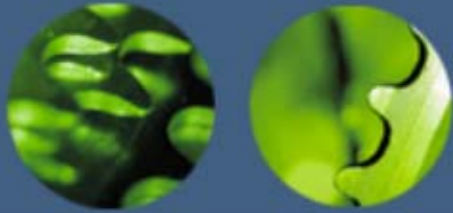




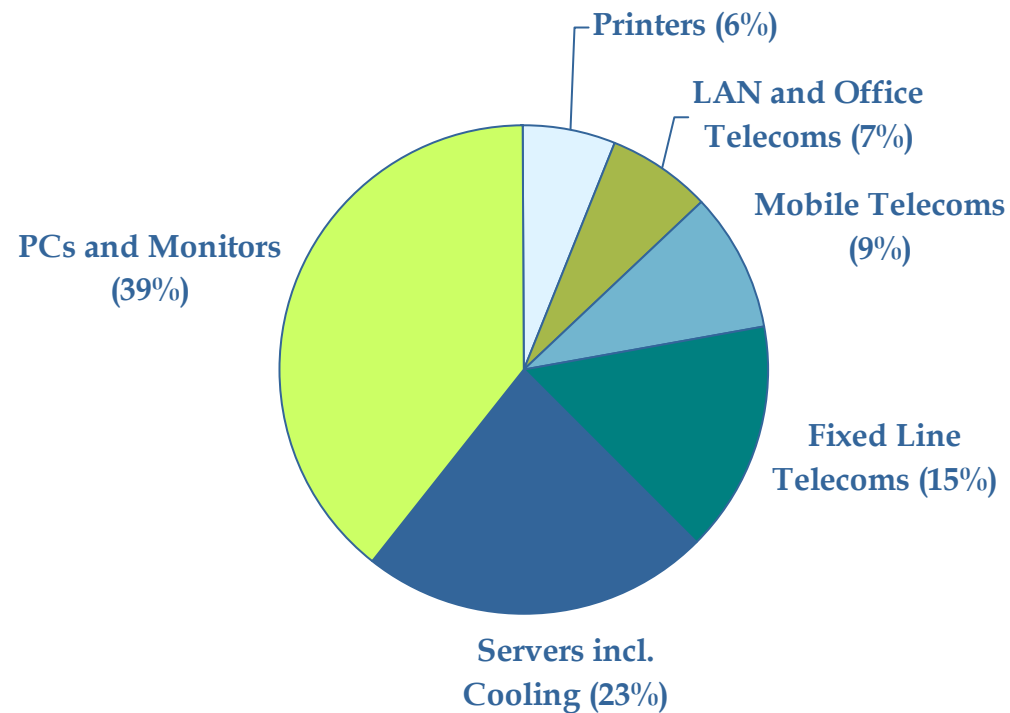
Technology and the Environment

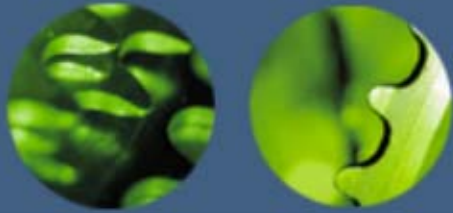
Arlington Civic Federation
June 3, 2008



IT's Carbon Contribution

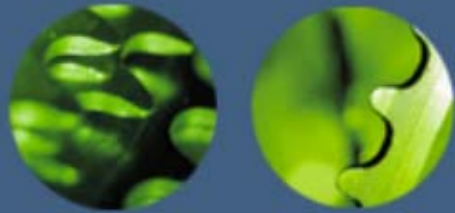
- **2 % of global CO₂ Emissions**
- **Equivalent of that produced by the Airline Industry**





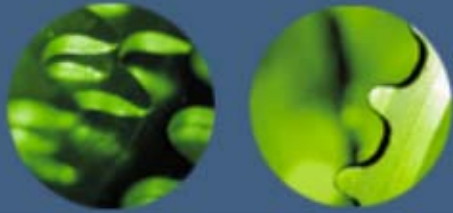
E-Waste

- **In 2007**
 - 160 Million PC disposals
 - 460,000 per day
 - 550 Million Cell Phone Disposals
 - Only 5% to 10% will be re-used
- **What's In E-Waste from Technology**
 - Plastics (including PVC)
 - Lead
 - Cadmium
 - Mercury
 - Chromium
 - Brominated flame retardants
 - Beryllium
- **It will only get worse, estimate in next 5 years**
 - 40 million servers and 800 million PCs will be shipped



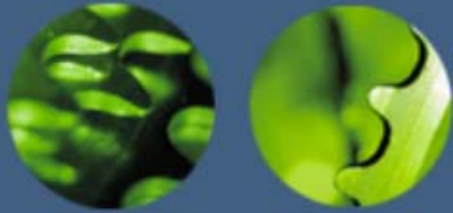
Immediate Actions

- **Reduce**
 - **Consolidation of Servers and Printers** – Server Virtualization / Printer Reduction
 - **Intelligent Power Management on - From Always On, to Always Available**
 - **Distribute to Print, Not Print to Distribute**
 - Average Worker consumes 1,000 pages or 40 pounds of paper a month
 - Its not the printing, it's the cost creating the paper
 - **Benchmark Today's Power Consumption and Set Targets to Reduce**
- **Re-Use**
 - Extend the life of assets, it's the creation of the asset not the use that the real cost comes from
- **Re-Cycle**
 - Ensure and Validate the correct disposition of E-Waste
- **Converge**
 - Blackberry
 - Email, Text Messaging, Camera, GPS Device, Contact List, Voice Recorder, Internet Browser,Calendar
 - **And Oh, yes, a Telephone**



