# SyncML Implementation Conformance Statement Proforma

# SyncML DataSync V1.1.1

## 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 you are submitting both a client and a server, you will need to fill out two separate forms.

## SyncML Initiative

The following companies are Sponsors of the SyncML Initiative:

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

## Revision History

| Revision | Date | Comments |
|---|---|---|
| 1.0 | 2002-10-22 | Signed off for integration into OMA. |

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## Table of Contents

# 1　Introduction

To evaluate conformance of a particular implementation, it is necessary to have a statement of which capabilities and options have been implemented for a given SyncML specification. Such a statement is called an Implementation Conformance Statement (ICS).

The purpose of this statement is to define a methodology for showing conformance with the SyncML specifications.　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 the two cases of packages 1 & 3 being sent seperately and combined.

Please use section 6 to provide any additional information with regards to your Implementation Conformance Statement. Please do not annotate the SCR items in the following sections.

## 2  Product Information

### 2.1    Device and Contact Information

| | |
|---|---|
| Device Name & Version: | Sync Server 2.0 |
| Company: | EVERelite |
| Contact Name: | Mitch Huang |
| Contact Phone: | +886-2-2751-7000 ext.251 |
| Contact Email: | mitch.huang@ever.com.tw |
| Product is: | CLIENT[ ]<br>SERVER[ X ] |
| Transports supported: | HTTP[ X ]<br>WSP[ ]<br>OBEX[ ] |
| OBEX support: | IrDA[ ]<br>Bluetooth[ ] |

**Notes:**

- The contents of the [Device Name & Version] field will appear in the List of compliant products on the SyncML web page.
- OBEX support for RS232 and USB is not defined scoped out within the SyncML bindings specifications. Devices cannot claim these transports until the specifications have been updated.

### 2.2    Content Formats Supported

This section contains the ICS proforma for the Statics Conformance Requirements for the Content Format as specfied in [3].

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 | Y |
| Tasks | vTodo 1.0 | Y |
| Email | message/rfc822 | Y |
| | message/rfc2822 | N |
| | message/rfc2045 | N |
| Other (Please specify any other supported data types) | | N |

# 3 Sync Server Conformance

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

This section contains the ICS proforma for the Static Conformance Requirements for the Representation Common Use Elements as defined in [3].

| Command | Required of Server | | Implemented in Server | |
|---|---|---|---|---|
| | Sending | Receiving | Sending | Receiving |
| Archive | MAY | MUST | NO | YES |
| Chal | MUST | MUST | YES | YES |
| Cmd | MUST | MUST | YES | YES |
| CmdID | MUST | MUST | YES | YES |
| CmdRef | MUST | MUST | YES | YES |
| Cred | MUST | MUST | YES | YES |
| Final | MUST | MUST | YES | YES |
| Lang | MAY | MAY | NO | NO |
| LocName | MAY | MAY | NO | YES |
| LocURI | MUST | MUST | YES | YES |
| MoreData | MUST | MUST | YES | YES |
| MsgID | MUST | MUST | YES | YES |
| MsgRef | MUST | MUST | YES | YES |
| NoResp | MAY | MUST | NO | YES |
| NoResults | MAY | MAY | NO | NO |
| NumberOfChanges | MAY | MUST | YES | YES |
| RespURI | MAY | MUST | NO | YES |
| SessionID* | MUST | MUST | YES | YES |
| SftDel | MAY | MAY | NO | NO |
| Source | MUST | MUST | YES | YES |
| SourceRef | MUST | MUST | YES | YES |
| Target | MUST | MUST | YES | YES |
| TargetRef | MUST | MUST | YES | YES |
| VerDTD | MUST | MUST | YES | YES |
| VerProto | MUST | MUST | YES | YES |

*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

This section contains the ICS Proforma for the Static Conformance Requirements for the Message Container elements as defined in [3].

| Command | Required of Server | | Implemented in Server | |
|---|---|---|---|---|
| | Sending | Receiving | Sending | Receiving |
| SyncML | MUST | MUST | YES | YES |
| SyncHdr | MUST | MUST | YES | YES |
| SyncBody | MUST | MUST | YES | YES |

## 3.3  Data description elements

This section contains the ICS Proforma for the Static Conformance Requirements for the Data Description elements as defined in [3].

| Command | Required of Server | | Implemented in Server | |
|---|---|---|---|---|
| | Sending | Receiving | Sending | Receiving |
| Data | MUST | MUST | YES | YES |
| Item | MUST | MUST | YES | YES |
| Meta | MUST | MUST | YES | YES |

## 3.4  Representation Protocol command elements

This section contains the ICS Proforma for the Static Conformance Requirements for the Protocol Command elements as defined in [3].

