

TRANSNATIONAL DIGITAL GOVERNMENT: THE FUTURE IN THE NEAR-TERM

[slide 1] As Jim Mack noted in his introduction, one of the OID's missions is to help CICAD Member States research advanced information technologies useful for the rapid collection, dissemination and exchange of drug information. Today, I will describe a scenario for applying some advanced technologies to a public sector function in a way that will support information development for the MEM and for National Drug Observatories. The scenario might sound futuristic now, but it will be executable at the end of a CICAD/NSF three-year pilot project in transnational digital government currently underway in Belize and the Dominican Republic. The scenario demonstrates how advanced technology can be applied to the challenges of transnational organized crime and responds to the need for better communications to combat cross border trafficking. Both these issues were raised by CICAD's President and Vice President at the Inaugural Session on Tuesday. As I said, the scenario focuses on drug control; however, its methodology and the technologies described are both replicable to other countries and applicable to all aspects of the drug problem, not just control, but demand, supply and impact as well. In fact the project was developed with support for the MEM and national observatories in mind. *[Slides 2&3]*

Here goes:

It is almost midnight when two well-dressed men, Eric Jones and Juan Gonzalez, arrive at a remote border port of entry in southern Belize with passports issued by the Dominican Republic. Suspicious of late night arrivals, however well-dressed, the border immigration official calls in their passport information and physical data to the central immigration computer in the Belizean capital of Belmopan, and requests access to its national immigration database. Having verified the official's voice pattern and converted his spoken data on the two men into text, the computer approves the official's access. Through his query, the official learns that the two gentlemen in front of him frequently cross into Belizean territory without any set purpose. He then asks the national computer to verify both men's passport data with the Government of the Dominican Republic.

With the immigration official's data and that taken from its database, the Belmopan computer communicates with the central immigration computer in the Dominican Republic, using machine translation technology to automatically translate its query from English into Spanish.

The Dominican Republic's central immigration computer in Santo Domingo finds a voluminous file on Eric Jones, including the fact that Jones is wanted in Europe for money laundering. His Dominican passport, while originally valid, has been cancelled due to his fugitive status. The Dominican computer reports no data for the other man, Juan Gonzalez, but discovers that a Dominican passport with the same number but a different name was reported stolen some weeks ago. The physical characteristics noted on the original passport application do not match the physical

characteristics of the man at the Belizean border who calls himself Juan Gonzalez.

The national immigration computer in Santo Domingo transmits its findings, translated into English, back to Belize, using machine translation, advanced Internet and security and privacy technologies. From the data provided, the Belmopan national computer extracts the Dominican Republic's all point fugitive apprehension request on Eric Jones, and automatically fills out the Belizean form that authorizes the pair's detention for passport fraud and for attempting to enter Belize on an invalid document. The Belmopan computer communicates its findings to the border official, instructing him to detain both Mr. Jones and Mr. Gonzalez. It also alerts police in the nearest border town to what is going on.

The whole process has taken just 15 minutes.

[Slide 4] The information technology required to give life to the scenario I just shared with you will be tested during a three year US\$1,500,000 project financed by the U.S. National Science Foundation (NSF). Entitled "Transnational Digital Government," the project evolved from CICAD's 1999 approval of the construction of an Hemispheric drug information network based on advanced information technologies, and from the desire of National Science Foundation personnel to research technology applicable to the solution of real world problems. The project's successful completion will be a first step toward building this network, and will constitute a link in fulfilling the 2001 Summit of the Americas mandate to use information technologies to connect the peoples and governments of the Americas. Even though just underway, the project, in

view of its unique orientation, will be showcased as one of two case studies at the National Science Foundation-sponsored “Conference on Transnational Digital Government Initiatives” to be held in Boston from May 18-21, 2003.

What exactly is transnational digital government? *[Slide 5]* Simply put, transnational digital government means:

governments doing business and collaborating together to execute their essential functions utilizing digitally-based technology.

