

# Why Tablets Can Successfully Transform Your Business

An IDC White Paper sponsored by PANASONIC

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## EXECUTIVE SUMMARY

- As enterprises transform their business models, products, and processes through the implementation of mobility and digital transformation strategies, they must also ensure that computing devices are the right tools to deliver business success. Between traditional form factors and mobile devices, tablets emerge as the ideal platform to offer productivity features as well as mobility and digital capabilities.
- Tablets can deliver substantial productivity improvements through faster internal communication and more efficient smoother knowledge sharing, workflow optimization, and customer experience enhancements.
- Detachables and convertibles, in particular, perfectly meet the needs of an "ultramobile" knowledge workforce and are now available with top-of-the-range business specs. Critically, however, these hybrid form factors should replace traditional notebooks as the primary and only computing device rather than being used as additional devices.
- Enterprise-grade tablets require build, reliability, and durability. Many features, such as battery life, outdoor screen readability, and ruggedization, are of paramount importance in a business tool. These features guarantee efficient workflows and productivity — features that cannot be met by consumer devices, which typically have a much higher failure rate and consequently a higher total cost of ownership.

- Successful tablet deployments require a solution approach based on hardware, software, and usage scenarios, and must be considered alongside security features and integration with the rest of the company's IT infrastructure. A hardware vendor capable of acting as a strategic partner is best placed to help achieve the business objectives of the tablet deployment.



# Business Tools Determine Business Success

Enterprise mobility and digitalization are driving companies to transform their business models, products, and processes to remain relevant and successful. As a consequence, they need to reconsider their IT estate to ensure that their workforce is equipped with the right business tools to successfully realize such transformation.

## Enterprise Mobility – IDC's View

Consumerization of IT (employees in the workplace using "consumer market" technologies and devices) and connectivity advances have transformed the workforce and its way of working. After an initial period of resistance, businesses have started placing mobility at the core of the corporate agenda to harness the power of mobile, data-enabled employees and always-connected consumers. Today, the challenge for IT management is no longer whether to deploy mobile technologies but how to do it successfully. Effective mobility strategies will only be achieved if companies truly commit to mobility as part of a transformational business strategy. Taking a holistic approach to mobile devices such as tablets, while deploying them as part of a solution to deliver business results, is key to success.

Proliferation and convergence of mobile form factors, together with increasingly blurring lines between consumer and enterprise technologies, however, make it increasingly difficult for IT decision makers to identify the computing devices to deploy across the workforce. In particular, when should detachables be preferred over tablet slates or traditional clamshell notebooks? Are convertibles more suitable? Do my tablets need to be ruggedized? And should I have them installed in-vehicle or not? These are some of the questions that are holding some organizations back.

In this phase of digital transition and disruption, enterprises often struggle to find the balance between traditional productivity tools and the urgency to develop connected mobile platforms. This paper explores how tablets can be the solution by offering the best of both worlds.

## Digital Transformation: An Opportunity and an Imperative – IDC's Definition

IDC defines digital transformation as the continuous process by which enterprises adapt to or drive disruptive changes in their customers and markets by leveraging digital competencies to create new business models, products, and services. Digital transformation enables enterprises to seamlessly blend digital and physical business and customer experiences while improving operational efficiencies and organizational performance.

For businesses, this means combining 3rd Platform technologies (i.e., cloud, social, mobile, and Big Data) and innovation accelerators to drive significant changes to their business models and operations in order to develop digital transformation competencies and become a disruptor. Businesses that fail to adapt, risk falling behind disruptors and losing relevance in their industry.

# Tablet Deployment 2.0

## IDC's Tablet in Enterprise 2.0 The Larger Opportunity

**Country scope:** France, the U.K., Germany.

**Number of respondents:** 1,203.

**Role:** IT and line-of-business manager.

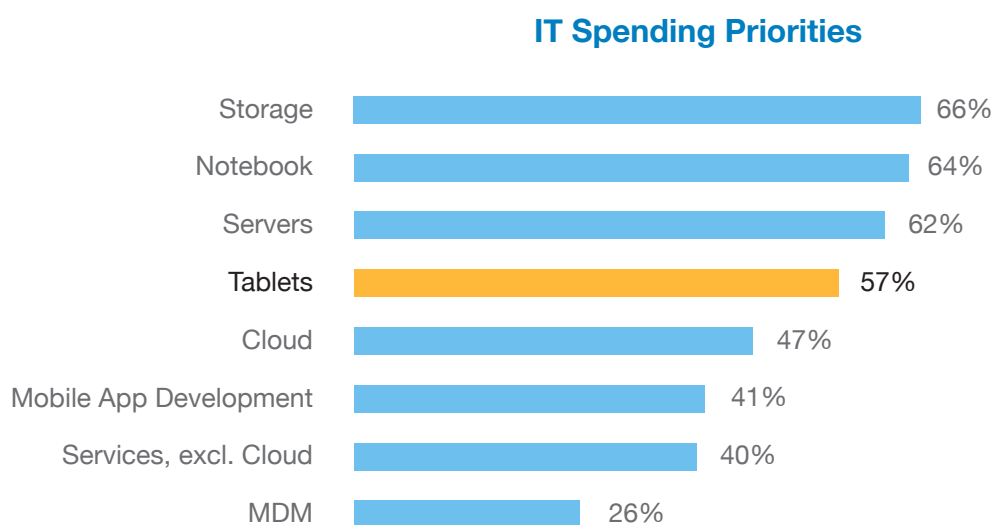
**Product Scope:** tablet slate, detachable, convertible. **Vertical scope:** manufacturing, transport and storage, utilities, healthcare, retail/wholesale, hospitality, government, finance, education, professional services.

**Company size:** small (10 to 99 employees), medium (100 to 499), large (500+ employees).

In June 2016, IDC Europe carried out its Tablet in Enterprise 2.0 — The Larger Opportunity survey of 1,203 IT decision makers and line-of-business managers across the U.K., France, and Germany. The survey centers on organizations' device strategy, particularly how they transform their workforce and business models by leveraging the opportunities created by mobility and evolving IT and digital technologies.

