U.S. Department of Energy
Office of Inspector General
Office of Audit Services

Audit Report

Information Technology Support Services at the Department of Energy's Operating Contractors

Department of Energy
Washington, DC 20585
April 19, 2006

MEMORANDUM FOR THE SECRETARY

FROM: Gregory H. Friedman
                         Inspector General

SUBJECT: INFORMATION: Audit Report on "Information Technology
                         Support Services at the Department of Energy's Operating
                         Contractors"

BACKGROUND

In Fiscal Year 2005, the Department of Energy and its contractors spent over $1.2 billion
on information technology (IT) infrastructure and support. This support typically
included activities such as server and network technical services, database management
and administration, and helpdesk and desktop support. As with all other aspects of its
wide-ranging IT program, the Department under the Clinger-Cohen Act is required to
design and implement a process for maximizing the value obtained from IT support
service contracts.

In our August 2001 report on *Information Technology Support Services Contracts*
(DOE/IG-0516), we concluded that the Department did not have a comprehensive
framework for acquiring such services. We also determined that Department-wide
savings of as much as $44 million could be possible by adopting an enterprise-wide
approach to acquiring such services. Because of the continuing potential for significant
savings, we initiated this audit to determine whether the Department had designed and
implemented an effective process for managing and controlling contractor IT support
services costs.

RESULTS OF AUDIT

While the Department had initiated action to consolidate requirements for services
provided to Federal employees, it continues to face a number of challenges related to
contractor procured or furnished IT support services. For example:

- Frequently, contractors failed to take advantage of opportunities to aggregate
  demand to leverage or reduce IT support service costs;

- Per user support costs varied substantially between sites, ranging from a low of
  $3,660 to a high of $7,540 per year – a potential difference of over $350,000 for
  each 100 users;

- Costs for co-located contractors varied by as much as 50 percent per user, from a low of $5,100 to over $7,500 per year for the same or similar services; and,

- A number of contractors did not actively capture or track functional IT support costs, preventing contractor management and Federal officials from maintaining visibility over the component costs of furnished services.

Although the Department had initiated action to consolidate Federal IT support services by implementing its Extended Common Integrated Technology Environment Program (eXCITE), it had not established a comprehensive framework which would provide a corporate-wide approach to providing IT support services that included contractor-managed sites. In the absence of a framework, the Department did not require contractors to adopt other available methods for reducing costs such as coordinating with established consortium buying groups to consolidate demand and obtain volume discounts. Maintaining visibility over IT costs at the functional level was also complicated by the fact that contractors were not required to accumulate such information or to furnish it to Federal officials. In addition, Federal officials charged with monitoring contractor performance did not always employ contracting incentives to help reduce costs. As a consequence, the Department lacked an effective means of managing and controlling contractor IT support services costs.

Based on our examination, we concluded that there is a potential for significant cost savings at the Department of Energy's numerous contractor-managed sites through better management and control of IT support services. For example, we identified the potential for reducing IT support services costs by over $14 million for contractor-managed sites co-located at the Hanford complex near Richland, WA. To help achieve these savings, we recommended that the Department develop a framework that would include policy and guidance regarding Federal oversight of contractor IT support services costs, establish requirements to consolidate contracts to obtain volume discounts, increase the use of performance-based contracts, and make Departmental organizations aware of enterprise IT support contracts.

MANAGEMENT REACTION

Management generally concurred with the report's findings and made some suggestions for modifying the recommendations. Management's comments are included in Appendix 3.

Attachment

cc: Deputy Secretary
    Administrator, National Nuclear Security Administration
    Under Secretary for Energy, Science, and Environment
    Chief of Staff
    Chief Information Officer

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CONTRACTOR INFORMATION TECHNOLOGY SUPPORT SERVICES COSTS

Contractor Provided or Acquired Services

Several issues detracted from the Department of Energy's (Department's) ability to effectively manage and control contractor information technology (IT) support service costs. In particular, we noted that contractors usually did not take advantage of opportunities to obtain volume discounts by aggregating demand for services. Overall per user support costs varied significantly between and among contractor operated facilities. In many instances, we also observed that contractor management and Federal officials responsible for assessing performance lacked visibility over the component cost of IT support services because contractors did not actively capture or track all components of those costs at the detail level.

