SyncML Interoperability Testing Process
Version 1.0

Abstract

The purpose of this specification is to define the SyncML Interoperability Testing process. The SyncML Interoperability Testing Process is created to ensure that SyncML implementations are truly interoperable. A pre-requisite to taking part this interoperability process is to complete first the SyncML conformance testing process [1]. Vendors will have right to license the SyncML logo for usage in product marketing materials after successful completion of this interoperability testing process.

SyncML Initiative

The following companies are Sponsors of the SyncML Initiative:

Ericsson
IBM
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Matsushita Communications Industrial Co., Ltd.
Motorola
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Starfish Software
Symbian

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Revision History

Revision	Date	Comments
0.1	2001-01-15	First draft.
0.2	2001-01-24	Changes according to TecCom review in SV.
0.3	2001-01-24	Use of emulator in Syncfests clarified, header updated.
0.4	2001-11-05	Remote testing during the SyncFest added
0.5	2001-11-30	Updated during Kyoto SyncFest to include SIRP testing.
0.6	2001-12-05	Updated with comments from SIC mailing list
1.0	2001-12-17	Final version for release

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1 Introduction

The purpose of this specification is to define the SyncML Interoperability Testing process. Successful completion of the SyncML Conformance Testing Process [1] is a pre-requisite for this SyncML Interoperability Testing process. A vendor is intended to accomplish both SyncML conformance- and interoperability testing processes before bringing an implementation to market. The only reason not to complete this Interoperability Testing process is that implementation is using only data object(s) that are not supported by other manufacturers.

2 SyncML Interoperability Committee

The SyncML Interoperability Committee (SIC) is formed from representatives of the SyncML sponsor companies. The SIC is responsible for organizing activities related to SyncML Conformance Testing and Interoperability Testing processes. The SIC is also responsible to make decisions related to problem situations within interoperability issues.

A detailed description of the SyncML Interoperability Committee's role and tasks can be found from the SIC charter document [4].

Please refer to the SyncML web pages (www.syncml.org) for the most up-to-date information about the SyncML Interoperability Committee and ongoing activities.

3 SyncML Interoperability Testing Process

This chapter defines the actual SyncML interoperability testing process. Vendors are required to follow this process in order to complete SyncML interoperability testing requirements properly.

3.1 Test Methodologies

There are three alternate test methodolgies for SyncML Interoperability testing. Usage of the different methodologies depends upon the entry criteria for testing. These are defined as follows:

Entry Criteria	SyncFest	Remote SyncFest	SIRP Testing
Product: New Device (No previous IOP testing) Vendor: New Vendor (No previous IOP testing) Reference Pool Agreement: None.	MUST	NO	NO
Product: New Device (No previous IOP testing) Vendor: Experienced Vendor (Attended >=1 SyncFest) Reference Pool Agreement: None.	MAY	MAY	NO
Product: New Device (No previous IOP testing) Vendor: Experienced Vendor (Attended >=1 SyncFest) Reference Pool Agreement: Yes	MAY	MAY	MAY
Product: Compliant Device Vendor: Experienced Vendor (Attended>=1 SyncFest) Reference Pool Agreement: None.	MAY	MAY	NO
Product: Compliant Device Vendor: Experienced Vendor (Attended >=1 SyncFest) Reference Pool Agreement: Yes	MAY	MAY	MAY

Table 1: Entry Certieria for SyncML Interoperability Test Methodologies

The process for each test methodoolgy is defined in the following sections.

3.2 SyncFest Process description

Figure 1 gives a diagram view of the SyncML SyncFest Interoperability Testing Process. The process consists of three main phases: preparation for interoperability testing, SyncFest and completion of interoperability testing. These phases are described in sub-chapters below with more detail.