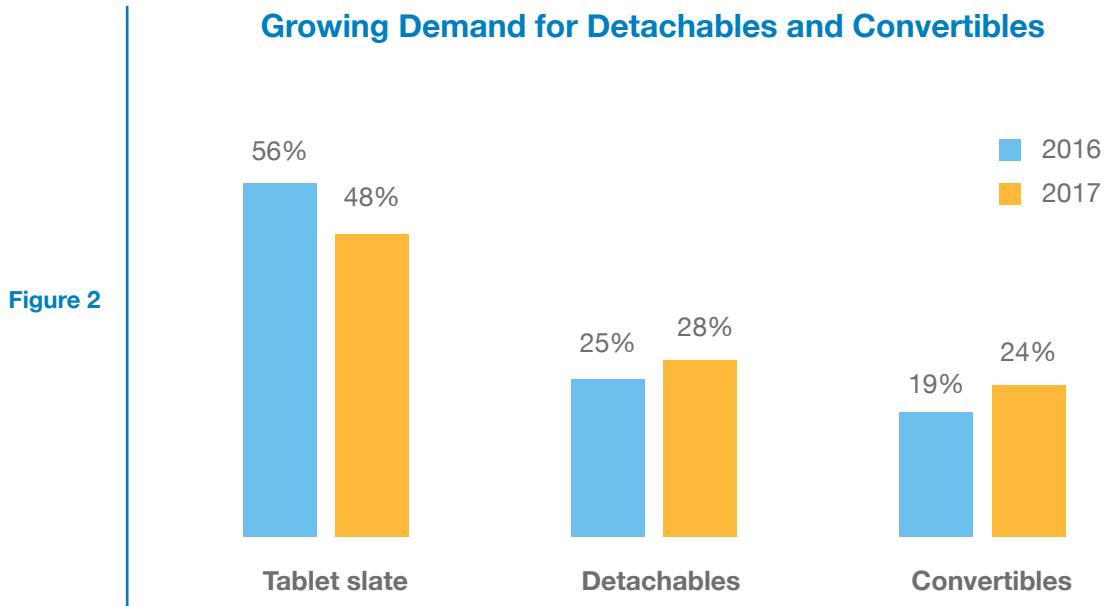
The survey looked at the evolving dynamics between traditional computing platforms such as notebook and desktops and new form factors such as tablet slates, detachables, and convertibles. It also looked at this in the context of smartphones, phablets, and new technologies like wearables. The findings showed that tablets are a 2017 IT spending priority for 60% of the companies surveyed and that the majority of respondents are planning to deploy tablets in the short to mid term. In fact, among the respondents that already have tablets, more than 80% are planning to expand their existing deployment, while over 50% of those who have not yet purchased tablets are evaluating or have plans to deploy.

**Figure 1**  
Tablets are a 2017  
IT Spending Priority  
for 60% of Companies



Source: IDC Europe Tablet in Enterprise 2.0 — The Larger Opportunity, September 2016, n = 1,203

Deployment plans among respondents show strong demand for detachables and convertibles. 2017 is expected to be a tipping point, with these hybrid form factors anticipated to account for more than half of the tablets shipped to enterprises in the U.K., France, and Germany. Indeed, while the slate form factor has dominated the market until recently, a growing mobile workforce is driving across all verticals a strong need for keyboards to perform productivity or content creation tasks outside the office walls.



Source: IDC Europe Tablet in Enterprise 2.0 – The Larger Opportunity, September 2016, n = 1,203

## So why tablets?

### Tablets Increase Employees' Productivity, Mobility, and Collaboration

Increasingly fast and widespread connectivity has torn down geographical boundaries and transformed the workplace, with employees now able to access corporate resources from any location and to be productive in any place, at any time, and on any device. At the same time connectivity and mobile technologies have raised consumers' expectations and escalated enterprises' need for fast business processes and speedy decisions.

*"Tablets can provide a significant increase in productivity."*

**Logistics and distribution manager Germany**

**Tablets can deliver substantial productivity improvements through faster internal communication and more efficient smoother knowledge sharing, with positive repercussions on collaboration processes.**

Furthermore, as workplace demographics shift, long-term enterprise strategies will have to take into account the different needs of a multigenerational workforce. As baby boomers retire, an increasing share of the workforce is accounted for by Generation Y (often referred to as millennials) and Generation Z. Both have grown up with smart mobile devices as their primary — if only — computing platforms, and with heavy reliance on social media as a communication channel, as well as the conviction that work is what you do and not where you are.

Companies that embrace mobility as a platform for new ways of working and communicating not only increase their own productivity but will also see positive effects on employees' satisfaction and retention.



IDC's *Tablets in Enterprise 2.0* survey found that **PRODUCTIVITY** is the main driver of tablet deployments for **70%** of companies



Employee **MOBILITY** and **FLEXIBILITY** follows at **65%**



**COLLABORATION** is key for **53%** of respondents

## Tablets Serve Mobility Strategies

Today, very few companies ignore mobility — but approaches to mobility vary in terms of scope, objectives, and effectiveness.

