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| Conestoga College |
| PROG1590 |
| Assignment – Module 2 |
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| **Conestoga** |
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# Android

## Who owns the operating system? (Who is the manufacturer?)

* Google Inc. manufactures the Android operating system and then releases it as open source under the Android Operating System Project
* The Android name and logo are property of Google Inc. and may only be used under specific conditions (Google Inc.)

## What is the current version available?

* Android is released using standard the “major.minor” release format
* The current minor release version of Android is version 4.1, also known as Jellybean (Google Inc.)
* The current major release version of Android is version 4.0, also known as Ice Cream Sandwich (Google Inc.)

## What type of system is it?

* Android could be seen as a single user operating system as devices are usually only owned and used by one person.

## What is the cost?

* The android source code itself is licensed under the Apache 2.0 software license because it lends itself better to device manufacturers and application developers. All kernel code and patches are licensed however with the GPLv2 or GNU Public License. (Google Inc.)
* The Android name, logo, and trademarks are properties of Google and may only be used with permission. The Android name may be used as a descriptor so long as it is followed by a generic term. (ie. Come see our current Android™ devices!) (Google Inc.)
* The Android robot logo is freely modifiable and reproducible and is licenced under the Creative Commons Attribution license. (Google Inc.)

## Who are the primary users?

* The Android operating system is designed to be run on consumer electronic devices such as mobile phones and televisions.
* Therefore, anyone who uses consumer electronic devices such as mobile phones and televisions may be primary users.

## What is the market share?

Android is currently dominating the smart phone market. In Q1 2012, phones running the Android operating system came in with a market share of 56.1%. (Gartner, Inc., 2012) This is a 19.7% increase from last year where Android rang in at 36.4%

# BSD (Berkley Software Distribution)

## Who owns the operating system? (Who is the manufacturer?)

* Berkeley Software Distribution is property of UC Berkeley and is licensed under the open source BSD license.

## What is the current version available?

* The most current stable release for BSD as it comes from Berkeley itself is version 4.4 release 2

## What type of system is it?

* BSD is a multiuser distribution much like Unix and Linux

## What is the cost? (Or what open source license does it fall under?)

* Berkeley Software Distribution falls under the BSD open source license license

## Who are the primary users?

* The original BSD is rarely used these days however it powers many derivative projects such as:
  + FreeBSD
  + OpenBSD
  + PC-BSD
  + NetBSD
* Many web servers are powered by BSD derivatives (however more are powered by linux)
* BSD derivatives power many telecommunications companies

## What is the market share?

* After AT&T tried to kill BSD, BSD was able to spawn a few derivatives which have helped bump their market share. Those derivatives are now doing quite well for themselves.
* BSD occupies about 1.2% web server market share (W3Techs)
* Also, Mac OS X is a derivative of BSD

# iOS

## Who owns the operating system? (Who is the manufacturer?)

iOS, previously known as iPhone OS, is a mobile operating system designed, manufactured, and owned by Apple Inc. to run on their mobile devices such as the iPhone, iPod Touch, and the iPad (also known as the HumancentiPad (HumancentiPad)).

## What is the current version available?

The latest version to iOS is version 5, adding “200 new features” (Apple Inc)

## What type of system is it?

* iOS is designed as a single user mobile phone operating system for running on Apple devices

## What is the cost? (Or what open source license does it fall under?)

* iOS cannot be purchased by itself
* iOS can only be purchased in a package with Apple’s mobile consumer electronic devices

## Who are the primary users?

* Since this operating system will only run on Apple made hardware, the primary users can and will only be people who buy into Apple’s iPads, iPhones, and iPod Touches.

## What is the market share?

* In Q1 of 2012, iOS has managed to obtain 22.9% market share, growing from last year’s 16.9%

# GNU/Linux

## Who owns the operating system? (Who is the manufacturer?)

* Linux is not and cannot be owned by one person
* Linux is the collaboration between a multitude of different open source projects

## What is the current version available?

* The latest stable release of the Linux kernel is version 3.5.3

## What type of system is it?

* GNU/Linux is a multiuser operating system
* Multiple terminals are available through multiple TTYs

## What is the cost? (Or what open source license does it fall under?)

* Linux is both a free “as in freedom” as well as free “as in beer”
* The Linux kernel is licensed under the GPLv2
* The GNU tools that Linux borrows are protected by Richard Stallman himself (http://bit.ly/bFFROb)

## Who are the primary users?

* Because Linux is so open, it’s possibilities are almost limitless
* People who use desktop and laptop PCs
* People who have mobile devices such as smartphones and tablets
* Consumer printers

