

A SUPPLEMENT TO MOBILE ENTERPRISE MAGAZINE

# State of the Enterprise Tablet Market

## The New Age of True Mobile Computing

- IMPACT OF BYOD ON TABLETS
- ACCEPTANCE IN THE ENTERPRISE
- OS TRENDS

The major technology trends of cloud computing and tablets are intersecting to upset the balance of legacy computing environments.



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### CHRIS HAZELTON

Chris Hazelton runs the Mobile and Wireless research practice at 451 Research, which covers hardware, software, and services for both enterprise and consumer mobility markets. Chris' research focuses on MDM as well as application development platforms that target smartphones and tablets in the enterprise. He is primarily interested in the shift in enterprise computing from desktop to mobile.



## State of the Enterprise Tablet Market

IN ADDITION TO 'BYOT'— 1 IN 5 COMPANIES ISSUING TABLETS TO EMPLOYEES

BY CHRIS HAZELTON, RESEARCH DIRECTOR MOBILE & WIRELESS, 451 RESEARCH

The enterprise is experiencing massive changes as the major technology trends of cloud computing and tablets are intersecting to upset the balance of legacy computing environments. The tablet is the perfect window into cloud services—shifting computing from a single device to multiple devices based on user choice and need, with storage and processing of data moving to the cloud. The cloud enables device-independent computing, with access to content from anywhere, which will drive users to the device of their choice—increasingly a tablet.

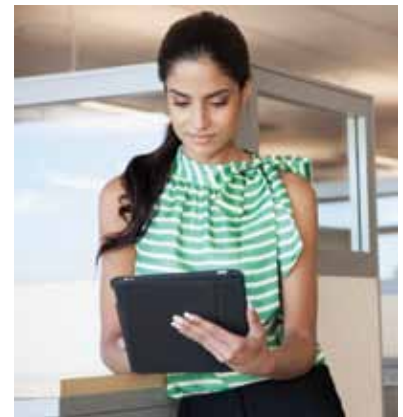
Employees want to use tablets, which run operating systems familiar to them, avoiding a support nightmare for IT when transitioning to new technology. Tablets provide streamlined computing experiences with instant-on access to corporate data and services that cannot easily be delivered by PCs and smartphones.

In this report, we explore the state of the enterprise tablet market, including who is using them, what is driving this expansion, and where this market is going to have the greatest impact. We detail tablet users by role and the extent that IT supports use by these employee categories.

We take a look at the mix of tablet devices in use today, and what devices IT is considering down the road—both by OEM and also by the OS's they're prioritizing for development of their own applications and services.

Data is sourced from two recent surveys. The first is from ChangeWave Research, a service of 451 Research, leveraging 25,000 highly qualified business, technology and medical professionals who are in a variety of roles in a broad cross section of vertical markets such as software, telecom, healthcare, energy, hardware, manufacturing and retail.

The second source is from 451 Research's "2012 Enterprise Mobility Survey," which was done in partnership with *Mobile Enterprise*.



### IMPACT OF BYOD ON TABLETS

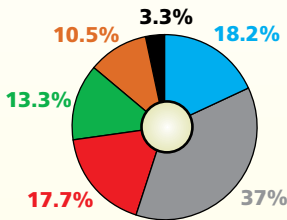
Bring your own device (BYOD) is impacting enterprises in nearly every vertical of the U.S. Outside of heavily regulated industries, there is little that IT can do to stop the invasion of these devices. Mobile devices give end users more choice and personalization op-

# STATE OF THE ENTERPRISE TABLET MARKET

FIGURE 1

## Acceptance of BYOD in the Enterprise

WHAT IS YOUR COMPANY'S IT POLICY REGARDING EMPLOYEES CONNECTING THEIR PERSONAL DEVICES TO THE ENTERPRISE SYSTEMS?



### Employee-liable devices are banned

Employees can connect their own mobile device(s) for email

Employees can connect their own wireless device(s) for email and enterprise applications

Only with MDM client can employees connect to email and enterprise applications

Company has no stated policy

Other

SOURCE: 451 Research, 451 Enterprise Mobility Snapshot, June 2012

tions than any other enterprise IT tool – and, many would argue, rightly so. Because the device is typically carried with an employee 24/7, there is the expectation of being able to personalize it (although frequently with corporate-liable devices, this is not a right).

