

What does Green IT really mean for the enterprise?

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John Doe, Network Manager, Acme Enterprises, has a problem. Acme's post-merger board has gone all green and they want an urgent review of the IT Department's carbon footprint plus short and long-term plans for reducing the corporation's environmental impact. He's found it's about rather more than energy saver lightbulbs and recycled paper, and has called a meeting with leading Outsourcing applications on the cloud sounds a great way to reduce internal energy usage, but is he just paying the cloud to burn carbon instead? Is it better to run processors in-house and hook up to a sustainable energy supply? What are the hardware manufacturers doing to provide more efficient and recyclable products? There are so many unknowns...



Alberto Bellé, Program Manager, IDC Research Spain

Alberto Bellé, Program Manager, IDC Research Spain, knows all about these issues. He presented at 2010 EMEA Press Summit, Barcelona, a short summary of the current and coming challenges caused by IT's surging impact on the environment, together with a review of current and likely future solutions. Then he steps right into John Doe's shoes and puts some awkward questions to our industry panel. What is the best way forward for the enterprise? What can they offer right now? Or are they telling us to go on heating the planet because tomorrow's solutions will provide the real answer? How green are their own in-house IT systems? Maybe you have some questions too?

Panellists: Phil Tilley, VP Marketing EMEA; Alcatel-Lucent; Vicente Luque, Business Development Manager, BT; Sergio Ferrer, Marketing & Sales Liebert Business Spain, Emerson Network Power ; Marc Dompietrini, Senior Manager and Systems Engineer - Strategic and Consulting Practice, Symantec

Alberto Belle

Probably you are all familiar with the term green IT. We have been hearing about it for a few years and what we, me and this very panel, we're going to talk about is the meaning of IT today in this economic context – actually, not the meaning for us, but mainly the meaning for our customers, for the enterprise.

To meaningfully respond to that question, at IDC we conducted, last year, our third sustainability

survey which will be the basis on which we will base our response to the question.

So what we're going to do briefly, as briefly as I can, we will see what are the main issues for enterprise and then we will see how we translate, it translates into initiatives for companies, and finally, where is the need and where is the need for service and the demand for service because they need help with that. So how is it going to translate again into business for you as providers and suppliers?

Okay, here is very quickly this survey was taken in two different countries. We run it every year. So let's go to the first point, what are the main issues for companies, for you? Well the main one, again, again, is the cost of energy. Okay, so companies want to be doing, to become green but they want to spend less on energy. Period. That's it. Very number one issue.

The second one is growth in IT infrastructure. Well the thing is companies are learning the hard way they didn't grow efficiently and they became trapped into a cost structure which was 80% OpEx 20% CapEx, which means of all their budget, they only have 20% available to innovate and to invest in new datacentres, to do what they want. This is not sustainable for them as managers. This is impossible. They want to change that and they need help.

Third point is growth in data. This is more or less the right word because there is no data crisis. Data is growing at a healthy 20%. So this is a driver for IT infrastructure and in the end, for their cost strategy.

Companies from the list are finding that they are printing too much. Are we printing too much today? That they could be more efficient in the use of paper or hard copies in general. They want to approach that issue.

And finally, and this is emerging from last year, enterprises are seeing that green IT pays off at least in terms of brand recognition, in terms of business. They want to be green. They want their suppliers to be green and their customers want them to be green. So we about to see a greener IT supply chain.

And who is driving these projects? Well we are finding that okay the main department is still the IT department, but is no longer the sole department, the sole actual involved. Practically, everybody has a say in IT, or in green IT in companies. Senior management, of course, they are in the picture. This is operation, line of business management, [asset] management and the CFO, we are finding more and more CFO people in our meetings as well because in the end it is them who decides. For you it means more complex sale and a longer sales cycle of course, but there maybe some more opportunities as well.

And more people involved means you have to speak more languages. The technology language is no longer the only language. Actually, this is an internal language. Okay, you have to save 20% in my energy consumption, good for you, but you have to say out there I have consumed, or my carbon footprint is 20% smaller. Then it is good not only for you, but for the planet and for the society as a whole. That's one point of the language. We need metrics to know how are we evolving, how are we doing in this green IT. So this is just the tip of the iceberg really. We will see much more metrics. So what are the issue, but what are the initiatives from these issues? Well the main initiatives are related to efficiency; more energy and space efficiency servers, PCs and telecom equipment which means I have to be green so you have to provide me with green products. So the pressure for you. First thing.

Okay then we will go to utilisation. So companies are discovering that if they want to become green, it is no longer valid to make incremental improvements. They want to revamp the whole datacentre. To change the cost structure of 80% OpEx, 20% CapEx, they have to start from scratch while keeping the day-by-day operations. Again, another conundrum.

