U.S. Department of Justice

FY 2011 PERFORMANCE BUDGET
Congressional Submission

Law Enforcement Wireless Communications (LEWC)

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I. Overview: Law Enforcement Wireless Communications (LEWC) Appropriation

In FY 2011, the Department of Justice (DOJ) Wireless Management Office (WMO) requests a total of 35 positions, 35 FTE, and $207,727,000 in no-year funding to support operations and maintenance of legacy systems, replace/modernize failing radio systems, correct security deficiencies, address mandated technical standards, and achieve communications standards that directly support agent safety for DOJ's four law enforcement components: Bureau of Alcohol, Tobacco, Firearms, and Explosives (ATF); Drug Enforcement Administration (DEA), Federal Bureau of Investigation (FBI), and U.S. Marshals Service (USMS). This request represents the continuation of a multi-year investment to provide mission essential communications tools used daily by DOJ agencies in the conduct of, law enforcement investigations, and emergency response missions. The request represents an Adjustment to Base increase of $1,584,000 above the FY 2010 enacted level.

The primary objective of this program is to deploy secure, interoperable, and reliable radio communications equipment to law enforcement officers nationwide. Providing and supporting tactical law enforcement communications directly supports the Department's strategic goals:

- *Strategic Goal 1*: Prevent Terrorism and Promote the Nation's Security (e.g., tactical communications allow FBI agents to perform counterterrorism and counterintelligence investigations and response activities, as well as support Joint Terrorism Task Force operations);
- *Strategic Goal 2*: Prevent Crime, Enforce Federal Laws and Represent the Rights and Interests of the American People (e.g., tactical communications are necessary for the daily law enforcement activities of ATF, DEA, FBI, and USMS); and
- *Strategic Goal 3*: Ensure the Fair and Efficient Administration of Justice (e.g., tactical communications are used on a daily basis by the U.S. Marshals in the conduct of judicial protective details and transport of prisoners, including those charged with engaging in terrorist activities).

The Integrated Wireless Network (IWN) program is the Department's strategic initiative to provide a dramatically improved and cost effective wireless radio network that fixes security vulnerabilities, improves system reliability, and achieves interoperability. The IWN strategy is based upon consolidating and sharing existing government infrastructure wherever possible and modernizing the disconnected land mobile radio (LMR) networks across ATF, DEA, FBI, and USMS. The IWN program reflects a strong and continuing partnership among the Department's law enforcement Components to implement the best possible technical solution at the best possible cost.

In addition to the IWN program, the LEWC account supports multiple and disparate legacy radio systems that are currently used by ATF, DEA, FBI, and USMS. These systems are obsolete, costly to maintain, prone to operational failure, non-compliant with security standards, and do not support interoperable communications between law enforcement components. Special Projects is a third LEWC line of business that addresses critical, "as required" projects related to wireless communications implementations across a variety of law

enforcement elements. Projects include establishing the communications infrastructure for national security special events (e.g., the Super Bowl, Winter Olympics, national political conventions), implementing federal interoperability channels in major U.S. metropolitan areas, and responding to immediate and high-profile federal law enforcement communication needs (e.g., Joint Task Force operations, high-profile terrorism trials).

Electronic copies of the Department of Justice's Congressional Budget Justifications and Capital Asset Plan and Business Case exhibits can be viewed or downloaded from the Internet using the following address: http://www.justice.gov/jmd/2011justification/.

Background

In July 1998, Congress directed DOJ's law enforcement components to consolidate their separate efforts to replace their respective LMR systems and created the DOJ Narrowband Communications Account to centrally fund conversion to narrowband radio communications. In addition, Congress directed DOJ to serve as the central purchasing agent for all communications equipment and to develop an integrated, department-wide strategic plan to meet the narrowband conversion and interoperability requirements of DOJ law enforcement agencies.[1] In October 1998, in response to Congressional guidance, Attorney General Janet Reno created the Wireless Management Office within the Justice Management Division (JMD), Office of the Chief Information Officer (OCIO), to oversee and direct DOJ's consolidated approach to wireless communications and to centrally manage the consolidated wireless account.