IT Support Services

Rather than consolidate demand for the same or similar requirements, 8 of the 12 contractors we surveyed independently acquired or provided IT support to their sites. Contractors arranged for IT support through a variety of means, including providing in-house support, subcontracting, or providing support through their parent company. Although used to aggregate demand in other areas, contractors generally did not use established organizations such as the Integrated Contractor Purchasing Team (ICPT) to identify opportunities for IT support cost savings.

The ICPT, formed by the Department with participation by site and facility contractor procurement officials, was designed to "…aggressively pursue consortium buying opportunities that represent procurement leveraged savings for DOE Complex-Wide Prime Contractors." Although the ICPT has been used for consolidating and sharing best practices for IT hardware and software purchases, it had not been employed for acquiring IT support services. Utilizing the ICPT or establishing a similar forum for IT support could provide a means for communications among contractors to consolidate demand and facilitate establishing consolidated contracts. It could also provide a valuable forum for sharing best practices and identifying other cost-saving measures.

Consistent with the varying methods used to provide IT support services, we found that overall per user costs varied significantly between contractors. For example, we noted that annual per user costs ranged from a low of $3,660 at the Idaho National Laboratory (formerly Idaho National Engineering and Environmental Laboratory), to a high of $7,539 at Fluor Hanford. Even among contractors located in the same geographic area and providing similar services, we found that IT support costs varied by nearly 50 percent. While labor rates within specific geographic areas are generally static, we noted that for contractors at the Hanford complex near Richland, WA, annual costs ranged from a low of $5,100 per user per year to over $7,500.

While we were ultimately able to identify overall IT support costs through an intensive data gathering exercise, we noted that many of the contractors we reviewed did not actively track or maintain visibility over IT support services costs. Most of the contractors from which we obtained data told us that compiling the information we requested was difficult because their systems did not capture information in a format consistent with Federal guidance. Contractor officials informed us that they were not required to do so and that they did not accumulate information on IT investments in functional cost categories established by the Office of Management and Budget.

Enterprise Acquisition and Cost Control Strategies

Although the Department had initiated action to consolidate IT support services for Federal employees, it had not established a comprehensive framework for providing IT support services across the complex. Officials did not examine opportunities to establish a corporate-wide approach that included contractor-managed sites. Specifically, contractors were not required to adopt other methods for reducing costs such as coordinating with established consortium buying groups to consolidate demand and obtain volume discounts. Also, contractors did not accumulate costs in a manner that facilitated Federal oversight. In addition, Federal officials charged with monitoring contractor performance did not always employ contracting incentives to help reduce costs.

In its recent report on *Department of Energy: Additional Opportunities Exist for Reducing Laboratory Contractors' Support Costs* (GAO-05-897, September 2005), the Government Accountability Office (GAO) noted similar concerns regarding the ability to identify and actively manage functional costs. In particular, GAO reported that indirect costs, such as IT support costs that cannot be charged to a specific mission, cannot be compared across laboratories because contractors classify different portions of support costs as indirect. GAO recommended that the Chief Financial Officer clarify functional support cost categories to improve the quality and comparability of support cost data.

Support Acquisition Strategy

While the Department has made some progress in consolidating IT support services, it has yet to develop a comprehensive framework that will include support for contractor managed sites. Currently, the Department is in the process of extending the Extended Common Integrated Technology Environment Program (eXCITE), previously a Headquarters only initiative, to cover Federal employees in the field. Federal officials managing the current effort told us that at this point they did not intend for their effort to address all of the Department's needs and had no plans to deploy eXCITE to contractor operated sites. As we noted in our report on *Information Technology Support Services Contracts* (DOE/IG-0516, August 2001), this segment offers the opportunity for significant savings in that it comprises about 90 percent of the Department's workforce.

