



BIGFIX

High Performance Systems & Security Management



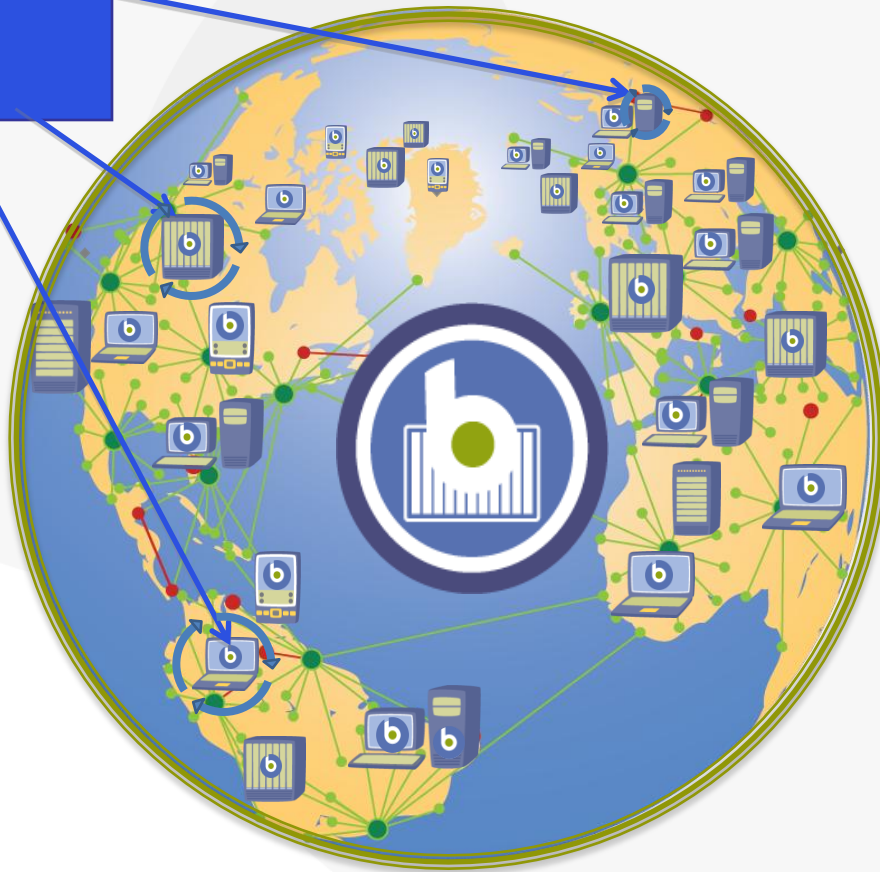
IT Just Works

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BigFix Sees Global, Acts Local

Continuous Endpoint-based Decision Making & Processing

Agent performs all checks and fixes



Benefits:

- Accuracy
- Speed
- On-or-off network
- Bandwidth-friendly
- Scalability
- Extensibility
- Rapid deployment
- Infrastructure Consolidation
- Low TCO



