



Web Browser Comparison: Internet Explorer vs. Firefox

»iDEFENSE Intelligence Operations

»Sept. 29, 2005

» About iDEFENSE

» Internet Explorer vs. Firefox

- Background, Functionality and User Base Information
 - Microsoft Internet Explorer, Mozilla Firefox
 - Release Timeline and Market Share Trends
- Key Functionalities
 - IE, Firefox
- Security Overview
 - Number of Vulnerabilities
 - Patching Methodology and Statistics
- Lab Tests
- The Future
 - Microsoft Internet Explorer
 - Mozilla Firefox

» Recommendations

iDEFENSE Company Background

- » The Leading Security Intelligence Firm
- » Industry-Leading Services Offerings
 - Intelligence is all iDEFENSE does
- » Marquee Customer and Partner Base
 - Government, financial services, retail, telecom and others
- » Experienced Intelligence Teams
 - iDEFENSE Labs
 - Vulnerability Aggregation Team (VAT)
 - Malicious Code (Malcode) Team
 - Threat Intel Team
- » In Business Since 1998
- » Purchased by VeriSign in July 2005

Daily / Hourly Research Deliverables

- » **Comprehensive Vulnerability Feed**
 - Most comprehensive, timely, technical feed in the industry
- » **iDEFENSE Exclusive Vulnerabilities**
 - 200 contributors around the globe
 - Released to vendor and iDEFENSE customers only
 - More than 90 iDEFENSE Exclusive vulnerabilities in the first half of 2005 alone
- » **Malicious Code Research and Reporting**

Weekly / Semi-Monthly Research deliverables

» Weekly Threat Report

- Weekly compilation of worldwide threats
- Critical Infrastructure, State of the Hack, Cyber Crime, Terrorism and Homeland Security, Global Threat

» iDEFENSE Topical Research Papers (25/year)

- Examples:
 - Security of Enterprise Web-Based E-Mail Interfaces
 - Security Comparisons: Internet Explorer vs. Firefox
 - Phishing and Pharming: A Comparison
 - Mitigating the Threat from Keyloggers

» Focused Threat Intelligence Reporting

- Topics specific to individual customers

Background, Functionality and User Base

» Microsoft Internet Explorer

- Surpassed Netscape in popularity in the mid-1990s.
- Heavily integrated with Windows
- Familiarity
- Maintains the largest market share

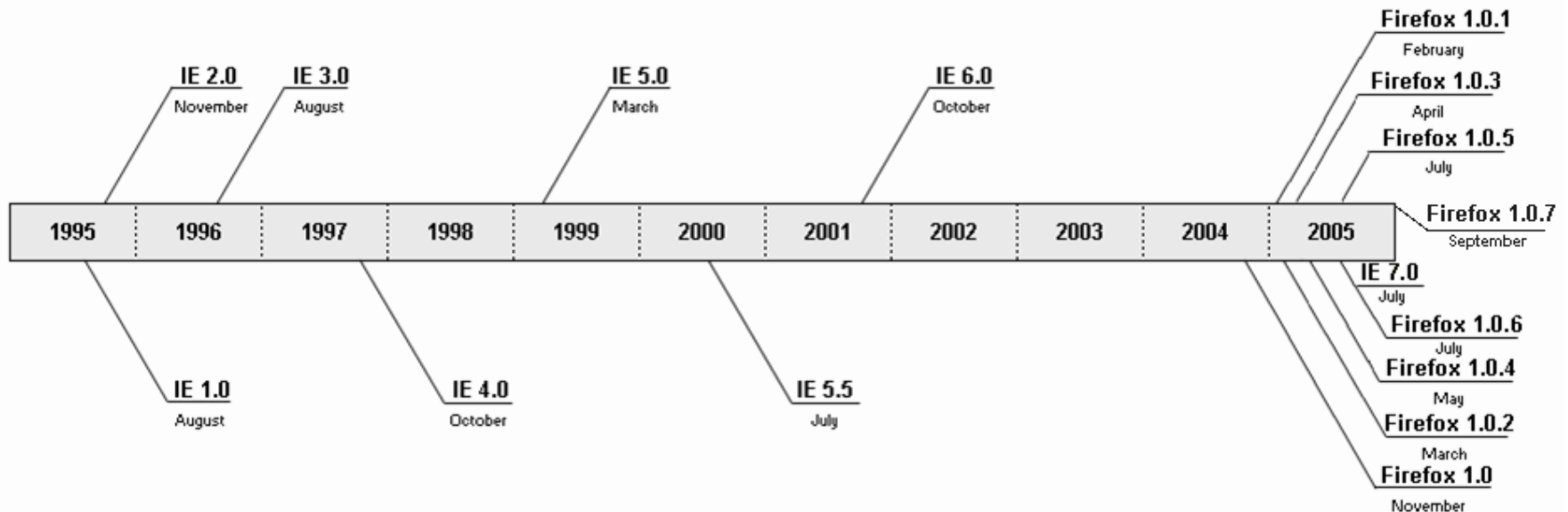
» Mozilla Firefox

- Project branched off from the original Mozilla browser
- Extensible and open-source
- Browsing Simplicity
- Pop-up Blocking
- Gaining in market share

