

A Frost & Sullivan White Paper

Introduction	3			
The Rise of Tablets in the Enterprise				
Beyond the Basics: Tablets are Transforming Business Processes				
Use Cases that Work	7			
Workforce Management	7			
In-Field Service and Support	8			
Point of Sale	8			
Training/Knowledge Sharing/Education	9			
Quality Control I	10			
Choosing the Right Tablet for the TaskI	10			
ConclusionI	12			

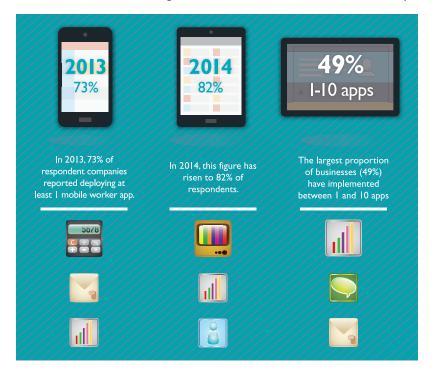
### **INTRODUCTION**

The ways in which people live and work have changed dramatically over the past few years, and businesses that want to stay competitive must react and respond accordingly. With well over one-third of employees working from home or the road, and with business itself becoming increasingly global, organizations must find new ways to improve business processes, speed decision-making, increase customer satisfaction, and drive revenues from all areas of the organization.

Frost & Sullivan research shows that the applications and devices that employees are using to do their jobs are increasingly designed to support a remote and virtual workforce while enabling the kind of real-time communication and collaboration that separate success from failure. And yet those same respondents tell us that supporting new business needs is driving up costs—and they are looking for ways in which technology can help improve those outcomes.

A Frost & Sullivan survey of more than 1,000 IT decision-makers in the US and Europe revealed that in almost half of all companies, employees are using tablets for business purposes—and that number is expected to increase by more than 10% in the next two years; 59% of the respondents also said tablets are "highly effective" for their business. No wonder our market research shows that tablets supported for business purposes (either corporate-issued devices or employee-purchased, company-supported devices) are expected to reach more than 200 million units shipped in 2016.

And businesses are putting those tablets to good use; another Frost & Sullivan survey of 300 North American decision-makers who were responsible for purchasing mobile software applications reveals that in 2013, 73% of respondents deployed at least one mobile worker app. In 2014, this figure has risen to 82% of respondents. The largest proportion of businesses (49%) have implemented between one and 10 apps. Those applications — ranging from salesforce automation to workforce management — turn a "nice-to-have" device into a productivity machine.



Source: Frost & Sullivan

Indeed, companies of all sizes can benefit from tablets — and the apps and services they support — to not only improve basic communications such as email and conferencing, but to quite literally change the way they do business. In the process, they can expect to save time, travel and money while increasing productivity. This paper will examine the trends that are driving the rise in tablet usage in the enterprise; look at several use cases that will benefit almost every business, including workforce management, the customer experience, quality control, point-of-sale applications and training; and offer best-practices recommendations for choosing the right device for any given business need.

Frost & Sullivan research shows that tablet unit shipments will enjoy a healthy CAGR of 42.4% from 2012 to 2016. By 2016, the majority of tablets shipped will support the Android or Windows operating system.

99-

# THE RISE OF TABLETS IN THE ENTERPRISE

Frost & Sullivan research shows that in the past few years, the tablet market has grown exponentially, going from niche to mainstream in many regions of the world. Indeed, the tablet market is one of the fastest-growing sectors in the mobile-computing market, with an installed base of more than 180 million devices and tens of millions of tablets being shipped every year. That growth owes a lot to advancements in touchscreen technologies, processing power, mobile operating systems, and software visualization tools, as well as support for business applications like customer relationship management (CRM), supply chain management (SCM), workforce management (WFM), contact center, point of sale, and more.

Tablets were introduced into the enterprise by end users who found them to be ideal devices for many of their daily activities, including content consumption, content creation, and communications and collaboration. Today, as mobility takes a front seat in business operations, tablets are becoming key endpoints in many organizations around the world — and for much more than simple communications.

