



To dock **or** not to dock that is the question

The business benefits of vehicle-mounted
tablets and notebooks



The docking divide

The business benefits of providing mobile workers with rugged tablets and notebooks to boost productivity have become widely accepted wisdom over the past decade.

However, the willingness of businesses to invest in vehicle-mounted docks and cradles to efficiently securely and safely house these devices when mobile workers are on the move has lagged far behind.

On average, only 19% of business tablets are vehicle mounted, and only 23% of companies have even considered vehicle-mounting their tablets, according to a recent survey conducted by IDC.

So what's holding back businesses from taking this logical next step? After all, you wouldn't give your office-based workforce a computer and then not provide them with a desk to sit at to use it. So why give a mobile worker a productivity transforming tool and not give them somewhere secure to safely house and use it effectively when working from their mobile office on the road?

According to IDC survey research, it seems there are a number of issues: **Security concerns (52%)**, **Worries about complex installations (44%)**, as well as **Legislation (40%)** and **Certification (38%)** considerations. For those that have looked more in-depth at vehicle-mounting options, top drivers have been: **Efficiency (58%)**, **Safety and certification (52%)** and **Power management (46%)**.

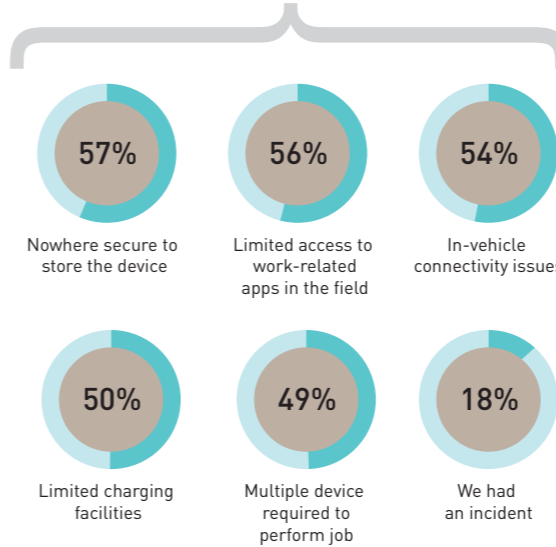
For Panasonic Business customers these challenges are all in the past. Having spoken to those customers across continents using Panasonic Computer Docking Solutions, the benefits of vehicle-mounted devices to both the user and the business are clear; bringing security, safety and connectivity to the forefront of the application, with minimum disruption to the operation and minimal intrusion to the vehicle.

Vehicle-mounted tablets

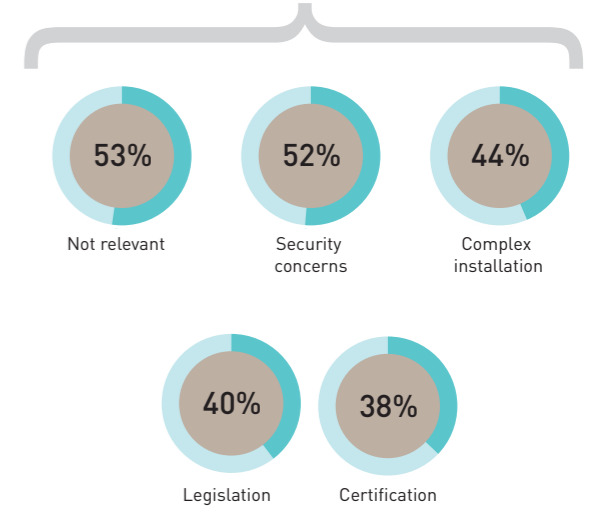
23% of companies have considered vehicle-mounted tablets



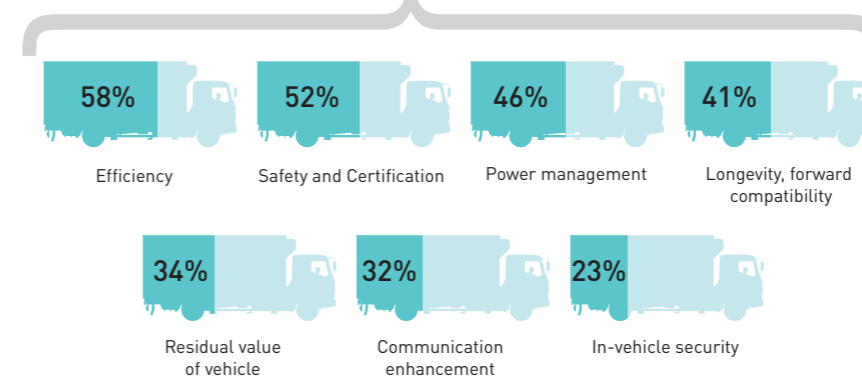
Why?



