



Are you managing the mobility tsunami or struggling in the next technology tidal wave?

Mobile and IoT devices are used by organizations across the world and alongside the growth in numbers, we are experiencing a revolutionary technology wave of an unprecedented scale. Mobility is now the cornerstone of the enterprise mobility strategy.

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Foreword

The miniaturization and mass production of technology allied with the rise of super-fast mobile broadband networks, has seen the kind of processing power once reserved for space travel, packed into pocket-sized super computers and put into the hands of about three billion people. But these are just smartphones.

The enterprise market in particular is home to a riotous array of gadgetry, from smartphones and laptops, to barcode scanners and beacons. Today, these tools enable many employees to work effectively from anywhere. This research makes it clear that mobile and 'internet of things' (IoT) device management is essential to global business.

The IoT will create the world anew, so it is at once both familiar and strange. As we are in its infancy, every brand has a position and a stronghold to defend, but the rules of the game are changing, fast.

Everything that can be connected will be connected. By 2020, there will be 30 billion IoT devices in play; that is ten times global smartphone penetration achieved in half the time. We are now in an age where technology connectivity and intelligence is in our homes; autonomous vehicles are being drive tested and holiday space travel is a serious investment opportunity.

Science fiction has become science reality. The pieces are in flux; businesses will no longer operate in the same way. Everything is up for grabs. By 2020, those enterprise devices connected to a myriad of new machine interfaces by a web of specialist industrial networks and gigabit-per-second data super-highways, will acquire new super powers.

For businesses of all sizes, these powers will provide platforms to excel in differentiated customer experiences; disrupt existing markets with innovative technology; obtain exceptional insights about customers; and enable business-critical workflows to improve service and operations.

The problem is, as this research makes clear, enterprises are still struggling with the very basics of enterprise mobility.

Technical failures are commonplace and compliance is inconsistent. Enterprises are failing to monitor device and app usage. Most employees are running unsanctioned apps on work devices. There are more enterprises with inactive app-blocking technology than enterprises making active use of it.

We uncover a fundamental problem with leadership, which suggests senior management has heard the clarion call for investment in mobility and enterprise IoT, but has not listened. If the IoT effect plays out as an industrial land-grab, with every business at once defending old ground and attacking new territories, who will follow a leader like that into battle?

The mobile revolution is not going away. Companies need to innovate or they will fall behind the competition. There is a fear of the unknown and this is holding them back. With so many new connected endpoints being brought into a business, companies must quickly understand the opportunities and innovation to progress.

Ray Carby
Vice president, research and development, SOTI Inc.

Introduction to the research

Carried out by Arlington Research, this study is based on interviews conducted using an online methodology amongst a globally representative sample of 1,300 individuals in organizations with over 50 employees. All respondents to the survey confirmed through the screening process that they use a smart device for work purposes, and have used their smart device when working remotely at least once during the last month.

As such, the sample represents the views of 'remote workers' from across the globe.

The respondents comprise of 200 employees each in Australia, Brazil, Canada, Germany, UK and the US, as well as 100 employees in Sweden. Enterprises are classified by their size, as follows: 50-249 employees, 250-499 employees, 500-999 employees and over 1000 employees. They are defined as 'SMEs', 'medium corporations', 'large corporations' and 'very large corporations' respectively, within this paper.



Part 1 Relevance

General view

We use a mix of connected gadgetry every day at work. This research shows that of those in receipt of company-issued mobile devices, whether general communications and productivity tools or specialist devices, four in five (82%) have used them for remote working in the past week. It also reveals that half have more than five work apps on their work devices and one in five (22%) have more than ten.

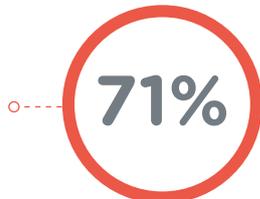
We cannot live without mobile devices for work. Corporate reliance on mobile technology is made clear in this research. Half (49%) of respondents believe it would be either impossible (21%) or seriously challenging (28%) to complete work without their mobile devices; again, the percentage increases with specialist roles and senior ranks. Nine out of ten (92%) say they would find it disruptive at some level to be without their work devices.

IoT technologies also have a powerful impression and market agrees. Four in five (81%) say IoT will have a direct impact upon their organization, rising to nine in ten among business owners (91%) and senior managers (89%); two in five (41%) believe it will be critical, rising to as high as 71% among those tasked with defining business strategy.

