United States Department of State and the Broadcasting Board of Governors Office of Inspector General

# **Memorandum Report**

# Evaluation of Department of State's Public Diplomacy Network Conversion to OpenNet Plus

Report Number IT-I-05-08, September 2005

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# INTRODUCTION

The deployment of OpenNet Plus (ONP) has made it possible to fulfill the former Secretary of State's highest information technology priority: to create a computer network providing Internet access for all Department of State (Department) employees. After the ONP implementation was initiated, the Under Secretary for Management mandated that the merger of the U.S. Information Agency (USIA) be completed by eliminating the Public Diplomacy global network (PDNet), enhancing the functionality of ONP to meet the business needs of the public diplomacy employees, and eliminating redundant networks and resources.

The Office of Inspector General (OIG) evaluated the Department's PDNet conversion to ONP to assess the overall success of the conversion. Details on the scope and methodology for this evaluation are in Appendix A.

# **RESULTS IN BRIEF**

By June 30, 2004, the Department completed the consolidation of PDNet users into ONP and enhanced the functionality of the network for meeting the essential business needs of the public diplomacy employees. However, the Department did not adequately identify alternative mechanisms to provide PDNet services that could not be supported by ONP. As a result, the Department experienced an increase in the number of Dedicated Internet Networks (DINs) that have been deemed necessary by posts to support business processes that are not satisfied through the implementation of ONP. For example, many posts are continuing to maintain stand-alone networks with the submission of DIN waiver requests. With more than 190 DINs awaiting final approval from the Information Technology Change Control Board (ITCCB), the Department has not adequately addressed the remaining issues from the PDNet conversion. Furthermore, the Department has not conducted an analysis to determine additional costs and benefits, if any, associated with DIN waiver requests. A DIN working group was tasked to address the aftermath of the conversion project; however, without a charter outlining the working group's mission and responsibilities to the Department, and without clear procedures for the DIN waiver request approval and follow-up process, the Department has not made substantial progress in addressing these issues. The Department concurred with OIG's recommendations and is moving forward to implement the recommendations.

# **BACKGROUND**

One of the former Secretary of State's highest information technology priorities was to create a computer network providing Internet access for all Department employees, which was achieved via ONP. The integration of USIA into the Department in October 1999 introduced an additional network, which provided Internet access. Employees within the Office of the Under Secretary for Public Diplomacy and Public Affairs used this network, PDNet, for unclassified information processing and communications. In 2003, the Under Secretary for Management mandated the Department to complete the merger of former USIA into the Department by consolidating PDNet into ONP and eliminating redundant networks and resources.

To build on the successful completion of ONP and to eliminate duplication of core network services, the Chief Information Officer (CIO) for the Department and the Under Secretary for Public Diplomacy and Public Affairs signed an agreement in October 2003 stating that all domestic and overseas PDNet services be integrated into the ONP network and that alternative mechanisms would be found to provide PDNet services that could not be supported by ONP. The memorandum of understanding stated that the conversion project, scheduled to be completed by June 30, 2004, would include the migration of all public diplomacy professionals and ensure that security risks were at an acceptable level.

To manage the project, the Under Secretary for Management created a PDNet-ONP project taskforce consisting of a working group, advisory board, and six technical subgroups to ensure project success. The taskforce consisted of representation from the Bureaus of Information Resource Management (IRM), Educational and Cultural Affairs (ECA), International Information Programs (IIP), and Diplomatic Security (DS). The taskforce identified several benefits and challenges for the conversion project. Specifically, Department officials believed the completion of the conversion would eliminate redundancy of services and infrastructure, improve cost effectiveness and overall network security, simplify network-wide hardware and software updates, and enhance ONP services. On the other hand, the taskforce believed the challenges would include converting 219 overseas and three domestic locations without having a major impact or disruption on the public diplomacy services.

Business requirements were gathered from public diplomacy employees to determine which systems and applications used on PDNet were essential and needed to be included in ONP. The business requirements were evaluated to identify the most critical ones for public diplomacy services, including digital videoconferencing and Internet access for foreign publics.