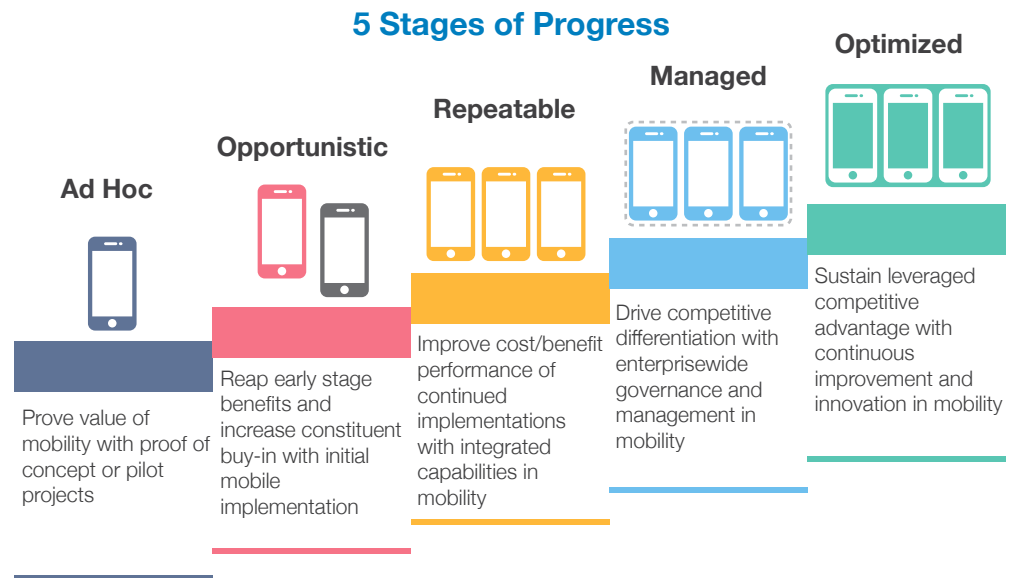
According to IDC's Mobility Maturity Model, five phases can be identified in enterprises' approach to mobility. These range from the initial ad hoc and opportunistic tactics — where companies react to trends and try to fix some problems or get quick gains — to more mature and strategic approaches where companies place mobility at the core of their IT systems, with smartphones and tablets the primary access devices to IT systems rather than nice-to-have add-ons.

*"Tablets give greater mobility and immediate access to the full power of your PC."*

**IT manager, transport company with over 500 employees, France**

Tablet deployments aimed at mobilizing employees are usually among the first steps that enterprises take in their mobility journey and tend to fulfill risk-managing and cost-cutting purposes. The next step is mobilizing processes followed by the mobilization of customers and partners. In the more mature final phases, business workflows are redesigned to improve agility and time to market, and tablet deployments are the result of holistic enterprisewide approaches where hardware and software are wrapped together to achieve a business outcome in line with the company's long-term strategy.

**Figure 3**  
IDC Mobility  
Maturity Model



## Tablets Enable Digital and Workspace Transformation Strategies

The evolving behavior and soaring expectations of consumers — who increasingly rely on multiple channels to interact with brands and service providers — are pushing digital strategies to the top of the corporate agenda. Digital initiatives revolving around the front end, however, are not really digital transformation. Organizations that embark on siloed projects by adopting outward-facing digital technologies aimed at improving customer experience, while overlooking back-end operations, miss the larger opportunity that digital technologies offer. To take full advantages of this opportunity, internal operations and processes need to be digitized. In this context, tablets have an advantage against traditional devices as they allow businesses to optimize their operations and at the same enhance customer experience.

In fact, while legacy systems are more likely to result in inefficiencies due to their reliance on disconnected manual paper-based processes and siloed data sources, tablets:

- **Enable faster and more accurate data capturing**
- **Streamline workflow between front-end and back-end processes**
- **Facilitate integration and information sharing among previously disconnected operations**
- **Enable prompter business decisions and customer service**

Tablets with a detachable keyboard, in particular, perfectly meet the needs of an "ultramobile" workforce — one that needs to feed data or information in real time to customers, partners, or other departments within the organization.

## Tablets deliver digitization into legacy elements of transforming business



**5:00am** - Mike goes to the office to take the list of planes to inspect.

**5:15am** - Mike gets to the airport gate of the first plane and starts performing 'A checks'.

**5:45am** - Mike has finished the checks, fills in a paper form and goes back to the hanger to get a spare headrest.

**6:00am** - Mike gets to the office, manually enters the information on the paper form in the shared PCs and fills in the form to request the spare headrest.

**6:30am** - Mike goes back to the airport gate of plane 1 and receives the spare. He replaces the faulty headrest with the new one and notes this down on the paper form.

**6:50am** - Plane 1 is ready to fly and Mike moves to the next plane to check. (He will enter manually that the headrest on plane 1 has been fixed next time he is in office.)



**5:00am** - Steve has checked on his tablet his daily schedule in advance so has gone directly to the airport gate of the first plane to inspect. He can start performing 'A checks' immediately.

**5:30am** - Steve has finished the checks, and uses the tablet app to report the results of the checks for plane 1. He also orders a spare headrest directly from the tablet.

**5:40am** - Steve receives the spare at the airport gate. He replaces the faulty headrest with the new one and records the replacement on the tablet app.

**6:00am** - Plane 1 is ready to fly and Steve moves to the next plane to check.

# Organizations are Maturing in Their Approach to Tablets

IDC's Tablet in Enterprise 2.0 survey highlights that European companies have matured in their decision making and have now entered a second age of maturity in terms of tablet deployment. This is characterized by an increased focus on applications. After experimenting with small pilot projects, companies have started to understand that successful tablet deployments require a solution approach based on hardware and software considerations.

Yet, as device proliferation increasingly blurs the lines between form factors, choosing the right hardware in a long-term perspective can be daunting. So, what is the form factor of the future?

## The Form Factor of the Future

Tablet slates, detachables, and convertibles meet different enterprise needs, so form factor choices should be driven by strategic considerations, such as:

- Which business outcome the organization aims to achieve by deploying tablets
- Which applications are going to be run on the tablets
- Who the intended users and use cases will be
- Which specific hardware or software features are needed to achieve this



In general, tablet slates are more appropriate when touch is going to be the prevalent input method for the applications used on the device. This can also be complemented by voice or stylus. The usage scenarios for tablet slates should also involve light productivity or content creation and editing tasks that can be supported satisfactorily by digital keyboards. Tablet slates also tend to be preferred for single-purpose or embedded devices.

Detachables and convertibles, on the other hand, are more suitable when the intended tablet user is highly mobile but at the same time needs a physical keyboard to carry out productivity tasks, whether for data entry or content creation purposes, and when the user requires a quick transition from the field or floor to a full desktop computing experience.





Convertibles appear to be especially suitable for sharing purposes as screens can be quickly rotated in order to show presentations to clients, share content, or fill in forms with customers, for example. Detachables on the other hand are associated with usage scenarios involving productivity as well as a more frequent use of the device in pure slate mode.

