

Success of Windows 8: Capturing multiple markets

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Abstract

This paper presents study on the market of Windows8. How it integrates both desktop and mobile. Our work in this paper is the study of Windows 8 for desktop, Windows 8 for mobile and business model of Windows8. At the end we have concluded the merits and demerits of windows8 desktop and mobile on basis of our study. Also, how Windows8 is better than its predecessors.

Keywords: Microsoft operating systems, Windows 8

1. Introduction

An operating system is a software program that acts as an interface between the user and computer hardware[1][2][3]. It can be called as a Product, software type, that is part of a system which deals with management and coordination of activities as well as look and feel of the interface. On October 26th, 2012 Microsoft added its latest operating system to Windows NT family called Windows 8. It includes major changes in the traditional desktop OS of its family, improving the user interface experience for use with touch screens – whether that's on a touch screen laptop, all-in-one PC, tablet or mobile platform.

REQUIREMENTS OF WINDOWS 8

The minimum computer hardware requirements for running Windows 8 as recommended by Microsoft are:

- **Processor** 1GHz or faster 32-bit (x86) or 64-bit (x64)
- **RAM** 1GB(32-bit) / 2GB(64-bit)
- **Disk space** 16GB (32-bit)/20GB(64-bit).

2. Windows 8 for Desktop

Windows 8 has much faster start up and shut down time, wake up from sleep and multimedia

performance than its predecessor Windows7. Features like inbuilt Virus protection, Web browsers performance, transferring large file, Microsoft excel performance[6] and improved overall performance has made it an extremely popular OS in a really short span of time. Windows 8 includes a new-style interface that is touch-screen optimized and integration with online services (including the ability to sync apps and settings between devices).

2.1 Boot time

Windows 8 has improved significantly in boot time, as compared to its predecessor, along with a new secure boot option that is enabled by default. This is due to the better resource allocations to applications and the system [4]. When the system shuts down. It closes all your programs as normal, but the kernel is now hibernated, its RAM contents saved to your hard drive. This doesn't take long, and when you reboot your system can be reinitialised far faster than before.

2.2 Dynamic Desktop

Windows 8's metro interface no longer hold you to the old boring static shortcut icons to launch apps. Instead you now see dynamic tiles with which you can play as per your wish be it change in size,

position or organizing them in relevant groups. These tiles are not just an application launcher but also display the current information from them. For instance, if your RSS feed has got something interesting, it will start to show on the tile right away.

2.3 Advance search

The search capability is even stronger this time, displaying all the matching apps and files instantaneously with a feature to search within apps also. The search pane on right side of screen will contain the list of apps in which you can conduct the search. For instance, if you're looking for the emails sent by a particular contact, typing that name and clicking on the email app would allow you to search from within.

2.4 Synchronization

Windows 8 live syncing is a feature that allows you to open your personalized operating system from any PC, mobile, or tablet device on which you use Windows 8. You only need to create your Microsoft Live ID. Windows 8 with that particular Live ID, whether it was on your mobile, tablet device, or PC. This ensures that you'll always have your favourite stuff that you back up on Windows 8 using Microsoft SkyDrive. Since you must first sign in with a live ID. This ensures that only you can access your personal start screen.

2.5 Run other operating systems

Windows 8 now includes Microsoft's Client Hyper-V virtualization platform, which allows you to install other operating systems onto virtual machines and run them on your desktop. However you need to be running 64-bit Windows and have a CPU which supports Second Level Address Translation (that's Intel's Core i3, i5 and i7 and AMD's Barcelona processors). If your system qualifies these then you'll find this is a far better and more powerful solution than Microsoft's Virtual PC, or Windows 7's XP Mode, and should be ideal for running most legacy applications on your Windows 8 system.

2.6 Mount ISO files

Since most of software downloads are in .ISO format. This requires going through some extra steps to burn the software to a DVD or USB storage keys. Windows 8's mount ISO feature is

an edge over Windows 7's ability to burn ISO images to disc. Just right-click the image, select Mount, and a new virtual optical drive will appear in Explorer. Double-click this to view the image contents, launch whatever programs it contains, click the "set-up" .EXE file to install the software or generally treat it just like any other disc.

