

## Case Study

# Respiratory Motion:

**Respiratory Motion is a medical device manufacturer located in Waltham, Massachusetts founded in 2010. They specialize in respiratory monitoring using a non-invasive technology used to measure breathing rates in patients and to prevent hypoventilation. They are the only non-invasive respiratory monitor of this type on the market.**



### The Challenge:

Respiratory Motion had a number of requirements for the tablets that would serve as the interface for their device. First, they needed a Windows tablet that could run Java and was powerful enough to run their software. They also needed a tablet with two USB ports to connect to the monitoring device and a large enough display for healthcare providers to read and interact with the software properly. Lastly, they needed a tablet with design continuity. Commercial grade tablets undergo design changes very frequently, and even the slightest design modification (a slimmer profile, docking connector changes places, etc.) would mean that their entire device housing would need to be repurposed to accommodate those changes. Finding a device that maintained a consistent design over several years was a must for Respiratory Motion.

### The Solution:

The staff at Respiratory Motion initially settled on a commercial grade tablet but quickly discovered several issues. A quick internet search led them to Cybernet and the CyberMed T10 tablet. The included USB ports were what they needed for interfacing with their device, so their setup was seamless—driver installation was quick and Windows ran Java smoothly. The IEC60601-1 certification for near-patient use and safety was attractive for their needs, too. The 9.7-inch screen size was large enough for their requirements. However, the largest point that influenced their decision was



*“Most tablets have a life of two years these days. They change things subtly on them like maybe the connector at the bottom, but from our perspective that would be a major change to our device. We like the idea that [the CyberMed T10C] is going to be around for a number of years, and so we didn’t have to keep doing redesigns every two years.”*

the life-cycle of the tablets—Cybernet has a product life cycle of 5 years. Respiratory motion knew that the tablets they bought on day 1 would be the same as the tablets they purchased two or three years down the line, meaning there would be no need for constant redesigns to the device housing.

### **The Result:**

Due to regulatory requirements for all medical device manufacturers, respiratory motion is required to log and report all customer feedback. To date, they have received no negative feedback. Even though the CyberMed T10 tablet has now reached the end of its life cycle, Respiratory Motion has stayed with Cybernet, choosing to upgrade to the second generation CyberMed T10C. The CyberMed T10C is a more powerful tablet capable of running Windows 10, but maintains the same form factor as the T10, meaning they don’t need to alter their device design. Respiratory Motion recently purchased 600 T10 tablets to fulfill current demand and are in the testing phase with the new T10C models. We’ll be sure to update this report once the CyberMed T10C is deployed in the field.