The introduction of app-centric phones like iPhone and Android created demand for devices outside of what IT was ready to provide. The growing rate of BYOD acceptance is naturally being extended to tablets. As any IT shop moves to support iPhone and Android smartphones, that same infrastructure will support tablets to a large degree.

Personalization often comes in the form of adding multimedia and applications. In the case of tablets, there is a propensity to have more data than on smartphones, due to storage size, but also use cases that approach content creation or editing.

Because of this, it is critical that IT has policies and capabilities in place to deal with tablets in a BYOD world.

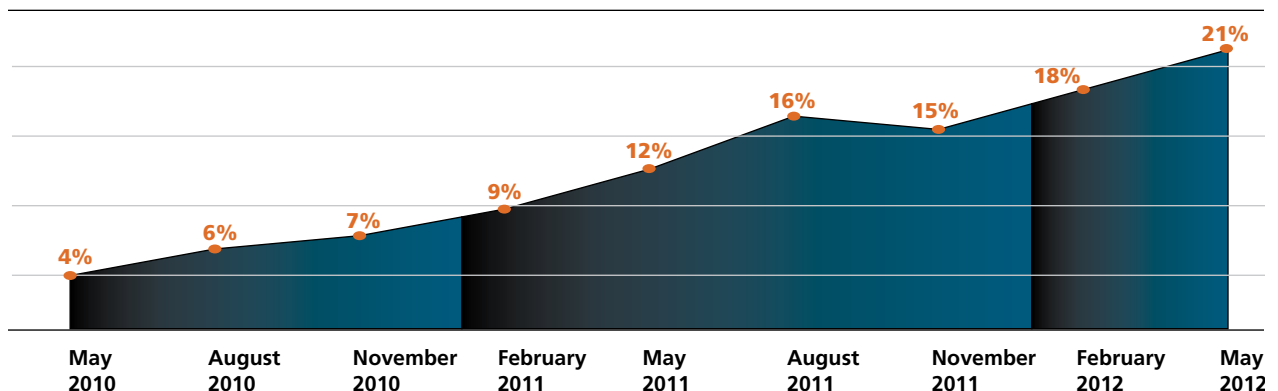
The world of cloud, “Dropbox” in the enterprise or mobile file sharing and synchronization, creates significant risk as employees sync large amounts of data between their laptops and tablets. It is these data-intensive applications that are pushing the enterprise mobility management space to focus more on managing applications and the movement of data across mobile devices.

The invasion of employee-liable devices in the enterprise can be accepted by IT, banned or simply ignored. Overall, 78.5% of our respondents allow employees to bring their own devices to work. (See Fig. 1) Support for BYOD includes smartphones and tablets.

Of this very high percentage, the majority of companies have policies to support BYOD. Only 10.5% of organizations admit that they have no management or security policies when it comes to the use of mobile devices. This is a little more than half of the total of companies that actually prohibit BYOD, which is 18.2%.

FIGURE 2 • Corporate Market: Current Tablet Usage

DOES YOUR COMPANY CURRENTLY PROVIDE EMPLOYEES WITH TABLET DEVICES?



SOURCE: ChangeWave Research, 3Q 2012 Corporate IT Spending Trends, May 2012



The number of U.S. companies issuing tablets to employees has grown from 4% in May of 2010, to 21% in May of 2012.

## CORPORATE DEMAND FOR TABLETS

While the focus for many is on BYOD, enterprises are buying and issuing tablets to employees in large numbers. Since the launch of the iPad in April of 2010, there has been significant corporate demand for tablets. According to ChangeWave Research, a service of 451 Research, the number of U.S. companies issuing tablets to employees has grown from 4% in May of 2010, to 21% in May of 2012. (See Fig. 2) With more than 1 in 5 companies already issuing tablets to their employees on top of those that are brought in by employees, it is clear the tablet is here to stay.

Mobile tablets present a new opportunity to empower employees to be more productive, more responsive and are easier to support from an IT standpoint. There are benefits to the hardware form factor, as we've discussed, but the key drivers for mobile tablets will be mobile applications.

These apps will be both horizontally and vertically focused tools. It will be the targeted and internally developed apps that will best deliver on the promise of the mobile tablet.

The tablet provides ready access to computing resources that cannot easily be delivered by PCs and smartphones. Enterprises see the mobile tablet as a tool to improve the way they do businesses.

