CAPWAP protocol modification in OpenCAPWAP

1. AC side Thread implementation
   1. Protocol Specification: CAPWAP specifies three different threads for AC. Section 2.3 of RFC 5415 explain the three thread – Listener Thread, Discovery Thread and Service thread.
   2. Modified implementation: OpenCAPWAP has only implemented two of these thread – Discovery and Service thread.
2. Data message implementation
   1. Protocol specification: CAPWAP data messages are encapsulated in CAPWAP Headers with RSSI and Data Rate values.
   2. Modified Implementation: SNR and DataRate values are not recognized by the application in the present implementation. Hence these values are manually specified in the OpenCAPWAP implementation to identify different kind of data packet. Three such implementation are
      1. Frequency Manage: SNR – 1, Data Rate – 255
      2. Station Information: SNR – 2 , Data Rate – 255
      3. QoS Stat Packet : SNR – 0, Data Rate – 255
3. Station Dump information
   1. Protocol Specification: There is no protocol specification or Binding specification which communicates Station dump information for every station to the AC.
   2. Modified implementation: We created our own structured message element. (struct sta\_info, File: netlinkTest.h). This message struct is sent to AC as a CAPWAP Data message.