

# Creating the Enterprise-Class Tablet Environment



by Denise Lund and Gene Signorini | October 2011

## Tablets Lead Enterprises Into a Mobile Computing Transformation

The tablet in the enterprise is a powerful new form factor, rich with device merits, productivity and new strategic uses. Enterprises are on the cusp of a new mobile computing transformation, having already moved past the siloed, field force-oriented deployments of three years ago and into the era of smartphone ubiquity in the workplace.

Drivers of enterprise tablet adoption are powerful and are expected to have a lasting effect on the workplace. They include:

- Mobilization of business applications enabled by the cloud, virtualization and 4G capabilities
- Improved device performance in the areas of speed, multitasking and rich media
- Integration with enterprise infrastructure and the ease of configurability with IT
- Consumerization of applications and content on devices for productivity's sake
- Willingness of IT organizations to support individually liable devices

The worldwide tablet market is expected to grow from 51.8 million annual unit sales in 2011 to 212.3 million in 2015 at a CAGR of 58.4 percent, according to Yankee Group's [Global Consumer Forecast, March 2011](#). Although tablets are just beginning this exponential growth, the next three years will be crucial for enterprises to determine their tablet strategies. Even in 2010, when many tablets were not yet available for purchase by employees or enterprise decision-makers, adoption levels impressed. And in 2011, we see these levels continuing to increase (see Exhibit 1).

### Exhibit 1: Tablets Are Gaining on Smartphones in the Enterprise

Source: Yankee Group's 2011 US Enterprise Mobility: Employee Survey, Wave 2

2011			
	Employer-Supplied	Personally Supplied	Total
<b>Tablet</b>	2%	4%	6%
<b>Smartphone</b>	11%	24%	35%

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Prompted by individual employee and executive interest, IT decision-makers are challenged to find the common ground between enterprise must-haves and end-user benefits. One thing is true at the end of the day, even in such a nascent market: The ultimate enterprise-grade tablet will not sacrifice security, management or user experience.

### Mobile Professionals Are Furthering the Acceptance of Consumerization in the Enterprise

The U.S. mobile work force today encompasses executive workers, field force workers, knowledge workers, retail employees and contract employees, to name just a few sub-segments (see Exhibit 2).

Tablets appeal to all mobile worker segments, and three distinct deployment scenarios will emerge (see Exhibit 3 on the next page).

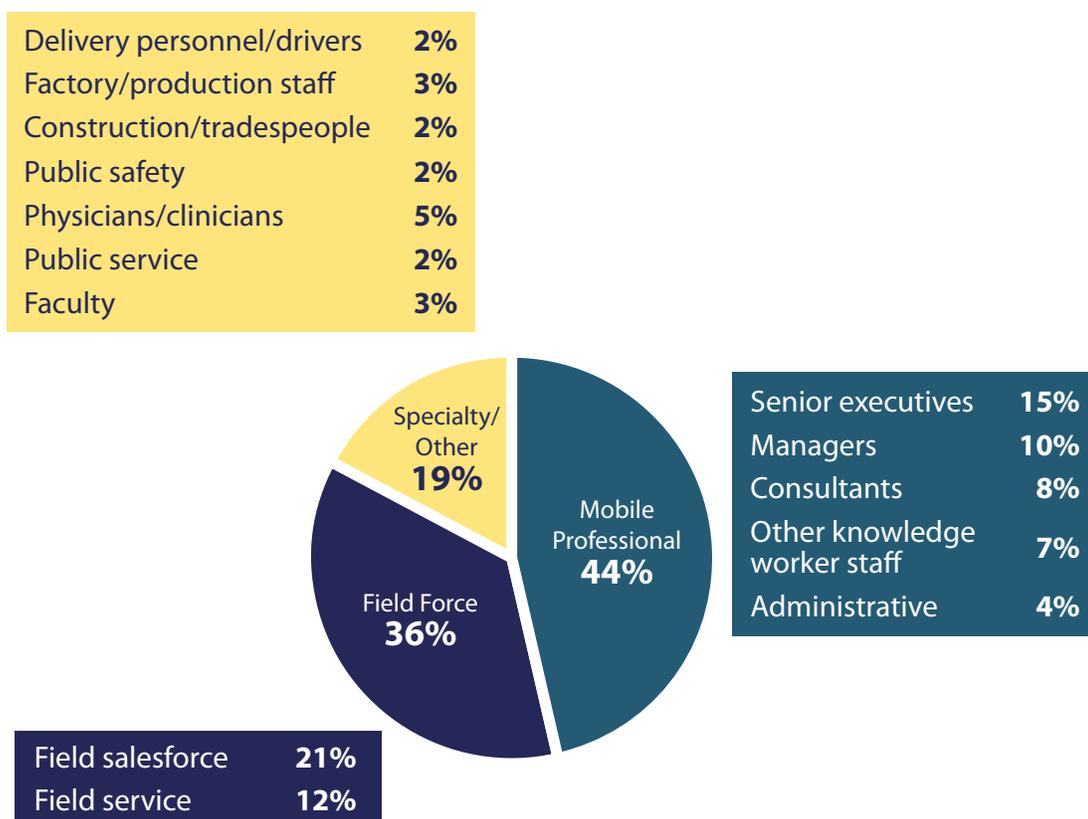
In a very condensed time frame (just over a year), tablets have achieved nearly one-fifth of smartphones' presence in the enterprise. The role of the individual mobile professional in this achievement is remarkable. Consider these findings from our [2011 US Enterprise Mobility: Employee Survey, Wave 2](#):