Prior to FY 2002, the Departments of Justice and Treasury were independently pursuing solutions to meet the narrowband mandate. Due to the similar and complementary nature of their respective law enforcement missions and the co-location and overlapping geographic jurisdictions, the Departments of Justice and Treasury signed a MOU in November 2001, agreeing to improve communications interoperability between and among their law enforcement components and with state, local, and other federal law enforcement agencies; achieve cost efficiencies; and meet the narrowband mandate.

The creation of the Department of Homeland Security (DHS) in November 2002 resulted in the transfer of several law enforcement agencies from Treasury and Justice to the new department, including components responsible for border protection, immigration, and customs enforcement. In June 2004, the chief information officers of the Departments of Homeland Security, Justice, and Treasury signed a MOU to develop, implement, and manage a joint wireless system. In January 2008, the agencies updated the MOU to reflect changes in geographic priorities and mission needs. The revised MOU was signed by the Deputy Secretaries of Homeland Security and Treasury and Justice's Deputy Attorney General. Consequently, the three agencies agreed to deploy shared systems where their respective

[1] In 1995, the Department of Commerce's National Telecommunications and Information Administration (NTIA) issued a mandate to all federal agencies to adopt new narrowband technologies that allow greater radio spectrum efficiency for all LMRs used by the federal government. This rule was issued to allow for more efficient use of existing radio spectrum as demands on federal communications expand causing increased congestion within the VHF and UHF spectrum bands.

interests and mission requirements overlap in order to maximize economies of scale, reduce utilization of radio spectrum, and optimize interoperability.

Justification

The Department's legacy radio systems are obsolete and in many cases are approaching three times beyond the manufacturer's recommended technical refresh rate. For example, one component's radio legacy wide band radio systems average 19 years old and the manufacturer's recommended tech refresh is seven years. The Department's original implementation plan was to consolidate, modernize and deploy the IWN system with a six year funding schedule and at a cost of approximately $1.2 billion, assuming the consistent availability of adequate funding. These estimates may need to be adjusted pending actual enactment funding levels and project results. The IWN program consists of multiple sub-projects with a focus on modular scalability. The benefits of the consolidated, modernized system will include:

- Improved communications operability: agents can communicate whenever and wherever they need to;
- Enhanced network reliability: communications services are always available;
- Improved agent security: encrypted voice communications that comply with current standards for protecting sensitive-but-unclassified communications;
- Expanded geographic coverage;
- Compliance with narrowband mandates; and
- Efficient application of resources through infrastructure sharing and other resource sharing.

IWN will dramatically improve the communications capabilities of our Law Enforcement personnel, and will achieve significant improvements in operational effectiveness and agent safety. These capabilities will support the wide range of DOJ law enforcement missions including investigative or surveillance operations, protective details for VIPs, fugitive or other task force operations, and coordination with state and local law enforcement during emergency incidents.

State of Legacy Communication Systems

In March 2007, the Department's Inspector General issued a report on the state of wireless communications within DOJ's law enforcement components: ATF, DEA, FBI, and USMS.[2] The report's findings highlighted significant vulnerabilities for agencies actively engaged in counter-terrorism and law enforcement missions, including:

- 79% (30,000) of agents' radio subscriber units are not narrow-band compliant;
- 95% lack federally mandated security capabilities; and
- 73% are obsolete and no longer supported by the original manufacturer.

[2] U.S. Department of Justice, Office of the Inspector General, *Progress Report on Development of the Integrated Wireless Network in the Department of Justice*, March 2007.

The Inspector General also found that "two-thirds of the Law Enforcement Wireless Communications (LEWC) funding has been used to maintain antiquated legacy systems…and due to age these costs are expected to increase 5 percent per year."[3] Additionally, the report stated that "failure to upgrade DOJ Components' antiquated communications represents an unnecessary risk to the safety of agents and operations,"[4] which is of paramount importance. Decaying infrastructure and radio capabilities are approaching critical status and have a direct, negative impact on the Department's ability to successfully carry out its mission.

Achievements

In the years following the establishment of the Wireless Management Office, DOJ and its law enforcement components developed significant expertise in planning, deploying, and maintaining tactical wireless communications networks, including the following examples.

Utah/Idaho Pilot

The Department successfully deployed a wireless law enforcement network in Utah and Idaho during the 2002 Salt Lake City Winter Olympics. The system continues to provide operational capabilities today.