By striking a balance between the usability of laptops and the portability of smart phones, tablets offer a new, often ideal form factor for use in the workplace. Tablets enhance the user experience with wider displays for multimedia communication and visual interaction; larger real estate for content consumption and creation; bigger keypads for easier typing; and more memory for information storage. The availability of thousands of mobile apps—and support for common business software—makes them more valuable than smart phones and much more convenient than PCs. Better battery life ensures employees can use the devices for a full work day without needing to power up the device—an especially important consideration for workers who spend much or most of their time away from a desk.

# "

In a recent Frost & Sullivan survey of IT staff and end users who have deployed Google Apps at the office, two-thirds of the IT respondents and 58% of end users said they are willing to spend their own money on technologies that will make their work lives easier and/or more productive. These employees are not just willing to use new devices like tablets to be more productive at work, they are eager to do so.

99-

These trends have positive implications for organizations that know how to properly leverage them.

A Look at How to Deploy New Devices

- **Tablets Not Supported for Business Purposes** are purchased by employees to use at home and at work, but are not supported by the enterprise MIS department (a trend known as BYOD).
- Employee-Purchased, Company-Supported Devices are provisioned by either the company or the employee with communications and business applications (e.g., email, softphones, UCC clients, conferencing, CRM, SCM, WFM, etc.). The company will support the applications and the devices themselves, at least in relation to the business software they are running; and it will likely secure the data therein.
- **Corporate-Issued Devices** are company-purchased or leased devices that are used by employees for business. Today, many companies offer employees a choice of approved devices in a choose-your-own-device (CYOD) model rather than a BYOD model.

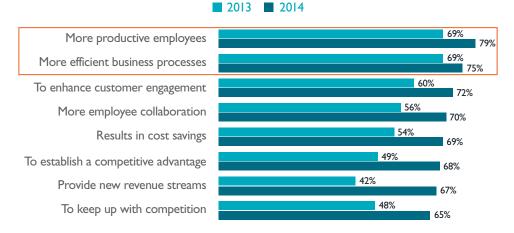
### **BEYOND THE BASICS: TABLETS ARE TRANSFORMING BUSINESS PROCESSES**

Forward-thinking organizations are looking at tablets as much more than just communications and collaboration devices. While tablets make it easy to check email and IM, participate in Web and video conferences, and share screens and content, they truly transform business when they are deployed within key business processes. The Frost & Sullivan survey of 300 North American decision-makers who were responsible for purchasing mobile software applications reveals that while 68% of respondents offer access to corporate email on mobile devices like tablets, the vast majority also embrace other mobile enterprise apps:

- 54% of respondents offer access to internal databases, with another 26% planning to do so in the next three years;
- 54% offer access to SFA, with 20% planning to do so;
- 49% deploy local fleet tracking and management apps, with 21% planning to do so; and
- 52% provide access to SCM, with 21% planning to do so.

Businesses cite many reasons for implementing mobile worker applications on their employees' tablets, with the strongest being anticipated efficiency and productivity gains. However, Frost & Sullivan research shows that these are followed closely by enhancing customer engagement, boosting employee collaboration, and cost-savings.

#### Reasons for Providing Mobile Apps to Employees-Percent Very or Somewhat Important: North America, 2013 and 2014



Base: All respondent: 2013 (n=308) and 2014 (n=300)

Source: Frost & Sullivan

While the hard-dollar ROI impacts on labor and transportation expenses are still ranked highly, the increased emphasis on softer benefits signals a more sophisticated level of user expectations. These soft impacts may be less quantifiable but are strongly ranked and include improved competitive advantage, enhanced customer engagement, and increased customer satisfaction. For instance, in the area of workforce management, 78% of decision-makers cite improved field-service response times, and 76% tout the competitive advantage and enhanced customer engagement.



Source: Frost & Sullivan

# **USE CASES THAT WORK**

Here are five of the best ways to get a fast return on your tablet investment.

### Workforce Management

At its best, workforce management is about assigning the right resources to the right job at the right time. That means having insight into everything from employee skills and availability to peaks and valleys in customer demand. Many organizations use workforce management software that goes well beyond basic scheduling applications to predict workloads and the required staff to handle them; ensure full-time and part-time schedules are compliant with company and regulatory requirements; use GPS and other location data to adjust scheduling and other WFM functions; and monitor, analyze and modify trends and schedules as needed.