2.7 Touch Screen & Smart screen

Windows 8 interface is built for touch i.e. including a right-edge swipe that reveals various Windows controls and a left-edge swipe that allows for the quick re-focusing of previously used applications. An additional touch feature new to Windows 8 is the Picture Password system. When logging into the computer or tablet, users trace patterns around their own pictures. In the same way a password's characters are analysed during authentication, Picture Password analyses a drawn pattern to confirm it is correct for authentication. Microsoft has included a useful feature called Smart Screen in Internet Explorer 9 that helps protect your PC against malicious software downloads.

2.8 Task Manager

Windows 8 task manager has got most impressive makeover from the old task manager with Processes tab being completely redesigned, Performance and networking tabs are merged and some new tabs such as App history and startup are introduced. It gives an easy interface to kill processes and applications. It provides a very simple interface by default, with a list of running desktop applications and Metro-style apps. You can right-click any of these and kill them immediately.

3. Windows 8 for Mobile

The boot time reduction is carried here as well. Windows 8 reduces the boot time of Windows 7 by approx. 50% which is most welcome feature of mobile device[5]. Among all OS present in the market, Windows phone 8 is the best mobile OS with intuitive shortcuts, many attractive features and customization options. Some Smartphones which runs windows 8 are: Nokia Lumia 920, 820, 810, 822, 620, HTC Windows phone 8X, 8S etc. having following the major features:

3.1 Tiles

Windows Phone 8 Live Tiles are the squares that populate the Start screen, they can be

customized—the majority of which update automatically with new information from their associated app or feature. For example, a tile for an email account might flip to show new messages, while a Facebook tile might show status updates and friend requests. While Windows Phone 8 allows you to pin a variety of items to the Start screen (such as webpages, videos, and photo albums), not all of these items constantly up-date their information, only specific apps can update their Live Tiles. Additionally, some apps do not offer Live Tile functionality at all, while others only have it when displayed in certain sizes.

3.2 Groups and Rooms

Rooms and Groups are designed to help you connect with family and close friends. Rooms are invitation-specific places where users can connect with other invited members. When one member shares a photo, video, note, or calendar event in the room, all the members of the room can see that shared item. The Groups feature is best for lists of people—such as close friends, coworkers, or schoolmates—whose social updates you want to see in one place. You can email, text, and instant message an entire group at once.

3.3 Kid's Corner

Windows 8 phone offer you a safe mode for your privacy not only from kids but also from other users of your phone. When using Kid's Corner, users can choose to hide some of the tiles that normally appear. In addition, a child or friend can set up their own tiles. This way, the data that you want to keep safe, like a Facebook update, will be hidden from view when someone else uses your phone. It's a simplified version of the Start screen's interface, with a lock screen and a tiled list of preapproved apps and games. You can choose a child's name as the title, and then select a color scheme (dark or light) and an accent color for the tiles that don't have pictures.

3.4 NFC and Wallet

Through NFC, you can wirelessly transfer files, apps, games, contacts, videos, and other content simply by pressing your phone to another NFC-enabled device. NFC technology also enables Windows Phone 8 handsets to support mobile payment and digital wallet functions.

3.5 Data Sense:

Data Sense uses a combination of a Live Tile and an app to help users stay on top of their data usage and set appropriate limits. The Data Sense tile constantly rotates to show relevant information, such as how much time is left in your billing cycle. You can use the feature on any Windows Phone 8 handset, but the carrier must first enable it .

3.6 Xbox SmartGlass:

If you have an Xbox 360, you can use your Windows Phone 8 device to navigate menus, type on the Xbox, and browse the Internet via the SmartGlass app. The app also lets you play, pause, fast-forward, rewind, and stop any videos and music, along with enjoying interactive experiences in (select) game and entertainment content.

3.7 Lenses:

You can edit photos taken with your Windows Phone 8 handset using Lenses, available in the Windows Phone Store. Once you've installed them, you can access Lenses directly from the camera. These apps can apply filters or special effects such as interactive 3D panoramas, animations, or Smart Shoot .

3.8 Windows 8 UI:

Windows 8 UI includetouch-optimized Windows shell based on Microsoft's "Metro" design language. It has been redesigned mainly to make it more tablet- and touch oriented. It has live tiles, all those additional icons, buttons and chunks of text are gone and only the essential is left. In fact, the interface is so simplified that even the battery, signal and Wi-Fi indicators are gone, and only appear if you press the top of the screen. When you compare it to Android, you can't help but realize the latter has a bit too much information on the homescreen and that some of it could be hidden.

