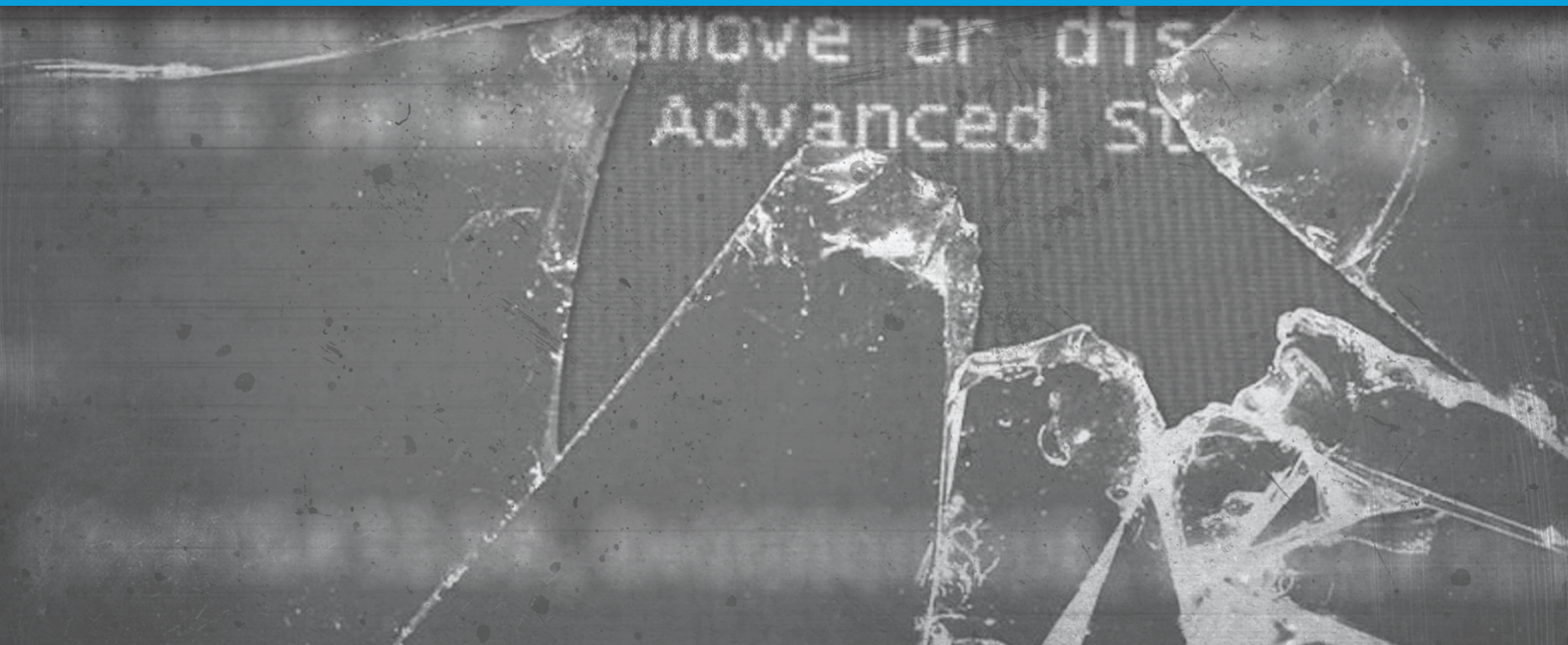# IS YOUR MOBILE PC REALLY BUILT TO LAST?

IS YOUR MOBILE PC REALLY BUILT TO LAST?

Those who put more value on the lower price tag of commercial grade devices versus the much lower, long-term _total cost of ownership (TCO) of rugged devices_ will end up taking a loss due to the oversight of "secondary cost" considerations.

Compromising on usability features will lead to productivity losses. Accepting non-rugged devices' inherent fragility will lead to fast device failure, possible data loss, and the biggest cost hit - the workflow continuity issues. Inadvertent business interruptions and lost customer service opportunities are the primary reasons service organizations abandon commercial or even consumer devices for rugged tablet PCs.

Considering that _service revenue is beginning to eclipse many organizations' product revenue_, it is risky to consider a mobile computing solution designed to last any less than five years minimum. (Many well-designed rugged tablets end up staying in the field for seven or nine years before replacement.) Regardless of the industry, many organizations are already forecasting business performance levels while managing budgets to grow slower than revenue for five years out. Most focus on the types of products they want to produce or sell, the types of services they want to offer, and therefore have a pretty good idea of the types of mobile computing technologies needed to execute in both categories.

The next step is to clearly understand the nuances of each operating environment to confidently distinguish between those mobile computing technologies that are "built-to-last" for the long haul and those that will only last a year or two at the most, if they're handled with care.

