‘My idea reduces the carbon footprint of data centres’

SPIE idea contest interview

Simon Dahm, Project Manager in the Information & Communication Services Operational Division at SPIE Deutschland & Zentraleuropa, took first place in the idea contest. Here he reveals how he came up with the winning idea.

What is your regular job at SPIE?

I’ve been with SPIE for eleven years, with one break due to a long assignment abroad. I started as a technician. Now I’m a Project Manager responsible for big IT projects. One of those projects involves the data centres for a major carmaker in the Stuttgart area. I work on bids and contracts, stay in close touch with the customer, and manage many projects throughout Germany – all with the goal of making sure we remain an innovative and effective leader in IT and data centre services.

And how would you describe your idea?

I was bothered by the open space above the switches in server racks. Switches are the devices that control the interconnections between the machines and servers. The open space above a switch is required for optimum ventilation. But it also leads to an unwanted connection with the pressurised cold aisles that cool the racks, and of course the loss of cooling and pressure is something to avoid as far as possible. So I thought about how I could solve this problem and cut energy consumption for the environment and our customers.

What exactly is your solution, and is it already in use?

I’m a typical tinkerer and always try to find practical solutions. So I developed an air guide that leaves all required openings on the switch clear but still seals off the open space. It’s designed to fit the most common switch types, and can be easily retrofitted. To illustrate the principle in customer meetings, I worked with ARENA2036 in Stuttgart to make two models of typical switch housings using 3D printing. I can use those to demonstrate the principle of the air guide. And it’s been a success – the product is already being used by some customers and has proven itself in practice.



An air guide developed by Simon Dahm improves cooling in server racks and helps to reduce energy consumption.