CC31xx Get Time Application

Overview and application details

This sample application demonstrates how to connect to an SNTP server and request for time information. The application processes the received data and displays the time on console.

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

i. main - Initializes the device, connects to an AP, open an UDP socket, requests and displays the time information.

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 - [l CC31xx_&_CC32xx_Terminal_Setting_Wiki [1]] has detailed instructions for configuring the terminal-program
- Edit **main.c** to set the SNTP server's name (in variable **SNTPserver**) - Any server from the below list can be used for demo

```
/*! ************************* List of SNTP servers ****************************
 *! ##
 *! ##          hostname          |        IP        |       location
 *! ## ------------------------------------------------------------------------
 *! ## nist1-nj2.ustiming.org     | 165.193.126.229  | Weehawken, NJ
 *! ## nist1-pa.ustiming.org      | 206.246.122.250  | Hatfield, PA
 *! ## time-a.nist.gov            | 129.6.15.28      | NIST, Gaithersburg, Maryland
 *! ## time-b.nist.gov            | 129.6.15.29      | NIST, Gaithersburg, Maryland
 *! ## time-c.nist.gov            | 129.6.15.30      | NIST, Gaithersburg, Maryland
 *! ## ntp-nist.ldsbc.edu         | 198.60.73.8      | LDSBC, Salt Lake City, Utah
 *! ## nist1-macon.macon.ga.us    | 98.175.203.200   | Macon, Georgia
 *! ## 0.in.pool.ntp.org          | 123.108.225.6    | India
```

```
*! ## For more SNTP server link visit 'http://tf.nist.gov/tf-cgi/servers.cgi'
 *! ***************************************************************************
 */
const char SNTPserver[MAX_SSID_LEN] = "nist1-nj2.ustiming.org"; /* Add one of the above servers */
```

- Edit **sl_common.h** and update the following parameters for the device to establish connection w/ the access-point

```
#define SSID_NAME       "<ap_name>"
#define SEC_TYPE        <security-type>
#define PASSKEY         ""
```

- Edit **main.c** and modify values for below macros for settings the GMT time-offset

```
#define GMT_TIME_ZONE_HR        0
#define GMT_TIME_ZONE_MIN       00
```

- Build and run the application
- See the self explanatory logs on the terminal-program's console.

```
The application connects to the SNTP server and opens an UDP socket to communicate w/ it.
It receives and processes the time-information and displays it on the console
```

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

Limitations/Known Issues

None

References

[1] http://processors.wiki.ti.com/index.php/CC31xx_&_CC32xx_Terminal_Setting

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