Summer Newsletter

Abtec Network Systems

Cutting Energy Use with IT

Energy prices only appear to go in one direction, up. Over the past decade average electricity prices have risen by 146%[1]. There won't be any respite from this trend either. The Government predicts a further rise, up to 26%, by 2020[1].

As our reliance on technology has grown, the infrastructure and the energy required to power it has grown too. The cost of energy can have a significant impact on an organisation's running costs. The good news is that IT can play its part in reducing an organisation's consumption of energy. According to a recent report by the CBI[4] reinvesting those savings into the business can boost competiveness.

IT can help cut costs

Our summer newsletter looks at how IT can reduce energy use and carbon emissions. Over the next few pages we'll explore:

- Technology to reduce the IT workload
- Services to cut carbon emissions
- Available funding and grants to make energy efficient investments.

As ever, if you need any further information we are just a, *low energy*, phone call away. Why not give us a ring on **01858 438 500** for a free IT energy audit.

Energy by numbers

	2004	2013
Average non-domestic pence per kWh[1]	3.87p	9.52p

Average number of IT devices carried by workers[2]

3.5 IT devices

How much of a priority is energy efficiency?[3]

Quite high or high
91.2%

How many businesses currently monitor energy use?[4]

20%

Sources:
1. www.gov.uk/government/uploads/system/uploads/attachment_data/file/322530/qep_341.xls
2. www.thetimes.co.uk/tto/public/smallbusinessmasterclass/article3400136.ece
3. FSB 'Voice of Small Business' Survey Panel – April/May 2014 Energy Survey
4. CBI, Shining a light Uncovering the business energy efficiency opportunity; 2013

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IT can play an important part in reducing an organisations overall energy consumption. Here are three of our clients and the interventions they've implemented to reduce consumption and costs.

Darlington Building Society: Thin client computing

Formed in 1856 **Darlington Building Societ**y provides financial services through its 10 branch outlets in County Durham, the Tees Valley and North Yorkshire. In 2012 Darlington Building Society replaced over 150 of its desktop PCs with WYSE thin client networked computers. This greatly reduced the energy required to power the PCs. An average desktop PC uses 140 watts of energy compared to a thin client's nine watts. The thin clients ran in a Remote Desktop Services environment. This enabled to Society's IT team to perform general maintenance, troubleshooting remotely, with having to travel to each branch, saving travel costs and energy.

Paul Gilson, Technical Services Manager

We replaced over 150 PCs and the energy savings will be £34,000 over five years.

National Grid: High Definition Video Conferencing

National Grid upgraded its video conferencing services when moving into its new East Midlands offices in 2012. Much of its time is spent managing large power transmission engineering projects. These projects involve employees and agencies from around the UK. High definition cameras and displays have improved the quality of the video conferencing sessions. This has helped video conferencing users increase the productivity of conferencing sessions. Getting more things done 'online' reduces the need for face to face meetings, which has supported the organisation in reducing its CO_2 emissions.

We've got state of the art technology that helps us increase our productivity, improves communication, and supports our Smart Workspace policies.

nationalgrid

Smith Brothers Stores Ltd: Server Consolidation

Smith Brothers Stores, established in 1897, is one of the oldest and largest independent plumbing merchants in the UK today. Its server infrastructure had grown over the years. This has increased the amount of energy used to run and cool the servers.
Using a technology called virtualisation we were able to consolidate and reduce the number of physical servers the company ran whilst increasing the availability of applications. It has also improved the client's business continuity plans.

Virtualisation technology delivers excellent flexibility in meeting our needs as well as considerable cost savings.

Steve Smith, Managing Director

5 ways to reduce energy

Here are five practical ways to reduce energy use. The good news is that you don't have to re-engineer your existing processes to take advantage of these.

1

Thin Clients.

No these aren't your customers that have been on a diet. They're networked office computers. Unlike standard desktop PCs much of the actual computing is done on a separate, remote server. This greatly reduces the amount of energy required to power each client.

Potential energy savings
A typical desktop PC uses 140 watts of energy. Compare that to a thin client PC which can run at 9 watts.

More information
Contact Tina at Abtec who will be able to calculate your organisation's savings.

