

CC31xx Provisioning AP

Overview and Application details

This is a sample application demonstrating how CC3100's internal web-server can be used to associate the device with an access-point. The device comes-up in STATION mode, scans for available access-points, switches to AP mode and waits for client to connect and complete the provisioning process.

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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\`

Usage

- Flash 'main.html', 'provisioning_apg.html', 'param_status.html' and 'js/jquery-1.8.3.min.js' on serial-flash by following below steps:
 - Open the configuration-file at '`<cc3100-sdk-installtion-location>/examples/provisioning_ap/uniflash_template/provisioning_ap.ucf`' in Uniflash.
 - Flash the above files on the device. Uniflash_User_Guide has detailed flashing instructions
- Open `sl_common.h` and change `SSID_AP_MODE`, `PASSWORD_AP_MODE` and `SEC_TYPE_AP_MODE` to configure cc3100 in access-point's mode.
- Build and run the application.

Device first comes up in STA mode and scans for the visible access-points

Next, it restarts and comes up in AP mode (w/ SSID name as '`<SSID_AP_MODE>`') for clients to connect and provision the device to an access-point using a web browser

- Connect a client to SSID `<SSID_AP_MODE>`
- Open a web-browser on the client and enter the IP of CC3100 (default IP: 192.168.1.1) in the browser's address-bar. 'mysimplelink.net' can also be entered for accessing the web page.
- Click on 'Provisioning AP' tab.

The screenshot shows a web browser window with the address bar displaying '192.168.1.1'. The page has a navigation bar with tabs: 'SimpleLink CC3100', 'Status', 'IP Config', and 'Profiles'. The 'Provisioning AP' link is highlighted under the 'SimpleLink CC3100' tab. Below the navigation bar, the 'Status' section is active, showing a table with device information:

Device	
Device Name:	cc3100-p2p-device
Device Mode:	Access Point
MAC Address:	00:39:72:D1:99:0F

- Select an AP from the list, enter the security parameters, click on 'Add' and 'Connect' button to connect to the AP

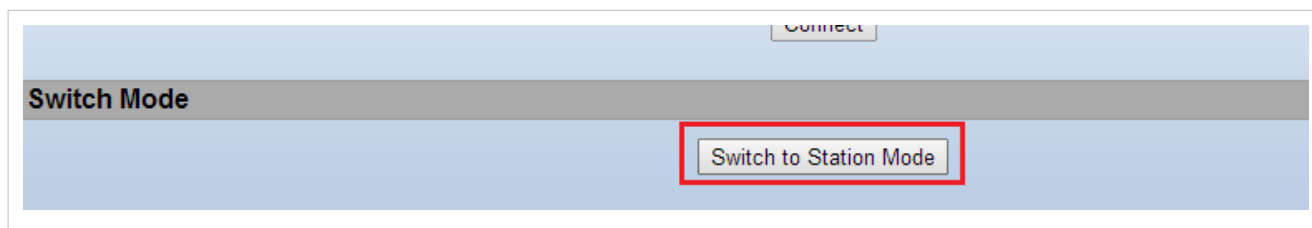
The screenshot shows the 'Add Profile' page. It contains the following fields and controls:

- SSID:** A dropdown menu with the text '- Select AP -'.
- Security Type:** Radio buttons for 'Open' (selected), 'WEP', 'WPA1', and 'WPA2'.
- Security Key:** A text input field with a placeholder 'Hexadecimal digits - any combination of 0-9, a-z, A-Z, and _'.
- Buttons:** 'Add' and 'Connect' buttons.

- Wait for the feedback for CC3100. (Instructions provided by the web page should be followed)

The screenshot shows the 'Add Profile' page with a modal dialog box overlaid. The dialog box has a title bar that says 'The page at 192.168.1.1 says:' and contains the text 'Successfully Connected to AP'. There is an 'OK' button in the bottom right corner of the dialog box. The background page shows the 'Add Profile' form with the same fields as in the previous screenshot.

- Click on 'Switch to Station Mode' to connect to the AP.



Limitations/Known Issues

- Only 20 APs can be scanned by the CC3100

Article Sources and Contributors

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