



CSR Synergy Bluetooth 18.2.0

OSS Obex Synchronization Profile

Demo Description

November 2011



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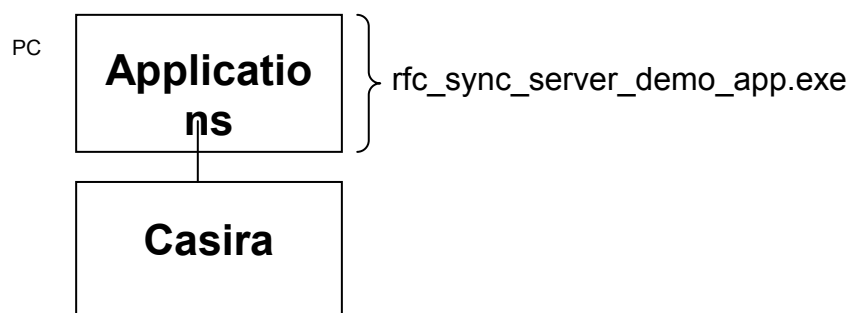
1 Synchronization (SYNC) Profile

1.1 Generally

The SYNC server program can be used for synchronization of an object together with a client containing a sync engine that pulls and pushes the PIM data from and to the sync server. This demo is running with a CASIRA with RFCOMM-build firmware.

Note: It is assumed that the reader and user of this demo have read the api-0109-oss document.

There is a description of the different terminology on which the synchronization profile is built in the api-0109-oss.

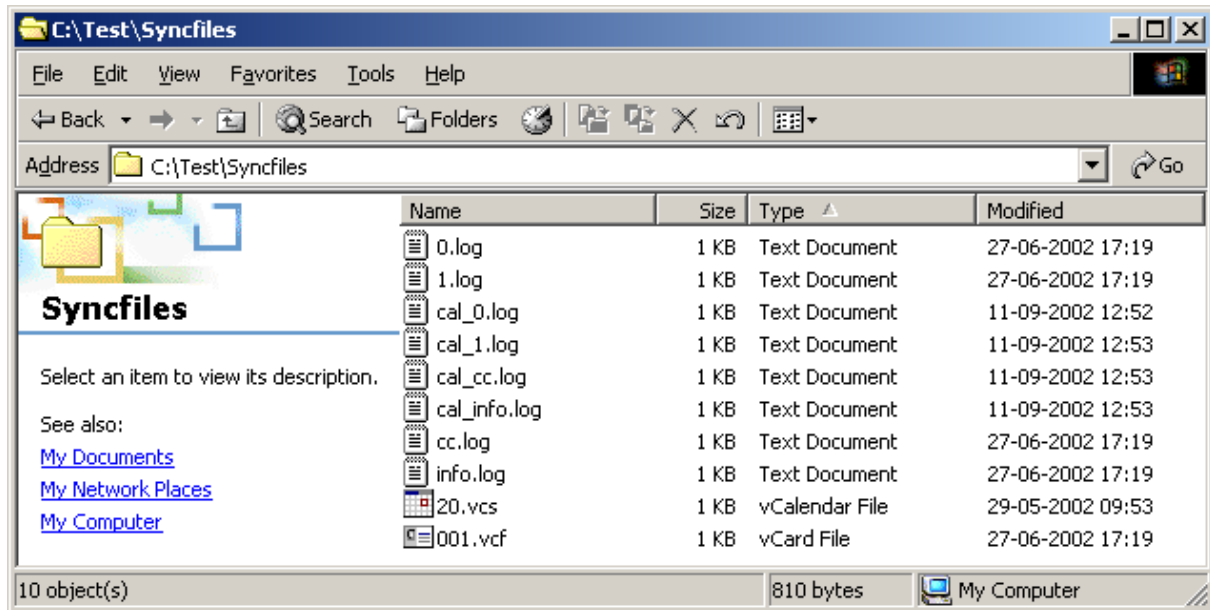


Before starting the program it is necessary to check that a SyncFiles folder exists in the same directory where the program is (it is necessary to check if the program is moved to another directory). This directory has to contain the log files shown on the illustration below. The log files are used when another user synchronizes with you.

This demo application is a simple one and not implemented with all the intelligence that is necessary for a synchronization application. If the user wants to modify, add or delete any object on the server side the user has to change the log files manually according to the specification, especially the Specifications for IrMobile Communications (IrMC).

The application has been made to run on Windows and Linux and may be connected to the Casira using either a serial connection using BCSP (`rfc_sync_server_demo_app.exe`), a serial connection using H4DS (`rfc_sync_server_demo_app_h4ds.exe`) or an USB connection (`rfc_sync_server_demo_app_usb.exe`), and their HCI equivalent.

