

Pengembangan Prototipe Perangkat Routing untuk Aeronautical Telecommunication Network = Development of Routing Device Prototype for Aeronautical Telecommunication Network

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Abstrak

International Civil Aviation Organization (ICAO) menetapkan Aeronautical Telecommunication Network (ATN) sebagai standar protokol komunikasi baru untuk menjamin efektivitas dan efisiensi manajemen lalu lintas udara. Tingginya biaya implementasi ATN mendorong Badan Pengkajian dan Penerapan Teknologi (BPPT) untuk memulai pengembangan modul ATN untuk Kernel Linux sebagai Free/Open Source Software. Modul ATN masih perlu diperbaiki agar memenuhi standar ISO/IEC. Dalam skripsi ini, penulis berhasil menambah kemampuan routing pada modul ATN berdasarkan ISO/IEC 8473-1:1994 dengan menambahkan struktur data FIB dan fitur packet data forwarding. Modul tersebut berhasil dipasang pada System On Chip Raspberry Pi dan berhasil melakukan forward paket data ATN dengan beragam ukuran paket.

.....International Civil Aviation Organization (ICAO) sets Aeronautical Telecommunication Network (ATN) as the new standard communication protocol to ensure effectiveness and efficiency of air traffic management. The high implementation cost of ATN encourage the Agency for the Assessment and Application of Technology (BPPT) to start the development of ATN module for Linux Kernel as Free/Open Source Software. ATN modules still need to be improved to meet the standards of ISO/IEC. In this thesis, the author managed to add routing capabilities to the ATN module based on ISO/IEC 8473-1:1994 by adding the FIB data structures and packet data forwarding feature on CLNP. The module is successfully installed on a System On Chip Raspberry Pi and managed to forward ATN packets which differed in packets size.