Green-powered IT

Four good reasons why you should care **Interviewed by Steve Trusty**

Being green isn't just about the environment. Going green with your information technology (IT) infrastructure can take more red out of your expense side and put more green on your bottom line. Today, a significant cost factor of in-house or outsourced data centers is directly related to power and cooling. The more efficient the system, the less power is consumed and the more you can save. Energy is not only consumed by power servers, but it is also needed to cool them. Outsourcing some or all of your IT needs to a "green service provider" to reduce your overall IT footprint and management costs can provide additional savings.

"Virtualization, business continuity, service-oriented architecture (SOA) and proactive monitoring are four good strategies that lead to improved resiliency and reduced cost for the business, while at the same time promoting good corporate citizenship — great reasons to care about green power," says Trent Henson, Executive Vice President, Information Technology at DYONYX. "Anything that can be done to reduce physical infrastructure and provide the same or better level of service inherently reduces the complexity (and cost) for managing that process."

Smart Business learned more from Henson about the benefits of green IT.

Trent Henson
Executive Vice President
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How does virtualization fit with green power?

Typically, as a business grows, more servers are needed for more applications. More servers require more rack space, which requires more floor space. All of this infrastructure requires more power and cooling. More power requires more money. Virtualization is a proven strategy for making hardware more efficient. This mature technology allows several operating systems to reside on the same server, and more tasks can be performed on one machine. Where traditional servers provide a 1-1 efficiency ratio, virtual servers provide an average 15-1 ratio. Energy can also be saved by deferring lower priority tasks to be performed at night when energy is needed less for other operations and costs can be considerably less. Instead of purchasing new, more efficient servers that utilize less power while doing more, you might look into outsourcing to a firm that through economies of scale only charges you for the resources you need and utilize.

What about business continuity?

You can also leverage virtualization technology for lower-cost, high-availability solutions. Businesses need to make sure they take measures to ensure business continuity; however, many can't afford two of everything should one component fail. Virtualization allows you to lift virtual images (your data) onto another physical device, quickly and without the time and cost of replacing the exact same hardware. A service provider that has multiple server sessions and data centers can build this in for you. Redundancy is made practical with virtualization.

What is service-oriented architecture, and how does SOA fit into this?

SOA is the concept of taking traditional IT functions of a business and turning it into a service. SOA reduces costs through increased reuse, another greening strategy. Another advantage of SOA is it reduces redundancy and the associated decommissioning of applications. Common implementation of business rules and processes results in better consistency, security and compliance. While the long-term results can provide more service with less cost, the initial developmental costs can be quite extensive. It takes a while to recoup them. Virtualization can provide affordable SOA, especially for middle-market companies. If you outsource SOA functionality, it is possible to get even more service for less cost. Imagine spending a few thousand dollars per month for a service that could cost well over $250,000 in purchased hardware and software, data center space and the skilled resources to manage it all.

Don't most companies already have proactive monitoring systems?

Many companies think they do, but more often than not, it is more reactive in nature. When something happens, someone is notified, and the IT department gets right on it. Proactive monitoring is encompassing and utilizes predictive analysis to notify IT *before* the failure occurs. Does your system monitor power draw? As the power demand goes up, more heat is produced and something has to give. A breaker trips and the system goes down. Getting it back up is going to take some amount of time. Even minimal downtime can be costly, especially if core systems or customer service is compromised. Monitoring power draw, all motherboards, ram and all other processes can predict an oncoming problem and provide notification and adjustments before a crash occurs. Make sure your IT department or outsource provider can demonstrate this as part of your systems management.

At the end of the day, most companies are more interested in meeting their business goals than being green. By asking the right questions, it is possible to achieve both objectives, and who doesn't want to increase productivity, reduce cost and look good doing it? <<

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