Choosing the Right Device for your Mobile Applications

A Guide for Business

An Epicor White Paper
Abstract

Mobile user access to ERP and other back office systems is where many of the key benefits of mobile systems lie. Without mobile access, up to 65% of system users are disadvantaged by needing to return to a desktop, often some time after a job is completed, to enter data relating to that job and get information about other jobs. Frequently that information is either lost or simply not entered at all.

Mobile users can’t use a ‘portable’ version of the standard desktop interfaces: they need specific applications which support their workflows, and specific devices which are genuinely mobile and easy to use:

- Different form factors and applications for different roles/jobs
- Ability to be used by staff with limited computer or language skills, in adverse conditions (variable lighting, in harsh outdoor conditions, distractions/interruptions, potential for device to be dropped or splashed etc.)

The technology behind mobile systems has ‘come of age’: it is affordable, mainstream, reliable and scalable to run multiple applications. While mobile devices are somewhat expensive (particularly for organizations who employ large numbers of mobile staff), the additional costs of mobile systems are generally recovered in months, while the benefits continue for the life of the system.

However, choosing the wrong device for the required tasks can be detrimental to the success and usability of the mobile system.
Table of Contents

Choosing Mobile Devices 1
   What Does ‘Mobile Access’ Mean? 1
   Who Needs Mobile Access? 1
   How Do We Give These Users Appropriate Mobile Access? 2
   Important Considerations in Device Selection 2
   Devices, Applications and User Roles 3
   Epicor Mobile and the Smartphone 4
   Epicor Mobile and Touchscreen PDAs 5
   Epicor Mobile and Tablet PCs 6
   How Do These Products Affect the Users? 7

About Epicor 8
Choosing Mobile Devices

What Does ‘Mobile Access’ Mean?

In general, mobile access to ERP systems means:

- Providing the ability to access relevant functions and information (often from more than one system) without being at a desktop client;

- Providing the same levels of security and privacy as are provided by a desktop client;

- Making the interaction with the system easier to use in environments which aren’t as ‘controlled’ as an office, and for users who may not be familiar with computers;

- Making the mobile device easy to carry, operate, and handle while doing other things;

- Being independent of continuous communications links to the ERP system server and database.

This typically means that a purpose built mobile system is required to provide reliable, effective mobile access and that system requires the most appropriate device according to the role of the user.

Who Needs Mobile Access?

Mobile access is typically required for ERP system users who are performing operational functions in the field or on the move. Most administrative functions use the ERP system desktop client as the primary method of interaction with the ERP system. Operational users may be the people who interact with your ‘customers’ in your facility or in the community. These are the people who:

- perform compliance assessments and checks
- design and change service plans
- deliver products and services
- collect data
- handle incidents and problems

These people may have a broad range of skill levels and require a similarly broad range of types of interaction with the system: they may perform many different ‘workflows’. They are also likely to be “People people”—their skills focus is on delivery of practical face to face services, and less on computer/administrative centric skills.

These types of user are numerically the majority of the users of the system—if it doesn’t suit them, then most of your users will be disadvantaged. They will use the system less effectively, viewing it as an encumbrance rather than an enabling technology.
How Do We Give These Users Appropriate Mobile Access?

Epicor has used its mobile system expertise and a range of other mobility system products to:

- Identify user types and workflows;
- Design appropriate mobile solutions (a combination of device and application and connectivity options);
- Integrate to Epicor ERP systems using a proven mobility synchronization technology;
- Use qualified suppliers and administration and support processes.

Organizations must then commit the upfront investment in equipment, infrastructure and training to ensure that the system meets the needs of their mobile users.

Important Considerations in Device Selection

**Verify the Device will work with the Software**

A software application vendor’s product is unlikely to work on any given device available in the market but rather on certain qualified devices, irrespective of the device being Windows® Mobile® CE, 5, 6 or 6.1.

Variations that affect the successful deployment can be found in:

- Form factor, size and weight
- Firmware
- Drivers
- Processor speed
- Operating system and version
- Screen size
- Screen resolution, and
- Overall performance
- Useability

This means that some devices will not be compatible even though they use the same operating system. In order to include a device for consideration in a mobile platform deployment, a vendor should demonstrate a thorough qualification process which will include a suite of testing and benchmarking procedures.

The volume and variety of new mobile devices being released each year from a multitude of manufacturers typically makes it an impossible task to qualify all available devices, so platform vendors will generally seek only to qualify those devices that are best suited to their particular industry verticals. If the device isn’t on the vendors’ roadmap for qualification, they will typically perform the required tests and charge separately for the qualification process.
Commitments for Device Model Life and Supported Life

The manufacturer or vendor of the device should provide written commitments to device model life and support life. A typical consumer grade device has a model life of 6-9 months, and a support life of 3 years. During the model life there may be firmware and/or O/S upgrades which can make the device incompatible with an application vendor’s software.

