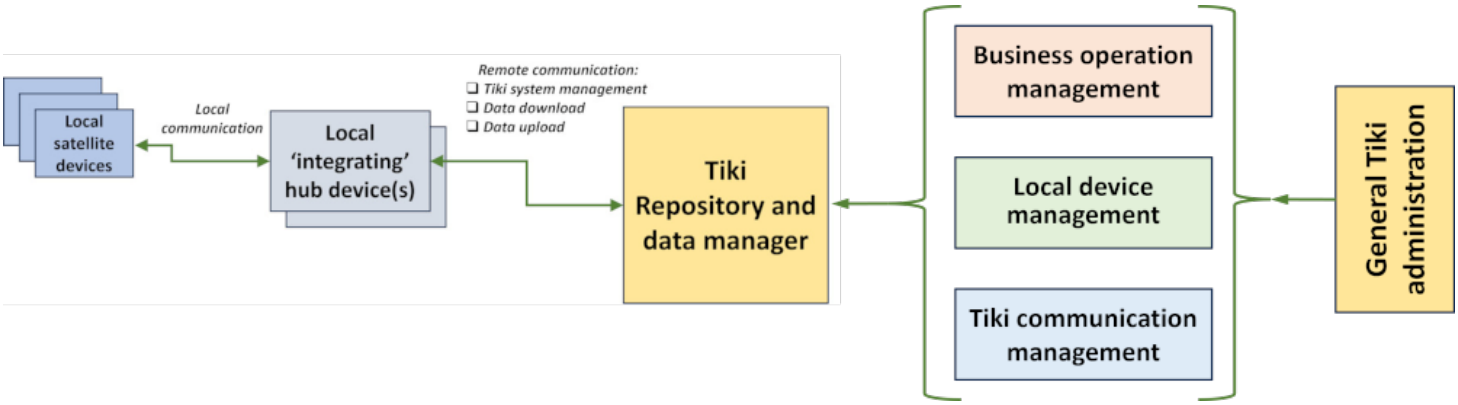
Internet of Things (IoT) usage

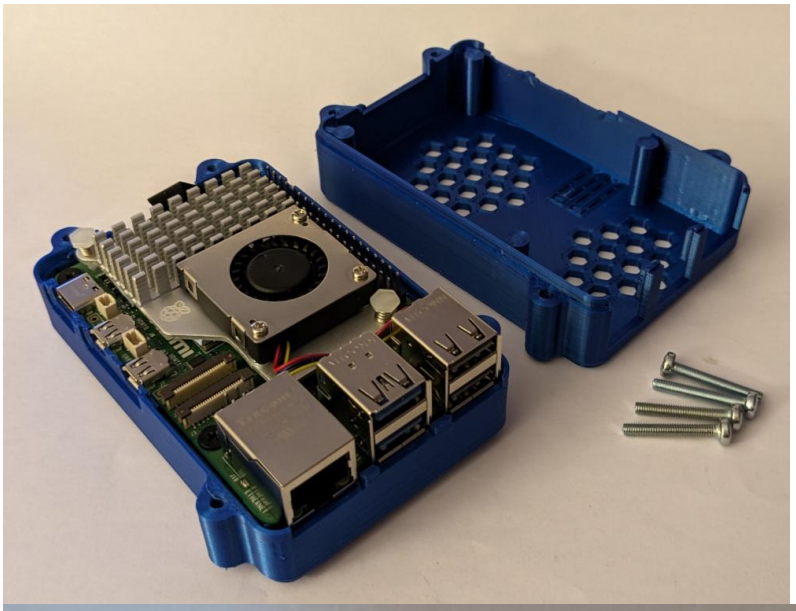
The schematic below illustrates a generic IoT system with Tiki at its centre, where the left-hand side shows the different types of field deployed devices and their communications, and the right-hand side segments the different types of Tiki user that can each be supported with various types of reporting and analysis:

