A Named Data Networking Stack for Contiki-NG-OS

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Abstract : The current Internet has become the dominant use with continuing growth in the home, medical, health, smart cities and industrial automation applications. Internet of Things (IoT) is an emerging technology to enable such applications in our lives. Moreover, Named Data Networking (NDN) is also emerging as a Future Internet architecture where it fits the communication needs of IoT networks. The aim of this study is to provide an NDN protocol stack implementation running on the Contiki operating system (OS). Contiki OS is an OS that is developed for constrained IoT devices. In this study, an NDN protocol stack that can work on top of IEEE 802.15.4 link and physical layers have been developed and presented.