



Enterprise mobility: the rising case for 'no coding' app development

*A report by WorkMobile, an award-winning
mobile data capture solution.*

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Introduction

Since the debut of the Apple App Store in 2008, mobile applications have revolutionised our lives, fundamentally changing the ways in which we communicate, shop and even date.

Today, the Apple App Store has 2.2 million apps available for download, while the Google Play Store is home to a staggering 2.8 million.

With more than 2.7 billion smartphone users and 1.35 billion tablet users across the world, it's no surprise that the mobile app industry is thriving;

the global mobile app market was valued at \$106.27 billion in 2018 and is projected to reach \$407.31 billion by 2026.

Not only have apps altered how we live, but also how we work.

continued overleaf...

Enterprise mobility has been a key priority for many businesses for a number of years now, and mobile apps are a valuable tool for organisations shifting towards more flexible ways of working, and a digitalised ‘always on’ culture.

In the workplace, mobile apps can be used to share content, assist with project management, streamline business process management, enhance comms and improve CRM, along with a host of other uses.

It's been reported that at least [60%](#) of workers use apps for work-related activity, suggesting that many businesses are recognising the benefits of apps for their employees. But are some organisations struggling to make use of them to their full potential? And if so, what is holding them back?

“Mobile apps can be a brilliant tool for businesses, whether they want to enable their employees to work from home more effectively or have a high proportion of workers based out in the field.

“However, it has become increasingly apparent to us that many CIOs are finding that apps can create as many problems as they solve.

“We passionately believe that this does not need to be the case and want all businesses to be able to enjoy the benefits that apps can bring.

“So, we set out to find out exactly what problems they are currently encountering, and how these can be overcome.

“In this report, we will investigate how many businesses are currently making use of employee-facing apps, which sectors are using them the most widely and why, and what is behind their growing popularity.

“We will also explore the many different demands that CIOs are facing from the rest of the C-suite and consider why mobile apps should, in theory, be the ideal solution to help them to meet these expectations while also making employees' lives easier.

“We will then look at why, despite the clear benefits, this isn't necessarily always the case.

“The report will investigate how happy employees actually are with the mobile solutions currently offered by their business, and why both apps developed in house and off-the-shelf products pose a number of challenges for overstretched CIOs.

“We will then find out whether there is an appetite for an alternative solution amongst CIOs, and why no-coding app development could be the answer.”

Andrew Huntly, CEO of WorkMobile, an award-winning mobile data capture solution.

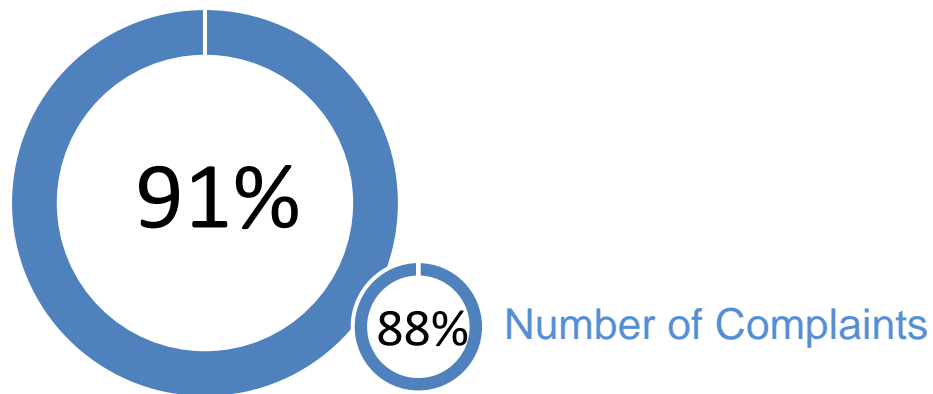


“We asked 500 CIO their thoughts on Mobile Enterprise Solutions”

Key findings

To gain an insight into the current state of enterprise mobility, and whether businesses are really using enterprise mobile apps to their full potential, we asked 500 CIOs from across a range of sectors about the challenges they are facing when developing and implementing mobile solutions.