The Department also did not require that contractors take other available actions to coordinate and consolidate similar IT support demand through consolidated contracts. Instead, it permitted contractors to acquire IT support services as they saw fit. In its recent report on *Best Practices: Using Spend Analysis to Help Agencies Take a More Strategic Approach to Procurement* (GAO-04-870, September 2004), GAO noted that a strategic approach to procurement should incorporate both developing a better picture of what an agency is spending on goods and services and taking an enterprise-wide approach for procuring goods and services. It noted that taking a strategic approach to procurement can help

agencies "leverage their buying power, reduce costs, and better manage suppliers of goods and services…." Consolidating demand for similar IT support services could enable contractor-managed sites to take advantage of price discounts by establishing consolidated contracts and also reduce the effort needed to establish and administer contracts.

We identified a notable exception at the Hanford complex, where three prime contractors pooled their demand and developed a consolidated contract that provided common IT support services at reduced cost. This consolidated contract resulted in demonstrated savings in excess of $23 million over the first three years of the five year contract.

Monitoring and Controlling Costs

While the Department requires that Federal field representatives monitor contractor performance, it did not require contractors to accumulate functional cost information in a manner that permits effective oversight. In most areas, the Department provides contractors with the flexibility to determine how costs are classified and allocated to mission activities and does not specifically require them to accumulate or monitor costs on a functional basis. When responding to our request for cost data, contractor officials told us that they were not required to maintain functional cost information for IT support services and that gathering such data was costly, burdensome, and time-consuming. Similarly, Federal representatives with oversight responsibility were unable to obtain visibility over and objectively evaluate contractors' investments in IT support services because necessary cost information was not available.

Performance-based Contracts

Despite Federal requirements, the Department seldom used contract incentives or fee-impacting performance measures to ensure that the best available and most cost-effective method for providing IT support services is used. Federal Acquisition Regulations require agencies to use performance-based statements of work to the maximum extent practicable to enhance performance and

reduce costs. We noted, however, that 9 of the 10 prime contracts we examined lacked incentives or fee-impacting performance measures to encourage contractors to search for the best available and most cost-effective method for providing IT support services.

The opportunity to effectively employ such measures was demonstrated through the terms of the operating contract for the Sandia National Laboratories. Federal representatives responsible for managing that contract recently modified it and incorporated provisions addressing IT support services. The contract now provides that the Sandia contractor can either earn or forfeit portions of its fixed fee, its available contract term, or its ability to provide services, in any combination thereof based on its performance. This determination is based on the contractor's demonstrated ability to meet performance objectives, including those related to management controls over investments in IT support services.

Ensuring Cost Effective IT Support Services

In the absence of a comprehensive framework for managing and controlling IT support services costs, the Department cannot ensure that contractor-managed operations are providing cost effective IT support. Based on our work, we continue to believe that significant savings may be possible by adopting an enterprise-wide approach to acquiring IT support services. Such an approach would, at a minimum, include providing adequate oversight, pooling demand among contractors to realize economies of scale and reduce contract administration costs, and using performance-based contracts.

In one particularly noteworthy example, we analyzed IT support costs for contractor-managed sites located in the Hanford complex and compared their costs to IT support benchmarks established by a Chief Information Officer (CIO) sponsored study *Summary Results -- Distributed Computing Environment (DCE) Benchmark and Total Cost of Ownership Study*. Our analysis demonstrated that annual IT support costs at just this one complex exceeded the CIO's benchmarks by more than $14 million. For this reason, we believe that additional

action is necessary in this important area and have made several recommendations designed to improve the Department's management of contractor IT support costs.

RECOMMENDATIONS

To ensure that IT support costs are effectively managed and controlled and potential cost savings are examined, we recommend that the Chief Information Officer coordinate with the Director, Office of Management; the Administrator, National Nuclear Security Administration; and the Under Secretary for Energy, Science, and Environment, to require that the Program Secretarial Officers (PSOs):

1. Provide guidance to field offices to ensure that contractor IT support service costs are adequately monitored and controlled.

