



## How to Leverage an ITSM Framework to Achieve Green IT Goals



HELPING IT ORGANIZATIONS ACHIEVE THEIR FULL POTENTIAL

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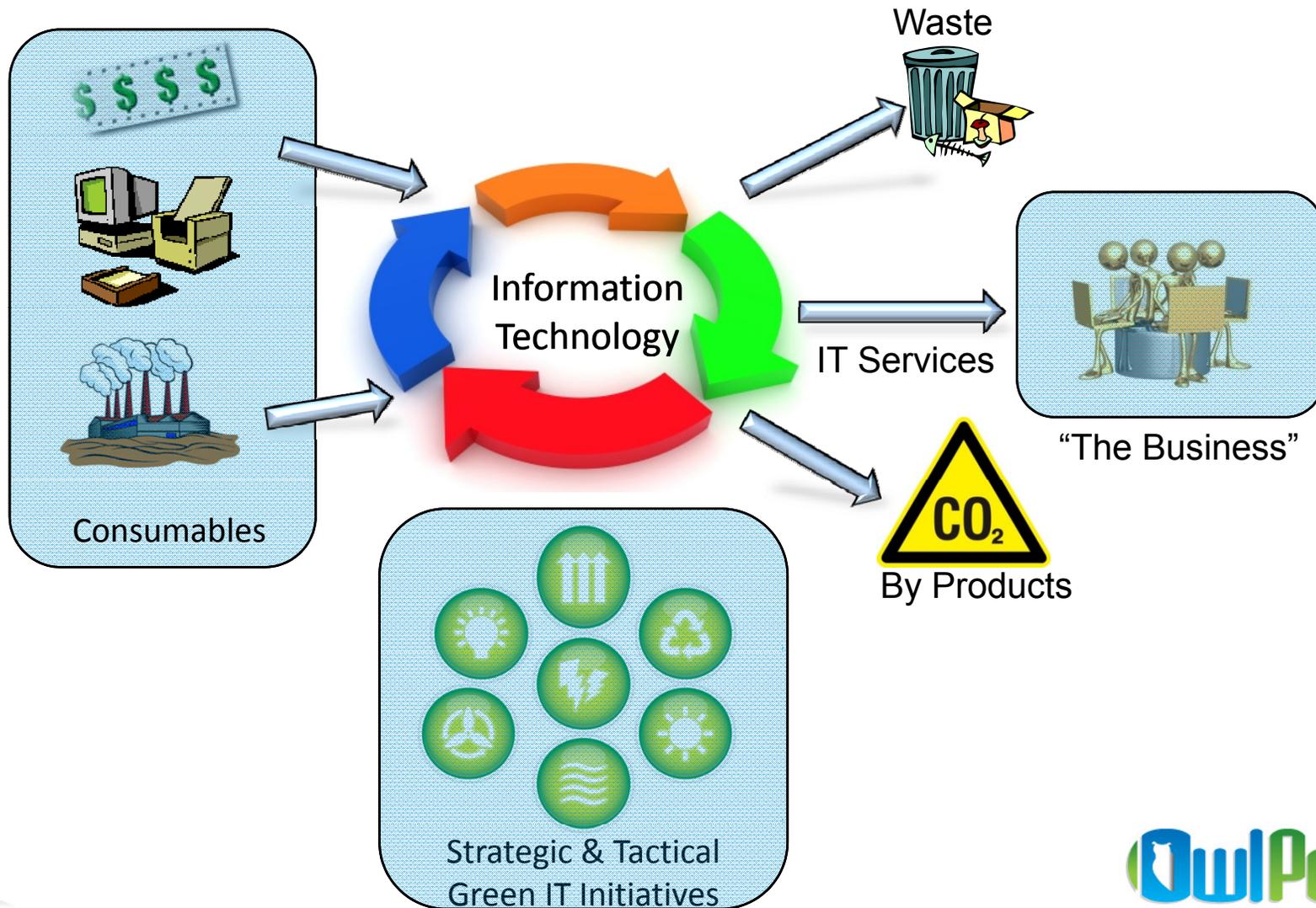


# Green IT Defined

Green IT is the practice of applying strategic and tactical initiatives to pursue maximum efficiency of an Organizations application of Information Technology to limit consumption and minimize the impact to the environment.