-Low TCO

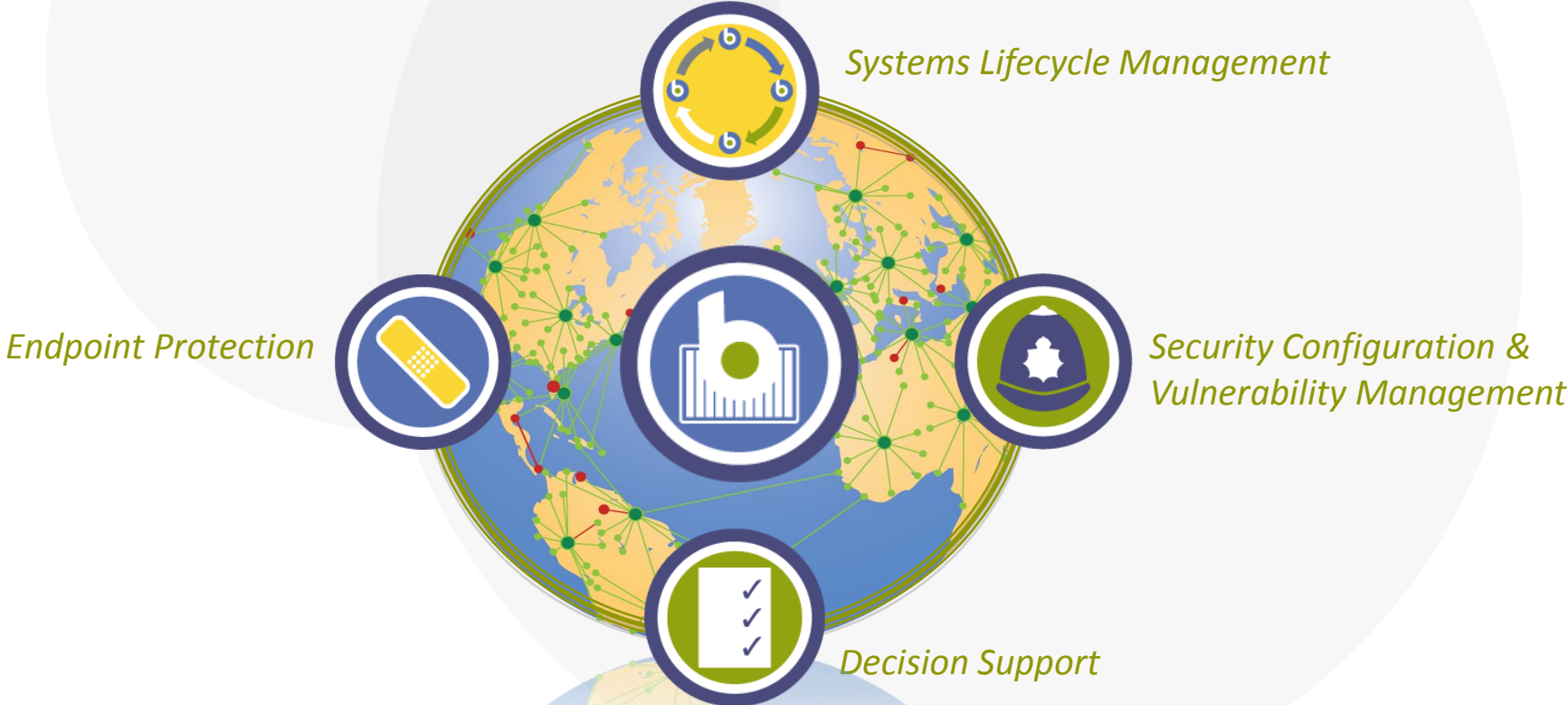
Consolidation

-Infrastructure

IT Just Works

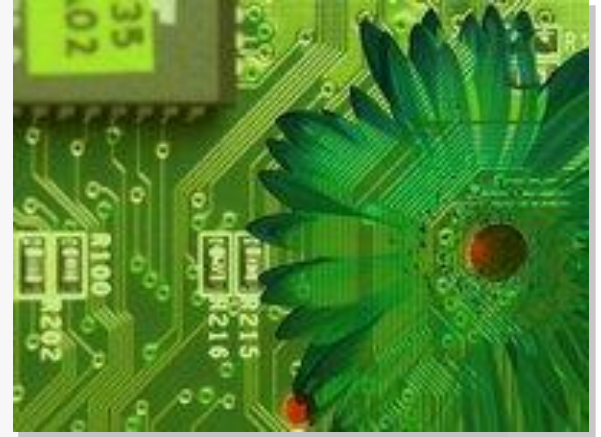
BigFix Unified Management Platform

Real-time visibility and control through a single infrastructure, single agent and single console