Purchasing consumer grade devices for commercial use means you may not be able to buy replacement devices after the model life has expired, and you may not be able to get extended warranties or fast repairs. Similarly, operating system and driver software upgrades to the device may also render the device incompatible with the mobile application. The result is a miscellaneous collection of devices that do not operate in the same way. This can create unacceptable performance and availability which can compromise the mobile system.

Determining True Benefit of Lower Price

If the motivation for buying a different device is price, any benefit in the lower purchase price may be offset by the need to carry a higher number of spares. These devices may also suffer a far greater number of failures as they are typically built as disposable devices and do not carry full replacement warranty. The downtime of individual users is then greatly increased.

Accessory Availability

Accessories may not be available for the selected device to match the recommended specification. Although there are numerous third party suppliers of mobile accessories, quality varies widely.

Devices, Applications and User Roles

Most operational users of ERP systems interact with its functions using a specific mobile device running a device-specific variant of the mobile software applications. For example:

- A Smartphone application, which provides basic functions for service roster and roster changes, task completion recording, data recording, expense and travel recording and client details, alerts and protocols. This application and a Smartphone device are typically used by system users providing basic services in the community.

- A PDA application, which provides enhanced functions including workbook, task listing, history charts, data collection fields and schedule editing (this application can also be used on a fixed panel PC). This application and a touch screen PDA device are typically used by field users and qualified staff providing any combination of services in an operational environment, either internal or community based.

- A tablet PC application, which provides all PDA functionality plus extended functionality such as creation of customer profiles and complex forms. This application and a ruggedized tablet PC are typically used by qualified staff providing service assessments and planning services. They may also be used by the same staff for providing standard functions. When in an internal facility, the mobile device may also be used to run the full-function system desktop client.
Epicor Mobile and the Smartphone

A Smartphone is a mobile telephone which runs a multitasking operating system, supports mobile data connections and provides a large, high resolution color screen and data entry from a pointing device and QWERTY keyboard. These devices can run business applications including e-mail, messaging, Web browsing, and calendar/task list/contact database. Devices are available from multiple vendors and with a broad range of capabilities, performance, and price.

With the Epicor Mobile applications for use with Smartphones, the following key characteristics apply:

- Windows Mobile 5 or 6 support
- GPRS or Next G and Wi-Fi network communications
- SD card or removable media storage
- Long model life, with >3 year model support from the vendor
- Long battery life
- Accessories for car charging, desktop charging, drop protection, splash protection

Accessories such as car chargers and protective cover/belt holders optimize the usability, portability, and longevity of the Smartphone.

Protective cases/belt holders allow the user to carry the device on their hips or in bags without having to hold them in their hands, and provide impact and splash protection. The cover can also be removed and washed to remove any foreign matter that has splashed onto it. Disposable covers can also be used to make the device waterproof if required.

Car chargers extend the daily life of the device and ensure that the Smartphone is able to be used when and where required as battery levels will always be at optimum charge.

The devices on which Epicor has qualified Epicor Mobile applications for Smartphone and their recommended specification level (which provides guidance on recommended options and accessories) are listed in the Device Schedule for the application. Each of these devices is described in detail in its vendor datasheet. Not all devices described in this document are for use with all Epicor Mobile applications.

Note: It is important to stress the typical short life span of Smartphone devices and the associated problems that arise as a result. Replacing devices at the end of their life-cycle often means purchasing entirely different devices as the originals may no longer be available. If they are available, the internal operating system will likely have been upgraded several times and will therefore require re-qualification.
Epicor Mobile and Touchscreen PDAs

PDAs are fully portable devices that although bigger than most mobile phones, are comfortable to carry, use and store in pocket or holder. They have a quality feel and are sturdy enough to hold up to rough treatment, including the occasional 1m drop to a hard surface or submersion in liquids (non-corrosive).

The devices have a touch screen that can be navigated with the use of fingers or via the included stylus. The Epicor Mobile application can be driven by a combination of finger or stylus use making the device an easy to use interface to the application.

These devices can run business applications including e-mail, messaging, Web browsing and calendar/task list/contact database, with the added ability of built-in barcode readers.

