

Straight Talking – Silicon offset and the green debate

By Rob Bamforth, Principal analyst, Quocirca Ltd

There has been plenty of discussion about the negative impact of IT on the environment – power use and waste – but what about the plus points?

IT on the face of it is not very sustainable. New products are introduced in rapid development cycles that encourage wasteful frequent upgrade and replacement. Not only do the products consume precious metals and other resources, but the manufacturing processes are energy intensive and systems or components are rarely sourced locally, as cheaper alternatives are often found on the other side of the planet.

Once delivered and installed, increasingly powerful computers and networks consume more power than ever before, 24x7 operation means many are rarely switched to standby, let alone off. The environment around them then has to be cooled to be acceptable for both the machines and the humans around them. Then there's the noise. I SAID THEN THERE'S THE NOISE.

Three to five yearly upgrade cycles, and higher internal integration of components mean re-use is less likely, and replacement means waste. Despite controls on hazardous waste (RoHS) and controls on the disposal of electronic waste goods (WEEE), this is a growing problem. It's fuelled by Moore's law of transistor density (faster computers) and Metcalf's law of networks (more valuable the more connections), both of which drive the vicious circle of smaller, faster and more, more, more.

That's a growing carbon footprint, but there are ways technology can be used to neutralise its impact. A quick straw poll of technology vendors suggests well over half are considering how a greener message could form part of their marketing plans. Although for some it was nothing more substantial than that, just green marketing, for the most part they want to help their customers and channel be more environmentally friendly – several had already started working with external green groups.

If this is more than just green hype, there are a number of areas any organisation can investigate.

Initially everyone can look at their own internal processes and make improvements. It can be just about putting recycling bins around the office, reducing printed paper consumption or switching to compact fluorescent bulbs (or even switching off computer monitors at night).

Although these all help, at least a little, they tend to be incremental improvements by a shaving of percentages here and there. It's still important, as a parallel in consumer usage means that even re-cycling 20% of glass bottles will reduce the levels of new glass needed to meet market demand, but longer term it's better to reduce the need for glass bottles altogether.

Another way is to tackle the problem head on, perhaps in the consumer instance substituting biodegradable plastics for glass. Technology developers and vendors can look at improvements in their products, both at the component level and at the whole solution.

Inefficient components can be replaced and different architectures can be developed to be more energy and resource efficient – virtualisation, thin clients etc. There are also improvements being made on the raw energy and resource consumption - during use and creation – taking the entire product lifecycle into account from drawing board to dump.

However, longer term there is a significant environmental gain to be made from using technology to replace or displace other activities – engineering the process to not require bottles at all. This is by applying technology solutions to encourage the substitution of certain behaviours or actions with others that are more environmentally friendly.

How big this effect might be will vary, and needs some form of calibration to measure any real green value, but as most technology products are based on silicon, we could regard this as a 'silicon offset', as opposed to a carbon offset.

However, unlike carbon offsetting, this is a replacement to generate more efficient processes rather than an attempt at compensation or conscience placating.

There are plenty of products and solutions that could be viewed this way, but thus far it is mostly the obvious candidates – collaborative software tools, video conferencing, power management – where a case for behavioural change can most easily be made. This is often a simple matter of reducing the amount of travelling, saving not only the environment, but also time, and ultimately money.

Recent Quocirca research has indicated the environmental benefits are the ones most noted by those without, but considering, collaborative solutions such as web or video conferencing. Those who already use these types of solutions cite productivity gains as the main benefit, so favourable to both financial and environmental concerns alike.

Other products can also be applied in ways that allow business processes to change in other ways, such as reducing the number of individuals involved, reducing the levels of heating or cooling required in working environments, or simply reducing the amount or distance that other physical goods need to be moved. Mostly these will have a positive effect on carbon footprint, but as they are also often more efficient or allow individuals to be more productive, have a positive effect on financial considerations as well.

Any legitimate silicon offset should always be viewed as sustainable from a commercial as well as environmental perspective. The challenge for vendors and buyers is how to measure and quantify this green advantage

About Quocirca

Quocirca is a primary research and analysis company specialising in the business impact of information technology and communications (ITC). With world-wide, native language reach, Quocirca provides in-depth insights into the views of buyers and influencers in large, mid-sized and small organisations. Its analyst team is made up of real-world practitioners with first hand experience of ITC delivery who continuously research and track the industry and its real usage in the markets.

Through researching perceptions, Quocirca uncovers the real hurdles to technology adoption – the personal and political aspects of an organisation's environment and the pressures of the need for demonstrable business value in any implementation. This capability to uncover and report back on the end-user perceptions in the market enables Quocirca to advise on the realities of technology adoption, not the promises.

Quocirca research is always pragmatic, business orientated and conducted in the context of the bigger picture. ITC has the ability to transform businesses and the processes that drive them, but often fails to do so. Quocirca's mission is to help organisations improve their success rate in process enablement through better levels of understanding and the adoption of the correct technologies at the correct time.

Quocirca has a pro-active primary research programme, regularly surveying users, purchasers and resellers of ITC products and services on emerging, evolving and maturing technologies. Over time, Quocirca has built a picture of long term investment trends, providing invaluable information for the whole of the ITC community.

Quocirca works with global and local providers of ITC products and services to help them deliver on the promise that ITC holds for business. Quocirca's clients include Oracle, Microsoft, IBM, Dell, T-Mobile, Vodafone, EMC, Symantec and Cisco, along with other large and medium sized vendors, service providers and more specialist firms.

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