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 perfo rm as both a client and a server, you will need to fill out both sets of forms.

SyncML Initiative

The following companies are Sponsors of the SyncML Initiative:

Ericsson
IBM
Lotus
Matsushita Communications Industrial Co., Ltd.
Motorola
Nokia
Openwave
Palm, Inc.
Psion
Starfish Software
Symbian

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	Sync Server 3.0
Company	Steltor
Contact Name	Christopher Alpaugh
Contact Phone	(514) 733 – 8500 x 4608
Contact Email	chrisa@steltor.com
Transports supported	OBEX [ ] 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
Calendar	vCalendar 1.0	Y
	iCalendar 2.0 (optional)	Y
Memos	text/plain	N
Tasks	vTodo 1.0	Y
Email	message/rfc822	N
	message/rfc2822	N
	Message/rfc2045	N

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
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	N	Y
SessionID*	MUST	MUST	Y	Y
SftDel	MAY	MAY	N	N
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
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	Y	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
DisplayName	MAY	MAY	N	Y
DSMem	MAY	SHOULD	N	Y
Ext	MAY	MAY	N	Y
FwV	MAY	SHOULD	Y	Y
HwV	MAY	SHOULD	Y	Y
Man	MAY	SHOULD	Y	Y
MaxGUIDSize	MUST NOT	MUST	Y	Y
MaxID	MAY	SHOULD	N	Y
MaxMem	MAY	SHOULD	N	Y
Mod	MAY	MAY	N	Y
OEM	MAY	MAY	Y	Y

ParamName	SHOULD	MUST	Y	Y
PropName	SHOULD	MUST	Y	Y
Rx	MAY	MUST	Y	Y
Rx-Pref	MUST	MUST	Y	Y
SharedMem	SHOULD	MAY	N	Y
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	N	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	Y
SharedMem	MAY	MUST	N	Y
Size	MAY	MAY	N	Y
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	Y
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+wbxml"	MUST	Y

4 Client Conformance Tables

4.1 Representation Common Use Elements

Command	Required of Client		Implemented in Client	
	Sending	Receiving	Sending	Receiving
Archive	MAY	MAY		
Chal	MAY	MUST		
Cmd	MUST	MUST		
CmdID	MUST	MUST		
CmdRef	MUST	MUST		
Cred	MUST	MUST		
Final	MUST	MUST		
Lang	MAY	MAY		
LocName	MAY	MAY		
LocURI	MUST	MUST		
MsgID	MUST	MUST		
MsgRef	MUST	MUST		
NoResp	MAY	MUST		
NoResults	MAY	MAY		
RespURI	MAY	MUST		
SessionID*	MUST	MUST		
SftDel	MAY	MAY		
Source	MUST	MUST		
SourceRef	MUST	MUST		
Target	MUST	MUST		
TargetRef	MUST	MUST		
VerDTD	MUST	MUST		
VerProto	MUST	MUST		

*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.

4.2 Representation Message container elements

Command	Required of Client		Implemented in Client	
	Sending	Receiving	Sending	Receiving
SyncML	MUST	MUST		
SyncHdr	MUST	MUST		
SyncBody	MUST	MUST		

4.3 Data description elements

Command	Required of Client		Implemented in Client	
	Sending	Receiving	Sending	Receiving
Data	MUST	MUST		
Item	MUST	MUST		
Meta	MUST	MUST		

4.4 Representation Protocol command elements

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

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

4.5   Device Info

Element Type	Required of Client		Implemented in Client	
	Sending	Receiving	Sending	Receiving
CTCap	MUST	SHOULD		
CTType	MUST	MUST		
DataStore	MUST	MUST		
DataType	MAY	MAY		
DevId	MUST	MUST		
DevInf	MUST	MUST		
DevTyp	MUST	MUST		
DisplayName	MAY	MAY		
DSMem	SHOULD	MAY		
Ext	MAY	MAY		
FwV	SHOULD	MAY		
HwV	SHOULD	MAY		
Man	SHOULD	MAY		
MaxGUIDSize	MUST	MUST NOT		
MaxID	SHOULD	MAY		
MaxMem	SHOULD	MAY		
Mod	MAY	MAY		
OEM	MAY	MAY		
ParamName	SHOULD	SHOULD		
PropName	MUST	SHOULD		
Rx	MAY	MUST		

Element Type	Sending	Receiving		
Rx-Pref	MUST	MUST		
SharedMem	SHOULD	MAY		
Size	MAY	MAY		
SourceRef	MUST	MUST		
SwV	SHOULD	MAY		
SyncCap	MUST	MUST		
SyncType	MUST	MUST		
Tx	MAY	MUST		
Tx-Pref	MUST	MUST		
ValEnum	MUST	SHOULD		
VerCT	MUST	MUST		
VerDTD	MUST	MUST		
Xnam	MAY	MAY		
Xval	MAY	MAY		

4.6   Meta Info

Element Type	Required of Client		Implemented in Client	
	Sending	**Receiving**	**Sending**	**Receiving**
Anchor	MUST	MUST		
EMI	MAY	MAY		
Format	MUST	MUST		
FreeID	SHOULD	MAY		
FreeMem	SHOULD	MAY		
Last	MUST	MUST		
Mark	MAY	MAY		
MaxMsgSize	MAY	MUST		
Mem	SHOULD	MAY		
MetInf	MUST	MUST		
Next	MUST	MUST		
NextNonce	MAY	MUST		
SharedMem	SHOULD	MAY		
Size	MAY	MAY		
Type	MUST	MUST		
Version	MAY	MAY		

4.7   Protocol

Element Type	Client Requirements	
	Required	**Implemented**
Support of 'two-way sync'	MUST	
Support of 'slow two-way sync'	MUST	
Support of 'one-way sync from client only'	MAY	
Support of 'refresh sync from client only'	MAY	
Support of 'one-way sync from server only'	MAY	
Support of 'refresh sync from server only'	MAY	
Support of 'sync alert'	MAY	

Support of multiple messages per package	MUST	
Support of combined package 1 and 3	MAY	

4.8   Authentication

Note that authentication is only required for SyncHdr, optional for datastore.

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

4.9   MIME header types

NOTE: the client MUST support one of the two MIME header types.

MIME Header Type	Client Requirements	
	Required	Implemented
"application/vnd.syncml+xml"	MUST if no wbxml	
"application/vnd.syncml+wbxml"	MUST if no xml	

5 Transport Conformance

5.1 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
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

5.2 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	

PUT	MUST	
CONNECT	MUST	
DISCONNECT	MUST	
ABORT	MUST	

Method	OBEX Client Requirements	
	Required	Implemented
GET	MUST	
PUT	MUST	
CONNECT	MUST	
DISCONNECT	MUST	

5.3 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	

6 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