IWN San Diego

The IWN San Diego system supports law enforcement personnel from both the Departments of Justice and Homeland Security. IWN San Diego encompasses over 15,000 square miles of desert, forest, and mountain terrain and averages over 1,000,000 tactical radio calls a month.

IWN Northwest

In December 2004, DOJ launched the IWN Northwest system, which initially provided radio coverage from Seattle to Blaine, at the Washington border with Canada. The system met the requirements for a consolidated, multi-agency approach for the wireless communication needs of the DOJ and its partners. Since then, the pilot system has been expanded to provide coverage throughout most of Washington State and south through Portland, Oregon to the northern California border. The system currently supports 1,500 users from DOJ, DHS, Treasury, and other federal agencies. According to users, the system better supports the operations of the agents than any of the agency-specific systems it has replaced. The Inspector General's March 2007 report validated these findings through interviews with representatives from the ATF, FBI, and USMS and listed the following specific benefits:[5]

- Ease of use (no need to change channels when moving from one channel's coverage area to another and capable of over-the-air re-keying);

[3] Ibid, xii.
[4] Ibid, xvi.
[5] Ibid, 12.

- Increased officer safety due to increased radio usage and an emergency alert button on the hand-held radios that allows an officer to notify the dispatcher of an emergency situation by pressing the button;
- Better coverage than the legacy systems;
- Improved clarity of the audio;
- Improved interoperability with state and local agencies (no need to swap radios) for planned events and operations; and
- Better support for workgroup communications.

The design concepts employed in the IWN Northwest system will be replicated across the country to allow easy communications between law enforcement agencies (federal, state, local, and tribal) operating on disparate radio networks. The ability to exercise command and control during regular mission operations and emergency incidents and to communicate seamlessly across networks contributes to successful law enforcement operations in joint environments.

Efficiency

The success of the IWN Northwest project also demonstrated the Department's potential to maximize scarce fiscal and radio spectrum resources through consolidation of component-specific communications systems, implementation of new multi-agency systems, and deployment of multi-agency interoperability solutions, such as those deployed through the 25 Cities Project.[6] These efforts have yielded noteworthy results, including a 50 percent reduction in radio spectrum usage, a 40 percent reduction in radio transmission sites, elimination of redundant legacy systems, and radio coverage beyond any single agency's previous capability.[7]

Performance Challenges

The WMO must address numerous deployment challenges to meet aggressive goals, including:

- Flexible long-term planning that incorporates deployment efficiencies;
- Establishment of geographic implementation priorities that reconcile the need to replace the oldest systems first with Departmental mission priorities (e.g., Southwest border);
- Management of parallel efforts in diverse geographic locations;
- Transitioning agents and radio support personnel from multiple legacy systems in overlapping field office areas onto a single, unified system;
- Maintaining legacy systems long enough to ensure a smooth transition and quickly enough to reduce redundant operating costs;
- Managing the transformation of operations and maintenance work from component-specific and reactive to system-wide and proactive (e.g., preventative maintenance); and
- Deployment of new systems with minimal down-time.

[6] The Department launched the 25 Cities Project at the request of House and Senate appropriations staff in 2003 (Commerce, Justice, & Science subcommittee) to provide federal law enforcement/homeland security personnel with interoperable communications capabilities with local authorities in twenty five high risk metropolitan areas.
[7] DOJ Inspector General, *op. cit.*, page 10.

Furthermore, the Department is significantly overdue in meeting NTIA's deadlines for federal agencies to migrate radio systems that operate on VHF and UHF bands (i.e., wideband systems) to narrowband frequency utilization.[8] This issue will become more pronounced if DOJ legacy wideband operations begin to interfere with other agencies' use of narrowband frequencies.

[8] The NTIA narrowband mandate required federal agencies to convert their LMR systems to operate on 12.5 kHz channels by January 1, 2005. DOJ is the largest federal user of VHF frequencies and has converted the lowest percentage of its systems. Consequently, DOJ LMR systems are making it difficult for other agencies to utilize VHF frequencies. The NTIA mandate for UHF narrowband conversion was January 1, 2008, and the Department continues to lack the resources to meet this deadline.

