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Mobile & Wireless Practice

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Empowering the Service Technician with the Right Tablet: No Longer Just a Productivity Multiplier

VDC research

Delivering the right information at the right time to field workers is a critical element of any successful field service operation. With more organizations emphasizing services as a business critical function, the expectations and responsibilities of field service agents is growing. Although organizations *"service"* their clients through various channels – website, phone, chat, email, etc. – it is the service technician that represents an organization's primary interface with their customer.

Field service technicians are responsible for not only the expected maintenance and repair of a particular asset, but also are essential in the engagement with customers to drive customer satisfaction, retention and potential cross and up selling opportunities. What is central to developing these capabilities is the underlying field force solution – including scheduling and dispatching, demand forecasting and workforce management – and the mobile devices used by field technicians to access business critical information and make decisions, remotely, in real time. While multiple device types and form factors are being leveraged to deliver these capabilities, the tablet – as a mobile form factor – is emerging as an optimal solution. In fact, according to recently conducted research by VDC, almost six in ten enterprises view the tablet as a strategic mobile communications and computing platform.

Level of Importance of Tablets as a Strategic Mobile Computing & Communications Platform
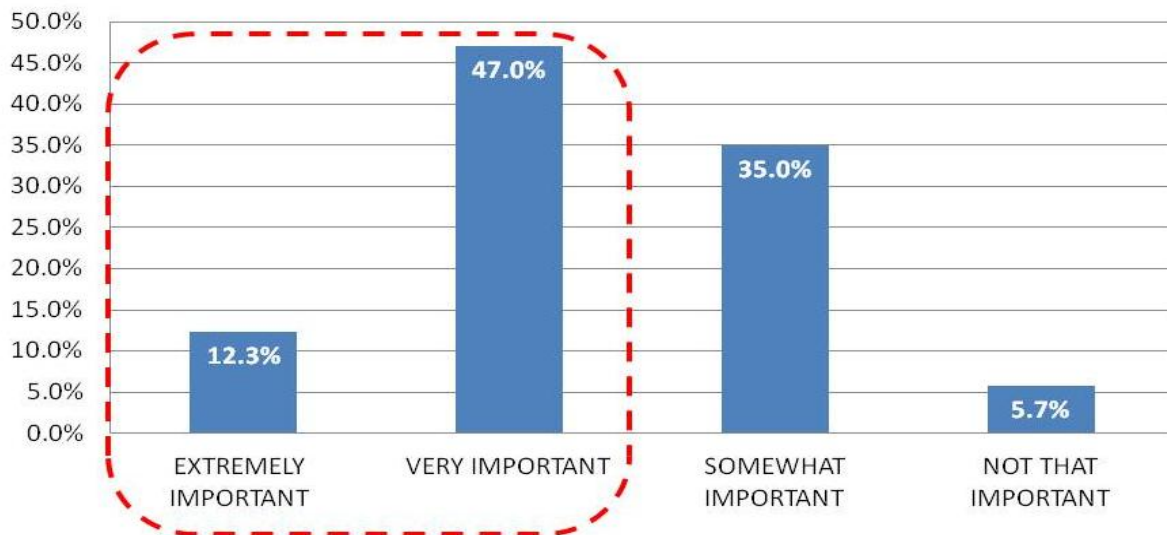
Source: 2012 VDC Research (sample size: 420)

Rethinking Mobile Workflows with Tablet Computers

Key factors by which field service organizations are evaluated include metrics such as first time fix, SLA compliance and workforce utilization. Of equal, if not greater importance, are customer-centric metrics such as retention, satisfaction and revenue. According to VDC's research, many organizations are falling short of meeting many of these goals. Combining this with many of today's market pressures such as lower customer spending and increased service competition, the need to optimize field workflows is critical.

Pain Points & Potential Business Benefits: Field Mobility

Mobile Solution	Pain Points	Potential Business Benefits
Workforce Management	- Staffing & Scheduling - Dispatch / Tracking - Job Tasking - Training & Education	- Improved & Faster Job Reporting - Improved Workforce Scheduling & Optimization - Reduced Travel Time & Costs per Work Order - Improved Service Response Times - Remote Mobile Training / Learning
Field Service	- Real-Time Product Information - Real-Time Customer Information - Asset Management - Technician Utilization	- Improved Customer Satisfaction - Real-Time Access of SLAs - Improved Integration with Back Office Systems - Improved Communications with Call Center Operations - Improved Decision Support - Preventive & Corrective Maintenance
Field Sales	- Real-Time Product Information - Real-Time Customer Information - Order Management - Mobile POS/Mobile Electronic Payment	- Reduced DSO - Improved Billing Management - Improved Order Accuracy - Improved Communications with Call Center Operations

Organizations need to counter these pressures and pain points by further embedding themselves with their customers and improving the customer experience. The key focus for field service organizations is increasing customer service and retention in addition to driving incremental service revenues. These initiatives are being driven by not only field service workflow productivity improvements but also the delivery of a more engaging and personalized customer experience. This represents a fundamental shift in thinking and is further aligning the service technicians as customer engagement representatives.

