

## CASE STUDY

# Patient Data Uplink Device Bridges a Gap

## The Challenge

In today's fast-paced digital world, patient data is frequently uploaded automatically to a health care provider. However, many medical products on the market and in use are only able to store patient data and still require the patient to visit a medical facility to download the data.

While it is becoming more common for medical devices to have a global system for mobile communications (GSM) modem onboard to automatically upload patient data, there was a need for a bridging communication device to interface with existing products in the field that are not ready to be retired. The device needed to be sleek and as small as possible since patients are already carrying one medical device and probably a cell phone as well. The device needed to be durable, rugged, and easily carried in a pocket, backpack, or clipped to the user's belt.



## The Solution

Lab 651 founding partners Troy Pongratz and Rodney Landers provided a fully integrated solution for the customer. Several different product configurations were evaluated and a selection made with the user's lifestyle and needs in mind. Snap locks, for instance, were used to assemble the plastic case together without any fasteners, as requested by the client.

The electrical solution included printed circuit board (PCB) design, hardware, software, and a custom onboard antenna. A membrane switch was used to control the device (power button, LED indicators, etc.). Capacitive touch buttons were investigated, but it was thought that higher force snap domes would lead to fewer accidental button activations. Special care was taken to ensure a radio frequency (RF) transparent material was used to construct the case.

Customer feedback on the device was positive: they liked the portability of the device and ease of use. The client also appreciated how the Lab 651 team fully integrated into their company culture and worked closely with their internal people to produce a successful product design.

Developing connected devices is our specialty at Lab 651. Contact us for your next project at [www.Lab651.com](http://www.Lab651.com).

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