Another striking element is the consistency on the homescreen: even though tiles can be resized, their shapes remain the same and the grid on which they're placed adds to the uniformity. Windows Phone 8's home screen looks neat and well organized, unlike Android's inconsistent and diverse widgets.

3.9 Hubs

Hubs are a major functional element of Microsoft's new user interface and are present on

all Windows (Phone)8 devices. They are extremely well integrated with the operating system and are far more than “shortcut databases” that link to applications. The Music Hub, for instance, lets you access your entire music collection, as well as new tracks – both on the cloud and locally – your music apps and suggested content from Xbox Music. In any hub, the interface is very sleek and remains in phase with the rest of the OS, with the addition of a background picture, generated automatically from your content. All applications integrate automatically with the appropriate Hub.

3.10 Unified Messaging

Windows Phone 8 integrates text messaging and Facebook chat transparently, facilitating communication. Your contacts’ statuses appear directly in the messaging app and the conversation will be routed through the appropriate service, depending on your contact’s availability and your data connection.

3.11 Social Applications

Windows 8 will not only show Facebook and LinkedIn contacts in its People contact book but also let you anchor people on your Start screen, see status updates and share across multiple social networks from all over the OS. Microsoft has integrated Facebook and Flickr at the core for photos, letting you see images stored on your accounts, other peoples’ accounts, and up on your own SkyDrive cloud storage account, including your local photos.

4. Business model of windows 8

Businesses could empower their workforce using some the improved features of windows8. With support to working remotely, ease-of-management for administrators, and a natural and inviting user interface, Windows 8 can help the employees to be more productive and help keep the data more secure.

4.1 Social networking Apps

Skype: Skype, now owned by Microsoft, is integrated into Windows 8, the app integrates with certain other apps such as the People app where the contact information for individuals is stored and managed on the cloud. The smart screen live Skype tile displays most recent call and message history. Users can call others who have Skype clients or with a new dial pad in the application

can call phones on the public network using prepaid minutes.

Skype users can sign in using their Microsoft ID or Skype account info, also the People hub includes Skype contacts. Microsoft is currently working on technology that lets you receive call and message notifications, even when the app is closed

4.2 Cloud storage: Box

The cloud storage app to backup all your essential data for access via different locations or devices is known as Box in Windows8.

4.3 Smart Screen

The Smart Screen filtering feature allows checking the downloads against virus automatically but Microsoft faced concerns surrounding the privacy, legality and effectiveness of the new system with threat that the automatic analysis of files (which involves sending a cryptographic hash of the file and the user's IP address to a server) could be used to build a database of users' downloads. Later Microsoft confirmed IP addresses were only being collected as part of the normal operation of the service and would be periodically deleted, and SmartScreen on Windows 8 would only use SSL 3.0.

4.4 Enhanced end-to-end security features

With features like inbuilt virus protection and secure boot windows8 provide a secure environment to keep business running. Secure Boot validates the integrity of the entire boot process, including the hardware, boot loader, kernel, boot-related system files, and drivers. Antimalware is loaded in advance of all non-critical Windows components. Thus its less likely to have attacks from virus such as rootkit.

4.5 Unified management across devices

Windows 8 supports fast and easy deployment with ACT (Application Compatibility Toolkit) to test and mitigate potential application compatibility. Migration of data can be automated with the User State Migration Tool (USMT). The two interesting features of windows 8 that have made the jump from the Server side of the family are Storage Spaces or you can say a rigged Drive Extender and Hyper Windows Server Virtualization. Storage Spaces is a full-fledged software RAID package, allowing thin provisioning. Hyper-V is a flexible, robust, and high-performing client virtualization technology

that enables enterprise developers to develop, debug, and test multiple configurations of apps and operating systems on a single PC along with connecting them to remote computers securing Remote Desktop Services (RDS).

5. Conclusion

Windows8 with improved battery life has some lead advantages over Windows 7 such as touch optimization, smart screen, better multi-screen support, live tiles, windows charms and inbuilt virus protection. But in contrast, it lacks 3D graphic performance and high resolution gaming performance. There are a number of above reasons why business may benefit from accepting Windows 8. Of course, adopting any new OS imposes a learning curve on users, but once your workforce gets comfortable with Windows 8, its benefits can outweigh its drawbacks.

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