| Command | Required of Server | | Implemented in Server | |
|---|---|---|---|---|
| | Sending | Receiving | Sending | Receiving |
| Add | MUST | MUST | YES | YES |
| Alert | MUST | MUST | YES | YES |
| Atomic | MAY | MAY | NO | NO |
| Copy | MAY | MUST | NO | YES |
| Delete | MUST | MUST | YES | YES |
| Exec | MAY | SHOULD | NO | NO |
| Get* | MUST | MUST | YES | YES |
| Map | MAY | MUST | NO | YES |
| MapItem | MAY | MUST | NO | YES |
| Put* | MUST | MUST | YES | YES |
| Replace | MUST | MUST | YES | YES |
| Result* | MUST | MUST | YES | YES |
| Search | MAY | MAY | NO | NO |
| Sequence | MAY | MUST | NO | YES |
| Status | MUST | MUST | YES | YES |
| Sync | MUST | MUST | YES | YES |

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

## 3.5　Device Info

This section contains the ICS Proforma for the Static Conformance Requirements for SyncML Device Information as defined in [5].

| Element Type | Required of Server | | Implemented in Server | |
|---|---|---|---|---|
| | **Sending** | **Receiving** | **Sending** | **Receiving** |
| CTCap | SHOULD | MUST | YES | YES |
| CTType | MUST | MUST | YES | YES |
| DataStore | MUST | MUST | YES | YES |
| DataType | MAY | MUST | NO | YES |
| DevID | MUST | MUST | YES | YES |
| DevInf | MUST | MUST | YES | YES |
| DevTyp | MUST | MUST | YES | YES |
| DisplayName | MAY | MAY | NO | NO |
| DSMem | MAY | SHOULD | NO | NO |
| Ext | MAY | MAY | NO | NO |
| FwV | MAY | SHOULD | NO | NO |
| HwV | MAY | SHOULD | NO | NO |
| Man | MAY | SHOULD | NO | NO |
| MaxGUIDSize | MUST NOT | MUST | NO | YES |
| MaxID | MAY | SHOULD | NO | NO |
| MaxMem | MAY | SHOULD | NO | NO |
| Mod | MAY | MAY | NO | NO |
| OEM | MAY | MAY | NO | NO |
| ParamName | SHOULD | MUST | YES | YES |
| PropName | SHOULD | MUST | YES | YES |
| Rx | MAY | MUST | NO | YES |
| Rx-Pref | MUST | MUST | YES | YES |
| SharedMem | SHOULD | MAY | NO | NO |
| Size | MAY | MUST | NO | YES |
| SourceRef | MUST | MUST | YES | YES |
| SupportLargeObjs | MUST | MUST | YES | YES |
| SupportNumberOfChanges | MAY | MUST | YES | YES |
| SwV | MAY | SHOULD | NO | NO |
| SyncCap | MUST | MUST | YES | YES |
| SyncType | MUST | MUST | YES | YES |
| Tx | MAY | MUST | NO | YES |
| Tx-Pref | MUST | MUST | YES | YES |
| UTC | MAY | MUST | NO | YES |
| ValEnum | SHOULD | MUST | YES | YES |
| VerCT | MUST | MUST | YES | YES |
| VerDTD | MUST | MUST | YES | YES |
| Xnam | MAY | MAY | NO | NO |
| Xval | MAY | MAY | NO | NO |

## 3.6 Meta Info

This section contains the ICS Proforma for the Static Conformance Requirements for SyncML Meta Information as defined in [4].

| Element Type | Required of Server | | Implemented in Server | |
|---|---|---|---|---|
| | **Sending** | **Receiving** | **Sending** | **Receiving** |
| Anchor | MUST | MUST | YES | YES |
| EMI | MAY | MAY | NO | NO |
| Format | MUST | MUST | YES | YES |
| FreeID | MAY | MUST | NO | YES |
| FreeMem | MAY | MUST | NO | YES |
| Last | MUST | MUST | YES | YES |
| Mark | MAY | MAY | YES | YES |
| MaxMsgSize | MAY | MUST | NO | YES |
| MaxObjSize | MUST | MUST | YES | YES |
| Mem | MAY | MUST | NO | YES |
| MetInf | MUST | MUST | YES | YES |
| Next | MUST | MUST | YES | YES |
| NextNonce | MUST | MUST | YES | YES |
| SharedMem | MAY | MUST | NO | YES |
| Size | MAY | MAY | YES | YES |
| Type | MUST | MUST | YES | YES |
| Version | MUST | MUST | YES | YES |

## 3.7 Protocol

This section contains the ICS Proforma for the Static Conformance Requirements for the Sync Protocol as defined in [2].

| Element Type | Server Requirements | |
|---|---|---|
| | **Required** | **Implemented** |
| Support of 'two-way sync' | MUST | YES |
| Support of 'slow two-way sync' | MUST | YES |
| Support of 'one-way sync from client only' | MAY | NO |
| Support of 'refresh sync from client only' | MAY | NO |
| Support of 'one-way sync from server only' | MAY | NO |
| Support of 'refresh sync from server only' | MAY | NO |
| Support of 'sync alert' | MAY | NO |
| Support of 'busy signalling' | SHOULD | YES |
| Support of multiple messages per package | MUST | YES |
| Support of combined package 1 and 3 | MUST | YES |
| Support of 'large object handling' | MUST | YES |
| Support of 'number of changes' | MAY | YES |

