The Way of the future

Mobile devices are changing the way businesses and consumers operate, but how are they impacting on facilities management software? FMJ explores how mobile is changing CAFM practices and peeks into the crystal ball for what the future holds

Devices are becoming smaller and smaller at the same time as becoming more powerful and more efficient. The mobile phone in your pocket is far mightier than the super-computers that first put Neil Armstrong and co on the moon. Anyone involved in FM will be wondering how long it will be before you can run an entire building using a device no bigger than the head of a pin. For the moment, managers have to make do with the computer-aided facilities management systems we all know and love, but the advent and integration of mobile technology has seen these systems come on leaps and bounds in the past few years.

"Mobile is currently the most important technology, especially since more and more smart devices are available and suitable for use in the FM industry," says Jacqueline Walpole. "Mobile devices have helped to make CAFM systems a coordinator of different services."

Steve Thorley, CEO of The Changing Workplace, concurs. "Mobile technology is extremely important as it is an enabler and key driver of how we work. It empowers people to work on the move and view real-time information how, where and when they want. Mobile devices mean that data from CAFM systems can be viewed when convenient and immediate access is provided. This facilitates faster analysis that gives the opportunity to make better-informed, strategic decisions. This can only be a good thing as previously a lot of output from CAFM systems has been base level, static data."

Mark Kirkham, director of FM software expert Service Works Group, has plenty of up to date information and fascinating statistics about the growth of mobile-aided CAFM. "Mobile working is perhaps the most extreme and most emergent form of flexible working, with the corresponding technology to support the trend transforming the workplace. Armed with powerful, lightweight digital devices and ubiquitous connectivity, workers are freed not just from the office but from the need to be in touch at all. Employees are embracing the benefits of mobile technologies with, on average, 40 per cent of them using their personal devices for work and 50 per cent of them achieving measurable productivity and efficiency gains of up to 30 per cent, according to a 2013 global YouGov survey."

THE BENEFITS

But what about more tangible, everyday examples of how mobile technology and CAFM integration has made life easier for the FM on the ground? If you want that information, Steven Jones from Qube is your man. Jones can give you as many benefits of mobile-aided CAFM as you would like to hear. From the more obvious examples of improvements, such as so much information being made available to so many members of staff so quickly through to slightly more disturbing examples, such as managers being able to track their employees whereabouts at all hours of the day.

In all seriousness though, the benefits mobile-aided CAFM have brought to the industry are probably too many for anyone to ever list, but Jones certainly tries. "The information stored on CAFM systems is more accurate, that's the first thing," he explains. "In the past we had to do everything on paper, half of it was lost, lots was never transcribed and the rest, you couldn't read the handwriting. Now we have much more knowledge."

Knowledge, as they say, is power, engineers can use the information available on their mobile devices to look at the history of any piece of machinery they need to repair, they can look at parts, schedules and other people's interactions with the machine.

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All invaluable information that once upon a time would have necessitated people making innumerable phone calls or continuously traipsing back to base.

But travel time savings aren't only achieved on a small scale basis. "We can compare the amount of time engineers spend completing similar tasks," Jones explains. "If we have a job down as a three-hour task, charging accordingly, and all our staff are completing the job in two hours, that needs sorting. Alternatively, if one is taking four hours, maybe that person needs more training."

Employees are also able to take photos of their work, before and after, immediately uploading these to the system to prove exactly what they have been doing, and how well they have done it. "Sometimes if an engineer is stuck in traffic, they take a picture of that and put it on the system, just to prove it." Jones laughs. They can also get clients to approve their work on the system.

A slightly more surprising benefit of mobile CAFM is the huge support it gives to health and safety operations. Information about asbestos levels, work permits, access requirements, and risk assessments is immediately available to the people on the front line.

When asked about the benefits of mobile-aided CAFM, Ian Mapp, speaking on behalf of IFS, gives a simple response. "It's neither a good thing, nor a bad thing. It is a necessary thing." But new benefits and improvements are still clear to him. In the past "Batteries lasted five minutes, systems were overly complicated. Now workers can use technology they are already

familiar with, and the potential uses are far greater."

For example, what Mapp calls "natural extension," becomes far easier. If there is a leak on the third floor of your building, then all the information about previous work done in the location is instantly available, along with existing schematics, requisition information and, to all intents and purposes, anything else you can think off.

THE DOWNSIDE

But it's not all perfect yet. There are still bugs to report and things to improve...

"There are still areas where mobile phone or wi-fi signals are not available which is why we need to ensure that our applications can still work offline as well as online," says Walpole.

"Also there is always a learning curve with the introduction of new technology and a small percentage of workers can be slow to embrace the 'always on' world of mobile technology."

But it's not only reluctance to embrace the digital age that causes problems, sometimes the pendulum can swing too far in the other direction and people can forget how to operate without their beloved technology.

"An over-reliance on technology can sometimes affect face to face communication," asserts Thorley. "People like to have a sense of community and build relationships and this should never be underestimated. Having said that it's vital to stay up to date with the relevant mobile technology that's available to help you get things done."

"We've found that mobile technology is increasingly used to measure and understand portfolio performance and give people greater flexibility and control over their work and environment. This accelerates improved communication with teams and stakeholders and frees up further opportunities for companies to better deliver on their priorities and collective agenda."

Something mentioned by almost everyone FMJ spoke to was cross platform issues. Is a service provider's CAFM solution compatible with the client's existing technology? With all modern technology there are so many existing options, and all too often competing technologies just won't work together.

While most negatives will already be familiar to the majority of FMs, it is Qube's Jones who gives the most interesting, and perhaps unique answer. "The buttons are too small," he says. "Staff can't push them properly, maybe they have big fingers!" He also believes that, despite the prevalence of mobile devices in everyday life, systems and/or devices need to be made simpler to allow

different generations and staff from varying backgrounds to discover the system's full potential.

He also points out that many companies aren't comfortable giving so many devices access to their systems. This is especially true of public sector organisations such as the NHS or police. It is a situation where the risk outweighs the benefits. Although he points out that systems can be developed where all information is encrypted and the central system manages all communication with devices. This removes any security risk, but without any lost time.

Kirkham from Service Works Group has similar concerns. He thinks in the era of bringing your own device to work, it will be a challenge to limit the number of operating systems within an organization, with fragmentation causing any number of issues.

"Management, support and application distribution problems could all result. The use of "consumer" devices for business inevitably challenges organisations, particularly when employees use their own. However, businesses are responding by adopting BYOD policies, although at different rates across the globe."

THE FUTURE

And what of the future? The creatures of The Jetsons might have envisioned orbit cities, a two-hour working week and robotic maids but FSI's Walpole insists that the future will be more about integrating people, technology and buildings. It may sound slightly George Orwell, only happier, but she believes that "Smart City projects such as that in progress in Dubai will become more commonplace and we are already involved in intelligent building interfaces. So for the coming years, we see a good trend towards taking this further, with more wearable devices and integration into the surrounding environment enabling augmented reality."

Smart building, in its simplest form can be lights that turn on, off or dim, based on the time of day, or can be as futuristic as an alarm systems that can contact you directly if it is set off. No matter where you are.

"This trend is getting well under way and with more items within the workplace and home being IP enabled – allowing them to 'talk' to a CAFM system, the whole workplace experience is becoming more joined up and automated but also able to have less environmental impact than before." Walpole explains. "For example, integrating with access control systems, switching power, LAN and VoIP phone connections to hot desks as you log in, taking RSS feeds on weather and traffic etc. allowing prediction for supply of services such as air conditioning or heating or even towels for the gym"