

GAO

Report to the Committee on Homeland
Security and Governmental Affairs,
U.S. Senate

December 2008

RADIO COMMUNICATIONS

Congressional Action Needed to Ensure Agencies Collaborate to Develop a Joint Solution



GAO

Accountability * Integrity * Reliability



Highlights of [GAO-09-133](#), a report to the Committee on Homeland Security and Governmental Affairs, U.S. Senate

Why GAO Did This Study

The Integrated Wireless Network (IWN) was intended to be a collaborative effort among the Departments of Justice (DOJ), Homeland Security (DHS), and the Treasury to provide secure, seamless, interoperable, and reliable nationwide wireless communications in support of federal agents and officers engaged in law enforcement, protective services, homeland defense, and disaster response missions. GAO was asked to determine the extent to which the three departments are developing a joint radio communications solution. To address this objective, GAO reviewed and analyzed relevant documentation and interviewed department officials about the extent to which they are collaborating with the other departments on IWN or an alternative joint radio communications solution.

What GAO Recommends

GAO is not recommending executive action. However, Congress should consider, given the critical importance of improving radio communications among federal agencies, requiring that DOJ, DHS, and the Treasury employ key cross-agency collaboration practices to develop a joint radio communications solution. In written comments on a draft of this report, DOJ and DHS largely disagreed with GAO's findings and conclusions. GAO continues to believe that adoption of key collaborative practices is critical.

To view the full product, including the scope and methodology, click on [GAO-09-133](#). For more information, contact Joel Willemssen at (202) 512-6253 or willemssenj@gao.gov.

RADIO COMMUNICATIONS

Congressional Action Needed to Ensure Agencies Collaborate to Develop a Joint Solution

What GAO Found

The Departments of Justice, Homeland Security, and the Treasury had originally intended IWN to be a joint radio communications solution to improve communication among law enforcement agencies; however, IWN is no longer being pursued as a joint development project. Instead of focusing on a joint solution, the departments have begun independently modernizing their own wireless communications systems. While the Departments of Justice and the Treasury (and later the Department of Homeland Security) collaborated on a pilot demonstration of IWN in the Seattle/Blaine area that continues to provide service to multiple agencies, the departments have determined that this specific system design cannot be implemented on a nationwide scale, and they have not acted collaboratively to identify an alternative approach for a jointly coordinated communications solution. In addition, the formal governance structure that was established among the three departments has been disbanded, and the contract for developing a new IWN design, awarded over a year and a half ago, is not being used jointly by the departments for this purpose. Currently, the Department of Justice is planning to implement a nationwide network for its component agencies, and the Department of Homeland Security and its components are pursuing numerous independent solutions.

A primary reason why the collaboration on a joint communications solution has not been successful is that the departments did not effectively employ key cross-agency collaboration practices. Specifically, they could not agree on a common outcome or purpose to overcome their differences in missions, cultures, and established ways of doing business; they have not established a collaborative governance structure with a process for decision making and resolving disputes; and they have not developed a joint strategy for moving forward. While the Department of Homeland Security considers improving radio communications at the nation's borders to be a major priority, the Department of Justice's priorities are in other areas. Program officials from both departments acknowledged that these differing priorities led to an inability to resolve conflicts. As a result, they now have several initiatives aimed at high-level coordination, none of which are focused on developing a joint communications solution. While department officials have signed an updated memorandum of understanding related to coordinating their radio communications projects, they have not made any progress on reestablishing a joint governance structure and decision-making procedures to address the challenges of collaborating on a joint communications solution.

In abandoning collaboration on a joint solution, the departments risk duplication of effort and inefficient use of resources as they continue to invest significant resources in independent solutions. Further, these efforts will not ensure the interoperability needed to serve day-to-day law enforcement operations or a coordinated response to terrorist or other events.

Contents

Letter		1
	Matters for Congressional Consideration	4
	Agency Comments and Our Evaluation	4
Appendix I	Briefing to Staff of the Senate Committee on Homeland Security and Governmental Affairs	9
Appendix II	Comments from the Department of Justice	47
Appendix III	Comments from the Department of Homeland Security	50
Appendix IV	Comments from the Department of the Treasury	53
Appendix V	GAO Contact and Staff Acknowledgments	54

Abbreviations

DHS	Department of Homeland Security
DOJ	Department of Justice
ECPC	Emergency Communications Preparedness Center
IWN	Integrated Wireless Network
NTIA	National Telecommunications and Information Administration
MOU	memorandum of understanding
OEC	Office of Emergency Communications

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United States Government Accountability Office
Washington, DC 20548

December 12, 2008

The Honorable Joseph Lieberman
Chairman
The Honorable Susan Collins
Ranking Member
Committee on Homeland Security
and Governmental Affairs
United States Senate

The tragic events of September 11, 2001, and Hurricane Katrina have highlighted the critical importance of having effective radio communications systems for law enforcement and public safety agencies including federal agencies with such responsibilities. In order to effectively respond to events such as natural disasters, criminal activities, and domestic terrorism, law enforcement and public safety agencies need reliable systems that enable communication with their counterparts in other disciplines and jurisdictions. Further, since the 1990s, increasing demand for radio communications capabilities in both the private and public sectors has created a need to use radio communications capacity more efficiently.

The Integrated Wireless Network (IWN) was intended to be a collaborative effort among the Departments of Justice (DOJ), Homeland Security (DHS), and the Treasury to provide secure, seamless, interoperable,¹ and reliable nationwide wireless communications in support of federal agents and officers engaged in law enforcement, protective services, homeland defense, and disaster response missions. This initiative, begun in 2001, was originally estimated to cost approximately \$5 billion.

At your request, we determined the extent to which DOJ, DHS, and the Treasury are developing a joint radio communications solution to improve communications among federal agencies. To address this objective,

- we reviewed and analyzed documentation from DOJ, DHS, and the Treasury to determine the status of IWN,

¹Interoperability is the ability of different systems to readily connect with each other and enable timely communications.

-
- interviewed officials from each department about the extent to which they are collaborating with the other departments on IWN or on an alternative joint radio communications solution,
 - reviewed and analyzed documentation for independent radio communications projects at DOJ and DHS to identify actions the departments are taking to improve their radio communications systems,
 - reviewed and analyzed past and present agreements among the departments to determine the extent to which a governance structure is in place that enables effective collaboration, and
 - compared collaboration activities performed by the departments to selected practices previously identified by GAO as helpful to sustaining collaboration among federal agencies.²

We performed our audit work in the Washington, D.C., metropolitan area at DOJ, the Federal Bureau of Investigation, the Drug Enforcement Administration, DHS, Immigration and Customs Enforcement, Customs and Border Protection, the Treasury, the National Institute of Standards and Technology, the National Telecommunications and Information Administration, and the Office of Management and Budget. We also conducted work at agency field offices in the Seattle, Washington, metropolitan area, which was the location of a key pilot demonstration for the IWN program.

We conducted this performance audit from February to September 2008, in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

This report summarizes the information we provided to your staff during our September 25, 2008, briefing. The full briefing, including our objective, scope, and methodology, can be found in appendix I.

²GAO, *Results-Oriented Government: Practices That Can Help Enhance and Sustain Collaboration among Federal Agencies*, [GAO-06-15](#) (Washington, D.C.: Oct. 21, 2005) and GAO, *Electronic Government: Potential Exists for Enhancing Collaboration on Four Initiatives*, [GAO-04-6](#) (Washington, D.C.: Oct. 10, 2003).

