The AWIPS National Core Local Application Development Team: Collaboration is the Key

by John Skoda and Harriet Loeb, NWS Office of Communications

> *Unity is strength... when there is teamwork and collaboration,*
> *wonderful things can be achieved.*
> ~ Mattie Stepanek, poet and advocate ~

Editor's Note: This is the sixth story in our AWIPS II series.

In this series of articles, **NWS Focus** has been following the overall AWIPS II development process and timeline, and introducing the people behind the scenes deploying the software. So far, we've concentrated on developments at NWS Headquarters and the National Centers.

But the work going on at headquarters is only a part of the AWIPS II story. A major chunk of the AWIPS II migration will happen at Regional Headquarters offices and field offices across the country, when local applications are moved from AWIPS to AWIPS II.

That's where the National Core Applications Development Team (NCLADT) comes into play. It's the NCLADT's job to make sure that the infrastructure exists so that critical local applications can be ported. They'll be maintaining local application infrastructure code with the goal of reducing programming errors and code duplication among migration programmers.

A local application is an application that's been created by a forecast office as a local enhancement to AWIPS.

"Say an office identifies the need for a local product that the baseline AWIPS software does not provide," said **John Olsen**, member of the NCLADT from the NWS Office of Science and Technology, "and the office has developed a small software program or script to provide that experimental product to its users."

If feedback from local partners and customers suggests that the product is filling a unique user need and the experimental product is declared operational by the Regional Director, then this "little" software program is providing a critical service—it's now a "critical local application." Any application identified as critical must be ported onto the new system before an office can transition to AWIPS II. It's the job of the NCLADT to make sure that the infrastructure exists to support the porting of these kinds of applications.

And how many local applications are out there? "Initially we took a manual inventory of applications, and we came up with a count of around four thousand, but we suspected it

was incomplete," said Olsen. "Last year we ran a script to collect applications, and it blindly went in there and, with no regard to importance, just collected them. There turned out to be twenty to twenty-five thousand."

Until very recently, software testing has been complicated because hardware for each local system is slightly different. "You're never loading the same software on the same hardware and you always have reports with some folks experiencing certain types of difficulties where others are not and vice versa," said Olsen.

That's where **Ashley Kells** comes in. Kells, also from the Office of Science and Technology, is helping the team out with site migration issues. "One aspect of the job is migrating local applications, which is what the NCLADT focuses on. The other is site configurations. AWIPS I users can go in and make local changes to meet the service needs of the offices for their customers and partners. Part of my job is to make sure that any customizations they can do in AWIPS I, they can also do in AWIPS II," said Kells.

"It's a very, very big job. AWIPS II is a big piece of software and it's somewhat of a moving target—portions are being rewritten all the time," said Olsen.

The NCLADT is a creation of the field, born out of an early Technical Interchange Meeting with Raytheon that included select programmers from the field (see box above). Each member is an important link in the chain, and the job the team is charged to accomplish could not be done without the entire chain in place. The team meets weekly to discuss local application strategies and other transition issues.

And the Team is starting to feel the momentum growing. "We're starting to see that energy rising. People are starting to get excited about what they're doing," said Kells.

The hope is that the collaboration between all the field elements involved will continue beyond the last milestone. "Personally, I hope it does," said Kells. "The Team has established a wiki site, encouraging the reuse of code and things of that nature. The development of best practices is a collaborative effort between the NCLADT and other local applications people and I expect that will continue past the migration."

"I am very impressed with the AWIIPS II architecture myself," said Olsen. "It's just a very interesting architecture and with the level of competence of the programmers, it's been a real treat to watch them develop the system."

The National Core Local Application Development Team (NCLADT)

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