

# CC3100 Email Demo Application

## Overview and application details

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This sample application demonstrates how CC3100 can be used to send an email over SMTP. The application configures CC3100 to connect w/ an SMTP server and sends email to it. SMTP server forwards it to the recipient's email-server and the recipient receives the email from his email-server using IMAP/POP3 and/or other proprietary protocol.

**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\

## Email application's sequence

- € Client first makes a TCP connection with SMTP server.
- € SMTP server replies back w/ response-code and greeting-message containing FQDN
- € HELO/EHLO € Client sends Hello Message to the server. ESMTP accepts EHLO
- € The SMTP server replies with Code 250 and Hello Message. ESMTP Server replies with SMTP extensions it supports such as Email maximum Size, authentication etc.
- € If SMTP server requires authentication, the client sends •auth login, followed by •Username, and •Password, encoded with proper encryption accepted by SMTP Server.

**auth login**

**334 VXNlcm5hbWU6**

- € Client sends "Username" encoded with proper encryption accepted by SMTP server

**a2F1c2hmmdmdmdmhGt1a2thckBnhfjdjjsksbWFpbC5jb20**

- € Client sends "Password" encoded with proper encryption accepted by SMTP Server

**334 UGFzc3dvcmQ6**

**Mlklkdldldl21haWxhYjskdkskjs2Mzc3M=**

- € SMTP server replies with Authentication Success/Failure.

**535 Incorrect authentication data/ 235 Authentication Successful**

- € SMTP client then sends From-Address

**MAIL FROM: xyz@abc.com**

- € SMTP client sends To-Address

**RCPT TO: abc@ti.com**

- € SMTP client sends DATA command

**DATA**

- € SMTP client sends email data.

- € SMTP server responds with the acknowledgement

## Source Files briefly explained

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

## Usage

**Prerequisite:** This application requires an access-point with internet connectivity

- € Connect the board to a Windows-PC and configure the terminal-program for seeing the logs - CC3100 & CC3200 Terminal Setting has detailed instructions for configuring the terminal-program
- € Open **sl\_common.h** and change **SSID\_NAME**, **SEC\_TYPE** and **PASSKEY** as per your access-point properties - SimpleLink device will connect to this AP when the application is executed
- € Open **config.h** and change values for **USER** and **PASS** for setting up the source email.
- € Edit the same file and change values for **DESTINATION\_EMAIL**, **EMAIL\_SUBJECT** and **EMAIL\_MESSAGE** for setting up the email properties
- € Compile and run the application
- € See the self explanatory logs on the terminal-program's console. On success, below message will be displayed on the terminal and an email is sent to the destination email-ID

**Note:** User may need to turn on the access for the less secure apps from the Google account settings to run this example.

## Limitations/Known Issues

- € The size of the message is currently 64.
  - € Subject should be less than 30 characters
  - € Destination email should be less than 30 characters.
  - € For this example users must alter the default Gmail security settings to a lower security level. If this modification is not made, the server will reject the sending action.
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# Article Sources and Contributors

**CC3100 Email Demo Application** • *Source:* <http://processors.wiki.ti.com/index.php?oldid=233544> • *Contributors:* A0131814, A0132173, A0221015, Codycooke, Malokyle, SarahP

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