

# Leveraging Technology in the Service of Diplomacy: Innovation in the Department of State

E - G o v e r n m e n t S e r i e s



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# Case Studies: Using Technology to Improve Internal Communication

## Treaty Information Portal (TIP)

The Treaty Information Portal (TIP) is the latest upgrade to the Arms Control Treaty Negotiations Database, where negotiators and analysts can log on to a single network to access multiple databases containing all current arms control treaty records. It is managed by the Verification and Compliance Bureau of the Department of State, formerly part of the Arms Control and Disarmament Agency (ACDA) until consolidation in 1999. The Treaty Information Portal incorporates 12 libraries, including the official negotiating record archives; inspection reports related to the Conventional Forces in Europe (CFE) and the Strategic Arms Reduction Treaty; and treaty exchange data from CFE, the Organization of Security and Co-operation in Europe (OSCE), and Confidence and Security Building Measure (CSBM) data sets (including the global exchange of military information). Another library contains weapons photos that account for existing treaty-limited equipment. The photos are used to resolve disputes over weapons disposition.

**Start Date:** Initiated in 2000 to improve staff access to numerous existing databases

**Originating Office:** Verification and Compliance Bureau

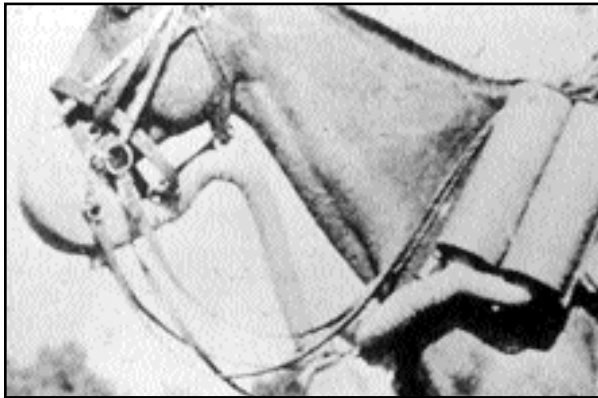
**Brief Description:** Web-based classified portal consolidating numerous databases containing all current arms control treaty records

The Treaty Portal also incorporates public affairs archives of signing ceremonies and numerous unclassified photos of weapons systems. (This is the place to go if you need a World War I picture of a horse in a gas mask; see Figure 9.)

By far the most important database is the Negotiation Record Database. The usefulness is evident. Negotiators in Geneva or Vienna can refer back to the intent of the original negotiators. Even if the treaty language itself is vague, the negotiation record usually speaks to the intent of the negotiators—10, 20, or 30 years after the fact.

The data repository is managed in-house by a team of data administrators who input data using high-speed scanners and electronic feeds from the cable network. Programmers and engineers work on links to existing databases outside of the State Department. Databases from DoD and other members of the arms control community are indexed within the State system to provide one-stop shopping for users.

The volume of new data exceeds 50,000 pages annually, not all of which is in English. In the past, there were numerous sources of translation, which occasionally led to confusion. Now, through interagency coordination, all documents are translated by one agency and shared by all. TIP, through indexing, provides capabilities to all user agencies to access their own data plus the data of others to the extent that the originator allows. An important element of TIP is the software to provide differentiated access. Data providers are less willing to collaborate if access to their data is unrestricted.

**Figure 9: WWI picture of horse in gas mask**

In 1982, Congress mandated that ACDA maintain a complete archive of the negotiating record to provide the basis for accurate and effective treaty negotiations. An interagency body, the Arms Control Coordinating Research Committee, decided to field two systems: ACCORD (Arms Control Online Research Database, an unclassified system accessed through a dial-up modem) and a classified system called ARENA (Automated Recourse to Electronic Negotiation Archives). The dial-up speed was slow, and the data structures didn't lend themselves to analysis. So, the system was underutilized, and most users simply requested paper copies.

The Conventional Forces in Europe negotiations, which required exhaustive data exchange among parties, created the next impetus for change. After some debate within the arms control community, it was decided that ACDA would become the official repository of the exchanged data, inspection reports, and notifications—on the condition that it would be made available online. Subsequent legislation required ACDA to maintain both paper and electronic records of treaty texts, negotiation records, research, and related arms control information.

Plans to migrate from a dial-up modem to a network system based on Internal protocol (IP) were completed in 1999, using Excalibur RetrievalWare. The proof of concept developed for the Y2K project gave the Verification and Compliance Bureau a head start in building the data repository search engine for the Treaty Information Portal. New data sharing agreements were signed with NATO, the On-Site Inspection Agencies, and other members of the arms control community.