Nine in ten (92%) say they would find it disruptive at some level to be without their work device.



71% of those tasked with defining business strategy see IoT as having a critical direct impact upon their organization.



Nearly a third (29%) of respondents are worried they may lose their job when something goes wrong with the mobile device they are using.



Regional view

Remote workers in Australia would find it toughest to cope without enterprise mobility. More than half (55%) say they do not like their chances of getting work done as well, or at all – just higher than those from the US, UK (both 53%) and Canada (52%). Respondents in Sweden (39%) and Germany (43%) are less bothered in expecting severe disruption.

The picture of IoT as a rising tide for enterprises is familiar to every market; it's only the height and speed of its barreling waves that differ. Brazil is clearer about its impact; nine in ten (93%) perceive the disruption and opportunity compared to an eight-in-ten average, reflected evenly elsewhere. Indeed, two thirds (66%) in Brazil detect a critical impact for their organizations – twice as many as in Canada (33%) and Sweden (35%), notably.

Corporate view

A larger proportion of the workforce at very large corporations fear they will be incapacitated by technical issues with their mobility devices. One in four (27%) say it would be impossible to do their job, compared with considerably fewer at medium (17%) and large (20%) sized corporations.

Meanwhile, cognizance of the potential impact of IoT and the spread of enterprise mobility beyond its current bounds is consistent, whether it is attached to a mega enterprise or local concern. It rises marginally on the four-in-five average in medium (84%) and large-sized (86%) corporations and dips just below in SMEs (79%) and very large corporations (76%).

Part 2 Investment

General view

Investment in enterprise mobility is critical in order to keep businesses keyed into emerging opportunities in enterprise-focused IoT connectivity and devices.

However, the findings highlight that only 28% of respondents strongly agree the organisation they work for is investing money in mobile devices and apps to stand out from the competition. This only marginally rises to a third (30%) when investing increase customer experience and enabling workers to do their job better (33%).

Where there is investment, the motivation supports strategic objectives, with three quarters of businesses investing in mobile devices and apps both to better serve their staff (76%) and customers (74%). At least two thirds say it will bring them greater differentiation in the market (69%) and greater understanding of their customers (66%).

Of course, these are familiar areas of investment for any corporation, but the research makes clear that workforce mobility is considered a reliable means to achieve them.

Regional view

When it comes to the regions, there are stark differences: Over half (53%) of respondents from Brazil strongly agree the organisation they work for is investing money in mobile devices and apps to stand out from the competition. This compares to a low of just 22% of respondents in Australia highlighting a clear contrast across the continents.

This feeling is stronger in Brazil on almost every count. Almost nine in ten (87%) in Brazil say their organizations are investing for the good of their staff compared to 71% and 73% in US and Canada.

It is the same story for customer service. Nine out of ten respondents in Brazil say their companies are investing to better serve customers, compared to a low of 67% in Canada. Likewise, Brazil believes market differentiation (92%) and customer understanding (83%) as investment strategies, an advance of around 20%-30% from the US.

