

# 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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## **Table of Contents**

| 1 | Intro | oduction                                  | 5  |
|---|-------|---|----|
| 2 | Proc  | duct Information                          | 6  |
|   | 2.1   | Device and Contact Information            | 6  |
|   | 2.2   | Content Formats Supported                 | 6  |
| 3 | Clier | nt Conformance Tables                     | 7  |
|   | 3.1   | Representation Common Use Elements        | 7  |
|   | 3.2   | Representation Message container elements | 7  |
|   | 3.3   | Data description elements                 | 7  |
|   | 3.4   | Representation Protocol command elements  | 8  |
|   | 3.5   | Device Info                               | 8  |
|   | 3.6   | Meta Info                                 | 9  |
|   | 3.7   | Protocol                                  | 10 |
|   | 3.8   | Authentication                            | 10 |
|   | 3.9   | MIME header types                         | 10 |
| 4 | Tran  | nsport Conformance                        | 11 |
|   | 4.1   | HTTP Transport                            | 11 |
|   | 4.2   | OBEX Transport                            | 11 |
|   | 4.3   | WSP Transport                             | 12 |
| 5 | Refe  | erences                                   | 13 |



### 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 Client 1.1                 |
|-----------------------|---|
| Company               | Synthesis AG                              |
| Contact Name          | Lukas Zeller                              |
| Contact Phone         | +41 1 440 66 01                           |
| Contact Email         | luz@synthesis.ch                          |
| Transports supported  | OBEX [ X <sup>1</sup> ] WSP [ ] HTTP [ X] |
| Product is            | Client [X] Server []                      |

#### 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)     |                 |
| Calendar  | vCalendar 1.0            | Y               |
|           | iCalendar 2.0 (optional) |                 |
| Memos     | text/plain               |                 |
| Tasks     | vTodo 1.0                | Y               |
| Email     | message/rfc822           |                 |
|           | message/rfc2822          |                 |
|           | Message/rfc2045          |                 |

<sup>&</sup>lt;sup>1</sup> Implementation based on RTK 4.1, works over TCP and IrDA on Win2000 (client and server). No third party OBEX-capable server was available for testing.

### 3 Client Conformance Tables

#### 3.1 Representation Common Use Elements

| Command    | Required | d of Client | Implemen | ted in Client |
|------------|----------|-------------|----------|---------------|
|            | Sending  | Receiving   | Sending  | Receiving     |
| Archive    | MAY      | MAY         | N        | N             |
| Chal       | MAY      | MUST        | N        | 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         | Y        | 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        | Y             |
| 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 Client |           | Implemen | ted in Client |
|----------|--------------------|-----------|----------|---------------|
|          | 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 Client | Implemented in Client |
|----------------------------|-----------------------|
|----------------------------|-----------------------|



|      | 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 Client |           | Implemen | ted in Client |
|----------|--------------------|-----------|----------|---------------|
|          | Sending            | Receiving | Sending  | Receiving     |
| Add      | SHOULD             | MUST      | Y        | Y             |
| Alert    | MUST               | MUST      | Y        | Y             |
| Atomic   | МАҮ                | MAY       | N        | N             |
| Сору     | МАҮ                | MAY       | N        | Y             |
| Delete   | MUST               | MUST      | Y        | Y             |
| Exec     | МАҮ                | MAY       | N        | N             |
| Get*     | SHOULD             | MUST      | Y        | Y             |
| Map      | MUST               | MAY       | Y        | N             |
| MapItem  | MUST               | MAY       | Y        | N             |
| Put*     | MUST               | MUST      | Y        | Y             |
| Replace  | MUST               | MUST      | Y        | Y             |
| Result*  | MUST               | SHOULD    | Y        | Y             |
| Search   | МАҮ                | MAY       | N        | N             |
| Sequence | МАҮ                | MAY       | 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 | d of Client | Implemen | ted in Client |
|--------------|----------|-------------|----------|---------------|
|              | Sending  | Receiving   | Sending  | Receiving     |
| CTCap        | MUST     | SHOULD      | Y        | Y             |
| СТТуре       | MUST     | MUST        | Y        | Y             |
| DataStore    | MUST     | MUST        | Y        | Y             |
| DataType     | МАҮ      | MAY         | Y        | Y             |
| DevId        | MUST     | MUST        | Y        | Y             |
| DevInf       | MUST     | MUST        | Y        | Y             |
| DevTyp       | MUST     | MUST        | Y        | Y             |
| DisplayName  | МАҮ      | МАҮ         | Y        | Y             |
| DSMem        | SHOULD   | MAY         | Y        | Y             |
| Ext          | MAY      | МАҮ         | Y        | Y             |
| FwV          | SHOULD   | MAY         | Y        | Y             |
| HwV          | SHOULD   | MAY         | Y        | Y             |
| Man          | SHOULD   | MAY         | Y        | Y             |