# Green IT Explained



# Business Drivers

## Growth in Data Centers

The EPA report to Congress lists several drivers for the recent explosion in the number of Data Centers:

- Increased use of Electronic Transactions in Financial Services
- Government Regulations requiring digital records retention
- Enhanced Disaster Recovery requirements
- Shift to Electronic Medical records for healthcare

## Electrical Consumption is Skyrocketing

Overall electricity used by servers **doubled** between 2000 and 2005, according to a February 2007 report from Lawrence Berkeley National Laboratory/Stanford University

## Compliance Requirements

**10** states across the USA have already implemented legislation on recycling electronic waste, with another **14** planning to implement the same within the year.

The European Commission has brought in two key directives, the Waste Electronic and Electronic Equipment (**WEEE**) 9 Directive, aimed at bringing about the mandatory recycling of PC parts, and the **RoHS** Directive<sup>10</sup>, which stands for the restriction of the use of certain hazardous substances in electrical and electronic equipment.

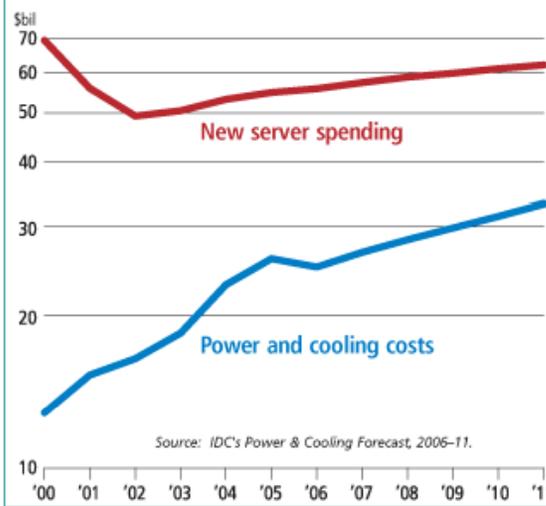
## Data Center CO2 Emissions are Growing

**170 Metric Tons** : Amount of CO2 that data centers world-wide currently produce per year

**670 Metric Tons** : Amount of CO2 that data centers are expected to emit annually by 2020

## IT'S GETTING HOT IN HERE

The cost to cool data centers is outpacing the cost of the machines themselves. Cheap power now trumps cheap labor.



## Underutilized Servers Waste Precious and Costly Electricity

According to figures from McKinsey and Company, the average utilization of the distributed systems in the Data Center today ranges between **5** and **30** percent.



# Why Should IT Be Green?

- IT is in a unique position when value and environmental impact are in unison
  - IT touches everything!
  - What is good for the environment is good for the company
  - Do well by doing good
  - Achieve a more environmentally positive technology practice while saving significantly on infrastructure, administrative, and energy costs
    - Server consolidation
    - Reductions in power and cooling
    - Paperless workflows
    - Responsible hardware lifecycle initiatives



# Benefits of Green IT

- Reduction and Transparency of energy costs
- Reduction of consumable costs (paper, toner, etc)
- Reduction of CO<sup>2</sup> footprint
- Reduction of environmental impact
- Improved Operational Efficiency
- Enhanced “Green” brand
- Improved partnership between IT & the Business
- Regulatory & industry-related compliance



**GREEN = EFFICIENCY = SAVINGS**



# Common Themes – ITSM and Green IT

- **Efficiency** - ITSM drives operational efficiency – Green IT *is* efficient IT



- **Alignment** - ITSM aligns IT with Business goals – Green IT should support company's sustainability objectives
- **Formality** - ITSM establishes defined objectives, policies, and processes – Green IT requires clear objectives, established policies and guidance to ensure effectiveness



# Embedding Green IT into ITSM

- Include Green Objectives in your IT Organizations goals
- Define a Green IT policy and/or include them in existing service management policies
- Ensure IT Services are Green friendly
  - Are services efficient?
  - Can they be provisioned with Greener components?
  - Can you measure their efficiency?



