

Extending the Life of Computers

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What is the Problem?

- Computer hardware is expected to last **7 years**, but most equipment is only used for an average of **3 years**
- New products require raw materials and energy for manufacturing and transportation
- Old products must be disposed of properly



[Why Three Years?]

- Three year hardware **warranties** are typical
- **Changes** to operating systems and software
- **Rapid advances** in hardware technology
- Outdated policies and procedures
- **Culture** - “That's what we've always done.”

[What Can You Do?]

- Evaluate and revise
- Prevent and maintain
- Extend usefulness for individual or organization
- Educate users
- Measure and report

[Evaluate]

- Review long-term policies, procedures and plans
- Conduct **life-cycle analysis**
- Considerations
 - Hardware and software needs
 - All **users** are not equal
 - All **equipment** is not equal
 - Purchase, lease or seat management?
- Look for “culture” issues

[Revise]



- If possible and necessary, change policies, procedures and plans
 - Define IT and user **roles and responsibilities**
 - Specify a **four year**, or more, refresh rate

- Notify IT, acquisition and procurement, and end users

[Prevent and Maintain]

- Security can lead to longevity
 - Regularly update **virus/spyware/malware protection** and schedule regular scans
 - Apply operating system and software **updates**
 - Immediately apply critical updates
 - Schedule non-critical updates
 - Block users from **administrative functions**

[Prevent and Maintain]

- Manage software
 - Manage software installation
 - Remove **unused** programs
 - Limit or eliminate **autostarting** programs

- Manage hardware
 - Check, fix and defragment drives
 - Consider regular physical cleaning



[Extend for the Individual]



- Add memory (RAM)
- Replace **broken** components
 - Damaged cables
 - Peripherals
 - Drives
- Replace **problematic** components
 - Upgrade just the desktop computer or monitor

[Extend for the Organization]

- Implement a “bumping” or “trickle-down” policy for electronics
- Assess used equipment
 - Future use
 - Condition
 - Age
- Utilize property/asset management software to track available equipment

[Educate Users]

- Provide information about policies, procedures and plans
 - Highlight requirements and **benefits**

- Protect hardware
 - Maintain **air flow**
 - Clear **clutter**
 - Use a **surge protector or power strip**

Educate Users



- Clean up electronic clutter
 - Clean out **temporary files**
 - Empty **trash bin**

- Save smart
 - Encourage saving on network or external drives and media
 - **Backup**

[Measure and Report]

- Use property/asset management software to determine life span
- Estimate life span based on replacement rates
- Report actual or estimated average life spans in baseline survey and annual reporting forms

Leasing and Seat Management

- Set **technology refresh rate** to four years
- Require **maintenance** or extended warranties to keep equipment running for four years



[Reuse First!]

- If you can't use it, someone else may be able to:
 - Within your organization
 - Within your regional / local government
 - Within your community

[Resources]

- TechSoup
<http://www.techsoup.org/>
- Sample Policy for a Four-Year Refresh Cycle (FEC)
http://www.federalelectronicschallenge.net/resources/docs/four_year.pdf
- Where Can I Donate or Recycle My Old Computer and Other Electronic Products? (EPA)
<http://www.epa.gov/epawaste/consERVE/materials/ecycling/donate.htm>

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