

10 steps towards a paperless operation with mobile enterprise asset management

The prospect of 100% paperless operations has been a shiny but unattainable business goal for decades. But managers in the most forward-looking, strategically focused organizations are preparing the way for a transition that often spans large, complex engineering and maintenance operations.

The opportunity for enterprise asset management (EAM) systems is massive. In most companies, technicians have always received instructions from hard copy work orders, recorded all their activity on paper, and handed those results to clerks for retyping. If they needed shop manuals or schematics, they turned to printed copies. The system was slow, the information flow was inconsistent, and the lack of easy access to usable maintenance records made it difficult to forecast future needs or expenses for business planning purposes.

But now, more and more industry leaders are maximizing the power of mobile access to enterprise asset management systems to minimize their reliance on hard copy records. The resulting system puts mission-critical information at technicians' fingertips, while giving management immediate visibility on work processes and bottlenecks.







Here are 10 steps any organization can take to shift its existing

business in the direction of paperless operations using mobile EAM.

	Action Step	Why It Matters
*	Create your paperless vision	A big transformation needs a big vision to keep it going. Decide what you want to achieve and why, then work backwards to the present to set your direction.
*	Set measurable goals	Translate the vision into measurable goals that will help you track gradual improvements in operational efficiency and performance.
*	Build senior executive ownership	A successful transition depends on senior executive ownership. If you don't already have management onboard, this is an essential step—because no major shift in practice will succeed without it.
*	Assess your operations	By documenting your existing business processes, you get a sense of how an electronic system like Infor EAM Mobile can help you streamline and optimize day-to-day operations.
*	Revisit your vision	If you've been struggling with a vision of 100% paperless operation, an interim target to minimize paper might be more realistic. If your vision needs to adapt to your front-line reality, this is the time to make the change.
*	Start with a pilot test	A pilot test is your first reality check on a great idea. Pick the work group that is most attuned to the process change you're trying to introduce, or most in need of an efficiency boost. Then test drive the new system to see how it works in practice.
•	Document successes and lessons learned	The successes and lessons learned that you take away from the pilot test will help you build a more robust program for wider rollout. Document thoroughly, listen carefully, and make sure you draw out every ounce of insight you can from the initial experience.
•	Complete the rollout	Depending on the size of your operation, the rest of the rollout might proceed in phases, and could take weeks or months.
•	Measure results	Measurement begins as soon as an operating unit adopts the new system. You can track success against your original goals for the transition, and eventually benchmark operating units' performance against each other.
*	Revisit your vision and repeat the process	The best businesses commit to a process of continuous improvement, where every change or innovation becomes a platform for the next. The results of your initial move toward paperless operations will likely shine a light on the next set of opportunities to boost productivity and cut costs.

A mobile case study

Not long after FirstGroup America began considering a shift to a 100% paperless business, the vision evolved into a strategy to become "paper-LEAN", relying on Infor EAM Mobile to eliminate hard copy records wherever it was practical to do so.

FirstGroup is best known through its operating units—including First Student, North America's largest school bus company; First Transit, one of America's biggest private transit managers; and Greyhound Lines. The company employs 100,000 people and carries more than 2 billion passengers per year—so any business transformation must cover a lot of ground, with no break in performance or dependability for users who depend on the company's services every day.

After a senior vice-president introduced The Paperless Shop, a new corporate vision of quality through efficiency, the company began grappling with a question that has been making the rounds since 1975: can any business ever really become fully paperless? Even with massive technological advances, companies still spend 15% of their revenues and 60% of employees' work time creating and distributing documents, and 85% of those documents are still in paper form.

Vision meets reality

Those practical business realities paint a picture that is repeated in asset management operations across North America and around the world.

FirstGroup was producing 700 pounds of paper per employee per year.

Its maintenance shops had row upon row of file cabinets, containing essential documentation on every piece of equipment, inspection, work order, and repair.

The average document had been printed five times, partly because state laws and regulations required printed records.

Technicians had to rely on hard copy at every step in their work—from the work orders they received, to the project documentation they sent back to file, to the maintenance manuals that guided their work. The process was time-consuming at every step, and made it difficult to make best use of the capabilities of Infor EAM.

And with records held in hard copy binders or PDFs, it was impossible to distill essential management data on operational trends, business unit performance, or individual pieces of equipment.

Rolling out in stages

The wisest path is to plan the shift to mobile EAM in stages.

FirstGroup's pilot project involved six shops, 112 technicians, and 57 tablet devices.

Lessons learned from that experience were built into the first official phase of the project, featuring 10 shops, 217 technicians, and 110 Apple iPad® tablets.

Seven months after the pilot, the company added 32 more shops, outfitting 261 technicians with 223 iPads.

The final phase a year later added another 73 shops, 314 technicians, and 300 iPads, and the company's first Transit Paperless Shop rollout came to a successful conclusion slightly more than two years after the pilot kicked off.

Along the way, FirstGroup learned some valuable lessons about the practicalities of a paperless transition.

Technicians liked the idea of having information and forms at their fingertips, but had never been asked to work on computers or tablet devices. Before long, it was clear that work order planning tools, tablet checklists, and electronic documents were the most valuable resources to boost productivity and minimize reliance on paper documents.

The company developed electronic task plans to guide key maintenance tasks, standardized material lists and work orders, and transferred thick, hard copy manuals to Wikipedia-style documents that were easy for technicians to navigate and use.

Tricks and traps

The experience produced some tips and tricks that make sense for any organization considering a mobile initiative:

- Keep checklists and dropdowns simple, to accommodate users on tablet devices
- Eliminate any fields or screens that are not absolutely essential
- Use Mobile Device Management (MDM) technology to keep track of tablets in the field
- Set up mobile data spies to help technicians collaborate on projects
- Configure the tablets to be as useful as possible to technicians, by loading links to manufacturers and information on relevant regulations
- Invest in training for front-line staff
- Above all, have an executive sponsor who is passionate about the transition and has a clear vision of what it's meant to achieve

And here are some of the traps to avoid in the transition to mobile technology:

- Firewall restrictions can sometimes collide with an interest in giving technicians access to the online information they need. Some conflict may be inevitable, but the goal is to strike a balance between network security and ease of access.
- Tablets look and feel fragile, and technicians may be afraid to damage them. The easy solution is to invest in hard cases to protect the devices.
- With no paper backup, it's essential to control app upgrades that might inadvertently take key systems offline.
- It takes a lot of time and painstaking effort to transfer checklists from paper to electronic form. Electronic versions must be formatted to be intuitive and convenient for the technicians who use them.

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