Computer Power Management Analysis

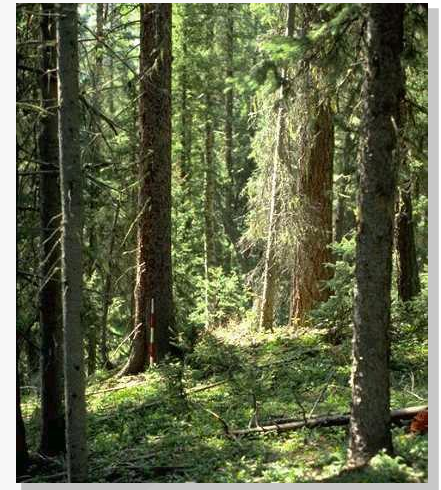
- The US Department of Energy reports:
 - Average PC wastes up to 400+ kilowatt-hours of electricity per year
 - Up to \$50+ per PC per year depending on energy prices
- Power generation is the leading CO₂ generator
 - 29.5% of CO₂ is created from Power Stations (EDGAR 2000)
- The wasted electricity from 5,000 PCs creates carbon-dioxide emissions equivalent to 190 cars (375 lbs or 170 kg per PC per year)



Power Management Breakdown (per year)

Computer State	Power Used	CO ₂	Cost
Only on for work hours	328 kWh	459 lbs	\$33
Low power mode	502 kWh	702 lbs	\$50
Full power all the time	1,192 kWh	1,589 lbs	\$113

- At the extremes, 10 poorly managed computers can waste
 - \$800
 - 5 tons of CO₂
 - Equivalent of 1 car's worth of emissions
 - 1 acre of trees (needed to offset emissions)



Power Management Complexities

- The problem is in the management of the computers
 - Users chronically disable power management
 - According to the Lawrence Berkeley National Laboratory, over 80% of users disable their PCs power conservation settings within 90 days
 - Computers in low power mode can not be updated so IT staff are reluctant to enable power management
 - Central management of power settings is difficult



BigFix Approach to Power Management

- Fundamental idea is straight-forward
 - Allow companies to apply computer power savings technologies while minimizing end-user impact through an “*opt-in*” approach
- Manage the IT complexities of power management
 - Granular controls to deal with IT issues
- Simplicity of Reporting
 - Allow companies to measure their power savings potential
 - Give simple metrics about performance
- Results
 - Significant money savings
 - Aligns with green initiatives



Highlights of Functionality

End-user Flexibility

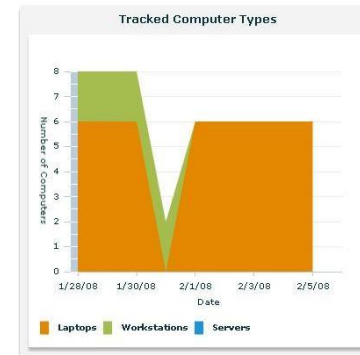
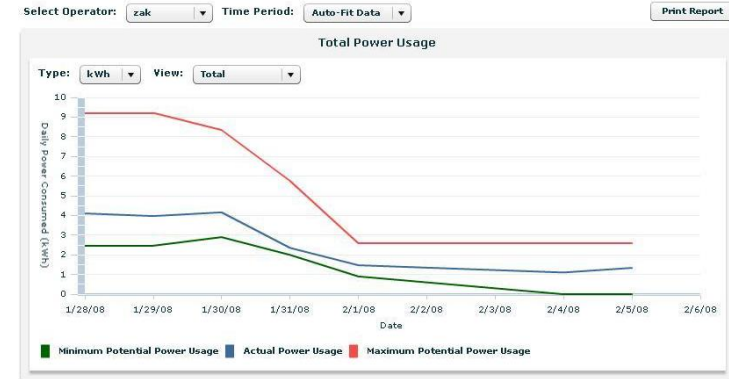
- “Opt-in” approach to power management
- Save open documents prior to shutdown / restart

Detailed Reporting

- Client-side dashboards
- Graphical, web-based reports
- “What-if” scenario support

Flexible Management

- Manage power for Windows & Mac computers
- Override power, cost, and CO₂ assumptions
- Schedule local wakes from the Standby state
- Distributed Wake-on-LAN (bypasses routers so no router configuration needed)
- Force on-demand entrance into Standby or Hibernate
- Deploy power profiles using fine-grained scheduling mechanisms