Why not?

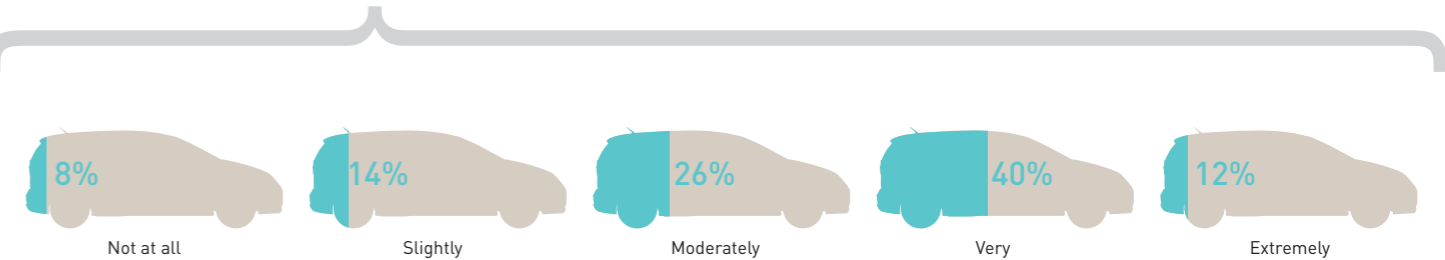


What they look for



ON AVERAGE
19%
of tablets are vehicle-mounted

Importance of test and compliance with local legislation



Source: IDC Europe survey: Tablet in Enterprise 2.0 - The Larger Opportunity, September 2016



Common customer considerations

Based on interviews with a range of customers across a wide variety of industry sectors, the following are the key considerations identified when implementing a vehicle-mounted docking solution.



Customisation and design

Panasonic docking solutions can be fitted into a wide range of vehicles from cars to vans, 4x4s to emergency service vehicles and more. Even if the fleet comprises of several different vehicles, Panasonic can install an ergonomic solution that makes the most of the available space while respecting user requirements.

Existing docking solutions can be integrated into your vehicles; alternatively, a custom dock can be designed in-house specifically for your needs.

"We were able to input our ideas to Panasonic and see the design process at every stage. Panasonic's understanding of our business and deployments for specialist fleets meant that we had a purpose designed and full safety-approved vehicle cradle for the new Toughpad tablets in just nine months."

Dave Wood, Head of infrastructure Implementation, Ocado.

"Panasonic designed our new slim, dashboard-mounted docking solution from the ground up. It was important that the dock could be swivelled for the device to face the operator or the curbside of the vehicle. Other important design requirements included a pass-through antenna to improve connectivity to mobile networks and a connection for an external GPS module to locate customers. Access to multiple ports on the device, such as LAN and VGA were also incorporated."

Mark Dawson, Transformation Programme Manager for Road Operations for the AA.



FROM CONCEPTION TO INSTALLATION AND BEYOND, PANASONIC WORKS WITH YOU EVERY STEP OF THE WAY TO DESIGN THE PERFECT DOCKING SOLUTION TO MEET YOUR BUSINESS REQUIREMENTS.



Safety

Panasonic prides itself on its capability and expertise to handle the entire design and installation process, ensuring that all safety and legal requirements are met, so you'll receive a solution that will truly transform your mobile operations.

In addition to the usual environmental, vibration and cycle testing of our devices, Panasonic also puts the dock through vehicle impact testing. This guarantees the dock and bracketry, which is designed to absorb as much energy as possible upon impact, do not detach and become a projectile in a collision, thus safe-guarding the vehicle occupants.



"When we were testing our very first mobile devices, we used to put them on the seats and the floor of the police vehicles, but we quickly realised that during a rapid response call the devices could become dangerous projectiles. A docking solution was the obvious solution."

Tim Kyburz, Alexandria Police Department, Virginia.