Businesses currently using employee-facing mobile Apps



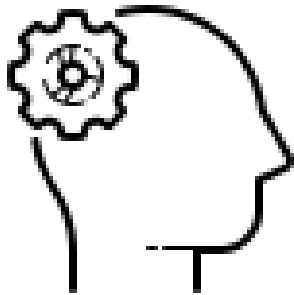
What we found:

- **91%** of businesses currently use employee-facing mobile apps.
- However, **88%** have received complaints from staff regarding the business's enterprise mobile apps, suggesting something about the current approach to implementing these apps is not working and needs to be improved.
- CIOs are facing a number of intense pressures from the rest of the C-suite, including:
 - **48%** - Enabling employees to work remotely more easily.
 - **44%** - Adhering to strict budget constraints.
 - **37%** - Protecting the business from cyber threats.
 - **35%** - Facilitating a Bring Your Own Device (BYOD) policy.

Key findings

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85% of CIOs currently find it difficult to develop enterprise mobile apps in-house.



What we found:

- **85%** of CIOs currently find it difficult to develop enterprise mobile apps in-house.
- More than a third (**36%**) of businesses do not have the in-house skills or expertise required to develop mobile apps for their employees
- The digital skills shortage is a huge problem for many businesses, with **47%** of CIOs struggling to recruit employees with mobile coding skills.
- More than half (**56%**) of CIOs have been forced to abandon the in-house development of a mobile app, mainly due to issues around the speed of build and deployment.
- Externally developed products can be equally as problematic: **83%** of CIOs have encountered serious issues as a result of implementing off-the-shelf enterprise mobile apps.
- Amid these struggles, there is a growing appetite for an alternative. **64%** of CIOs would be interested in using a no-coding app building toolkit to produce their own solutions for their employees.

Enterprise Mobility and the Rise of Employee Facing Mobile Apps

What is Enterprise Mobility?

Enterprise mobility refers to the growing trend for companies to enable their employees to do their jobs anywhere and at any time without any interruption to the business.

Previously, in order to have access to company data and resources, workers had to be in the office and connected to the network. However, thanks to the rise of both mobile and cloud technology, this is no longer the case. It's now possible for employees to access real-time data from almost any location, on a range of devices.

An effective enterprise mobility strategy offers businesses a number of invaluable benefits, including facilitating faster, more streamlined communication between employees, increasing productivity and efficiency, and reducing the business's reliance on paperwork. It also gives employees greater flexibility, making it much simpler for them to work from home or in the field.

The implementation of the right mobility strategy will therefore be a key determining factor in the future competitiveness of many companies.

Why are mobile apps a key part of most enterprise mobility strategies?

According to our research, employee-facing mobile apps form a central part of **91%** of businesses' enterprise mobility strategies.

This is very encouraging, as it has previously been [reported](#) that investment in enterprise mobile app development has lagged behind other forms of enterprise technology, despite the fact that **71%** of workers spend more than two hours a week accessing company information on mobile devices.

Interestingly, the survey also revealed that the number of businesses whose employees are using mobile apps varies quite significantly between sectors.

The proportion of engineering and manufacturing companies making use of mobile apps as part of their enterprise mobility strategy is reflective of the average, at **92%**. For retailers, this figure falls to **88%**, and to just **80%** for the hospitality and events sector.