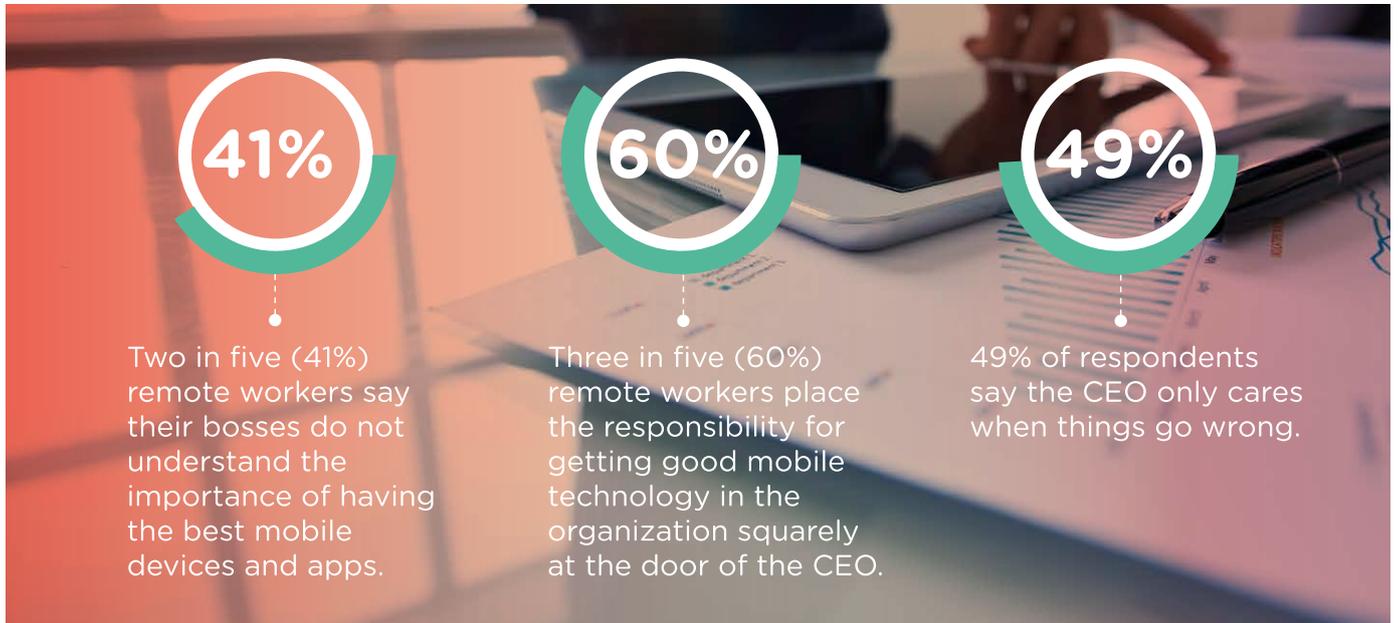


Corporate view

As with the overall results, respondents in each type of enterprise - from SMEs to very large corporates - agree most vehemently the motivations for investing in mobile technology are to improve productivity, customer service, brand differentiation and customer understanding. In general, the research says SMEs are investing the least vigorously, although around two thirds are still doing so with enthusiasm.

It is notable however, enthusiasm for each investment case rises with the scale of the organization, until hitting very large scale, at which point it falls back again. The idea businesses are investing to stand out from the crowd scores 65% among SMEs and rises steadily to 75% among large corporates, before retreating to 65% among very large corporates.

Part 3 Leadership



General view

The research uncovers key concerns for the C-suite, as it seems many don't understand how vital mobility has become in the basic business arsenal. Two in five (41%) remote workers say their bosses do not understand the importance of having the best mobile devices and apps. Those with the clearest sight of market trends and business strategies are in even greater agreement – the rate jumps to seven in ten (69%) among business owners, and one in two among senior managers (53%).

They are responsible and the research agrees. Three in five (60%) remote workers place responsibility for getting good mobile technology into the organization squarely at the door of the CEO. Business leaders do not shy away either. Nine in ten (92%) say the CEO is responsible with just 3% actively disagreeing. In fact, the percentage falls with declining seniority, to 81% of senior managers and just 30% of entry-level staff.

