

A New Look at Asset Management in the iPhone Era

6 Ways for iPhones to Fast-track Asset Management Success.



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Executive Summary

Mobile devices have revolutionized business by allowing staff to communicate freely regardless of where they are, with capabilities extending beyond voice and email to include apps that repurpose the device for clear business objectives. Uptake of mobility still lags behind in some areas though including Fixed Asset Management, where unfortunately the mobile device or app component is often seen as an 'optional add-on' to the traditional asset management system, rather than being a central consideration from the start.

The emergence of iPhones as ubiquitous business tools has changed expectations around what's possible with both asset management and barcoding. The extraordinary computing and storage power now available in a compact and personal format leads users to expect quality, user-focused mobile apps designed to facilitate asset workflows in any location, and the maturity of device imaging capabilities begs the use built-in cameras as an effective way to scan and read asset tags.

This brings about a new option where full-fledged fixed asset management can finally start in the field, right where the assets are physically located, and without the need to compromise on workflow features and functionality.

Six key benefits to using iPhones as primary asset management tools are:

1. Fixed asset management can start in the field exactly as it should, on the iPhone that's already within reach whenever it's needed.
2. Users require less training as they understand the iPhone paradigm with simple to use and easy to discover features.
3. As an existing part of current business culture, iPhones allow organizations to trial asset management risk free – no need to rent or buy anything new.
4. Support for provisioning iPhones from App Store in the field comes built-in and can be done in seconds without requiring tethering or return-to-base control, making app roll-out both cheap and efficient.
5. iPhones are fundamentally wireless by their nature so setting up connections to synchronize with asset servers is easy, wherever any kind of wireless signal exists.
6. iPhones are priced for consumers, meaning a lower capital investment for new scanning hardware as compared with specialized devices. And, there's zero hardware cost if the business already has an iPhone fleet.

Organizations that own at least one iPhone, iPad or iPod touch already are free to start experiencing the benefits of fixed asset management in the field today with zero up-front costs. The benefits can be easily understood and explored by combining Altiris™ Barcode Solution from Symantec™ with Barcode Essentials™ for iPhone from Basis Design, both available with free trials.

Introduction

Servers are a fundamental and sensible choice for hosting any major asset system, however how users can access the server has not adapted much at all to current mobile trends. Early approaches allowed workstations and thin clients to connect into a rich head-end asset application, however if the network connection were lost all work came to an immediate halt.

The introduction of early mobile technology brought a new philosophy: that fixed asset management should begin in the field and away from the desk, while retaining full access to asset data. Asset workflows could be taken on the road, to all the disconnected environments where the assets actually were. Data could be pre-synchronized and cached on the mobile device, asset activities could be completed remotely and data changes could then be later reported to the central server once the device was returned to base. The two main problems that remained with early mobility then were that the specialised mobile hardware needed was a costly and cumbersome investment, and that mobile software was rarely designed with ease of use in mind.

Now with the iPhone era things have changed again. These devices prioritize wireless connectivity, ease of use, in-the-field app management, powerful processing, abundant storage, advanced imaging capabilities and an attractive price point – backed by various lease, insurance and contract upgrade options. Furthermore organizations already widely accept the presence of iOS devices in their enterprise. These new devices are authentic multi-purpose tools that can offer far more than phone and email, promoting better utilization and quicker ROI. So when considering how best to get the mobility back into fixed asset management, it's obvious to consider whether iPhones can meet that need.

The Need for Asset Management to be Mobile

Effective fixed asset management has always required core activities to be mobile, and always will because of the very fact that assets exist in a multitude of locations. Conversely, any asset management solution that *isn't* mobile will yield only partial benefit for the organization. Focusing on console implementations first with the mobile requirement as a secondary goal fails to recognize that assets can be anywhere, will need to be identified and managed from their actual location. With this in mind organizations will do well to consider fixed asset management being mobile from the start.

