Abstract

In IEEE Std 802.16^{TM}-2004, Convergence Sublayer (CS) is defined as the top sublayer of Medium Access Control (MAC) Layer. The MAC CS main function is classification and mapping the MAC Service Data Unit (MSDU) in to appropriate connection that defined by Connection Identifier (CID). Classification and mapping are important process, that is, analysis and implementation MAC CS based on IEEE Std 802.16^{TM}-2004 is required.

Analysis and implementation of MAC CS using Embedded Configurable Operating System (eCos) is the topic research of this final year project. eCos is Open Source Real Time Operating System (RTOS) that can be configurated depend on the goal of the user. By using eCos's fitures, implementation of MAC CS can be done on specific hardware platform.

Result of this final year project is MAC CS's main function, classification and mapping process, can be implemented by using eCos's fitures. Analyzing of MAC CS functionality on classification and mapping process is showed in this final year project.

Keywords: Convergence Sublayer (CS), Medium Access Control (MAC), Connection Identifier (CID), Embedded Configurable Operating System (eCos)