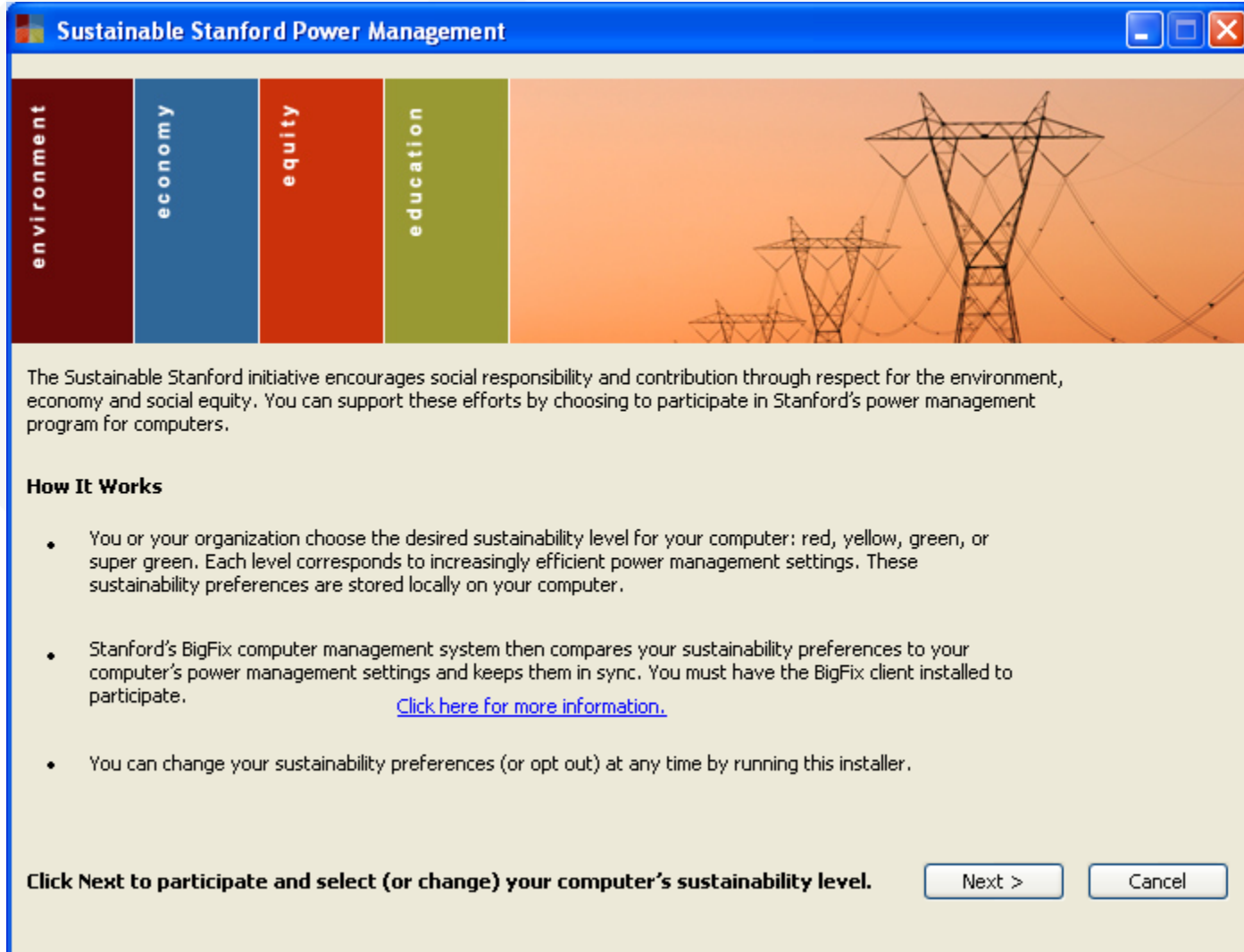
Native Opt-in Features

The screenshot shows the BigFix Support Center application window. The title bar reads "BigFix Support Center" and includes standard window controls. The menu bar contains "File", "Edit", and "Help". Below the menu bar are three tabs: "Dashboard", "Offers", and "Progress", with "Offers" currently selected. A search bar is located at the top right of the main content area. Below the search bar is a table with two columns: "Title" and "Category". The table contains three rows of data, with the first row highlighted in blue.