Timeline

» Release Timeline

- IE was released in 1995, but only security updates & service pack releases since 2001
- Firefox was released in late 2004, and is still fairly new to the market



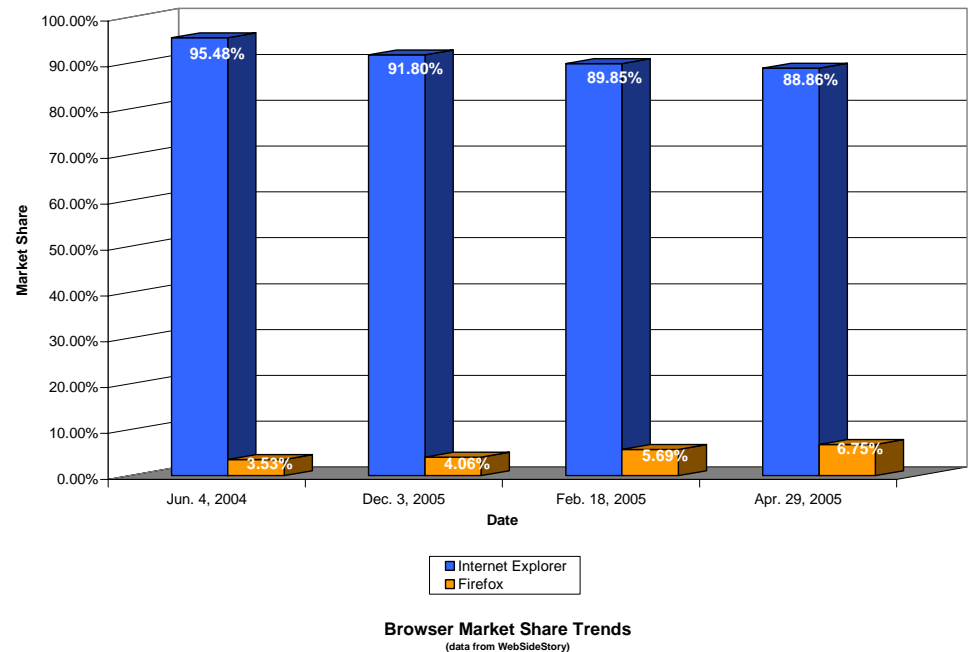
Market Share

» Internet Explorer

- Maintains largest market share
- Availability

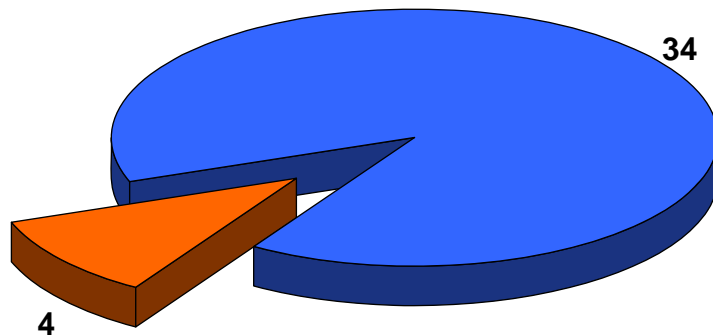
» Firefox

- Gaining market share
- Fairly new

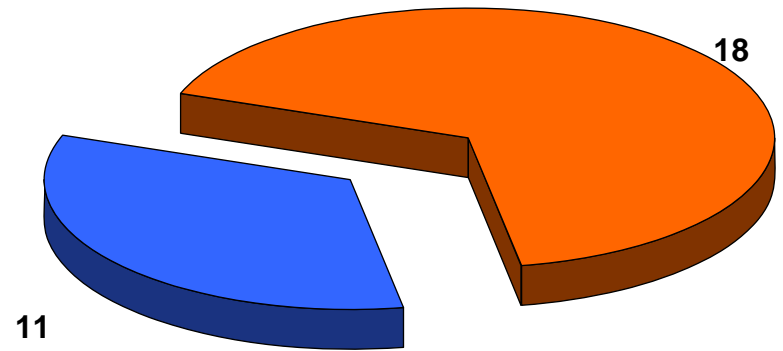
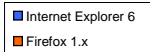


» Total Vulnerabilities

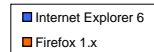
- Microsoft Internet Explorer
- Mozilla Firefox
- Trends
- Could be misleading



Total Number of Vulnerabilities (2004)