Tablets that can access WFM software can help managers make real-time decisions in a variety of industries, since they are easy to carry into retail, healthcare, and other non-office locations. They also make it quick and easy for employees to update their time worked, acting as a virtual time clock. Mobile workforce management also uses GPS technologies on tablets to locate and manage mobile field workers and their tasks. Capabilities can include worker tracking, wireless forms, geo-fencing, wireless timecards, and dispatching.

Frost & Sullivan's survey of 300 North American mobile-app decision-makers shows that 53% have already deployed WFM mobile apps, and another 23% plan to do so in the next three years. Among those that have deployed the software, 60% do so on tablet devices.

— 🤊 🤊 —

**Retailers,** including restaurants, fast-food franchises, big-box stores and supermarkets, can take advantage of real-time reporting capabilities built into many WFM applications. By walking through their retail locations with a tablet in hand, managers can see what's actually happening "on the ground," enter that data into the system, and adjust to changes immediately.

**Healthcare administrators** in clinical and hospital settings can use tablets to move through treatment rooms—including the ER, day-patient facilities, surgical theaters, patient rooms, and the ICU—and monitor activity and staffing needs. They can enter that information into the WFM system and tap into on-call physicians and nurses, request that other practitioners come in or leave early, and schedule housekeeping, janitorial and other operational staff to staff up or down as needed. This ensures that patients get the highest-quality care while keeping costs down whenever possible.

**Transportation** managers can use tablets on the road and at pick-up and drop-off sites, as well as airports, terminals and street stops, to understand travel and rider patterns in real time. They can then use integrated WFM software to quickly update conditions in light of weather, traffic, holidays, special events and other unusual patterns.

Hot desking—allowing employees to work from any desk in any corporate office at any time, according to their location and needs—is a boon for companies that have a large mobile and/or remote employee base. Many organizations set up desks with a phone and chair and not much else, allowing employees to work from any site on any given day. Traditionally, the set-up would include a phone line that can be coded to receive the employee's extension and voicemail box, and a docking station that allows the user to connect his notebook PC to a monitor, keyboard and mouse. But with tablets rivaling PCs for computing power and storage—and with so many business apps moving to the cloud—forward-thinking organizations are replacing those notebook PCs and desk phones with tablets. The lighter, more versatile devices are easier to carry from desk to desk (or office to office); can support communications, including voice (eliminating even the need for a phone); and can be docked to peripherals that make creating and consuming content faster and easier. Plus, the price is right.

# In-Field Service and Support

One of the earliest enterprise-sanctioned uses for tablets has been in-field service and support across a variety of vertical markets. Any time a service person must go into the "field"—i.e., a customer site or other out-of-office location—he loses access to critical product information, experienced peers, and enterprise applications. With a tablet in hand, service personnel can improve upon the service experience by always having the right information when they need it. This saves time, increases customer satisfaction, and even enables cross-selling and up-selling opportunities.

**Manufacturers** can take advantage of tablets in the field in two ways: they can use them to service their own customers' needs, and they can rely on them to service their own equipment when it goes down. With online access to technical information, repair videos and tips, and expert advice from technicians who might be back at headquarters — or somewhere else in the field — manufacturing service personnel can make sure they and/or their customers are back up and running in no time.

**Fleet managers** in the transportation business can service and repair cars, trains, buses, airplanes and other equipment from any location, using tablets to aid in the process. They access repair logs and other software applications and services used by the organization, scan VIN numbers, track maintenance, update all necessary information in real time, and complete their time-management systems when they're done. They can even use the devices to record video on site, allowing other employees, managers and executives to see what they did and benefit from the results downstream.

**Healthcare providers** are increasingly using tablets to collaborate with one another within clinics and hospitals, and with colleagues who might be located in another facility or geographic region. Since tablets make it easy for doctors and nurses to communicate from literally anywhere, they can get updated patient history data, information about recent meds (prescribed and taken), and even help with medical procedures — all from within an ER, operating room, ICU or patient recovery area.

