Microsoft's Plans For The Internet:
Some Key Issues

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Open Standards, Open Source

What Are Open Standards?

- Open standards are technology specifications that are ...
  - Published so anyone can read & use them
  - Agreed upon
  - Changed after a review process
- To learn more, you can go to:
  - RFCs
  - W3C

Examples Of Open Standards

- HTML, the language of Web pages
- POP & SMTP, which transfers email
- ASCII, used by any text editor
- JPEG, which displays images
- TCP/IP, the language of the Internet
- XML, the future language of the Web

Importance Of Open Standards

- The Internet was built on Open Standards
- The use of Open Standards …
  - Allows for innovation
  - Prevents "vendor lock-in"
  - Is inclusive for all types of computers & users

What Is Open Source?

- Developers can see, use, & change the code
- Code may be freely redistributed without restriction
- Public specification, development, & extension process
- Often made freely available

Open Source Licensing

- Various licenses govern Open Source software
- All use the word "free"
  - Free = freedom
  - Free may or may not = $$$
- Most famous is GPL, the GNU Public License

GPL In Its Own Words

- "Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for this service if you wish), that you receive source code or can get it if you want it, that you can change the software or use pieces of it in new free programs; and that you know you can do these things."

  From the GNU General Public License

GPL Terms

- You may freely redistribute GPL'd software
  - You may also charge $$$ for GPL'd software
- You may make changes to GPL'd software & resell it
- However, any changes must be Open Source & included with the software

Examples Of Open Source

Technology	Description	License(s)
Linux	Operating System	GPL
FreeBSD	Operating System	BSD & GPL
StarOffice	Office Suite	GPL & SISSL
Zope	Web Application Development	Zope
Jabber	Instant Messaging	JOSL
Perl	Programming Language	GPL & Artistic
Apache	Web server	Apache
Mozilla	Web browser (Netscape)	Mozilla & BSD

Advantages Of Open Source

- Instead of being controlled *by* your software, software is controlled by you
    - Example: the Windows "NSAKEY"
        - Does it allow the NSA to snoop into our computers?
        - Microsoft says it's harmless (& it probably is), but ...
        - We have to trust them, since Windows is closed source
- Code is constantly improved through massive peer review
- Software can be ported to other platforms
- Better security because more eyes

Microsoft

- Passport
- Hailstorm
- Product Activation
- Assault On Open Source

Microsoft:
Passport & Hailstorm

What Are Cookies?

- To understand Passport, you must understand cookies
- Cookies:
  - Invented by Netscape
  - Small text files of information about you that a Web site stores on your hard drive
  - Designed to help the Web site remember information about you next time you visit

Sample Cookies

Barnes And Noble:
scott@barnesandnoble.txt:
userid
87U45T875R
barnesandnoble.com/
0
8764532546
98764576
8764536462
*

Amazon:
scott@amazon.txt:
765478976
amazon.com/
0
7645621134
87112354
987112364
28345753
*

An Evaluation Of Cookies

- Only the Web site that set a cookie can view that cookie

- Until you buy something or enter personal information, a Web site cannot link a cookie to a specific person

- You can block cookies using your Web browser or proxy software such as Webwasher

You May Be Using Passport

- Every day, millions of people sign in to Passport

- 130 million Passport accounts currently exist

- Most people don't even realize they're using Passport

The Passport Connection

- Go to www.hotmail.com
- Notice that you're redirected to hotmail.passport.com instead
- You don't sign in to Hotmail ... you sign in to Passport first
- Same thing for Slate, Expedia, MoneyCentral, MSN, GamingZone ...
- Basically, any Microsoft Web site that asks you to log in uses Passport

Other Microsoft Uses For Passport

- Microsoft Reader
  - Software that reads electronic books
  - Must activate with Passport to use
- Microsoft Train Simulator
  - Must register with Passport to get support
- Microsoft Office 2000 for the Macintosh
  - Must register with Passport to get support
- More and more Microsoft products & services require Passport

