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December 21, 2005

The Honorable Frank R. Wolf
Chairman, Subcommittee on Science, the Departments of State, Justice,
and Commerce, and Related Agencies
Committee on Appropriations
House of Representatives

Subject: *Information Technology: Responses to Subcommittee Post-hearing Questions Regarding the FBI's Management Practices and Acquisition of a New Investigative Case Management System*

Dear Mr. Chairman:

This letter responds to your follow-up questions about our September 14, 2005, testimony¹ before your Subcommittee. In that testimony, we discussed the Federal Bureau of Investigation's (FBI) progress in building management capabilities essential to successfully modernizing its information technology (IT) systems. As you know, systems modernization is a vital part of the FBI's ongoing efforts to transform itself in the wake of the September 11, 2001, terrorist attacks. Your questions and our responses are as follows:

1. *GAO's recently completed report on the FBI's information technology enterprise architecture concludes the FBI has made progress on this effort but much more remains to be done. The report states that "until the Bureau has a complete and enforceable enterprise architecture, it remains at risk of developing systems that do not effectively and efficiently support mission operations and performance." Does this mean that the FBI should not proceed with its new case management system "Sentinel" until these deficiencies are addressed?*

Notwithstanding the fact that any agency faces considerable risk if it does not have a complete and enforceable enterprise architecture to guide and constrain system investments, this does not mean an agency should categorically decide not to invest in a given system until such an architecture exists. Rather, our position has consistently been that such risks, such as lack of interoperability with or duplication of other systems, need to be (1) fully disclosed and considered in deciding whether to invest in the system and (2) managed when a decision is made to proceed with an

¹GAO, *Information Technology: FBI Is Building Management Capabilities Essential to Successful System Deployments, but Challenges Remain*, [GAO-05-1014T](#) (Washington, D.C.: Sept. 14, 2005).

investment without an architecture because of other compelling reasons, such as an urgent mission need. In the case of Sentinel, this means that the FBI's decision to proceed with the program concurrent with its development of the enterprise architecture (EA) should be based on the consideration of such risks. It also means that proactive steps should be taken to minimize these risks. Accordingly, our report² did not state that the FBI should not proceed with Sentinel until it had a complete and enforceable architecture.

Our research and evaluations of agencies has shown that certain urgent and compelling mission needs will necessitate acquiring system capabilities at the same time architectures are being developed. A key to dealing with this practical reality is recognizing that doing so increases the risk of deploying systems that are duplicative, not well integrated, and unnecessarily costly to operate and interface. A related key to success is for agencies in this situation to develop and implement strategies to effectively mitigate the risks associated with acquiring, developing, and implementing systems while the enterprise architecture is still evolving. This is especially important for the FBI because its EA program and Sentinel are long-term, multi-phased initiatives that are running concurrently. This is why we recommended³ in September 2003 that the FBI develop and implement a strategy to mitigate the risks associated with continued investment in modernized systems before it has developed an architecture and the controls for enforcing its implementation.

The FBI has taken steps to address this recommendation. For example, the bureau has defined and issued an initial version of an interim "to-be" architecture that (1) focuses on the bureau's investigative, intelligence, and analytical lines of business that are to be supported by Sentinel; (2) identifies overlaps and dependencies between Sentinel and other enterprise components; and (3) contains plans to avoid duplication and redundancy.

2. *The report states that the FBI is relying heavily on contractor support to develop its enterprise architecture; however, it is not using effective contract management controls for this contract. Specifically, the report is critical of the FBI for not using a performance-based contract and for not performing effective contractor tracking and oversight. Please describe how these contracting deficiencies could impact the FBI's ability to develop an enterprise architecture in a timely fashion? Does GAO believe these contract management problems only pertain to this project or do they exist throughout the FBI's information technology program, including the new case management system?*

As we state in our report,⁴ the absence of performance-based contracting and effective contractor tracking and oversight has constrained the FBI's ability to effectively manage and oversee its EA contractor. More specifically, it has inhibited

²GAO, *Information Technology: FBI Is Taking Steps to Develop an Enterprise Architecture, but Much Remains to Be Accomplished*, [GAO-05-363](#) (Washington, D.C.: Sept. 9, 2005).

³GAO, *Information Technology: FBI Needs An Enterprise Architecture to Guide Its Modernization Activities*, [GAO-03-959](#) (Washington, D.C.: Sept. 25, 2003).