The description below is based on the Windows demo application but the description also holds for the Linux Demo Application.



The files shown in the illustration above are created to make a slowsync against a sync client with a PIM engine. The SyncFiles folder will afterwards contain all the objects that the client had, as separate files for each object. The log files will also be changed in that process. It is possible to make a new synchronization with changes on the client side and the server will then have the same object again. However, if a new object is added on the server side the different log files will also need to be modified according to the new or deleted object.

In case the log files are not present the program will terminate.

The result of the synchronisation will also be stored in the SyncFiles directory.

The scenarios covered by this profile are the following:

- Usage of a Bluetooth device e.g. a mobile phone to synchronize with another Bluetooth device. The object can e.g. be a vCard, vCalendar, vMessage or vNote object.

1.2 SYNC Server

Use of program sync_server_demo_app.exe

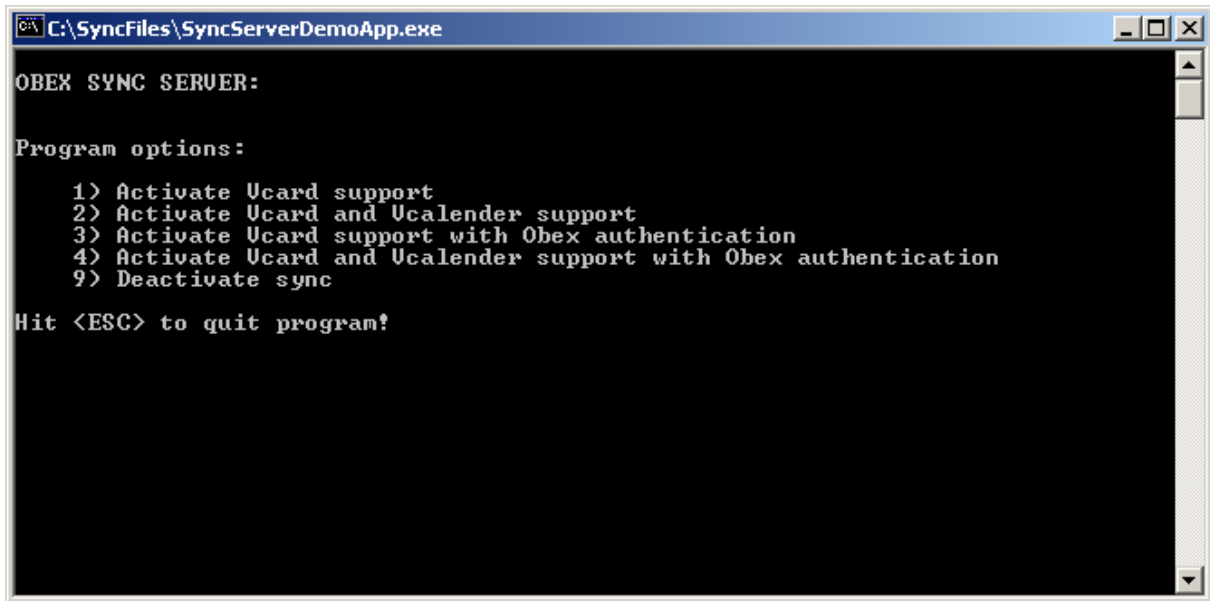
Note: This description is for CSR Synergy Bluetooth RFCOMM. The functionality of the application for the HCI build is identical. The only difference is the naming: rfc_sync_server_demo_app.exe versus hci_sync_server_demo_app.exe.

For use of this program a client side (or a similar e.g. Widcomm PC SW) is required.

Start the program rfc_sync_server_demo_app. The program has the following options.

- Choose the COM port on which the Bluetooth module is connect, by specifying the -C parameter to the program, e.g. rfc_sync_server_demo_app -C COM1. At start up COM1 is selected as default. (On Linux the default port is /dev/ttyS0)
- Choose baudrate for the COM port on which the Bluetooth module is connected, by specifying the -B parameter to the program, e.g. rfc_sync_server_demo_app -B 115200. If no parameter is specified the default is 115200.
- Choose a specific device for default connection by specifying the -a parameter to the program, e.g. rfc_sync_Server_demo_app -a 0002:5b:01a494. If no address is specified it is necessary to perform a search for servers in order to establish a connection. This parameter is optional.

