# A virtual physician's conference

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Wounds suffered by patients with diabetes tend to heal poorly. For treatment to work, the patient's physician must discuss the situation with specialists and nursing staff to decide on the best approach. However, e-mailing the files containing the diagnosis and discussing them on the telephone is a time-consuming process.

Telemedicine could facilitate communication and provide a better means

of overcoming physical distance, but the solutions offered to date have failed to establish a market presence. "Currently available software mostly comprises one-off solutions that are difficult to adapt to alternative application scenarios," explains Oliver Koch from the Fraunhofer Institute for Software and Systems Engineering ISST. The software therefore has to be re-programmed for each application, which is a costly, time-consuming business.

In collaboration with the Protestant Hospital in the town of Witten, researchers at the ISST have now developed a software program that makes coordination both simple and cost-effective. "Our software is designed to be modular - you start with the basic core services and simply add the specialist individual services you need in each case," Koch explains. For basic program functions such as barcode recognition, the scientists have chosen existing open-source solutions. To tailor these to a specific application, the programmer simply modifies certain parameters.

The software is used for a weekly "Wound Conference" in Witten, in which doctors present problematic wounds that are not healing properly and discuss possible courses of treatment. Doctors can click on a link to register and download the program, which includes an easy-to-use installation wizard. Once a doctor has obtained their patient's consent, they can enter the patient's data in an on-screen form, including a description of the wound and any laboratory findings. The doctor can then upload photos of the wound using a barcode that was photographed together with the wound. The barcode automatically assigns the images to the patient's file, and the doctor can add updated photos whenever required. To check how the healing process is going, conference participants simply click to display the photos in a series. In addition, the software automatically pulls in new information on how treatment is progressing. All the data is stored centrally on one of the hospital's servers. More than 300 cases have already been documented in the

virtual network, and the researchers now intend to expand the pool of basic services and assess requirements for new services.

Source: Fraunhofer-Gesellschaft ([news](#) : [web](#))