# ITSM Processes and Green IT

- Event and Incident Management

- Deviation from normal – Power consumption violating defined thresholds



- Problem Management

- Root cause analysis - Why are green goals not being achieved?



- Change Management

- Does the planned change meet Green IT policy?



# ITSM Processes and Green IT (continued 1)

- Service Level Management/Service Catalogue Mgmt
  - Define Green IT goals and incorporate them into defined service levels



- Financial Management
  - Track and identify cost savings associated with services that have incorporated Green tactics and strategies

- IT Operations Management
  - Incorporate Green IT methods into the day-to-day procedures of managing the IT infrastructure



# ITSM Processes and Green IT (continued 2)

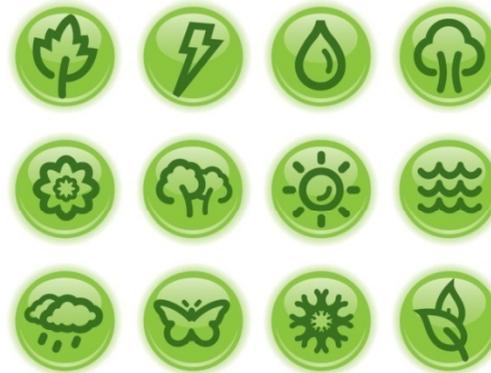


- Capacity Management
  - Establish Green Capacity Objectives
  - Trend and manage consumption
- Supplier Management
  - Ensure suppliers meet Green criteria and their products support business's Green objectives
- Asset and Configuration Management
  - Establish minimum Green Asset policy, including items such as EPEAT® and ENERGY STAR® ratings, power efficiency, etc.



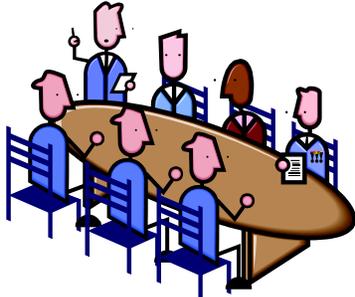
# How to Leverage your CMDB/CMS

- CMDB/CMS can be used to store information that helps drive efficiency & achieve green goals
- Add attributes that can be used to support asset lifecycle management or problem management to drive Green IT objectives
  - Attributes may include:
    - ENERGY STAR® Rating
    - Processor Type
    - Power Supply Type
    - Wattage
- Use CMDB/CMS to perform Problem Management and Asset Lifecycle management to promote Green initiatives and save money - i.e. replace monitors that exceed a certain wattage



# Starting the Integration

- Ensure Green IT has Governance



- Create a Green IT Steering Committee or make this the responsibility of an ITSM or IT Governance Committee

- No ITSM framework today - Use Green IT as a selling point to finance an ITSM implementation
- Start the integration with key processes such as Change Management, Service Asset and Configuration Management, IT Operations, or Capacity Management
- Begin by integrating policies



# Some Advice

- When you start
  - Baseline it and measure something  
*You cannot manage what you do not measure still holds true*
- Data Center
  - Partner with Facilities
  - If you do not pay or see your data center electric bill, find it
- Office
  - Find ways to Reduce, Reuse & Recycle
  - Tap the power, ideas and motivation of your employees
- Begin to Educate Employees



# Additional Green ITSM Resources

Visit **[www.owlpoint.com](http://www.owlpoint.com)** for more information

- Check out the whitepaper  
*Green IT Service Management*
- New whitepaper being published  
*Green IT Saves the Economy*
- Take the Green IT Survey and look  
for the published results coming soon.



# Contact Information



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