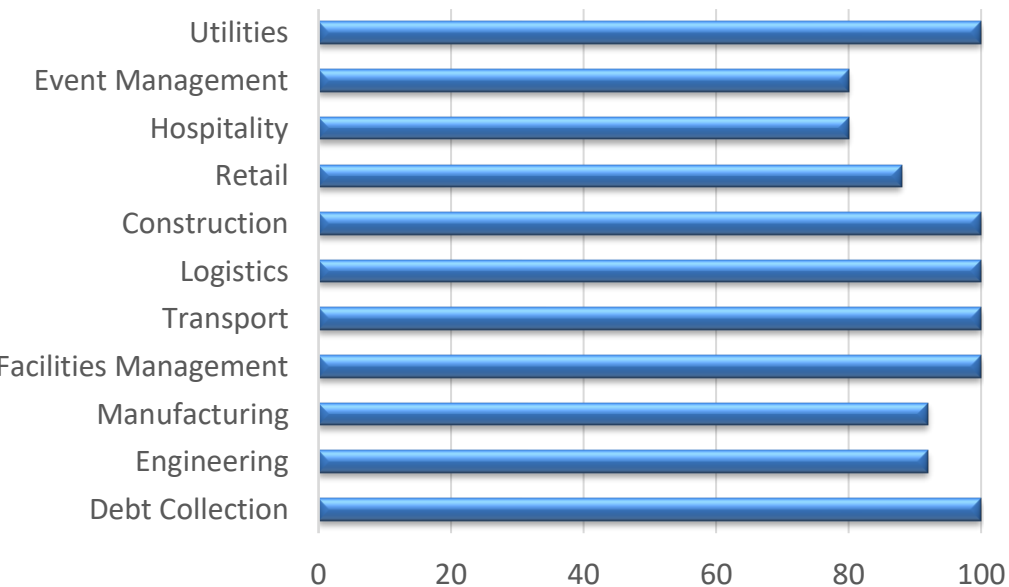
Enterprise Mobility and the Rise of Employee Facing Mobile Apps

Why are mobile apps a key part of most enterprise mobility strategies?

Meanwhile, the utilities, facilities management, transport and logistics, debt collection, and construction industries are the biggest adopters of mobile apps, with **100%** of the businesses surveyed in these sectors currently using them, in some format, for their employees.

This would suggest that CIOs and other business leaders have recognised that mobile apps are particularly beneficial for businesses with a high proportion of field-based employees.

Industry Type



“Typically, office-based employees who are working from home usually still work from a laptop or desktop computer. This means that, provided the business uses a cloud-based network, they should be able to access all the same programs and access all the same files that they can in the office.”

“Hard-to-reach remote employees such as drivers or engineers, on the other hand, require a more portable device with its own internet connection in order to access company files throughout the day.”

“Mobile apps are therefore an ideal solution for these employees, who, prior to the rise of enterprise mobility, would have been forced to rely on paper forms and reports to record any data while working, and to return to the office in order to use any company software or access any files.”

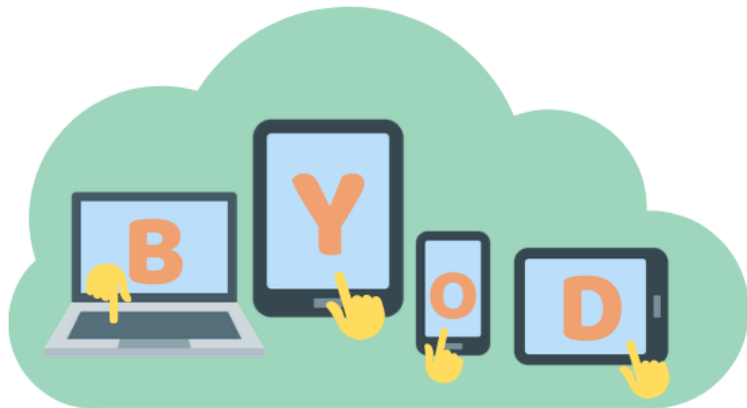
Colin Yates, chief support officer at WorkMobile

CIOs: Pressures from Above and Below

Meeting the needs of the business

Our research revealed that **90%** of CIOs feel that they are currently facing intense and varied pressures from the rest of the C-suite. Perhaps unsurprisingly, given the growing prevalence of enterprise mobility, many of these pressures directly relate to the businesses' enterprise mobility strategies.

For example, nearly half (**48%**) of CIOs are expected to enable employees to work remotely more easily and **35%** are under pressure to facilitate a 'Bring Your Own Device' (BYOD) policy. A further **32%** are expected to improve data collection across the business, while **14%** are facing demands to enable more efficient communication between employees.



However, their concerns are far from limited to enterprise mobility management. CIOs are also expected to play a key role in helping their businesses work towards a number of other strategic goals.

In recent months there has been a sharp increase in the number of cyber-attacks on UK businesses, with [more than half \(55%\)](#) facing an attack in 2019 – an increase of **40%** from the previous year.