While enterprise demand is increasing for all tablet form factors, purchase intentions among enterprises show a clear acceleration in the rate at which detachables and convertibles are deployed to replace existing notebooks rather than in addition to them.

The momentum is going to be driven not only by improvements in hardware capabilities and software offering, but also by a more mature enterprise approach to tablet deployments.

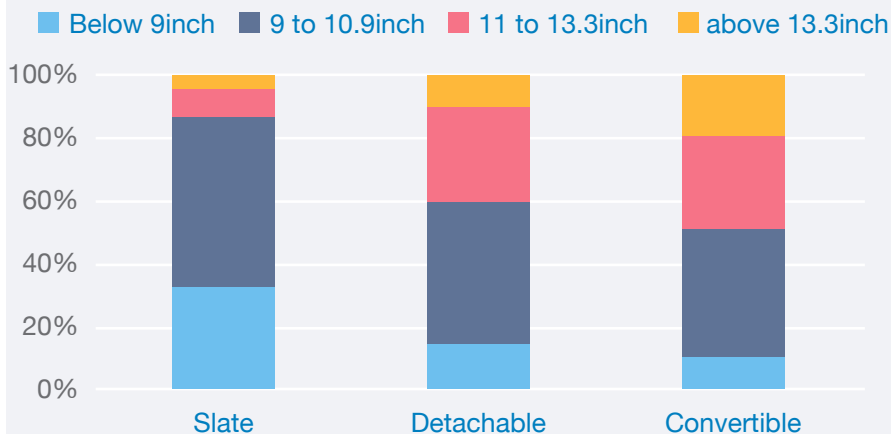
In fact, initial deployments of tablets as auxiliary devices, whether company-liable or employee-owned, have resulted in additional complexities for IT departments as the inevitable multiplication of devices has led to an increase in costs, security challenges, and device and application management complexities.

**As new generations of convertible and detachable devices have top-of-the-range business specs and similar processing capabilities to traditional notebooks, these hybrid form factors can combine the advantages of clamshell notebooks with the benefits of mobile devices in a single platform and should be used to replace traditional notebooks as the primary and only computing device rather than in addition to them – thereby helping to reduce IT costs and complexities.**

### Which screen size?

Small screen sizes, typically between 7 and 10.9in., are usually preferred for tablet slates as they need to meet requirements for extreme mobility, lightness, and touch applications that are often run by holding the device in one hand. Larger screen size slates are instead chosen when touch is needed but there are no constant mobility needs, as is the case for tablets used in a fixed location in kiosk mode or for digital signage purposes.

**Screen Size Preferences**



As small displays would not facilitate easy execution of productivity tasks, detachables and convertibles are preferred with larger screens more similar to those of notebooks, namely 11 to 13.3in. Displays between 12 and 13.3in. are preferred when detachables replace existing portables, with almost half the respondents in IDC's Tablets in Enterprise survey choosing this screen size range, followed by 1 in 4 selecting detachables with a screen larger than 13.3in.

# Hardware is critical to the delivery and enablement of business outcomes

Enterprise-grade tablets require build, reliability, and durability. Many features, such as battery life and outdoor screen readability, may be "nice to have" in a consumer device, but are of paramount importance in a business tool to guarantee efficient workflows and productivity. When tablets are used for line-of-business functions, specific features may also be needed.

IDC's Tablet in Enterprise survey sheds light on the must-have features for business tablets.

## Most Important Tablet Features

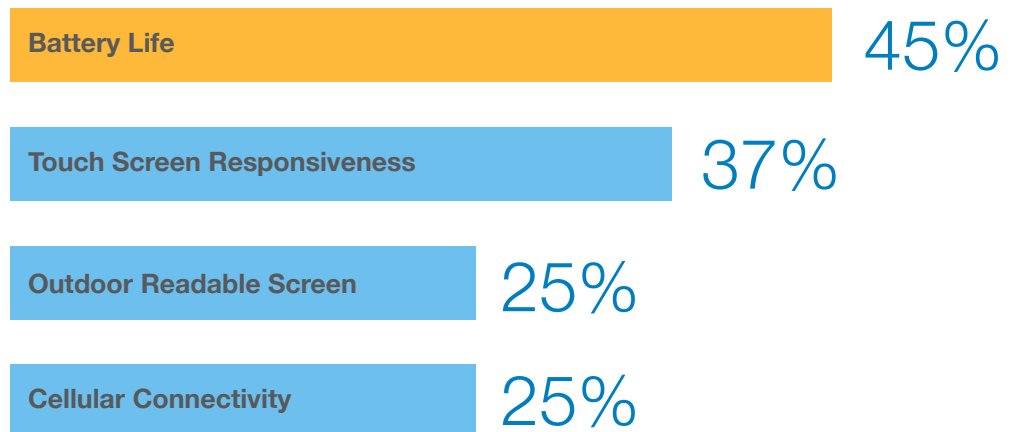


Figure 4

Source: IDC Europe Tablet in Enterprise 2.0 – The Larger Opportunity, September 2016 (n = 890)

## Most Important Tablet Add-On Features

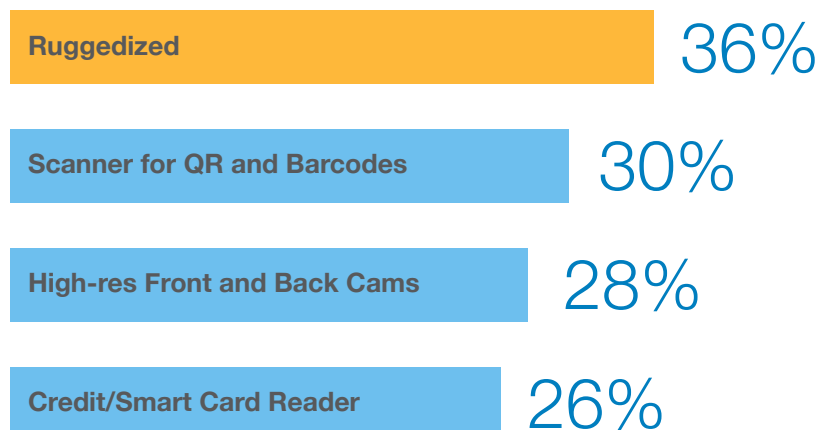


Figure 5

Source: IDC Europe Tablet in Enterprise 2.0 – The Larger Opportunity, September 2016 (n = 890)



With 45% of responses, **battery life** is the most important tablet feature for enterprises, regardless of their sector. Tablets are primarily deployed for their mobility advantage against traditional computing devices and are consequently expected to perform for a long time — even a full working day — away from a mains power supply. Long battery life is a key differentiator from traditional notebooks and such is its importance that almost a quarter of companies surveyed mention replaceable batteries as a crucial tablet feature too, especially in situations where **hot-swapping batteries** (where replacement can take place without turning the device off) can be business critical to certain functions.



