**Contiki OS**

IoT stands for the Internet of things, which is one among trending technology in today’s tech market. IoT may sound very new, but it has very deep roots in wireless sensor networks. WSN is a wireless sensor network where the nodes or motes (WSN) are equipped with the controller with sensors and a wireless interface on top of it. Coordinator locally collects the sensor data for each node for further processing of data. IoT is just empowering these wired or wireless nodes with I i.e., internet.

The data collected from sensor device is pushed to an IoT platform. After receiving data platform and should be able to do a light processing on data. Sometime devices sends data to an IoT Edge where data collection done locally and pushed to platform periodically. Therefore, embedded hardware also has prime share. Device firware has limatations and there is need for an OS, which fits in embedded environment.

As the cloud side technologies evolved there was requirement of small memory and CPU foot print OS to handle constrained environment.

Contiki only requires a few KB’s, its entire OS − a web browser, web server, calculator, shell, telnet client and daemon, email client, vnc viewer, and ftp is around 30 kb. It borrows OS development and deployment strategies from RTOS, which easily occupies small space.

Contiki is an OS meant for microcontrollers and building complex wireless systems. Contiki is equipped with Cooja network simulator for simulating motes and network environment before deployment.

Contiki supports recent power aware routing techniques with IPV6 addressing and IPV4 addressing.

Contiki communication supports uIP (for IPv4), uIPv6 (for IPv6), Rime, 6LoWPAN, RPL and CoAP

Contiki runs on popular hardware device like MSP430, TI CC2538, nRF52832, Atmel Atmega128 RFA1 and Microchip pic32mx795f512l.

Contiki has wide community for support and Doxygen Documentation for source documentation.