaxGUIDSize	MUST NOT	MUST	N	Y
MaxID	MAY	SHOULD	N	Y
MaxMem	MAY	SHOULD	N	Y ⁸
Mod	MAY	MAY	Y	Y
OEM	MAY	MAY	Y	Y
ParamName	SHOULD	MUST	N	Y
PropName	SHOULD	MUST	Y	Y
Rx	MAY	MUST	Y	Y
Rx-Pref	MUST	MUST	Y	Y
SharedMem	SHOULD	MAY	N	N
Size	MAY	MUST	N	Y
SourceRef	MUST	MUST	Y	Y
SwV	MAY	SHOULD	Y	Y
SyncCap	MUST	MUST	Y	Y
SyncType	MUST	MUST	Y	Y
Tx	MAY	MUST	Y	Y
Tx-Pref	MUST	MUST	Y	Y
ValEnum	SHOULD	MUST	Y	Y
VerCT	MUST	MUST	Y	Y
VerDTD	MUST	MUST	Y	Y
Xnam	MAY	MAY	N	N
Xval	MAY	MAY	N	N

3.6 Meta Info

Element Type	Required of Server		Implemented in Server	
	Sending	Receiving	Sending	Receiving
Anchor	MUST	MUST	Y	Y
EMI	MAY	MAY	N	N
Format	MUST	MUST	Y	Y
FreeID	MAY	MUST	N	Y
FreeMem	MAY	MUST	N	Y
Last	MUST	MUST	Y	Y
Mark	MAY	MAY	N	N
MaxMsgSize	MAY	MUST	N	Y
Mem	MAY	MUST	N	Y
MetInf	MUST	MUST	Y	Y
Next	MUST	MUST	Y	Y
NextNonce	MUST	MUST	Y ⁹	Y ¹⁰

⁷ DisplayName is sent only if supported by underlying datastore

⁸ Informational only. Server generates warning when datastore seems to be too small, but final decision is left to client (which must return status 420 if device is really full).

⁹ Only sent if underlying database supports nonce-generation and MD5-with-nonce checking.

¹⁰ Only if underlying database supports server authenticating to client, and client requests auth from server.



SharedMem	MAY	MUST	N	Y
Size	MAY	MAY	N	N
Type	MUST	MUST	Y	Y
Version	MUST	MUST	Y	Y

3.7 Protocol

Element Type	Server Requirements	
	Required	Implemented
Support of 'two-way sync'	MUST	Y
Support of 'slow two-way sync'	MUST	Y
Support of 'one-way sync from client only'	MAY	N
Support of 'refresh sync from client only'	MAY	N
Support of 'one-way sync from server only'	MAY	N
Support of 'refresh sync from server only'	MAY	N
Support of 'sync alert'	MAY	N
Support of multiple messages per package	MUST	Y
Support of combined package 1 and 3	MUST	Y

3.8 Authentication

Authentication Type	Server Requirements	
	Required	Implemented
Basic (name and password)	MUST	Y
MD5	MUST	Y

3.9 MIME header types

MIME Header Type	Server Requirements	
	Required	Implemented
"application/vnd.syncml+xml"	MUST	Y
"application/vnd.syncml+wxml"	MUST	Y



4 Transport Conformance

4.1 HTTP Transport

Vendors should fill this section out ONLY if their product uses the HTTP Transport. The specification for HTTP Transport is fully described in 0.

NOTE that the tables only indicate the required data.

Method	Requirements	
	Required	Implemented
POST	MUST	Y

General Headers	Requirements	
	Required	Implemented
Cache-Control: no-store, private	MUST	Y
Transfer-Encoding: chunked	MUST	Y

Request Headers	Requirements	
	Required	Implemented
Accept	MUST	Y
Accept-Charset	MUST	Y
Authorization	MUST	Y ¹¹
Proxy-Authorization	MUST if a proxy client	N
User-Agent	MUST	Y

Response Headers	Requirements	
	Required	Implemented
Authentication-Info	MUST	Y
Proxy-Authenticate	MUST if proxy client	N
WWW-Authenticate	MUST	Y

¹¹ Depends on version. Synthesis Sync Server is available as Web server plugin (in this case HTTP auth is handled by the web server and is available), and as standalone desktop server which does NOT support HTTP auth.



4.2 OBEX Transport

Vendors should fill this section out ONLY if their product uses the OBEX Transport. The specification for OBEX Transport is fully described in 0. Note that these definitions of client and server are the OBEX definition, not the SyncML definition.

NOTE that the tables only indicate the required data.

Method	OBEX Server Requirements	
	Required	Implemented
GET	MUST	(see note) ¹²
PUT	MUST	(see note)
CONNECT	MUST	(see note)
DISCONNECT	MUST	(see note)
ABORT	MUST	(see note)

Method	OBEX Client Requirements	
	Required	Implemented
GET	MUST	(see note)
PUT	MUST	(see note)
CONNECT	MUST	(see note)
DISCONNECT	MUST	(see note)

4.3 WSP Transport

Vendors should fill this section out ONLY if their product uses the WSP Transport. The specification for WSP Transport is fully described in 0.

NOTE that the tables only indicate the required data.

Method	Requirements	
	Required	Implemented
POST	MUST	

¹² Synthesis Sync Server exists in a RTK-XPT-based version, and supports OBEX to the extent which is implemented in the RTK. Due to lack of OBEX capable clients and therefore opportunity to test, this support is considered experimental.



5 References

- [1] SyncML Representation Protocol Specification
- [2] SyncML Sync Protocol
- [3] Meta Information Specification and DTD
- [4] Device Information Specification and DTD
- [5] SyncML HTTP Binding
- [6] SyncML OBEX Binding
- [7] SyncML WSP Binding