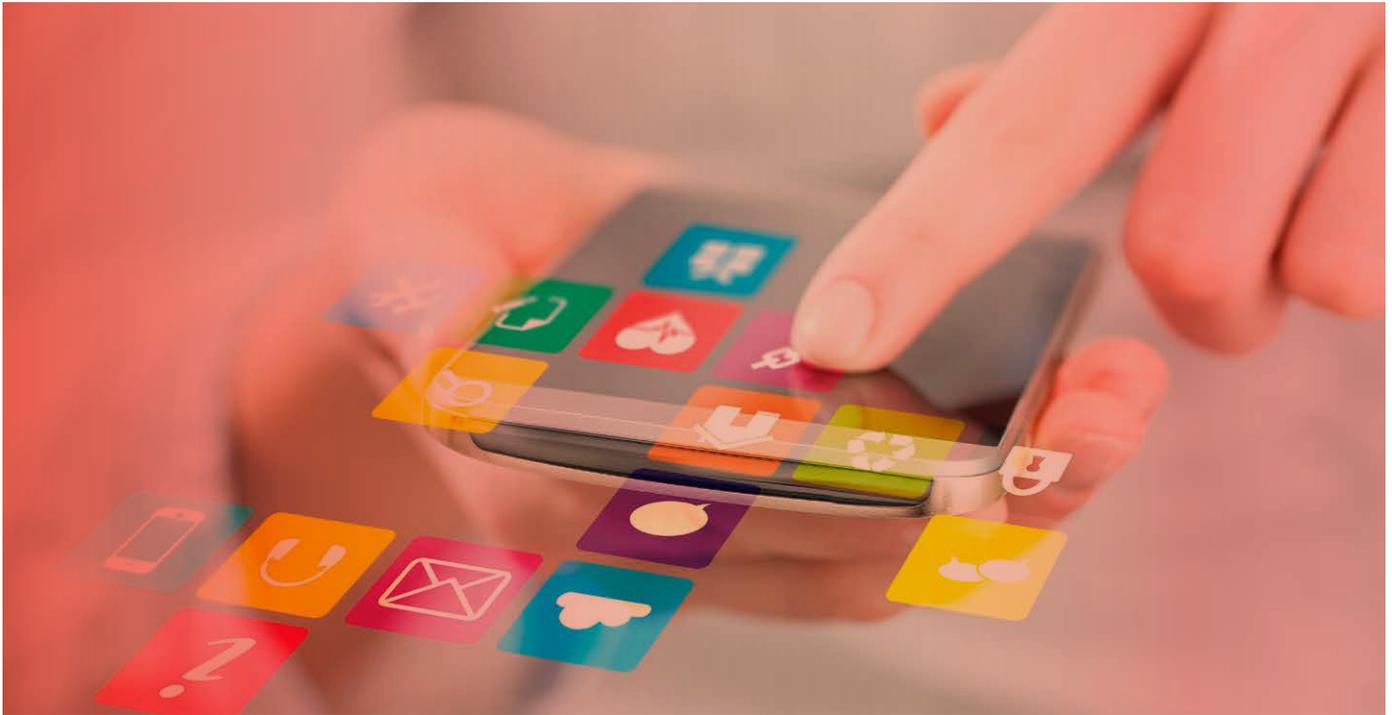
It isn't just the leadership team driving the mobility strategy. Two thirds (66%) say the CEO leaves decisions about mobile devices and apps to the IT Manager; three quarters of business owners (75%) and senior managers (79%) concur. More than half (57%) of those polled and 71% of the top brass believe the CEO wants status updates only – half (49%) of respondents and 69% of business owners say the CEO only cares when things go wrong.

Regional view

There is little disagreement between markets on the role of the CEO, although the depth of feeling rises and falls. The key metric, that CEOs do not understand the importance of arming staff with the very latest enterprise mobility tech, is brought into sharpest contrast in Sweden and the US. Half (51%) and a third (33%) of respondents in these markets agree their CEOs are not backing them with the latest technology.

Half (52%) of Swedish respondents, compared to a third (36%) of US ones, say CEOs are too busy to care about mobile technology and yet the CEO is typically in charge of strategy to the point of sourcing the kit itself. This is the view in Brazil, the keenest of all nations on investment in enterprise mobility, where 79% say the boss is in charge of device acquisitions. The figures fall as low as 47% in the US.

At the same time, a well-above average percentage of Brazil-based respondents say their CEOs prefer to leave mobility to IT managers (78%) and want only high-level updates (72%), such as when major problems arise (58%). US-based CEOs are the least likely to delegate and most likely to engage in mobility management, although most would also seek to take an overview.



Corporate view

The size of business makes a difference to the role of the CEO in mobile and IoT device management. A lack of scale or else an abundance of it, takes them away from the coalface and yet CEOs at very large organizations are more inclined to 'get it'. Fewer respondents at very large corporations (38%) say their CEOs are too busy to care about enterprise mobility, compared with medium (51%) and large (49%) corporations.

Respondents at very large corporations (38%) say their CEOs are too busy to care about enterprise mobility



Respondents at SMEs (39%) and very large corporations (33%) say their CEOs do not understand the importance of the latest apps and devices



Fewer respondents at SMEs (39%) and very large corporations (33%) say their CEOs do not understand the importance of the latest apps and devices. It is notable that little and large enterprises are paired on every score. The research shows their leaders to be less involved in the nitty-gritty of enterprise mobility, but better versed on it generally.

For example, fewer at these set-ups (50% versus 70% in large organizations) say their CEOs are in charge of device acquisitions and fewer say their CEOs delegate to IT managers (60% versus 73%), and only want high-level updates (51% versus 61%).