At start up, the following possibilities are available, see below illustration:



```

C:\SyncFiles\SyncServerDemoApp.exe

OBEX SYNC SERVER:

Program options:

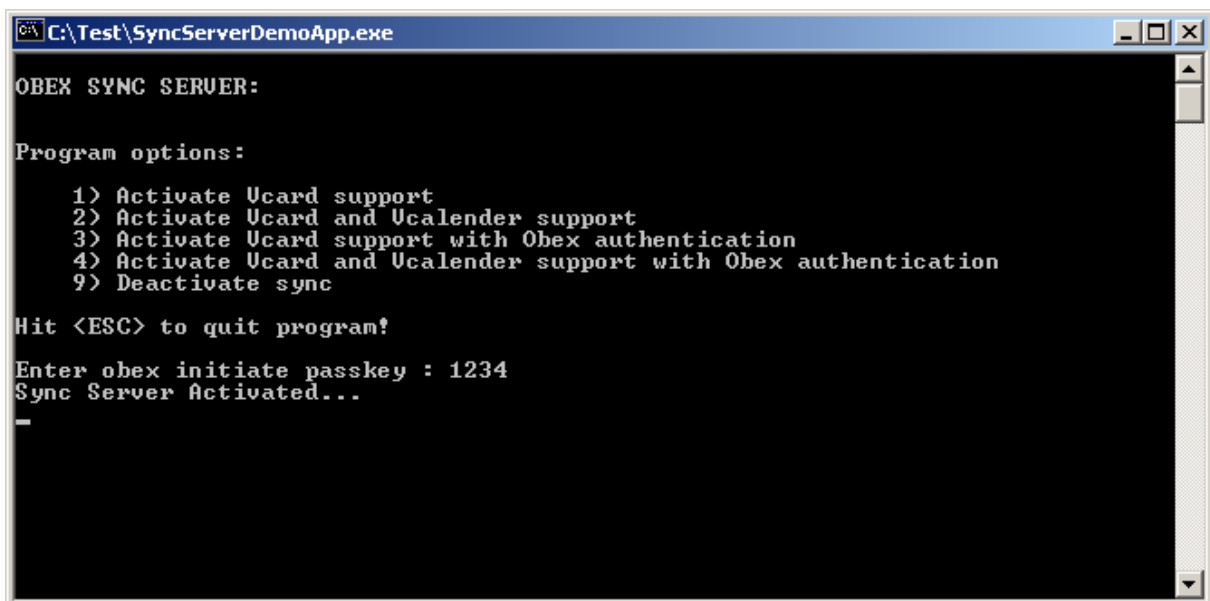
1) Activate Vcard support
2) Activate Vcard and Vcalendar support
3) Activate Vcard support with Obex authentication
4) Activate Vcard and Vcalendar support with Obex authentication
9) Deactivate sync

Hit <ESC> to quit program!
  
```

When choosing e.g. '1' to '4' the server is activated - the server waits for the client to connect and make a synchronization. All the activity takes place from the client side. However, typing in a pin-code will be asked for.

The difference between choosing '1' and '3' is that '3' will initiate OBEX authentication against the client before running any synchronization. '2' and '4' are the same as '1' and '3' however, with support for both Vcard and Vcalendar. Choosing '9' will deactivate the server and it will not be discoverable or connectable. ESC is chosen for closing the program.

When choosing e.g. '1' the OBEX authentication code will be requested. This code is used in case initiation of OBEX authentication against the sync client is required. This passkey "code" is not the same as the Bluetooth PIN code. See below illustration.



```

C:\Test\SyncServerDemoApp.exe

OBEX SYNC SERVER:

Program options:

1) Activate Vcard support
2) Activate Vcard and Vcalendar support
3) Activate Vcard support with Obex authentication
4) Activate Vcard and Vcalendar support with Obex authentication
9) Deactivate sync

Hit <ESC> to quit program!

Enter obex initiate passkey : 1234
Sync Server Activated...
  
```

The sync client can also initiate OBEX authentication against the server, the user will be asked to enter the OBEX response passkey.

2 Linux

This section describes how to build and run the SYNC demo application on Linux.

The basic SYNC demo application (pure user space), located in `./applications/obex_sync`, may be compiled on Linux by means of:

```
> make clean all TARGET_ARCH=Linux-2.6-x86
```

This will output two files: `hci_syncs_demo_app` and `hci_syncs_demo_app_usb`, for serial and USB communication respectively.

The demo applications are used like described above for Windows.

Terms and Definitions

BlueCore®	Group term for CSR's range of Bluetooth wireless technology chips
Bluetooth®	Set of technologies providing audio and data transfer over short-range radio connections
CSR	Cambridge Silicon Radio
UniFi™	Group term for CSR's range of chips designed to meet IEEE 802.11 standards

Document History

Revision	Date	History
1	26 SEP 11	Ready for release 18.2.0

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