2

Low Power IP Phones

If you have already converged your voice and data network (which is a good move to reduce energy) it's worth looking again at your PBX handsets. Modern , low powered PoE handsets can be much more energy efficient.
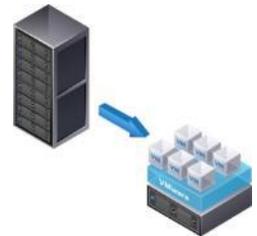
Potential energy savings
An older IP phone could be using 15 watts of energy, compared to 3.5 watts on a new handset. The difference might not sound a lot individually but multiply that by the number of handsets in your organisation and it will soon add up.

More information
Contact your Abtec account manager for more information about updating your handsets.

3

Server consolidation

Virtualisation is a technology that seems to turn your servers into a Tardis. With it you'll be able to create many virtual servers without increasing your current energy use.

Potential energy savings
Virtualisation can provide lots of energy savings in many different ways. We typically work on a 12:1 server consolidation ratio, which means one, modern server can comfortably create 12 virtual ones.

More information
Check out our server consolidation calculator at www.abtecnet.com

4

Video Conferencing

Video conferencing (VC) is a great way to reduce the amount of travel, and therefore the carbon footprint, of your colleagues. VC units no longer need dedicated ISDN30 connections to get a great image, they can use your existing IP network. High definition images mean that the conferences are much more engaging, helping users get more done.

Potential energy savings
The Carbon Trust estimates that video conferencing saves 567 CO_2 units and £495 of travel costs for every 10 employees.

More information
Contact your Abtec account manager for a demo of some of the latest high definition video conferencing services.

5

Remote working

The energy reduction benefits of working from home have been questioned recently. However it's clear that if you have employees that live more a few miles away from the office overall energy savings will be made.

Potential energy savings
The Carbon Trust, again, estimates that homeworking has the potential to save UK business £3bn a year and more than 3m tonnes of carbon.

More information
We've implemented homeworking services for many of our clients contact your Abtec account manager for more information.

Grants and funding are often available to support your investment in energy efficient technologies. We've listed some of the national schemes below. Your local council may have access to separate funds that support energy reduction and business growth.

For more information about funding and grants contact Abtec's Chris Topham on 01858 438 500.

The Government's flagship programme is ideal for large scale projects that include IT. The scheme is essentially a loan that is repaid through energy bills. The golden rule is that the expected financial savings must be equal or greater than the costs attached to the energy bill.

Enhanced Capital Allowances (ECAs) let businesses claim a 100% first-year capital allowance on qualifying energy efficiency products. Businesses can write off the cost of the new products against their taxable profits in the financial year the purchase was made.

Electricity Demand Reduction (EDR)

The Government has a £20m grant pot for this new, trial scheme. Businesses will bid for grants that deliver energy efficiency in the workplace. IT projects qualify for these grants as long as they demonstrate verifiable energy savings.

The Carbon Trust supplies leasing and finance for energy efficient projects. It has traditionally focussed on large scale building projects but now considers IT projects too.

Salix provides 0% finance loans for public sector organisations. The loans can cover a variety of energy efficient projects including IT infrastructure.

'Royal' client for Abtec

It's been a busy few months for the sales team at Abtec. They have won some exciting projects recently. The team are making a song and dance about one project in particular, the client is the Royal Albert Hall.

Abtec were selected to provide the IP data network for the Hall's new building management system. The network will connect the building's façade and front of house lighting, heating, air conditioning devices together. This will enable the organisation to reduce the energy required to run the building.

Managing and reducing the energy required to operate buildings is an area Abtec Building Technologies, our sister organisation, is an expert in.

Welcome aboard Marcin

Abtec's latest recruit is Marcin Morawski, adding to our growing virtualisation engineering team. Marcin will be designing and implementing our virtualisation projects, as well as supporting our virtualisation clients.

IT Experience – My IT career started over 15 years ago as a System Administrator for Unix and IBM AS400 systems. I've since completed my Master of Science, Information Technology and Management degree, and worked for a small number of IT firms.

Specialisms – I specialise in virtualisation technologies. I hold certification in the three major virtualisation vendors; VMware, Microsoft Hyper-V and Citrix XenApp.

What challenges do IT managers face today? The growth in cloud services; and the hype around cloud are challenges. Not all cloud services are equal, and not all users are right for the cloud. I'm looking forward to bringing my cloud experience to Abtec's clients to help them identify what's right for them.

Favourite film - It's got to be the original Star Wars trilogy.

Favourite music – I like jazz, Latin and classical.

Hobbies – Photography