A Department survey sent to information management officers (IMOs) and public affairs officers (PAOs) who participated in the conversion project showed the majority of those who responded were satisfied with the conversion project. Of the over 20 percent of the IMOs and PAOs who responded, 83 percent believed the program goals were accomplished, and 74 percent believed the PAO and IMO were responsive to each other's needs. Department officials also believed the project was successful in meeting its goals by streamlining equipment upgrades, increasing ONP speed and enhancing electronic mail attachment capabilities. The conversion project was completed on June 30, 2004.

# FINDINGS AND RECOMMENDATIONS

The Department met one of its initial goals of migrating PDNet users to ONP, but did not identify adequately alternative mechanisms to provide PDNet services that could not be supported by ONP. The result has been an increase in the number of DINs that posts have deemed necessary to support business processes that are not satisfied through the implementation of ONP. Inadequate senior management attention and unresolved technical issues have hindered efforts to eliminate stand-alone networks completely within the Department. Posts have submitted hundreds of DIN waiver requests citing testing and development as one reason for their stand-alone networks. The Department has not established procedures for the approval and follow-up of DIN waiver requests. Furthermore, the Department has not performed a DIN cost analysis or determined the effect DINs will have on potential funding resources. To date, the Department has not initiated a clear plan of action for addressing these issues.

## **DEDICATED INTERNET NETWORKS**

With the completion of the project, the Department eliminated one network; however, many posts are continuing to use stand-alone networks with the submission of a DIN waiver request to the Department. According to Department regulations, a post may submit a DIN waiver request for supporting services outside the boundaries of ONP. A post can request a DIN for several reasons, including testing of applications and hardware prior to approval by their local change control board or to connect systems not managed by the Department.

## **Testing and Development**

An analysis conducted by ECA and IIP shows that 121 waiver requests out of the more than 200 submitted cited testing and development as a reason for the DIN waiver request. According to the project taskforce, a post may submit a waiver request for testing and development purposes when required to test applications and hardware prior to approving them by their local change control board. Department officials stated that IRM is currently developing a design for a world-wide development network that would use the same circuits as ONP, in an effort to eliminate the need for posts to submit a DIN waiver request for testing and development purposes. In April 2005, a DS memorandum raised questions about how the network would be protected and what controls would be in place to prevent unauthorized connectivity between ONP and the development network. As of July 2005, the Department had not made any significant progress in deploying the development network. Until the Department makes significant progress, posts will continue to submit DIN waiver requests for testing and development purposes, thus continuing the proliferation of stand-alone networks.

**Recommendation 1:** The Bureau of Information Resource Management, in coordination with the Bureaus of Educational and Cultural Affairs, International Information Programs and Diplomatic Security, should deploy a worldwide development network for the testing and development of applications and programs. (Action: IRM, in coordination with ECA, IIP, and DS)

# **Project Savings and DIN Cost Analysis**

During the conversion project, the project taskforce provided the Under Secretary for Management with a cost spreadsheet outlining its projection of savings with the Department's PDNet conversion to ONP. The cost analysis showed a projected savings of \$2.4 million, which was estimated based on life cycle replacement costs for systems and equipment, systems support, licensing, and network infrastructure maintenance assessment costs. With the completion of the conversion project, the Department did not experience significant costs savings. Department officials cited other benefits such as the elimination of public diplomacy computers and a network, leading to cost savings in technology refreshes and upgrades. Furthermore, Department officials cited a more secured and enhanced ONP infrastructure as a benefit of the conversion.

Since the completion of the project, the Department has not determined actual and continued cost savings for the Department. In the process of shifting over domestic and overseas users from PDNet to ONP, the Department has not reported any additional resource savings. The Department predicts future savings in personnel, hardware, and software - specifically, a reduction in helpdesk staff. With the elimination of PDNet at posts, the Department also believes there may be opportunities to reassign staff that have worked exclusively for the public affairs section. To date, the Department has eliminated over 300 desktop workstations domestically, thereby avoiding life cycle replacement costs. Overseas, more than 2,000 workstations and about 200 servers have been removed from posts. The Department estimated a cost savings of approximately \$1.3 million per year with the elimination of this hardware from the Department's inventory.