# Point of Sale

One of the most intriguing—and revenue-generating — tablet applications is to employ them as new points of sale. If a tablet is linked to a POS system and a credit-card reader, it can effectively act as a check-out device, allowing customers to make purchases from literally anywhere. This is especially valuable at times of high traffic — when, for instance, a special sale attracts hundreds of buyers to a store, or a big event creates long lines at the take-out counter. With tablets in hand, employees can cash out customers while they are selecting their merchandise or standing in a check-out line, smoothing the process for everyone and ensuring no sales are lost to wait times or other delays.

**Restaurants and coffee shops** can use tablets to allow employees to take orders from customers before they reach the take-out counter, processing everything through the company's standard POS system. They can then accept credit card or PayPal payments, making it easy for people to order their food and drinks, collect them as soon as they are ready, and head out the door.

**Retailers** can arm store clerks with tablets that are connected to inventory, supply chain and POS systems, allowing them to show customers merchandise that may be available at another store or warehouse location in different colors and styles; help them decide whether a product will fit with their home or lifestyle using CAD and other design programs; offer installation and other technical support before the purchase is even made; and check out customers as soon as they are ready to buy. Tablets can even be used as stand-alone, customer information devices located on the retail floor. This reduces walk-aways and returns, improving revenues and loyalty in turn.

**Transportation and logistics** companies are deploying tablets to replace specially designed endpoints, since the tablet operating systems offer better support for business applications and services. As a result, they are finding new ways to interact with customers. Forward-thinking cities are putting tablets in buses and light-rail cars, allowing passengers to pay using a credit card or monthly/weekly pass with a single swipe, as well as check route and schedule information while in transit. Logistics and shipping firms are giving them to packers and drivers, allowing them to scan barcode information and have it input directly into their back-end systems.

# Training/Knowledge Sharing/Education

Increasingly, businesses are taking training into the field rather than asking employees—salespeople, kitchen staff, servers, housekeepers, retail clerks, and so on—to travel to a central location, or sending trainers to stores, hotels, restaurants or production facilities to educate them on new services, products or business processes. Because tablets are easy to move around a kitchen, retail store, hotel room, and manufacturing floor, on-site employees can get real-time instruction right where they work—without requiring that instructors travel to what can be scores, or even hundreds, of locations. Trainers can watch and offer immediate feedback. This speeds the pace at which businesses can offer new services, eliminates travel and dramatically reduces training costs.

**Restaurant and hotel chains** are using tablets to make it easy and cost-effective for trainers — be they chefs, housekeeping managers, concierges, or corporate trainers — to show, virtually, how to prepare and present new menu offerings, clean and make-up guest rooms, implement new services, and so on. By combining tablets with Web and video conferencing, chefs can demonstrate the exact steps for proper preparation, and then review the finished products, making sure that cooks and servers know exactly how to prepare and present each dish. Housekeeping managers can walk cleaning staff through a guest room, explaining how to make the bed, where to place toiletries and towels, and how to display the TV remote, hotel information, and so on.

**Manufacturing companies** are using tablets to take training onto the production floor, without having to fly managers and executives to every location around the globe. Line workers can learn new policies and procedures as soon as necessary, without having to leave their workplace. By letting trainers see exactly what workers are doing, where they need to do it and what they need to change to meet new standards or criteria, tablets make it especially easy to get manufacturing staff up and running with very little lost time.

**Retailers** can put trainers into stores, virtually, by using tablets to educate clerks and store managers on new products, promotions and customer events. As employees walk through the store itself, remote trainers can show them how to properly display the merchandise, covering everything from in-store placement and window

treatments, to then folding and pairing of specific items. This ensures every store offers the same look and feel to customers as soon as new items and designs are rolled out, without incurring lost time for the trainers or their students.

# Quality Control

Quality control is a necessary part of many businesses, but it is often time-consuming and costly, and the process itself can slow decision-making and action. Traditionally, QA personnel must be on site to perform their work—looking for defects or deviations in products and services, and alerting the appropriate managers and outside regulators. But with tablets, quality control employees can do their jobs remotely, at least part of the time. By leveraging Web and video conferencing, as well as production, materials and other relevant data and systems, QA staff can work with on-site employees to make sure products and services are up to par, and that processes and policies are being properly followed.