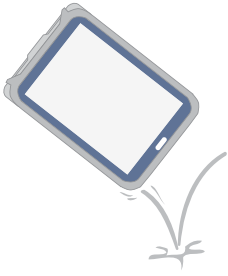
Short-lasting subpar batteries result in lost productivity as the mobility and productivity of frustrated users will be adversely affected: they will have to interrupt their activities, look for a power source, and wait until the device is charged to resume their activities.



**Touch responsiveness** is the second most important feature in a business tablet, with 37% of responses. Fast touch responsiveness, or low system latency, is critical to meet the needs of fast-paced business environments and the expectations of employees and clients whose standards are set by rapidly evolving consumer technologies. Although hardware is not the only factor determining tablets' touch responsiveness, it does play an important role. This is due to display technology and resolution, for example, impacting input lag. Screen responsiveness is important not only in relation to touch input but to a variety of input methods, digital pens, and styluses as their use becomes more widespread. Usage scenarios determine different requirements for screen responsiveness: glove-enabled touchscreens, for example, for some applications, while a touchscreen that can continue to perform in the rain or in dusty conditions is a must for some outdoor use cases.



Long system latency not only results in a loss of employee productivity but can also generate some high indirect costs when tablets are used for customer-facing functions. Slow touch responsiveness has a negative impact on customer experience and in turn on customer satisfaction and retention; even worse, in self-service scenarios, frustrated customers are more likely to give up and abandon the purchasing process altogether, resulting in revenue loss for the organization.



As tablets are increasingly utilized in operational, in-the-field roles, it is crucial that they are able to operate under harsh conditions or extreme working environments, making **ruggedization** a key product feature for 36% of respondents. Crucial requirements include shock and drop resistance, water proofing, the ability to maintain functional integrity in extremely hot or cold temperatures, and the ability to withstand exposure to dust, vibrations, chemicals, and temperature fluctuations. Ruggedization is required across all vertical industries, although demand is higher in sectors such as transport, distribution (including retail and wholesale), government, and healthcare. Depending on the specific usage case, full or semi ruggedization may be needed.



Trying to save some money using consumer devices can be an expensive mistake for enterprises as non-rugged consumer devices can end up having higher total cost of ownership (TCO) due to lost productivity resulting from higher failure rates and shorter life cycles. Adding a rugged case to a consumer device does not solve the problem as consumer tablets used in factories or warehouses, in transportation, or in situations such as field or military operations will not last long as they are not designed to withstand onsite wear and tear, exposure to water, drops and impacts, vibrations, chemicals, and temperature fluctuations, to name a few. Moreover, consumer devices lack fundamental enterprise features, while manufacturers refresh their consumer portfolios much faster and eventually end support for discontinued devices. As a result, companies will be forced to purchase their devices more frequently.



**Connectivity** and outdoor readability were cited by 25% of respondents, confirming that one of the main advantages of tablets against traditional computing devices is their ability to enable users to work in external environments. Commercial tablets are often used indoors, relying on the company's WiFi network, but when used outdoors by mobile or field workers, connectivity is paramount to use applications remotely and for faster and more efficient data entry and retrieval. Unlike consumer products, where a wireless module is typically added to obtain the right connectivity, in enterprise-built rugged tablets a wireless system with optimized antennae is engineered to give users improved connectivity in fringe areas (i.e., longer and faster connection).



In-field applications also require **screens optimized for outdoor work and changing light conditions**. As more business functions are mobilized and network connectivity expands, demand for cellular-enabled tablets will increase further — IDC's study shows that all 10 verticals surveyed intended to increase the percentage of connected tablets in their future purchases.



Strong, reliable connectivity as well as excellent visibility under direct sunlight, antiglare properties, and the ability to easily adjust screen brightness to the different light conditions (from bright daylight to pitch darkness) can be crucial for business tablets; devices unable to deliver these features can result in heavy productivity losses.

Tablets may be business tools but their **design and lightness** remain important (24%), especially when they are deployed for customer-facing roles. Consumerization has had a strong influence on the design and lightness of commercial computing devices, and enterprises can now choose devices with high-end business specs without having to compromise on design and weight. Even rugged devices, which until recently were modelled on military devices, can now be light and aesthetically pleasing.

If in consumer technology there is a growing trend toward getting rid of unnecessary ports and headphone jacks, enterprises still require **legacy ports** for a variety of reasons: from expanding internal storage or transferring data faster, to connecting tablets to peripherals (mice, printers, etc.) or to a network in order to use a wired connection when no longer on the move. For 21% of respondents legacy ports — USB, (micro) SD, serial, parallel, LAN, HDMI, etc. — are among the most important features that they look for in a business tablet.

## The Bottom Line

Tablets used for business operations should have enterprise-grade features that guarantee reliability and durability to deliver internal productivity and customer satisfaction. Relying on substandard or consumer-oriented alternatives may save cost in the short term but may be a costly mistake over the longer term.

# Should you consider vehicle-mounted solutions?

**Situation:** Technicians working for a large utility drive from site to site to perform checks and routine maintenance to households.

- The technicians work on their own so the devices must be stable and secure while they drive but cannot be fixed in the vehicle. The technicians need to be able to easily and quickly remove the device and carry it with them during inspections.
- They need to access the calendar with daily appointments which needs to be up to date in case of changes and cancellations.
- They need access to desktop applications to consult customer data and internal resources, record information, and perform calculations and measurements. At times, they also need to check inventory and order spares.
- They spend the whole working day outside the office so they need to be able to charge it while in the car and store it securely when they leave the vehicle.