The Department has not conducted an analysis of additional costs to be incurred with DINs. The Department stated that most posts will maintain these networks to provide computing and connectivity services that are not permitted on ONP because of security concerns. The Department believes a portion of the resources required for these DINs can be funded through a combination of International Cooperative Administrative Support Services, central programs managed by IRM, or the public diplomacy allotment formerly used for PDNet. However, the Department has not determined the effect DINs will have on these potential funding resources.

**Recommendation 2:** The Bureau of Information Resource Management, in coordination with the Bureaus of Educational and Cultural Affairs, International Information Programs and Resource Management, should perform an analysis of additional costs and benefits from the existence of Dedicated Internet Networks. (Action: IRM, in coordination with ECA, IIP, and RM)

# **DIN Approval and Follow-Up Process**

As of May 2005, the Department had 223 DIN waiver requests, more than 190 of which were still awaiting approval. Changes that potentially affect the Department's global information technology environment are managed by the ITCCB, which processes waiver requests for the DIN connections. The ITCCB board, which has representation from IRM, ECA, IIP, DS, and the Bureau of Resource Management (RM), is responsible for making the decision on each DIN waiver request in accordance with 5 FAM 800. The ITCCB board does not have established procedures for approving DIN waiver requests and addressing board

members' comments and concerns. According to IRM officials, each ITCCB board reviewer uses his or her own procedure for determining approval on each waiver request. (b) (2)(b) (

In response to the substantial number of waiver requests submitted in the aftermath of the conversion project, the Under Secretary for Management tasked the project manager in December 2004 to create a DIN working group to manage the DIN process. The DIN working group is comprised of representatives from ECA, IIP, IRM, and RM. The DIN working group attempted to develop an approach to address the outstanding DIN waiver requests but did not succeed. The working group continued to address remaining issues (charter outlining responsibilities, decision on pending waiver requests, cost analysis) in the months following the completion of the PDNet conversion.

In January 2005, ECA and IIP completed an analysis of the remaining DIN waiver requests. Their analysis revealed that posts cited over 60 different reasons to have DIN support, 99 percent of the waiver requests provided from two to 10 different reasons why posts felt a DIN was necessary, and all waivers in ECA and IIP's opinion provided at least one legitimate business requirement that cannot be accomplished currently through ONP. As a result, ECA and IIP informally recommended to IRM and RM that all of the DIN waivers be approved, but follow-up activity with posts should continue. The analysis did not address the additional costs of the requests nor determine the cost effectiveness of the proposals.

As of July 2005, no action had been taken in response to ECA and IIP's informal recommendation, in part because of concerns cited from RM. As a reviewer on the ITCCB board, RM has cited concerns of funding and staff resources to other DIN working group participants. In an attempt to resolve RM's concerns, DIN working group representatives from ECA, IIP, and IRM have met with RM. During discussions with OIG, RM stated that the posts have valid requirements for submitting waiver requests, but RM refuses to provide its approval until the Department gains a clear understanding of the impact on resource costs, i.e. equipment and staff, associated with DINs. OIG supports RM in this effort and believes the Department needs to categorize these waiver requests and determine the most cost-effective way to address the requirements and develop a plan for implementation.

