CC31xx SLS Reference Application

Overview and application details

This sample application demonstrates how to connect and work with XMPP server using CC31xx. It receives/sends an XMPP messages from/to the server.

For information on how to use Visual-Studio or Eclipse to compile and run this application, refer to cc3100_getting_started_guide_swru375 [1] in '<cc3100/>docs' folder.

By default, this application communicates w/ CC3100 over SPI. The SDK has UART-Drivers as well for 'SimpleLink Studio' platform. For using the UART interface to communicate w/ CC3100, macro **SL_IF_TYPE_UART** has to be defined in the application-project's properties. Also, COMM_PORT_NUM in **main.c** needs to be changed to the first com-port that gets enumerated for 'J6' of 'CC31xxEMUBOOST Brd'. In case four ports are getting enumerated, user should use the third com-port.

Note: This wiki page is only applicable for **CC3100-SDK v1.0.0** and upward releases. For documentation on older SDKs' examples, refer corresponding file in **<cc3100-sdk-installation-location>\cc3100-sdk\docs\examples**

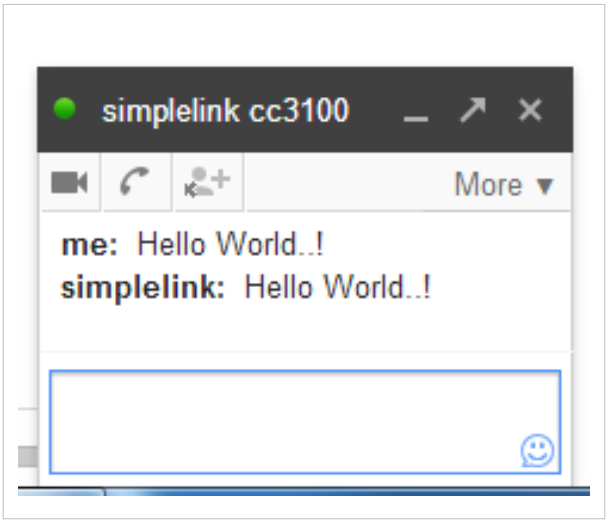
Source Files briefly explained

1. main - Initializes the device, connects to an access-point and configures the email
2. xmpp - Wrapper functions to configure/connect to XMPP-Server and send/receive chat-messages. These functions are called from main
3. base64 - Functions to convert the raw bytes in quasi-big-endian order to Base64 string

Usage

- Open **config.h** and change values for **XMPP_USER** and **XMPP_PWD** for setting up the xmpp account credentials.
- Log-in your 'gtalk' account and add configured xmpp account to your friends list
- Build the application using Visual-Studio or Eclipse. Download and execute it on the target device
- User will be prompted to configure the AP parameters for establishing a Wi-Fi connection - Follow the instructions on the console to test the application
- Once the connection is established successfully, wait for 'slcc3100@gmail.com' to appear ONLINE in your friends' list

- When ONLINE, send messages to CC3100. The device shall receive and relay the messages back to the sender



- On success, below message will be displayed on the console

```
**************************************************************************
CC31xx Xmpp_Client App
1.1.0
**************************************************************************
Host Driver Version: 1.0.0.1
Build Version 2.1.0.12.31.1.1.0.5.1.0.3.20
Device is configured in default state
Device started as STATION
Please input the SSID you wish to connect to:
TP-LINK-APK-152
Encryption Types:
1:  Open
2:  WEP
3:  WPA
Please enter the corresponding number for the encryption type:
1
Connecting to AP TP-LINK-APK-152...
Connected to AP TP-LINK-APK-152. IP Acquired.


Establishing connection with the XMPP server
Connection established successfully with the XMPP server
Waiting for message....
Message sent back successfully
```

Limitations/Known Issues

- The size of the message is currently limited to 48
- Since example doesn't implement a complete XMPP stack:

1. Retreiving the full friend roster isn't supported
2. Checking the remote friend status (online, offline) before sending him a message is not supported

References

[1] http://www.ti.com/lit/pdf/swru375

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