Study suggests cloud computing can make business more green

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The research, which was carried out by Dietmar

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Showing the environment some love through cloud adoption? Image courtesy Lenny R, Flickr (CC BY-NC-SA 2.0). This image has been modified.

Nedbal and Mark Stieninger of The University of Applied Science Upper Austria, focuses on the case of an Austrian SME specializing in the production of safety boots. The company switched from a paper- to an e-invoicing system offered through a cloud-computing solution provider on a 'software as a service' (SaaS) basis. Nedbal and Stieninger have calculated that a complete switch to e-invoicing has the potential to reduce costs by up to 62% and slash the related carbon footprint by over half.

"It seems that the higher the degree of implementation and the higher the degree of displacement of 'common' components of IT infrastructure, such as servers and PCs, the greener the business gets," says Nedbal. Nevertheless, he cautions: "It is necessary for a reliable before-and-

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after comparison to consider the complete system proportionally, taking into account the energy consumption and carbon dioxide emissions 'moved' to the cloud computing data center."

While the authors acknowledge that there are limitations to the case-study approach they have taken in terms of the generalizability of their conclusions, they argue that this research demonstrates the potential for cloud computing to lead to significant cost reductions for businesses and play a positive role in the fight against climate change. The authors call for further such in-depth case studies to be carried out, thus leading to the creation of a general adoption model for cloud computing, comprising economic, ecological, and social factors.

Nedbal and Stieninger's research paper is available online, here.

- Andrew Purcell

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