The Real Challenge

- **Leveraging technology to reduce Our Carbon Footprint**
 - Definition: “the measure of the impact human activities have on the environment in terms of the amount of greenhouse gases produced, measured in units of carbon dioxide”
- **Many Initiatives Underway**
 - Intelligent building Management ~HVAC, Electrical, Security
 - Energy Efficient, low emission vehicles
 - Implementing the Intelligent Transportation System (ITS)
 - ***Telecommuting***
 - One employee living ten miles away, driving a corolla averaging twenty-five miles a gallon to work every day, will consume 3.52 tons of carbon in a year.



Enabling Mobile Work

- **Telecommuting**

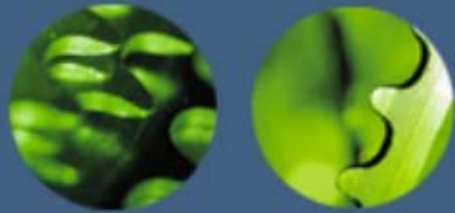
- ***“Taking Work to the Worker”***
 - Defineable Body of Work
 - Traditional Approach to remote work
- **Technologies to collaborate, communicate and interact**
 - High speed data access to the Internet
 - Remote Office space
 - Electronic Mail
 - Telephone
 - Office Suite (Word, Excel, PowerPoint)
- **Flex Time, Alternative Work Schedules**



Telework

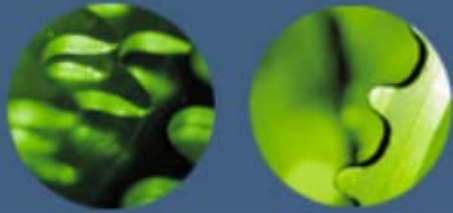
– Telework

- *“Taking the Worker to Work”*
 - Virtualizing the Work Environment Anywhere
- **Enabling the Distributed Work Environment**
 - More not Less Communications
 - Presence Awareness
 - Access to Business Office Applications ***Remotely***
 - Secure Workspace to share and collaborate
 - Broadband Video, Data and Voice
 - Adoption of KPIs (Key Performance Indicators)



Business Drivers – Some New , Some Old

- **Enhanced Worker Productivity – Always Need to More with Less**
- **Changing Worker Values (work / life balance)**
- **Social,Economic and Political Pressures**
- **Continuity of Operations**
- **Organizational Pressures to save space, recruit and retain workforce**
- **Peak Oil**
- **Digital Natives as Sizeable Segment of Workforce and Community**



The Future Business Driver The New Workforce

Generation Y (based on PEW Survey of 24 million Gen Y's,)

– **New Behavioral Patterns**

- 87 % use the Internet
- 65 % use Instant Messaging (IM)
- 44 % are on-line daily
- 29 % have several IM conversations simultaneously
- 29 % have more than '50' buddies
- 25 % IM people in the same room

– **Requirement of work will be mobility**

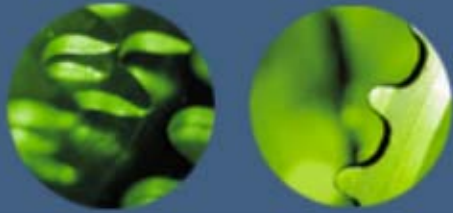
- Work when they want, where they want, how they want

– **Want to interact with Government on their terms and on their schedule**

- 24 x 7 access is no longer considered optional

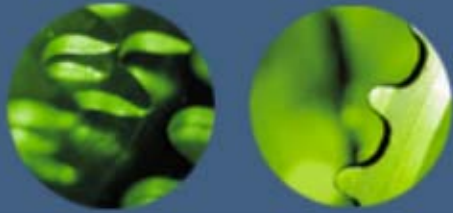
* *Gen Y (b. 1983-1996) ~ 20% Arlington*

Gen X (b. 1965 -1982) ~ 38% Arlington (X and Y ~ 58%)



So How Do We Get There

- **Telecommuting / Telework Leadership Challenge Team**
 - **Composition:**
 - Representatives from Public Safety, Human Services, Finance, Environmental Services, Libraries, Economic Development, Human Resources, County Manager's Office, and Technology
 - **Mission:**
 - Reassess County's current Policies and Practices with regard to Telecommuting and Telework
 - Identify business drivers necessitating a 'rethinking' of current policies and procedures
 - Present to County Manager and Executive Leadership Team recommendations



The Challenge

- Defining the Policies and Procedures that are
 - Consistent, fair, and equitable to all staff,
 - Satisfy the ^{Emerging} social, economic and political needs of the community, and
 - Ensure the same if not enhanced level of service to the residents and businesses of Arlington



Questions