Development of a Packet Forwarding Application in RTEMS

In our IPF project, we optimize application execution during runtime by using self-aware DVFS and task mapping algorithms.

For "real-world" testing, we need a packet forwarding application running on our SparcV8 processors. This application should periodically generate and process packets and provide metrics such as "generation time", "scheduling time" and "deadline". It should also be possible to discard packets if the deadline is exceeded.

It is planned to implement this application within RTEMS.

Prerequisites

- Experience in low-level programming (registers, timers, etc)
- Experience with real time operating systems
- Strong problem-solving skills, attention to detail, and the ability to work both independently and collaboratively in a team environment

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