Consider some common scenarios:

9:15am	Delivery Room	A printer arrives and needs to be scanned into stock.
11.10am	Cubicle W96, L2	A faulty monitor must be swapped out at a user's desk.
3.27pm	Stock Room	A cell phone gets reassigned to a new employee.
3.40pm	Loading Dock	A projector is shipped to a sales office uptown.

Handling these events with only fixed points of presence for the asset system would mean installing a console-equipped machine with network access in at least 4 different locations and overlooks the obvious need for flexibility.

Currently Available Choices to go mobile

One choice to achieve 'mobility' is for staff to carry a laptop and connect to the server using a console interface over LAN or WiFi. This approach requires staff to *prepare in advance*, also takes *time to setup* and is *dependent on an uninterrupted network connection* to access the system in the field.

Alternatively organizations could invest in ruggedized mobile scanning devices. These devices are ideal for use in the harsh or contaminated environments they were designed for but organizations that choose them solely because they are the only available choice are probably not making the best buying decision. The devices typically require a deep investment in a new ecosystem of software and hardware and initial device configuration is done by manual tethering or cradling, which is an unfortunate but necessary obligation for IT staff. In terms of adoption, the devices do require proper training for end users to master as they are a largely unfamiliar environment. Also, being barcode-based computers first, the options of wireless connectivity can sometimes feel like an add-on that's tricky or confusing to set up.

In contrast, organizations can consider fixed asset management that begins on the iPhone, a device that is deliberately wireless, can cache large amounts of data, already possesses imaging or scanning capabilities and by nature being in the user's pocket, is present with the user whenever they need it. The familiar iPhone user experience also means focus can be given to completing asset management work, rather than getting to grips with a new ecosystem of tools. Equipped with simple goal-oriented asset workflows, the task of bringing a printer into stock, swapping a monitor, assigning a cell phone or shipping a projector can be done without interruption to normal business process, and need not require extensive pre-planning of infrastructure. Suddenly, fixed asset management systems can start matching the need they were invented for: to manage assets in the field.

Challenges to Implementing Mobile Fixed Asset Management

Businesses who want to go mobile with their fixed asset management solution experience three types of challenges in turn:

- **Selection challenges** relate to working out how to trial a solution and complete an effective POC before committing to it;
- **Adoption challenges** relate startup cost and total cost of ownership of the selected solution; and
- **Integration challenges** relate to how the business will adapt technically to the introduction of the mobile device itself.

Fortunately there are routes past each of these obstacles, particularly when centering on iPhones in the solution.

Selection Challenges

Software trials are common, but can hardware be trialed as easily?

Discovering potential issues during the evaluation cycle helps minimize risk before full roll out. Under a traditional customer-vendor relationship trialling hardware is intrinsically costly in both time and equipment, and vendors are realistically limited by how much support they can offer without guarantee of a sale.

This problem becomes obsolete when the hardware trial is possible on devices that *the business already owns*, allowing the full solution to be evaluated risk-free.

Is the Asset System's mobile app an afterthought or an integral part of the solution?

The suitability of a mobile app for fixed asset management will largely determine how successful the organization is in exploiting it for daily asset activities.

When selecting the mobile component organizations should **avoid** an app that:

- Fails to provide users with solid wireless connectivity from the outset
- Simply replicates the desktop console experience
- Has scanning capabilities that are merely 'keyboard-wedge' inputs
- Fails to offer clear workflow oriented options that lead a user through their primary tasks in the field

Instead organizations should **choose** a mobile application that:

- Presents clear workflow options and guides the user intuitively to their goal
- Integrate wireless (mobile) data synchronization from the ground up
- Allow scanning of barcodes in-line with workflows, and processes scanned results in context
- Keep the user interface uncluttered while still presenting the necessary information.

Adoption Challenges

Costs involved with Scanning Hardware

The cost of scanning hardware is a point of contention for most organizations. An asset solution may meet the company's needs, but that doesn't make the thought of having to pay thousands to acquire specialized barcode scanning devices appealing.

Instead, if pre-existing multi-purpose devices such as iPhones could meet the scanning need, then their relatively low cost by comparison can be more easily justified as a roll up of their benefits give their use in more than one area of general business. For customers with iPhones already at hand, there is opportunity halt any additional expense.