2. Direct field contracting officers to examine opportunities for controlling IT support services costs, including, where appropriate:

   a) Determining the practicality of establishing consolidated IT support service contracts in support of the work programs of the Department's major contractors;

   b) Reviewing contracts for potential inclusion of IT performance incentives and/or fee-impacting performance measures consistent with the mission of the Department; and,

   c) Making Departmental organizations aware of enterprise IT support contracts that meet IT services needs.

MANAGEMENT REACTION

Management generally concurred with the report's findings and supported the concept of coordinating with enterprise buying groups to consolidate demand and obtain volume discounts. However, they felt that such an approach would have to consider each laboratory's specific mission and geographic and infrastructure differences. They also believe that guidance and oversight of field offices and direction to the contractors

are the responsibility of each Program Secretarial Officer. Therefore, management suggested we revise the recommendations to (1) designate the individual Program Secretarial Officers as the lead managers responsible for carrying out the recommendations, rather than the Chief Information Officer, and (2) add a recommendation to make Departmental organizations aware of enterprise IT support contracts that meet IT services needs.

We included management's comments in their entirety in Appendix 3.

AUDITOR COMMENTS

Management's comments are responsive to our recommendations and we made changes to the report where appropriate. We have included a recommendation to help ensure that Departmental organizations are made aware of enterprise IT support contracts that meet IT services needs. We also agree that any approach to improving IT support services should consider each laboratory's specific mission and geographic and infrastructure differences. Finally, we agree that each of the individual Program Secretarial Officers should be the lead manager responsible for carrying out our recommendations in their respective program areas. However, to ensure consistency, we believe the Chief Information Officer, as the Department's primary information technology manager, should be the lead manager responsible for coordinating our recommendations.

OBJECTIVE   The objective of our audit was to determine whether the Department had designed and implemented an effective process for managing and controlling contractor IT support services costs.

SCOPE   The audit was performed between August 2004 and February 2006 at the Richland Operations Office, Office of River Protection, Pacific Northwest Site Office, Fluor Hanford, CH2M Hill Hanford Group, Bechtel National, Bechtel Hanford, and Pacific Northwest National Laboratory near Richland, WA; Idaho Operations Office and Idaho National Laboratory in Idaho Falls, ID; Chicago Operations Office, Fermi Site Office, Argonne National Laboratory, Fermi National Accelerator Laboratory, and New Brunswick Laboratory near Chicago, IL; and Sandia Site Office and Sandia National Laboratories in Albuquerque, NM. Specifically, we performed a comprehensive review of the agency's key processes for managing contractor IT support services costs.

METHODOLOGY   To accomplish our audit objective, we:

- Reviewed applicable laws, regulations, guidance and best practices pertaining to providing IT support services. We also reviewed relevant reports issued by the Office of Inspector General and the Government Accountability Office;

- Reviewed the *Government Performance and Results Act of 1993* and determined if performance measures had been established for managing IT support services;

- Reviewed numerous documents related to the management of IT support services; and,

- Held discussions with Headquarters officials and personnel from the field sites and obtained and reviewed statistics regarding IT support services.

To calculate potential savings that could be achieved by establishing a more comprehensive framework for managing contractor IT support services, we first obtained 2004 IT support costs for contractors in the Hanford, WA, complex. We then obtained the Department's study *Summary Results -- Distributed Computing Environment (DCE) Benchmark and Total Cost of Ownership Study* sponsored by the CIO in 2000 that established a benchmark for IT support services. The benchmark was based on data obtained from over 200 commercial and Government organizations with over 300 sites. To bring the IT support service benchmarks up to 2004 values, we inflated them using the 2004 Consumer Price Index. Finally, we compared the 2004 IT support costs for contractors in the Hanford complex to the inflated benchmarks and identified a potential for over $14 million in savings.