**What is the best device for them?**

**Solution:** in-vehicle connected rugged detachable tablet

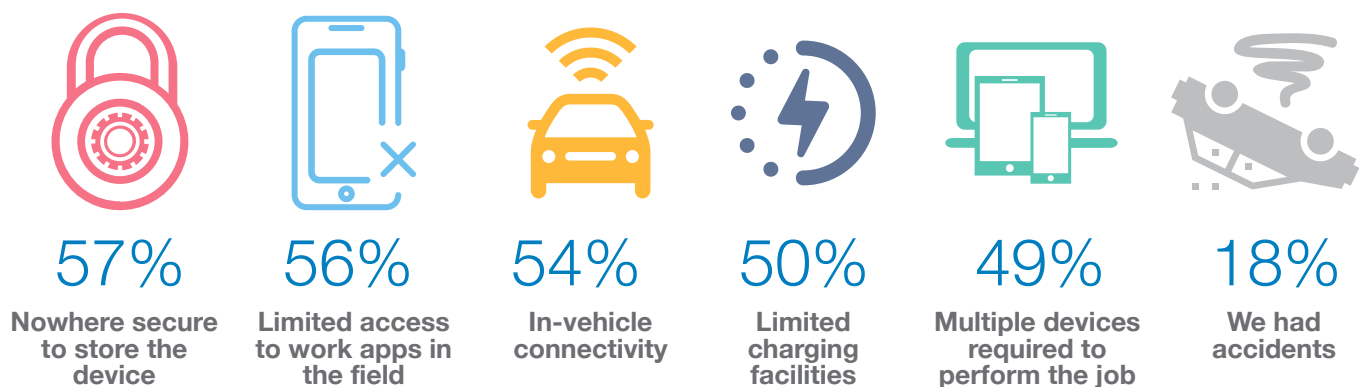


Evolving enterprise needs and digital transformation are challenging supply chain and internal workflow processes that are under huge pressure to become faster and quickly adapt to new disruptions.

In many situations — such as warehouse operations, transport, maintenance, and blue light services — vehicle-mounted tablets can respond to the challenges created by mobility demands and digital disruptions, thereby extending the company's resources to the field. By providing workers with mobile access to their desktop applications and to real-time information, in-vehicle solutions can improve efficiency and productivity as well as save time and resources.

Within organizations that have deployed tablets, IDC found that vehicle-mounted solutions account for around 20% of tablets. Among the main drivers behind the decision to adopt a vehicle-mounted solution are the need for a secure place in which to store the tablet when the worker is not in the vehicle and the limited access to work-related applications from the vehicle, followed by limited or unstable in-vehicle connectivity.

**Figure 6 Key Drivers to In-Vehicle Mounted Tablets**



Source: IDC Europe Tablet in Enterprise 2.0 — The Larger Opportunity, September 2016, n = 1,203

Efficiency together with safety and certifications are, on the other hand, what companies look for in a vehicle-mounted solution, followed by power management and longevity.

To meet these requirements, it is important to choose the right product and provider. Ruggedization and in-built connectivity should be a no-brainer as vehicle-mounted tablets are constantly handled, docked, and undocked. They must also survive exposure to vibration, moisture, particles, and changes in temperature or environments. Correct installation is critical for successful deployments. It is therefore paramount that for vehicle-mounted solutions, companies select a partner not only able to provide premium enterprise-grade devices, but one that also has installation and support capabilities and that can ensure that all safety and legal requirements are met.

# Mobile Payment Becomes Central Feature

The evolution in mobile payment technologies has made a significant impact on customers' purchasing behavior. For businesses, mobile payments offer increased revenue opportunity but at the same time create the need for fast and secure payment transactions. Mobile payments can boost conversion rates, enhance the buyer's experience, and increase buyers' loyalty. To this end, though, the mobile payment solution needs to be simple, seamless, and secure.

## Advantages of tablet POS:

- Creates a POS wherever the opportunity arises
- Boosts conversion rates as no more customers walk out in frustration due to long queues and waiting
- Enables omni-channel strategies
- Enhances customer experience and increases loyalty

Unlike traditional fixed point-of-sales (POS) terminals, tablets running mobile payment apps become a POS whenever the opportunity arises. In fact, the use of payment processing and esignature applications on tablets has dramatically increased in the past couple of years, with all vertical sectors, and not only traditional customer-centric industries, ranking them among the most used on their business tablets.

Technology evolution and an abundance of competing options give enterprises plenty to choose from. The preferences for mobile payments on tablets among businesses in the U.K., France, and Germany are as follows:



**Bank transfer is the preferred payment type**, followed by ecommerce payment services. Credit or debit card transactions are favored in Germany, while electronic wallet solutions are more popular in the U.K.



**Apple Pay ranks first among mobile payment services**, driven by popularity in the U.K., where it is preferred by almost 60% of companies. Samsung Pay comes second thanks to traction among French businesses, while Android Pay is third. PayPal is expected to be chosen by less than 15% of companies.



**Contactless payments are preferred** as they meet customers' and enterprises' fundamental need to complete a transaction in the fastest, simplest, and most seamless way. As they still have payment amount restrictions (£30 in the U.K., for example), chip-and-pin solutions are also used and in Germany are still ahead of contactless.



**50% of companies prefer integrated PIN pad solutions**, while 40% would choose a separate PIN pad. Only hospitality, healthcare, and professional services are likely to opt for tablets with detachable PIN pads for their mobile payments.

## Usage Scenarios

Enterprises are moving away from a mindset where tablets are companion devices for execs and sales teams, to a far more strategic and forensic approach where tablets are deployed in lines of business. This approach centers on applications and mobility-first strategies and takes into account the delivery of applications and business capability from cloud environments. In this new approach, rather than being additional devices, tablets replace traditional computing devices, but also create some net-growth opportunity by delivering new digitized capabilities to traditionally paper-based tasks.

