

**2010 Homeland Security S&T Summit
South Central Region
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PANEL: "The Role of S&T in Natural Disasters"

Mike Smith

**DHS S&T Infrastructure & Geophysical Division
"An Infrastructure for Information Sharing and
Beyond: UICDS"**

MARY HANSON

Our last presenter Mike Smith from our infrastructure and geophysical division will address his project called UICDS and that will let him explain what that means.

MIKE SMITH

Good morning everyone. It is still mourning here and right thank you for the opportunity to keep you a few minutes overview on UICDS. It is a middleware Foundation and an effort that has been ongoing since early 2006 and is creating inability for systems to share a ton of information without changing the systems themselves. They have four competing providers in the beginning. Phase 2, which just ended in December left with an operational demo that we did in a number of locations including the state of Virginia and at this time we have three will be called usage cores installed in the Virginia Department of Management and the City of Richmond and that will lead on to something later. My slides got messed up but essentially the bolt is information and sharing and decision support among anyone who subscribes to this. It is cross domain and Cross role and cross function and application of. This is a three part slide to give you an example of what it might look like. Along the bottom we have three different applications portrayed. Nothing specific, just geospatial. And they function well doing what they do. Under our approach they continue to do that as they do now. However, then we add the usage core that adds intelligence connectivity to these applications. It allows us to create user agents that talks to other agents. I am not a technical expert but that allows people to continue to do what they do at their stations without having to learn a new system by yet receive much more information that is populated into their system. We all know about stovepipes. We hear that term used often. We are putting up-to-date and the future that if you look at these stovepipes portrayed here with modeling and forecasting, intelligence, bank records, all of them can be linked by usage cores by simply -- simple is the wrong term. By connecting them through the usage project coming up now. Architecture, reference implementation and outreach program are what we are in right now. We have an architecture that have as the backups like that will be available for you and it drills down into much more detail. We are in to to, the real world operational test environment. Here is a graphic representation of what a usage core is and what it does. The court is the center picture that you see in front of you. And in that center core is where the architecture is contained. It does not take over everything. That's someone will continue to do as I

indicated earlier what they always do but now have the benefit of this information sharing. If you look at the applications represented up there they are both commercial and government off the shelf. How did they give in to interactive uses? It is like Velcro. The core is the smooth surface and all of the applications have the Velcro hooks. And those Velcro hooks are what we call our software development kit which is free to any software application developer. We already have over 100 developers that have taken this can. And, in fact, in one of the demos that we did back in April 23 different current commercial applicators who took the software development kit were able to show how its for the usage core pocket rates on the different emergency management viewers and screens during this demonstration.

This line, I will not take too much time to go over in detail but if you take a look at the center circle in the right is the core. And if we have the Eckert Peter that dissimilar kinds of things -- and we have the aggregator that can be connected to the speed by. We heard the term governance used in a couple statements today. The success of this program depends on the people side and how we established that is the new information sharing agreements. And those information sharing agreements are created and completed by people who want to share data, information. And they can be time face, expandable, operate 24/7 or when a particular event triggers eighth and then the information comes began to go back and forth. John mentioned before about sensitive information so there is always the the shoemakers and the loop to determine what the technologies will provide press -- the decision makers. There is the point of contact there. We are beginning a pilot phase next month in four separate and distinct arenas. One is at the FEMA directorate in Washington and the all hazards consortium in District D.C., the other is the Pacific Northwest consortium, and the fourth is university based where we will engage the services, are engaging the services of Rutgers University, the University of Louisiana at Lafayette and the University of California at Irvine. In those pilots we intend to deploy over 200 cores and our intent is to have the users say what is good and what is not good. What needs to be done. Simultaneously we intend to continue the out reach her to engage the software applications industry to it buys them, show them the utility of having a usage compliance application that can be used anywhere that someone will purchase it in the state or county or city or region. That is our way ahead and at the completion of the pilot phase we intend to determine what needs to be done for Phase 4 to turn this technology into its ready to go right now. But we have real time capability that we are going to pilot and demonstrate beginning in the month of March. Here are, I will run through them really fast -- you will have them available. This is the Cliff notes of what UICDS is. I have probably about 200 of these at the poster. This is the architecture. I have six seconds left. This is another way of looking at it as a technical overview and the conceptual relationship between UICDS. And how we provide situational awareness through factional data. Thank you for your time.