The audit was conducted in accordance with generally accepted Government auditing standards for performance audits and included tests of internal controls and compliance with laws and regulations to the extent necessary to satisfy the audit objectives. We assessed significant internal controls and performance measures in accordance with the *Government Performance and Results Act of 1993* regarding the management of contractor IT support services costs. We determined that performance measures were established for one program office – the Office of Legacy Management. Because our review was limited, it would not necessarily have disclosed all internal control deficiencies that may have existed at the time of our audit. We did not rely on computer-processed data to accomplish our audit objective.

Management agreed to waive the exit conference.

PRIOR REPORTS

Office of Inspector General Reports

- *Special Report: Management Challenges at the Department of Energy* (DOE/IG-0712, December 2005). The report concluded that, among other things, inadequate oversight of contract costs and performance has been a long-standing management issue for the Department. The report also noted that a series of recent audits have identified weaknesses in subcontract administration at national laboratories.

- *Information Technology (IT) Support Services Contracts* (DOE/IG-0516, August 2001). The report concluded that the Office of Chief Information Officer (CIO) was not effectively managing the acquisition of IT support services, despite initiatives sponsored by the CIO. Headquarters and field elements routinely obtained IT support services without making maximum use of existing Federal contracts designed for this purpose. When existing contracts were used, Headquarters program elements did not coordinate or consolidate requirements. The report recommended that the Department develop, document, and implement an acquisition framework for support services and estimated that savings of as much as $44 million may be possible over a three year period by adopting a Department-wide approach.

Government Accountability Office (GAO) Reports

- *Department of Energy: Additional Opportunities Exist for Reducing Laboratory Contractors' Support Costs* (GAO-05-897, September 2005). In Fiscal Year 2004, about two-thirds of the Department of Energy's (Department) $26.9 billion in spending went to 28 major facilities -- laboratories, production and test facilities, and nuclear waste cleanup and storage facilities. The Department spent about $2.9 billion in Fiscal Year 2004 to support the mission of its five largest laboratories. GAO found that indirect cost rates cannot be compared across laboratories because contractors classify different portions of support costs as indirect. Indirect costs are those not charged directly to a specific program. Several DOE and contractor officials said that the definitions for some categories of support costs lead to confusion and inconsistent reporting. GAO recommended that the CFO clarify definitions of functional support cost categories.

- *Best Practices: Using Spend Analysis to Help Agencies Take a More Strategic Approach to Procurement* (GAO-04-870, September 2004). "Spend analysis" is a tool that provides knowledge about who are the buyers, who are the suppliers, how much is being spent for what goods and services, and where are the opportunities to leverage buying power. GAO's prior work has shown that such an approach could help agencies leverage their buying power, reduce costs, and better manage suppliers of goods and services. GAO determined that the

Departments of Veterans Affairs, Health and Human Services, and Agriculture have made good progress using spend analysis to improve their procurements, and they have adopted some elements of a strategic approach. Implementing spend analysis is challenging and can take time, and the agencies have not yet adopted the full range of private sector best practices. Fully adopting the supporting structure, process, and role changes that companies institute would enable these agencies to move away from a fragmented procurement process and enable them to effectively use spend analysis to achieve significant savings.
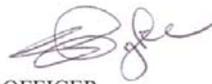
- *Contract Management: Civilian Agency Compliance with Revised Task and Delivery Order Regulations* (GAO-03-983, August 2003). Revised Federal Acquisition Regulations require agencies to use performance-based statements of work for task orders to the maximum extent practicable. However, among other things, the report noted that only 3 of 22 orders for services reviewed met the requirements for performance-based contracting, such as providing measurable outcomes for contractor performance.

- *DOE Contractor Management: Opportunities to Promote Initiatives That Could Reduce Support-Related Costs* (GAO-02-1000, September 2002). The report observed that some types of contractor support-related costs are categorized as overhead. It noted that the Department does not track overhead costs on a Department-wide basis because overhead costs are not defined consistently from contractor to contractor. It also noted that program offices do not directly manage or closely monitor contractor support-related costs, but instead rely mainly on field offices and contractors to manage these costs. Finally, it stated that although contractors have independently implemented initiatives to manage certain support-related costs, the Department has not analyzed the merits of these initiatives and worked with program offices to promote those that have applicability at other sites to achieve cost savings.