Title	Category
Set "Super Green" Power Profile options	Power Management
Set "Company Standard" Power Profile options	Power Management
Set "Always On" Power Profile options	Power Management

Below the table, the selected offer "Set 'Super Green' Power Profile options" is displayed in a detailed view. The title "Set 'Super Green' Power Profile options" is shown in a dark blue header, followed by the category "Power Management". A "Description" section contains the text: "The 'Super Green' profile will enable Monitor Power Management after 20 minutes of idle time and Computer Standby after 30 minutes of idle time." At the bottom of the detailed view, there is a call to action: "Click [here](#) to accept this offer."

Opt-in: Sustainable Stanford + BigFix



Opt-in: Select a Power Management Policy

Sustainable Stanford Power Management

environment economy equity education

Each sustainability level tells your when to activate its power management features. The Green level, for example, tells your computer to turn off its monitor after 15 minutes of inactivity. Some settings are specific to laptops when they are on battery power (not plugged in).

Level	Monitor	Disk	Standby/Sleep
<input type="radio"/> None	Opt Out	Opt Out	Opt Out
<input type="radio"/> Red	Never	Never	Never
<input checked="" type="radio"/> Yellow	30 mins	Never	On Battery Only
<input type="radio"/> Green	15 mins	Never	On Battery Only
<input type="radio"/> Super Green	10 mins	Never	60 mins
<input type="radio"/> Custom	You Choose	You Choose	You Choose

Select your desired sustainability level and click Next.

< Back Next > Cancel

Customer Profile – 90,000 PCs

Environmental & Financial Impact

Reduction Type	Total Annualized Savings	Annualized Savings per Computer
Kilowatt-Hours	26 million kWh	289 kWh
Power Cost Savings	\$2.6 million	\$29
CO2 Emissions	36.4 million lbs CO2	404 lbs CO2
Trees Needed to Offset Emissions	5,000 acres	-
Cars off the Road	3,150 cars	-



Actual Customer Report – Before

Monthly Power Consumption

Work hours in a day: Computers with System Standby enabled: 13207 of 89513 - 14%

Electricity Cost: \$/kWh Monitors with Power Management enabled: 74764 of 89513 - 83%

Display estimated power cost: Hard drives with Power Management enabled: 20627 of 89513 - 23%

Display Power Usage Display CO₂ Emissions Average computer powered-on time per day: **20:46:00 - (87% of a day)**

Minimum Power Consumption² Full Power Consumption³

Current Power Usage (35th percentile)
4,616,550 kWh (\$461,655)

2,468,811 kWh (\$246,881) 8,675,091 kWh (\$867,509)

Monthly Potential Power Savings¹: 2,147,739 kWh : \$214,774 (47%)

Aggregate Statistics

Powered-on Computers
(Tue Sep 25 04:00:00 EDT 2007 - Tue Oct 2 04:00:00 EDT 2007)

Powered-on Computers

Computers left on at night and on weekends



Actual Customer Report – After

Monthly Power Consumption

Work hours in a day: Computers with System Standby enabled: 13794 of 90497 - 15%

Electricity Cost: \$/kWh Monitors with Power Management enabled: 75833 of 90497 - 83%

Display estimated power cost: Hard drives with Power Management enabled: 21475 of 90497 - 23%

Display Power Usage Display CO₂ Emissions Average computer powered-on time per day: **09:04:00 - (38% of a day)**

Minimum Power Consumption²
Current Power Usage (0th percentile)

Realizing Savings of 26 million kWh per year

Full Power Consumption³

2,451,119 kWh (\$245,112)
2,438,714 kWh (\$243,871)

8,812,968 kWh (\$881,297)

Monthly Potential Power Savings¹: 12,405 kWh : \$1,241 (1%)

Additional Information

Aggregate Statistics

Powered-on Computers
(Mon Oct 8 20:00:00 EDT 2007 - Wed Nov 7 19:00:00 EST 2007)