And they are starting to look at how the equipment has been made because there is some embedded carbon dioxide in the equipment itself. So now they are scrutinising the equipment. I want green equipment as well and equipment that is designed for recycling. I want to know now what is going to happen in five years' time. Of course, needless to say, with conferencing tools, telepresence, collaboration tools, so you are in line.

And finally, software that monitors and manages energy consumption, they need to know how they are doing. They know how to do it. If they are going to share goals, they need metrics to track their progress. In the end, the cloud again well in line with the market. These are the initiatives.

Implications for suppliers, well if you want to sell more you have to be green because now in the server infrastructure industry, energy efficiency is very important when selecting a supplier. 55% of people, or 51% of companies are saying that is very important.

What happens in the datacentre and storage arena quickly translates or goes to the telecoms equipment. So now and even more in the future, it is very important the idea of energy efficiency and environmental issues when selecting a supplier of telecoms equipment. So that's the implication for

suppliers. They want the equipment suppliers to be green.

So companies are taking some initiatives by themselves, but they need help because now green IT has become a big issue. So what is the opportunity now in the service segment? Not just the equipment but for service suppliers.

Well first, helping us with datacentres. We have been talking about that in the previous presentation, your presentation. Monitoring of energy consumption are great tools, good tools.

Video conferencing, familiar? And 29% they need help in creating their green IT strategy company wide in every department because they have discovered, enterprises have discovered, they have to implement green IT in every department. Again, they need help, they need visibility and probably someone from the outset can help them very much on that.

Utilisation management, which is already a current issue and finally, the design of a new datacentre. So how to do change the health of the centre house, where we, as we were saying before.

This is a map of opportunity and we have here some suppliers of these opportunities. We have Mark [Longertrini], Senior Manager Systems Engineer at Symantec. Vicente Luque, Business Development Manager of BT, Sergio Ferrer, Marketing and Sales Manager at Emerson and Phil Tilley, VP of Marketing EMEA.

Okay, I'm going to ask you there are a lot of demands and pressures on you because they want you to be green. How are you helping companies become greener from the equipment and the service point of view? Phil, do you want to start?

Phil Tilley

Yes, so I guess we, or certainly I see it sort of somewhere down the bottom of the food chain as it were as a networking equipment supplier, I guess sitting as the box there it's the pressure is on us to actually make sure that the equipment is being built efficiently both within the datacentre but also longer term out, including the wireless access side and all that sort of area. So very much huge pressure for us to actually make sure that the development of the systems is efficient as possible looking at how do we make sure that we can actually get the component parts consuming less power, generating less heat. So it sort of starts right back right at the beginning.

Guess then passing that on and when we do the marketing, it's interesting to see sort of right at the bottom of the list is marketing, the lowest group in the organisation driving green IT and yet as a marketing guy, one of the things that is a fairly high priority when I try and market my platform my product right now, not only do I have to say how fast and how great it is going to handle the data, but actually, how efficient it is as well. So therefore, my marketing has to actually put that element right up front.

Alberto Belle

Marketing, Marketing Department.

Phil Tilley

Marketing is actually a key driver. But also then there is the challenge, as a marketing this green IT thing, I have to aware and careful that actually I'm trying to put and talk about how efficient my platform is, but how do I also make sure my competitor who is also making a claim about efficiency. Are we comparing apples with apples or are we kidding ourselves that actually perhaps I'm claiming mine is the most efficient but perhaps I'm actually operating it in the most efficient and not the normal mode of operation. So it comes back to the metrics.

Alberto Belle

Alright. Sergio, what's your view then?

Sergio Ferrer

Well first of all good afternoon. I would like to speak to start saying that Emerson is a maker of electronics and products, so our support for the companies today will be focused on UPS and common approach. So our idea is to try to help to the customers in the way to save costs in their energy bill. So we try to design products more efficient. Day-per-day we remove our product portfolio. We have a new product portfolio looking for a product more sustainable. In this way, a summary, I will like to say that our principal focus is to try to reduce the energy consumption so the energy bill is the way that we try to help to the customers and to be green.

Alberto Belle

Alright. Vicente?

Vicente Luque

Well actually from the sort of telco and network and IT service provider. It's quite interesting because we see both ways. On one side we need to be green ourselves. So we need to consume greener products from our manufacturers and we have to size to that on side obviously the hype and the market. On the other side is pure efficiency, cost reduction and being more competitive.

So for our business is key. Someone like BT might consume 0.7% of all the electricity in the UK, so reducing that consumption is actually key to profitability. It goes straight to the bottom line. Sometimes we talk about the green P&L, or the new colour of the P&L. It used to be black. Now green helps the black right.