Specifically, the key benefits they see are better responsiveness to their customers, competition and coworkers. Tablets give employees instant access to critical information, allowing them to move the ball forward from virtually anywhere. Tablets mean that processes are less likely to be interrupted by one or more employees who are temporarily out of touch.

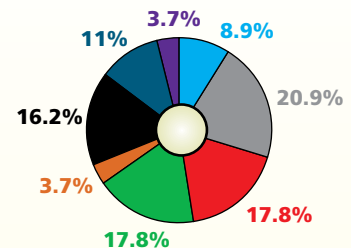
## ACCEPTANCE IN THE ENTERPRISE

The tablet is fast becoming a key tool for the enterprise, but just how prevalent is it, and is the enterprise supporting it in large numbers yet? Fig. 3 shows that only 8.9% of companies prohibit the use of tablets by employees.

In fact, 20.9% of respondents indicate that they issue tablets to employees as corporate-liable devices. Another 35.6% allow employees to connect their personal tablets to email, or email and corporate applications.

While only 3.7% of companies use MDM systems to manage tablets, there are a large portion that are evaluating their plans (16.2%) or have yet to implement policies on tablet use (11%). Given that the tablet is relatively new (compared with smartphones and PCs), the enterprise is adopting tablets at a rapid pace.

**FIGURE 3**  
**Organizational Policy on Tablet Use**  
**DOES YOUR COMPANY USE TABLET COMPUTERS?**



Tablets are not allowed

Company issues corporate-liable tablets for employee use

Employees can connect their own tablets for email

Employees can connect their own tablets for email and enterprise applications

Only with MDM client can employees connect to email and enterprise applications

We are currently evaluating our policies toward tablets

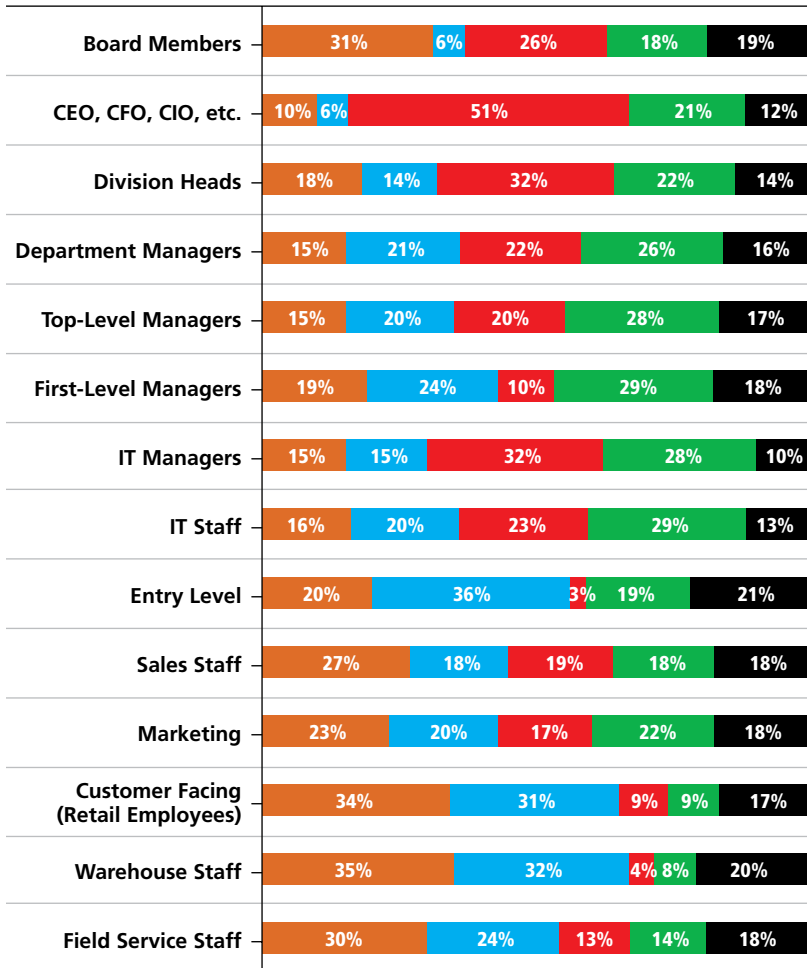
Company has no stated policy

Other

SOURCE: 451 Research, 451 Enterprise Mobility Snapshot, June 2012

# STATE OF THE ENTERPRISE TABLET MARKET

**FIGURE 4**  
**Use of Tablets by Employee Type**  
**WHAT EMPLOYEE ROLES ARE USING TABLETS IN YOUR ORGANIZATION?**



SOURCE: 451 Research, 451 Enterprise Mobility Snapshot, June 2012

■ N/A- ROLE NOT IN MY ORGANIZATION  
 ■ NOT PERMITTED  
