The Skeleton Key:
Tablets and Pure HTML5 Document Viewers Unlock Business Benefits
While smartphones still dominate worldwide device sales and many business users rely on their phones for making calls and checking e-mail, their screen size limits their ability to serve as a primary computing device. Tablets, on the other hand, combine the mobility of a smartphone with the functionality of a traditional desktop computer. Though initially considered a luxury or entertainment device upon their release, tablets have since become an attractive computing option for many business and healthcare users. This trend can be seen in worldwide device shipments, where tablets are on pace to overtake conventional PC shipments by the end of 2014.

There are many reasons why users are adopting tablets for business purposes. An obvious benefit is the ability to communicate remotely with e-mail and browse the web away from the office, but that’s something business users can do on a smartphone. For a tablet to seriously rival a conventional computer, it must be able to deliver document management capabilities. Being able to create, review, edit, and manage documents is essential to the daily activities of business users across the globe.

The ability to successfully manage documents depends greatly on the specific device and platform, all of which have their own strengths and weaknesses for business users. But regardless of the tablet, one necessary component to unlock business benefits across a variety of industries is a document viewer. HTML5 document viewers ensure that business users can access a variety of different documents from a single web browser without having to download any additional applications or software.

In this eBook, we will dive into recent tablet computing trends, the benefits tablets present for users in the insurance, healthcare, and shipping industries, and how pure HTML5 document viewers can be the key to successfully managing documents on tablets.
Goldilocks and the Three Computers: Smartphones, Tablets, and PCs

Global smartphone and tablet adoption is experiencing rapid growth as prices continue to drop around the world. Gartner’s most recent data reported that approximately 184 million tablets were shipped in 2013, signaling a 53.4 percent increase from 2012. Likewise, the firm projected mobile phone shipments grew by 3.7 percent, resulting in more than 1.8 billion units worldwide.

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The estimated global install base of PCs is still more than 1.5 billion according to Business Insider, while the tablet install base is much smaller at 400 million. But as the chart above underscores, tablets are now the main driver of growth in the device market and poised to define the future of computing as more and more users adopt them as a primary device.

Tablets unlock...

- **Mobility**: Ultra-slim, lightweight, portable, and easy to travel with.
- **Savings**: Competitive market has driven down tablet costs.
- **Extended battery life**: Tablets have a long enough battery life that you rarely need to worry about a charger.
- **Always-on capabilities**: Unlike with a PC which needs to be booted up, tablets are always on and operational.
- **Optimized software**: Applications engineered specifically for tablets provide significant productivity benefits.

### Worldwide Device Shipments by Segment (Thousands of Units)

<table>
<thead>
<tr>
<th></th>
<th>PC</th>
<th>Tablet</th>
<th>Mobile</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>341,273</td>
<td>120,203</td>
<td>1,746,177</td>
</tr>
<tr>
<td>2013</td>
<td>303,100</td>
<td>184,431</td>
<td>1,810,304</td>
</tr>
<tr>
<td>2014</td>
<td>281,568</td>
<td>263,229</td>
<td>1,905,030</td>
</tr>
</tbody>
</table>

Source: Gartner (projected on October 2013)
Key to Success: Benefits of Tablets in the Workforce

Perhaps the largest reason for tablet growth over PCs is due to the advantages they present for business use. According to Forrester, 30 percent of all enterprise end-user computing devices will be tablets by 2016. In addition, corporate purchases will account for 18 percent of the global tablet market.

Tablets will never fully replace PCs or smartphones altogether. Conventional PCs will still remain relevant to workers requiring a large display, storage space, access to peripherals, and processing power. Likewise, smartphones, which are nearly ubiquitous in 2014, provide essential calling and texting capabilities, as well as basic work functions such as e-mail and web-browsing.

However, it’s the tablet’s ability to combine some of the best features of both conventional PCs and smartphones into one device that make it such a versatile and productive tool for business users:

1. **Optimal screen size:** While smartphones are more portable and still have unique utility for business users as a phone, their smaller screen size presents challenges when it comes to viewing and managing full size documents. Tablets, on the other hand, pose no such issue and are available in a variety of sizes from 7 to 14 inches.

2. **Communications:** Regardless of location, users can gather information locally and share globally using lightning fast email, web browsing, and by uploading data (applications, forms, etc.) directly to the cloud. Tablets also bring many voice and video conferencing capabilities to the table.

3. **Presentations:** Tablets enable users to simply connect the device to a large screen with an AV system for a presentation or do a small demo directly on the tablet screen itself. The high resolution screens with sharp graphics make the tablet perfect for presenting slides, videos, and other multi-media content.

4. **Paper replacement:** Tablets offer a paperless alternative for data entry, note taking, and in-the-field reporting. The results are significant cost savings and a reduced environmental impact for businesses that rely on paperwork and forms.

5. **Reduces typing:** Applications for tablets that are menu driven reduce time-consuming typing and data entry. Well designed applications with intuitive radio buttons and drop down data fields make it easy for users to perform work tasks.