While almost **75%** of businesses confessed to being under-prepared for a breach, it would seem that a growing number are waking up to the risk, with **37%** of CIOs surveyed saying they are under pressure to protect their business from cyber threats.

More than a third (**34%**) of CIOs are also expected to improve the efficiency of the business by helping to streamline business operations. Achieving all of this is no mean feat, particularly when **44%** of CIOs are expected to do so while adhering to restrictive budget constraints.

CIOs: Pressures from Above and Below

Challenges differ by sector

It is also clear from the research that priorities vary considerably between different sectors, with some CIOs feeling certain pressures more keenly than others.

CIOs in the debt collection industry are the most concerned about enabling employees to work more effectively remotely, with **100%** citing this as one of the biggest expectations they face from the C-suite. This is followed by those working in utilities, with **65%** of those surveyed under pressure to enable remote working.

This is likely due to the fact that businesses within these sectors typically have a large number of field-based employees for whom the right technology can make a huge difference in terms of productivity and compliance.

Given that a lack of productivity is currently a huge issue in the construction industry, and poor communication lines between project team members can cause significant delays, it is unsurprising that **50%** of CIOs working in property and construction have been tasked with streamlining business operations and making communication between employees more efficient.

Meanwhile, improving data collection capabilities is of particular interest for **55%** of CIOs working in facilities management and half (**50%**) of those working for transport and logistics companies.

“Digital data collection greatly enhances both the quantity and quality of data available. The insights provided by this wealth of new data can enable businesses to make more informed decisions regarding day-to-day operations, helping to save both time and money.”

“For example, facilities management companies may previously have been forced to schedule preventative maintenance inspections and repairs at relatively arbitrary intervals, which can be very costly in terms of labour.”

“However, by analysing the data collected by technology such as smart sensors and mobile data capture apps, inspections can be timetabled much more intelligently based on actual need, ensuring employees’ time is being used as valuably and strategically as possible.”

Colin Yates, chief support officer at WorkMobile

CIOs: Pressures from Above and Below

Meeting the needs of the end user

In theory, enterprise mobile apps offer the ideal solution for many of these pressures and expectations that CIOs are facing.

When implemented correctly they can enable remote working for employees, regardless of where they are based, facilitate digital data collection that can often be downloaded to employees' own devices, simplify communication, and even improve information security.

However, CIOs must always ensure that they are balancing the needs of the business with the employee experience, or risk rising levels of employee dissatisfaction and possibly even higher levels of staff turnover.

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While enterprise mobile apps may satisfy the C-suite, the research revealed that a staggering **88%** of CIOs have received complaints from end users regarding their mobile solutions.

The two most common issues reported by workers are that their business's mobile apps are difficult to navigate, and don't function in areas of low or no connectivity, with **35%** of CIOs having received complaints related to these problems

Common issues include Navigation and WiFi Signals



CIOs: Pressures from Above and Below

Meeting the needs of the end user

Nearly a third (**31%**) of CIOs have been told that their mobile apps offer a poor user experience, while more than a quarter (**26%**) have received complaints from employees because apps are not sufficiently tailored to their specific needs.

Other commonly reported problems include that the apps are not updated frequently enough and that they can only be used on company-owned devices, which **19%** of CIOs have received complaints about. A further **16%** have encountered difficulties due to apps not being compatible with all operating systems.

These complaints reveal that both businesses and their employees are seemingly in favour of BYOD policies – for businesses, this minimises costs by greatly reducing the number of devices they need to purchase and maintain, while for workers it means that they only need to have one mobile device with them at any given time.

However, they also demonstrate that the pressures placed on CIOs by employees and businesses are sometimes in conflict with one another. Budget constraints are the second biggest issue for **48%** of CIOs, yet it's clear that, by trying to adhere to these budgets, many CIOs are currently implementing inadequate solutions that are consistently failing to please the end users.

Businesses and Employees are in favour of BOYD policies



In house versus off-the-shelf

Barriers to in-house mobile app development

Generally, there are three options available to CIOs when it comes to the implementation of enterprise mobile apps: develop them in-house, outsource their development to an external agency, or purchase solutions off-the-shelf.