 ■ CORPORATE LIABLE  
 ■ EMPLOYEE LIABLE  
 ■ DON'T KNOW



## USE OF TABLETS BY ROLE

We've examined the rate of tablet adoption in the enterprise, but who exactly is using these tablets for work? Fig. 4 shows that IT is issuing tablets to senior management in a big way. Board members, C-level execs and division heads are the primary recipients of these corporate-liable devices. Interestingly, skipping over middle management, the next most-likely recipients are IT managers and IT staff. This means that even though companies are not issuing as many devices to middle management, IT leaders see tablets as necessary for their jobs.

In terms of employees that are not permitted to use tablets, it's no surprise that the percentages run in the opposite direction along the organizational hierarchy. To accommodate middle management, however, IT often does allow employee-liable tablets as a way to offset the lower rate of company-issued tablets.

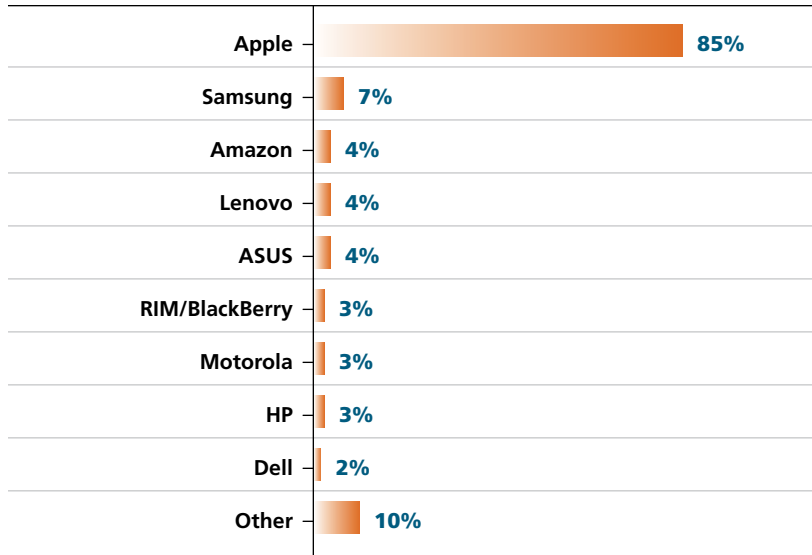
Even though companies are not issuing as many devices to middle management, IT leaders see tablets as necessary for their jobs.

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FIGURE 5

## Current Corporate Tablet Usage

WHO MANUFACTURES THE TABLETS YOUR COMPANY CURRENTLY PROVIDES?



SOURCE: ChangeWave Research, 3Q 2012 Corporate IT Spending Trends, May 2012

While use of tablets is banned most often for entry-level employees, this is largely also the case with retail, warehouse and field-service staff. This will likely change as Windows Mobile devices are replaced with iOS and Android devices.

## OPERATING SYSTEM TRENDS

There have been several mobile tablet computers powered by Microsoft's Windows OS, and while Windows 7 has been architected to support multi-touch, the full PC experience has not translated well to the mobile tablet form factor.

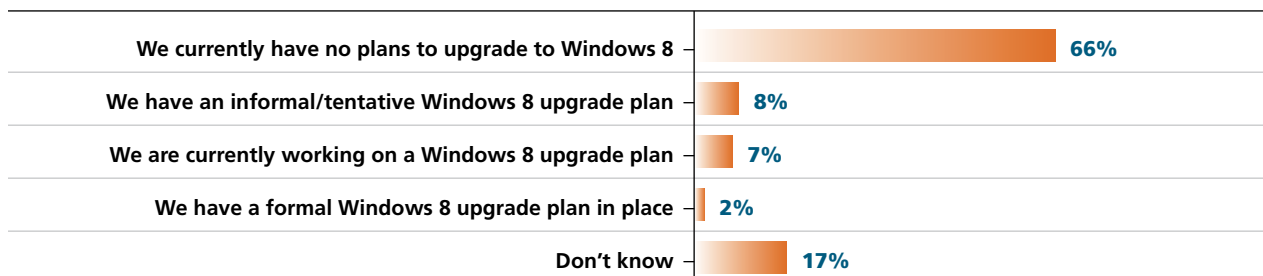
Until recently, the tablet was a segment of the PC market. But we are now in the age of mobile tablets that deliver a new form of computing – not 'portable' computing, but truly 'mobile' computing.