On the other side we see our customers. Our customers are demanding first that we are sustainable. It's not that we claim it for the hype. In 2008/2009 I believe we saw £2b worth of business where the customer was specifically asking us for our sustainability credentials and it was part of the grading we were getting to get the business.

So that's one side. On the other side we feel we are very much part of the solution. Obviously, IT and telecoms with things like collaboration, video, telepresence, unified communications etc, it's a great help in reducing travel, expenses and CO2 producing activities.

But not only that, being able to help companies being more efficient in their day-to-day processes.

So interesting, on one side, for us it's about money, P&L. On the other side on the L, on the side on the P because it help us save more.

Alberto Belle

Okay. Thank you. Marc please.

Marc Dompierini

As you've seen, as Alberto introduced me and I work for Symantec and most of you know Symantec for being a security vendor. We are known as the yellow company. You know in the autumn and our brand is yellow. So why Symantec is now turning green?

Let me explain to you. So my CTO, although I have a cryptic title, calls me Mr Green for Europe and what it means that at Symantec, we, our CEO, said that we have to turn Symantec from yellow to green. When I explain to you what we are doing within Symantec eating our own cooking, meaning using our own solution to green our IT, you will understand better how we are helping our customers green their IT.

Alberto Belle

So you are your own guinea pigs, let's say that, in the green IT?

Marc Dompierini

Yes. We are applying green to ourselves. So it started in 2008 when our CEO said we have to reduce our carbon emission by 15% by 2012. So we started looking at our datacentre and we realised that we could optimise, rationalise that datacentre. So using our own solution, you remember that we merged with Veritas company about storage management, system management. So we started server consolidation, server virtualisation, but more importantly, storage consolidation.

When you look at data is growing at 50% per year in companies you realise how important it can be to reduce the data. Symantec is introducing a revolutionary storage virtualisation where we can have this pool of storage of those discs and have all those applications competing for that storage. So in the same way that server virtualisation you have multiple operating systems competing for hardware resource on one machine, we're introducing storage virtualisation where all the applications can leverage a pool of storage. Doing that, we reduced the number of devices in our datacentre by 67%.

So it ended up in over \$2m saving in just energy and then it all adds up. The benefits accumulate. So removing all the storage we realised cost saving of \$50m in maintenance for those storage that we're not using any more and we also see that it benefited \$1.5m improvement in labour.

So when you do that, suddenly you have savings and benefits in many ways. That's the reason why greening our IT at Symantec drove many, many benefits.

Alberto Belle

Okay, it's clear from you both as service providers that you are saving yourself. So you are setting the example for your customers.

But looking at the manufacturers, which are the very end of the chain, there is pressure on you because you are showing the P, the profit, or the reduction in cost. But you have to provide more efficient equipment to your customers. So many, or much of the pressure is on you. How are dealing with that pressure and to be true realist, is green IT really good for you from a business perspective or you have to do it because you have to do it?

Phil Tilley

A good question. I think for us it is absolutely a business fundamental. We have no option. We've got to do it. If we don't do it, and if we don't look to improve our efficiency of our platforms, in five years we will be out of business. Five years, 10 years or whatever. So absolutely it is a critical and it's a critical to remain in business. It's a critical for society as well.

So what we've done as a company is actually taken on a new initiative looking at the longer term and saying actually we as a company have a huge asset in Bell Labs Research. Bell Labs Research has got a lot of history going back sort of hundreds of years, or a 100 years, in terms of telecoms research.

So what we've done is sort of started a new initiative called Green Touch and it's a green touch consortium we have created which is actually pulling together Bell Labs Research and institutes and universities saying we really need to address this issue. The statement is over 10 years we've got to look to build 1,000 fold, a 1,000 times increase in efficiency in the way we build networks and that is the objective. Huge objective, 1,000 fold increase in efficiency over 10 years. How do we achieve that?

If we just do it just as a company alone, we're probably unlikely to achieve that alone. So we need to work together. This is such an issue for us as a company and as general as society is we really need to put our minds together, put some of the competitive thoughts behind us and say right, how do we get there and where are we going to find it? How do we design this into our products? It starts in chip design, in protocols. If we look at wireless network architectures, are we building wireless in the most efficient green way? Switches, routers, are we using the right protocols. MPLS, is that the most green protocol?

These questions all have to be thrown in the air and looked at and that's not going to happen in one day, two days. That's a longer term.

So for us, absolutely fully committed. It is an essential.

Alberto Belle

Okay. Sergio, what's your view on that?