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| MaxGUIDSize | MUST   | MUST NOT | Y | N |
|-------------|--------|----------|---|---|
| MaxID       | SHOULD | MAY      | Y | Y |
| MaxMem      | SHOULD | MAY      | Y | Y |
| Mod         | MAY    | MAY      | Y | Y |
| OEM         | MAY    | MAY      | Y | Y |
| ParamName   | SHOULD | SHOULD   | Y | Y |
| PropName    | MUST   | SHOULD   | Y | Y |
| Rx          | MAY    | MUST     | Y | Y |
| Rx-Pref     | MUST   | MUST     | Y | Y |
| SharedMem   | SHOULD | MAY      | Y | N |
| Size        | MAY    | MAY      | Y | Y |
| SourceRef   | MUST   | MUST     | Y | Y |
| SwV         | SHOULD | MAY      | Y | Y |
| SyncCap     | MUST   | MUST     | Y | Y |
| SyncType    | MUST   | MUST     | Y | Y |
| Tx          | MAY    | MUST     | Y | Y |
| Tx-Pref     | MUST   | MUST     | Y | Y |
| ValEnum     | MUST   | SHOULD   | Y | Y |
| VerCT       | MUST   | MUST     | Y | Y |
| VerDTD      | MUST   | MUST     | Y | Y |
| Xnam        | MAY    | MAY      | N | N |
| Xval        | MAY    | МАҮ      | N | N |

#### 3.6 Meta Info

| Element Type | Required | of Client | Implemen | ted in Client |
|--------------|----------|-----------|----------|---------------|
|              | Sending  | Receiving | Sending  | Receiving     |
| Anchor       | MUST     | MUST      | Y        | Y             |
| EMI          | MAY      | MAY       | N        | N             |
| Format       | MUST     | MUST      | Y        | Y             |
| FreeID       | SHOULD   | MAY       | Y        | Y             |
| FreeMem      | SHOULD   | MAY       | Y        | Y             |
| Last         | MUST     | MUST      | Y        | Y             |
| Mark         | MAY      | MAY       | N        | N             |
| MaxMsgSize   | MAY      | MUST      | Y        | Y             |
| Mem          | SHOULD   | MAY       | Y        | Y             |
| MetInf       | MUST     | MUST      | Y        | Y             |
| Next         | MUST     | MUST      | Y        | Y             |
| NextNonce    | MAY      | MUST      | N        | Y             |
| SharedMem    | SHOULD   | MAY       | N        | N             |
| Size         | MAY      | MAY       | N        | N             |
| Туре         | MUST     | MUST      | Y        | Y             |
| Version      | МАҮ      | МАҮ       | N        | N             |



#### 3.7 Protocol

| Element Type                               | Client 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        | МАҮ                 | N           |

#### 3.8 Authentication

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

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

#### 3.9 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<br>wbxml | Y           |
| "application/vnd.syncml+wbxml" | MUST if no<br>xml   | 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           |
| Proxy-Authorization | MUST if a    | N           |
|                     | proxy client |             |
| User-Agent          | MUST         | Y           |

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

### 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                     |             |
| PUT        | MUST                     |             |
| CONNECT    | MUST                     |             |
| DISCONNECT | MUST                     |             |
| ABORT      | MUST                     |             |

| Method     | OBEX Client Requirements |             |
|------------|--------------------------|-------------|
|            | Required                 | Implemented |
| GET        | MUST                     | Y           |
| PUT        | MUST                     | Y           |
| CONNECT    | MUST                     | Y           |
| DISCONNECT | MUST                     | Y           |

#### 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         |             |

### **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