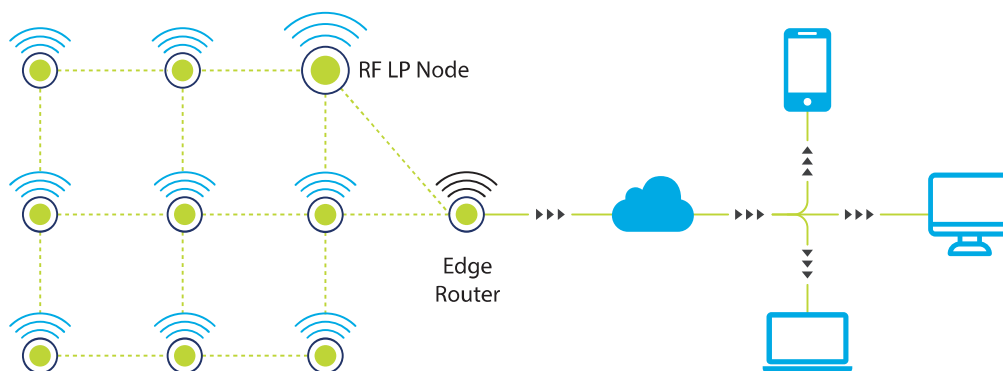


ankiDB™ Micro

Nodes and Routers - Hardware

Yuktix provides nodes and routers for creating wireless sensor networks. The nodes are capable of interfacing sensors and sending data directly to a backhaul network (GPRS, satellite) or to the nearest Yuktix ankiDB router. The nodes can be run on batteries, solar or 12V DC. The routers collect data from nodes and use GPRS, satellite or Ethernet to send data to ankiDB cloud servers. The routers require solar power or 12V DC. Please see the how it works section for more on possible network topologies.

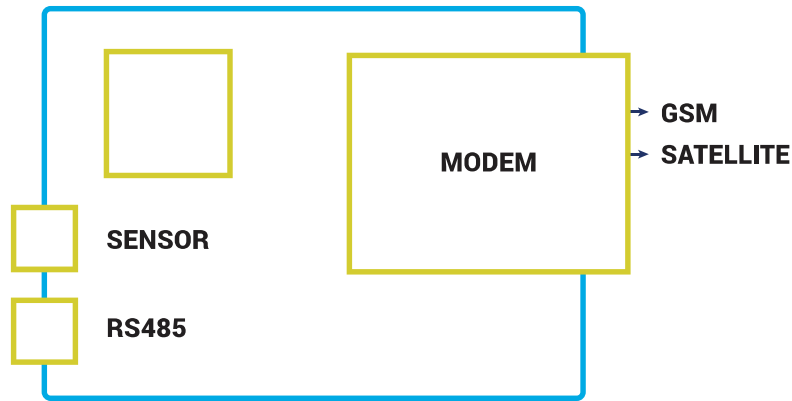


[Image Caption]

Direct to Cloud

The sensor nodes can send data directly to a cloud machine if they have using a communication option to support it.

The node uses its own modem to communicate to the outside world. There is no dependency on local setup. The nodes can be dropped in any place and start communicating to the ankiDB™ cloud.



[Image Caption]

The ankiDB™ cloud can show the data on Vanilla dashboard or a customized dashboard. The data is stored in the ankiDB™ cloud. The customer can use ankiDB™ push gateway to push the same data to her own machines running on the Internet.

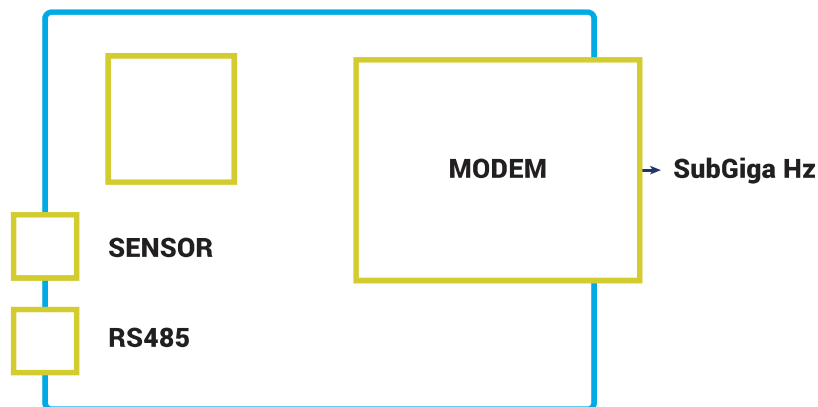
The nodes can automatically send data to cloud if they have

GPRS DATA SIM.

Satellite Modem

Access to a back haul like Sigfox.

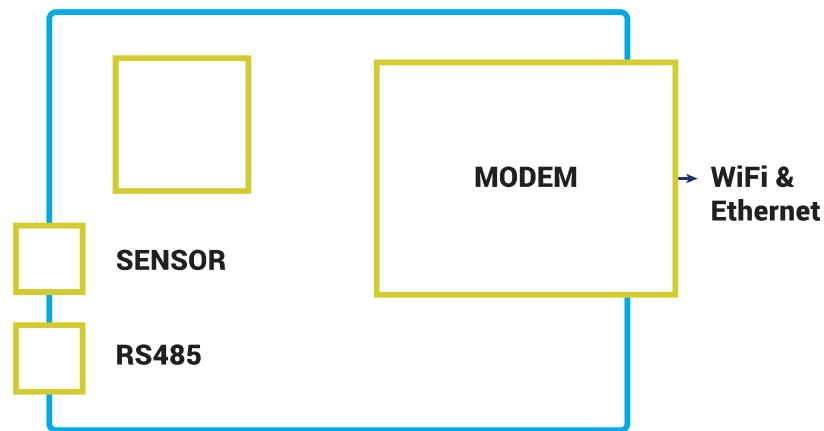
Local Node



[Image Caption]

The nodes that cannot communicate directly to the outside world (e.g. Sub Giga Hz radio modules) will need to connect to an ankiDB™ router. The router collects data from the local network of nodes and sends it to ankiDB™ cloud using a GPRS DATA SIM or other technologies. The router has two ends. One end talk to the local network and another to the outside world.

WiFi and Ethernet Node



[Image Caption]

Wi-Fi and ethernet node are a case where communication to the ankiDB™ cloud can happen without an ankiDB™ router. The nodes can connect to an existing Wi-Fi or Ethernet network that allows access to the outside world.

Firmware

The Yuktix ankiDB™ firmware targets AVR CPU and is low power optimized. There is out of the box support for I2C, SPI, UART, analog, RS485, RS232 and 4-20mA sensors. The firmware provides power optimizations to run sensor nodes on batteries for years. The networking drivers provides support for GSM, GPRS, Wi-Fi, Ethernet and Satellite. There is an easy provision to add more sensor interfaces as well as communication options.