# Energy Efficiency thanks to an intelligent Software Service Management

IBM *Software Group*

**Welcome to the podcast on the topic of Energy Efficiency. Thomas Löffler, Service Management Solution Architect, explains the virtues of an energy efficient IT infrastructure. The interview was conducted by Manuela Kerker.**

**Manuela**: “Thomas, can you tell us a little bit about yourself and about your job at IBM?”

**Thomas**: “My name is Thomas Löffler. I work as a Service Management Solution Architect for Tivoli in the Swiss Software Group. I’ve worked at IBM for over 20 years, since 1996 in the Service and Systems Management sector in various technical roles.”

**Manuela**:” “The responsible handling of resources is becoming more and more a relevant factor for competition in the face of rising energy costs and users with increasing awareness.” This is a quote from Daniel Rüthemann, the CEO of IBM Switzerland. What does this mean for IBM and its services in the software sector?”

**Thomas**: “Rising energy prices and the threat of a power shortage have pushed the subject of energy efficiency into the central consciousness of the economic system. The performance demands, and also the energy consumption, of data centers have increased continuously over the past years, and we see a strong need and also good opportunities, on the one hand to measure this consumption and make it transparent, and on the other to control and reduce it. In addition to the pure question of cost, we increasingly see stakeholders approaching companies and asking about energy consumption, ecological sustainability and CO2 emission figures. Moreover, there are companies who deliberately want to link their image to energy efficiency, and thereby procure a competitive advantage. And finally there are also regulatory provisions, which increasingly require companies to document and justify energy consumption and CO2 emissions.”

**Manuela**:” Which challenges can be overcome with the software provided by IBM?”

**Thomas**: “We see various possibilities in this area. For one thing, with our software we are able to measure, record and deliver reports for energy consumption of both IT components as well as non-IT components. For the other, we have a bunch of possibilities in the Service Management sector, which enable energy consumption to be presented in the context of other measured data, such as for example performance values and end user response times; basically information relevant to the Service Level Agreements. We therefore have the opportunity to steer energy consumption so that we use as little electricity as possible for the provision of a specific IT service, whilst at the same time being able to comply with the Service Level Agreements.”

**Manuela**: ”Which factors have hitherto prevented companies from implementing the relevant measures?”

**Thomas**: “The very first challenge is that companies often don’t know how much electricity is used, and are even less likely to know how much is used for the individual components. And many companies who can report data center electricity consumption don’t know which components use the most power, or which old hardware components consume far more electricity than newer components. They are therefore not in a position to optimize energy consumption at a component level.”

**Manuela**: ”Are there any new developments in the technology area which support this ecological awareness and provide incentives to implement them?”

**Thomas**: ”With our “Monitoring Tool” for energy, we are able to measure the energy consumption of computers and storage components directly at the source, per component. At the same time, we can also measure the energy data of building and data center infrastructure components. We have interfaces to building management systems which enable us to collect consumption data, for example for air conditioning, lighting, cooling
and for other infrastructure components to form an overall picture. This is an important factor, as the building and the IT infrastructure in the building are closely linked to each other. This measurement of consumption data at the source can be meaningfully used by various Service Management solutions. We can, for example, incorporate the consumption values into the charging for IT services, just as we have done for a long time for other values. We can now also, for example, incorporate energy consumption values or CO2 emissions in these calculations. We are also able to reconfigure the data center dynamically with so-called provisioning solutions. Here, the point is to be able to, for example, shift the load, the computing load, form one component to another. The need for cooling is thereby reduced, which supports the aim of a more balanced promotional profile for the data center.

**Manuela**: “Many thanks for your remarks Thomas.”