In summary, our briefing made the following points:

- DOJ, DHS, and the Treasury had originally intended IWN to be a joint radio communications solution to improve communication among law enforcement agencies; however, IWN is no longer being pursued as a joint development project. Instead of focusing on a joint solution, the departments have begun independently modernizing their own wireless communications systems. While DOJ and the Treasury (and later DHS) collaborated on a pilot demonstration of IWN in the Seattle/Blaine area that continues to provide service to multiple agencies, the departments have determined that this specific system design cannot be implemented on a nationwide scale, and they have not acted collaboratively to identify an alternative approach for a jointly coordinated communications solution. In addition, the formal governance structure that was established among the three departments has been disbanded, and the contract for developing a new IWN design, awarded over a year and a half ago, is not being used jointly by the departments for this purpose. Currently, DOJ is planning to implement a nationwide network for its component agencies, and DHS and its components are pursuing numerous independent solutions.
- A primary reason why the collaboration on a joint communications solution has not been successful is that the departments did not effectively employ key cross-agency collaboration practices. Specifically, they could not agree on a common outcome or purpose that overcame their differences in missions, cultures, and established ways of doing business; they did not establish an effective collaborative governance structure with a process for decision making and resolving disputes; and they have not developed a joint strategy for moving forward. While DHS considers improving radio communications at the nation's borders to be a major priority, DOJ's priorities are in other areas. Program officials from both departments acknowledged that these differing priorities led to an inability to resolve conflicts. As a result, while the departments now have several initiatives aimed at high-level coordination, none are focused on developing a joint communications solution. While department officials have signed an updated memorandum of understanding related to coordinating their radio communications projects, they have not made any progress in reestablishing a joint governance structure and decision-making procedures to address the challenges of collaborating on a joint communications solution.
- In abandoning collaboration on a joint solution, the departments risk duplication of effort and inefficiency as they continue to invest significant resources in independent solutions. Further, these efforts will not ensure the interoperability needed to serve day-to-day law enforcement operations or a coordinated response to terrorist or other events. While collaboration on a joint solution is critical for success, this joint solution

need not be based necessarily on a single, nationwide network, such as an extension of the original IWN design. It could also consist of a mutually agreed-upon strategy for developing separate but interoperable networks and systems that incorporate lessons learned from past efforts.

Matters for Congressional Consideration

Congress should consider requiring the Departments of Justice, Homeland Security, and Treasury to collaborate on the development and implementation of a joint radio communications solution. Specifically, Congress should consider requiring the departments to

- establish an effective governance structure that includes a formal process for making decisions and resolving disputes,
- define and articulate a common outcome for this joint effort, and
- develop a joint strategy for improving radio communications.

Congress should also consider specifying deadlines for completing each of these requirements.

Agency Comments and Our Evaluation

We obtained written comments on a draft of this report from DOJ, DHS, and the Treasury, which are reprinted in appendixes II, III, and IV respectively.

In comments from DOJ, the Assistant Attorney General for Administration largely disagreed with our findings and conclusions. DOJ stated that we had not recognized that circumstances had changed since the inception of our review and that departmental leaders had agreed on a common approach that would address concerns we have raised. However, we believe that our review accurately characterizes the evolution of circumstances throughout the development of IWN as well as the current status of the program. For example, we noted in our briefing slides that the departments had collaborated productively on the Seattle/Blaine pilot program, which served as a working demonstration and test of the IWN design. We also acknowledged in the slides that the departments had recently established a memorandum of understanding (MOU) regarding development of interoperable communications systems in the future. While that step is important, an effective governance structure still needs to be implemented before decisions can be made and procedures established for overcoming the differing missions, priorities, funding structures, and capabilities among the departments.

DOJ also commented that the current business environment is not conducive to a single mobile-radio solution, and that such an approach is no longer feasible or cost-effective. In the slides we pointed out that a single, common project or system is not necessarily the best solution, and our conclusions do not advocate such a system as the best solution. We concluded that successful collaboration on a joint solution—whether that solution is IWN or an alternative approach—is necessary to promote efficient use of resources, reduce duplicative efforts, and encourage interoperability. Although a joint solution could be based on a single, nationwide network, such as an extension of the original IWN design, it could also be, for example, a mutually agreed-upon strategy for developing separate but interoperable networks and systems.

DOJ stated that it planned to continue pursuing eventual integration and interoperability with DHS and other entities using common standards and guidelines rather than through a single, central solution. We agree that the implementation of common standards and guidelines are important and can help facilitate a joint project such as this. The Seattle/Blaine pilot project, for example, was based on the Project 25 set of standards. However, agreement has not yet been reached on the standards and guidelines that are to shape future collaboration among the departments on a joint approach to radio communications. As reflected in the briefing slides, we believe that success hinges on a means to overcome differences in missions and cultures, a collaborative governance structure through which decisions are made and disputes resolved, and a joint strategy to align activities and resources to achieve a joint solution.

DOJ also stated that where the report seemed to suggest that DOJ and other agencies had not collaborated, that in fact the departments had worked together and collaborated extensively. However, as described in the briefing, we disagree with this statement. While DOJ has collaborated with other agencies on the Seattle/Blaine pilot project, the agencies determined that that specific system design could not be implemented on a nationwide scale, and they have not acted collaboratively to identify an alternative approach for a jointly coordinated communication solution. As discussed in the briefing, while the departments recently established an MOU regarding development of interoperable communications systems in the future, no progress had been made in re-establishing the joint governance structure outlined in the agreement, and the departments have been actively working to develop independent communications systems. In effectively abandoning collaboration on a joint solution, the departments risk duplication of effort and inefficient use of resources as they continue to invest significant resources in independent solutions.

Further, these stovepipe efforts will not ensure the interoperability needed to serve day-to-day law enforcement operations or a coordinated response to terrorist or other events. As stated above, the adoption of key collaboration practices will be critical to a successful outcome.

Finally, the department stated that it understood GAO's concern that the departments risk duplication of effort and that it had made great progress in minimizing duplication/overlap, as evidenced by the Seattle/Blaine pilot project. However, as discussed above, the pilot project has not been chosen as a basis for a jointly coordinated, nationwide communications solution, nor has any other specific strategy been adopted that would provide assurance that duplication will be minimized in the future. DOJ also agreed that agencies must begin meeting quarterly to improve communications and that they must better document their overall, collective strategy beyond the MOU. Until a joint strategy to align activities and resources is adopted, we believe the potential for duplication and overlap remains.

In comments from DHS, the Director of the Departmental Audit Liaison Office discussed the development of the IWN program and noted that issues had been identified with joint governance, the management of priorities and requirements across multiple departments, and addressing user requirements within schedule constraints. In this regard, DHS stated that our report was focused on mandating that the three agencies have one radio communications solution and that it implied that any other option would result in a stovepipe of non-interoperable communications systems. We disagree. As discussed above, in the slides we pointed out that a single, common project or system is not necessarily the best solution, and we do not advocate such a system as the best solution. We concluded that successful collaboration on a joint solution—whether that solution is IWN or an alternative approach—is necessary to promote efficient use of resources, reduce duplicative efforts, and encourage interoperability. Although a joint solution could be based on a single, nationwide network, such as an extension of the original IWN design, it could also be, for example, a mutually agreed-upon strategy for developing separate but interoperable networks and systems.

Regarding the breakdown of the original collaborative structure for the IWN program, DHS commented that DHS and DOJ are employing different radio designs funded by Congress that are commensurate with spectrum needs in their environments and that the two departments have different regional priorities, such that a common system will not work on a national level. In the briefing, we recognized that the two departments had different

priorities and that those differences led to an inability to resolve conflicts on the original IWN program. However, as discussed above, in effectively abandoning collaboration on a joint solution, the departments risk duplication of effort and inefficient use of resources as they continue to invest significant resources in independent solutions. Given their differences, adoption of key collaboration practices will be critical to ensuring that separate projects in the two departments are successfully coordinated in the future so that radio communications are improved among federal agencies, costs reduced, and duplication eliminated wherever possible.

DHS also commented that we had not discussed the departments' concerns about the projected expense of expanding the Seattle/Blaine pilot project to a national level. While we did not discuss specific cost projections for this option, which is no longer being considered, we recognize that any investment in coordinated future communications between the departments will be substantial. Accordingly, it will be critical to ensure a properly coordinated approach so that duplication and overlap is avoided.

Regarding current collaboration with DOJ and Treasury, DHS noted that a memorandum of understanding had been signed in January 2008 and described how decisions are to be made under this agreement. DHS went on to describe internal priorities, such as the need for radio system upgrades in Customs and Border Protection, and stated that any cross-departmental efforts should not result in delays to these priorities. We do not dispute the urgency for upgrading radio systems that DHS cites. However, given that all three departments have differing priorities, as discussed in the slides, it remains critical that key collaboration practices are adopted to ensure successful coordination across departments.

