Panasonic's Toughpad line: Reliable performance, rugged design

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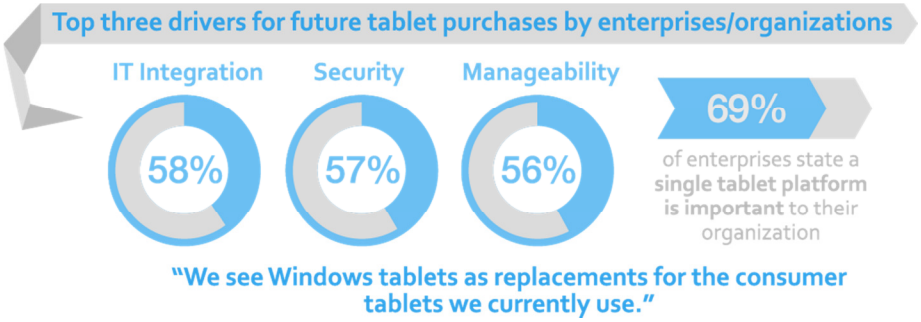
Panasonic's Toughpad tablets are a secure and reliable tablet demanded by enterprise applications and users

Introduction

TBR believes a powerful enterprise computing solution is emerging: recent developments in tablets and device operating systems merged to create a powerful tablet based on maturing Windows PC and Android operating systems, combing, without compromise, the virtues of tablets, notebooks and desktops while surpassing consumer-grade tablets in durability and customization. A growing number of organizations see value in a device that boosts employee productivity by expanding the concept of the workspace, allowing tablet users to do more while on the go between meeting rooms, job sites or office locations.

Based on a recent study conducted by TBR, many companies recognize the value of tablets to improve employee productivity by expanding the concept of the workspace but are frustrated by the lack of devices on the market that deliver the enterprise-class durability, security and functionality their applications and business processes demand.



Panasonic's Toughpad tablets are a solid implementation of this new type of platform and should be considered when evaluating any client device refresh. Changing business conditions, as well as the emergence of this new line of enterprise-class devices, make it a good time for many companies to re-evaluate their mobile computing platforms.

A two-part study of business tablet users conducted by TBR in October 2013 and sponsored by Panasonic — a survey followed by a three-day online focus group of 16 U.S.-based IT decision makers that represented a total install base of 13,000 tablets — found organizations using tablets seek a tablet that features enhanced security and operating system version controls, streamlines integration into a business infrastructure and improves tablet management tools that exceed those of today's generally available consumer tablets. TBR's initial survey enlisted more than 230 IT decision makers in the United States to respond to an online survey and offer their insights into the tablet marketplace, with primary study objectives including:

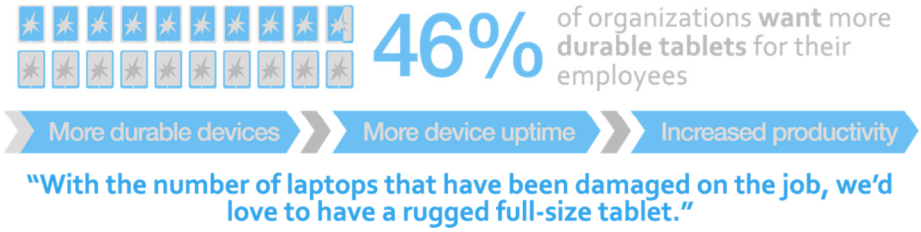
- Discovering the drivers motivating organizations to purchase tablets
- Learning what features organizations consider important when selecting a tablet
- Analyzing the tasks employees utilize tablets to complete
- Observing how tablet usage varies across different industries
- Determining how satisfied organizations are with tablets

Now is the time to evaluate a rugged tablet platform

TBR believes companies need to understand the potential of this new type of device to improve their businesses and to act based on this understanding. The business advantages of a durable, secure platform for mobile computing are substantial, especially as employees increasingly access data and documents from locations outside the office. A robust, protected platform streamlines network operations, making it easier for employees — especially mobile employees — to gain access to the resources they need to complete their tasks.

As enterprises seek to increase productivity and make their business operations more efficient by using tablets for mission-critical business applications, these processes require a tablet vendor that excels in several key areas and provides solutions to meet the application, data and service demands of a particular enterprise.

Mobility is becoming more prevalent in business, in part because ubiquitous network connectivity made it possible for mobile workers to be more productive. Even workers who do not travel for business use portable devices to stay connected when away from the office and when away from their desks when at work. Reliable mobile devices allow workers to be productive more hours of the day, increasing the time devoted to work, shortening turnaround time for communication and reducing downtime between tasks.