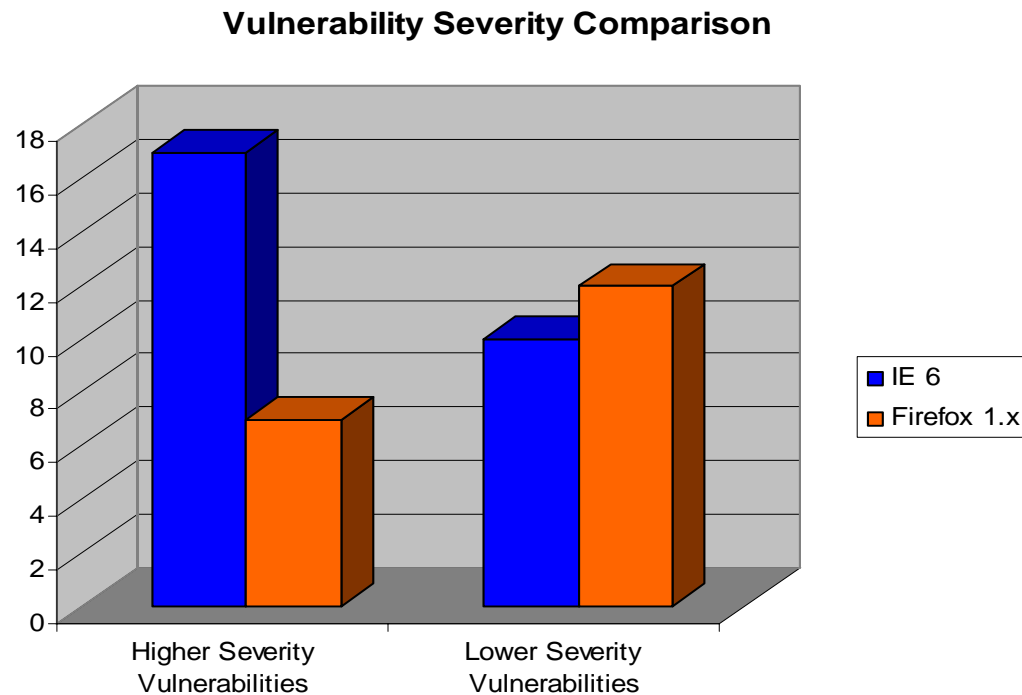


Total Number of Vulnerabilities (2005)



» Total Vulnerabilities

- Vulnerability Severity
- Higher Severity vs. Lower Severity



- » 2003: Massive Increase in Trojans Targeting IE
- » Numerous High Profile Exploits of IE
 - IIS/Scob Incident
 - Adware / Spyware attacks
- » Firefox Mozilla
 - Only one malicious code to date, Borotob.F Trojan

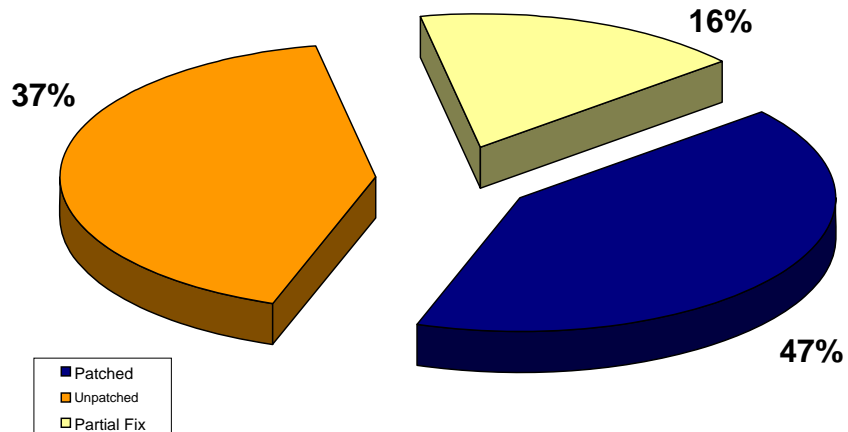
» Patch Methodology

- IE – Automatic updates and patch executables
- Firefox – Update feature with new releases