**Manufacturing** companies are among those with the biggest need for quality control, and they are also faced with some of the biggest QA costs, since production facilities and suppliers are often located far from corporate headquarters and branch offices. This usually means hiring local talent as well as flying QA employees around the globe to do their jobs — a costly and demanding process. By giving tablets to QA managers and employees on the production lines, manufacturing firms can make it easier for QA staff to track materials, production and final products from anywhere.

**Healthcare** organizations are increasingly seeing the value in implementing QA measures around all aspects of patient care, from intake and discharge to procedures and follow-up. Admins and managers can deploy tablets in the on-site pharmacy to aid with inventory and fulfillment; in general admitting and the ER to facilitate check-in; in patient rooms and other care locations to support care protocols; and even among housekeeping and janitorial staff to make it easy to update records in real time.

**Transportation** companies are using tablets to replace paper-based manuals, which often run hundreds of pages, are costly to print and ship, and are out of date almost as soon as they are published. Flight attendants, pilots, mechanics and drivers all benefit from having a lightweight mobile device that can update instantly, leverage video as needed, and link to other apps like scheduling and customer service. The companies that deploy them can save hundreds of thousands of dollars on shipping costs and fuel alone.

# CHOOSING THE RIGHT TABLET FOR THE TASK

With the remarkable growth in the tablet market, vendors are expanding their offerings to satisfy a wide variety of end users' and corporate buyers' needs. Depending on what your goals are for using the devices, it's important to select the right tool for the job. Do you need to prioritize speed over battery life, support for back-office business applications, a large screen for video consumption, or compute capabilities that rival those of a full-size PC?

Almost two-thirds of decision-makers (65%) report their companies support Android company-owned mobile devices. Here are a few features to consider as you select tablets for your enterprise users:

- **Cost** When it comes to new technology, every IT buyer puts cost at the top of their list. Many tablets in the market today cost less than a new smart phone, and they offer significant savings compared with notebook PCs. But getting the lowest price shouldn't be your first priority when selecting a tablet for your employees after all, you get what you pay for, and super-cheap devices might work well for consumers, but not for robust enterprise use. For maximum return-on-investment, make sure the device(s) you choose can deliver the necessary power, speed, battery life and application support.
- **Screen** One of the biggest considerations when selecting a tablet revolves around the display. Size and quality matter more for some use cases than others. If your users will be consuming (or creating) a lot of video, a big, HD screen is critical. If they are more likely to use the devices for data entry or POS applications, display quality might take a back seat to processing power and memory.
- **CPU** If you're looking at using tablets to replace notebook PCs, and/or if you intend to deploy them for processor-intensive tasks like data mining and analysis, the CPU matters. Employees who will be using the device to run multiple applications, or to use CAD and other intensive programs, must have a device that will support their efforts. Employees who will mainly be consuming information can emphasize other features.
- **Operating system** Although Apple stormed the market with its iPad and iOS, Android devices are quickly gaining ground. In the recent Frost & Sullivan survey of 300 CXOs, close to two-thirds of decision-makers (65%) report their companies support Android company-owned mobile devices, followed by support of Apple iOS and Microsoft. They favor Android for its support for multiple business applications, a more open ecosystem, a customizable UI, quicker development time lines, and a much larger variety of options.
- **Support for enterprise applications** This is critical for business users. Make sure the tablet(s) you deploy can support the applications and services your employees need to get their jobs done.
- Form factor Tablets come in a variety of sizes, making it easy to match the device to the primary application or job role. In some cases a lot of screen real estate is needed, especially if the tablet is serving double-duty as a PC; other cases will require that the tablet will fit in a specific mount or case, or even a uniform pocket. Matching the tablet form factor to the job will increase the productivity improvement.