## What is the market share?

* Since the applications for Linux are so widespread, calculating exact market share is difficult
* Desktop Linux market shares have been seen to vary between 1.67% of overall traffic to 25.36% (Noyes, 2012)
* On mobile, Android has taken the Linux operating system and run with it, bringing in dominant market share over all smartphone users

# Mac OS X

## Who owns the operating system? (Who is the manufacturer?)

* Apple Inc. (with the exception of all the GNU tools they borrow)

## What is the current version available?

* The latest version of Mac OS X is Mountain Lion

## What type of system is it?

* Mac OS X is a single user operating system unless other applications are added to modify it’s behaviour

## What is the cost? (Or what open source license does it fall under?)

* All Macs come with the Mac OSX operating system
* The Mac OSX operating system does not “want” to be installed on anything other than a Mac
* An upgrade to the latest edition of Mac OS X costs $19.99 from Apple Inc.

## Who are the primary users?

* Desktop and laptop users who would like to use a Macintosh

## What is the market share?

* Mac OS X occupies around a 7.78% market share (Zachte, 2012)

# Microsoft Windows

## Who owns the operating system? (Who is the manufacturer?)

* Microsoft Corporation owns and manufactures the Windows operating system (Microsoft)

## What is the current version available?

* The most recent release of Windows is version 7 service pack 1
* Windows 8 is soon on the horizon

## What type of system is it?

* Windows 7 ships in many different editions which change whether or not it is a multi-user operating system
* Windows 7 Basic and Home Premium are single-user operating systems as they only allow one person to use the local terminal at a time
* Windows 7 Professional, Ultimate, and Enterprise all allow remote terminal access which would make Windows into a multi-user operating system

## What is the cost? (Or what open source license does it fall under?)

* The cost of the Windows operating system varies depending on which model is purchased
* The Windows operating system can also be purchased pre-installed on many laptop and desktop computers

## Who are the primary users?

* Microsoft Windows is a desktop and laptop operating system for PCs
* Most people who have PCs would be running Microsoft Windows

## What is the market share?

* By Windows version: Windows 7 at 42.76%, Windows Vista at 6.15%, Windows XP at 42.15%, and Windows 2000 at 0.07% (NETMARKETSHARE, 2012)
* Total accumulated market share: 91.13% total overall market share

# Microsoft Windows Server

## Who owns the operating system? (Who is the manufacturer?)

* Microsoft Corporation owns and manufactures the Windows operating system

## What is the current version available?

* The most recent version of Windows server available is version 2012

## What type of system is it?

* Windows Server is a multiuser operating system with remote terminals available through Terminal Services

## What is the cost? (Or what open source license does it fall under?)

* Windows Server costs different amounts depending upon what license you put it under and or the number of user accounts on the server

## Who are the primary users?

* Businesses and organizations who use the Microsoft Server suite of products such as IIS, Active Directory, and Exchange
* Those who want virtual machines through something like VMWare

## What is the market share?

* Windows Server dominates the internal enterprise networks but its but whooped when it comes to the publicly accessible web (Brodkin, 2011)

# Microsoft Windows Mobile/Phone

## Who owns the operating system? (Who is the manufacturer?)

* Microsoft Corporation owns and manufactures the Windows operating system

## What is the current version available?

* The most current version available is Windows Phone 7
* Windows Phone 8 is soon on the horizon

## What type of system is it?

* Windows Phone is designed as a single user mobile phone operating system running on a specific set of devices

## What is the cost? (Or what open source license does it fall under?)

* The consumer cannot buy Windows Phone directly
* The consumer can only go and buy a phone already pre licensed with Windows Phone on it already

## Who are the primary users?

* Anyone who may want a smartphone could be a primary user

## What is the market share?

* Windows Phone came in late in the smart phone game and so currently the market share is quite small and growing slowly

# IBM z/OS

## Who owns the operating system? (Who is the manufacturer?)

* z/OS is owned by IBM

## What is the current version available?

* The latest version of z/OS is release 13

## What type of system is it?

* z/OS is a multiuser operating system

## What is the cost? (Or what open source license does it fall under?)

* z/OS pricing is done on a per use basis so you would need to get a quote to get an accurate price range

## Who are the primary users?

* z/OS is primarily used in enterprise and mainframe environments

## What is the market share?

* z/OS basically owns the mainframe market
* “Over 80% of the world's corporate and government data resides on mainframes” (Computer & Communications Industry Association, 2012)
* “Nearly 95% of Fortune 1000 companies use IBM's Information Management System (IMS) for their critical data management needs” (Computer & Communications Industry Association, 2012)

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