Windows XP & Passport

- **XP features *requiring* Passport**
  - **Windows Messenger**
    - Revolutionary new Instant Messaging software
    - Will support instant messaging, video conferencing, phone calls over the Internet, file sharing, & more
  - **Web Publishing**
  - **Order Prints**
    - Order prints of your electronic images

Some Companies Using Passport

- 1-800-Flowers
- Buy.com
- Costco Online
- Crutchfield
- Expedia.com
- Fossil.com
- Godiva
- Hilton.com
- McAfee.com
- OfficeDepot
- OfficeMax.com
- RadioShack.com
- Sports Authority
- Victoria's Secret
- Wine.com

Microsoft's Vision For Passport

"It's our goal to have virtually everybody who uses the Internet to have one of these Passport connections."

- Bill Gates, March 2001

Cookies & Passport

Passport = Cookies on steroids

Cookies	Passport
Viewable only by site that set cookie	Many Web sites share data about you
Not linked to a specific person until purchase	Must enter personal information to use
Can manage using browser or proxy software	Must enable to access sites

Passport Terms Of Use

- "Microsoft reserves the right to change the terms, conditions, and notices under which the Passport Web Site and Passport Services are offered. You are responsible for regularly reviewing these terms and conditions. Continued use of the Passport Web Site or Passport Services after any such changes shall constitute your consent to such changes."

  From the Passport Terms of Use

Can We Trust Microsoft? Microsoft's Answer

- "Why should I trust Microsoft with my information?
  - In recent years, Microsoft has consistently been ranked as one of the most respected corporations in North America by the general public.
  - In addition, Microsoft has been a champion of Internet privacy standards and privacy organizations for many years."

  From the Microsoft Passport Q & A

Microsoft Has Your Data

- www.passport.com is where you set up and edit your Passport account

- profiles.msn.com contains your public Passport profile

- Your data can be spread around throughout any of Microsoft's online properties

What Is Hailstorm?

- Microsoft provides services offered via the Web
- Usage is free only up to a quota
- After that, you pay monthly service fees
- Fees are billed on your credit card directly to Microsoft
- You sign in to Hailstorm using Passport

Hailstorm's Web Services

- Identification and authentication on Web sites
- E-mail
- Instant messaging
- Automated alerts
- Calendars
- Address books
- Storage of files
- Credit card numbers
- & more …

The Hailstorm Vision

- Everything talks to everything else
  - eBay notifies Hailstorm that you've been outbid
  - Hailstorm notifies MSN Messenger
  - MSN Messenger notifies your cell phone
  - Meanwhile, MSN Messenger instructs eBay to increase the bid
  - You win, so eBay notifies Hailstorm
  - Hailstorm deducts $$$ from your bank account
- Your intervention is not required

The Hailstorm Vision (con't.)

- You book your flight home on Expedia
- Your flight is delayed in the air
- Expedia …
  - Calls your Mom's cell phone with a message that you're going to be late
  - Sends an email to Dad at home so he knows to change dinner reservations

Microsoft's Hailstorm Vision

- Lots of people sign up for Hailstorm
- Hailstorm attracts businesses because of the people
- As more businesses sign up, more people sign up
- As more people sign up, more businesses sign up
- Microsoft gets a "vig" (cut) on every Web transaction

Microsoft Needs To Know Everything About You

- Your user profile: name, address, etc.
- What devices you use: computer, cell phone, pager, instant messenger
- Your favorite Web sites
- Where you are at any given moment
- Your credit card numbers & billing information
- Your personal calendar & contact list

Microsoft Will Now Know ...

- All the personal information you enter into Hailstorm

- What Hailstorm Web sites you frequent

- What Hailstorm services you use

- Microsoft will have more personal data about you than any other company

How Will Microsoft Get Users?

- It will leverage 2 monopolies & 1 powerhouse
  - Windows: 90% of all personal computers
  - Office: 90% of all office suites
  - MSN: 230 million unique users worldwide
- Microsoft's goal: 100 million users within a year

Is Hailstorm Safe?

