



Mobile Computing Buyers Guide:

Future-Proofing Your Mobile Technology

Over the last couple of years, every industry has experienced enormous challenges. However, some businesses are more equipped than others to manage the labor shortages, employee retention issues, and supply chain disruptions that dominate the news.

It's true that longer lead times and decreased customer satisfaction have been the focus, but companies that leverage upgraded technology to streamline their operations are setting themselves up to grow beyond expectations in the future. Mobile computer devices give businesses the power to mitigate the rise in production costs through data collection and real-time metrics, connect with customers on their terms with powerful CRM integrations, and arm workers with the tools they need to succeed with ergonomic designs and intuitive software.

Adopting this technology or upgrading your existing fleet of mobile computers may be one of the most important things you can do for your business right now, but it can be an intimidating task to find the product that will match your needs and provide the most return on your investment. Asking the right questions will help you narrow down your choices, and ensure you get precisely the product your company needs in order to keep growing into the future.

What Product Features and Options Should be Evaluated When Selecting the Best Mobile Computer?



Value

Pricing is one of the first things most companies consider when deciding which mobile computer to go with. However, the value of the right technology reaches far beyond the dollar signs at purchase. Companies need to look at the total cost of ownership (TCO). Research mobile computer features and estimate the costs you are likely to incur, for example, from replacing a device that breaks easily or features, such as consumer-grade screens, that you'll probably need to repair.



Ease of Use

Regardless of its function in your environment, a mobile computer should be simple to understand and easy to use. Modern mobile computers are generally made with larger, sharper screens featuring better visibility, and button and keypad arrangements that support faster work and longer hours while minimizing strain.



Feature Set

Customizable feature sets and options allow you to configure a mobile computing device that precisely meets your operation's unique needs, streamlines operations, and automates manual tasks. Screen size, keypad options, form factor, service plans, and software integrations give businesses the power to create a system that works for them. Investing in mobile computers with the right options will reduce total cost of ownership, and lead to more efficient productivity at every level.

Which Mobile Computing is Best for Your Application and Environment?

Form Factor

The best mobile computing form factor for your business will depend on the tasks you plan to support. Intense scanning routines are made easier with a pistol-grip or handheld device to reduce fatigue. Tablets may be great for some front-end retail applications, but they aren't ideal for use in warehouse inventory management applications. Ruggedized mobile computers may be perfect in a construction or manufacturing setting, but they aren't necessarily an attractive option for customer-facing applications.

The most common forms of hardware for mobile computing include:

- Handheld or pistol grip mobile computers (PDAs and PDTs)
- Vehicle mount computers
- Tablets



SKORPIO X5

Ruggedness

When you are choosing a mobile computer designed for your work environment, consider the conditions in which the devices will be used. Ruggedized devices are made to withstand harsh conditions.

- Temperature extremes
- High humidity
- Dirt and dust
- Water
- Intrinsically unsafe conditions

You'll want to choose your rugged mobile computing device based on its [ingress protection \(IP\) rating](#). This is a two-digit number that indicates its level of protection against dirt, dust, and water. The first digit refers to dust protection on a scale of zero to six, and the second refers to water protection on a scale of zero to nine. An IP54 rating might be sufficient. However, depending on the environment and the type of use, an IP65 may be needed for the harshest environments.



RHINO II

What to Look for in a Drop Rating

Another important factor in which mobile computer you select is the drop rating. Drops are going to happen, and you want a device that will withstand impact. Many rugged devices are safe to be dropped from a height of four feet onto concrete, but some can be dropped from up to six feet onto concrete without breaking.

Consumer vs Rugged Devices

Many companies are tempted to consider smartphones and consumer PDAs for their mobile computing needs, but these devices are not designed for enterprise use. Businesses looking for a lasting solution need rugged mobile computing devices that are made to withstand harsh environments and the inevitable drop.

Specific features such as scanning capabilities, battery management with custom charging profiles, and even programmable buttons included in rugged devices help enhance the efficiencies of the mobile workforce.

Ergonomics

Ergonomics are often overlooked in making decisions about mobile computing devices, but having hardware that is efficient and comfortable to use changes the game when it comes to productivity and worker safety. You want to make sure that the weight and size of devices are right for your environment and application, and that your workers are able to use the device comfortably. This will reduce worker fatigue caused by repetitive motion, [which is a leading cause of workplace injury](#).



How Will You Collect Data?

From inventory control to customer management, data is the driving force of your business. When selecting a mobile computing device, keep in mind the primary types of data your company collects, and how the data is entered.

