Pioneer

TOTAL COST OF OWNERSHIP

comparing rugged and consumer devices

The question that many leaders in healthcare struggle with is type of technology that they should invest in for their communities given the other challenges and cost constraints that exist.

At Pioneer we often hear

“Can’t I just buy a laptop?”

Yes, you certainly can buy a laptop but will it stand the test of time in harsh working conditions? How many repairs, replacements and how much downtime will it cost your IT staff and end users over the lifespan? Let’s take a look at some calculations and comparisons and identify the true Total Cost of Ownership of your technology.

REPAIR COSTS

According to IDC's 2021 Rugged Device Survey, on average, IT organizations had to make repairs to about 15% of their notebook fleet, 21% of their tablet fleet, and 26% of their smartphone fleet in the past 12 months. Every time a device needs repair, the organization incurs costs for the repair, as well as the hours spent by IT and employees to triage the workflow and the lost hours of productivity when the device is out of service. These costs add up quickly.

DEVICE LIFESPAN

Rugged devices have a longer lifespan compared to non-rugged devices. Respondents in the survey mentioned that they replace their standard notebooks every 3.9 years, while rugged notebooks are replaced every 4.8 years. For tablets, the replacement cycle is 3.6 years for standard tablets and 4.6 years for rugged tablets. And for smartphones, it is 3.7 years for standard smartphones and 4.4 years for rugged smartphones. Organizations need to replace rugged devices less frequently than consumer-grade devices; resulting in higher cost savings in hardware, downtime and staff costs.

COST OF OWNERSHIP

IDC calculated the potential total cost of ownership (TCO) benefits of using rugged devices over non-rugged devices. Despite the higher upfront cost of rugged devices, there are significant savings over the average life cycle of the device. For example, the TCO savings for a rugged notebook is estimated to be $2,745, for a rugged tablet it is $1,045, and for a rugged smartphone it is $1,490. These savings are due to reduced breakage/damage, lower repair and replacement costs, increased productivity, and reduced downtime.

FUTURE PURCHASE INTENT

When IT decision makers were asked about their likelihood of buying rugged devices in the next 12 months, a significant percentage indicated that they were either somewhat likely or very likely to purchase rugged notebooks, tablets, and smartphones. This indicates that organizations recognize the value and cost savings associated with rugged devices.

In conclusion, while medical grade / rugged devices may have a higher upfront cost, the long-term cost savings in terms of repair costs, longer lifespan, and overall cost of ownership make them a cheaper option in the long run.

Rugged / Medical Grade Devices

- Anti-microbial plastic improves infection control.
- Sealed housing protects device against liquids and is easy to clean.
- HIPAA privacy filter and hidden data ports offer greater data security.
- Healthcare touchscreen works with all inputs incl. gloved hand.
- Ruggedized mylar screen is shatterproof.
- Advanced hot swappable battery systems mean 24/7 reliable mobile computing.

VS

Consumer Grade Devices

- Soft, tactile plastics cannot tolerate bleach-based cleaners.
- Open ports and keyboards are high risk for liquid damage in Healthcare environment.
- No privacy filter and open data ports mean unwanted access to HIPAA sensitive data.
- Consumer grade touchscreens have limited functionality and durability.
- Consumer glass screens shatter easily.
- Limited consumer battery life means constant charging and limited mobility.

Reduced Problems and Increased Productivity

Rugged devices have several benefits that contribute to cost savings. They are less likely to suffer damage requiring repairs, leading to reduced breakage and lower repair costs. They also result in increased productivity due to less downtime caused by device failures.

The decision to purchase rugged devices protects against breakage or damage in critical situations, ensuring uninterrupted workflow and reducing the negative impact on employee productivity.

To learn more about Pioneer products or to schedule a complimentary consultation with our healthcare tech experts, email Sales@PioneerSolution.com.

About Pioneer

Established in 1994 and headquartered in California, Pioneer Solution Inc. is a leading designer and manufacturer of industry-specific all-in-one computers, touchscreen monitors, kiosks, and tablets. Proudly made in the USA, their solutions cater to Retail, Hospitality, Factory Automation, Gaming, and Healthcare sectors. Pioneer Solution Inc. has garnered an exceptional reputation for its flexibility and responsiveness. offering short lead times, extended product life cycles (minimum of 5 years), easy customization, and swift turnaround. The company's global presence is maintained through qualified technology resellers, ensuring widespread access to their cutting-edge products in the US and beyond.