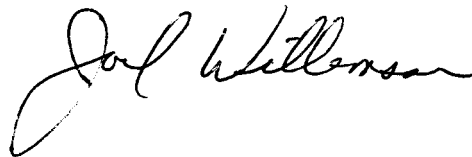
Finally, DHS briefly outlined its vision for a "tiered" strategy for achieving effective radio communications in a timely and cost-effective manner. DHS stated that the first goal of the partnership will be to define an outcome and an associated joint strategy. We agree that these elements—along with an effective governance structure that includes a formal process for making decisions and resolving disputes—are key elements for successful collaboration and implementation of a joint radio communications solution.

In comments from the Treasury, the Chief Information Officer stated that the department continued to be highly supportive of the overall goals of the IWN program and looked forward to continuing to work with DOJ and

DHS to advance law enforcement and emergency services communications.

We are sending copies of this report to interested congressional committees and the Attorney General, the Secretary of Homeland Security, and Secretary of the Treasury. The report also is available at no charge on the GAO Web site at <http://www.gao.gov>.

If you or your staffs have any questions about this report, please contact me at (202) 512-6253 or at willemsenj@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. Key contributors to this report are listed in appendix V.



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Managing Director, Information Technology

Appendix I: Briefing to Staff of the Senate Committee on Homeland Security and Governmental Affairs



Radio Communications: Congressional Action Needed to Ensure Agencies Collaborate to Develop a Joint Solution

Briefing for the Staff of the
Senate Committee on Homeland Security and Governmental Affairs

September 25, 2008



Outline of Briefing

- Introduction
- Objective, Scope, and Methodology
- Results in Brief
- Background
- DOJ, DHS, and Treasury Are No Longer Pursuing a Joint Solution
- Conclusions
- Matters for Congressional Consideration
- Agency Comments and Our Evaluation



Introduction

The tragic events of 9/11 and Hurricane Katrina have highlighted the critical importance of having effective radio communications systems for law enforcement and public safety agencies including federal agencies with such responsibilities. In order to effectively respond to events such as natural disasters, criminal activities, and domestic terrorism, law enforcement and public safety agencies need reliable systems that enable communication with their counterparts in other disciplines and jurisdictions. Further, since the 1990s, increasing demand for radio communications capabilities in both the private and public sectors has created a need to use radio communications capacity more efficiently.

The Integrated Wireless Network (IWN) was intended to be a collaborative effort among the Departments of Justice (DOJ), Homeland Security (DHS), and the Treasury to provide secure, seamless, interoperable,¹ and reliable nationwide wireless communications in support of federal agents and officers engaged in law enforcement, protective services, homeland defense, and disaster response missions. This initiative, begun in 2001, was originally estimated to cost approximately \$5 billion.

¹ Interoperability is the ability of different systems to readily connect with each other and enable timely communications.



Objective, Scope, and Methodology

As agreed, our objective for this review was to determine the extent to which DOJ, DHS, and Treasury are developing a joint radio communications solution to improve communication among federal agencies. To address our objective, we

- reviewed and analyzed documentation from DOJ, DHS, and Treasury to determine the status of IWN,
- interviewed officials from each department about the extent to which they are collaborating with the other departments on IWN or an alternative joint radio communications solution,
- reviewed and analyzed documentation for independent radio communications projects at DOJ and DHS to identify actions the departments are taking to improve their radio communications systems,
- reviewed and analyzed past and present agreements among the departments to determine the extent to which a governance structure is in place that enables effective collaboration, and
- compared collaboration activities performed by the departments to selected practices previously identified by GAO as helpful to sustaining collaboration



Objective, Scope, and Methodology

among federal agencies.²

We performed our audit work in the Washington, D.C., metropolitan area at DOJ, the Federal Bureau of Investigation, the Drug Enforcement Administration, DHS, Immigration and Customs Enforcement, Customs and Border Protection, Treasury, the National Institute of Standards and Technology, and the National Telecommunications and Information Administration. We also conducted work at these agencies' field offices in the Seattle, Washington, metropolitan area, which was the location of the key pilot demonstration for the IWN program.

We conducted this performance audit from February 2008 to September 2008, in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives, and we believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

² GAO, *Results-Oriented Government: Practices That Can Help Enhance and Sustain Collaboration among Federal Agencies*, GAO-06-15 (Washington, D.C.: Oct. 21, 2005) and GAO, *Electronic Government: Potential Exists for Enhancing Collaboration on Four Initiatives*, GAO-04-6 (Washington, D.C.: Oct. 10, 2003).



Results In Brief

While DOJ, DHS, and Treasury had originally intended IWN to be a joint radio communications solution to improve communication among law enforcement agencies, IWN is no longer being pursued as a joint development project. Instead of focusing on a joint solution, the departments have begun independently modernizing their own wireless communications systems. While DOJ and Treasury (and later DHS) collaborated on a pilot demonstration of IWN in the Seattle/Blaine area that continues to provide service to multiple agencies, the departments have determined that this specific system design cannot be implemented on a nationwide scale, and they have not acted collaboratively to identify an alternative approach for a jointly coordinated communications solution. In addition, the formal governance structure that was established among the three departments has been disbanded, and the contract for developing a new IWN design, awarded over a year and a half ago, is not being used jointly by the departments for this purpose. Currently, DOJ is planning to implement a nationwide network for its component agencies, and DHS and its components are pursuing numerous independent solutions.

A primary reason why the collaboration on a joint communications solution has not been successful is that the departments did not effectively employ key cross-agency collaboration practices. Specifically, they could not agree on a common outcome or purpose to overcome their differences in missions, cultures, and established ways of doing business; they have not established a collaborative governance structure with a



Results In Brief

process for decision making and resolving disputes; and they have not developed a joint strategy for moving forward. While DHS considers improving radio communications at the nation's borders to be a major priority, DOJ's priorities are in other areas. Program officials from both departments acknowledged that differing priorities led to an inability to resolve conflicts. As a result, they now have several initiatives aimed at high-level coordination, none of which are focused on developing a joint communications solution. Department officials have indicated that they have not made any progress on re-establishing a joint governance structure and decision-making procedures for a joint communications solution.

In abandoning collaboration on a joint solution, the departments risk duplication of effort and inefficient use of resources as they continue to invest significant resources in independent solutions. Further, these stovepipe efforts will not ensure the interoperability needed to serve day-to-day law enforcement operations or a coordinated response to terrorist or other events.

Given the importance of collaborating effectively toward improving radio communications among federal agencies, reducing costs, and eliminating duplication where possible and the departments' failure to develop a joint radio communications solution through their own initiative, Congress should consider requiring that the Departments of Justice, Homeland Security, and Treasury employ key cross-agency collaboration practices discussed in this report to develop a joint radio communications solution.



Results In Brief

We received comments via e-mail from DOJ and DHS on a draft of these briefing slides. Treasury officials stated that they had no comments on the draft briefing slides.

In their comments, officials from DOJ's Office of the Chief Information Officer disagreed with our findings and conclusions in several areas. First, the department officials stated that our analysis was flawed and unrealistic in focusing on a single, common project as the best solution for supporting missions, improving interoperability, and achieving cost efficiencies. We disagree that our conclusions advocate a single system as the best solution and clarified our position in the briefing that a joint approach could mean a single system or it could be a mutually agreed-upon strategy for developing separate but interoperable networks.

Second, DOJ officials stated that we misrepresented their efforts to work with other agencies, including DHS, and that the department had tried to reach consensus and compromise with DHS but organizational challenges could not be overcome. We acknowledge that DOJ took steps to collaborate on IWN; however, we also note that when the challenges of collaborating could not be overcome, progress stalled. Rather than contradicting our conclusions, we believe these facts support our analysis that key practices for collaborating were not established or sustained. Unless such practices are established and sustained, the departments are unlikely to succeed at implementing a joint collaborative solution.



Results In Brief

Third, department officials stated that we unfairly characterized the results of the Seattle/Blaine pilot and failed to recognize DHS's lack of contribution to the pilot and its requirements development. However, the pilot and its requirements development occurred prior to DHS's involvement in the program. Further, we acknowledge within our briefing that the pilot provided a working demonstration and test of the preliminary network design as well as several specific benefits. Nevertheless, our discussions with users in the pilot area reveal that the pilot network did not meet many of their needs. In order to make progress in addressing unmet needs through a joint partnership, it will be important that the departments collaborate on alternative approaches based on lessons learned from this pilot.