II. Appropriations Language and Analysis of Appropriations Language

Appropriations Language

For the costs of developing and implementing a nation-wide Integrated Wireless Network supporting Federal law enforcement communications, and for the costs of operations and maintenance of existing Land Mobile Radio legacy systems, [$206,143,000] *$207,727,000* to remain available until expended: Provided, That the Attorney General shall transfer to this account all funds made available to the Department of Justice for the purchase of portable and mobile radios: Provided further, that any transfer made under the preceding proviso shall be subject to section 505 of this Act.

Analysis of Appropriations Language

No changes were made from the FY 2010 Appropriations Language.

III. Decision Unit Justification

A. Law Enforcement Wireless Communications

Law Enforcement Wireless Communications	Perm. Pos.	FTE	Amount
2009 Enacted with Rescissions	19	19	$185,000,000
2010 Enacted	35	35	$206,143,000
Adjustments to Base and Technical Adjustments			$1,584,000
2011 Current Services	35	35	$207,727,000
2011 Program Increases			0
2011 Request	35	35	$207,727,000
Total Change 2010-2011			$1,584,000

1. Program Description

The Department of Justice will provision and maintain a range of secure and reliable wireless voice communications services to support law enforcement investigative and surveillance operations as well as emergency response and task force operations. Tactical wireless communications services are essential to the performance of the Department's law enforcement and national security functions by ATF, DEA, FBI, and USMS personnel (e.g., surveillance, arrest operations, task force operations). Many of the Department's radio systems are between 10 and 20 years old. Funding provided by Congress enables the Department to maintain these fragmented, obsolete systems while implementing the plan to replace them with a modernized, unified system – the Integrated Wireless Network.

Technical Solution

The long-term technical solution for the Law Enforcement Wireless Communications program allows for a hybrid of trunked[9] and conventional land mobile radio systems. The IWN implementation approach leverages existing resources, including component radio sites wherever practical, while focusing on providing efficient, improved coverage for ATF, DEA, FBI, and USMS. All four law enforcement agencies will share the unified IWN radio network infrastructure, thereby eliminating redundant coverage and duplicative radio sites.

The new IWN system will utilize the more spectrally efficient technology, "trunking" rather than "conventional" where necessary because of limited spectral availability. Conventional systems are less costly to deploy, and therefore, may be considered for interim LMR service or rural areas where spectral efficiency is not a major concern. Locations where fixed LMR is needed and usage is expected to be relatively low is and example when spectral efficiency may not be a major concern.

[9] Trunking systems, using frequency trunked technology, were developed to use radio spectrum more efficiently, while offering a more sophisticated, private, and efficient way of communicating with other agents. Unlike conventional technology, trunking allows for the automatic sharing of multiple radio channels.

The IWN strategy will be implemented in a series of overlapping phases throughout the United States. Activities began in 2009 and will continue through completion as funds are made available. Figure 1 depicts the six IWN deployment regions.

Figure 1: IWN Region Map

The Department plans to utilize resources received in FY 2010 to continue the first phase of a multi-phase approach to upgrade communications capabilities for law enforcement personnel across the country, focusing first on those areas with the most obsolete and failing systems or those areas presenting the greatest operational challenges. These systems are concentrated in the Mid-Atlantic and Midwest region (Region 1), and the first Region 1 IWN implementation is scheduled to go live (e.g., receive authority to operate and begin transition of users to the new system) in the National Capital Region (Washington, D.C. and proximate areas), in late 2010. Additional details about the IWN implementation schedule and milestones are provided quarterly and will be published at http://www.justice.gov/jmd/iwn/.

Major FY 2011 planned activities include:

- Initial operating capability and user transition in the National Capital Region (NCR);
- Begin decommissioning of DOJ Component legacy radio systems in NCR;
- Final design and deployment of IWN in the Baltimore metropolitan area, scheduled to go live in late 2011;
- Final system design of the Western Great Lakes area, including Chicago and Milwaukee metropolitan areas;
- Competition and procurement of radio subscriber devices;

- Enhancements to 25 Cities Project interoperability solutions;
- Continued implementation of IWN National Elements: Systems Operations Center (SYSOC), Regional Management Center for Region 1-East, and cross communications between networks.