**Recommendation 3:** The Bureau of Information Resource Management, in coordination with the Bureaus of Educational and Cultural Affairs, International Information Programs, Diplomatic Security, and Resource Management, should establish clear procedures to be used by the Information Technology Change Control Board for the Dedicated Internet Network waiver requests, including procedures for the approval and follow-up of actions taken to address reviewer comments. (Action: IRM, in coordination with ECA, IIP, DS, and RM)

**Recommendation 4:** The Bureau of Information Resource Management, in coordination with the Bureaus of Educational and Cultural Affairs, International Information Programs and Resource Management, should establish a charter for the Dedicated Internet Network working group outlining its mission and responsibilities to the Department. (Action: IRM, in coordination with ECA, IIP, and RM)

**Recommendation 5:** The Bureau of Information Resource Management, in coordination with the Bureaus of Educational and Cultural Affairs, International Information Programs and Resource Management, should develop costbenefit parameters, and design and implement a plan for resolving remaining concerns with the approval of Dedicated Internet Network waiver requests. (Action: IRM, in coordination with ECA, IIP, and RM)

# FORMAL RECOMMENDATIONS

- **Recommendation 1:** The Bureau of Information Resource Management, in coordination with the Bureaus of Educational and Cultural Affairs, International Information Programs and Diplomatic Security, should deploy a worldwide development network for the testing and development of applications and programs. (Action: IRM, in coordination with ECA, IIP, and DS)
- **Recommendation 2:** The Bureau of Information Resource Management, in coordination with the Bureaus of Educational and Cultural Affairs, International Information Programs and Resource Management, should perform an analysis of additional costs and benefits from the existence of Dedicated Internet Networks. (Action: IRM, in coordination with ECA, IIP, and RM)
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- Recommendation 5: The Bureau of Information Resource Management, in coordination with the Bureaus of Educational and Cultural Affairs, International Information Programs and Resource Management, should develop cost-benefit parameters, and design and implement a plan for resolving remaining concerns with the approval of Dedicated Internet Network waiver requests. (Action: IRM, in coordination with ECA, IIP, and RM)

# **ABBREVIATIONS**

CIO Chief Information Officer

DIN Dedicated Internet Network

DS Bureau of Diplomatic Security

ECA Bureau of Educational and Cultural

Affairs

IIP Bureau of International

Information Programs

IMO Information Management Officer

IRM Bureau of Information Resource

Management

ITCCB Information Technology Change Control

Board

OIG Office of Inspector General

ONP OpenNet Plus

PAO Public Affairs Officer

PDNet Public Diplomacy Network

RM Bureau of Resource Management

USIA United States Information Agency

# APPENDIX A

## Objectives, Scope, and Methodology

OIG conducted an evaluation of the Department's PDNet conversion to ONP to assess the overall success of the conversion. As part of this evaluation, the team assessed management and staff responsibilities, projected timeframes, conversion costs, conversion savings, and the process for waiver requests that continue stand-alone networks.

To meet its evaluation objectives, OIG analyzed regulations discussing the government-wide requirements for Internet connectivity and agreed-upon requirements for the Department's PDNet conversion initiative. The team also evaluated documentation gathered from Department officials and from the project website. The documentation included cables, meeting minutes, and project plans and presentations. OIG did not verify nor validate any project analysis conducted by the Department. The team also met with Department officials to determine the status of the project, as well as any issues requiring Department action. OIG met with Department officials in the Bureaus of Information Resource Management, Diplomatic Security, International Information Programs, and Resource Management. The report was sent for comments to Department officials. The Department's comments were incorporated into the report as appropriate.

OIG performed this evaluation in Washington, DC, between April 12 and July 29, 2005. Mary S. Heard and Vandana Patel were the major contributors to the report.

# **APPENDIX B**

### **Department Comments**



United States Department of State

Washington, D.C. 20520

#### MEMORANDUM

#### UNCLASSIFIED

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OIG/AUD - Mary S. Heard and Vandana Patel,

THROUGH:

RM/EX - Phil Schlatter, Acting Phil Schlatter

FROM:

RM/BP - Eric L. Hembree 4

SUBJECT:

Evaluation of Department of State's Public Diplomacy

Network Conversion to OpenNet Plus

The Office of State Programs, Operations, and Budget (RM/BP) appreciates OIG's efforts in assessing the overall success of the conversion of the Department's Public Diplomacy network (PDNet) to OpenNet Plus (ONP). RM/BP reviewed OIG's draft memorandum report and provides the attached comments for your consideration.

