

25 - 28 February 2002**Bristol, UK**

3GPP TSG-T2 #15
Cancun, Mexico
26-30 November 2001

T2-011184

Title: Liaison Statement Reply to SyncML with Follow-Up Questions
Source: T2
To: the SyncML Initiative
Cc: CN4, SA1, SA3, SA5, T3, and the GUP ad hoc
Response to: LS (T2-010899) Reply from the SyncML Initiative Concerning Data Formats and the In-Person Update Presentations on SyncML (SA5-010714 and T2-011173)

Contact Person:

Name: Rob Lockhart
Tel. Number: +1 561 739 2650 (Office), +1 561 317 6161 (GSM Mobile)
E-mail Address: rob.lockhart@motorola.com

Attachments: T2-010899 [LS from The SyncML Initiative: "Data Formats in SyncML"]
SA5-010714 [SA5 UEM SyncML/DevMan Update Presentation]
T2-011173 [T2 SWG2 SyncML/DevMan Update Presentation]

1. Overall Description:

3GPP TSG T2 offers this liaison statement both in reply to the incoming liaison statement from the SyncML initiative and in response to the SyncML update presentations given by the SyncML initiative's representative at the 3GPP TSG T2 meeting in Cancun, Mexico.

T2 thanks Riku Mettälä of Nokia for his excellent presentation(s) (SA5-010714 and T2-011173) on the status of SyncML in general and of the work being performed in the DevMan group, specifically, within the SyncML initiative. It was quite useful and enlightening. T2 would also like to thank the SyncML initiative for its statement (T2-010899) on the nature of data types that may be used within the DevMan group's protocol-in-development.

A number of issues and questions arose during the presentation. These included the following.

- What mechanisms are used to manipulate objects within the DevMan protocol?
- What mechanisms exist to control servers which may modify such objects?
- What push mechanisms exist within the DevMan protocol?
- What mechanisms ensure that the DevMan protocol applies appropriately to applications and information content residing on the UICC.
- In what manner does DevMan's proposed security work with the security mechanisms already specified within 3GPP (e.g., MExE)?
- What mechanisms are used within the DevMan protocol to enable remote diagnostics?
- Does the DevMan protocol coexist with the WAP Forum's Client Provisioning (and UAPProf) or is it meant to supersede WAP's Client Provisioning efforts?
- What testing tools and certification processes exist to ensure SyncML and DevMan compliance and interoperability? Is there a cost associated with any such tools for members? For non-members?

Of these, a few non-technical questions rose above the technical ones.

- The alpha release of the DevMan protocol is available now to the SyncML initiative's "Supporters." As was the case with the original 3GPP data synchronisation activities, not all 3GPP members are members of the SyncML initiative. What may be done to provide this alpha pre-release to the

membership of 3GPP or at least to provide a comprehensive list of features embodied within the alpha release?

- Would the SyncML initiative be willing to provide a point-by-point comparison between SA5's requirements and the DevMan protocol's feature set as was provided in similar circumstances for the 3GPP data synchronisation effort?
- What are the current requirements for membership within the SyncML initiative?

T2 would like to further explore these issues and questions with the SyncML initiative and thanks the SyncML initiative for its continuing time and efforts on behalf of 3GPP.

2. Actions:

To the SyncML initiative.

ACTION: T2 asks the SyncML initiative to respond to these technical and non-technical issues and questions at the SyncML initiative's earliest convenience.

To CN4, SA1, SA3, SA5, T3, and the GUP ad hoc.

ACTION: This is copied to the indicated 3GPP groups in an effort to keep these groups up to date on T2's correspondence with the SyncML initiative. No action is required although T2 welcomes the addition of any follow-up questions from these groups to the list of issues and questions T2 has documented here.

3. Date of Next T2 Meetings:

T2#16	11-15 Feb 2002	Sophia Antipolis
T2#17	13-17 May 2002	tbd



SyncML initiative
LIAISON STATEMENT

1 of 1 Pages

2001-10-15~~0~~

TO: 3GPP T2 and the GUP ad hoc c/o TSG-SA
FROM: The SyncML Initiative
DATE: October 15~~0~~, 2001
CONTACT: Peter Thompson (peter.thompson@starfish.com)
TITLE: Preferred Data Formats for synchronization in SyncML

Ref: T2-010722 (LS to SyncML requesting DevMan update)
SP-010557 (GUP ad-hoc LS to SyncML)

The SyncML Initiative thanks 3GPP for their continued interest in the SyncML Initiative and in the SyncML Initiative's Device Management (DevMan).

