MAC RFD Application

User guide
Version 0.1

January 2016

Redpine Signals, Inc.

2107 N. First Street, #680

San Jose, CA 95131.

Tel: (408) 748-3385

This project is applicable to the WiSeConnect variant.

Application Overview:

The MAC RFD Application demonstrates how WiseConnect device would act as RFD and connects to an FFD.

- WiSeConnect Device starts as an RFD
- It connects to an FFD.
- Sends data to the FFD periodically.

Setup required:

1. Linux PC.
2. 2 WiSe-Connect devices (1 FFD, 1 RFD).

Description:

Create one device as FFD and the other device as RFD.

This application explains how WiSe-Connect device acts as RFD and connects to an FFD.

WiSeConnect device joins a network and sends data.

Configuring the Application:

Edit the **`rsi_mac_rfd.c`** file in the following path.

`sapis/examples/zigbee/mac_rfd`

1. Scan Request configuration,

```
SCAN Type configuration
#define ACTIVE_SCAN                                    0x1

Channel Mask is split into four bytes as follows
#define SCAN_CH_MASK_0                                 0xXX
#define SCAN_CH_MASK_1                                 0xXX
#define SCAN_CH_MASK_2                                 0xXX
#define SCAN_CH_MASK_3                                 0xXX
```

Each bit position in Channel mask corresponds to a particular channel.

Scan Duration configuration

```
#define SCAN_DURATION                    Value
```

2. Data Request Configuration

Payload Length and Payload Configuration

```
#define MSDU_LENGTH                      Payload Len
#define MAC_PAYLOAD                      {Payload}
```

Executing the Application:

1. Connect WiSe-Connect device to the Linux PC.
2. Configure the macros in the files located at

   sapis/examples/zigbee/mac_rfd/rsi_mac_rfd.c

3. Build and launch the application.
4. After the program gets executed, WiSe-Connect Device would be created as RFD.
5. It sends the data periodically.