Finally, DOJ expressed concern that our findings did not address the business and operational issues facing IWN, including differing missions and priorities and a lack of funding. While these issues can be challenging, the departments have not implemented the governance structure or employed the key collaboration practices needed to overcome these challenges.

Officials from DHS's National Protection and Programs Directorate did not state whether they agreed or disagreed with our findings but provided suggestions for consideration in the development of a joint strategy, including expanding the partnership to include other federal departments, leveraging existing infrastructure across all levels of government, and ensuring that interoperability is a priority focus. The additional considerations



Results In Brief

proposed by DHS for inclusion in the joint partnership are consistent with our results and may merit attention as the partnership develops. DHS officials also provided technical comments that we have incorporated into the briefing slides, as appropriate.



Background

Radio frequency communications are vital to public safety organizations that respond to natural disasters and terrorist acts. These organizations include the nation's first responders (such as firefighters, police officers, and ambulance services) as well as federal agencies that have law enforcement and public safety responsibilities, such as the Federal Bureau of Investigation. Federal law enforcement agencies rely on wireless land mobile radio systems for their day-to-day operations and use radio communications to provide for the safety of agents and the public. Further, in order to perform public safety operations effectively, these communications must be secure as well as reliable.

The origins of the IWN program date back to 2001. At that time, DOJ and Treasury were independently pursuing efforts to upgrade their land mobile radio systems to meet a National Telecommunications and Information Administration (NTIA) requirement to reduce their use of radio frequency spectrum.³ Due to the similarity of their law enforcement missions and overlapping geographic jurisdictions, the two departments began discussing a joint project in August 2001.

³ In 1992, Congress passed the Telecommunications Authorization Act of 1992 (Pub. L. No. 102-538 (1992)), which mandated that the Secretary of Commerce and the NTIA (the organization responsible for effective use of radio frequencies by federal agencies) develop a plan to make more efficient use of federal land mobile radio spectrum. In response, NTIA required, with certain exceptions, that the channel bandwidth in certain frequency bands used by federal agencies for land mobile radio systems be reduced from 25 to 12.5 kilohertz. This reduction in channel bandwidth is referred to as narrowbanding. NTIA specified different time frames for the transition based on the frequency band and whether it was a new or existing system.



Background

The subsequent events of 9/11 further underscored the need for secure, wireless, interoperable communications for all levels of government, and in November 2001, DOJ and Treasury⁴ took the initiative to create the IWN program by signing a memorandum of understanding to collaborate on achieving cost efficiencies and improving communications operability⁵ among their own law enforcement agencies as well as with other federal, state, and local organizations. The IWN joint program was intended to be a nationwide radio communications system that would provide secure, seamless, and reliable wireless communications in support of law enforcement. In addition, the IWN program would serve as a means for upgrading aging equipment.

In November 2002, DOJ awarded a contract to obtain the services, hardware, and software to develop a pilot for the IWN network in the Seattle/Blaine area and test the viability of a proposed IWN design and technology.⁶ After 2 years in development, the pilot was considered operational in December 2004 at a cost of approximately \$32 million. This pilot provided a digital, trunked,⁷ Project 25⁸-compatible radio communications

⁴ According to Treasury officials, Treasury agents made up about one-third of the potential users for the IWN system while DOJ agents included about two-thirds of the potential users.

⁵ Operability is the ability of emergency responders to establish and sustain communications in support of mission operations.

⁶ Treasury contributed resources to the Seattle/Blaine pilot.

⁷ Trunking is a computer-controlled system that uses all available frequencies in a pool, automatically allocating an open frequency each time a user on the system initiates a radio call. Although trunking provides greater spectrum efficiency and functionality, it costs significantly more than conventional technology, which uses dedicated frequencies assigned to individual groups of users.

⁸ Project 25 is a suite of national standards which define open standards for vendors to use when designing land mobile radio



Background

network for several federal agencies and enabled interoperability with several state and local law enforcement organizations in the Seattle/Blaine area.

Following the establishment of DHS, several law enforcement components from DOJ and Treasury were transferred to the new department and the scope of IWN was expanded. In June 2004, DOJ,⁹ DHS,¹⁰ and Treasury¹¹ signed a new memorandum of understanding. This agreement established the following governance structure to oversee and carry out the implementation of IWN:

- The Joint Program Office, consisting of staff assigned to the office on a full-time basis from each of the departments, was responsible for—among other things—performing all IWN program administrative and project management functions.
- The IWN Executive Board, consisting of the Chief Information Officer from each of the departments, was responsible for providing executive-level guidance and

communications equipment.

⁹ The DOJ Wireless Management Office is currently responsible for funding and management related to wireless communications and IWN for the department.

¹⁰ The Office of the Chief Information Officer was originally responsible for the IWN program at DHS. Since DHS was created, the department went through a series of management changes. In May 2007, the Office of the Chief Information Officer transferred all management responsibilities for IWN to the newly formed Office of Emergency Communications, which is currently responsible for IWN. The Office of the Chief Information Officer retained authority over spectrum allocation for the DHS components.

¹¹ The Treasury Wireless Program Office represents the department in IWN-related activities. However, while Treasury currently has about 4,500 agents, the total number of agents and officers who are potential radio users among all three departments is over 80,000.



Background

policy and program direction to the Joint Program Office.

- The National Project Team, comprised of representatives from each component/bureau participating in the IWN program, was responsible for—among other things—providing information to the Joint Program Office required for the development, implementation, and administration of the IWN system.

The memorandum of understanding described identical responsibilities and resource contributions for DOJ and DHS. However, Treasury was not required to share the costs of designing and building IWN, given its reduced number of law enforcement personnel after creation of DHS.

In July 2004, the IWN Executive Board initiated an acquisition strategy to award a contract to:

- obtain reliable, secure, nationwide wireless communication capabilities;
- reduce costs by leveraging economies of scale;
- enable rapid deployment of radio communications functionality nationwide;
- enhance interoperability, operational effectiveness, and support through increased coverage and capabilities; and
- establish interoperability with other federal and non-federal wireless users through



Background

the consistent application of standards developed from this effort.

The strategy envisioned selecting a single contractor to implement the entire IWN program using a 3-phased process:

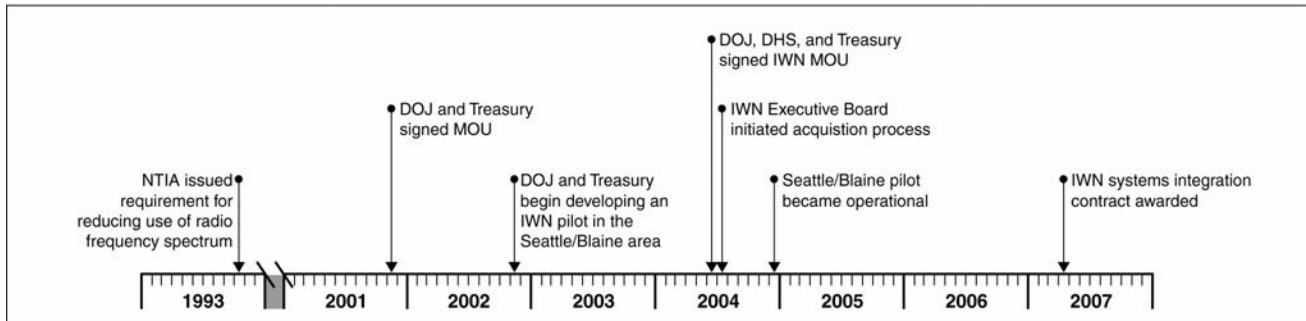
- In phase 1, vendors submitted information regarding their high-level conceptual approach, organizational experience, and past performance. As a result of this process, four vendors continued in the acquisition process. This phase was completed in December 2004.
- In phase 2, the four vendors submitted detailed technical, management, and cost proposals to accomplish the entire IWN program. Based on an evaluation of these proposals, two vendors were awarded contracts to prepare detailed system designs. This phase was originally scheduled for completion in May 2005 but was not completed until June 2006.
- Phase 3 was to select the winning contractor based on evaluation of the detailed system designs submitted by each contractor. As a result of this process, General Dynamics C4 Systems was selected as the IWN systems integrator in April 2007.

Figure 1 shows a timeline of major events related to IWN.