A key advantage of in-house development is that it should be possible to create apps that are tailored to meet the specific needs of that company's employees, which may differ from the needs of those doing similar roles in other organisations.

However, according to our research **85%** of CIOs face significant barriers that affect their ability to successfully develop mobile apps in-house.

The digital skills shortage is one of the biggest challenges businesses across all sectors are currently trying to overcome; according to the European Commission, there are currently as many as [756,000](#) unfilled roles in the European IT sector.

With mobile apps now so prevalent in both our personal and professional lives mobile development is a particularly in-demand skill.

It's therefore somewhat unsurprising that **36%** of CIOs claim that their teams do not have the coding skills or expertise required to develop enterprise mobile apps in-house, and nearly half (**47%**) say that they have found it difficult to recruit new employees with the right skills.

However, the necessary technical capabilities are not the only requirement for successful app development. IT teams are often very overstretched, and **38%** of those surveyed admitted to not having the time or capacity to develop mobile apps in-house.

As a result of these barriers, many businesses instead choose to outsource the development of their apps, or purchase ready made products, but all three of these approaches present their own set of challenges for CIOs.

In house versus off-the-shelf

In-house development: where do the problems lie?

According to our research, the biggest challenges when it comes to developing apps in-house come down to timing. Nearly two-thirds (**63%**) of CIOs have experienced difficulties developing apps in-house within a particular timeframe.

As a result, more than half (**56%**) have been forced to abandon the development of a mobile app before completion due to issues around the speed and build of deployment.

Thanks to the time-consuming nature of mobile app development, it can also be difficult to keep solutions regularly updated, with a fifth (**20%**) of those surveyed having experienced problems ensuring their apps are nimble enough to meet changing business requirements.

These difficulties with timings are likely to be a major contributing factor to the financial concerns that are also commonplace; our research showed that **36%** of CIOs admit to having struggled to develop apps within a particular budget.

BYOD policies, while highly sought-after by both businesses and employees, can cause additional headaches for CIOs when it comes to developing mobile solutions. According to our research, nearly a third (**30%**) have found it difficult to develop apps for a range of operating systems.

Security is another key concern, with a third (**33%**) of CIOs struggling to ensure that data stored within their apps is secure, while a quarter (**25%**) worry about whether or not their apps adhere to regulatory compliance.

Understandably, data security and regulatory compliance are both a particular priority for CIOs in the debt collection industry, due to the highly sensitive nature of their work, with **50%** of those surveyed reporting difficulties.

In house versus off-the-shelf

Why outsourcing isn't always the answer

Given all these difficulties inherent with in-house development, outsourcing to an app development agency or purchasing an off-the-shelf product may seem like a preferable alternative. However, **83%** of CIOs that we surveyed confessed to having experienced difficulties with externally developed solutions too.

There are a number of areas in which the two options' shortcomings overlap. For example, a fifth (**20%**) of CIOs have had trouble implementing a BYOD policy with external products, and nearly a quarter (**23%**) have found that they are not nimble enough to meet changing business requirements.

Cost is also a major concern again, with **40%** reporting difficulties adhering to financial budgets when paying for someone else to develop apps for them. This is understandable, given that many businesses will require a number of different apps for employees in different functions, meaning the expense can quickly add up.

However, they also present their own unique, equally significant, set of challenges. The most pressing of which, according to **42%** of CIOs, is an insufficient level of technical support and maintenance, which can cause significant problems for the end user.

Nearly two fifths (**39%**) of those surveyed have experienced difficulties ensuring that apps are tailored to meet the needs of their employees, suggesting it can be hard to accurately convey specific needs to an external development agency, or find an off-the-shelf app that is flexible enough.

Integration is also a big problem for many CIOs, which can lead to operational inefficiencies within a business. According to our research, a fifth (**20%**) have struggled to integrate apps with their back-end systems, and **16%** have struggled to successfully integrate different apps with each other.

When looking at the challenges presented by each of the options, it becomes easy to see why so many CIOs have been experiencing complaints from employees regarding their apps. **So, is there another way?**

In house versus off-the-shelf

No-coding apps: an alternative solution?