"Panasonic handles all the safety and crash test certification with the capability to meet all international needs."

Dave Wood, Head of infrastructure Implementation, Ocado.

"All appropriate crash safety, head impact and vibration testing was undertaken by Panasonic to ensure the docking solution was as rugged as the Toughpad tablets themselves."

Mark Dawson, Transformation Programme Manager for Road Operations, AA.



Connectivity

Panasonic recognises the importance of connectivity to today's mobile worker. So to optimise wireless connections each dock has integrated dual antenna pass-through.

Additional components such as rugged routers, vehicle antennas and Mobile Performance Management (MPM) software can also be supplied and installed by Panasonic as part of a full vehicle solution to maximise 4G and WLAN connections.

"Our mission is to provide officers with real-time information at the point of need, so they can make faster and more informed decisions than ever before, many of which can be life-changing for members of the public or the officers themselves."

DCI Kennedy, Project Manager for Mobile Data, Hertfordshire Police.

"If you have poor connectivity, people quickly lose confidence in the device. A 4G connection with antenna throughput and a router delivered a steady and reliable bandwidth connection to our Toughbook through the docking unit."

Paul Jennings, PC on the mobile data team, Hertfordshire Police.



Access to business applications in the field

Panasonic Custom Docking Solutions put your Toughbook and Toughpad devices at the heart of your vehicles. Designed to seamlessly integrate with your existing fleet, your field workforce can operate just as they would in the office. Either from their vehicle, or on the move.

"The Toughbook device is the primary tool for patrols when responding to breakdown calls. The patrols accept jobs via the device, locate the breakdown using GPS and let the customer service centre know when they have arrived on site. The tablet also interfaces with the AA's vehicle diagnostic tool to help fault find in the field. AA technicians can also search for information and parts online and communicate information to members whilst assisting them."

Mark Dawson, Transformation Programme Manager for Road Operations, AA.

"We wanted the vehicles to become the engineers' office when they arrived at a job. The Panasonic Toughbook is docked securely and out of sight in the back of the vehicle. There is then a screen, keyboard and speakers in the front of the cab that can be pulled down and used when the vehicle is stationary. The system is also connected to an antenna in the vehicle for effective 3G communications when in the community and for WLAN updates when in the utility company's depot."

Andrew Pettiford, Transport Manager, Wales & West Utilities.



Ease of use

Panasonic vehicle docking solutions are designed with ease of use in mind and input from the people who actually carry out the vehicle integrations is also considered – from simple installation and adaptation, to right- and left- hand access, positioning of ports and ergonomic dock and release mechanisms.

"The docking station cradles had to be durable to cope with up to 50 insertions per day, yet be slim, lightweight, and modular for simple right- and left- hand vehicle installation. Ease of use is very important for our drivers. For example, Toughbook devices can be docked and released from our latest cradles using just one hand."

Dave Wood, Head of infrastructure Implementation, Ocado.





Device security

Mobile devices and the data they carry are valuable to your organisation. That's why all Panasonic docking solutions incorporate the capability to lock your device in place. Docks can be dashboard-mounted, stored in the rear of the vehicle or hidden out of sight, for example, in the glove box.

"For increased security we want the device locked and out of sight to mitigate data security risks. So a design where the Toughpad could be docked in the glove box of the car was an ideal solution. It allows us to connect the device to a second screen for use in the vehicle."

Paul Jennings, PC on the mobile data team, Hertfordshire Police.



PANASONIC DOCKS CAN BE DASHBOARD-MOUNTED, STORED IN THE REAR OF THE VEHICLE OR HIDDEN OUT OF SIGHT, FOR EXAMPLE IN THE GLOVE BOX.



Service and support

Device downtime is costly, so the direct fleet support and warranties offered by Panasonic provide the highest level of protection for your devices and docking solutions.

"As well as installing the solution, Panasonic and their channel partners also provide support to keep vehicles on the road. Whenever there is a fault or issue with the vehicle solution, our engineer's call is directed to the Panasonic team. This helps keep our engineers effective and provides me with important information to manage costs and to spot any recurring fault."

Andrew Pettiford, Transport Manager, Wales & West Utilities.