To work, transnational digital government must rest on the existence of national systems of digital government – defined as using computers to execute public business more effectively. *[Slide 6]* Implicit in this definition is a requirement that at least some public sector functions be automated. *[Slide 7]* Also implicit for successful transnational digital government information exchange, as well as for automated information collection, is the need for those countries that automate their individual public sector functions (for example, immigration) and their constituent pieces of data (for example, passport numbers and names) to organize the process and the data in a way that facilitates use of the data, not just by the collecting agency (in this case immigration), but by other agencies (in this case certain immigration data collected could be organized for use by police, national drug observatories, the MEM) and even by the general public.

Thus, if Belize and the Dominican Republic, in collecting their relevant data on a public function like immigration, would organize it for use by multiple other users with differing needs, -- such as national drug

observatories and the MEM, -- not only would both countries benefit, but others as well. And if this information borrowing/sharing could be done digitally, and automatically, we would be well on the way to solving many of the problems plaguing national anti-drug and MEM information collection efforts. Because, at bottom, digital government is not about technology. *[Slide 8]* It is about integrating government operations and services, and transforming the fundamental relationship between government and its citizens. For the transnational digital government project, the challenge is to foment the construction and maintenance of national networks that permit rapid and systematic development of information and its exchange across borders.

[Slide 9] The NSF-funded Transnational Digital Government Project I just described represents a transnational collaboration *[Slide 10]* among seven universities located in the United States, Belize and the Dominican Republic, national drug councils and government agencies in Belize and the Dominican Republic, and OAS/CICAD/OID. The University of Florida's Jose Fortes is chief project investigator and heads its research team.

The collaboration aims at applying information technology to an international problem -- detecting and monitoring activities related to the transnational movement of illicit drugs. Starting from this general vision, project participants have agreed to take one government function -- *[Slide 11]* immigration at remote borders and ports of entry -- and five advanced technologies and determine how applying these technologies could make this government function more efficient, more effective, both nationally and transnationally. The five advanced technologies are: *[Slide 12]*-- spoken

dialogue systems, machine translation, information filtering, networking and middleware/Internet technology. Project emphasis will be on the transnational aspects. Project participants have also agreed on initial infrastructure requirements and specifications for a research prototype. These agreements were reached during two meetings hosted by the Dominican Republic's National Drug Council and a technical team meeting hosted by the University of Florida in 2002 and 2003.

The function chosen, immigration at ports of entry and remote borders, will support the MEM "Displacement" Indicator #83. The five technologies will focus on providing this support in information collection and exchange.

Research team members have commenced prototype construction. National immigration agencies and universities in Belize and the Dominican Republic will be studying national immigration control processes to identify those parts of the process where the application of selected technologies would be most useful, and whether their introduction would affect current procedures or methods of operation, particularly as regards the cross-border exchange of information. *[Slide 13]*

The first research prototype integrating the softwares developed by the participating universities is scheduled for completion at the University of Florida at the end of August 2003. This first prototype will be demonstrated in Belize in early December 2003. Then, feedback on the prototype, and any necessary adjustments for its second version, will be solicited from all project participants, including representatives of relevant government

agencies from Belize and the Dominican Republic. In the second year of the project, this integrated prototype will be tested in all the participating universities, and in the third year, in the national government agencies. Lastly, the project's transnational information exchange components will be tested. The final prototype and its technology research will be provided to Belize and the Dominican Republic and to CICAD for replication in other interested countries and for use in developing other applications. A Web portal will be developed in the OAS General Secretariat with tools to enable governments to use the technologies developed to undertake their own computer applications.

Why is this project important?

- a) This project is important because it addresses two urgent and current problems mentioned at this session of CICAD – the need to develop technologically-advanced anti-drug initiatives to counter the challenges of increasingly sophisticated uses of technology by transnational organized crime organizations, and the critical need to control drug trafficking across borders.
- b) It is important because it brings countries and researchers together to work on a real world problem.
- c) It is important because its product -- an automated immigration control prototype information system – will be available for replication in other OAS Member States. *[Slide 14]* For this purpose, Member States will have access to a special OAS Web portal that will be created as part of the Transnational Digital Government project.
- d) This project is important because the project's technologies can, in addition, be applied to the automation of other public sector functions

and activities. In the area of drugs, this could include control of the movement of precursor chemicals, the compilation of drug control statistics, the intake of data on addicts entering treatment, and even the automating of several aspects of drug use surveys [*Slide 15*]

The possibility list is endless, limited only by the scope of our imaginations.

Thank you.

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