The availability of DoD's classified SIPRNET was a key element in the success of the project. It provided adequate bandwidth and the ability to share classified data. With a common web interface and graphical front end, SIPRNET was ideal for this application.

The key attribute of the Treaty Information Portal is providing *timely* and *accurate* information. It also eliminates duplication of effort among the thousands of people who work on arms control by providing data from all the data sets that are maintained and indexed. It makes everyone more efficient and eliminates unnecessary duplication of cost.

Prior to this system, arms control specialists were unable to share data with other agencies in real time. If an analyst at the Pentagon needed to know the U.S. position on a particular topic, he would call and ask for a data search. Then ACDA would send the data over by classified pouch, with a delay of a few days. Now the analyst searches the database in real time. The State Department is more efficient as well. By spidering all of the sites from a single interface, there is no need to duplicate data held by other agencies.

With the Treaty Information Portal functioning well, the staff is now building expertise on, and testing, high-definition video systems between Washington and Geneva. Given the care that is evident in the deployment of the new system, secure videoconferencing between policy makers in Washington and negotiators overseas will likely be commonplace before long.

#### Lessons Learned

- **There are several important lessons to be learned from the operation of this complex, classified interagency system, but none more important than the insistence of the leadership that all senior members of the IT staff be also expert in arms control.** Diplomacy and information technology must be tightly aligned if the latter is to serve the former. "I tell my guys, if you're not good enough to go work in the policy office, you're not good enough to work here. If you can't go work in the chemical weapons office or the nonproliferation office, that means you don't know enough to do your job here."<sup>11</sup>

- **The IT office must choose its core competencies.** As the demands are so great, it has to decide what is most important, specialize in that, and ignore the rest. “We succeed because we’ve chosen to ignore 90 percent of things we were doing, but do a few things and try to do them extraordinarily well.”<sup>12</sup>
- **When working with the interagency community, draw up access agreements with great specificity, so that each agency will have the confidence that its data will not be misused or end up with unauthorized users.** Otherwise, agencies are reluctant to share their data.
- **Economies of scale can be found when related elements are supported by a common IT shop.** This is not an argument that the support of business functions should be centralized, but that common business functions can be supported by a single office large enough to have expertise in several related functions.

## Worldwide Remote E-mail Network (WREN)

The Worldwide Remote E-mail Network is a mobile Local Area Network, or LAN, designed to support the Secretary of State during foreign travel. It provides classified communications to the Secretary and his immediate party from any point in the world through encrypted messaging on ISDN lines, a dedicated V-SAT satellite, or leased time on a M-4 InMarsat satellite. Connectivity to the V-SAT is through a 1.5-meter dish carried on the Secretary’s plane; the InMarsat connection is through an even smaller mobile antenna. The systems, operated at a speed of 256 Kbps, provide secure communications to the State Department’s Operation Center—and from there to any embassy in the world.

**Start Date:** 2000

**Originating Office:** Executive Secretariat

**Brief Description:** Mobile high-speed Internet connectivity enabled by satellite technology to allow broadband communications for the Secretary of State during international travel

The system, from laptops to generators, is completely self-contained, so it can function in remote locations. While worldwide connectivity is hardly a novelty in the 21st century, it is only recently that secure, high-speed, e-mail connectivity between Washington and any remote location was routine. In fact, the system was inaugurated in 2001 during Secretary of State Albright’s official visit to Pyongyang. Its use has since become standard operating practice.

WREN had its origins in Y2K preparations when older systems were subject to careful scrutiny. Legacy cable systems and classified fax were used to connect the Secretary with the Department of State, each requiring several steps of processing, along with the attendant staff support. The Department’s Executive Secretariat proposed an upgrade using secure computers and networking sufficiently robust to satisfy the government’s highest security requirements—without the intermediate delays inherent in the legacy systems.

As cables had been circulated by e-mail within the Secretary’s inner office for several years, extending the same system to a mobile LAN did not represent a sharp departure from standard practice. To the contrary, information access on the road was the same as in the State Department itself. The change in technology resulted, as well, in minor organizational changes to better synchronize technical support with the operational requirements of the Secretary of State. Routines that were developed to support Secretary Kissinger during the Nixon and Ford administrations have been abandoned.

With WREN, the Secretary and his traveling party have much faster access to information than with its predecessor systems that required several intermediate processing steps before reaching the principals. For both strategic and humanitarian reasons, minutes lost may make a difference when the Secretary is on the road. WREN has been designed to ensure that information is available in real time.

In addition to classified e-mail, WREN also provides full access to the State Department’s classified intranet—and through it to Defense Department and intelligence community networks. It offers periodic briefing materials and other information prepared in Washington to support the Secretary’s