- The percentage of employees bringing tablets to work grew 120 percent in 2010
- Enterprise-provisioned tablets grew at nearly half that rate, at 64 percent, in 2010.

### Exhibit 2: Tablet Opportunity Extends Across the Enterprise

Source: Yankee Group's 2011 US Enterprise Mobility: IT Decision-Maker Survey, Wave 1

### Mobile Workers by Category



### Exhibit 3: Three Enterprise Tablet Deployment Scenarios

Source: Yankee Group, 2011



#### Tablet as a **complementary, or additive, device**

This is the predominant deployment scenario for mobile professionals, or employees who spend less than 25 percent of their weekly working hours at their primary business offices (not home offices).

Of employees who use tablets for work purposes, 81 percent also use both smartphones and laptops, according to our 2011 US Enterprise Mobility: Employee Survey, Wave 2.



#### Tablet as a **net new device**

This scenario will apply to field service segments and retail and hospitality sectors that are using paper-based or other non-mobile processes today.



#### Tablet as a **replacement device**

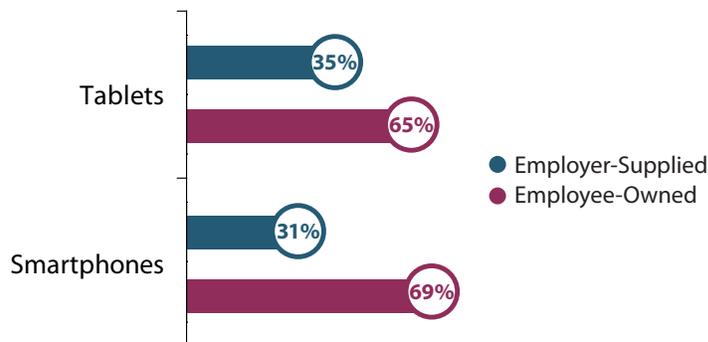
This scenario will apply to some field sales and service employees, as well as physicians and specialty roles.

- In 2011, between 60 and 70 percent of tablets and smartphones in the enterprise are bought on the consumer's dime (see Exhibit 4).
- Today's mobile professional tablet adoption is concentrated at the top of the organization: Sixty-nine percent of tablets used for business purposes are being used by managers and executives, according to our employee survey.