Funding Approach

The Inspector General's 2007 report cited funding issues as the IWN program's biggest risk for failure: "There is substantial uncertainty that the program will be adequately funded."[10] From FY 2004 through FY 2008, nearly two-thirds of the annual LEWC appropriation has out of necessity funded the operation and maintenance (O&M) of obsolete ATF, DEA, FBI, and USMS radio systems, leaving limited funding to design and develop the new IWN system. LEWC funding received in FY 2009 ($185 million) and FY 2010 ($206 million) was significantly higher than previous years, which enabled the Department to establish a strong foundation for initial IWN design, development, and deployment activities while maintaining the required support of Components' legacy systems.

Approximately $100 million of the $207 million FY 2011 request will be used to build and deploy IWN. The WMO plans to obligate remaining available FY 2011 funds to purchase new infrastructure upgrades and radio subscriber units, fund the operations and maintenance of component legacy systems and existing IWN sites (i.e., Northwest IWN, San Diego IWN, and the National Capital Region module), and fund Components' special projects requests (e.g., Super Bowl, Olympics, 25 Cities Project, and unforeseen natural disasters).

Replacing the antiquated patchwork of legacy DOJ component radio systems requires a major investment of taxpayer funding over several years. Because of its projected cost (more than $1 billion), scope (nationwide, multi-agency coverage on a single network), and mission criticality (federal law enforcement operations require secure, reliable radio communication), the IWN program is one of the Department's single most important current investments. Failure to modernize and replace these legacy systems will jeopardize the safety of federal agents in the field and impede their ability to protect the country from terrorism, espionage, and violent crime. Modernizing the Department's radio networks is also essential to enable more efficient use of limited radio spectrum by government and private sector entities as well as enabling more effective communications interoperability with state and local law enforcement agencies. Decaying federal infrastructure and radio capabilities are approaching critical status and directly and negatively impact the Department's ability to successfully carry out its mission. Furthermore, the Department will be able to avoid certain costs for maintaining older equipment as they become replaced by new IWN equipment.

[10] DOJ Inspector General, *op. cit.*, page xii.

2. Performance Tables

Total Costs and FTE (reimbursable FTE are included, but reimbursable costs are bracketed and not included in the total)		**FTE**	**$000**	**FTE**	**$000**	**FTE**	**$000**	**FTE**	**$000**	**FTE**	**$000**
		19	$185,000	19	$185,000	35	$206,143		1,584	35	$207,727
TYPE/ STRATEGIC OBJECTIVE	**PERFORMANCE**	**FY 2009**		**FY 2009**		**FY 2010 Enacted**		**Current Services Adjustments and FY 2011 Program Changes**		**FY 2011 Request**	
Program Activity		**FTE**	**$000**	**FTE**	**$000**	**FTE**	**$000**	**FTE**	**$000**	**FTE**	**$000**
		19	$185,000	19	$185,000	35	$206,143		1,584	35	$207,727
Performance Measure	% of Justice units converted to Narrowband compliant (portable and mobiles)	65% portable; 77% mobiles		70% portable; 81% mobiles		70% portable; 81% mobiles		70% portable; 81% mobiles		75% portable; 86% mobiles	
OUTCOME	Cost avoidance by procuring in bulk quantities		10%		7%		10%		10%		10%

PERFORMANCE MEASURE TABLE

Decision Unit: Law Enforcement Wireless Communications

Performance Report and Performance Plan Targets		FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009		FY 2010	FY 2011
		Actual	Actual	Actual	Actual	Actual	Actual	Target	Actual	Target	Target
Performance Measure	% of Justice units converted to Narrowband compliant (portable and mobiles)	26% portable; 40% mobiles	33% portable; 44% mobiles	35% portable; 45% mobiles	48% portable; 62% mobiles	52% portable; 64% mobiles	56% portable; 68% mobiles	65% portable; 77% mobiles	70% portable; 81% mobiles	70% portable; 81% mobiles	75% portable; 86% mobiles
OUTCOME Measure	Cost avoidance by procuring in bulk quantities	$4,623	$9,280	$2,411	$3,888	$1,300	3% discount of total contract purchase price	10% discount of total contract purchase price	7.00%	10% discount of total contract purchase price	10% discount of total contract purchase price

N/A = Data unavailable

*** Denotes inclusion in the DOJ Annual Performance Plan**

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