→ Barcodes, Symbolologies, and Tags

Consider whether you'll need a mobile computer with a built in scanner that can handle any of the following:

- 1D barcodes
- 2D codes
- RFID
- Digimarc

In addition to accounting for the types of scan capabilities required, you'll want to consider the range you need to scan efficiently. Some mobile computers are equipped to scan from up to 20 meters away, allowing forklift operators to remain seated while scanning.

→ Touchscreen vs. Keypad

Touchscreens provide a faster, more comfortable input for most types of simple data. They are more resistant to damage from dirt, generally take up less space on the device than keys, and you don't have to worry about sticky or unresponsive buttons. Additionally, newer mobile computer devices often come with screens that have been optimized for better visibility in bright lighting and outdoor settings.

Keypads, on the other hand, may be more familiar as you transition an older workforce to new devices or if the device you need doesn't have touchscreen technology that supports use when employees are wearing heavy gloves. Keypad mobile computers also should be considered in the intensive applications where the speed of data entry becomes a key factor, as well as in the warehouse, where "function keys" allow the user to quickly jump from one function to another of the terminal emulation application.



Which Types of Connectivity and Integrations are Required?

Connectivity and integration requirements are another important factor in mobile computer selection. Having the right capabilities on your devices will keep operations running smoothly, and give workers the tools they need to be efficient and effective at their tasks.

→ Wireless Connectivity

Wireless connectivity is essential for your business, but the type of connectivity required will help determine which mobile computing devices are best suited to your application. Most mobile computers offer some combination of the following types of connectivity:

- Wi-Fi – Enhances indoor communication and data transfer of mobile computers
- Bluetooth – Essential for pairing complementary devices that enhance efficiency of operator
- NFC – Could serve as a medium for mobile POS applications
- Cellular connection (3G, 4G-LTE, 5G) – Vital for on-the-road application of a true mobile workforce

→ Operating System

The type of operating system you need will usually depend on the programs and applications you depend on to run your business. Most mobile computing devices have an Android operating system (OS) installed, but you may need something with terminal emulation to run specialized or older applications. Remember to keep OS versions in mind and purchase the most updated so your devices will have longer lives and more protection from cyberattacks.

→ Enterprise Software Integrations

Finding enterprise software applications that work for your business can be cumbersome, and no one wants to have to go through the process of making a big switch just because their new mobile computing device doesn't work with what they have. Make sure your enterprise software, i.e., your warehouse management system (WMS), enterprise resource planning (ERP), or other core platforms, seamlessly integrate with your devices, so you can get your new equipment up and running smoothly and efficiently. If you are running legacy software, you'll want to look for a mobile computer that offers terminal emulation.





How Often Will Employees Use Mobile Computers?

The amount of time your mobile computers spend in use, as well as when and where they will be used is another major factor in your decision. Make sure you get a mobile computer that offers sufficient battery life, charging capabilities, and mobile device management systems.

→ Battery Life and Charging Options

Few things are more frustrating than slow productivity due to insufficient battery life. If your mobile computing device will be used continuously for entire shifts, make sure you get a device with long lasting batteries, and that they are hot swappable if you're running back to back shifts. It's also important to have devices that come with charging bay stations to charge multiple batteries at once, which is critical for operations that run 24/7 with back-to-back shifts.

Wireless charging technology is another feature that extends the life of your mobile computer fleet. It reduces maintenance costs by eliminating charging contact points that can malfunction due to exposure to dust, rust, and microbial growth.

→ Mobile Device Management Systems

Mobile device management (MDM) systems serve a variety of functions, from tracking devices, pushing software updates and security patches to devices remotely, collecting usage data, and wiping devices that are lost or stolen. Make sure you have a device that's compatible with the right MDM software for your business to avoid loss and ensure maximum productivity.

Consider the Company and Service Behind the Device

Upgrading your fleet of mobile devices gives you the power to grow your business and take control of your productivity like never before. But to bring it all together and implement new processes smoothly, you need to make sure you've got the right products from a reputable company with dependable service. **Ask these questions:**



Warranty

Does the mobile computing device come with a warranty that will sufficiently cover the life of the device and protect your purchase? Are there extended warranty options?



Tech Support

Do you have the support you need in order to efficiently manage potential technical difficulties?

Ready to Upgrade Your Fleet?

Doing business in the current climate presents some serious challenges, but upgrading your fleet of mobile computing devices can help your company rise above, by providing you and your workers with the tools you need to get the job done efficiently and effectively. Mobile computers have come a long way over the last few years, and they offer powerful solutions for managing key processes from inventory to customer relationships.

Make sure you're equipped to streamline your operations, boost productivity, and reduce costs, with mobile computing devices that provide the best value, protect your existing labor force with ergonomic designs, integrate with your existing systems, offer comprehensive support and MDM, and last throughout even the longest shifts.

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