Enterprise decision-makers more rapidly adopt new devices with proven business benefits. The percentage of employees with employer-provided tablets is already nearly one-third of what we see with smartphones. This impressive trend toward quick adoption will further drive the overall growth in the device category in the enterprise. Where the mix of corporate-liable to individually liable tablet purchases ultimately lands remains to be seen. One thing is certain, however: The trend toward acceptance of consumerization of the enterprise will continue and enterprises will have to get on top of this trend. From a traditional mobility management perspective, companies will need to ensure individually liable tablets are secured and aren't leaking or compromising important data.

### Exhibit 4: Employee-Owned Devices Lead in the Enterprise

Source: Yankee Group's 2011 US Enterprise Mobility: Employee Survey, Wave 2



## Building the Business Case for Tablets: What Employees and Enterprises Need

The ongoing mobilization of business applications sets new bars for productivity and lays the groundwork for strategic new uses, and even for employee usage of such tools in the workplace.

According to our [2011 US Enterprise Mobility: IT Decision-Maker Survey, Wave 1](#), IT decision-makers considering mobile investments have high expectations:

- Nearly half (49 percent) consider improving responses to customers a top objective.
- Thirty-nine percent say providing mobile access to existing applications to improve worker productivity is most important when considering mobile investments.
- Tablet purchase criteria includes security (48 percent), manageability (48 percent) and enterprise application support (58 percent).

Productivity is a notable driver of the business case for tablets in the enterprise. It is a driver for both end-users and the IT decision-maker. Productivity benefits are real. What this clearly reveals is that tablets can—and do—yield measurable benefits to mobile workers and, in turn, the businesses for which they work. However, beyond productivity, enterprises and end-users have differing—and sometimes conflicting—reasons for choosing to bring tablets into the workplace.

### For the Employee: Familiar Consumer Tools, Applications and Content

Tablets were launched with end-user appeal in mind. This creates tension between employees and the enterprise for the nearly four-fifths of enterprises that have any degree of consumerization freedom in their company. Employee tablet owners tend to significantly embrace consumer tools for business use: Thirty percent of respondents to our employee survey use consumer applications on their work computers, and another 16 percent express interest in doing so. This trend will apply significantly in the case of tablet devices.

Consumer e-mail is far and away the most used consumer tool for business purposes, with 52 percent of employees using it at work. Besides consumer e-mail, employees are looking to a variety of social messaging tools, travel services and Web-based productivity applications.

End-users also look to their mobile devices as tools for content consumption, and the tablet is no exception. The case for an individual employee bringing a tablet into their device mix at work is in part driven by the intrigue of that device as a media consumption tool. These are individual consumers at heart, and consumers reveal their consumption habits time and time again. Our 2011 U.S. Consumer Survey, Wave 2 confirms:

- 41 percent agree or strongly agree (rating 6-10) with the statement “I like having all my music and video files with me at all times.”
- 46 percent agree or strongly agree with the statement “My mobile phone keeps me entertained.”
- They are notably interested in games, downloading on average 3.8 paid games in the last three months.

### For the Enterprise: Proven Productivity and Strategic Vision

Enterprise decision-makers are already beginning to embrace tablet use based on the potential for enhancing productivity and transforming key business processes. Our enterprise employee survey reveals that mobile employee productivity, such as customer interactions and collaboration and communications with fellow employees, increases massively when employers provide tablets. When Yankee Group asks mobile professionals to rate their level of productivity at a variety of work locations on a scale of 100 (see Exhibit 5 on the next page), workers rank productivity highest within their office (84 out of 100 points) and lowest on airplanes (34 out of 100). The data reveals a significant drop-off in employee productivity as employees venture out of their primary workplace.