In discussing tablets today, the primary focus is on mobile operating systems such as Android, BlackBerry, iOS, and Windows Phone. With its first-mover advantage in today's mobile tablet market, Apple has translated a lead in

We are now in the age of mobile tablets that deliver a new form of computing — not 'portable' computing, but truly 'mobile' computing.

FIGURE 6 • Windows 8 Upgrade

WHICH OF THE FOLLOWING BEST DESCRIBES YOUR COMPANY'S WINDOWS 8 UPGRADE PLAN?



SOURCE: ChangeWave Research, Windows 8 OS Report, June 2012

the consumer space into a commanding lead in the enterprise tablet market.

The impact of this is apparent in the current market share of U.S. corporate liable tablets shown in Fig. 5. While there are strong offerings from players like Samsung and Lenovo, there are several vendors that are struggling to remain relevant in the market.

Looking toward future demand in the third quarter of 2012, (see Fig. 7) we see that Apple's iPad will lose some share. Increased market awareness, and interest in Android powered tablets will benefit Samsung, Lenovo, and ASUS in the enterprise.

The most significant impact on the enterprise tablet market in the longer term will be the uptake of Windows 8. While we expect significant interest in x86 based tablets powered by Windows 8, the interest in ARM based tablets will be directly challenged by the iPad.

Key value propositions for Windows 8 on ARM are integration with Microsoft services like Office, SharePoint, Active Directory and Exchange. But almost all other tablets provide integration with these services—except for Office.

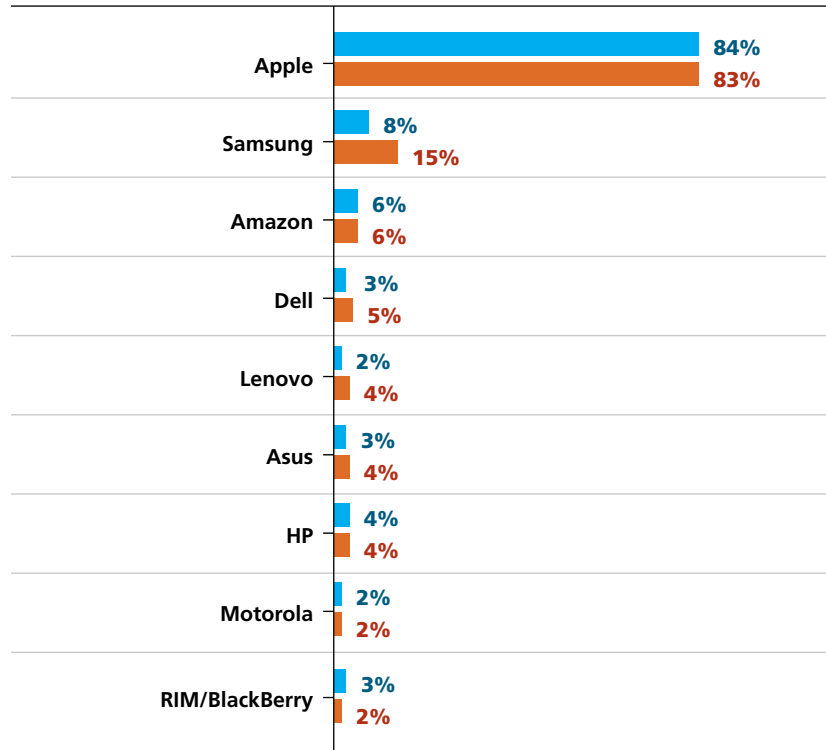
Office competitors and cloud based Office 365 may provide substitutes for iOS and Android tablet users. Windows 8 is also launching into a market that has the most alternatives for Windows in more than 20 years. As such, according to the ChangeWave data, two-thirds of respondents currently do not have plans to upgrade to Windows 8. (See Fig. 6)

While the OS has yet to hit the market, the rate that organizations upgrade from Windows 7 could be slow as companies see alternatives to Windows 8 for touch based devices as they are rolled out.

