

# CC32xx XMPP Reference Application

---

## Overview

This example code demonstrate how to connect and work with Extensible Messaging and Presence Protocol(XMPP) server using CC32xx. This code doesn't implement a full XMPP SW stack\library. Please check the Limitation Section for more details.

[Return to CC31xx & CC32xx Home Page](#)[Return to CC31xx Sample Applications](#)

## Application details

The application performs the following steps:

- Initializes the device networking layers.
- Connect to Access Point with SSID "cc3200demo" and Security as "Open"
- Wait for the Connection to the AP
- Once AP connection is done, It Configures the XMPP Server and Login Information
- It then Connects to Configured XMPP Server (google.com) followed by authentication using Base64 Encrypted Login Credential
- Once Authentication is Successful, It waits for a chat message from another Client
- Once it receives the Chat Message, It replies back with the Same message

**Note:** Use your own email-id (CLIENT\_USER\_NAME) & password(CLIENT\_PASSWORD) in source code (main.c) and build the project before running the application.

This example can be used either on TI-RTOS or FreeRTOS.

For the application to work with TI-RTOS, ti\_rtos\_config project needs to be imported into the application workspace. These projects can be found in CC3200-SDK under ti\_rtos folder. Please follow this link for CC3200 TI-RTOS usage CC3200 TI-RTOS

## Source Files briefly explained

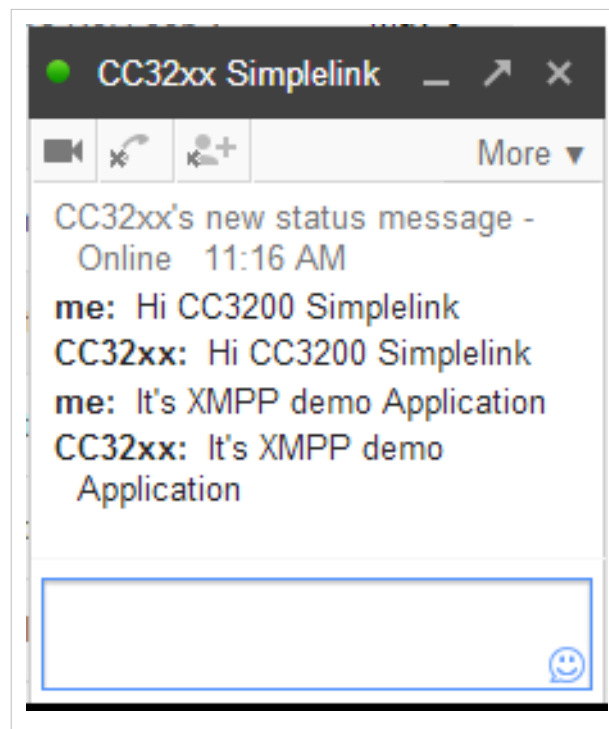
- **main** - Simple Application demonstrating XMPP Client Functionalities.
- **netapps\xmpp\client** - libxmpp is Platform Independent Library and can be Integrated to any XMPP Client Software using below APIs
  1. sl\_NetAppXmppSet - Configure XMPP Server, Login Information
  2. sl\_NetAppXmppConnect- Connect to XMPP Server
  3. sl\_NetAppXmppSend - Send Chat Message to another XMPP Client
  4. sl\_NetAppXmppRecv - Receive Chat Message from another XMPP Client

## Usage

1. Choose an AP and Configure the SSID as "cc3200demo" and Security as Open
2. In source code set e-mail username and password

```
#define CLIENT_USER_NAME      "cc32xx.apps"  
#define CLIENT_PASSWORD      "xxxxxx"
```

1. Login into Your Gmail Account on Chat/Hangout Application and add cc32xx.apps@gmail.com as Contact
2. Login into Gmail Account with cc32xx.apps@gmail.com and accept Invite on Chat/Hangout Application. Logout from cc3200 apps Account.
3. Login into Your Gmail Account on Chat/Hangout Application
4. Run the reference application (Flashing the bin/IAR/CCS)
  - Open the Project as mentioned in the 'docs\CC3200-Getting Started Guide.pdf' or flash xmpp.bin to the device.
  - XMPP Reference Application on CCS runs on TI RTOS which requires additional tools to be Installed. Refer to CC3200 TI-RTOS for more information.
  - Build and download the application to the board
5. Run Application and Wait for it connect to XMPP Server
6. Wait till you see "CC3200 SimpleLink" in your Chat/Hangout Application
7. Send Chat Message to "CC3200 SimpleLink"
8. Check the Reply



### LED Status Notification

- Red LED will glow when device is connected to AP
- Orange LED will glow when device gets any chat message from the server.

## Limitations/Known Issues

- It only implements a limited set of functionality and has some limitations.

E.g:

1. Retrieving the full friend roster isn't supported
2. Not checking the remote friend status (online, off line) before sending him a message

# Article Sources and Contributors

**CC32xx XMPP Reference Application** *Source:* <http://processors.wiki.ti.com/index.php?oldid=185108> *Contributors:* A0221015, Codycooke, Jitgupta, Malokyle

# Image Sources, Licenses and Contributors

**File:Cc31xx cc32xx return home.png** *Source:* [http://processors.wiki.ti.com/index.php?title=File:Cc31xx\\_cc32xx\\_return\\_home.png](http://processors.wiki.ti.com/index.php?title=File:Cc31xx_cc32xx_return_home.png) *License:* unknown *Contributors:* A0221015

**File:Cc32xx return sample apps.png** *Source:* [http://processors.wiki.ti.com/index.php?title=File:Cc32xx\\_return\\_sample\\_apps.png](http://processors.wiki.ti.com/index.php?title=File:Cc32xx_return_sample_apps.png) *License:* unknown *Contributors:* A0221015

**Image:CC3200 xmpp chat window.png** *Source:* [http://processors.wiki.ti.com/index.php?title=File:CC3200\\_xmpp\\_chat\\_window.png](http://processors.wiki.ti.com/index.php?title=File:CC3200_xmpp_chat_window.png) *License:* unknown *Contributors:* Codycooke