-DevMan is ~~currently~~ currently developing a Device Description Framework, based on XML, which is to be used for defining new management objects and describe manageable devices to management servers. DevMan is aware of the fact that 3GPP is involved in similar activities and would like to work with 3GPP in the long term ambition of DevMan is to align with the our specifications with those developed by 3GPP. DevMan and SyncML in general are also quite happy to work with existing objects in any format, as long as they are registered MIME types.

The SyncML Initiative would like to work with 3GPP on any cross-SDO development opportunities, as well as any future areas of mutual interest.

Regards,
The SyncML Initiative

The logo consists of a white square with a teal border. Inside the square, the text "SyncML" is written in a bold, black, sans-serif font.

SyncML

SyncML Device Management (SyncML DM)

November 2001

This presentation is intended for use only by organizations with which SyncML has a Liaison Statement in place regarding Device Management activity.

Outline



- SyncML Initiative Ltd.
- Background – Data Synchronization
- SyncML DM overview and scope
- Milestones
- DM protocol overview
- Planned SyncML DM 1.0 functionality
- Using SyncML DM
 - Management object definition
 - Transport layer mapping
 - Security
 - Initial Provisioning
- Conclusions

The entire contents of this presentation constitutes only expectations, and does not imply any commitment.

SyncML Initiative Ltd.

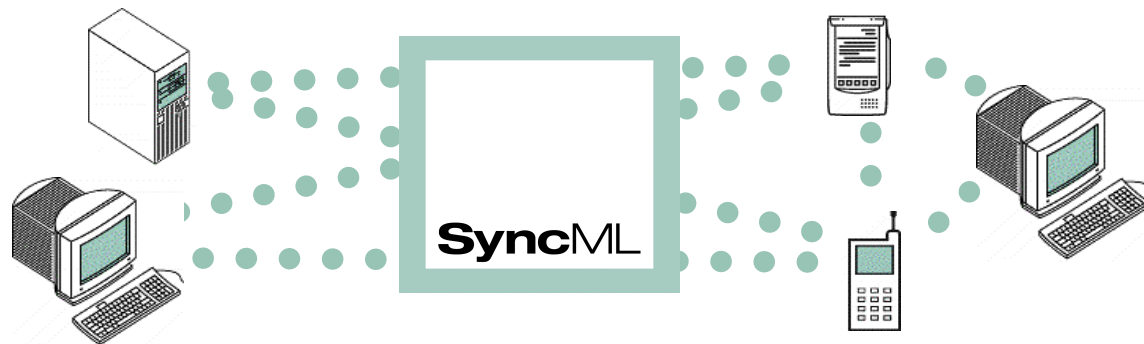


- An open industry initiative originally for developing and promoting the common data synchronization protocol
- Membership levels in the SyncML Initiative:
 - Sponsor members:
 - Ericsson, IBM, Lotus, Motorola, Nokia, Openwave, Panasonic, Starfish and Symbian
 - Promoters
 - Supporting members (over 660)
- Close co-operation with other standardization organizations such as 3GPP, WAP Forum, and Bluetooth SIG
- SyncML Initiative welcomes all industry participants to support the initiative!

Background – SyncML Data Synchronization Technology



- Based on the XML technology
- Supporting a variety of transport protocols
 - e.g. WSP/WAP, HTTP, OBEX
- Leveraging existing open standards for object types
- Addressing the resource limitations of mobile devices



SyncML DM leveraging existing SyncML technology



- Background
 - Devices' internal complexity will increase along with their increased functionality
 - Users are less capable or willing to manage the complexity
- SyncML Initiative has taken up the task of developing the technology for DM
 - The DevMan is responsible to create specifications for Device Management based on the SyncML protocols
 - The focus of the committee includes definition of a framework and addressing mechanism for parameters and objects

Device Management Scope



- Initial provisioning
- Subsequent, repeatable operations on devices:
 - Reading, changing configuration parameters
 - Installing, removing content
 - Remote diagnostics
 - etc.