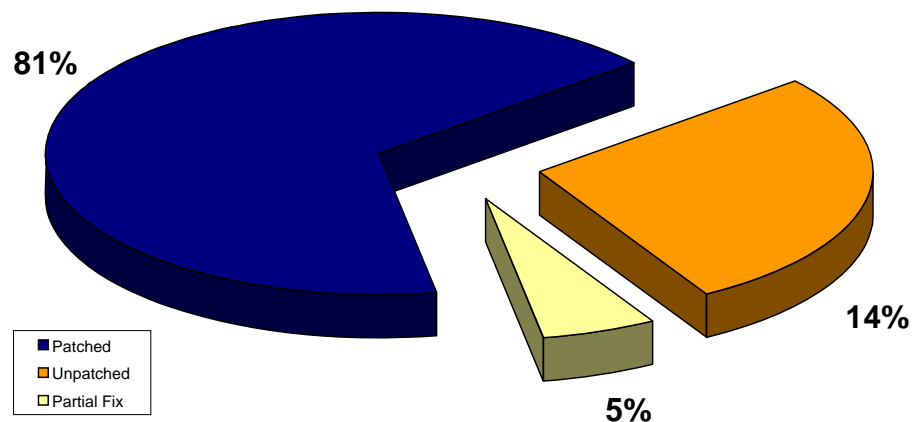
» Patch Statistics

- IE – Time to patch and patch status
- Mozilla Firefox – Time to patch and patch status

Internet Explorer Patch Statistics (2004-September 2005)

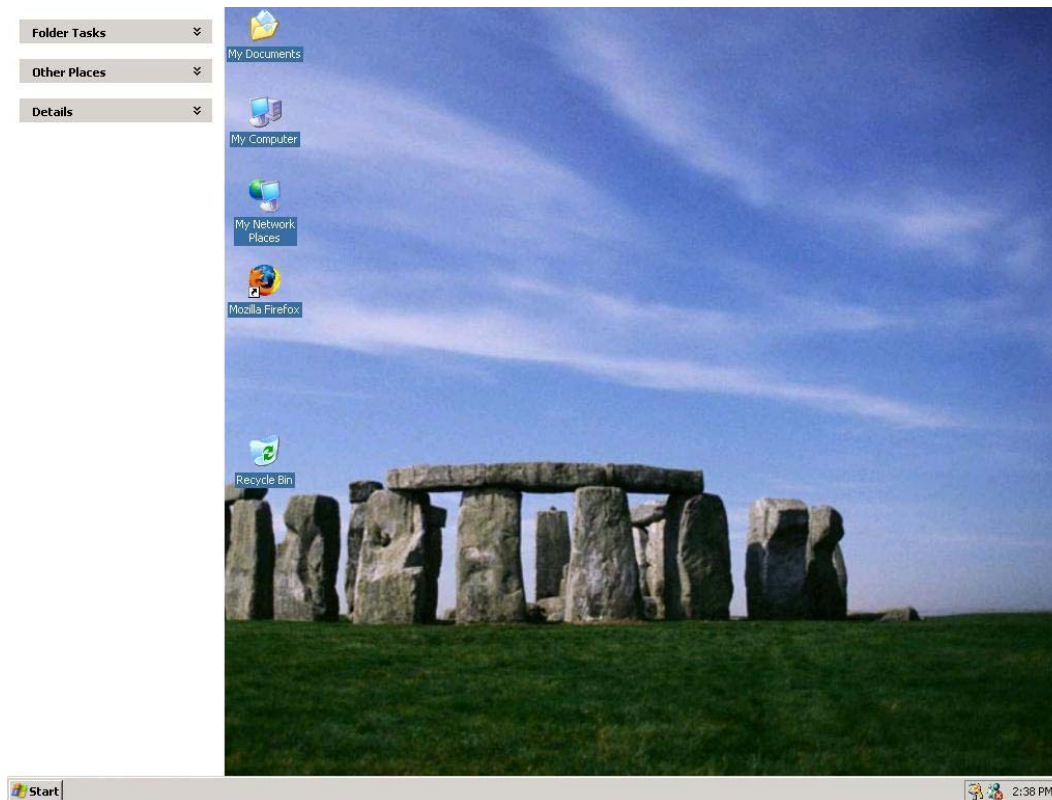


Firefox Patch Statistics (2004-September 2005)



» Purpose of Experiment

- What's the impact on Windows when IE is removed?
- Explanation of methodology



» Results

- “Add/Remove Windows Components” will not fully remove IE
- Programs affected
- Explanation of reliance on removed Dynamic Linked Libraries (DLL)
- Results of restoration of some DLLs

» Conclusion

- Importance of Internet Explorer to key functionality

- » **Internet Explorer 7.0**
 - Notable features
 - Enhanced security
 - Beta release - Summer of 2005
 - Support for Windows 2000?

- » **Mozilla Firefox 1.1**
 - Availability
 - Features
 - Bug reporting

- » **Netscape 8.0**
 - New competitor
 - Features
 - Integration of IE and Firefox engines

» Interoperability

- Microsoft support for Windows 2000 and Internet Explorer 6
- Firefox's deliberate lack of ActiveX support
- Firefox's strict adherence to W3C markup (page rendering) standards

» Security

- Microsoft Internet Explorer 7
 - Prevention of phishing and other fraud scams
 - More secure coding practices
- Mozilla Firefox
 - Market share increase will result in more research into Firefox's code
 - Vulnerabilities
 - Malicious Code



Q & A