While advances in technology have undoubtedly made mobile apps more accessible than ever, it's clear that the three most common approaches to implementation still leave a lot to be desired as far as the end user is concerned, while also failing to meet the needs of the business and causing additional challenges for already stretched CIOs.

But how can CIOs provide their employees with perfectly tailored, secure, easy to use apps that can be updated regularly and don't break the bank? The answer may just lie in no code development.

“A no code development platform is a development platform that uses a visual development environment to allow users to create apps, often through a drag and drop method, adding various app components to create a complete app.

“As the name would suggest, with no code development platforms, users don't require any prior coding knowledge to create a mobile app. They therefore enable users to sidestep many of the typical issues associated with both in-house development and off-the-shelf products.

“With apps designed and created by an in-house team, they are always built with the specific end users in mind, which should help to ensure a consistently positive experience for employees and help to minimise any frustrations that can arise from off-the-shelf or externally designed solutions.

Colin Yates, chief support officer at WorkMobile

In house versus off-the-shelf

No-coding apps: an alternative solution?

“Until now, many businesses have adopted a ‘multi app strategy’ which forces end users to flip from one app to another depending on the activity they are undertaking. With no code development platforms, businesses can ensure each employee is expected to use as few apps as possible, making their work life even easier.

“These platforms can also be used to build and update apps far more quickly than traditional methods. This keeps costs as low as possible, eases the burden on overstretched IT teams, and means any issues that are reported by users can be resolved more swiftly. It also enables CIOs and their teams to be far more agile when faced with changing business requirements.

“However, choosing the right platform is essential. If selected carefully, businesses should find that robust security measures are in built automatically, and they may even be able to find a platform that helps them to ensure apps adhere regulatory compliance for their particular industry.

“They should also be sure to choose a platform that allows them to build apps for a variety of devices and operating systems, in order to support any existing or future BYOD policy that the business may have in place.”

Colin Yates, chief support officer at WorkMobile

In house versus off-the-shelf

No-coding apps: an alternative solution?

Despite offering a seemingly ideal alternative method of enterprise mobile app development, surprisingly many CIOs are yet to explore the option for their business. When asked, nearly two thirds (**64%**) said they would be interested in using a toolkit that allowed them to build their own enterprise mobile apps with no coding requirements but hadn't yet done so.

While uptake is currently relatively low, our research implies that perceptions of no coding app builders among CIOs are generally positive. We found that:

- **44%** think that these tools would help to reduce the workload for their team
- **34%** believe they would make it easier for them to meet the expectations of the senior leadership team
- **33%** think that no coding app builders would enable their team to implement enterprise mobile apps more quickly
- **29%** think they would help their team to adhere to financial budgets more easily.

This suggests that, given a nudge in the right direction, many CIOs would be open to trying a no coding platform for their business, and may find that it relieves many of the headaches they currently experience when implementing mobile apps as part of their enterprise mobility strategy.

A range of no coding platforms are now available, including [WorkMobile Solutions](#), a toolkit that allows businesses to quickly build apps that enable staff to capture all essential data. The toolkit is therefore ideal for businesses requiring multiple solutions for its field-based employees.

In house versus off-the-shelf

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Conclusion

Our findings show that the vast majority of businesses are taking enterprise mobility seriously, with mobile apps now forming a key part of many enterprise mobility strategies.

This is great to see, as an effective enterprise mobility strategy will be crucial in order to enable businesses to remain competitive both now and in the future.

It's also really encouraging that those who stand to benefit the most from mobile apps – those with a high proportion of field-based workers – are already the biggest adopters of the technology.

However, what is also very clear from the research is that many of the solutions currently employed by businesses are failing to meet the needs of the end user. The user experience should be just as high a priority when it comes to apps used by employees as it is for those used by customers.

Currently, whether implementing apps that they have developed themselves in house or off-the-shelf products, a huge number of CIOs are on the receiving end of a wide range of complaints from employees.

Something has to change if CIOs are to satisfy both their employees and the rest of the C-suite.

No-coding app development platforms, if chosen carefully, should enable CIOs to do just that, while also easing many of the challenges that currently stem from existing methods of implementation.

Contact us

For more information, please visit:
www.workmobilesolutions.com or call 0161 464 6220