Sergio Ferrer

Well for Emerson, absolutely is efficiency is very important and critical and in fact for us, is better to have datacentre more efficient. For example, if we help to the customer to use the space in the datacentre using virtualisation at the [inaudible] something, absolutely that remains under the control of Emerson.

Emerson could get benefits also because if the customer will use this space in the datacentre, may be they can grow with our other systems that need UPS, more cooling etc, etc. So it's a benefit for the customer, a benefit for the company. We help to the customer, the customer helps us.

Alberto Belle

Alright. Finally, you can do this quickly because we will let some questions to the audience. We have seen there are many people now involved in the green IT decisions. Are you championing green IT beyond the IT Department you both as a service supplier?

Vicente Luque

In the case of BT, absolutely. It's a Board issue whether it is for political reasons or for just image reasons, but it is and we're able with reverting our experience, to help. We have a sustainability practice and we can help companies with that.

So we try to position green IT not as a single issue, but more around the whole concept of sustainability and sustainability of the business, sustainability of course of the environment, but also at the end, you want to build a sustainable business. You want your business to be there in 100 years time hopefully.

So it's in your interest to do that. What we're seeing is that sometimes the decision is not in the IT Department. We were looking at that chart, those numbers, and most of the time it is. But we've sold solutions for what we call a green branch, for example, here in Spain where the sale was to facilities and the sale was to marketing because they were able to put the green sticker on and facilities were able to reduce 45% on energy consumption.

So absolutely it needs to be outside of the IT Department. In a way, I'll just finish with this, it's like educating a child. You have to educate. It's not only the IT, it's also the processes and the people. The easiest one is the IT because it's like changing the bulb in a way and then you go and educate your kid not to turn on the lights. So you have to start looking beyond the IT.

Alberto Belle

Okay. Thank you. Mark.

Marc Dompierini

Yes, so last year we surveyed our customers and 94% of the CIOs said that green IT was important or very important for them. So what we're doing these days is because we have built the best practices in-house, we can now meet our customers, those 94% CIOs who think green IT is important to them and want to implement greener IT. We've built this carbon calculator where we help them calculate their carbon footprint, the datacentre carbon footprint and then we can help them design solutions to reduce that carbon footprint.

I mentioned some example like storage virtualisation, but another very simple solution that we've introduced is endpoint management. Power management at endpoint. So with our endpoint management, when you think that lighting a PC switched on overnight costs \$250 a year, you just count the number of PCs you left switched on overnight. We know that for us, 18,000 employees, it meant having that software to turn off the PC that night, it generated \$800,000 savings.

So that's the kind of project we engage with customers assessing their current carbon footprint and how they can reduce this.

Alberto Belle

Okay. We have time maybe for one quick question from the audience.

Anthony Savvas – Computer Weekly

I'm just wondering whether green IT is something which is really going to be put on the backburner now because obviously the IT industry can't operate in its own vacuum. There is obviously a political climate. China have said well we haven't finished our industrial revolution yet, so we're not going to do anything about it. The Copenhagen talks broke down and a lot of this green IT was feeding off a lot of that etc. I'm just wondering whether this is really going to go back on the backburner for any enterprises now. I mean we were talking about – well I wasn't, but people have been talking about a paperless office for the last 30 years. That is something on the backburner. I'm just wondering what's going to happen with green IT, whether that's going to go down the same way.

Phil Tilley

I guess, just from my side, again, we're under pressure. It's actually under pressure and we know our customers are under pressure to actually improve their OpEx as well and even from our perspective, power consumption is a big issue. It's a big OpEx cost and therefore, there is commercial pressure directly to say how can we help our customers improve their profitability, reduce their OpEx by us just reducing the amount of power consumed in the equipment.

So things like, for example, being driven to build and launch cell sites which are totally energy neutral sort of actually using solar and wind power in remote locations. I mean we've just launched the first one out in Vodafone Qatar as one example. There are many examples where we're looking and forced now to help them reduce power consumption. Now that's not necessarily looking at total carbon footprint, but it is absolutely reducing some of their major OpEx items.

Alberto Belle

Okay, thank you. Any more questions?

Dick Schievels – LAN Magazine

In terms of green IT, what do you think is more important – green software or green hardware?

Vicente Luque

That's a very good one. In green everything, the answer, the solution is to be the broader you can. So you have to think about processes. You have to think about hardware, software. The more you can reduce the hardware the better, but then when you've done that, you have to use that hardware in the most efficient way. So really, our advice and what we have seen in our best practice is to work on both at the same time.

Alberto Belle

Okay. It's very exciting. I'd like to speak much more, but we have to finish now. Thank you very much.