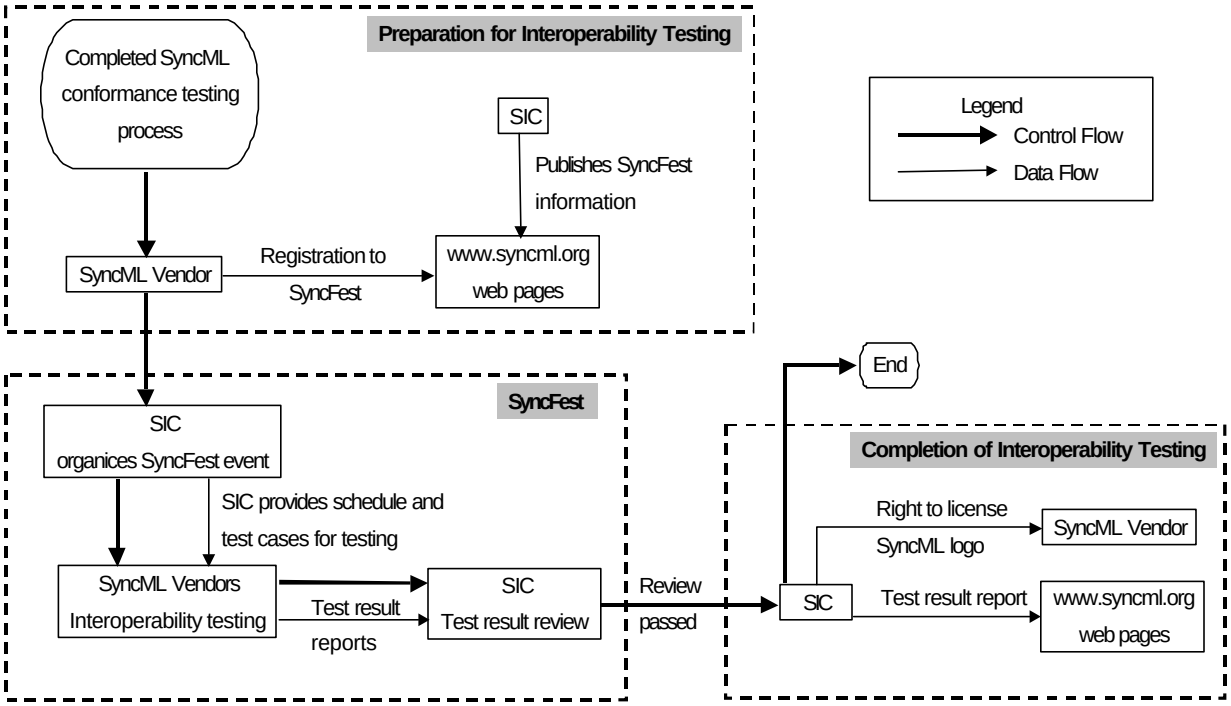

Figure 1 SyncML Interoperability Testing Process Diagram

3.2.1 Preparation for Interoperability Testing

A pre-requisite for SyncML interoperability testing is to complete the SyncML Conformance Testing process [1]. After successful completion of the SyncML conformance testing process, a vendor has right to take part in the SyncML interoperability testing process. In cases where the vendor's SyncML implementation supports common object types (such as PIM objects) it is required that the vendor must complete SyncML interoperability testing (in addition to conformance testing). The only reason not to complete the SyncML interoperability testing process is that there are NO other companies supporting synchronization of same data object(s).

The SyncML Interoperability Committee (SIC) publishes information about SyncML interoperability testing activities. Up-to-date information about these activities can be always found from the SyncML web pages (www.syncml.org). The SIC will organize SyncML interoperability testing events (known as SyncFests). Vendors should identify a scheduled SyncFest which fits with their development timescales and register to participate.

Preparation for SyncML interoperability testing is complete after a vendor has registered their participation to SyncFest event and their registration has been confirmed by the SIC.

3.2.2 SyncFest Testing

SyncFest is the name for the actual SyncML interoperability-testing event. These events will take place periodically at various geographical locations.

SIC will organize SyncFest events and publish a schedule for the events. SIC will also provide a testing schedule and test cases for SyncFest.

SIC will create a testing schedule for each SyncFest event. Vendors have to perform one-to-one testing according to this schedule. SICS (SyncML Implementation Conformance Statement) [2] can be used as criteria in order to select suitable testing counterparts for each implementation. The main purpose of scheduling is enable testing with as many counterparts as possible.

Actual testing has to be performed using test cases that are provided by the SIC [3]. A test report form has to be filled out from each one-to-one testing session and then signed by both participants. This means that the output of SyncFest testing is as many test reports as there have been one-to-one testing sessions. Completed test reports are returned to the SIC.

The SIC reviews each test result report. A criterion for passing this review is that test reports indicate successful test results with at least two other independent companies' implementations. This means that not every test session has to be successful.

The actual testing in the SyncFest has to be performed with a real product. Use of emulators is allowed only if the Vendor will sell the software as OEM software. Although the software is able to get the interoperability logo by using emulator, the logo cannot be used with the eventual product unless that product passes the conformance and interoperability testing.

3.2.3 Remote SyncFest participation

SIC may allow the Vendor to perform the interoperability testing remotely during the SyncFest if the Vendor has participated in at least one SyncFest.

After the SIC has received the request from the vendor to participate in a SyncFest by Remote Testing approach, and received all required documents, the SIC will give notice that the submitted documents has passed the review according to the SyncML Conformance Testing Process [1], and that the vendor is welcome to participate in the SyncFest. The SIC will then distribute the testing schedule at no less than 24h before the testing starts.

Interoperability testing will take place in accordance with SyncML Interoperability Testing Process using the SyncML Manual Test Cases [3].

After executing the tests, the vendor shall fill in the results in the SyncML Manual Test Cases [3] using a secure WEB-based system provided by SyncML. In case the web system is unavailable, the vendor shall fax in the results page.

