CC31xx SLS Sniffer with Filters Application

Overview

This application provides a functional example that highlights the ability of CC3100 to use a raw socket to read any packets, as well as how to filter the packets at the MAC level.

For details on Rx-Filter feature refer to 'rx_filters' guide in '<cc3100/>docs/ app_notes' folder.

Application details

The application open a raw socket in transceiver mode, create and apply filter based on the user input and print the wireless data packets to the command prompt.

Filter can be created based on:

- Source MAC address
- Destination MAC address
- BSSID
- Frame subtype: Some possible subtype bytes are
  - Data: 8
    - Probe Request: 40
    - Probe Response: 50
    - Beacon: 80
    - QOS Data: 88
    - Acknowledgement: d4
- Source IP address
- Destination IP address
- Packet length

For information on how to use visual studio or Eclipse to compile and run this application refer to 'Environment Setup' section of 'simplelink_studio_guide' in '<cc3100/>docs/app_notes' folder.

To use the CC3100 UART interface define 'SL_IF_TYPE_UART' in the project property. Change the COMM_PORT_NUM to first com port of FTDI.

Usage

- Compile and run the application.
- Enter the channel and no of packets to be received.
- Enter 'f' to configure the filter.
- Configure the filter.
- Enter '9' to enable the filter and start receiving the packets.

Limitations/Known Issues

- Payload rule is currently not supported
- Filter's action of sending EVENT to the host upon a match is currently not supported.

Article Sources and Contributors

CC31xx SLS Sniffer with Filters Application *Source*: http://ap-fpdsp-swapps.dal.design.ti.com/index.php?oldid=187918 *Contributors*: Giansway