Background

Figure 1: Timeline of Events Related to IWN



Source: GAO analysis.



Background

We have previously reported on the importance of communications interoperability to effective public safety operations.¹² Interoperability has been significantly hampered by the use of incompatible radio systems. Different technologies and configurations, including proprietary designs made by different manufacturers, have limited the interoperability of such systems.

In 2004, we reported that a fundamental barrier to successfully establishing interoperable communications for public safety was the lack of effective, collaborative, interdisciplinary, and intergovernmental planning.¹³ Further, in 2007, we made recommendations to DHS to improve interoperable communications among federal, state, and local first responders.¹⁴ Among other things, we recommended that DHS develop a plan that strategically focused its interoperability programs and provided quantifiable performance measures. Program officials indicated that they were in the process of developing such a plan; however, they had not established a completion date for it.

¹² GAO, *First Responders: Much Work Remains to Improve Communications Interoperability*, GAO-07-301 (Washington, D.C.: April 2, 2007).

¹³ GAO, *Homeland Security: Federal Leadership and Intergovernmental Cooperation Required to Achieve First Responder Interoperable Communications*, GAO-04-740 (Washington, D.C.: July 20, 2004).

¹⁴ GAO-07-301.



Background

We have also previously reported on key practices agencies should employ to help them overcome the barriers to successful inter-agency collaboration.¹⁵ These practices include:

- *Defining and articulating a common outcome or purpose* that overcomes differences in department missions, cultures, and established ways of doing business.
- *Establishing a governance structure*, including a collaborative management structure with defined leadership, roles and responsibilities, and a formalized process for making decisions and resolving disputes.
- *Establishing mutually reinforcing or joint strategies* that work in concert with those of the partners or are joint in nature to align activities and resources to accomplish the common outcome.

Implementing these practices is critical to sustaining a successful inter-agency project such as IWN.

¹⁵ GAO-06-15 and GAO-04-6.



DOJ, DHS, and Treasury are no longer pursuing a joint solution

Given the importance of radio communications and the reality of limited resources, it is critical that agencies find ways to work together to achieve effective and efficient interoperable solutions. In particular, the advantages of collaborating to develop a joint radio communications solution clearly outweigh the benefits of each department pursuing its own radio communications initiative, as DOJ, DHS, and Treasury agreed when they signed on to the IWN program. The benefits of developing IWN as a joint communications solution, as identified by the program, include:

- supporting departmental missions effectively and efficiently,
- providing sufficient communications coverage for current operations,
- achieving efficient use of radio spectrum,
- improving interoperability with federal, state, and local law enforcement agencies, and
- achieving cost efficiencies through resource consolidation and economies of scale.

Achieving these benefits hinges on successful inter-agency collaboration.



DOJ, DHS, and Treasury are no longer pursuing a joint solution

Despite early progress, the departments are pursuing independent solutions

Although the departments made early progress in jointly developing and implementing a pilot program, they are no longer pursuing IWN as a joint solution and instead are independently modernizing their own wireless communications systems.

DOJ and Treasury (and later DHS) contributed resources to develop an operational pilot in the Seattle/Blaine area to demonstrate the original IWN design. This pilot provided a working demonstration and test of the preliminary network design, generally improved communications in the coverage area, addressed federal encryption requirements through new equipment, established technical solutions for interoperability with selected state and local organizations, and provided valuable lessons learned. While the pilot remains operational and has been expanded to increase coverage in areas of Washington and Oregon, several DOJ and DHS components in the region have been unable to fully use the system due to unmet requirements. Components in the area continue to maintain legacy networks to ensure complete coverage.

Since the pilot demonstration, DOJ and DHS have concluded that the pilot design could not be implemented jointly on a nationwide scale. DOJ officials expressed concern that it would be too expensive to expand the pilot network to fulfill DOJ, DHS and Treasury requirements on a nationwide scale, while DHS officials were also concerned that the design would not be technically well suited to meet DHS needs.



DOJ, DHS, and Treasury are no longer pursuing a joint solution

Since deciding not to proceed with the IWN pilot design jointly, the departments have not developed an alternative approach for collaborating on a joint communications solution, either through development of a single, nationwide network, such as an extension of the original IWN design, or a through a mutually agreed-upon strategy for developing separate but interoperable networks and systems that can accommodate the needs of all participants and incorporate the lessons learned from prior efforts (such as the pilot). For example:

- The departments have not used their IWN contract as a vehicle for development of a joint solution. For nearly three years, DOJ, DHS, and Treasury jointly participated in the process of selecting a systems integrator. However, since that selection, the departments have not used the IWN contract (awarded a year and a half ago) to begin developing a joint nationwide radio communications solution. Instead, the task order that has been issued based on the IWN contract is being used for establishing a joint program office for the contractor and DOJ—not for DHS or Treasury. The task order specifies that the contractor will draft architecture documents for developing a communications system for DOJ—it does not include DHS or Treasury.
- The formal governance structure for IWN originally supported by the three departments has been disbanded. Specifically, the IWN Executive Board and the National Project Team stopped meeting after award of the IWN contract. In



DOJ, DHS, and Treasury are no longer pursuing a joint solution

addition, the Joint Program Office that was intended to manage IWN is no longer supported by shared staff and resources from the three agencies.¹⁶ Although officials from the three departments stated that they talk to each other about radio communications issues, these discussions have not occurred on a regular basis and have not been used to re-establish a formal governance structure for developing a joint communications solution.

Further, despite initial agreement to establish IWN as a joint program, the departments have been actively working to develop independent communications systems. DOJ is currently planning to implement a nationwide network for its components, while DHS and its components are pursuing multiple approaches to meet their individual priorities. Specifically:

- DOJ is developing a department-level nationwide radio network, which officials refer to as the Law Enforcement Wireless Communications solution. It is intended to ensure basic operability for its components that need to replace legacy systems that Drug Enforcement Administration officials noted can be as old as 20 years. According to department officials, the DOJ Wireless Management Office is working with the IWN contractor to develop a phased approach to implementing this network. As part of the first phase, DOJ plans to consolidate

¹⁶ Treasury currently has one employee collocated with the DOJ Wireless Management Office to facilitate exchange of information. DHS does not contribute any staff or resources to the joint program office.



DOJ, DHS, and Treasury are no longer pursuing a joint solution

legacy systems on a regional basis, replace or decommission certain systems, and deploy new systems to meet federal requirements for reduced spectrum use and encryption. Establishing interoperability with other federal, state, and local organizations; network redundancy; trunking; and spectrum efficiency are to be included in later phases, as funding is available. According to the department, the total cost is estimated at \$1.23 billion, and the system will be implemented over 6-7 years.

- DHS is pursuing multiple approaches at both the component and department levels to meet different priorities. For example, since 2005, Customs and Border Protection has been developing and implementing a nationwide radio communications network intended to improve and update radio communications for Customs and Border Protection officers and agents—referred to as the Tactical Communications Modernization Project. In contrast, Immigration and Customs Enforcement officials have adopted a different approach, looking for opportunities to strategically partner with other agencies and leverage existing assets to meet their operational requirements. Immigration and Customs Enforcement has submitted a number of proposals to the department for approval. While initiatives such as these are reviewed by the DHS Office of the Chief Information Officer, they are funded at the component level and focus on meeting the needs of individual components.



DOJ, DHS, and Treasury are no longer pursuing a joint solution

In addition to such component initiatives, the DHS Office of Emergency Communications (OEC), which is responsible for IWN, is pursuing a high-level strategy for developing radio communications networks, based on shared infrastructure, as an alternative to the original IWN design. The OEC approach, which has been explored with the assistance of the Federal Partnership for Interoperable Communications,¹⁷ focuses on coordination with federal, state, and local organizations that are building or planning to build large communications networks so that these networks might also meet the needs of member federal agencies. However, the OEC's shared infrastructure approach has yet to be approved at the department level. In addition, this approach focuses on coordination with other government agencies and not specifically among DHS components or the law enforcement community, which was an original goal for the IWN program.

¹⁷The Federal Partnership for Interoperable Communications, which is sponsored by the OEC, is an organization intended to address federal wireless communications interoperability by fostering intergovernmental cooperation and identifying and leveraging common synergies. It includes 44 federal member agencies and approximately 160 participants.