How much training will be required?

With any new system comes the obvious question of how much time and what additional spend is needed to teach staff how to use the new hardware and mobile software product.

Organizations can limit their exposure by choosing a platform their users are already familiar with, such as iOS based devices, and the iPhone paradigm has already proved itself as intuitive and self explanatory in the market, so organizations can concentrate on training staff in key asset management concepts rather than having to first teach them about using the device itself.

Integration Challenges

App provisioning: methods for deployment

Once a suitable mobile asset management system has been selected, the next challenge is provisioning or deploying it to the team. The two main mobile app deployment methods are tethered (cabled) or Over The Air (OTA). In both cases, organizations need confidence that deployment can run smoothly, reliably and not delay the asset management team.

There are stark differences between the two methods. The former requires a high degree of manual intervention for both deployment and maintenance while the latter offers the simplicity of a wireless download directly to the device. Organizations should not underestimate the cost of tethered provisioning given devices have to be rounded up again and again, so almost always, mobile platforms such as iPhone that are designed for OTA provisioning end up a better fit.

Grappling with connectivity options for data sync

The need to regularly synchronize data with a server is an intrinsic part of completing asset management tasks in the field, so it's critical that the device provide simple and fast access to wireless connectivity options.

In the area of modern devices, the preferred synchronization channels are typically:

- Via wireless carrier to the Internet over 3G, 4G etc
- Via WiFi to either Internet or LAN-based networks
- Via Bluetooth to laptops or BT-enabled workstations
- Via tethered USB connections¹

Allowing devices to connect to enterprise networks without compromising security is a top priority for IT administrators who must successfully balance the organization's needs against best-practice security principles. Devices that are already in-use by staff are obviously going to be preferred for integration over new device types, and the option of using iPhone technology that already provides features to match almost all types of synchronization channels is going to be appealing.

¹ Not available on iOS devices – which generally prefer untethered usage.

Six Ways for iPhones to Fast-track Asset Management Success

Businesses already recognize the need for fixed asset management and the underlying drivers of compliance, maintenance, tax and insurance. What's not obvious is how to enter this new domain with a solid strategy for mobile execution, or how best to build the up-to-date and accurate information store that then saves money and improves decision making.

iPhone has emerged not just as another option for going mobile, but as a focal point in the device selection process, because it addresses the entire need of mobile asset management rather than just a slice. A comparison of tradeoffs between device types in an asset management context shows how iPhone hardware best serves a company's needs:

Conventional Devices

Ruggedized & specialized

- Hard to procure for trial
- Lead time to order
- Bought as purpose-specific
- Adoption requires planning

Hard to use & manage

- May require training
- Desktop / tethered management
- Return-to-base provisioning
- Heterogeneous ecosystem

Costly

- Requires capital spend
- Specialized servicing

iPhone Devices

Vs. Consumer & general purpose

- In-hand to trial immediately
- Over-the-counter purchase
- Multi-purpose cost defrayal
- Easy to integrate

Vs. Intuitive & supportable

- Easy feature discovery
- Manage in the field
- Provision in the field
- Mainstream technology

Vs. Replaceable

- Available on contract
- Insurable and replaceable

In the end, considering iPhones as a serious scanning hardware option for mobile asset management gives organizations an opportunity to take advantage of six distinct benefits that fast-track success:

1. Asset Management can begin in the field, on the iPhone

With fixed asset management, the central server database is used to automate, review and report on asset statuses to help with decisions and planning. These benefits are lost when the asset data doesn't accurately depict where assets are, what they are and who's using them.

With iPhone-based asset management staff can be authorized to complete any asset flow at anytime – including creating and receiving assets, doing inventory lookups, updating asset details and general audits. They do it by reaching for the iPhone that's already in their pocket, and immediately scan or look up the asset that's in front of them.