The importance of tablets to businesses continues to increase. Business communications in markets as diverse as law enforcement, utilities, logistics, finance, healthcare and retail are funneled through these devices, through email, instant messaging and converged communications. Data and document collaboration capabilities are increasing, and the enhanced importance of analytics augmented the tablet's role in an organization's long-term planning and budgeting.

Tablets need to be reliable performers, reducing the total cost of ownership while meeting demands of a business' applications and computing environment

Although a tablet's performance and features typically outshine reliability, when a failure occurs reliability instantly becomes the most important characteristic. Organizations including tablets as part of their IT infrastructures need a tablet platform with proven reliability to support their key initiatives. However, the security, reliability and durability of consumer-grade tablets in organizations are raising concern as IT organizations run into challenges related to support and ongoing costs related to maintenance. Three categories scored highly with focus group respondents in importance — security rated as the top priority at 70%, battery life at 65% and durability at 53% — but all three areas exhibited among the lowest degree of satisfaction.

As tablet performance and features equalize across the industry and among vendors, a blended definition of reliability and performance — where a tablet's reliability is gauged by how often it completes a task when requested — emerges as a compelling differentiator among tablet vendors. Sleek design, multicore processing and high-resolution display are meaningless if the hardware or functionality of the tablet is unreliable.

Security and device management

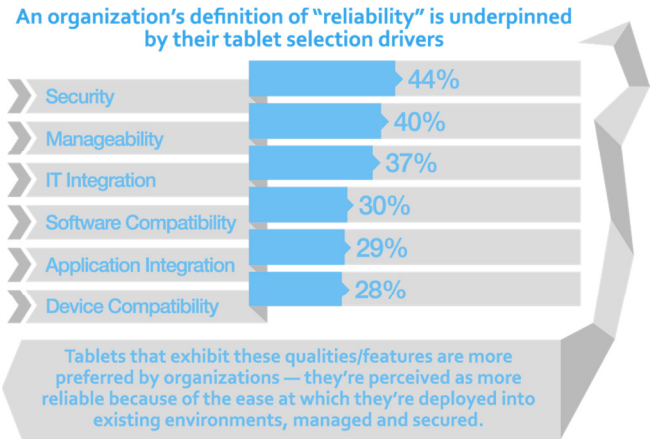
The ease with which tablets blend network connectivity and physical freedom presents a tough security challenge for organizations. Traditionally, it has been possible for IT departments to build desktop and notebook PCs to their security specifications. Most midsize to large organizations have a number of templates that are applied to their

fleet of notebook and desktop PCs. Tablets are different because they are embedded devices, and most manufacturers do not want any end-user application or service to gain control of the device. Unrestricted physical access to the tablet by its users is central to the concept of tablet computing. To combat this threat, some manufacturers build in complex proprietary mechanisms to prevent modification of operating systems and apps — two elements companies value being able to customize to the needs of their employees or applications.

While 70% of survey respondents cited security as most important to their tablet purchases, security of the iOS and Android tablets used by the respondents exhibited among the lowest satisfaction ratings. A lack of operating system and application version controls, as well as limited tools to enable unified, en masse software updates, are chief concerns for organizations. These capabilities, as well as other software and device management tools, are important for an organization to efficiently and securely transition their employees to tablets from traditional notebook and desktop PCs.

Reliable performance

Reliability was once solely a gauge of how long a computing device performed its functions before requiring service or replacement. Subpar tablet reliability can be costly for businesses, as conducting repairs — or in the worst-case scenario performing a wholesale replacement of a tablet — can cost more than the original price of the tablet, in addition to the cost of employee downtime caused by device failure or lost data. Tablets manufactured by vendors that combine build quality with product engineering focused on extending a system's lifecycle create value for an enterprise by reducing capital equipment and operating costs.



Businesses are beginning to expand the definition of reliability to include how a tablet's hardware reliability impacts a business' sales activities, order fulfillment, internal and external customer services, and employee efficiencies. A tablet that is highly reliable provides employees access to business-critical applications for a greater period of time over its lifecycle, boosting employee productivity and enabling an enterprise to meet its strategic and revenue objectives.

Tablet durability was cited as a top concern in organizations; survey respondents expressed the lowest satisfaction levels for durability and return on investment (ROI) of their tablets. Additionally, survey respondents cited ROI and network integration among the least influential factors for tablet purchases, with purchase price among the most influential. The lower purchase prices of consumer-grade tablets have contributed to the speed at which devices have entered the enterprise. However, the challenges organizations face maintaining and supporting a wide and changing range of consumer tablets that are often replaced within 12 months after purchase underscore the need for a reliable platform of devices that easily integrates into an organization's operations.