Last 30 Days

Powered-on Computers

Computers powered-off at night and on weekends



Web Reporting: Executive View

Power Trend Overview

[Print Report](#)

Cumulative Savings Over Time

Enter a start date for savings calculations: Enter an end date for savings calculations: Show percentage

Operator	Total Cumulative Savings Over Time			Cumulative Savings per Computer Over Time		
	Cost (\$)	Power (kWh)	CO2 (lb)	Cost (cent)	Power (Wh)	CO2 (lb)
apett1	+260.33	+4,341.07	+6,077.43	+48.1	+8,024	+11.23
as_building_nmo	+375.79	+3,163.50	+4,428.75	+119.7	+7,546	+10.56
jm_building_nmo	-4.92	-1,219.55	-1,707.76	-4.2	-6,576	-9.21
tcoles	-3.08	-38.77	-54.27	+0.7	+89	+0.12

Select Operator: Time Period:

Daily Power Cost

Type:

Average Daily Power Cost per Computer

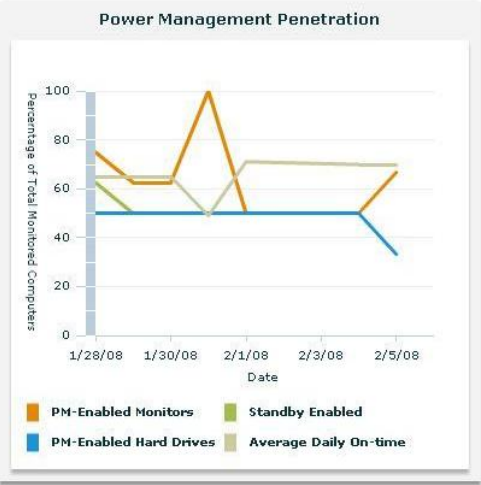
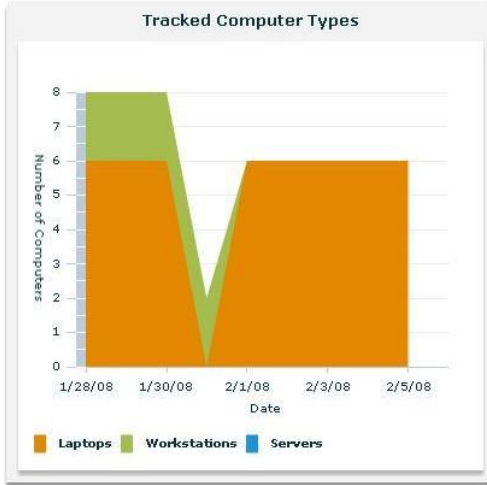
Daily CO2 Emissions

Type:

Average Daily CO2 Emissions per Computer



Web Reporting: Admin View



Web Reporting: "What If" Projections

Potential Power Usage

This section allows you to select Power management goals and see its potential effect on your power usage.

<u>Monitor Power Management</u>	Current:	10 of 13	76.9 %
	Goal:	<input type="text" value="13"/> of 13	<input type="text" value="100"/> %
<u>Standby Power Management</u>	Current:	6 of 13	46.2 %
	Goal:	<input type="text" value="13"/> of 13	<input type="text" value="100"/> %
<u>Daily On-Time</u>	Current:	14 : 04	58.6 %
	Goal:	<input type="text" value="10"/> : <input type="text" value="48"/>	<input type="text" value="45"/> %