DOJ, DHS, and Treasury are no longer pursuing a joint solution

The departments have not employed key cross-agency collaboration practices

A primary reason that collaboration on a joint communications solution has not been successful and the benefits envisioned by the departments have not been realized is that the departments did not effectively employ key cross-agency collaboration practices. As we previously mentioned, these practices include defining and articulating a common outcome or purpose, establishing a governance structure, and establishing mutually reinforcing or joint strategies to accomplish a common outcome. For example:

- The departments have not defined and articulated a common outcome or purpose that overcomes differences in department missions, cultures, and established ways of doing business. Although the departments originally recognized the benefits of collaborating on a joint solution, they allowed differences in priorities and opinions to stall their collaboration efforts. Specifically, DOJ saw IWN as a concept or vision for new development, which would culminate in a nationwide radio communications network for federal law enforcement. DHS, in contrast, considered the IWN contract to be a vehicle for systems integration. In addition, DHS considered improving radio communications around the nation's borders to be a major priority, while DOJ's priorities were focused in other areas of the nation. Further, the departments could not agree on the direction that IWN should take after deciding that the design of the pilot would not be appropriate for a nationwide network. DOJ and DHS program officials have both acknowledged



DOJ, DHS, and Treasury are no longer pursuing a joint solution

that differing priorities led to an inability to resolve conflicts. They further explained that delays in progress and continued deterioration of legacy systems led the departments to independently pursue other solutions.

- The departments did not establish a collaborative governance structure that includes a management structure, defined roles and responsibilities, and a formalized process for decision making and resolving disputes. Although the departments attempted to establish a joint governance structure, it was not effective at decision making and resolving disputes and the partnership was discontinued. Both DOJ and DHS stated that making joint decisions in their original partnership depended on reaching consensus among the departments, and when consensus could not be reached, progress on IWN stalled.
- The departments did not establish a mutual or joint strategy to align activities and resources to accomplish a common outcome. Despite acknowledging the potential benefits from collaborating on a joint solution, the departments have not produced a strategic or implementation plan that outlines a strategy for developing a joint radio communications solution, whether that solution is IWN or an alternative joint approach.



DOJ, DHS, and Treasury are no longer pursuing a joint solution

The departments are aware that efforts to collaborate have not been successful. Although they have established three high-level initiatives to address coordination, these initiatives are not focused on implementing a collaborative joint communications solution across DOJ, DHS, and Treasury. Specifically:

- The three departments signed a new memorandum of understanding in January 2008 that aims at coordinating their joint wireless programs. Although the goals of the current memorandum are similar to those that the departments specified in their 2004 agreement for IWN, DOJ and DHS officials have stated that no progress has been made in re-establishing the joint governance structure outlined by the agreement. In addition, decision-making procedures outlined in the 2008 memorandum—like those in the 2004 agreement—do not clearly define how to overcome barriers faced when consensus cannot be reached among the departments. DOJ and DHS officials agreed the memorandum serves primarily as a means for facilitating communication among the departments when opportunities and funding are available.



DOJ, DHS, and Treasury are no longer pursuing a joint solution

- Participation in the Federal Partnership for Interoperable Communications is voluntary for both federal and state entities, coordination occurs on an ad-hoc basis, and meeting participants do not necessarily include officials who are in positions to make decisions about their agency's radio communications programs. As previously described, the DHS OEC's shared infrastructure approach is intended to explore collaboration through the Federal Partnership for Interoperable Communications and focuses on coordinating radio communications initiatives among federal, state, and local organizations based on operational needs. However, DOJ officials stated that the Federal Partnership for Interoperable Communications serves primarily as a working group of technical staff, while Treasury officials noted that, to date, they have attended the group's meetings primarily as observers rather than as active participants. Therefore, it is unclear whether this initiative can address the day-to-day mission needs of law enforcement agencies.



DOJ, DHS, and Treasury are no longer pursuing a joint solution

- In accordance with the 21st Century Emergency Communications Act,¹⁸ the Emergency Communications Preparedness Center¹⁹ (ECPC) has been created and is supported by the OEC. The purposes of this group include serving as the focal point for interdepartmental efforts and providing a clearinghouse for relevant information regarding the ability of emergency response providers and relevant government officials to communicate in the event of natural or man-made disasters and acts of terrorism. DHS officials believe that the creation of the ECPC will address collaboration and may be the proper forum for coordinating a joint solution. However, the charter for this organization has not yet been approved. Although DOJ and Treasury both participate in the Emergency Communications Preparedness Center, DOJ officials noted that this group is focused on emergency communications and response, and it is unclear whether this group can address the day-to-day operational requirements of law enforcement agencies.

Although these initiatives are focused on coordination, participation is not required and joint governance and decision-making structures have not been established. Further, with

¹⁸21st Century Emergency Communications Act of 2006, §671 of the Department of Homeland Security Appropriations Act, 2007, Pub. L. No. 109-295 (2006).

¹⁹Current proposed membership for the Emergency Communications Preparedness Center includes the Departments of Commerce, Defense, Interior, Homeland Security, Justice, Treasury, Agriculture, Energy, Labor, Health and Human Services, the Federal Communications Commission, and the General Services Administration.



DOJ, DHS, and Treasury are no longer pursuing a joint solution

DOJ and DHS pursuing independent solutions, it is clear that the departments do not view these initiatives as a means to collaborate on the IWN program and have not defined or committed to an alternative approach to develop a joint communications solution. Without a commitment to collaborate on a joint solution, they will continue to invest significant resources in independent solutions that risk duplication of effort and inefficient use of resources. Further, these stovepipe efforts will not ensure the interoperability needed to serve day-to-day law enforcement operations or for responding to terrorist or other events that require a coordinated response.



Conclusions

Despite early progress on the pilot effort, the departments have been unable to sustain development of a joint radio communications solution on their own. As a result, after seven years of effort, they are no longer pursuing IWN as a joint solution and are instead pursuing potentially duplicative and wasteful independent solutions.

A primary reason that collaboration on a joint communications solution has failed and the benefits envisioned by the departments have not been realized is that the departments did not effectively employ key cross-agency collaboration practices that could overcome the challenges faced in such programs. Specifically, they lacked a means to overcome differences in missions and cultures, a collaborative governance structure that could make decisions and resolve disputes, and a joint strategy to align activities and resources to achieve a joint solution.

As long as the departments pursue separate initiatives and expend their resources independently, they risk duplication and inefficiency, and may fail to achieve the level of interoperability that is vital for both law enforcement and emergency communications. While successful collaboration on a joint solution is necessary, this joint solution could be based on a single, nationwide network, such as an extension of the original IWN design, or it could also be a mutually agreed-upon strategy for developing separate but interoperable networks and systems that incorporate lessons learned from past efforts. Given the importance of collaborating effectively toward improving radio communications among federal agencies, reducing costs, and eliminating duplication where possible and



Conclusions

the departments' failure to develop a joint radio communications solution through their own initiative, Congressional action should be considered to ensure that this collaboration takes place.



Matters for Congressional Consideration

The Congress should consider requiring that the Departments of Justice, Homeland Security, and Treasury collaborate on the development and implementation of a joint radio communications solution. Specifically, Congress should consider requiring the departments to:

- establish an effective governance structure that includes a formal process for making decisions and resolving disputes;
- define and articulate a common outcome for this joint effort; and
- develop a joint strategy for improving radio communications.

Congress should also consider specifying deadlines for completing each of these requirements.



Agency Comments and Our Evaluation

We received comments via e-mail from DOJ and DHS on a draft of these briefing slides. Treasury officials stated that they had no comments on the draft briefing slides.

Officials from DOJ's Office of the Chief Information Officer disagreed with our findings and conclusions in several areas and expressed concerns that we did not accurately characterize the department's efforts to collaborate. Officials from DHS's National Protection and Programs Directorate did not state whether they agreed or disagreed with our findings, but provided suggestions for additional consideration; in addition, DHS officials provided technical comments that we incorporated into the briefing slides, as appropriate.

