CC3100 Email Demo Application

Overview and application details

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

  a2F1c2hmmdmdmdmhbGt1a2thckBnhfjdhfdjjsksbWFpbC5jb20
- Client sends "Password" encoded with proper encryption accepted by SMTP Server

  334 UGFzc3dvcmQ6

  MlklkdldldldI21haWxhYjskjdkskjss2Mzc3M=
- 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 that 30 characters
- Destination email should be less that 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.

Article Sources and Contributors

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