Updating these records as events happen ensures correctness of the asset repository and avoids wasted time with unnecessary audits. Organizations already using iPhones have the option of making asset management pervasive and can exploit their availability in two ways:

- Asset management becomes dynamic and on-demand rather than a specially commissioned activity.
- Coordinating with the IT Department is now limited to discussions around the asset tasks themselves not about issuing and returning the hardware scanners needed for the job.

With the ability to upload changes to asset data wirelessly whilst moving on to other work in the meantime creates a frictionless approach to asset management that becomes an integrated part of daily activity especially when the device is always on, and the need to boot to start is eliminated.

2. Less training is required to understand Asset Management on iPhone

It is no surprise that organizations can improve their capacity to engage effectively with fixed asset management when the learning curve is only slight. Of course using an asset management system requires staff to have a basic grasp of fixed asset management concepts – things like what an asset is, what data needs to be recorded, and what common operations might be used, e.g. assigning users or locations or receiving items into stock - but this sort of knowledge should be sufficient to equip a user without them having to also grapple with device technology.

So, why is the learning curve easier on an iPhone? It's precisely the lack of specific knowledge users need to have before they can use the device that reduces training time. Apple's unique combination of hardware and software UI standards mandates a predictable and consistent navigation flow which in practice this means that even in a brand new app a user will often know what to do intuitively without documentation. iOS builds on this further by encouraging familiar human gestures, such as tapping, holding and swiping that further reduce learning time for tasks.

This is most easily observed in the built-in platform features that enable flow-centric rather than feature-centric capabilities:

Flow Centric (iPhone apps)

Tap Search

Scan the asset's barcode to find it

Tap Edit.

Tap the field to be modify, update its value.

Tap Save to commit the change.

Feature Centric (traditional apps)

Open Inventory module and focus the Search filter box.

Create a search filter, set its type and criteria (barcode), and execute.

Right click the asset in the results list and choose Edit.

Tap the pencil icon on the field to modify. Enter the new value in the popup window.

Select File > Save to save the change.

3. Trial Scanning Device Hardware with no commitment or obligation

With iPhones on hand, an organization can literally trial the scanning capability of the asset management software on an actual device in minutes, without prior commitment or obligation to a scanning hardware vendor.

As an example, installing 'Barcode Essentials' means opening App store on the device and searching for the keyword "Altiris" then allowing wireless download to complete. Asset data can be loaded onto the device immediately by the user entering just the server name and their login credentials. Then with no further configuration or set up, testing of the iPhone's camera scanning capabilities can begin.

The best news about this easy-to-trial approach is that when an organization makes a decision to proceed with fixed asset management on iPhone there are no further hidden surprises, and no additional technical risk, because it's all been proofed beforehand.

4. Provision and Manage Wirelessly

Deploying software wirelessly to an asset management team can cut days if not weeks off the provisioning process. The result is an agile asset management rollout that bypasses lengthy manual round-up processes surrounding software deployment with cradled or tethered devices.

Additionally, iPhones fall into a category of wireless devices that can be managed using MDM² applications, for additional measures such as remote data wiping, uninstalling apps or deploying additional security. These capabilities are often not supported for manufacturers of custom scanning devices.

Regardless of whether an organization chooses a 'hands on' manual enablement that requires specific technical knowledge and demands a deeper coordination of staff during deployment, or an intuitive wireless enablement that end users are already familiar with, it's important to recognize that iPhone's ecosystem is able to deliver against both needs.

5. Synchronise Wirelessly

Wireless access to data offers two distinct advantages over tethered data synchronization. Firstly, synchronization can happen anywhere a mobile signal exists rather than being tied to fixed network points of presence, and secondly it can also happen at any time – meaning that the user doesn't have to schedule the opportunity to access important data, such as they might have to if their desk was the only place it were available.

With iPhones, uploading and synchronizing asset data can be done completely wirelessly directly with the server, and without t³he need for any intermediate tools or systems. This

² Mobile Device Management, e.g. Nukona Inc

means a user could arrive on site and switch data sets on demand, be walking between locations while data is sent or received, or move onto a completely different activity while the mobile device reports the changes for what was just done. This eliminates any need to gather up devices, cradle them individually and upload their data records from a desktop machine. It also streamlines internal processes and saves time by keeping the team in the locations where they are most effective.