Officials from DOJ's Office of the Chief Information Officer disagreed with our findings and conclusions in several areas. First, the officials stated that our analysis was flawed and unrealistic in focusing on a single, common project as the best solution for supporting missions, improving interoperability, and achieving cost efficiencies. However, we disagree that our conclusions advocate a single, common project or system as the best solution. We concluded that successful collaboration on a joint solution, whether that solution is IWN or an alternative approach, is necessary to promote efficient use of resources, reduce duplicative efforts, and encourage interoperability. Although a joint solution could be based on a single, nationwide network, such as an extension of the original IWN design, it could also be, for example, a mutually agreed-upon strategy for developing separate but interoperable networks and systems.



Agency Comments and Our Evaluation

Accordingly, we have clarified our briefing slides to emphasize that we have not concluded that a single monolithic project or system is the most appropriate joint collaborative solution.

Second, the department officials stated that we misrepresented DOJ efforts to work with other agencies, including DHS. Specifically, DOJ officials stated that they had tried to reach consensus and compromise with DHS, but DHS leadership had not embraced the concept of a joint program, forcing DOJ to work individually with the DHS components instead of with a single, consolidated program office within the DHS organization. Furthermore, the DOJ officials cited lack of centralized funding at DHS to be another key challenge to collaborating with that department. We acknowledge that DOJ took steps to collaborate on IWN, but when the challenges could not be overcome, progress stalled. We recognize the challenges faced in collaborating among departments, and, in particular, the challenges described by DOJ in collaborating with DHS. However, rather than contradicting our conclusions, we believe these facts support our analysis that key practices for collaborating were not established or sustained. Unless such practices are established and sustained, the departments are unlikely to succeed at implementing a joint collaborative solution.

Third, DOJ officials also stated that we unfairly characterized the results of the Seattle/Blaine pilot and failed to recognize DHS's lack of contribution to the pilot and its requirements development. However, the pilot and its requirements development



Agency Comments and Our Evaluation

occurred prior to DHS's involvement in the program. Further, in our briefing, we note that the Seattle/Blaine pilot afforded several benefits to users in Washington and Oregon, including improving communications in the coverage area and establishing technical solutions for interoperability with state and local organizations. Further, we agree that the pilot served as a working demonstration and test of the IWN design and that additional participation from DHS might have resulted in additional requirements being met. However, our discussions with users and potential users revealed that the pilot network did not meet many of their needs. In order to make progress in addressing unmet needs through a joint partnership, it will be important that the departments collaborate on alternative approaches based on lessons learned from this pilot.

Finally, DOJ officials also expressed concern that our findings did not address business and operational issues facing IWN, including a lack of adequate funding and the differing missions, priorities, funding structures, and existing capabilities at DHS and DOJ. While we agree that the departments have faced significant challenges, we believe that collaboration on a joint strategy remains critically important. We recognize that the departments have taken initial steps to re-establish coordination, such as signing a revised memorandum of understanding. However, an effective governance structure needs to be implemented before decisions can be made and procedures established for overcoming the differing missions, priorities, funding structures, and capabilities among the departments.



Agency Comments and Our Evaluation

We also obtained comments on a draft of this briefing via e-mail from DHS’s National Protection and Programs Directorate officials. In these comments, the DHS officials did not state whether they agreed or disagreed with our findings, but they supported the continued development of a joint federal radio communications strategy and stated that more specific guidance was needed. Specifically, DHS identified three elements for inclusion in the development of a joint strategy:

- Expand the partnership to include other federal departments that rely on mission-critical wireless communications beyond the law enforcement community.
- Leverage existing infrastructure across all levels of government to ensure cost effectiveness and reduce duplication of effort.
- Ensure that interoperability is a priority focus beyond the upgrade and modernization focuses of the original IWN concept.

In addition, the department stated that there was a need within DHS to further align authority and resources with responsibility for a joint solution. For example, while the Office of Emergency Communications was given responsibility for IWN, it was not given authority and only limited resources for the management of the program and therefore had limited ability to drive stakeholders toward a joint solution. The additional considerations proposed by DHS for inclusion in the joint partnership are consistent with our results, and may merit attention as the partnership



Agency Comments and Our Evaluation

develops. DHS officials also provided technical comments on our draft briefing slides, which we have incorporated, as appropriate.

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38

Appendix II: Comments from the Department of Justice



U.S. Department of Justice

Washington, D.C. 20530

NOV 28 2008

Mr. Joel C. Willemsen
Director, Information Technology
U.S. Government Accountability Office
441 G. Street, N.W.
Washington, DC 20548

Dear Mr. Willemsen:

The Department of Justice (DOJ) appreciates the opportunity to comment on the General Accounting Office (GAO) draft report entitled, *Radio Communications: Congressional Action Needed to Ensure Agencies Collaborate to Develop a Joint Solution*, GAO-09-133. DOJ is concerned about the report's findings and conclusion. Our primary issue with the report is that it does not recognize the changed circumstances since the inception of the project. GAO began the audit with the view that a single, shared project among law enforcement entities would be the best solution and its findings in this report continue to assert that this is the best approach. In fact, leadership of the three agencies addressed in the audit--DOJ, the Department of Homeland Security (DHS), and the Department of Treasury (DOT) -- have since agreed upon and are pursuing a common approach that should address the GAO concerns and render the recommendations outdated. Most importantly, we need to be certain that Congress does not act upon the GAO report in a manner that pursues a path that is different than the one that now best addresses our collective business needs.

Over the past five years, we have learned that the business environment in which we operate is not conducive to a single, mobile-radio solution, and in fact our experiences and the progress of technology have moved us to a place where we have collectively determined that such an approach is not feasible or cost-effective today. We wish that the GAO had more fully addressed the history and challenges of the project and shown how the current planned and agreed upon approach is indeed the best solution.

Given the separate funding streams and the scarcity of resources available to each agency for mobile radio technology, as well as the unique operational needs and different work environments of each agency, it simply is not realistic or wise to pursue a single, unified project approach. The overall project cost estimate was \$5 billion. DOJ's current estimate of its portion is approximately \$1.2 billion, which is significantly less than the original projection for DOJ. None of the agencies has received such resources to date, and separate appropriations further complicate a single project and acquisition approach. In addition, while DOJ has centralized its radio resources in the Law Enforcement

Wireless Communications account, others have not. Agency operational priorities and needs also are very different, e.g., areas to be covered, types of equipment, etc. For example, DOJ needs city and highway coverage, whereas DHS needs ports and border coverage. In short, it would be a mistake to pursue a single mobile radio solution for all agencies.

We certainly understand GAO's point that a single solution offers savings opportunities compared to redundant, separate systems. However, what the three agencies are now pursuing are not redundant systems, it is interoperable systems tailored to the differing needs of each agency. Thus, we will achieve the cost savings that come with interoperability while maintaining the necessary capabilities required by each agency's operational and geographic circumstances.

Rather than a single, central solution, DOJ plans to continue pursuing eventual integration and interoperability with DHS and other federal partners, and with state/local/tribal entities, using common standards and guidelines. The radio market already is evolving toward this model given the need of fire and EMS personnel to talk to law enforcement. We must build our solutions to these standards, and continue to collaborate toward these ends.

Where the report seems to suggest that DOJ and the other agencies have not collaborated, in fact we have worked together and collaborated extensively. We developed a memorandum of understanding (MOU) that was signed by the Deputy Attorney General and the Deputy Secretaries of Treasury and Homeland Security on January 9, 2008, establishing a new and realistic plan for moving forward with mobile radio technology acquisition.

Consistent with the MOU, the DOJ integrated wireless network (IWN) program plans to continue using the contract awarded to General Dynamics and invites other agencies to join us in this. General Dynamics was selected by an inter-agency group, its rates are good, and the contractor team is skilled at integrating technical requirements/needs consistent with funding mechanisms in the Federal setting. This contract offers us the staffing flexibility and skills needed to get the job done.

Despite our progress, we understand GAO's concern that the three departments risk duplication of effort and inefficient use of resources. In fact, we have made great progress and duplication/overlap is minimal today, as evidenced by our Seattle pilot program results. Users in the field, such as DHS, are satisfied with the new solutions. There are new capabilities and increased usage, as well as greater efficiency through reduction of communication towers needed. The system currently supports 1,426 agents, including 1,031 from DOJ and 291 from DHS. Currently, 19 Federal agencies use IWN in the Pacific Northwest.

