CC31xx SSL Demo Application

Overview

SSL certificates are designed to provide two principles, privacy and authentication. Privacy is achieved by encryption/decryption and authentication is achieved by signature/verification.

SSL certificates must be preloaded to the serial flash. It is possible to flash 5 sets of SSL certificates to the device using the SLProg utility.

Application details

The example intends to demonstrate how certificate can be used with SSL.

The procedure includes the following steps:

- Connect to an open AP
- Get the server name via a DNS request
- Define all socket options and point to the CA certificate
- Connect to the server via TCP

Usage

- Download the required google certificate file on sFLASH using 'sl_prog' utility. Below are few instructions - Refer 'sl_prog's README for more details

```
   Create <file_name>.txt
   Add '<path to google certificate>,/cert/128.der,SFLASH' to it
   Run command: sl_prog.exe -p <comm-port> -b
<file_name>.txt
```

- Open 'main.c' and modify DATE, MONTH, YEAR, HOUR, MINUTE and SECOND macro to set the current time. Also, modify the value for 'SSID_NAME'
- Build and launch the project
- Application will connect to google server
- On successful connection green LED will turn on otherwise red LED.

Limitations/Known Issues

- SSL certificates must be preloaded to the serial flash
- SSL certificates are not encrypted
- SSL certificates should use .der format
- Only 5 sets of SSL certificates can be used concurrently

Article Sources and Contributors

CC31xx SSL Demo Application *Source*: http://ap-fpdsp-swapps.dal.design.ti.com/index.php?oldid=188870 *Contributors*: A0131814, Giansway