FIGURE 7

### Corporate Tablet Demand – A Comparison

FOR THOSE COMPANIES BUYING TABLETS IN THE NEXT QUARTER, WHO IS THE MANUFACTURER OF TABLETS YOUR COMPANY IS PLANNING ON BUYING?



SOURCE: ChangeWave Research, 3Q 2012 Corporate IT Spending Trends, May 2012

■ FEBRUARY 2012  
■ MAY 2012

Increased market awareness, and interest in Android powered tablets will benefit Samsung, Lenovo and ASUS in the enterprise.



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RIM's tablet prospects are fading quickly, as the device vendor has not launched a major hardware refresh of its PlayBook tablet. The updated OS was impressive, but the lack of developer support and questions about the future of BlackBerry and its supporting infrastructure remain.

## WAN OR WI-FI?

Mobile tablets are heavily reliant on network connectivity, which is needed for Web browsing, messaging and downloading mobile apps. For this reason, they are ideal devices for 3G and 4G data services. Wireless wide-area networks (WAN) mean mobile tablets can access data from any coverage area. While all mobile tablets have WLAN access, there is no guarantee that users will be able to find or access a Wi-Fi hotspot while traveling away from their office or residence.

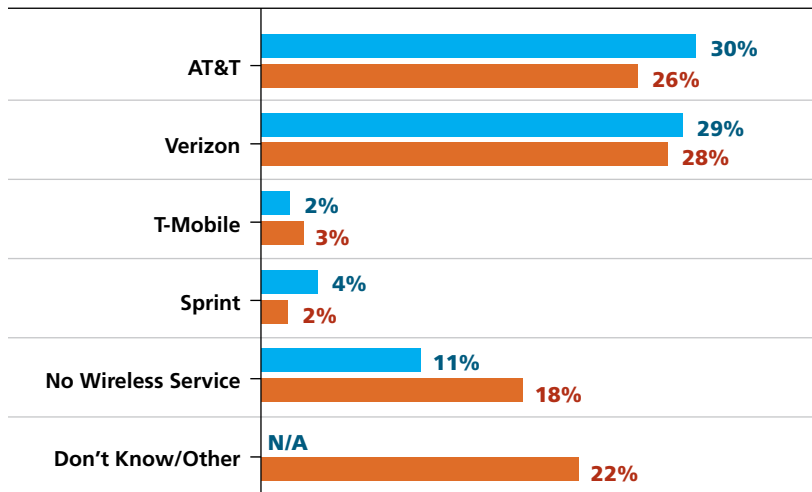
WANs, both 3G and 4G, deliver near seamless connectivity without the need to authenticate when connecting to the network. Another advantage is greater security in a world full of Wi-Fi hotspots; man-in-the-middle attacks are possible by other networked devices or the access point itself, allowing third parties to view any and all data.

Virtual private networks (VPN) and secure socket layer (SSL) technology add a significant layer of protection, but users and IT administrators will

FIGURE 8

## Future Corporate Wireless Service Provider for Tablets

FOR THOSE COMPANIES BUYING TABLETS IN Q3 '12, WHICH WIRELESS SERVICE PROVIDER WILL YOUR COMPANY USE?



SOURCE: ChangeWave Research, 3Q 2012 Corporate IT Spending Trends, May 2012

■ FEBRUARY 2012

■ MAY 2012

need to be sure these services are actually being used.

While there are significant costs for WAN data access, the growth and interest in shared data plans on the consumer side, may spill over to the corporate side. Tablet growth is being driven by interest in mobile computing and cloud services that allow users to access data from anywhere, on any device. This demand for anytime, any-

where data access is running up against increasing mobile data costs.

Mobile network bandwidth and the spectrum it runs on is a finite resource, and is significantly expensive from an infrastructure perspective, particularly when compared with landline networks — so demand for data will outstrip WAN supply for the foreseeable future.

In the ChangeWave survey, 59% of companies said they will use WAN access. The opportunity here is the 22% of respondents that are undecided on the use of WAN data for tablets in their company. (See Fig.8)

## POPULAR APPS FOR THE ENTERPRISE

The drive toward pre-packaged apps for POS, CRM, field-service functions,

While there are significant costs for WAN data access, the growth and interest in shared data plans on the consumer side may spill over to the corporate side.