To support these initiatives, forward thinking organizations are leveraging several strategic investments. One of the most critical is equipping field service workers with the right mobile device. The key benefit of investments in mobile solutions is to provide field workers with real time access to customer and asset information to drive productivity improvements and make informed decisions in real time in a highly distributed fashion. Increasingly tablets represent the ideal platform for these solutions – often displacing existing notebooks or handheld devices – as they represent an optimized balance between portability and display size. This is especially evident as customer engagement becomes more central to field worker responsibilities and the tablet can be leveraged as an ideal platform through which to deliver and support that engagement. However, the opportunity does not end there. For example, organizations can further leverage these solutions for greater employee collaboration – such as between service and sales teams – and for making service information captured available throughout the organization.

While much of the attention around tablets has been directed towards *'consumer'* media pad solutions, based on operating environment and application functionality requirements, many of these devices are not optimal for enterprise workflows. Some of these workflows and target solution requirements are illustrated in the table on the following page.

Sample Enterprise Tablet Use Cases

Industry	Applications	Drivers & Benefits	Adoption Barriers
Retail & Hospitality	▪ Mobile Point of Sale (POS)	▪ Use of Tablet to Customize Sales and Order Process ▪ Queue Busting for High Value / Loyal Customers ▪ Customer Education & Benefits Description	▪ Pen Input for Signature Capture ▪ Financial Transaction Security Requirements ▪ Backend Integration
Health Care / Homecare Services	▪ Patient Care ▪ Medication Administration ▪ Electronic Health Records	▪ Patient Safety: Matching patients with correct medication and procedures ▪ Access patient records and drug interaction databases	▪ Backend Integration ▪ Security & Health Care Regulations (HIPAA) ▪ Durability / Sanitization
Utilities	▪ Workforce Management ▪ Dispatching ▪ Maintenance / Repair	▪ Mapping & Image Management ▪ Inspection Management	▪ Daylight Visibility ▪ Rugged Design ▪ I/O Options ▪ Microsoft Office Support
Construction	▪ Project Management ▪ CAD	▪ Electronic Forms ▪ Workflow Automation & PM Efficiencies	▪ Durability ▪ Daylight Visibility

More specifically, target enterprise workflows represent some unique challenges for tablets. Some of the most critical requirements include:

1. **Sunlight Viewable Display**. Many field-based workflows require using a device in outdoor/ambient light conditions, often with direct sunlight. Having a display that is viewable in these conditions is absolutely critical for many use cases.
2. **Intuitive Interface**. The primary benefit of the recent wave of consumer devices is the innovation around user interface. An intuitive interface and a rich multi-media experience are critical drivers of mobile application adoption and acceptance and the delivery of a strong customer engagement.
3. **I/O Options**. From mag-stripe to NFC for payment applications to cameras and scanners/imagers for data capture, the requirements are manifold. Delivering these capabilities through embedded modules and accessories is critical.
4. **Battery Performance**. Full shift battery performance is a cost of entry. Of equal importance is managing batteries, including the option for hot-swappable units.
5. **Security Features**. Although improving, the security capabilities of many *'consumer oriented'* tablets do not meet requirements – such as hardware based encryption and compliance with unique industry requirements such as FIPS 140-2.
6. **Rugged/Durable Design**. While the added weight of fully rugged devices negates the portability benefits of tablets, the ability for the tablet to withstand unique environmental issues is critical across many mobile enterprise workflows. Some of these include extreme temperature operation, gloved and wet hand touch interface and ability to withstand drops of 4 feet or more.

The opportunity to leverage the tablet for field workers across a multitude of industries and workflows as a critical customer engagement platform is substantial. From traditional workforce productivity, customer service, service revenue and retention, the benefits are significant. VDC's research has evidenced improvements in excess of 30% across all key performance metrics between leaders and laggards. Organizations with field workforces of any size can no longer afford to sit on the sidelines and wait to mobilize their core workflows.

ABOUT VDC

Market Intelligence for Technology Executives. VDC Research Group (VDC) provides market research and advisory services to the world's top technology executives. Our clients rely on us to provide actionable insights to support their most important strategic decisions. The firm is organized around four practices, each with its own focused area of coverage including: automatic identification and data collection, embedded hardware, embedded software and enterprise mobility.

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