In the rare event that the user's location has no data access at all, the user should still be able to complete their work using data cached on the device, and then send the changes as soon as they are back in wireless range.

6. Reduce or Eliminate Hardware Costs

For organizations looking to start with fixed asset management, the cost comparison between iPhones and specialized mobile scanner hardware would make you think iPhones were disposable items. In most cases you could procure two or three times as many iPhones for the same cost as a single ruggedized mobile scanning device. iPhones can also be sourced easily through consumer channels without stock and supply headaches which is a great step towards the eternal goals of 'less time, lower risk and more control'.

In the majority of cases organizations will already own at least one iPhone, if not more. The appeal of further utilizing an existing hardware investment makes good sense on the balance sheet, and for companies with iPhones already it can become a zero-cost prospect to fulfill the hardware they need.

iPhones continue to stretch cost savings into the area of ongoing maintenance or device replacement at end of life. Why? Well unlike a traditional vendor model for specialized scanning devices, the customer no longer continues to pay a premium for specialist servicing or full replacement cost simply because the product is a low volume item. With iPhones there is greater flexibility in where the hardware can be sourced, a wider variety of replacement guarantees and the added benefit that devices under contract with a carrier can often take advantage of upgrade incentives and keep their hardware fleet refreshed.

Selecting a Proven Asset Management Solution

When choosing a vendor in the IT Service Management space, it's important to select a platform and product set that offers the right benefits and features.

As part of a comprehensive IT management platform from Symantec, the combination of just three products provides the proven iPhone-based asset management experience most businesses are looking for:

1. Altiris **Asset Management Suite** from Symantec
2. Altiris **Barcode Solution** from Symantec
3. **Barcode Essentials** for iPhone from Basis Design

Barcode Essentials for iPhone provides full mobile asset management and scanning features on iOS devices, with proven integration with the Symantec Management Platform.

Altiris Asset Management suite from Symantec is built around the CMDB and offers:

- Independent and vendor-agnostic tools for discovery, inventory and tracking assets.
- Comprehensive asset reporting for compliance
- Pre-built templates to automate time-consuming IT administrative tasks

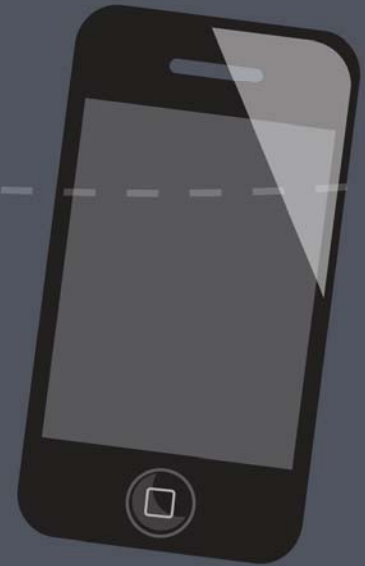
Barcode Essentials from Basis Design is 100% compatible with Altiris Barcode Solution from Symantec and offers:

- Scanning and look up templates for discovery, inventory and tracking assets
- Secure data-handling with full SMP server integration
- Profile responsive workflow support
- Optional Blue-tooth cordless scanning device integration
- Multi device format support (iPhone, iPad, iPod touch)

Conclusion

Deploying an effective asset management software suite is one of the fastest ways for IT to limit an organization's compliance risks as well as reduce time spent on repetitive tasks.

In the iPhone era, the benefits of asset management remain unchanged, but how they're achieved has changed significantly. By leveraging iPhone device technology, an organization can now fast-track the establishment of disciplined asset handling and achieve success and maturity as fixed asset management becomes pervasive throughout the organization – through rapid deployment, reduced need for staff training, full wireless control and hardware cost elimination.



About Barcode Essentials

Barcode Essentials™ for iPhone is wholly owned by Australian Software Engineering company Basis Design Pty Ltd.

Basis Design Pty Ltd is a Strategic Technology Partner for Symantec Endpoint Management.

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