Protocol Overview (1)



- Client-initiated or server-initiated session
 - Session carried over various transports such as HTTP
 - Server may notify client to initiate session
- Client device information for Server
 - make, model, identification number
 - hardware, firmware versions
 - current language setting
 - etc.

continued...

Protocol Overview (2)



- Server controls session
 - asks for client information (e.g. status, queued events, current parameters)
 - sends management commands (e.g. content download, set parameter)
 - collects results from client
- Different profiles for security
- Access control enforced
- Registry-like “management tree” being the management server’s interface to the device

Using SyncML DM

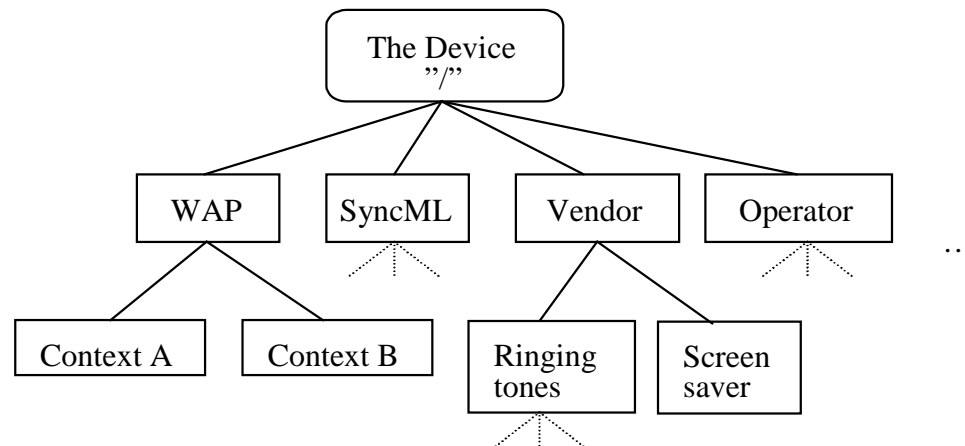


- Management object definition
- Transport layer mapping
- Security
- Initial Provisioning

Management Object Definition



- All management actions performed against a node in the “management tree”
 - a registry-like structure.
- *A management object is*
 - a subtree of the management tree
 - individual parameter
 - blob of data (software, pictures, etc.)