Microsoft Says	But …
You choose which information is stored	How do you get it out once it's in?
We will use a secure data center	Microsoft's security record is problematic
Centralization is good	Centralization is an attractive target for hackers & criminals - and it's a single point of failure
We will not mine your data … unless you opt in	It's irresistible to marketers … & Microsoft!

Is Hailstorm Open?

- Microsoft explains that Hailstorm is built around technology standards called XML & SOAP
- Therefore, Microsoft claims that Hailstorm is open
- However, it is only open one way
    - Sure, any company, platform, or device can *interact* with Hailstorm
    - However, Microsoft controls Hailstorm servers
    - Analogy: "You can drive any car you want, as long as you buy my gas."
- Will Microsoft "embrace & extend" XML & SOAP?

Microsoft Controls The Schema

- Schema = Organization & structure of data
- "The initial release of HailStorm provides a basic set of possible services users and developers might need. Beyond that, new services … and extensions will be defined via the Microsoft Open Process with developer community involvement. There will be a single schema for each area to avoid conflicts that are detrimental to users (like having both myTV and myFavoriteTVShows) and to ensure a consistent architectural approach …"
  - From the Microsoft Hailstorm white paper

Companies Using Hailstorm

- American Express
- eBay
- Expedia.com
- Groove Networks
- McAfee
- VeriSign

Log On To Windows, Log On To Passport, Log On To Hailstorm

- "Windows XP will integrate the Windows authentication system with the Passport authentication system, so a user can log onto Windows XP a single time and also be logged onto Passport and therefore be able to receive HailStorm services without an additional logon process."

  From the Microsoft Whitepaper on Hailstorm

Microsoft: Product Activation

What Is Product Activation?

- Appearing in the following software products:
  - Windows XP
  - Office XP
  - Eventually, most or all Microsoft software
- You must activate the software via Net or phone
- You get 50 Office start-ups or 30 days of Windows use
- If you haven't activated by then, the products don't work anymore

The Product Activation Process

- Upon installation, your hardware is read & a hash code is generated for your specific computer
- Your CD has an ID number associated with it
- Hash code + ID number = Product ID code
- You provide Product ID Code via phone or Net
- An automatically generated Installation ID finally confirms activation, & you can use your software ...
- Unless you change your hardware "substantially"

Microsoft's Reasons

- Prevent "casual copying"
- "… Make sure that customers who choose Microsoft software products acquire genuine software and are eligible for technical support and product upgrades."
- "Consumers are not required to provide any personally identifiable information …"

From the "Microsoft Anti-Piracy" Press Release

Product Activation Is Problematic

- David Chernicoff, Windows 2000 Magazine
  - Office XP thought his copy was already activated elsewhere
  - Product-activation support person was clueless
- David Coursey, ZDNet
  - Office XP is activated on his laptop
  - He goes on a business trip & Office thinks it needs to be activated again

Microsoft Must Approve Changes In Your Environment

- You must convince Microsoft to OK any changes you make to your system or environment
- Microsoft is now a complete partner in how you use your computer

Microsoft Controls Your Upgrade Timetable

- Microsoft regularly quits supporting products
  - Windows 95 & Office 95 on December 31, 2001
  - Windows 98 & NT 4 Workstation on June 30, 2003
- Picture this:
  - You buy Windows XP & activate it in Oct. 2001
  - In 2003, Microsoft releases Windows XP+
  - Your computer's hard drive crashes in Oct. 2004, so you replace it
  - You call Microsoft to activate your copy of Windows XP
  - "We're sorry, sir, but we don't support that version of Windows any longer. You'll need to upgrade to Windows XP+."