Department of Energy
Washington, DC 20585

APR 0 4 2006

MEMORANDUM FOR RICKEY R. HASS
ASSISTANT INSPECTOR GENERAL
FOR FINANCIAL, TECHNOLOGY AND
CORPORATE AUDITS

FROM: THOMAS N. PYKE, JR.
CHIEF INFORMATION OFFICER

SUBJECT: Comments on Draft Report A04TG041, "Information Technology
Support Services at the Department's Operating Contractors"

The Office of the Chief Information Officer (OCIO) concurs with the Inspector General's (IG)
draft report on "Information Technology Support Services at the Department's Operating
Contractors" subject to the following revisions.

<u>Recommendations</u>

DOE supports the concept of coordinating with enterprise buying groups to consolidate demand
and obtain volume discounts. However, such an approach would have to consider each
laboratory's specific mission and geographic and infrastructure differences. Therefore, we
recommend revisions as follows:

Recommendation 1, Original Wording:
*To ensure that IT support costs are effectively managed and controlled and potential cost savings
are examined, we recommend that the Chief Information Officer, in coordination with the Chief
Financial Officer and Office of Management; the Administrator, National Nuclear Security
Administration; and the Under Secretary for Energy, Science, and Environment:*

  1. *Provide guidance to field offices to ensure that contractor IT support service costs are
     adequately monitored and controlled.*

Suggested Revision:
*To ensure that IT support costs are effectively managed and controlled and potential cost
savings are examined, we recommend that the Program Secretarial Officers (PSOs), in
coordination with the Chief Information Officer, Chief Financial Officer and Office of
Management; the Administrator, National Nuclear Security Administration; and the Under
Secretary for Energy, Science, and Environment should:*

  1. *Provide guidance to field offices to ensure that contractor IT support service costs are
     adequately monitored and controlled.*

Reasoning: In the current management structure, guidance and oversight of field offices is the
responsibility of each PSO.

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Recommendation 2, Original Wording:

2. *Require Federal program officials and contractors organizations to examine the opportunities for controlling IT support services costs, including, where appropriate:*

    a. establishing consolidated IT support services contracts: and,

    b. ensuring that contracts include provisions for performance incentives and/or fee-impacting performance measures.

Suggested Revision:

2. *Require PSO's to direct field contracting officers to examine opportunities for controlling IT support service costs, including where appropriate:*

    a. Determining the practicality of establishing consolidated IT support service contracts in support of the work programs of the Department's major contractors;

    b. Reviewing contracts for potential inclusion of IT performance incentives and/or fee-impacting performance measures consistent with the mission of the Department.

Reasoning: Again, the PSO's are the action organizations to establish performance incentives and to direct that contractors work together to procure consolidated IT support services where practical.

    c. [New bullet] Making Departmental organizations aware of enterprise IT support contracts that meet IT service needs.

Reasoning: A coordinated enterprise IT support services purchase process that ensures DOE existing contracts and pricing with vendors should be made available to all field contracting organizations to use as a starting point for an IT support service acquisition. This information should be communicated to all DOE locations.

The Office of the Chief Information Officer and the Office of Science (SC) provided input into these comments and suggested revisions. The Office of Environmental Management and NNSA concurred on the original with no comment. The OCIO and SC appreciate the opportunity to provide comments and suggested revisions to the Office of the Inspector General's draft report.

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2. What additional information related to findings and recommendations could have been included in the report to assist management in implementing corrective actions?

3. What format, stylistic, or organizational changes might have made this report's overall message more clear to the reader?

4. What additional actions could the Office of Inspector General have taken on the issues discussed in this report which would have been helpful?

5. Please include your name and telephone number so that we may contact you should we have any questions about your comments.

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If you wish to discuss this report or your comments with a staff member of the Office of Inspector General, please contact Judy Garland-Smith (202) 586-7828.