Part 4 Compliance

General view

Three quarters (76%) of remote workers say their organizations have strict rules about downloading unsanctioned apps on work devices. Half (53%) of business owners, with a better grasp of company policy, say their companies actively block unsanctioned apps.

However, the research uncovers some surprising statistics when it comes to reinforcement of compliance, as more businesses are failing to enforce restrictions (45%), despite the facility to block apps, than are carrying it through (37%); the delta between slack (54%) and robust (34%) enforcement of blocking apps is considered widest by senior managers. One in ten say enterprises have no restrictions at all or no facilities to actively monitor usage (11%).

Alarmingly, two in five (41%) believe most colleagues have unsanctioned apps on their phones anyway. Indeed, it seems that familiarity breeds complacency. This last figure is highest among users of specialist devices (65%) and those with a high number of enterprise apps (62%). Worse, business leaders are more sceptical of staff sticking to the rules than anyone, with four in five (78%) business owners and three in five (57%) senior managers declaring their suspicions about commonplace usages of prohibited apps.

Regional view

Regulation of app downloads is evenly enforced across markets, or at least evenly understood; around three in four respondents in most of the markets confirmed employers had tough policies in place, with rates edging nine in ten (87%) in Brazil, and two thirds (67%) in Canada and Sweden (70%). More than half (54%) of respondents in Brazil agree strongly this is the case; fewer than half think so in every other market.

But actively blocking apps is most prevalent in the UK (48%), which leads from the US (43%), and outruns Sweden (23%). UK businesses are also the least likely to slacken the reins. Around one third (35%) of UK-based remote workers (nevertheless considerable) say their employers do not enforce their in-house blocking capabilities, compared with closer to a half in Brazil (55%), Australia (50%), Canada and Germany (both 47%).



As if to underline the contrasting leniency / rigor, enterprises in the UK (9%) and Brazil (6%) are most likely to have blocking capabilities; almost one in three Sweden-based respondents said their employers had no recourse to block apps.

Corporate view

In general, and as expected, the larger the organization, the sharper its compliance. Eight in ten (82%) respondents at very large corporations say their organization has strict rules about downloading unsanctioned apps; this rises from seven in ten (69%) within SMEs. Half (49%) of very large corporations actively block unsanctioned apps, up from a third or less of all other-sized enterprises.

Equally, very large corporations are least likely not to enforce blocking powers (36%), and least likely not to have any blocking capability at all (7%). Consequently, the research indicates that only a few at very large corporations have unsanctioned apps on their mobile devices (32%). It should be noted; SMEs keep pace with medium and large corporations on all these counts and even the scores registered by very large corporations reveal yawning gaps in enterprise mobility compliance.

Part 5 Failure

General view

Technical failures in the field are common. Overall, 62% of those who rely on mobile devices when working remotely have experienced problems with network connectivity. Few have experienced no trouble at all (17%).

Indeed, about as many have had difficulty accessing work apps (20%) designed to assist them, had no difficulties of any sort with their connected devices in general. It might be noted, users of specialist gadgetry, such as rugged devices and beacons, are least likely to report no incidents with performance (both 5%).

The research has found there are emotional consequences of these failures as employees have high levels of concern around the potential damages and loss of information. According to those with recent experience, three in five (59%) admit to being stressed and two in five (41%) say they have felt overwhelmed. They have also worried they could lose data (60%), sales (37%), and even their jobs (29%). These concerns tend to be felt more strongly by certain user groups. Stress of technical failures is 13% higher than average among business owners (72%). Concern about lost business is 22% higher among owners (59%), and 17% higher among top managers (54%).

Regional view

Brazil faced the most network connectivity issues on remote devices in the past month. Three quarters (75%) of respondents say they have experienced coverage issues, compared with lows of 29% in Germany and the UK.

Sweden (55%) reports the most trouble with data connectivity – over a third up on the average (40%), and almost two thirds up on UK and Canada (both 34%). By contrast, almost one in five from Canada (23%) and the UK and US (both 22%) claim no trouble.

Almost a half (44%) of Brazil-based respondents have worried for their jobs; this is around double those from the US (20%) and Sweden (23%). The same worrying percentages hold up about losing data: 86% in Brazil and 41% in Sweden. There are exceptions. Stress is most reported as a symptom of technical issues in the UK (65%) and the US (63%).