**Exhibit 5: Productivity Away from the Office Increases Massively with Tablets**

Source: Yankee Group's 2011 US Enterprise Mobility: Employee Survey, Wave 1-2

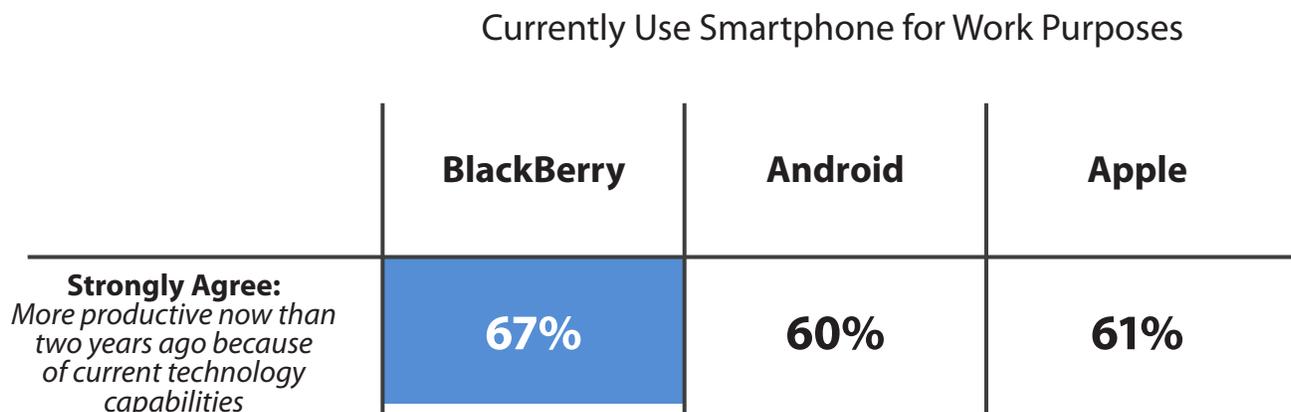


However, certain employees are able to compensate. Later in the survey, we ask these same respondents what devices their employer provides. When we look at the reported productivity at various locations cut by the type of devices being used by workers, we see significant improvements. For example, employees provided with tablets see an average uplift in productivity of 40 percent across all locations. As a comparison, workers provided with smartphones see just a 16 percent average uplift. It is important to note that we ask respondents to estimate their productivity before we ask which devices they use, so their responses are not skewed by their device usage.

Enterprises are also reaping the rewards of mobile OS advancements in the past two years. Looking at the percent of employees citing increased productivity cut by mobile OS, we see 60 percent or more of employees across the board, with BlackBerry in the lead at 67 percent (see Exhibit 6).

**Exhibit 6: Employees Who Use BlackBerrys Are More Likely to Report Being More Productive Than Two Years Ago**

Source: Yankee Group's 2011 Enterprise Mobility: Employee Survey, Waves 1-2



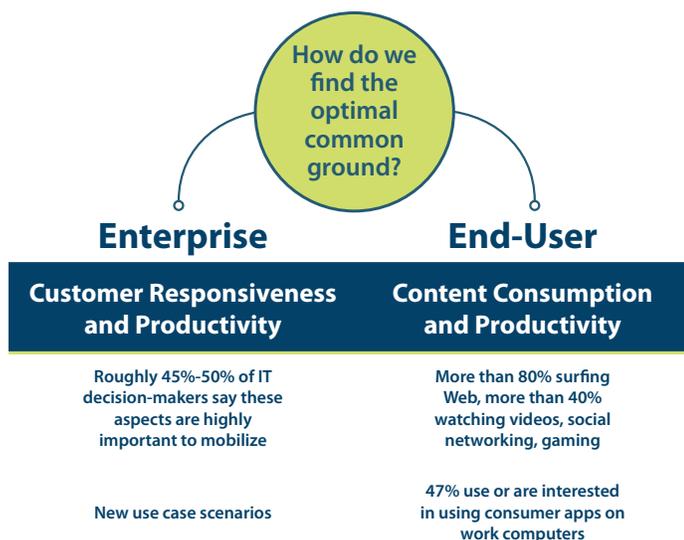
## Balancing End-User and IT Requirements

Making tablets work in the enterprise requires a delicate balance between enterprise and end-user needs (see Exhibit 7). On one hand, enterprises are focused on deploying tools that enhance employee productivity and collaboration, while also improving customer responsiveness. On the other hand, individual employees, while surprisingly keen on increasing their own productivity, are also lured by content consumption devices. The challenge for the enterprise is finding the optimal common ground between that which assures security and productivity for the business and that which is familiar, likeable and generally acceptable to the employee. The enterprise has a tremendous advantage in that it has the choice to invest in tablets themselves or leverage individual employees' purchases. Either way, a common ground when it comes to implementation, use and procurement or support must be achieved.