**Traditional desk-based tasks.** Tablets, and especially detachables and convertibles, are gradually replacing traditional notebooks or desktops in roles involving desk-based tasks and a high degree of mobility.

- In this scenario, tablets are deployed among workers who do most of their work outdoors or on the road, in a variety of environments and weather conditions, and need lightweight but reliable and robust devices with significant processing power that can operate via touch or physical keyboard input for more data heavy tasks.
- Assessors, surveyors, engineers, and R&D roles are examples of highly mobile knowledge workers who can benefit from a detachable or convertible device to remove unnecessary paperwork, reduce downtime or multiplication of devices, and ultimately optimize their workflow. Equipped with a connected detachable or convertible with a screen size more similar to a notebook (around 12in.), these workers will be able to access data and applications on the road and continue to perform their once-desk-based tasks without having to wait until they are back in the office. This way, they will be able to spend more time in the field and be more productive.

**The new mobile workforce.** Fieldworkers and traditionally non-desk-bound roles equipped with tablets will be able to record information and data in real time and access updated back-office information whenever they need it.

- From delivery and warehouse roles, to police forces, sales representatives, and maintenance workers, tablets give field-based professionals the ability to connect with data, applications, and back-office teams, thus improving supply chain dynamics and customer service.
- In this scenario, integration between mobile and legacy IT platforms and between front-end and back-end operations will be critical for the success of the tablet deployment. Successful initiatives will improve customer experience and operational efficiencies, allowing the company to reap the real benefits of digital transformation.

**Greenfield legacy workers moving to digitization.** Traditional legacy processes, often performed with non-computing devices such as pen and paper, are likely to create inefficiencies and errors. Tablets and mobile applications allow businesses to digitize processes and optimize internal operations and synergies with partners and customers.



- From restaurants using tablets to replace pen and paper for order-taking, to pilots using them instead of bulky manuals, to hospitals for self-service check-in, and the police for electronic witness statements — all industries have recognized the advantages of mobile solutions in enabling them to move away from paper-based processes. Digitization of processes can optimize operations, reduce cost of business, and deliver superior and always up-to-date customer experiences — and tablets can be a valuable tool in this digitization process thanks to their mobility and productivity features as well as digital capabilities.
- In this scenario as well, applications and integration between new mobile platforms and the rest of the IT infrastructure are critical for the success of digitalization initiatives.

## The Bottom Line

Tablet slates, as well as detachables and convertibles, streamline workflows, reduce downtime, and increase productivity. They bring digital capabilities to legacy processes, empower the workforce, and enable digital transformation.

## Why Panasonic?

Panasonic has manufactured computers since 1993, and in 2016 it celebrated the 20th anniversary of its Toughbook brand. Introduced in 1996, Toughbook CF25 was the first fully rugged laptop, and started a portfolio of rugged notebooks still used in extreme environments around the world. In the 20 years since, the rugged line has grown, adapting to meet market developments and the growing needs of enterprise mobility. Toughpad, a line of rugged tablets, was introduced in 2011, followed most recently by fully rugged detachables (i.e., Toughbook 20) and rugged convertibles (i.e., CF-18).

Panasonic's focus is on high-quality manufacturing process and stringent testing procedures. Except for CPUs and hard drives, Panasonic internally sources all major components, with rugged devices both designed and manufactured in-house, as well as subject to rigorous testing and quality control. By retaining control of design, sourcing, manufacturing, and testing, Panasonic is able to oversee quality, consistency, and parts availability throughout the manufacturing process. This forms a central feature of the Panasonic proposition, notably high levels of reliability and performance.

In addition, Panasonic's mobile computers are tested for drop and shock resistance, liquid resistance, vibration resistance, particle resistance (dust and other harmful particles), temperature resistance, pressure resistance, humidity resistance, and resistance to dust and water ingress (according to IP65 specifications and in some models up to IP68). Panasonic's engineers also observe component performance over their full life cycle and correct any problems before manufacturing begins.

These key principles form the backbone of the Panasonic enterprise-grade device strategy. In addition, Panasonic focuses on core enterprise functions and attributes, such as long-life and hot-swappable batteries; capacitive, glove-enabled 10-finger multitouch display and digitizer pen; daylight-readable screens (up to 1,200 nit) for outdoor working; maximized wireless performance; and flexible configuration for legacy ports.

In addition, some Panasonic tablets feature full or partial magnesium-thickened casing, special protective coating, sealed LCD and internal dampers, reinforcement, integrated antenna, and flexible connectors between the hard drive and system board.

## To meet the diverse requirements of different industries, Panasonic offers several types of rugged devices:



**Fully rugged models are capable of withstanding harsh working environments and remain functional under extreme temperature conditions, from -20°C to +60°C.**



**Semi-rugged models have a toughened casing, are water resistant, and can withstand being dropped from a height of 76cm.**



**Business rugged focuses on protecting the display, hard disk, and keyboard — the parts most likely to be damaged in conventional business devices. This is achieved through optimal pressure distribution, which protects the LCD from pressures of up to 100kg/f.**

Panasonic's vertical focus enables a thorough understanding of specific industries' business challenges. This allows the organization to focus on purpose-built devices and total solutions supported by an ecosystem of partners. Using a full suite of business technology solutions, Panasonic engages organizations from evaluation to deployment, to management and retirement of devices and solutions. This also enables Panasonic to deliver business outcomes, such as improvement to efficiencies and productivity, while reducing the complexity of managing mobile deployments.

Panasonic's portfolio also includes in-vehicle mounting. With docking solutions fully certified for safety and legal requirements, Panasonic is also able to offer professional installation through its network of partners, while docking solutions can either be integrated in a variety of vehicles or custom designed in-house to accommodate specific requirements.

Designed to meet military-grade specifications for security and durability, Panasonic's tablets have been created to meet high security standards and deliver low failure rates. The objective here is to deliver tablets with maximum uptime, at a lower total cost of ownership. In cases of failure, Panasonic has created a customer service and support system, designed to ensure minimal repair time. This is in response to the demands of specific vertical and business requirements.