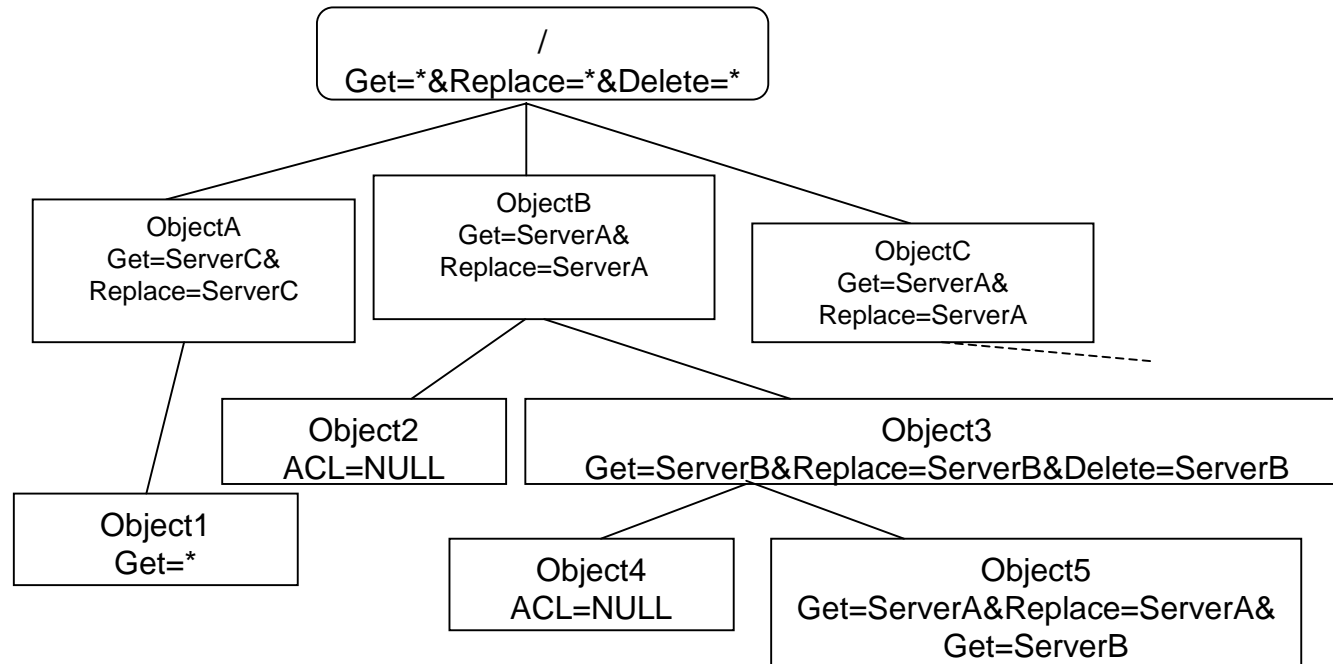


Management Object Commands



- Commands operate on management objects
- Commands can cause:
 - Creation of new objects (interior and leaf nodes)
 - Deletion of existing objects
 - Modification of value stored at leaf node
 - Modification of properties of any node (e.g. managing the ACL)
- A block of commands can execute:
 - In an undefined order
 - Sequentially
 - Atomically (with rollback if a command fails)
- User interaction operations, called “Alerts”, do not directly operate on management objects

Management Object Commands - ACL Example



- Any server can Get the value of /ObjectA/Object1, but only ServerC can modify /ObjectA/Object1?prop=ACL.
- No server can Delete or Replace the value of /ObjectA/Object1.

Transport Layer Mapping



- SyncML DM protocol can be mapped onto various transport mechanisms.
- Planned SyncML DM session transports:
 - HTTP, HTTPS
 - WSP, WTLS
 - OBEX
- Planned SyncML DM notification transports:
 - SMS
 - WAP Push

Security



- Transport layer recommendations:
 - HTTPS, WTLS
 - providing some privacy and integrity
- Authentication
 - provided in SyncML DM if not in transport
 - MD5 authentication for now
 - certificates in future
- Access control
 - applies on a per-command basis to any node in the management tree
- Specified Security Profiles describe:
 - transport protocols
 - security algorithms

Initial Provisioning



- Initial security association
- Device needs to know
 - server name/address
 - initial shared secret, credentials
 - etc.
- Need “out of band” communication or pre-provisioning to get started

Planned Milestones for DM



- Alpha specification available for SyncML supporters: November, 2001
- Specification under formal review within SyncML: January, 2002
- Goal for final approval: February, 2002

Conclusions



- SyncML technology re-used for device management
- SyncML DM is expected to cover the following functions and aspects:
 - multiple transports
 - requirements of wireless networks
 - extensible protocol for DM
 - reasonable security model
 - standard management mechanism for parameter and data handling
- Specification release early 2002

The logo consists of a white square with a thin teal border. Inside the square, the text "SyncML" is written in a bold, black, sans-serif font.

SyncML

SyncML Device Management (DM) Overview

November 2001

This presentation is intended for use only by organizations with which SyncML has a Liaison Statement in place regarding Device Management activity.

SyncML Initiative Ltd.

