

# Prudent Patching

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## Definition

pru-dent (prōōd'nt) adj.

1. Wise in handling practical matters; exercising good judgment or common sense.
2. Careful in regard to **one's own interests**; provident.
3. Careful about one's conduct; circumspect.



# Audience Participation

- **Desktops/laptops:** Responsible for or involved in patching 5000 or more, 500, 50
- **Servers:** Responsible for or involved in patching 1000 or more, 100, 10
- **Tools:** What do you use to patch?
- **Timing:** “Patch Tuesday” ... 30 days or less, 60 days, 90 days, don’t ask
- **Info:** “In the wild” sources?
- **Life:** Are you happy?

# In the News

**ZDNet**  
October 16th, 2009  
**phpMyAdmin XSS Flaws**  
A new version of phpMyAdmin has fixed two serious security holes that could allow attackers to perform cross-site scripting attacks.  
According to an advisory from the phpMyAdmin developers, one of the vulnerabilities allowed an attacker to inject a web script or HTML via a crafted request.

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**Oracle to patch 38 flaws**  
Tom Espiner ZDNet UK  
Published: 19 Oct 2009 16:42 BST  
**Oracle plans to release an update on Tuesday that will patch 38 vulnerabilities across hundreds of products.**  
Oracle's Critical Patch Update, scheduled for 20 October, contains fixes for numerous flaws, the company said. Many of the security holes have the maximum score of 10.0 on the common vulnerability scoring system (CVSS), marking them as critical. For example, vulnerabilities affecting Oracle Core RDRMS, Oracle iRockit and Oracle Network Authentication have been fixed.  
*Yada, yada, yada*  
As of Wednesday afternoon, all of the apps were live except for the ones that were affected by the Oracle patch (unsolicited commercial or bulk e-mail).  
Guerra of Black Hat, a digital security company.

# Size Matters

- **Enterprise**
  - Complex dependencies
  - Expensive to test and deploy
  - Complicated tools
  - Experienced admins, multiple teams
- **Medium Business**
  - Automated tools
  - Outsourced
- **Small Office/Home Office**
  - Automatic downloads



# External Factors Compliance Issues

## Guidance

- PCI DSS
- FSMA
- GLBA
- SOX

## Areas

- Timing
- Testing
- Scanning
- Audit



**Requirements Matrix  
Policy**

# Rating the Risk

## Am I Hot or Not?

- **Bulletin Rating**
  - Aggregate across all versions
  - Critical | Important | Moderate | Low
- **Per Vulnerability Info**
  - Exploitability index
  - Publicly disclosed
  - Is it currently being exploited?
- **Any known issues with the fix?**
- **Deployment Priority**

# Zero Day Exploits

- **Who gets notified?**
- **Incident response plan**
- **Impact of mitigations and workarounds**
- **Full vs Responsible disclosure**



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## Microsoft Security Advisory (975191)

Vulnerability in Internet Information Services FTP Service Could Allow for Remote Code Execution

Publ **MS09-053: FTP / IIS | Important**

**General Information**

## Securing the Stack

- OS
- Service Packs
- Runtime environments
- Applications
- Patches
- Backend data systems
  - Data in transit
  - Data at rest
- Partners
- What about the cloud?

## Lifecycle Matters

- Mainstream support
- Extended support
- Then what?
- Service pack lifecycle
  - One or two years from release of next SP
    - XP SP3 released 4/21/2008
    - XP SP2 released 9/17/2004, retires 7/13/2010
    - Windows 2000 SP4 released 6/26/2003
- [www.microsoft.com/lifecycle](http://www.microsoft.com/lifecycle)
- W2K extended support ends July 2010!

# Lifecycle Timeframes Service Packs

Product Family	12 Months	24 Months
Windows		Yes
Microsoft Dynamics SL, Microsoft Dynamics GP, Microsoft Dynamics NAV, Microsoft Dynamics CRM, and, Microsoft Dynamics AX		Yes
Office	Yes	
Servers	Yes	
Developer Tools	Yes	
Business Solutions	Yes	
Consumer, Hardware, Multimedia, Games	Yes	

# Downstream Vulnerabilities

- **Visual Studio ATL issue**
  - Created vulnerable software
  - MS09-035 (*July out-of-band release*)
  - Must re-link and redistribute software
- **Weak public key issue**
  - Affected Debian and Ubuntu distributions
  - Debian security advisory DSA-1571-1
  - Must generate and distribute new keys
- **Full magnitude of the exposure may never be known**

## Modifying Source Code

- Good idea or bad idea?
- Regressions based on ISV updates
- Core competencies
- Security-trained developers
- passfilt.dll
  - Modify securely
  - Test, test, test
  - Maintain baseline
  - Maintain configuration for *ALL* DCs

## Wrap Up

- Patching is not going away anytime soon, rhythm of the business
- Process beats ad hoc, and should align to policy
- Due diligence and rapid response are not necessarily opposed
- It may be bigger than it first appears
- Tomorrow will bring something new, but something old may come back

# Resources

- **Best Practices for Applying Service Packs, Hotfixes and Security Patches**  
<http://technet.microsoft.com/en-us/library/cc750077.aspx>
- **Ten Principles of Microsoft Patch Management**  
<http://technet.microsoft.com/en-us/library/cc512589.aspx>
- **TechNet Radio: Patch Management at Microsoft**  
<http://technet.microsoft.com/en-us/bb643270.aspx>
- **Security Bulletin Severity Rating System**  
<http://www.microsoft.com/technet/security/bulletin/rating.msp>
- **Microsoft Exploitability Index**  
<http://technet.microsoft.com/en-us/security/cc998259.aspx>

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