

## **Engineers to help Air Force use Global Information Grid**

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Frustrated with cell phone dead zones, busy signals, e-mail spam, endless voice mail loops and other exasperating aspects of technology? Now, imagine the plight of a soldier needing quick information in a life-or-death scenario who has to deal with the same issues.

Vanderbilt engineers are working on software to harness the powers of the Global Information Grid to help pilots and other soldiers communicate with their commanders more effectively and inexpensively.

The GIG includes all communications networks, from the Internet and land lines to cell phones and satellites. Much like the Internet itself, the GIG has grown in an ad hoc fashion.

Douglas C. Schmidt, Vanderbilt professor of computer science, is the principal investigator of a group of U.S. researchers who have received a \$1.2 million grant from the U.S. Air Force Research Laboratory to tackle the multi-dimensional challenge of developing software that enables U.S. military commanders to use the disparate resources of the GIG in an effective fashion.

"The Internet has existed for decades, but it only became accessible to most people with the invention of the World Wide Web and software such as Netscape and Internet Explorer," Schmidt says. "It's helpful to think of the GIG as presenting a similar, but actually even more complex, challenge in terms of integrating the technologies sufficiently



for them to work together."

An additional challenge is to ensure that these technologies will interface efficiently, reliably, and at the levels of security required by the military, Schmidt says.

"The software we are creating not only will broaden communications capabilities by utilizing the GIG to augment Air Force communications technology such as warfighters' radio, landline and satellite communications, but also will ensure that all communications are delivered according to commander priorities and are protected from interception and disruption," he said.

Vanderbilt is teaming with Carnegie Mellon University in the project.

Source: Vanderbilt University

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