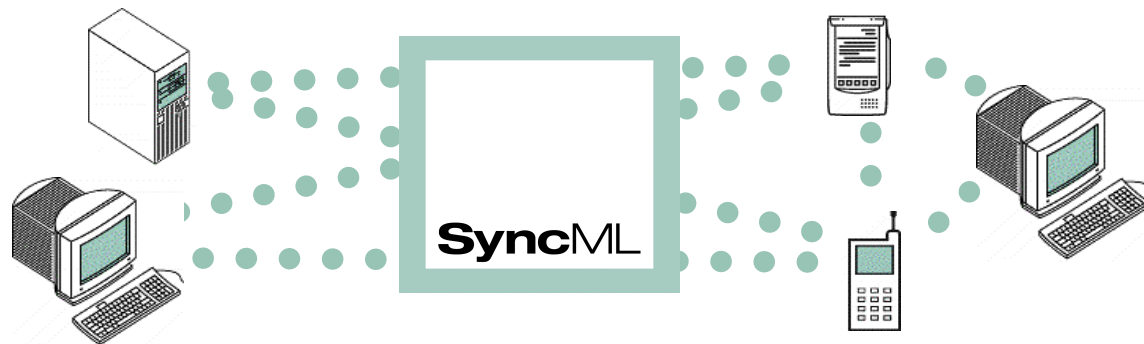


- An open industry initiative originally for developing and promoting the common data synchronization protocol
- Membership levels in the SyncML Initiative:
 - Sponsor members:
 - Ericsson, IBM, Lotus, Motorola, Nokia, Openwave, Panasonic, Starfish and Symbian
 - Promoters
 - Supporting members (over 660)
- Close co-operation with other standardization organizations such as 3GPP, WAP Forum, and Bluetooth SIG
- SyncML Initiative welcomes all industry participants to support the initiative!

Background – SyncML Data Synchronization Technology



- Based on the XML technology
- Supporting a variety of transport protocols
 - e.g. WSP/WAP, HTTP, OBEX
- Leveraging existing open standards for object types
- Addressing the resource limitations of mobile devices



SyncML DM leveraging existing SyncML technology



- Background
 - Devices' internal complexity will increase along with their increased functionality
 - Users are less capable or willing to manage the complexity
- SyncML Initiative has taken up the task of developing the technology for DM
 - The DevMan is responsible to create specifications for Device Management based on the SyncML protocols
 - The focus of the committee includes definition of a framework and addressing mechanism for parameters and objects

Device Management Scope



- Initial provisioning
- Subsequent, repeatable operations on devices:
 - Reading, changing configuration parameters
 - Installing, removing content
 - Remote diagnostics
 - etc.

DM Protocol

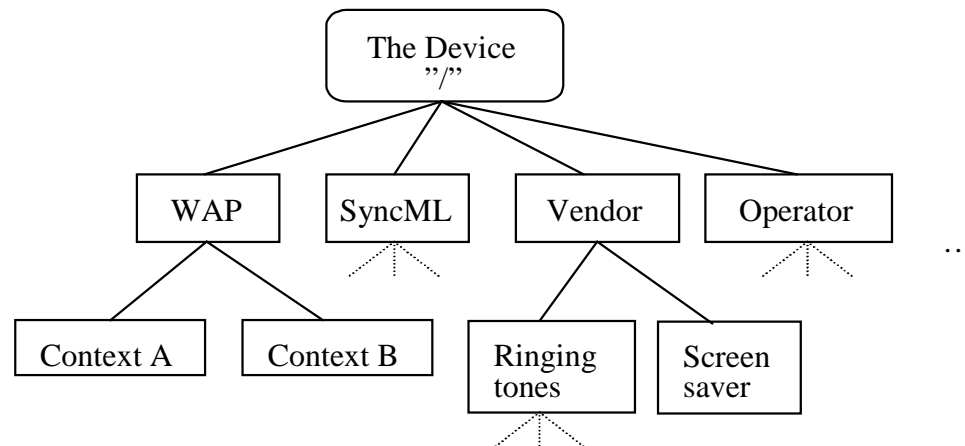


- Client-initiated or server-initiated session
 - Session over various transport such as HTTP
- Server controls session
 - asks for client information (e.g. status, queued events, current parameters)
 - sends management commands (e.g. set parameter)
- Different profiles for security
- Access control enforced
- Registry-like “management tree” is the management server’s interface to the device

Management Object Definition



- All management actions performed against a node in the “management tree”
 - a registry-like structure.
- *A management object is*
 - a subtree of the management tree
 - individual parameter
 - blob of data (software, pictures, etc.)



Planned Milestones for DM



- Alpha specification available for SyncML supporters: November, 2001
- Specification under formal review within SyncML: January, 2002
- Goal for final approval: February, 2002

Summary



- SyncML technology re-used for device management
- SyncML DM covering the following characteristics:
 - Extensible DM protocol including initial bootstrap
 - Management mechanism for parameter and data handling
 - Security model
 - Transport protocol binding
- Specification release early 2002