Part of making tablets work in the enterprise is that enterprises must not only procure enterprise-grade devices, but also raise their management of consumerization to the next level. This means enterprise decision-makers must consider all parties' needs, as listed below.

### Exhibit 7: Enterprise vs. End-User Mobility Requirements

Source: Yankee Group, 2011



## Enterprise Needs

- Ability to manage multiple devices and form factors
- Secure device and application access to network usage
- Productivity-enhancing tools and technologies
- Mobilized application solutions that enhance customer relationships
- Ability to separate personal and corporate information on devices

## End-User Needs

- Integrated hardware and software experience
- Hassle-free security experience
- Productivity-enhancing tools and technologies
- Connectivity
- Consistent experience across devices

## Choosing an Enterprise-Grade Tablet to Fit All Needs

Understanding what makes a tablet enterprise-grade will help IT decision-makers procure the best devices to meet their organizations' needs. Identification of the enterprise-grade tablets already infiltrating the enterprise will allow for the most efficient leverage of these new productivity-enhancing tools. To determine whether a tablet is acceptable for use in their enterprise, IT must evaluate it on several criteria, as described below and in Exhibit 8 on the next page.

### Tablet Performance

IT decision-makers must evaluate device speeds from both the processor and network connections, features such as multitasking, cameras and video conferencing, and display resolution and rendering performance. Powerful multitasking can make the productivity difference when using remote desktop services to access enterprise data; all of this requires extensive networking and computing resources.

### Integration With Existing Infrastructure

Another important feature to consider is whether the tablet integrates with existing enterprise systems such as IT, e-mail and personal information management, software and databases. Examples include CRM and virtual desktop integration (such as Citrix Receiver).

## Exhibit 8: Enterprise-Grade Tablets Don't Sacrifice End-User Appeal

Source: Yankee Group, 2011

	Enterprise Appeal	Employee Appeal
Tablet Performance	<b>Expands Use Case</b> Allows content collaboration, simultaneous work within applications, voice	<b>Improves Holistic Experience and Productivity</b> Allows content collaboration, simultaneous work within applications, voice
Integration With Existing Infrastructure	<b>Drives Extra Value From Prior Investments</b> Helps reduce costs associated with manual updates Aligns with importance of e-mail/PIM mobilization	<b>Creates Seamless, Knowledge-Rich Interactions</b> Facilitates up-to-date knowledge base, customer information systems access Eases access for productive internal and customer communications
Telephony/Mobile Unified Communications (UC)	<b>Ensures Efficient Communications Globally</b> Allows cost-effective communications for remote and mobile workers	<b>Allows Context-Aware Communications on the Go</b> Ensures confidence in enterprise-compliant communications usage Helps employees be productive in variety of work settings and across devices
Cloud	<b>Drives Efficiencies, Shifting Capex to Opex</b> Helps with consolidating data center infrastructure, outsourcing commodity IT tasks and shifting IT budget from capex to opex Facilitates enablement of remote and mobile workers without overwhelming IT support reps	<b>Provides Access to Apps on Employee- or Employer-Owned Devices</b> Allows employees to work from anywhere, collaborate more effectively and access applications more easily regardless of device
Device Manageability and Security	<b>Effectively Addresses No. 1 Deployment Barrier</b> Helps IT manage costs and security amid the growing device OS and form-factor diversity appearing in the enterprise.	<b>Enables Personal Device to be Used in Compliant Way</b> Allows employees to use their own device in a productive, hassle-free and secure manner to access relevant corporate applications
Encryption and Other Controls and Policy Settings	<b>Helps Fulfill Enterprise Policies Amid Consumerization</b> Facilitates IT's ability to address access control and policy enforcement, critical to the safe and productive use of non-corporate mobile devices in the workplace	<b>Provides Access to Apps on Employee- or Employer-Owned Devices</b> Allows employees to work from anywhere, collaborate more effectively and access applications more easily regardless of device
Over-the-Air (OTA) Management, Updates, Wiping	<b>Helps IT Operate Cost-Effectively and Wisely</b> Regarding employee-owned devices, eases management of software upgrades, reprovisioning or replacement of mobile devices regardless of location	<b>Provides Access to Apps on Employee- or Employer-Owned Devices</b> Allows employees to work from anywhere, collaborate more effectively and access applications more easily regardless of device
Regulatory Processes, Features and Functionality	<b>Aids in Compliance and Reputation Management</b> Eases enterprise concerns about breaches or regulatory mishaps	<b>Reduces User Concerns</b> Reduces employee's concern that they will inadvertently cause or be involved in a breach or regulatory mishap
Application Management	<b>Addresses Challenges of Distributing Apps</b> Reduces cost and challenge of managing the variety of app types, OSs and devices	<b>Allows Use of Familiar Device but With Enterprise Apps</b> Allows employees to work from anywhere, collaborate more effectively and access applications more easily regardless of device