#### Attachment:

RM/BP Comments on Draft OIG Memorandum Report Number IT-I-05-08, "Evaluation of the Department of State's Public Diplomacy Network Conversion to OpenNet Plus"

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#### Department Comments (cont.)

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Cleared: RM/BP:JTyckoski (ok)

#### Department Comments (cont.)

#### **UNCLASSIFIED**

#### Attachment

RM/BP Comments on Draft OIG Memorandum Report Number IT-I-05-08, "Evaluation of the Department of State's Public Diplomacy Network Conversion to OpenNet Plus"

RM/BP continues to participate in the review of Dedicated Internet Networks (DINs) waiver requests as part of the Information Technology Change Control Board (ITCCB). RM/BP is working with IRM to review the waivers. RM/BP acknowledges, for example, that a DIN is an effective option for business that cannot be migrated to OpenNet Plus for security reasons. The Department does need to assess the cumulative impact of DINs, including costs and benefits, and how and where ONP can evolve to accommodate the needs currently requiring DINs.

While RM/BP accepts OIG's recommendations, as described below, implementation of them must be accomplished in a cost-effective manner. The Department needs to use the waiver process to ensure that the each DIN is necessary to support the Department's mission and cannot be accomplished on ONP. Each waiver request has policy, priority, and resource issues. RM/BP has and continues to support IRM in addressing those issues and IRM's efforts to have an appropriate architecture to address the Department's business needs.

Project Savings and DIN Cost Analysis

Recommendation 2: The Bureau of Information Resource Management, in coordination with the Bureaus of Educational and Cultural Affairs, International Information Programs and Resource Management, should perform an analysis of additional costs and benefits to be expected from the existence of Dedicated Internet Networks. (Action: IRM, in coordination with ECA, IIP, and RM)

 $\underline{RM/BP\ Response\ (08/19/05):}\ RM/BP\ accepts\ OIG's\ recommendation\ and\ is\ prepared\ to\ assist\ IRM\ and\ the\ other\ bureaus\ listed\ above\ in\ accomplishing\ it.$ 

DIN Approval and Follow-up Process

Recommendation 3: The Bureau of Information Resource Management, in coordination with the Bureaus of Educational and Cultural Affairs, International Information Programs, Diplomatic Security, and Resource Management, should establish clear procedures to be used by the Information Technology Change Control Board for the Dedicated Internet Network waiver requests, including procedures for the approval and follow-up of actions taken to address reviewer comments. (Action: IRM, in coordination with ECA, IIP, DS, and RM)

#### UNCLASSIFIED

#### Department Comments (cont.)

#### UNCLASSIFIED

RM/BP Response (08/19/05): RM/BP accepts OIG's recommendation and is prepared to assist IRM and the other bureaus listed above in achieving it.

Recommendation 4: The Bureau of Information Resource Management, in coordination with the Bureaus of Educational and Cultural Affairs, International Information Programs and Resource Management, should establish a charter for the Dedicated Internet Networks working group outlining its mission and responsibilities to the Department. (Action: IRM, in coordination with ECA, IIP and RM)

RM/BP Response (08/19/05): RM/BP accepts OIG's recommendation as long as the charter contains a termination date. RM/BP acknowledges the work accomplished by the DINs working group. The working group should help accomplish the recommendations in this report and then be terminated. The ITCCB, given adequate procedural instructions identified in Recommendations 2 and 3, can do the ongoing work.

Recommendation 5: The Bureau of Information Resource Management, in coordination with the Bureaus of Educational and Cultural Affairs, International Information Programs and Resource Management, should develop cost-benefit parameters, and design and implement a plan for resolving remaining concerns with the approval of Dedicated Internet Network waiver requests. (Action: IRM, in coordination with ECA, IIP and RM)

RM/BP Response (08/19/05): RM/BP accepts OIG's recommendation. The DINs working group should accomplish Recommendations 2, 3 and 5 concurrently.