6. **Resource savings:** Tablets can save organizations valuable time and monetary resources. Along with being less expensive than PCs by a large margin, they are also easier to repair and maintain. In many cases, replacing a tablet costs less than repairing a PC, helping reduce down time and loss of productivity.
Defining tablets as…a touch first slab computer weighing less than 1.75 pounds, measuring 7 to 14 inches in diagonal screen area, and featuring always-on operation and 8-hour plus battery life.

Key Chain: Tablet Options

- **Apple (iOS)**
  - Business Benefits: Apple offers its business software for free (Pages, Numbers, and Keynote); extensive business application eco-system, including Microsoft Office 365 support for iOS; syncs documents, data, and media to iCloud
  - Drawbacks: Expensive; iOS is not an open platform; does not facilitate easy integration with Microsoft Exchange and SharePoint-based systems
  - Top models:
    - iPad Air (considered the best tablet on the market in 2014)
    - iPad Mini

- **Android**
  - Business Benefits: Strong, open ecosystem; robust user and developer community; vast array of apps and customization options make it highly versatile
  - Drawbacks: Not as intuitive as other operating systems and requires a more advanced user; lacks direct support for key Microsoft Office products
  - Top models:
    - Google: Nexus 7 (best balance of value and performance)
    - Samsung: Galaxy Note
    - Sony: Xperia Tablet Z (easy to customize; both dust and water-resistant)
    - Barnes & Noble: NOOK HD

- **Microsoft**
  - Business Benefits: Employs all of the Microsoft applications that business users are accustomed to (PowerPoint, Excel, Word, etc.); effortlessly syncs contacts, calendars, and work from Windows PCs
  - Drawbacks: Also very expensive; lacks vibrant user and developer community; limited applications
  - Top models:
    - Surface Pro (targeted towards business market; comes with a kickstand to clip on keyboard allowing users to have just one device)
    - T10 Windows Tablet (targeted towards medical industry)

Notes: Many tablets on the market today are designed for consumers and home users and are not adequately equipped to handle business and medical users (see: Amazon’s Kindle Fire). The healthcare industry, in particular, has very unique needs. The T10 Windows Tablet and the CyberMed T10 Tablet are two tablet options tailored specifically for healthcare computing.
Opening Doors: Tablets in Insurance, Medical, and Shipping

Tablets have become important devices across many different industries. Three in particular that have been quick to adopt tablets—and experienced massive benefits as a result—are insurance, healthcare, and shipping.

**Insurance:**

Due to a handful of factors, including evolving regulatory requirements, an uncertain economy, and demanding consumers, the insurance industry is currently faced with a myriad of challenges. The main obstacles for insurance companies are controlling costs and competing for profitable customers. One of the many ways insurers are adapting and staying competitive is by turning to mobile computing solutions like tablets.

While smartphones initially were a boon to insurance agents in the field by providing them with valuable mobility, their small screens were problematic for viewing and managing important documents and images. Tablets have emerged to provide them with the best of both worlds—allowing for the demands of portability, but also a larger screen size necessary to view critical information.

On top of the larger screen, tablets offer agents many other powerful tools for the field:

- high resolution displays to view case-related images and video
- collaboration tools such as cameras to take photos and audio/video recording capabilities to collect statements
- powerful processors to display and manipulate various media, including large documents, maps, and drawings
- unique applications for accident recreation that aid in determining responsibility
- digital pen capabilities to take notes, draw diagrams, and obtain signatures directly on the tablet screen

Combined, all of these tools allow insurance agents to do their job more effectively by expediting claims processing. The faster an agent can process a claim, the less the insurance company needs to pay out and the more likely they can remain competitive in a crowded market.
**Healthcare:**

Although they were slower to adopt than other industries, the healthcare sector has been turning to tablets in growing numbers. As of April 2013, Manhattan Research reported that 72 percent of physicians used a tablet—up 10 percent from 2012—while desktop and laptop use has leveled off. Similar to insurance agents in the field, doctors and nurses quickly discovered the benefits of the tablet. The light-weight platform allows workers to carry them around easily throughout the office or between multiple locations, while still ensuring secure access to the internet and various databases.

Because of this portability, health care workers are utilizing tablets for a variety of work tasks, including:

- reviewing electronic health records and other patient data via remote access
- reporting, updating, and inputting medical records digitally right in front of the patient, all of which save physicians and other clinicians valuable time by eliminating the need for data entry post-visit
- collaborating and communicating with both patients and other healthcare workers (scheduling appointments, managing prescriptions, etc.)
- showing patients educational videos in between the nurse’s screening and the doctor’s arrival

A 2013 survey conducted by Manhattan Research revealed that healthcare workers estimate they gain at least 1.2 hours per day in productivity when they use tablets over conventional PCs.
Shipping:

Just like their insurance industry counterparts, shipping companies serve customers who expect to receive constant updates about the status of their deliveries. Tablets have helped streamline this process to meet demands. At every touch point in the delivery, from the warehouse manager to the delivery driver, a tablet with appropriate hardware enables shipping workers to scan a barcode quickly and report the status of the delivery back to the central system while simultaneously sending notifications to the shipper or customer. Likewise, when a shipment is delivered, tablets help workers easily confirm receipt and log signatures in one fell swoop without having to locate a desktop computer.