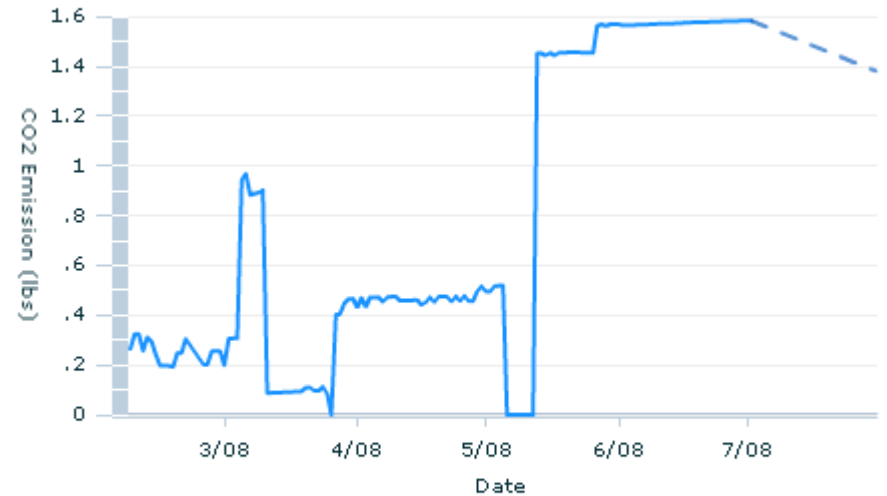
Calculate Potential Power Statistics:

Show

Hide

Daily CO2 Emissions


Type: **Per Computer** ▼



Average Daily CO2 Emissions per Computer

Potential CO2 Emissions

Web Reporting: Computer View


BES WEB REPORTS

[Overview](#) | [Reports](#) | [Create](#) | [Schedule](#) | [Email](#) | [Users](#) | [Database](#)

Daily Power Statistics by Computer

Select Operator: zak Print Report

Type	Total Computers	Average On-time	Total Cost	Total CO2	Cost Per Computer	CO2 Per Computer
Laptop	9	11:33:00 - 48%	\$6.81	10,859 lb	75.7¢	1,207 lb
Workstation	5	14:32:00 - 61%	\$0.49	8,662 lb	9.9¢	1,732 lb
Server	0	00:00:00 - 0%	\$0.00	0,000 lb	0¢	0 lb

Computer	Type	Daily Statistics			Power Management Settings		
		Average On-time	Cost	CO2	Monitor	Standby	Hard Drive
OLORIN	Workstation	07:14:00 - 30%	7.6¢	1,332 lb	X		
LARAVISTA	Laptop	02:06:00 - 9%	0.3¢	0,053 lb	X		X
DESKTOP	Workstation	19:30:00 - 81%	13.9¢	2,431 lb	X		
Christopher Loer's Computer	Laptop	23:59:00 - 100%	1.5¢	0,264 lb	X	X	X
LYLESCOMPUTER	Laptop	13:48:00 - 57%	2.0¢	0,348 lb			
INFINITEBANANAS	Laptop	19:43:00 - 82%	673.1¢	9,424 lb	X	X	X
SASHA	Laptop	06:59:00 - 29%	1.0¢	0,168 lb	X	X	
YOUR-LK4RLMSU41	Workstation	22:29:00 - 94%	11.6¢	2,031 lb	X	X	X
HOLLY	Laptop	03:23:00 - 14%	0.5¢	0,085 lb	X		
ALLEYDELL	Laptop	05:43:00 - 24%	0.8¢	0,144 lb			
YCR.COMPUTER	Laptop	23:50:00 - 99%	1.5¢	0,263 lb	X	X	
CAGEDFREEDOM	Workstation	22:35:00 - 94%	15.5¢	2,707 lb	X		
LAPTOP	Laptop	04:23:00 - 18%	0.6¢	0,110 lb	X		X
DON	Workstation	00:50:00 - 3%	0.9¢	0,162 lb	X		



Rebate & Power Savings Are Substantial

- Several energy companies are offering rebates of \$15 for every computer managed via BigFix Power Management on top of the potential \$30 per computer annual electricity cost savings

# of Computers	Rebate Amount	Power Cost Savings	Total Savings
1,000	\$15,000	\$30,000	\$45,000
5,000	\$75,000	\$150,000	\$225,000
20,000	\$300,000	\$600,000	\$900,000
100,000	\$1,500,000	\$3,000,000	\$4,500,000



Participating Utilities Include:



Seattle City Light

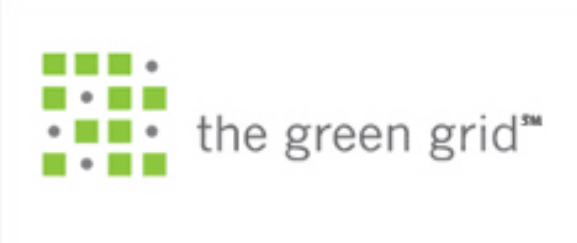


Green Initiatives

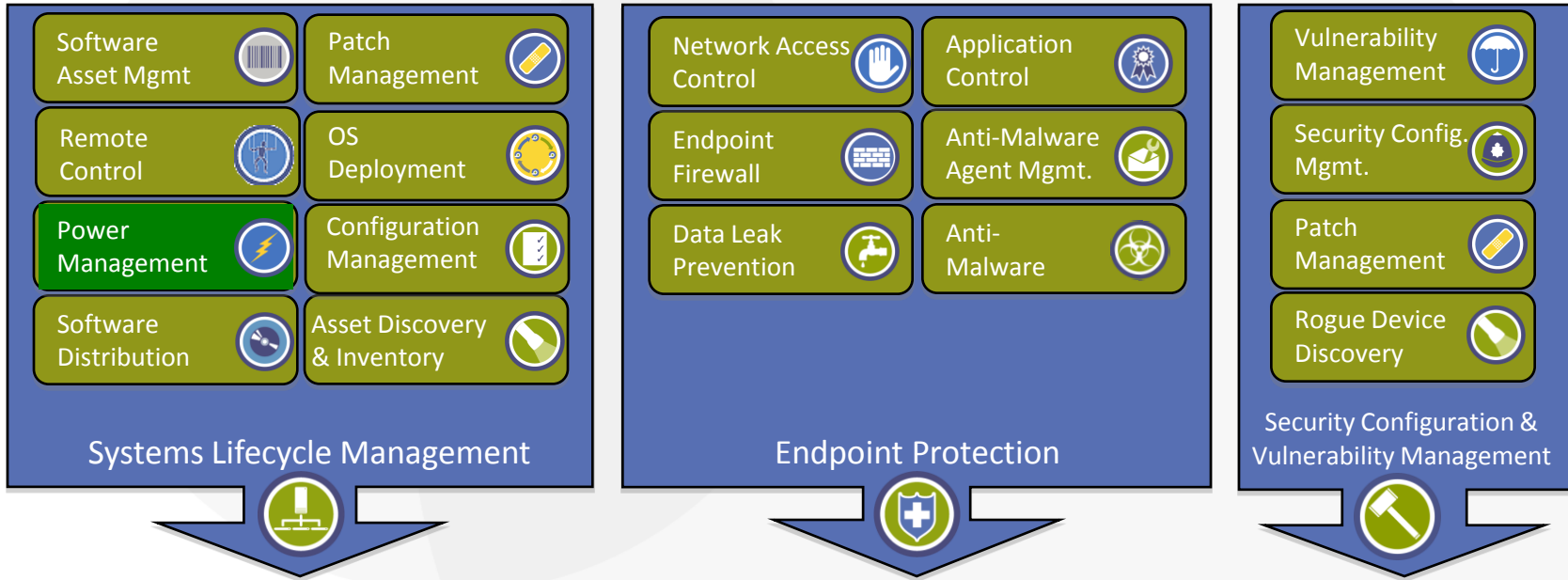
- Reducing electricity in your organization can help comply with “green” initiatives
 - Internal policy initiatives
 - Government backed programs
 - Green-Focused Organizations & Initiatives
 - World Wildlife Fund Climate Savers Program
 - <http://www.worldwildlife.org/climate/projects/climatesavers/companies.cfm>
 - Climate Savers Computing Initiative
 - <http://www.climatesaverscomputing.org/>
 - The Green Grid
 - <http://www.thegreengrid.org>
- All of these programs are fundamentally based on reducing electricity usage and thus reducing greenhouse emissions AND saving money



BigFix Green Alliances



BigFix Enterprise Solutions



BigFix Unified Management Platform

Single Agent Single Infrastructure Unified Control Console