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HR applications and order management is also encouraging individual lines of business to make decisions independent of enterprise IT.

As already seen in the survey data on mobile deployment in the enterprise, about 45% of respondents are in the active stage of deploying mobile apps for their employees.

While IT may not be issuing corporate-liable devices, enterprise divisions and groups certainly want to exploit the advantages of BYOD. Line of business heads are motivated by the need to gain competitive advantage by enabling their employees and partners.

However, this will require working with enterprise IT staff since they control the DMZ for business applications, encompassing the areas of QA, security and integration.

As employees demand greater flexibility and mobility and the enterprise IT shop gets equally comfortable with the app server and the security infrastructure, we expect core enterprise systems sitting behind the firewall to open up for mobile computing.

## FUTURE DEVELOPMENT

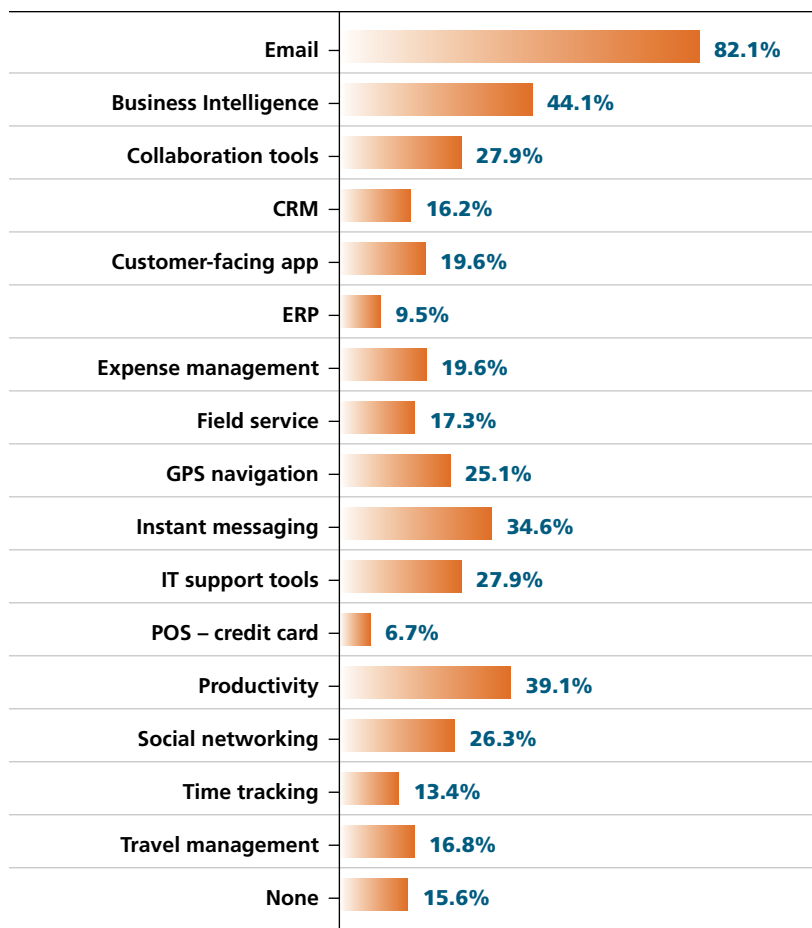
The responses regarding primary platform choice for app development were consistent with the growth of iOS and Android in the enterprise. Apple iOS scored the highest on both primary and secondary preference for development. But after iOS, several enterprises have equally favored both the browser and Android as their primary platform for app development.

The rising adoption of HTML5 in the enterprise has echoed well in the survey. Regarding multi-platform app development, enterprises have given equal weight to iOS, Android

FIGURE 9

## Use of Tablet Applications by Type

WHAT TYPES OF APPLICATIONS DOES YOUR ORGANIZATION USE ON TABLETS?



