

Sync4j

Sync4j DM Demo

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1. Introduction

The Sync4j DM Demo allows you to test basic functionalities of the Sync4j Server DM that is a full implementation of the SyncML DM protocol. The demo has been tested on Nokia 6600 and 7610. It should work on every SyncML DM compliant phone, since the Sync4j Server DM code has been certified at an Open Mobile Alliance TestFest.

Please note that a OMA DM background is a prerequisite to the best understanding of this document.

Related Documents

The following documents are related to this guide:

- Sync4j Server DM Programming Guide which provides more detail on how to develop extensions for the Sync4j Server DM.

1.1. Configuration parameters

1.1.1. Web interface

The DM demo is accessible at URL <http://yourserver:yourport/dmdemo>.

Before any device management is possible the device must be registered. You can do that at URL at <http://yourserver:yourport/dmdemo/jsp/addDevice.jsp>, which presents a simple form to insert the device id as it is passed by the device to the server. In the case of mobile phones this corresponds to the IMEI (i.e.: 'IMEI:1234567890123456' – with no quotes). Be aware that some phones just use the IMEI value, for instance '1234567890123456', but others prefix the value with 'IMEI:' resulting in a device id like 'IMEI:1234567890123456'. Make sure to use the right format for your device.

1.1.2. Cellular phone configuration

Select Device Manager from the Menu. Set up a new Profile with the following parameters:

Server Name: Sync4j
 Server ID: sync4j
 Server Pwd: srvpwd
 Access Point: <youraccesspoint>
 Host Address: <http://<yourserver>/sync4j-dm/dm>
 Port: <yourport>
 Username: sync4j
 Pwd: sync4j
 Active: yes
 Accepted: yes

1.1.3. Start the demo

Connect to the web page: <http://<yourserver>:<yourport>/dmdemo>
 Insert your Device ID, as inserted in the registration form.



Figure 1 - The Sync4j DM Demo Home Page

Once you have logged in, you see the page displayed in Figure 1.

1.1.4. Device Management Operations

You can perform the following three operations on your device:

- Get device details
- Tree discovery
- Custom (to customize your Device Management Session)

Get Device Details

Get Device Details operation allows you to see some device details based on *DevInfo* and *DevDetail* Nodes. Click on “Add to operation list” and the server will wait for your connection. On your phone, click on Connect.

When the operation is completed successful, you see the State column on the page to change to “Completed”. Click on the icon in the View log column to see the result. You will see the DevInfo and DevDetail information of your phone.

For example:

/DevInfo/Man (Manufacturer) = NOKIA
./DevInfo/Lang (Language) = en (English).

Tree Discovery

Tree Discovery operation allows you to investigate the entire device Tree or a specified Node. Select “Tree Discovery” and click on “Add to operation list”. You will then able to choose the root node for the operation. The Tree Discovery will return all the parameters under the root node you specify.

For example, choose “Device Management Info” from the list and click on “Add to operation list”. On your phone, click on Connect.

When the operation is completed successful, you see the State column on the page to change to “Completed”. Click on the icon in the View log column to see the result. You will see the entire Device Management configuration of your phone, as shown in Figure 2.

NOTE: if you choose “Entire Tree”, you request the entire configuration from your phone. The operation might take a few minutes.

Sync4j

Server DM

Device ID: IMEI:355034001647353
Session Id: 1117440857242
State: Completed
Operation: Tree discovery

Root Node: ./SyncML/DMAcc

Cancel

./SyncML/DMAcc/scts	
./SyncML/DMAcc/scts/Addr	http://localhost/sync4j-dm/dm
./SyncML/DMAcc/scts/AddrType	1
./SyncML/DMAcc/scts/ClientNonce	
./SyncML/DMAcc/scts/ClientPW	
./SyncML/DMAcc/scts/ConRef	
./SyncML/DMAcc/scts/PortNbr	8080
./SyncML/DMAcc/scts/ServerId	sync4j
./SyncML/DMAcc/scts/ServerNonce	
./SyncML/DMAcc/scts/ServerPW	
./SyncML/DMAcc/scts/UserName	sync4j

Figure 2 - The log of a Tree Discovery operation on the SyncML DM configuration

Custom

Custom operation allows you to perform a set of command (add, replace, delete) to Nodes. With these commands, you can remotely change parameters on the phone. Imagine how such an operation could be crucial for an operator, which need to change the configuration port of one of its services. Before SyncML DM, it would have been impossible.

Changing the Sync4j Server DM port from 80 to 99.

Now we present an example in which we change the Sync4j Server DM port. The operation performed changes one of the parameters you received from the Tree Discovery operation on the Device Management configuration described above: the port of the Sync4j Server DM.

In this example we change the value (port number to) 99.

1. Click on Replace
2. Put ./SyncML/DMAcc/DMAcc/PortNbr in the Node URI field
3. Put 99 in the Value field
4. Click on "Add to custom operations"
5. Click on "Add to operation list"
6. Click Connect on your phone

When the operation is completed successful, you see the State column on the page to change to "Completed". Click on the icon in the View log column to see the result. You should see Status Code = 200 (operation successfully completed).

You can now verify that the port for your SyncML DM server configuration has changed on your phone and it is now 99.

NOTE: you cannot repeat the demo again, unless you change your Device Management profile port back to <yourport>, i.e. 80 .