## Telephony/Mobile Unified Communications (UC)

Integrated management of the broadest range of modes of communications into one consistent experience across devices will help increase worker productivity and satisfaction. This includes handling of instant messaging, presence data, corporate PBX/IP telephony services, video conferencing, collaborative data sharing services and unified messaging (integrated voice mail, e-mail, SMS, etc.).

## Cloud

Core requirements around policy-based IT automation, integration support, identity and access control, managed mobility, application delivery and optimization, virtual desktop infrastructure and client-side virtualization technology will enable key legacy applications to be delivered from a central data center, streamed over a network and rendered virtually on a tablet.

## Device Manageability and Security

Policy and security management must be possible on both corporate-liable and individually liable devices, including remote activation, upgrades, management and security, for the range of mobile devices in an organization. Identity-based access control policies should reside in the network.

## Encryption and Other Controls and Policy Settings

Hardware, software and transmission encryption and management of devices and policies must be easy.

## Over-the-Air (OTA) Management, Updates, Wiping

This includes device activations, deactivations, software updates and application deployments.

## Regulatory Processes, Features and Functionality

IT must evaluate compliance aspects such as data privacy, Sarbanes-Oxley (SOX) and Health Insurance Portability and Accountability Act (HIPAA).

## Application Management

The tablet must allow management of standardized and customized applications, including productivity apps such as Word, Excel and PowerPoint, as well as other content collaboration tools. Critical services range from application development (in-house vs. external standards, access to SDKs) to deployment of applications and even the black-listing and white-listing of applications in the work environment.

## Conclusions and Recommendations: Considerations for Enterprises Developing Tablet Strategies

Yankee Group expects tablets to become important productivity-enhancing devices in the workplace. Employee tablet adopters are painting a picture of how they use a broader set of business tools that most enterprises have not made a top priority. To thrive amid the ongoing evolution of mobility in the workplace, enterprises should be keenly aware of the following insights:

- **Consumerization is a reality, and it's here to stay.** The key is not to fight it, but to balance enterprise and end-user requirements to find the middle ground. Companies will need to find an elegant way to balance personal and corporate data on devices beyond just ignoring or sandboxing the issue today.
- **Productivity improvements are real.** Smartphone and tablet users show between 20-70 percent productivity improvements at various mobile locales.
- **Enterprise-grade tablet strategy will sacrifice neither security nor user experience.** By accepting end-user needs, IT can create buy-in for optimal management and policy approaches. With consumerization accelerating the enterprise decision, maintaining awareness of popular capabilities around consumer tools for business use is important.
- **Tablets bring tremendous productivity—more than double the productivity improvements that smartphones bring.** Users will recognize these productivity benefits first. This will invigorate the entire ecosystem for individual employees' attention and dollars, and ultimately influence the enterprise dollars to come.

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