Battery life

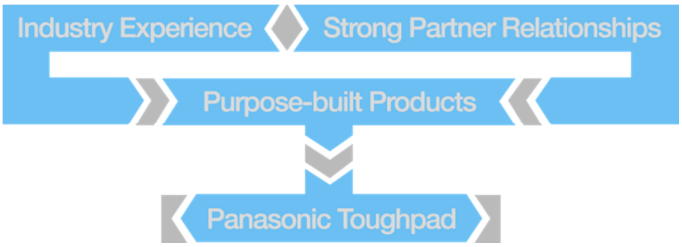
Much like notebook PC counterparts, tablets are portable computing devices that are heavily utilized and must be able to meet the demands of an organization's employees and its customer base. With businesses moving important applications to tablets as they aim to capitalize on the increased productivity of a mobile workforce, battery life and serviceability become key components of a tablet's value proposition. The longer a battery is able to power a tablet, the longer it enables employee productivity. The easier it is for IT staff — or employees — to swap in a fully charged battery or replace an aging or defective unit, the longer that device remains in service, reducing the costs associated with tablet downtimes.

However, batteries in most tablets deployed in businesses today are difficult to replace when they begin to age or fail because they are typically embedded in the tablet circuit board or mounted flush with the tablet's outer case. This means the whole tablet has to be sent for service — leaving the employee without a device or with a new replacement device and requiring time from IT administrators to set up a new user profile. Additionally, during daily use when the tablet's battery needs charging, the entire tablet must either be set aside to charge or tethered to a power outlet. This can translate into hours of lost employee productivity.

How Panasonic meets these requirements

Panasonic's tenure in business computing began with it building specialized devices purposely for remote workers such as those on oil rigs, in public safety vehicles, and in outdoor environments with freezing temperatures or oppressive humidity, allowing these workers to conduct business and complete mission-critical tasks remotely.

Today, Panasonic's Toughpad strategy leverages the best practices learned from these earlier deployments and is similarly centered on providing the right tool, at the right time, for the task at-hand for businesses. Businesses can lean on Panasonic's product design and deployment experiences to provide employees with Toughpad tablets designed to support their company's core business functions, integrate into their security and tablet management requirements and diverse job roles, and reliably extend all users' computing environments beyond the traditional office.



Devices such as Panasonic's Toughpad tablets are purpose-built to boost employee productivity regardless of the work environment. With organizations responding to user demand and establishing tablets as a companion device to a notebook or desktop PC — or in some vertical markets such as finance, healthcare, retail and the public sector, the primary computer — the Toughpad line is engineered to be a more secure, reliable and viable long-term computing device.

Panasonic's Toughpad line helps strengthen security and device management tools

TBR's study results and focus group participants indicated IT decision makers were underwhelmed with the toolsets currently available for secure mobile device management. Users in TBR's tablet focus group said mass-market vendors are challenged to keep pace with the rate at which the mobile device management (MDM) market is evolving. Organizations stated their current solutions relied too heavily on loosely integrated, bolt-on third-party software and security tools, which increased MDM solution complexity and operating expenses. As a result,

organizations' confidence in their abilities to easily manage and maintain consumer tablets dimmed, leaving IT decision makers searching for a more unified, holistic MDM solution as their tablet install bases expand.

Panasonic's approach to building a comprehensive MDM solution originated from its early specialization in creating devices purpose-built for specific vertical markets and collaborating with an organization's IT staff to build products that match the needs of their employees. Panasonic's MDM strategy for Toughpad mirrors this approach.

By providing exclusive access for MDM software companies such as MobileIron and SOTI to go deep to Toughpad's application programming interfaces (APIs), Panasonic's tightly integrated MDM solution grants organizations wide yet granular control over their fleet of tablets, including allowing only organization-approved applications and versions of Android or Windows operating systems, "pushing" that software out to devices from a central office, remotely checking battery health and enabling IT staff to remotely login and control the device. Panasonic's MDM solution incorporates third-party software, but the degree to which it provides control of the Toughpad's core functionality is a compelling differentiator from consumer tablet vendors' MDM solutions.

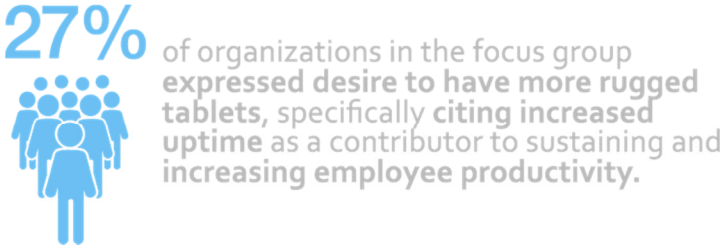
IT managers can manage all devices globally whether "globally" applies in an office environment or to the multiple geographies in which the organization has a presence. Panasonic's Toughpad MDM solutions allow an organization to create a template that supports its business —turning Toughpad tablets into a purpose-built tool used to boost worker productivity and precisely control their mobile device fleet, minimizing disruption to the devices used to support a business' initiatives to reach its strategic goals.