With the Epicor Mobile applications for use with Smartphones, the following key characteristics apply:

- Windows Mobile 5 or 6 support
- GPRS or Next G and Wi-Fi network communications
- SD card or removable media storage
- Long model life, with >3 year model support from the vendor
- Long battery life
- Accessories for car charging, desktop charging, drop protection, splash protection

Accessories such as car chargers and protective cover/belt holders optimize the usability, portability, and longevity of the Smartphone.

Protective cases add another measure of ruggedness to the device and make it splash proof. The cover can also be removed and washed to remove any foreign matter that has splashed onto it. Disposable covers can also be used to make the device waterproof if required. Car chargers extend the daily life of the device and ensure that the PDA is able to be used when and where required as battery levels will always be at optimum. Belt holders allow the user to carry the device on their hips or in bags without having to hold them in their hands. The device will be further protected by the holder if carried in a bag and will free hands.

As the PDA device will have a long operating life, items such as replacement stylus will be available to order when required to replace broken or lost original parts. Additional batteries are also available ensuring a long and useful life to the PDA device.
The devices on which Epicor has qualified Epicor Mobile applications for PDAs and their recommended specification level (which provides guidance on recommended options, accessories and device configuration) are listed in the Device Schedule for the application. Each of these devices is described in detail in its vendor datasheet. Not all devices described in this document are for use with all Epicor Mobile applications.

Epicor Mobile and Tablet PCs

A tablet PC is a notebook/laptop PC with a touch screen interface, sometimes provided in addition to a conventional (but portable) keyboard and pointer interface. Devices are available from multiple vendors and with a broad range of capabilities, performance, and price. Some devices are available as wall-mountable for use in internal environments.

With Epicor Mobile applications for use with tablet PCs, the following key characteristics apply:

- Windows XP support
- GPRS or Next G and Wi-Fi network communications
- SD card or removable media storage
- Durable form factor with minimal moving parts—no hinges, rotating screens, easily removable components; separate keyboard (if required); integrated accessories. Ideally, no disk drive.
- Semi or fully ruggedized
- Light weight and easily carried
- Long battery life

Recommended accessories for these devices include protective cases to improve resistance to impact damage, shoulder strap for improved user comfort and to prevent the device from being dropped; spare styli and batteries, and a car charger for field use.
Choosing the Right Device for your Mobile Applications

The devices on which Epicor has qualified Epicor Mobile applications for Tablet PC and their recommended specification level (which provides guidance on recommended options, accessories and device configuration) are listed in the Device Schedule for the application. Each of these devices is described in detail in its vendor datasheet. Not all devices described in this document are for use with all Epicor Mobile applications.

How Do These Products Affect the Users?

Field Worker Benefits
For field-based workers, the key benefits of the mobile system are:

• Elimination of the need to print and carry a workbook for the work period, and update it as activities are added or removed;
• Virtual elimination of the need to return to a desktop for information or to record planned or unplanned data collection, incident reports etc or to record these when away from a facility then enter them later;
• Simplification of data entry and interaction with the system: working through the workbook and recording the data associated with each activity is much less complex on the mobile device, requiring few computer or language skills, and defined workflows mean less ‘menu-surfing’;
• Purpose-designed workflow based on user roles ensures standardized work practices;
• Simplification of Compliance and Audit reporting requirements;
• Consolidated view of multiple desktop applications results in less time and confusion switching between these applications;
• Real-time access to history, charts, and trends;
• The ability to create or edit assessments on site with the customer;
• The ability to collect additional data such as photographs during the performance of a work order or task.
• Error reduction

Administrator Benefits
For administrators and managers, the key benefits are:

• Reduction in the number of desktops and client licenses needed;
• Improved accuracy and completeness of data on services provided and resident or customer characteristics;
• Improved timeliness in collection and reporting of data;
• Improved compliance and audit reporting;
• Improved staff productivity and morale;
• Faster and more accurate invoicing and billing.
About Epicor

Epicor Software (NASDAQ: EPIC) is a global leader delivering business software solutions to the manufacturing, distribution, retail, hospitality and services industries. With 20,000 customers in over 150 countries, Epicor provides integrated enterprise resource planning (ERP), customer relationship management (CRM), supply chain management (SCM) and enterprise retail software solutions that enable companies to drive increased efficiency and improve profitability. Founded in 1984, Epicor celebrates 25 years of technology innovation delivering business solutions that provide the scalability and flexibility businesses need to build competitive advantage. Epicor provides a comprehensive range of services with a single point of accountability that promotes rapid return on investment and low total cost of ownership, whether operating business on a local, regional or global scale. The Company’s worldwide headquarters are located in Irvine, California with offices and affiliates around the world. For more information, visit www.epicor.com.

For more information, contact Epicor Software Corporation: info@epicor.com or www.epicor.com.