"Toughpad needed to be safely and securely mounted in a wide array of field vehicles, from light service to specialist heavy vehicles. In conjunction with channel partners, Ergon Energy's technology provider, Sparq Solutions, worked closely with Ergon field crews to develop a mounting solution for each vehicle configuration that would meet strict government standards. In total, Panasonic partners delivered 9 different accredited vehicle configurations and fitted out over 400 vehicles in under 90 days".

Jason Ledbury, Program Director for Field Force Automation, Ergon Energy"



PANASONIC STANDARD WARRANTY REPAIR TURNAROUND TIME IS SECOND TO NONE, ENSURING YOU EXPERIENCE MINIMAL DOWNTIME AND YOU'RE BACK UP AND RUNNING AS SOON AS POSSIBLE.



FROM STANDARD VESA MOUNTING BRACKETS, THROUGH TO CONSISTENT CHOICE OF POWER LEADS, ANTENNAS AND ROUTERS, PANASONIC'S VEHICLE DOCKING SOLUTIONS ARE DESIGNED TO BE COMPATIBLE WITH MULTI-GENERATIONAL DEVICES.



Longevity of solution

Panasonic docking solutions are designed to be long-lasting, working with our renowned market leading Toughbook and Toughpad rugged mobile devices. So when it's time to replace or change the mobile device, your entire in-vehicle solution doesn't necessarily have to change with it.

"We have had some of our Panasonic docks for 10-12 years and they get quite a work out! During the course of a shift, the Toughbook devices may be in and out of the dock 10 times a day."

Tim Kyburz, Alexandria Police Department, Virginia.

"During the 8 years that the Panasonic solution has been in place at Wales & West Utilities the vehicle fleet has changed quite radically from heavily Vauxhall focused to a mix of vehicle manufacturers. However, each time a new model is chosen or a manufacturer changes the design of a new vehicle, the Panasonic team is able to adapt the design of the Toughbook solution to fit."

Andrew Pettiford, Transport Manager at Wales & West Utilities.



Why Panasonic? Here's why customers chose Panasonic...

"We chose Panasonic for their professionalism, speed of turnaround and overall quality of service – from design to delivery."

Dave Wood, Head of infrastructure Implementation, Ocado.

"We chose the Panasonic dock because it takes up less space in the car and yet still has all the ports required for connectivity to the Toughbook. The price was reasonable and we knew these devices would give us the longevity we needed."

Tim Kyburz, Alexandria Police Department, Virginia.

"It's the ongoing support. We don't need them very often but when we do they are always very good and repairs are back within a couple of days. But the fact that we rarely need them is testament to the solution and its reliability."

Jason Read, Technology Systems Engineer, Surrey Fire and Rescue Service.



Winning with the help of Panasonic Vehicle Docking Solutions

Thank you to all our customers that contributed to this paper:



Wales & West Utilities has its fleet of 370 field engineer vehicles equipped with Panasonic Toughbook computers, with purpose-built docking stations and separate ergonomically-designed 10 inch screens, audio speakers and vehicle antenna. The Panasonic team is responsible for the design and installation of the vehicle solution and its ongoing support.



The AA. When the UK's largest recovery breakdown service refreshed the mobile technology for its 3,000 patrols to improve communications and customer service, it chose Panasonic's rugged Toughpad tablets and vehicle-docking solutions, resulting in multiple business and customer service benefits as well as improved efficiency for their users.



Ocado is the world's largest dedicated online grocery supermarket. Its unique fulfilment and logistics machine relies on Panasonic Toughpad and its purpose-designed docking cradle to support its 1,600- strong fleet, which runs 7 days a week, up to 16 hours each day.



Alexandria Police Department in Virginia, USA has been using Panasonic Toughbook devices and docking solutions in its 200 vehicle fleet since 1999 to help protect the community.



Surrey Fire and Rescue Service is one of the UK's leading emergency services, protecting over 1 million people with 900 employees and 24 fire stations. It uses Panasonic Toughbook and Toughpad devices and docking solutions in all of its 47 fire vehicles.



Hertfordshire Police in the UK has Panasonic Toughpad tablets and docking solutions in 120 vehicles for communications, automatic number plate checks and facial recognition applications.



Ergon Energy, Queensland, Australia supplies energy to over 700,000 homes and businesses across 97% of Queensland, with a network that spans 150,000 kilometres of power lines and over 1 million power poles across diverse and harsh environments from major urban areas to remote mining towns

Visit us at <https://oc.connect.panasonic.com> for more information

