



## Spiralling energy costs demand new strategies

**BCS view: Moore's Law was once a reliable power guide, but the figures no longer add up, says Steve Yellen**

■ The IT managers of today have been reared on Moore's Law, often stated as: the number of transistors on a chip doubles every two years.

Historically, Moore's Law has served the datacentre well, allowing managers to meet increased business demands for computing power without worrying about the bottom line.

But now the law is breaking down. The cost of the infrastructure supporting processors is starting to exceed the cost of the devices themselves.

Over a two-and-a-half year lifespan of a typical server, for example, the spiralling cost of electricity means running costs often end up exceeding the original price paid for the server. This creates a knock-on effect – the more electricity that is burned up, the more cooling is required.

As a rule of thumb, for every 100W

of power dissipated by IT equipment you need at least 60W of additional power for removing the heat.

In short, organisations can no longer rely on the industry's natural momentum to deliver the processing power they need cost effectively as the business expands.

At the heart of the challenge there often lies a failure of internal communications.

In many companies, the IT and datacentre facilities groups continue to operate as two separate and distinct organisations with little communication and interaction. The datacentre facilities group reports through the

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broader facilities management/real estate organisation, while the IT team reports to the chief information officer.

Typically in datacentres the IT team is responsible for purchasing and operating IT equipment, leaving power and cooling infrastructure costs to the datacentre facilities group. This, in turn, leads to split objectives and incentives. Those most capable of controlling the use of energy have very little incentive to do so.

To address this issue organisations need to adopt a more holistic, inclusive approach.

The formation of a more tightly integrated datacentre management organisation, drawing on the vital skills of facilities management and IT operations, can help plan effectively for the future. Today, the IT team is in

the best position to forecast the business's processing needs, and the facilities team is best placed to predict its impact on datacentre resources.

Shared reporting lines can also help achieve greater harmony – if all the datacentre staff report into IT operations, it is much easier to introduce processes that cross former organisational boundaries.

Only through a tightly integrated group that combines both IT and facilities cohesively can an organisation improve the overall business process to ensure a more profitable and greener way forward.

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