Toughpad tablets are reliable performers for many diverse industries, under any condition

While participants in TBR's focus group stated their organizations are becoming more confident with tablets' abilities as a business tool on par with desktop and notebook PCs, enterprises in TBR's focus group also cited their current tablets' ineffectiveness to sustain damage while their mobile workers are on the go. With many organizations' capital equipment budgets tightening and businesses placing greater value on hardware longevity as a way to boost productivity while lowering capital and operating expenses, it's increasingly important for tablets to:

- Withstand rain, snow and other inclement weather
- Operate for extended periods of time in dusty or sandy environments
- Operate normally in extremely hot or cold environments

The enhanced durability of Panasonic's Toughpad line provides an enterprise's mobile workforce with a reliable computing platform that enables mobile workers to be productive in the field or in the office. Toughpad tablets' increased durability and reliability helps minimize the risk of the enormous cost of mobile worker downtime. By providing employees with high-performance Windows or Android tablets capable of being used anywhere; mobile workers are able to use their devices to access corporate and network resources as needed to perform their roles.



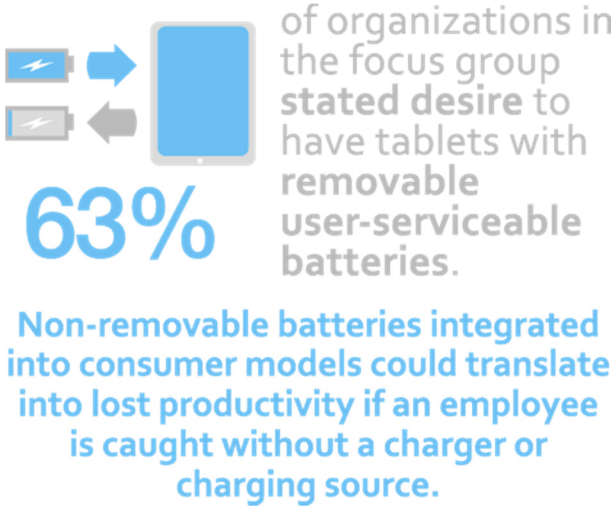
Toughpad accessories — which are interoperable across all Toughpad products, can be used simultaneously and connected without needing to remove an external case — increase the ability of Toughpad to adapt on demand for many business-critical tasks, which bolsters Toughpad's capabilities to align with evolving use cases.

While mass-market tablets access a wide range of accessories and peripherals, including physical keyboards compatible with purely touch-screen devices, their applications for many mobile enterprise workers are limited. The applications used by business tablet users often require the ability to support additional attachments such as barcode readers, cameras via common interfaces such as USB and serial ports, as well as accessing information or applications via an SD card or external SD card reader. Many current tablets do not have access to these options, limiting their ability to enhance employee productivity and diminishing the value of a tablet to an organization.

Panasonic's Toughpad tablets are engineered to go the distance

TBR's tablet study revealed that battery life was among the top four features organization IT decision makers said will influence future tablet purchases, illustrating the importance of battery technology in supporting the tablet's ability to sustain employee productivity.

Toughpad's user-replaceable batteries are rated by Panasonic to last for 8 hours under continual use, compared to 5 hours or less for the lithium polymer batteries found in most mass-market tablets. When compared to the Toughpad's lithium-ion battery, lithium polymer batteries have a faster lifecycle degradation rate and are more sensitive to electrical and thermal effects, resulting in reduced battery life.



As tablets take a more prominent role in a business' day-to-day operations, Panasonic's lithium-ion batteries will power Toughpad tablets, providing organizations with a platform that helps mobile and remote workers maintain their productivity levels for longer periods of time, regardless of where they are or what application demands they place on their tablet.

Conclusion

Combined with the rapid introduction of the tablet form factor into organizations, shifting enterprise application demands and employee usage scenarios are creating a ripple effect in the devices marketplace. Enterprises are

seeking a tablet that provides durable hardware, software security and device management tools that all contribute to minimizing capital and operating expenses, reducing total cost of ownership (TCO). Rugged tablets create a unique opportunity as they enhance the productivity of mobile workers while reducing the risk of downtime in the field. Consumer-grade tablets established tablets' utility in business, but as businesses increasingly rely on tablets, durability and security become more important.

The durability of Panasonic's Toughpad line, its out-of-the-box security setup, application compatibility services, device management and innovative approach to battery lifecycle management should earn organizations' full consideration. TBR believes Panasonic's Toughpad tablets present a compelling value proposition for organizations seeking to transform employees' increasing mobility into increased productivity.

About TBR

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