SOURCE: 451 Research, 451 Enterprise Mobility Snapshot, June 2012

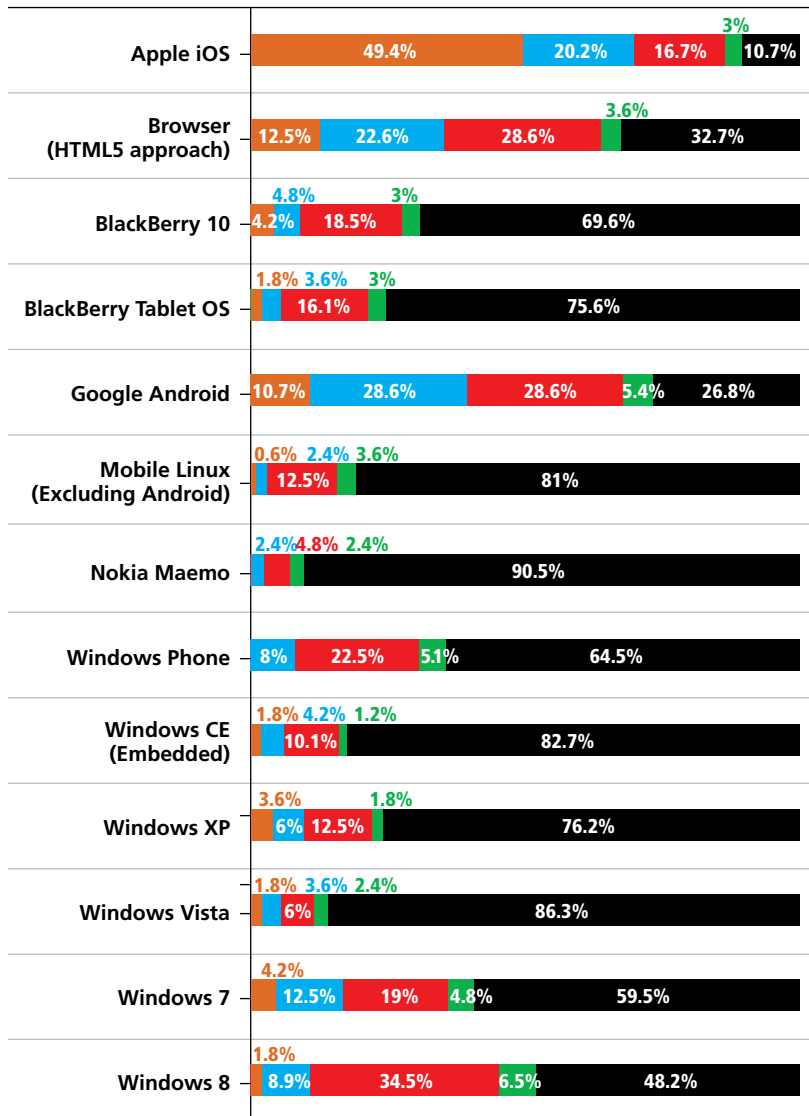
While IT may not be issuing corporate-liable devices, enterprise divisions and groups certainly want to exploit the advantages of BYOD.

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FIGURE 10

## Platform Choice for Mobile Application Development

RANK PLATFORMS IN THE PRIORITY THAT YOUR ORGANIZATION TARGETS WHILE DEVELOPING OR PROCURING A MOBILE APP



SOURCE: 451 Research, 451 Enterprise Mobility Snapshot, June 2012

- PRIMARY
- WILL DEVELOP IN PARALLEL
- WILL CONSIDER
- FUTURE PLAN
- IGNORE

HTML5 will continue to lag iOS and Android.

and browser apps. Despite its still significant presence in the enterprise in terms of installed devices, RIM's current BlackBerry Tablet OS and next year's BlackBerry 10 OS are not on the radar of most developers. (See Fig. 10)

The choice of HTML5 is poised to have a strong impact on code reuse and future maintenance, as the browser – especially those based on Webkit – opens a route to multi-platform deployment. However, HTML5 will continue to lag iOS and Android, owing to the stringent security requirements of enterprises and the lack of comparable app management tools. Windows 8 and Windows Phone have scored well in terms of enterprise willingness to consider these platforms for development; however, very few of them have any plans for active deployment now.

There will continue to be significant changes in enterprise mobility, as the types of devices and their operating systems fluctuate. Management and development tools will need to support multiple native and Web-based platforms. And as user preferences are increasingly a determining factor in decisions to adopt technology, it is imperative that IT build, buy or rent infrastructure that provides flexibility to adapt as these user preferences change — and nowhere is this more critical than with tablets. //

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