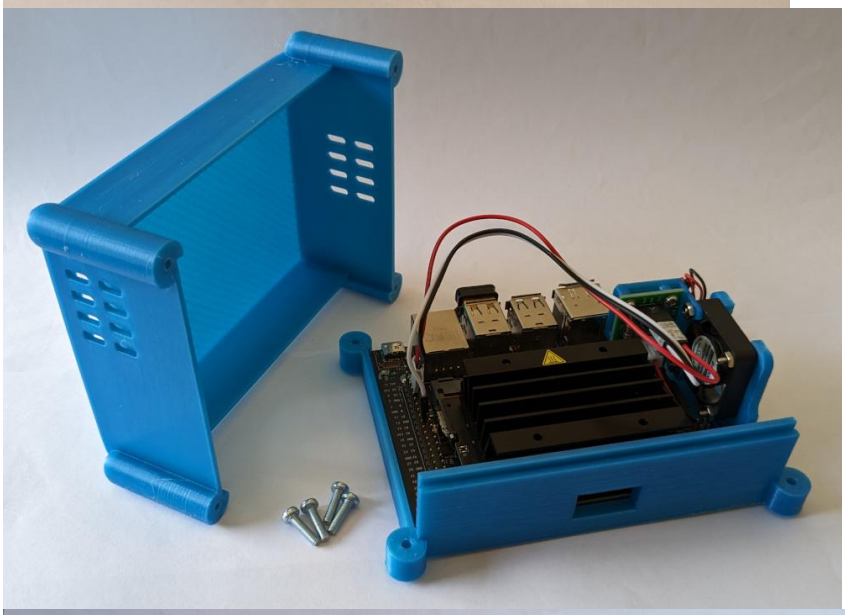


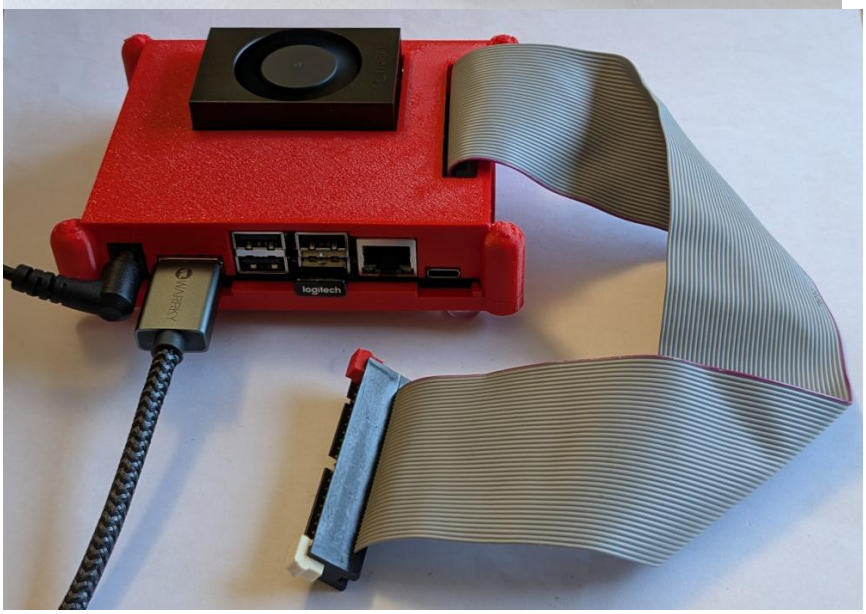
Tiki already has an extensive API (which has been further extended in Tiki27) and can support complex data analysis and reporting (using LIST etc. - although graphic presentation probably needs some more attention !!!).

The development of local satellite devices (sensors etc.), their local communication, and hub device software is obviously outside the scope of the Tiki development community and is already supported by hundreds of different sensor developers and a more limited number of hub device developers.

So the key 'gap' to be addressed for the left-hand side of the schematic above has been the ***Remote communication*** layer from a local integration hub to a central Tiki where the local integration hub is typically a small single board computer (SBC) like a Raspberry Pi CM4 or 5, or an NVIDIA Jetson Nano or Orin as illustrated in the images below.







This web page is just a short summary of IoT usage with Tiki's API, with much more detailed information on the use of the API for IoT deployment can be found here with:

- details about example software for field deployed devices that automates the upload of data to Tiki using the API, and how
- customised reporting and analysis can be configured with, for example, automated

notification emails for sensed alarm conditions.