Panasonic is also increasingly focused on device performance. To achieve this, it provides enterprises with advanced analytics tools. At the end of 2016, Panasonic announced Toughbook Smart Service, a scalable, cloud-based, software-as-a-service (SaaS) solution powered by B2M Solutions. The SaaS solution will provide organizations with actionable business intelligence collected in real time from their mobile devices in the field. The result is the ability to identify productivity improvements and cost-saving measures. Available in English, French, Italian, German, and Spanish, the software will be available both at point of sale and at any time during the Toughbook or Toughpad devices' life cycle.

With its long industry knowledge and vertical expertise, Panasonic is focused on premium, enterprise-grade, reliable hardware, support services, and a partner network. As a result, it has positioned itself as a trusted solution provider for tablet deployments.

## Challenges and Opportunities

As digital disruption starts to affect all industries and threatens traditional business models, incumbent European companies know that their way of doing business needs to change. Far from being only a threat, digital transformation presents incumbents with the opportunity to create more efficient and productive business models by leveraging digital technologies.

With traditional computing devices not always suitable to meet today's mobility and digital needs, companies often turn to tablets. Due to the large offering of form factors, screen sizes, operating systems, and features, however, choosing the right business tablet is often a struggle. As a result, some organizations allow a variety of concerns to hold back tablet deployments altogether.

IDC's Tablet in Enterprise 2.0 survey found that one in four companies has not yet deployed tablets due to fears about security risks and data loss, total cost of ownership, and the challenges related to application development. Mobile device management complexity/compliance and regulatory issues also appear to be greater concerns among enterprises that do not have tablets compared with those that have already adopted tablets. This is followed by resistance from senior managers and concerns about the integration of the existing IT and the new mobile platform.

Unsurprisingly, the survey also found that 70% of non-tablet adopters consider clamshell devices such as traditional notebooks more appropriate for their business needs, while smartphones, for them, are enough to perform tasks that require mobility and connectivity. These concerns, however, can be eased if tablet deployments are strategically aligned to long-term business objectives and are approached holistically, with the devices only an element of a solution that also addresses security, applications, and management aspects, as well as integration with wider company processes.

# IDC Conclusion:

## Selecting the Right Business Tablets is Key for Business Success

Digital transformation strategies, aimed at not only maintaining an organization's relevance but reimagining its competitive advantage, are a priority for CEOs. And there is no doubt that mobility is a central feature in achieving this.

Mobile devices and mobile application usage, however, have become so common that enterprise mobility is sometimes viewed as mainstream, or simply assumed. But mobile devices and applications alone are not enough to deliver digital transformation. A committed and comprehensive enterprisewide mobility strategy is one that treats hardware as a central feature, but views it in the context of wider applications, device management, security, and workforce requirements.

As a result, companies should reevaluate the devices used by their employees and partners in light of mobility and digital transformation strategies and make sure that they meet business objectives. Between traditional form factors such as notebooks and desktops, and mobile devices such as smartphones and handhelds, tablets emerge as the ideal platform to leverage digital capabilities across a range of mobile environments. Detachables and convertibles, in particular, provide the productivity of traditional computing devices together with the mobility and connectivity features required in this new age of digital transformation.

Perhaps one of the fundamental findings of the survey is that tablets intended to be used for business purposes should be tablets that are built for business. The temptation to rely on consumer devices should be resisted. In certain scenarios, only enterprise-grade hardware complemented by the appropriate features and applications will be able to successfully achieve the company's business objectives. Selecting a device vendor with the right manufacturing, support, and service capabilities, as well as the ability to act as a strategic partner, is key. The right partner will be able to act as a strategic advisor to address IT or C-level concerns and will be able to provide solutions that include security features and application development capabilities, rather than just hardware. In short, the right partner will be a trusted travel companion in the company's mobility and digital transformation journey.

## A Checklist for Your Organization

The majority of European business leaders acknowledge the importance of transforming their businesses and processes, but in doing so it is important that they equip their workforce with effective business tools to achieve their ultimate strategic objectives.

- **Understand which internal processes and workflows could benefit from mobility and digital initiatives** in your organization in order to improve productivity, organizational and partner ecosystem efficiencies, and customer engagement, and to remain competitive.
- **Identify potential use cases for your organization based on:**
  - Business outcomes the organization aims to achieve by deploying tablets
  - Applications that are going to be run on the tablets
  - Intended workforce user group
  - Sector-specific hardware features needed to achieve the said outcome
- **Evaluate what is the most appropriate tablet form factor for each use case**, and consider factors such as the degree of mobility of the intended user, input method needed for the applications that need to be run on the device, the importance of a physical keyboard versus a digital keyboard for content creation, and the convenience of a rotating screen versus a fully detachable display.
- **Identify specific business features** that your tablets may need, such as ruggedization, integrated barcode or QR readers, credit or smartcard readers, RFID or NFC, and vehicle-mounted options.
- **Look for business-grade features.** Business devices need to be built for business and relying on more affordable consumer alternatives can be a costly mistake. Adding a rugged case to a consumer device does not make the device fit for business: it will not be able to withstand harsh environmental conditions and it will still lack fundamental enterprise features (hot-swappable battery, business-quality connectivity and touch responsiveness, legacy ports, etc.). Consumer devices may have started the digital revolution but they are not going to deliver on enterprises' digital transformation.
- **Think of total cost of ownership.** When selecting a device, do not only consider the price of the device — factor in the potential hidden costs of lost productivity/profit and repair/replacement costs that subpar devices with higher failure rates are likely to generate.
- **Find a trustworthy, reliable device partner** that can not only offer the right manufacturing, support, and service capabilities but also act as an advisor and strategic partner to achieve your business objectives.
- **Build mobile solutions integrated with the rest of your IT infrastructure.** Do not think of the device in isolation but consider the applications, product features, and security capabilities that the device needs in order to achieve the intended business outcome.
- **Review results regularly** involving the users of the tablets to assess whether the deployment is delivering on the expected outcome, identify success factors and weak points, and **make adjustments to the mobile solution.**

## About IDC

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