#### **Ruggedized Tablets Go Mainstream**

So-called rugged devices have gained increasing traction in the business arena. Water- and shock-resistant, these devices are meant to perform in challenging conditions and are especially useful in the manufacturing and transportation verticals, where users are often on job sites and production floors, or on the road. Heavy-duty devices can withstand contact with the elements like rain, mud and snow, and they won't break, even when dropped from a standing height. Features like all-day battery life and special styluses designed to be used with gloves make them ideal for in-field deployment. Best of all, they don't cost more than many mid-range tablets on the market today. Ruggedized tablets are also very good for managing a remote workforce doing service. Rugged tablets have been designed to meet the requirements needed in many vertical markets, including energy, manufacturing, construction, transportation, and public safety..

### CONCLUSION

Tablets are fast becoming a valuable tool for businesses of all sizes, in many key industries, and in a variety of use cases. When linked to enterprise communications, productivity and back-office applications and services, tablets can transform business processes and make them more efficient, productive and effective. Frost & Sullivan research shows that several key areas of business—including workforce management, in-field service and support, points of sale, training and quality control—can be dramatically improved by leveraging the mobility and ease of use tablets deliver. Manufacturing firms, healthcare organizations, retail businesses and transportation are a few examples of enterprises that are deploying the devices to speed decision-making, improve the customer experience, staff appropriately, educate employees and partners, and maintain quality and regulatory control over all their products and services.

While IT departments still have a major role in software deployment and usage, more lineof-business employees (including executives, knowledge workers, and sales representatives) are influencing software usage in the business environment. As a result, organizations are increasingly taking into account employee preferences when it comes to application and device selection.

Although many employees are willing to spend their own money on technology they believe will help them be more productive at work, Frost & Sullivan recommends IT departments purchase, deploy and support tablets for business uses, just as they would any other work-related device. They should partner with a vendor with experience in the enterprise market, and make sure their selections are appropriately designed for the specific task at hand, which means any given company might purchase two or three different models for different job roles and/or use cases. They should also train and support employees on the new technology, especially as it impacts business processes; monitor and benchmark usage; and work with partners and customers to identify and develop new use cases.

#### **About Samsung Telecommunications America**

Samsung Telecommunications America, LLC, (Samsung Mobile) a Dallas-based subsidiary of Samsung Electronics Co., Ltd., researches, develops and markets wireless handsets, wireless infrastructure and other telecommunications products throughout North America. For more information, please visit <u>www.samsung.com</u>.

Auckland Bahrain Bangkok Beijing Bengaluru Buenos Aires Cape Town Chennai Colombo Delhi/NCR Detroit	Dubai Frankfurt Houston Iskander Malaysia/Johor B Istanbul Jakarta Kolkata Kuala Lumpur London Manhattan Miami	Milan Mumbai Moscow Bahru Oxford Paris Pune Rockville Centre San Antonio São Paulo Seoul Shanghai	Shenzhen Silicon Valley Singapore Sophia Antipolis Sydney Taipei Tel Aviv Tokyo Toronto Warsaw
	Silicon Valley 331 E. Evelyn Ave., Suite 100 Mountain View, CA 94041 Tel 650.475.4500 Fax 650.475.1570		
	San Antonio 7550 West Interstate 10, Suite 400 San Antonio, TX 78229 Tel 210.348.1000 Fax 210.348.1003	<b>MELANIE TUREK</b> Vice President   Enterprise Communications   Frost & Sullivan P: 970.871.6110 E: melanie.turek@frost.com	
	London 4 Grosvenor Gardens London SWIW 0DH Tel +44 (0)20 7343 8383 Fax +44 (0)20 7730 3343		877.GoFrost myfrost@frost.com www.frost.com

Frost & Sullivan, the Growth Partnership Company, works in collaboration with clients to leverage visionary innovation that addresses the global challenges and related growth opportunities that will make or break today's market participants. For more than 50 years, we have been developing growth strategies for the Global 1000, emerging businesses, the public sector and the investment community. Is your organization prepared for the next profound wave of industry convergence, disruptive technologies, increasing competitive intensity, Mega Trends, breakthrough best practices, changing customer dynamics and emerging economies?

For information regarding permission, write: Frost & Sullivan 331 E. Evelyn Ave., Suite 100 Mountain View, CA 94041