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Project Proposal 2007

Evaluation of Microsoft Windows Vista

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Background

Microsoft released what they consider to be their best operating system (OS) to date at the end of January 2007, known as Windows Vista. Vista has taken some six years to develop due to many proposed new features. These features are the reasons for the delay in the release of Vista.

Vista was released to great anticipation from the community that couldn't wait to see what Microsoft had put together.

Resources

1. Literature Review

One of the main areas of talk regarding Vista is the new and improved security, better file handling and retrieval and the user interface, which many say requires substantial hardware upgrade to run. In Windows XP, before one could perform functions such as installations, they had to be logged in as administrators. This, according to an article on bit-tech.net [http://www.bit-tech.net/bits/2007/01/30/Windows_Vista_review/1.html; accessed on 3 March], allowed for malicious software to run with no problems on most machines. Vista has apparently fixed this problem by allowing a user currently logged on as a non-administrator to enter the admin password before they can perform admin functions. This way, one does not need to operate in administrator mode all the time, but only when it is required. Still on the security issue, according to the above mentioned site, anti-virus software was used to hack into the windows kernel to stop malicious software before Windows got hold of them. The ability for programs to do this has now been blocked off completely. Windows has also introduced what is known as SuperFetch into the Vista OS which preloads the most frequently used programs into system memory so as to help the OS run much faster. Basically, Vista should run much faster than XP ever did. There are numerous other features that are mentioned in a variety of other articles. Most of these features will be looked at during the course of the evaluation of Vista.

2. Systems Requirements

The following system requirements for Vista were taken from the Microsoft website. I've presented two sets of requirements, one for Vista Home Basic and a second for Home Premium, Business and Ultimate.

Home Basic	Home Premium/Business/Ultimate
<ul style="list-style-type: none">• 1 GHz 32-bit (x86) or 64-bit (x64) processor• 512 system memory (RAM)• 20 GB of hard drive space with at least 15 GB free• Support for DirectX 9 graphics and 32 MB of graphics memory• DVD-ROM drive• Audio output• Internet Access	<ul style="list-style-type: none">• 1 GHz 32-bit (x86) or 64-bit (x64) processor• 1 GB system memory (RAM)• 40 GB hard drive space with at least 15 GB free• Support for DirectX 9 graphics with WDDM driver, 128 MB graphics memory (min), Pixel shader 2 in hardware and 32 bits per pixel.• DVD-ROM drive• Audio output• Internet Access

I am testing out Vista Ultimate on a machine with the following specifications:

- Intel Core 2 Duo, 1.86 GHz per processor chip
- 2 GB of system memory
- 150 GB hard drive
- 128 MB graphics card with DirectX 9c support
- DVD-RW drive
- Audio output
- Internet access

The specifications of the provided computer allow me to run Vista at its ultimate.

Plan of Action (Implementation)

My plans for the project include a number of tests that will be performed on Vista in order to determine its compatibility with other systems, hardware and network interfaces. Some of the tests include:

Installation

This will take a look at how Vista installation differs from that of its predecessor, Windows XP, whether it's easier to install or more complex.

Initial Assessments

This involves getting to know the interface, what has changed, and what is new to Vista. This aims to test whether someone moving from Windows XP to Vista will find it easy, or complicated.

Microsoft Office Test

Microsoft recommends that Vista be used with Office 2007 rather than Office 2003. This will aim to test whether Vista is more compatible with Office 2007 or Office 2003. In the same breath, I will also take a look at the compatibility between XP and Office 2007.

Implementation and Resources

One of the most notable things about Vista is the new user interface it presents. It has been speculated that system requirements of Vista are extremely high and thus the average computer will not be able to run Vista properly. This will aim at testing Vista with different systems with different specifications, and assessing differences in performance.

Servers

Windows Server 2007, codenamed Longhorn, is the next generation of server operating systems from Microsoft. According to an article on Wikipedia [http://en.wikipedia.org/wiki/Windows_Server%22Longhorn%22] , Longhorn should be to Vista what Windows Server 2003 was to Windows XP. Vista will be tested with both servers to determine if it can communicate with both equally well, or whether its better with one than the other.

Installation on a large scale

This will involve looking at how Vista does when it is rolled out to multiple machines on a large scale, e.g. in a computer laboratory situation.

Timeline

The project is expected to span the course of my computer science honours year. At the present time, the weekly intervals given below are mere approximations and are subject to variations.

Time (in weeks)	Activity
2 Weeks	Getting to grips with the Vista operating system. Understanding how it works
3 Weeks	Testing out Vista's security features
3 Weeks	Installation of MS Office 2003. Evaluate performance on Vista
4 Weeks	Installation of MS Office 2007. Evaluate performance on Vista and XP
2 Weeks	Testing Vista's file handling system
5 Weeks	a) Investigate copying Vista from one machine to other machines b) Install Vista on computers connected to a domain and see if the machines are allocated a unique ID such as XP's system ID (SID)
4 Weeks	Testing Vista and Server 2003, and Vista and Longhorn
6 Weeks	Final project write up

Expected Results

When Vista was released, I recall myself watching lots of news bulletins in which many criticized Vista as "Just another service pack for Windows XP". I believe that after six years of work, Vista is not just another "service pack" but houses more features than many might think. I hope to show that Vista runs much better than XP on a network and as a stand alone, performs better than XP and has much improved security.

References

Wikipedia, 2007. *Windows Server “Longhorn”*. Available:

http://en.wikipedia.org/wiki/Windows_Server_%22Longhorn%22

Microsoft, 2007. *Microsoft Windows Vista*. Available: <http://www.microsoft.com/windowsvista>

Microsoft, 2007. *Learn About Features [SuperFetch]*. Available:

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