⁴[GAO-05-363](#).

the bureau's ability to adequately define product quality expectations, which in turn increases the chances that delivered products will require rework. Such rework puts the bureau at risk of spending more time and money than necessary to produce an architecture. Because of this, we recommended that the FBI employ performance-based contracting activities, along with effective contract tracking and oversight practices, prospectively on all EA contract actions.

While we have not reviewed contract management practices across the FBI's portfolio of IT programs, the Department of Justice's Inspector General reported in February 2005 that, after investing more than 3 years and \$170 million, the FBI was unable to deploy its investigative case management project—referred to as the Virtual Case File—due in part to weaknesses in the way contractors were retained and overseen.⁵ Similarly, the Surveys and Investigations Staff of the House Appropriations Committee reported in April 2005 that the bureau lacked the necessary management and controls to effectively oversee the Virtual Case File contractor and that this contributed to the FBI's cancellation of the project.⁶

More recently, the FBI's Chief Information Officer (CIO) acknowledged the contract management problems that we reported by describing steps under way to expand the use of performance-based contracting and strengthen overall contract management. Specifically, the CIO stated that the Finance Division, which is responsible for bureau contracting policies and procedures, had begun increasing awareness and providing training on the use of performance-based contracting. The CIO also stated that the bureau is in the process of implementing an FBI-wide life cycle management directive that is to define procedures for the use of performance-based contracting methods and the establishment of contract tracking and oversight structures, policies, and processes. According to the CIO, these procedures are to be fully defined and implemented in 2006.

3. *Over the past several years, there has been significant turnover in the FBI's senior information technology leadership. Is consistent and stable information technology leadership something Director Mueller needs to remain concerned about?*

Consistent and stable management leadership is a human capital best practice and as such, should be an ongoing and sustained focus of the Director within all FBI organizational components, including IT. Our research of private and public organizations that effectively manage IT shows that they have, among other things, sustained senior leadership at key IT positions, including the CIO and other IT executive positions.⁷ As we and others have reported, the FBI has been challenged in its ability to retain individuals in senior IT positions. For example, in March 2004, we reported⁸ that the CIO had changed 5 times over the previous 24 months, and the IT official responsible for developing the

⁵U.S. Department of Justice, Office of the Inspector General, *The Federal Bureau of Investigation's Management of the Trilogy Information Technology Modernization Project*, Audit Report 05-07 (February 2005).

⁶Surveys and Investigations Staff, Committee on Appropriations, House of Representatives, *A Report To The Committee On Appropriations, U.S. House Of Representatives, on the Federal Bureau Of Investigation's Implementation Of Virtual Case File* (April 2005).

⁷See, for example, GAO, *FBI Transformation: FBI Continues to Make Progress in Its Efforts to Transform and Address Priorities*, [GAO-04-578T](#) (Washington, D.C.: Mar. 23, 2004).

⁸[GAO-04-578T](#).

bureau's architecture—the chief architect—had changed 5 times during the previous 16 months. About the same time, the Department of Justice's Inspector General reported that leadership turnover was also occurring on key IT projects, such as Trilogy.⁹

Moreover, a recent assessment of the FBI's human capital efforts by the National Academy of Public Administration states that the bureau still faces challenges in this area, including establishing an overall strategy for unifying the various FBI leadership development and other human capital initiatives and developing and implementing a strategic process to plan for intermediate and long-term leadership and workforce needs.¹⁰ According to the Academy, while the bureau is taking steps to improve the situation, much more needs to be done.

4. *The GAO report states that sufficient resources have not been applied to developing an enterprise architecture. Does the FBI need to improve its methodology for budgeting for information technology management? Does GAO have an estimate for the level of additional resources that are needed?*

According to federal guidance,¹¹ an agency should have the resources (funding and human capital) to establish and effectively manage its EA program. Our report¹² did not identify issues or take exception with the sufficiency of the architecture program's funding level being applied to the architecture program or the bureau's IT management budgeting methodology. However, it did state that key human capital resources were not in place. In particular, four of five key architect positions were vacant. According to bureau officials, the absence of these key staff was hampering their architecture development efforts. Bureau officials told us that job announcements had been issued for the four key architect positions, but it had been difficult finding the right candidates.