EVALUATING THE DURABILITY AND LONG-TERM PERFORMANCE OF MOBILE COMPUTERS

At a minimum, any mobile PC selected in support of business operations should come standard with:

DAMAGE RESISTANT GLASS

Whether it's Corning® Gorilla® Glass or another chemically-hardened glass display, this is a non-negotiable feature. But look for more than just Corning's latest. Consider a tablet that is designed with the right glass thickness, and ensure the manufacturer has tested the screen's durability against real-life handling. Some consumer device manufacturers advertise their use of Gorilla Glass, but don't disclose that they've only used a very thin version of the display technology – which may not deliver the kind of protection that you may need for your typical wear-and-tear levels.

LARGE, OUTDOOR-VIEWABLE DISPLAY

While looking at screen specs, make sure you can read what's on the screen in the dark and under bright sunlight. Even the smallest details. Anything less than a 10" screen is going to make it difficult to read full-size documents while on the go. The whole point of getting a mobile PC is so that you have one device that you can use to do every aspect of the job, inside and outside.

INDUSTRIAL STRENGTH FRAME

Drops happen and rough handling of mobile devices is not uncommon. Consider this feature the equivalent of industrial-grade bubble wrap; just much stronger and not as loud.

BATTERIES!

All batteries lose some of their capacity with every discharge-charge cycle. Many are rated at 70% of their original capacity after 500 cycles. That's why most long-term mobile PCs replace their batteries every 18 months. Rugged tablets are designed for battery replacement, even those with internal batteries. Many consumer tablets' batteries cannot be replaced; when the battery fails, the entire device must be thrown away (or recycled) and replaced.

SUPPORT FOR THE SOFTWARE YOU'LL NEED

The primary requirement of any mobile computer – rugged or not – is to support the software that supports the most common work tasks. The PC must also include all the tools required for real-time connectivity and access to the data needed to get the job done. Fortunately, whether this software is based on Microsoft Windows® OS or Android™ OS, there is a wide array of mobile devices to choose from.

FUTURE-PROOF POWER

Assuming a mobile PC has the right OS and data tools for the job at hand, it must still be powerful enough to handle the software load today and over the next 5 years. Before buying a tablet PC, always consider its "working set": the processor speed, internal memory speed, size of caches, and processor class. While Intel i3 is probably the minimum speed required today for many businesses, tablets with i5 or i7 processors are more popular since they provide at least 5-year investment protection.

BACKWARDS (AND FORWARDS) COMPATIBILITY

New operating system (OS) versions are introduced frequently, but such upgrades don't warrant device replacement every time. Many rugged tablets (which have low failure and replacement rates) are still in the field running Windows® 7 and 8.1 Professional years after initial deployment. And, they can accommodate the upgrade to Windows 10 when users are ready. Even better, some rugged tablet PCs that are newer to the market and just now being deployed are going live with Windows 10. But, these new tablets are also backwards compatible and can run Windows 7 or 8.1 in the field if needed while other aspects of business' back-end systems or mobile tech solution (i.e. CAD) catch up.

Rugged mobile devices, particularly the rugged tablet form factor, offer the above as standard features. Non-rugged devices do not. Some rugged tablets also offer sealed I/O ports, slip-free grip designs, and an extensive lineup of military-grade protections against water, dust, humidity, drops, and other environmental elements that almost every single mobile device owner will experience in their daily use. The smarter decision by almost any business would be to select a rugged tablet PC that delivers all of the above internal and external protections and the following features for even greater investment protection longer term:

WIRELESS DESIGNED FOR RUGGED ENVIRONMENTS

There is a real difference between the internal radio and antenna design of a consumer tablet or commercial notebook, and the design employed for a rugged tablet intended to be used in the field. In the case of the former, the design goal is to connect the device to a wireless access point that is so close in proximity that it is actually visible. Mobile devices designed to be used in manufacturing plants, utilities, mining, and other remote or rural field service locales have been optimized to connect to far away wireless access points and cell towers.

SAFEGUARDS AGAINST SPILLS

Spills happen more than we like to admit, and most people like to disinfect their screens at some point in time – if not out of necessity for their job (i.e. healthcare, EMS, cleanrooms, labs). Find a device that won't fail if exposed to fluids or even chemical contaminants that may be prevalent at a job site (i.e. disinfectants, gels, fuels, oils).

SHOCK RESISTANT STORAGE
THIS RECOMMENDATION IS TWO-FOLD

1. Everyone benefits from devices that use solid state drives (SSDs) versus the hard disk drives commonly found in commercial PCs. SSDs don't have any moving parts and are less prone to failure from any type of shaking. And who hasn't felt that empty feeling when a hard drive – internal or external – fails and your files are lost forever? SSDs protect you from ever experiencing that pain again.

2. If the mobile PC will be exposed to any type of vibration, shock, or frequent shaking on the job (fire truck, assembly line, forklift, etc.), make sure a shock-resistant dock setup is used to protect the device in the vehicle or at your workstation. Tips on the specs to look for can be found here.

Businesses are built with long-term goals in mind. Your computing technologies should be too.

To find a Zebra rugged tablet that's built to last in your work environment, visit **www.zebra.com/us/en/solutions.html**