Corporate view

Very large corporations appear better protected against outages and errors as they experience less technical issues. One in four (24%) respondents at very large corporations has faced no technical issues during the past month, at least twice the number saying the same at medium (9%) and large (12%) corporations, and a third more than at SMEs (18%).

There are fewer complaints of issues with network connectivity and data security, although recent experiences of these (58%) are hardly uncommon. 66% have faced the same at other sized businesses. It's medium and large sized corporations in the middle that are most affected by tech fails.

The personal response of staff to these stresses and strains is consistent across the board. The largest discrepancy in the results is the concern staff will lose their jobs, which peaks at 34% among employees of medium and large corporations, and falls by almost a third to 20% among very large corporations.

Part 6 Reliance

General view

The level of usage and reliance on enterprise mobility hardware raises the price of technical failures in the field. The more work-related apps, the greater the alarm about lost business. For example, half of those with over 16 work-related apps say they have worried in the past that technical issues will cost business compared with just 16% of those without apps at all.

Equally, those respondents that have worked remotely within the last week also admit a higher propensity to worry about lost business (38%), compared with those that have only worked remotely in the past month (12%). At the same time, the cliché about “familiarity breeds contempt” holds up. The number declaring they just don’t care when technical issues have arisen rises with the number of apps, from 16% among those without any to 45% among those with more than 21 apps.

Reliance and familiarity also breeds competence. Almost half (48%) of remote workers believe they can resolve problems with their mobile devices by themselves, but the number rises higher among those with 16–20 apps (54%) and over 21 apps (60%). Regular remote workers also claim greater aptitude at resolving mobility issues and getting back online – those active in the past week are twice as likely (52%) to diagnose and repair technical issues than those only active within the last month.

In most cases, business owners / partners (56%) and senior managers (54%) also resolve issues without help, compared with just 45% of entry-level staffers. By contrast, 30% rely upon internal IT support to help and 14% look to external third-party support. Just 4% are stuck with no support at all.

Regional view

In terms of dealing with technical issues, Brazil ranks the best. Three in five Brazil-based respondents say they can sort technical issues themselves, get back online without a hitch, or a call for outside help. Conversely, Swedish respondents are also more likely to be hobbled without help – one in three (34%) claim the same ability.

Indeed, Sweden-based respondents are more likely than any nation to be required to source outside technical help. More than one in four (27%) rely on third parties – roughly double the average (14%), and almost as many rely on internal IT support (29%). The UK ranks lowest for both internal (27%) and external (18%) support.

Corporate view

When faced with them, SMEs tend to be more capable of diagnosing and repairing technical issues, and are less reliant upon internal IT functions. But the margins are small: more than half (51%) of staff in SMEs and less than half of staff in every other sized business resolve their mobility hitches without calling for help.

One in four (24%) rely upon someone at work to sort out their troubles, compared with one in three (34%) at mid-sized corporations. In general, very large corporations are the next most resourceful and appear to be better resourced internally – just one in ten (10%) seek third-party IT support to get them out of a jam, compared with 14%-18% in other organizations.



Summary

As we have seen, the relevance of mobile and IoT devices amongst organizations across the world is not just a swell in the ocean but has brought a revolutionary technology wave of an unprecedented scale. Mobility is not just rampaging through every size of business; it has become the cornerstone of the enterprise mobility strategy.

Companies know this and are investing as they see the benefits and the way it can transform employee productivity and customer experience. The greatest question now resides at C-level – much as the concept and vision is being embraced, it seems execs in some enterprises are struggling to fully understand the importance of mobile devices and apps. With almost every worker in a company now given a device, it seems incredible that a third of CEOs in this research do not understand the importance of the latest apps and devices.

The consequences of this view have been vividly highlighted – the lack of attention results in reduced compliance in the field which invariably leads to vulnerabilities and emotional upheaval.

The key to managing the mobility tsunami, not just embracing the vision, is to implement a mobility strategy now. Any size organization can benefit by connecting mobile and IoT devices to business processes – but, if a strategy is not in place, companies will find themselves throwing endless resources into connecting everything to the internet, rather than just those devices that are critical to their business.

The mobile revolution is not going away. Companies must innovate or they will drown in the technology tidal wave that befalls them.

SOTI is a proven innovator and industry leader for mobility and IOT management. Globally, over 17,000 companies depend on SOTI to transform their business by taking mobility to endless possibilities.