5. *The GAO report raises concerns that several of the FBI's information technology positions remain vacant. This is somewhat frustrating to hear because in the fiscal year 2005 Appropriations Act, Congress gave the FBI the authority to provide bonuses of up to 50 percent of an employee's salary and provided authority to pay certain critical employees more than \$175,000 per year. Has the FBI been using these new authorities to attract high quality information technology staff? What have other agencies done to attract talented information technology professionals?*

⁹U.S. Department of Justice, Office of the Inspector General, *Statement of Glenn A. Fine, Inspector General, before the Senate Committee on Appropriations, Subcommittee on Commerce, Justice, State, and the Judiciary Concerning Information Technology in the Federal Bureau of Investigation* (Washington, D.C.; Mar. 23, 2004).

¹⁰National Academy of Public Administration, *Transforming the FBI: Roadmap to an Effective Human Capital Program*, (September 2005).

¹¹See, for example, CIO Council, *A Practical Guide to Federal Enterprise Architecture*, Version 1.0 (February 2001) and GAO, *Information Technology: A Framework for Assessing and Improving Enterprise Architecture Management (Version 1.1)*, [GAO-03-584G](#) (Washington, D.C.: April 2003).

¹²[GAO-05-363](#).

According to a recent National Academy of Public Administration report on the bureau's management of human capital,¹³ the FBI requested and was provided these personnel pay flexibilities in December 2004 to better retain employees with unique qualifications and to encourage personnel to relocate to high cost areas. The Academy also reported that the bureau had not yet used these authorities, in part because it had only recently developed a policy for doing so.

While our reviews of the FBI's IT management capabilities have not addressed whether the bureau was using its new authorities to attract high-quality IT staff, our research of leading organizations, in addition to our experience in evaluating federal agencies, shows that successful organizations attract IT professionals by taking a strategic approach to human capital management.¹⁴ This includes developing strategies tailored to addressing gaps between the current workforce and future needs, including investing in

- training and professional development,
- retention allowances,
- skill-based pay to attract and retain the critical skills needed for mission accomplishment, and
- pay and nonpay incentives for high-performing employees.

We previously reported¹⁵ on the FBI's need to take such a strategic approach to help it better attract and retain high-quality IT personnel. In March 2004, the FBI issued an enterprisewide strategic human capital plan, including policies and procedures for IT human capital. Since then, the CIO told us that his office is taking additional steps to enhance its IT human capital capability, including targeting training and professional certifications.

However, as we have previously reported,¹⁶ the bureau has yet to create an integrated plan of action that is based on a comprehensive analysis of human capital roles and responsibilities needed to support the IT functions established under the office of the CIO's reorganization. Such an analysis should include an assessment of core competencies and essential knowledge, skills, and abilities and then compare them to current human capital strengths and weaknesses. This will permit gaps to be identified between current capabilities and those needed to perform established IT functions. The plan should then describe actions needed to fill the identified gaps (that is, the planned combination of hiring, training, contractor support, and so on), along with time frames, resources, performance measures, and accountability structures. According to the CIO, he is in the process of hiring a contractor with human capital expertise to help identify gaps between existing and

¹³National Academy of Public Administration, *Transforming the FBI: Roadmap to an Effective Human Capital Program*, September 2005.

¹⁴See, for example, GAO, *A Model of Strategic Human Capital Management*, [GAO-02-373SP](#) (Washington, D.C.: March 2002), and GAO, *Human Capital: A Guide for Assessing Strategic Training and Development Efforts in the Federal Government*, [GAO-03-893G](#), (Washington, D.C.: July 2003).

¹⁵GAO, *FBI Reorganization: Progress Made in Efforts to Transform, but Major Challenges Continue*, [GAO-03-759T](#) (Washington, D.C.: June 18, 2003).

¹⁶[GAO-05-1014T](#).

needed skills and abilities and intends to have this effort completed, including the development of an implementation plan to address any gaps, by the end of 2005.

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In responding to these questions, we relied on past work related to our reviews of the FBI's management of its IT and our best practices research and evaluations of IT management at other federal agencies. We conducted this past work in accordance with generally accepted government auditing standards. We are sending copies of this letter to other interested congressional committees. Copies will also be available at no charge at our Web site at <http://www.gao.gov>. If you have questions about our responses, please contact me at (202) 512-3439 or hiter@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this correspondence. Key contributors to this product include Gary Mountjoy, Assistant Director; Justin Booth; Nancy Glover; Dan Gordon; and Teresa Tucker.

Sincerely yours,

A handwritten signature in black ink that reads "Randolph C. Hite". The signature is written in a cursive style with a large initial "R".

Randolph C. Hite
Director, Information Technology Architecture
and System Issues

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