In addition, the IWN has:

- Allowed DOJ to reduce the amount of radio spectrum use by up to 50 percent;

Mr. Joel C. Willemssen

3

- Reduced radio transmission sites by 40 percent thus eliminating lease and circuit costs for these sites;
- Allowed DOJ components to decommission their VHF legacy sites in all areas that IWN is currently deployed; and
- Provided enhanced coverage using fewer sites by eliminating redundant sites, leading to increased coverage for all components over their legacy systems.

Despite our disagreement with GAO's premise that a single solution is needed, there are areas of agreement with GAO. We agree that our agencies must begin meeting quarterly to improve communications and that we must better document our overall, collective strategy beyond the MOU. We need to increase our advocacy of industry standards, and recognize our collective buying power positions us to push the market toward better standards and solutions.

In summary, we believe we are headed in the right direction with regard to mobile radio technology and that pursuing standards to ensure integration and interoperability is the solution; not a single, collective acquisition or project. We hope that we will have the opportunity to brief Congress on the progress we are making and our future plans with regard to radio technology. In addition, we would be happy to brief Congress on efficiencies gained and lessons learned in the Seattle pilot as well. Thank you for the opportunity to review the draft report.

Sincerely,



Lee J. Lofthus
Assistant Attorney General
for Administration

Appendix III: Comments from the Department of Homeland Security

U.S. Department of Homeland Security
Washington, DC 20528



**Homeland
Security**

December 8, 2008

Joel C. Willemsen
Managing Director, Information Technology
U.S. Government Accountability Office
441 G Street, N.W.
Washington, D.C. 20548

Dear Mr. Willemsen:

SUBJECT: Department of Homeland Security input for GAO Draft Report 09-133,
*"Radio Communications: Congressional Action Needed to Ensure Agencies
Collaborate to Develop a Joint Solution,"* December 2008

The Department of Homeland Security (DHS) appreciates the opportunity to respond to this draft report before its publication. The report does not include specific recommendations but presents four actions related to the Integrated Wireless Network (IWN) for consideration by Congress. The Office of Emergency Communications within the National Protection and Programs Directorate has prepared this response to address the actions requested by the Government Accountability Office (GAO) and provide comments on the overall report.

Effective radio communications systems are critically important for law enforcement and public officials responding to events such as natural disasters, criminal activities, and domestic terrorism. The IWN initiative, begun in 2001, was intended to serve as the contracting tool that would be able to improve the Federal tactical communications capabilities among DHS, the Department of Justice (DOJ), and the Department of Treasury (Treasury), the primary Federal law enforcement agencies. Over time, this fundamental concept has evolved and accounted for changes in the wireless technology industry and operational requirements of the partner agencies. Lessons learned from major events (e.g., 9/11, Hurricane Katrina) indicate that Federal wireless needs extend beyond a limited number of Federal partners or a single discipline (e.g., law enforcement), and that interoperability with State, local, and tribal agencies must be considered an essential requirement of any joint Federal wireless solution.

Additional management and administration lessons learned from the IWN Program and the Seattle/Blaine Pilot Project identified issues with joint governance; the management of priorities and requirements across multiple departments; and the addressing of user requirements within schedule constraints. The GAO's report is focused on mandating that the three agencies have one radio communications solution and implies that any other option will result in a stovepipe of non-interoperable communication systems. In addition, the GAO report states that the governance structure for pursuing a joint communications solution was disbanded due to a lack of collaboration

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and agreement; in fact, DHS and DOJ are employing different radio designs funded by Congress that are commensurate with spectrum needs in their environments. Because DOJ and DHS have different regional priorities – the majority of DOJ users operate in highly populated, geographically condensed urban areas with limited frequencies, while the majority of DHS users operate in remote border areas – a common system will not work on a national level, although common systems can work in particular cases. Planning for spectrum efficiency is as much a function of the geographic landscape in which law enforcement is operating as it is a function of joint planning.

The report does not elaborate on DOJ and DHS’s concerns over the expense of taking the Seattle/Blaine operational pilot nationwide to fulfill the requirements of DHS, DOJ, and Treasury; providing these cost estimates would have provided better context for understanding the decision not to implement the pilot design on a nationwide scale.

Specifically, in response to GAO’s matters of consideration to Congress, the following comments are offered:

Implement the MOU as articulated. In the event that common ground cannot be reached, attempt a new governance model within the framework of the Emergency Communications Preparedness Center (ECPC) with authority to make decisions and resolve disputes among partners.

RESPONSE: In January, 2008, the DHS, DOJ, and Treasury signed a Memorandum of Understanding describing an agreed-upon governance structure. Joint wireless programs will be governed by the Joint Wireless Programs Coordinating Council, which will meet on a quarterly basis. Decisions will be reached by consensus and documented through interagency Memoranda of Agreement signed by the Chief Information Officers from each participating Department. In the event consensus is not reached, the issue will be referred for consideration by the Deputy Attorney General and the Deputy Secretaries of DHS and Treasury. Any agreed-upon interoperability requirements must be taken into account early in the system-design stage and should not in any way delay operational upgrade requirements in later stages. It is essential to the DHS mission that current radio system modernizations undertaken across departments do not result in delays to much-needed upgrades in the DHS component radio systems, thus posing risk to mission effectiveness and the safety of agents and officers. For example, current needs within DHS Customs and Border Protection (CBP) for radio systems upgrades are absolutely pressing. Radio systems provide critical lifelines to officer safety, but many areas are using radio systems that are old and past their life expectancies.

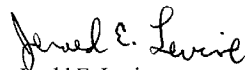
Similarly, DHS CBP must coordinate its modernization schedule to support the operational needs of *SBI_{net}*, which has a project dependency on the Global Positioning System Blue Force Tracking data generated by the Land Mobile Radio (LMR) microphones. DHS CBP must implement new systems a year ahead of *SBI_{net}* deployments. LMR modernization efforts are long-term projects with significant external schedule dependencies. The time required to obtain spectrum certifications, clear spectrum licenses with neighboring countries, negotiate site leases, and work around environmental and seasonal restrictions (some sites may be inaccessible for several months out of the year) pose significant obstacles to timely implementation of new systems.

**Appendix III: Comments from the Department
of Homeland Security**

Develop a joint outcome and strategy for improving radio communications among the expanded partnership within the ECPC.

RESPONSE: DHS, DOJ, and Treasury will use a tiered strategy to achieve effective radio communications in a timely and cost-effective manner. Where necessary, investments will first address immediate mission-critical operability and coverage requirements. Concurrently, the partnership will focus on standardization and optimization of networks planned or in service. The first goal of the expanded partnership under the ECPC will be to define an outcome and an associated joint strategy. The final tier of the strategy will involve partnering with private partners on research and development efforts to migrate to emerging wireless technologies that meet public safety requirements and standards for reliability, sustainability, security, and coverage.

Sincerely,



Jerald E. Levine
Director
Departmental Audit Liaison Office

Appendix IV: Comments from the Department of the Treasury



DEPARTMENT OF THE TREASURY
WASHINGTON, D.C. 20220

NOV 13 2008

Mr. Nick Marinos
Senior Information Technology Analyst
Government Accountability Office
441 G Street, NW
Washington, DC 20548


Dear Mr. Marinos:

The Department of the Treasury has reviewed the draft report entitled *Radio Communications: Congressional Action Needed to Ensure Agencies Collaborate to Develop a Joint Solution* and appreciates the opportunity to comment.

The Department continues to be highly supportive of the overall goals of the Integrated Wireless Network program and the Federal Partnership for Interoperable Communications. Treasury looks forward to continuing to work with the Departments of Justice and Homeland Security, as well as other Federal agencies, to advance law enforcement and emergency services communications.

Please contact me at 202-622-5093 or at Michael.Duffy@do.treas.gov should you have any questions.

Sincerely,


Michael D. Duffy
Deputy Assistant Secretary for Information Systems
and Chief Information Officer

Appendix V: GAO Contact and Staff Acknowledgments

GAO Contact

Joel C. Willemsen, (202) 512-6253, or willemsenj@gao.gov

Staff Acknowledgments

In addition to the individual named above, Linda D. Koontz, Director; John de Ferrari, Assistant Director; Shannin O'Neill; Neil Doherty; Nancy Glover; Nick Marinos; Melissa Schermerhorn; Jennifer Stavros-Turner; and Shaunyce Wallace made key contributions to this report.

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