

# New Web site lets DoD developers work together on software

## Forge.mil users share code, ideas

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The Pentagon's top generals are planning to use social networks, wikis, mapping and other Web 2.0 tools to bring the best minds in the Defense Department together to outthink and pre-empt America's adversaries.

The idea is to tie together disparate data streams from across the department so leaders have all the information they need at one location to spot and react to threats, changes on a battlefield or other situations that might affect national security, said Jack Eller, chief of the Defense Information Systems Agency's advanced concepts office and the project manager.

The project — given the clunky name, National Senior Leaders Decision Support Service Joint Capability Technology Demonstration — will take at least three years to complete. But already, testing of an early version of the program is under way, thanks to a new DISA Web site called Forge.mil.

Forge.mil is a Defense-only Web site that enables software developers from throughout the department to collaborate in the development of software, similar to open-source software initiatives in the broader public.

As with open-source software development, Forge.mil allows geographically dispersed developers to work together in a restricted environment on software code in a way that's visible to all team members, said Rosie Pongracz, director of product marketing for CollabNet. Using CollabNet, developers who are authorized to participate can

view and comment on code, find bugs in the code, and track and control changes made to the code, she said.

In September, DISA hired CollabNet to build Forge.mil to do just that for Defense software developers, like Eller and his team.

"When we looked at how industry tackles large-scale software development challenges in the software world, we noticed the value of the open-source community in terms of enabling large disparate communities to focus on problems and achieve very mature software in the end," said Robert Vietmeyer, DISA's Forge.mil project director. "We wanted to emulate that within the DoD environment."

SoftwareForge, the first stage of Forge.mil, went live on a pilot basis in January and was rolled out across the department in late April.

SoftwareForge supports collaborative development of both open-source and community-source software, Vietmeyer said. Community-source software is commercial, proprietary software the government has code-tinkering rights to, but cannot share beyond the government space, Vietmeyer said.

To allow collaboration on both types of software, the Forge.mil community is open only to the Defense community. Only registered users with a Defense access card or a special security certificate can use the site.

Because CollabNet's platform allows Defense to control who sees the code, many of the security concerns that critics of open-source software raise are resolved, Pongracz said.

In addition, participants can com-



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Jack Eller, left, and Robert Vietmeyer of the Defense Information Systems Agency say Forge.mil, a new collaborative Web site, allows users across the Defense Department to work together on software code.

office. Cloud computing allows users to host applications, such as SoftwareForge and ProjectForge, on centrally managed servers. The users access the servers remotely, merely renting space on a DISA server that is set and managed to DoD specifica-

tions, rather than owning and maintaining their own equipment.

In 24 hours, RACE can carve out virtual server space to get any office, such as a military site in Iraq, set up, said Henry Sienkiewicz, DISA's technical program director for RACE.

By combining the software development office with the deployment office, ProjectForge customers can take care of their project life cycle, Sienkiewicz said.

Tying the rapid development of Forge.mil to the rapid deployment of RACE also means war fighters will get applications developed on ProjectForge quickly, Sienkiewicz said.

In addition to ProjectForge, DISA plans to launch a version of SoftwareForge for classified projects on DoD's secure network this summer, Vietmeyer said. Currently, Forge.mil is not configured for the Secret Internet Protocol Network. It is thus able to support only unclassified projects, he said.

DISA is also developing tools for Forge.mil to allow users to test and certify software programs developed on SoftwareForge or elsewhere, creating a one-stop shop for development, he said. Defense has a lot of existing testing and certification capabilities, "but they're stovepiped," Vietmeyer said. "We're trying to build Forge.mil as a platform so folks have all the capabilities." ■

ment on where changes in the code should be made, but only a handful of users can actually change it, depending on the project. This prevents anyone from purposely or accidentally writing bad code into a good piece of software, she said.

### Shared benefits

Before the site, Defense didn't have a central repository of its software assets. But now, with more than 70 projects and 1,500 developers using the site, access to software code that could be useful in other applications throughout the department is possible, Vietmeyer said.

For example, Forge.mil has a repository of standard industry code that allows different data streams to interoperate.

"It's a means of accelerating new data sources into our environment," Eller said. "There is also a cost reduction by not having developers develop code that may already exist."

There is also a time savings. "We've been able to demonstrate with the specifications already available that you can download the code and in a week or two, integrate the code into the application baseline and begin to look at integration and the ability to interface into the NSLDSS infrastructure," Eller said. If code development had to start

from scratch, the code writing alone could take months, he said.

Further, having a community site like Forge.mil to share information allows code developers to get outside advice — solicited or not — which helps make the code better by finding mistakes or suggesting alternative approaches, Vietmeyer said. This level of code oversight means users of existing code can be confident the code is sound, he said.

### Forging the future

Following its success on SoftwareForge, DISA plans new offerings to assist users in deploying software they develop.

Among the first will be ProjectForge, a fee-for-service offering that allows project managers to use the bug tracking and collaboration tools offered with SoftwareForge on proprietary software that cannot be shared in an open- or community-source environment. Instead, DISA will carve off a fire-walled room where authorized users can view code and collaborate without violating their user agreement, Vietmeyer said.

Vietmeyer's office will launch ProjectForge as early as this fall in collaboration with the Rapid Access Computing Environment (RACE) at DISA.

RACE is DISA's cloud computing