In the competitive maritime shipping industry, a growing number of companies have been investing in mobile and tablet solutions to help them efficiently manage freight rate volatility, fuel costs, and vessel operations. Because maritime shipping operates across multiple time zones and requires coordination across the world within short timeframes, tablets allow workers to share information and communicate quickly.

Specifically for maritime shipping, tablets help...

- charterers to respond to quote requests quickly
- shipping companies to accurately estimate business expenses by accessing current freight rates, fuel costs, and running various scenarios
- operations management to adjust courses on the fly and re-route vessels

Regardless of whether the shipping is done on land or sea, shipping clerks benefit from easy-to-use tools like tablets to retrieve, view, and process documents and information.
If there is one common theme across all three of these industries and their growing reliance on tablets it is document management. Because of this, applications and software that can accommodate and facilitate document management on tablets have become increasingly important for businesses adopting tablets as primary work devices.

Because companies within these and other industries have the luxury of picking a tablet and operating system that best suits their needs, software vendors must make sure their products are compatible across many different platforms, systems, and devices to truly be successful. For vendors, the best way to ensure software compatibility on client-side applications is by employing pure HTML technology that guarantees function in any common computing environment. This is especially important in today’s business landscape, where employees are bringing their own mobile devices to work (BYOD), and need simple and easy-to-use software to access critical documents and images. In these instances, pure HTML5 solutions ensure compatibility with any device and browser with a working internet connection—mobile, tablet, or desktop—that a business worker might be using.

Although tablets open up possibilities for workers looking for mobile computing, they cannot fully ensure effective document management on their own. One necessary piece of software at the intersection of document management and pure HTML5 technology is a document viewer. Browser-based document viewers that perform the hard processing on a web server have the ability to work on any device—including tablets—providing business users in a variety of industries with powerful tools to view and manage hundreds of different document and image formats.

Without a document viewer, business and healthcare workers would need multiple applications installed on their device (Adobe Acrobat, Microsoft Word, etc.) to ensure that they can view all of the documents and images that come their way on any given day. These applications often require downloads and many updates, both of which are a burden for IT departments. The logistics involved with providing a far-flung network of users with the most up-to-date software can be an overwhelming task.

A powerful HTML5 document viewer with the appropriate server-side technology, however, requires no installation for the user and can support viewing of many document and image types (AFP, Word, Adobe PDF, PNG, PCL, TIFF, etc.), as well as standard and sophisticated handling capabilities such as zooming, rotation, multiple page handling, thumbnails, annotating, and redacting.

Along with the versatility to view any type of document or image, a document viewer also provides all of these business users with the ability to create virtual documents—a specific selection of pages from a case file consisting of several different documents with thousands of pages. After selecting the pages needed within a massive case file, the user can quickly scroll through the virtual document containing only the requested pages. Another major time saver for business workers is automated cursor placement, which pre-defines specific page locations so content can be copied or marked without the viewer having to manually move the cursor.

The best HTML5 document viewers have been optimized specifically for tablets so users can intuitively interact with documents using touch-based commands. With just a finger, users can easily add and edit annotations with pre-configured stamps like “approved,” “rejected,” and “for further review.” Other annotations known as dynamic stamps allow users to place data, time, author, and other pertinent info with one easy click.

Momentum-based scrolling also makes it easy for a user to navigate through thumbnails of a document with thousands of pages. All in all, a web-based document viewer optimized for smartphones and tablets makes the tasks of a business or healthcare professional much easier by speeding data entry and eliminating typing.
In today’s mobile landscape, tablets are an increasingly attractive option for business and healthcare users looking for a more portable primary computing device. They are not going to replace smartphones or conventional PCs altogether, but they do combine many essential features from both of these devices into one versatile and efficient business tool. The portability benefits for workers in a variety of industries combined with cost savings for their respective IT departments cannot be ignored and are reflected in recent tablet sales.

However, tablets can’t fully shoulder the load required of a business computing device on their own. To ensure a tablet is prepared to handle the document management capabilities needed within industries such as insurance, healthcare, and shipping, a document viewer should be employed. Pure HTML5 document viewers guarantee that these users can be as productive and responsive on a tablet as they would be on a conventional desktop computer for a fraction of the cost. Together, document viewers and tablets can unlock a wealth of business benefits.

For medical professionals, this means being able to pull up patient records - regardless of format - on a tablet while they are directly next to the patient without having to worry about having programs like Microsoft Word or Adobe Acrobat downloaded to their device.

For insurance agencies, this means being able to pull up a JPEG or PNG map of an accident on location, make edits, and send to other collaborators all from the tablet platform.

For a shipping clerk, this means being able to pull up a PDF document on a tablet and easily scan a barcode for immediate reporting back to central headquarters, as well as notifications to the shipper and customer.
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