## 3.8    Authentication

This section contains the ICS Proforma for the Static Conformance Requirements for SyncML Authentication as defined in [2].

| Authentication Type | Server Requirements | |
|---|---|---|
| | Required | Implemented |
| Basic (name and password) | MUST | YES |
| MD5 | MUST | YES |

## 3.9    MIME header types

This section contains the ICS Proforma for the Static Conformance Requirements for SyncML MIME Media Types as defined in [3].

| MIME Header Type | Server Requirements | |
|---|---|---|
| | Required | Implemented |
| "application/vnd.syncml+xml" | MUST | YES |
| "application/vnd.syncml+wbxml" | MUST | YES |

# 4 Sync Client Conformance

## 4.1 Representation Common Use Elements

This section contains the ICS proforma for the Static Conformance Requirements for the Representation Common Use Elements as defined in [3].

| 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 | | |
| MoreData | MAY | MAY | | |
| MsgID | MUST | MUST | | |
| MsgRef | MUST | MUST | | |
| NoResp | MAY | MUST | | |
| NoResults | MAY | MAY | | |
| NumberOfChanges | 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

This section contains the ICS Proforma for the Static Conformance Requirements for the Message Container elements as defined in [3].

| 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

This section contains the ICS Proforma for the Static Conformance Requirements for the Data Description elements as defined in [3].

| 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

This section contains the ICS Proforma for the Static Conformance Requirements for the Protocol Command elements as defined in [3].

| 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

This section contains the ICS Proforma for the Static Conformance Requirements for SyncML Device Information as defined in [5].

| 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 | | |
| Rx-Pref | MUST | MUST | | |
| SharedMem | SHOULD | MAY | | |
| Size | MAY | MAY | | |
| SourceRef | MUST | MUST | | |
| SupportLargeObjs | SHOULD | SHOULD | | |
| SupportNumberOfChanges | MAY | MAY | | |
| SwV | SHOULD | MAY | | |
| SyncCap | MUST | MUST | | |
| SyncType | MUST | MUST | | |
| Tx | MAY | MUST | | |
| Tx-Pref | MUST | MUST | | |
| UTC | MAY | MAY | | |
| ValEnum | MUST | SHOULD | | |
| VerCT | MUST | MUST | | |
| VerDTD | MUST | MUST | | |
| Xnam | MAY | MAY | | |
| Xval | MAY | MAY | | |

## 4.6  Meta Info

This section contains the ICS Proforma for the Static Conformance Requirements for SyncML Meta Information as defined in [4].

| 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 | | |
| MaxObjSize | SHOULD | SHOULD | | |
| 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

This section contains the ICS Proforma for the Static Conformance Requirements for the Sync Protocol as defined in [2].

| 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 | |
| Support of 'large object handling' | SHOULD | |
| Support of 'number of changes' | MAY | |

## 4.8    Authentication

This section contains the ICS Proforma for the Static Conformance Requirements for SyncML Authentication as defined in [2].

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

This section contains the ICS Proforma for the Static Conformance Requirements for SyncML MIME Media Types as defined in [3].

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[6].

NOTE that the tables only indicate the required data.

| Method | Requirements | |
|---|---|---|
| | Required | Implemented |
| POST | MUST | YES |

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

| Request Headers | Requirements | |
|---|---|---|
| | Required | Implemented |
| Accept | MUST | YES |
| Accept-Charset | MUST | YES |
| Authorization | MUST | YES |
| Proxy-Authorization | MUST if a proxy client | NO |
| User-Agent | MUST | YES |

| Response Headers | Requirements | |
|---|---|---|
| | Required | Implemented |
| Authentication-Info | MUST | YES |
| Proxy-Authenticate | MUST if proxy client | NO |
| WWW-Authenticate | MUST | YES |

## 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 [7]. 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 [8].

NOTE that the tables only indicate the required data.

| Method | Requirements | |
|---|---|---|
| | Required | Implemented |
| POST | MUST | |

# 6 Additional Information

Please use this section to provide any additional information with regards to your Implementation Conformance Statement. Please do not annotate the previous sections.

# 7 References

[1]    SyncML Representation Protocol, version 1.1.1

[2]    SyncML Sync Protocol, version 1.1.1

[3]    SyncML Representation Protocol, Data Synchronization Usage, version 1.1.1

[4]    SyncML Meta-Information DTD, version 1.1.1

[5]    SyncML Device Information DTD, version 1.1.1

[6]    SyncML HTTP Binding, version 1.1.1

[7]    SyncML OBEX Binding, version 1.1.1

[8]    SyncML WSP Binding, version 1.1.1