The SIC will get the results reviewed and countersigned by the Test Partner Company present at the SyncFest, and register it as testing complete.

3.2.4 SyncML Interoperability Reference Pool Testing

SIC may allow the Vendor to perform the interoperability testing using the SyncML Interoperability Reference Pool (SIRP) if a vendor has committed one or more devices in the SyncML Interoperability Reference Pool. SIRP interoperability testing takes place as described in [6].

3.2.5 Completion of interoperability testing

Once the SIC has reviewed and approved the test reports for a SyncML implementation, the vendor will be granted the right to license the use of the SyncML logo in their product marketing material.

A list of implementations that have successfully completed SyncML interoperability testing will be published in the SyncML Initiative web pages (www.syncml.org).

3.3 Additional interoperability requirements

In addition to process diagram phases there are two additional interoperability requirements.

3.3.1 Process repetition requirement

The SyncML Conformance testing process has to be repeated for every major revision of any particular SyncML implementation.

3.3.2 Backward compatibility requirement for SyncML servers

It is likely that there will be new minor versions of the SyncML specifications. If a SyncML server is upgraded to support a new minor version of the specification, it is required that the server MUST also support the TWO earlier minor versions of the same major SyncML specification.

It is not required for SyncML clients to be interoperable with servers that are based on previous versions of the SyncML specifications.

An example case:

1) SyncML server is based on SyncML specifications version 1.0 and has completed conformance and interoperability process.

2) A new intermediate version 1.1 of SyncML specifications is published. The server is upgraded to support the new version of specifications.

3) The upgraded server is required to re-pass conformance and interoperability processes. In addition to this, it MUST be interoperable with SyncML 1.0 clients. In other words, a new server has to be able to go through interoperable testing process with SyncML 1.0 and 1.1 clients.

3.4 Problem handling

As with any new technology, it is possible that there will be flaws in the SyncML Technical Specifications, test cases and within the interoperability testing process itself. Problem reports

related to interoperability testing should be submitted to the SIC. Instructions on how to submit problem reports can be found on the SyncML web pages (www.syncml.org).

The SIC will review all problem reports and decide on any actions required to remedy the problem.

4 SyncFest directives

This chapter consists of some directives related to SyncFest interoperability testing events.

4.1 Confidentiality

It has to be possible to bring un-announced product to SyncFest events. This means that vendors have right to take actions in order to protect the confidentiality of their products. Other vendors have to respect this fact. All kinds of competitor espionage activities are strictly prohibited.

4.2 SyncFest participants

Invited participants for SyncFest events are a part of vendor's SyncML engineering staff. The number of delegate members from each vendor has to be moderate. Individuals such as students, press, observers, sales and marketing professionals are not invited. SyncFests are not places to learn SyncML technology or events for marketing purposes.

SyncFests are purely technical testing events and it is therefore strongly prohibited to join the SyncFest event with intentions other than SyncML interoperability testing.

4.3 SyncFest participation fees

There will be fee for SyncFest participation. This is necessary to cover the costs of planning, running and administering the SyncFest. Collection of participation fees is a part of the SyncFest registration process.

4.4 SIC has right to observe

The SIC is responsible to ensure that SyncFest events take place according to the requirements and directives described in this document. Therefore, the SIC has a right to observe that SyncFest participants are following these rules. This does not mean that SIC has a right to violate the confidentiality directive above. Observation has to be done with a respect to vendors' right to protect the confidentiality of their products.

5 Terminology

5.1 Definitions

SyncFest – SyncML Interoperability testing events that are organized periodically in different locations. Each event consists of a meeting of technical staff from different vendors who work together to test the interoperability of their different SyncML implementations.

Interoperability testing process – SyncML Interoperability follows the SyncML Conformance Testing process. The Interoperability Testing process requires a vendor to demonstrate their SyncML implementation functionality against other manufacturers' SyncML implementations.

SyncML Conformance Testing – involves testing of the capabilities and behavior of a SyncML implementation against what the implementor states in the SICS. It does not include testing of items such as performance or reliability of an implementation.

SyncML vendor – In this document, SyncML vendor is any manufacturer that introduces a product for SyncML Interoperability Testing.

5.2 Abbreviations

ICS	Implementation Conformance Statement
IOP	Interoperability
ISO	the International Organization for Standardization
SIC	SyncML Interoperability Committee
SICS	SyncML Implementation Conformance Statement
SIRP	SyncML Interoperability Reference Pool

6 References

[1] SyncML Conformance Testing Process

[2] SyncML Implementation Conformance Statement Proforma

[3] SyncML Manual Test Cases

[4] SyncML Interoperability Committee (SIC) charter

[5] SyncML Interoperability Reference Pool (SIRP) Process Description