Microsoft's Long-Term Goals

- The problem: Users are not upgrading regularly
  - Older software works just fine
  - Too much money
  - 60% of Office users have a version prior to Office 2000
- Microsoft's desires:
  - A consistent, regular revenue stream
  - An end to the constant need to persuade consumers to upgrade

Microsoft's Solution: Subscriptions

- Office XP sold by subscription in Australia
- Microsoft phasing out perpetual use licenses with companies
    - Instead, Microsoft is pushing a limited 3-year software license
    - Microsoft is buying back existing perpetual licenses
- Just as you pay a monthly bill to the electric & gas companies, you will pay a monthly bill to Microsoft

Microsoft On Subscriptions

- "HailStorm will help move the Internet to end-user subscriptions, where users pay for value received."
  - From the Microsoft Hailstorm white paper

- "We're seeing a lot of general market shift, such as towards software as a service ... This [changes in business licenses] is definitely a first step towards the whole software as a service model."
  - Kim Carnesale, Director of Program Development, Microsoft licensing division

Assault On Open Source

Craig Mundie On Open Source

"The OSS [Open Source] development model leads to a strong possibility of unhealthy 'forking' of a code base, resulting in the development of multiple incompatible versions of programs, weakened interoperability, product instability, and hindering businesses' ability to strategically plan for the future. Furthermore, it has inherent security risks and can force intellectual property into the public domain."

- Craig Mundie, Microsoft Senior VP, 3 May 2001

Microsoft's Attacks On Open Source & GPL

- Jim Allchin: GPL is "anti-American" & "open-source is an intellectual property destroyer. I can't imagine something that could be worse than this for the software business and the intellectual-property business."

- Steve Ballmer, CEO: "Linux is a cancer that attaches itself in an intellectual property sense to everything it touches."

Microsoft Is Muddying The Waters

- Microsoft claims that any use by a company of Open Source/GPL'd software forces all software created by that company & all data to be Open Source as well
- At best, this is a misreading of the GPL
- The GPL applies if you *extend* the GPL'd software, NOT if you use the GPL'd software as a tool

You Don't Even Have To Release Modifications To GPL'd Software

"The GPL does not require you to release your modified version. You are free to make modifications and use them privately, without ever releasing them. This applies to organizations (including companies), too; an organization can make a modified version and use it internally without ever releasing it outside the organization. But *if* you release the modified version to the public in some way, the GPL requires you to make the modified source code available to the users, under the GPL."

- From the GNU GPL FAQ

Why Is Microsoft Attacking Open Source?

- Open Source software - especially Linux - presents Microsoft with strong competition
- For the first time, Microsoft faces competition not from a company, but from a movement
  - They can't buy, co-opt, or intimidate Open Source
  - Instead, they must discredit a process
  - If Microsoft scares people by spreading FUD* about Open Source, then fewer people will use it

  * FUD = Fear, Uncertainty, & Doubt

Some Proposed Solutions

Vote With Your Money

- If you need Windows XP & Office XP, buy them - that's your right & choice
- Many people are stopping at Windows 2000 & Office 2000
  - They will not upgrade
  - They will not give any more money to Microsoft
  - They are investigating other options, such as Linux, MacOS, & StarOffice

Open Up Hailstorm & .NET

- Disentangle Passport & Hailstorm from Windows XP
- Other companies & platforms should be able to host Hailstorm servers
- Users should be able to remove & download their data in XML for easy transference to another service

Support Open Standards

- Use software that supports standards
- If you're a developer, write to standards
- Encourage other software companies to write to & support standards

Support Open Source

- Use open source software
  - Operating Systems: Linux, FreeBSD
  - Office Suites: StarOffice, KOffice, AbiWord
  - Development: PHP, Perl, Python
  - There's LOTS more!
- Encourage other software companies to write software that runs on Open Source systems

Educate Yourself & Others

- Use Microsoft products if you wish …
  - But make sure you know what they are doing
  - And make sure you understand what you're getting into
- Educate your family, friends, teachers, & others
- Be vigilant in safeguarding your information

Thank You!

- Email Scott Granneman @ scott@granneman.com

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  - "Frequently Asked Questions about the GNU GPL" (14 July 2001). <http://www.gnu.org/copyleft/gpl-faq.html>. Accessed 17 July 2001.