



**DEPARTMENT OF THE ARMY  
DEFENSE TELECOMMUNICATIONS SERVICE WASHINGTON  
1700 N MOORE STREET SUITE 1475  
ARLINGTON VIRGINIA 22209-1903**

REPLY TO  
ATTENTION OF DTS-W

30 September 2003

**MEMORANDUM**

**SUBJECT: Quality Management Office Audit**

The Defense Telecommunications Services-Washington (DTS-W), the National Capital Region's local telecommunications provider, is proud to present the attached opinion and report validating the claim to saving the Federal Government over \$40M. This report, prepared by a Certified Public Accountant retained through the OSD Quality Management Office, verifies that for a strategic investment of \$7M the DTS-W leveraged a return of 600%.

DTS-W realized over seven years ago the need to change or face irrelevance and ultimate extinction and subsequently embarked upon a mission of transformation. On the advice of the Office of the Assistant Secretary of Defense for Command, Control, Communications, and Intelligence, DTS-W Leadership immediately took the organization through an intense strategic planning effort. Customer surveys, organizational, and market analysis all contributed to the Strategic Planning endeavor. Just as with private-sector businesses, DTS-W used its Strategic Plan as the basis and driver to align the processes, technology, and human capital elements within the organization. Benchmarking these elements to other public sector and private industry organizations was intended to understand similarities but more importantly to highlight and understand how to bridge the gap between DTS-W and these more advanced organizations.

You are invited to read the Executive Summary (tabbed) for information about this transformation. The detailed report, which follows, provides more in-depth information about the entire effort.

DTS-W recognizes the support of the Office of the Administrative Assistant to the Secretary of the Army and the U. S. Army's Information Technology Agency whose assistance made this possible.

*Larry B Miller*  
Larry B. Miller  
Director

**ANNA D. GOWANS MILLER, CPA**  
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**Independent Public Accountant's Report on Savings Generated by the Transformation of the  
Defense Telecommunications Service-Washington, Information Technology Agency,  
Office of the Administrative Assistant to the Secretary of the Army, Arlington, Virginia  
From October 1997 to August 2003**

To the Office of the Secretary of Defense, Quality Management Office:

I have examined the *Schedule of Reduction in DTS-W Overhead Costs as a Result of DTS-W's Transformation Process Improvements*, and other schedules presenting savings generated by Defense Telecommunications Service-Washington (DTS-W). DTS-W has transformed itself from a struggling organization into a competitive provider of services to the DoD community in the Metropolitan Washington area. DTS-W is a directorate within the Office of the Administrative Assistant to the Secretary of the Army (OAA). The schedules are the responsibility of DTS-W. My responsibility is to express my opinion on the schedules based on my examination.

My examination was conducted in accordance with attestation standards established by the American Institute of Certified Public Accountants (AICPA) and, accordingly, included:

- Examining, on a test basis, evidence supporting the amounts and disclosures in the schedules and the statement of which they are part;
- Assessing the accounting principles used and significant estimates made by management;
- Evaluating the overall schedule presentation; and
- Performing such other procedures as I considered necessary under the circumstances.

I was engaged by the Office of the Secretary of Defense Quality Management Office to examine the process improvement results of Quality Management teams in units of the Department of Defense, specifically the Department of the Army, in order to verify, validate, and ultimately certify the related gains or losses (savings or additional costs) according to accounting principles generally accepted in the United States of America (GAAP). I believe my examination provides a reasonable basis for my opinion. The assertions by DTS-W as to the processes improved, costs, savings, and other benefits generated on an annual basis are presented in the accompanying *Statement of Process Improvements and Related Benefits Generated by the Transformation of Defense Telecommunications Service-Washington (DTS-W), Arlington, Virginia, From October 1997 to August 2003*. The schedules are included in that statement.

Defense Telecommunications Service-Washington (DTS-W) is a DoD administrative service organization that is responsible for meeting the telecommunications requirements of all DoD services and agencies in the Washington DC National Capital Region. DTS-W establishes contracts for telecommunications products and services, manages the ordering process, reviews and reconciles vendor bills, invoices customers, and evaluates and monitors customer funding availability.

DTS-W has recently undergone an organizational transformation. It has redesigned its processes, identified areas for outsourcing, restructured its organization, and developed a new, integrated relational database and a financial and asset management system. DTS-W can now provide reliable, timely information to employees, customers, and vendors.

DTS-W implemented planned staff reductions, outsourced functions to gain cost savings and higher service levels, and transitioned to electronic processes and e-government interfaces with partner agencies. Vendors can now provide direct customer billing. A Customer Care Center was established to improve customer service by creating a single entry point to address all customer needs. DTS-W now provides customers with product information, online order forms, order tracking capabilities, and electronic acceptance of the orders. Customers can now quickly and easily place orders, relieving DTS-W of much manual work. DTS-W staff can ensure that customer needs are being met. Lower line rates are saving customers \$48 million a year and DTS-W has negotiated \$8.7 million to date in refunds for customers. Additionally, DTS-W has negotiated new partnerships and vendor contracts that provide customers with more competitive prices and more choices. Staff now can provide analytical support and expert assistance instead of merely processing data.

Over the last four and a half years, DTS-W has reduced its overhead costs by \$43.7 million on an investment of \$6.9 million. Its return on investment (ROI) is an impressive 633 percent. DTS-W has improved its systems and expanded e-government. Customer satisfaction has increased, and there is vastly better external and internal communication. DTS-W is sharing its knowledge and best practices with other DoD organizations, and is more agile and better positioned to respond to future business challenges. The DTS-W transformation demonstrates how a government organization can change its business model, reengineer processes, and utilize technology to streamline operations, create efficiencies, operate like a business, and provide better service at a lower cost.

In my opinion, the schedules in the accompanying *Statement of Process Improvements and Related Benefits Generated by the Transformation of Defense Telecommunications Service-Washington (DTS-W), Arlington, Virginia, From October 1997 to August 2003* represent fairly, in all material respects, the reductions in overhead costs and other savings generated by the DTS-W Transformation in conformity with accounting principles generally accepted in the United States of America. As a result of my examination, I certify that the amounts listed in the schedules represent a conservative estimate of the savings generated.

Anna D. Gowans Miller, CPA

Date

Anna D. Gowans Miller

August 13, 2003

**The Transformation of Defense Telecommunications Service-Washington (DTS-W)**  
***“An Integral Component of DoD Worldwide Communications”***

**Executive Summary**

[www.dtsw.army.mil](http://www.dtsw.army.mil)

**Summary:** Defense Telecommunications Service-Washington (DTS-W) is a Department of Defense (DoD) administrative service organization that is responsible for meeting the telecommunications requirements of all DoD services and agencies in the Washington, D.C. National Capital Region. DTS-W establishes contracts for telecommunications products and services, manages the ordering process, reviews and reconciles vendor bills, invoices customers, and evaluates and monitors customer funding availability. DTS-W has recently undergone an organizational transformation. It has redesigned its processes, identified areas for outsourcing, restructured its organization, and developed a new, integrated relational database and a financial and asset management system. DTS-W can now provide reliable, timely information to employees, customers, and vendors.

**Old Process:** DTS-W had an inadequate, antiquated funding/billing structure that was failing to meet customers' business needs. The system produced unclear, inaccurate, untimely data and unverifiable costs that were passed on to customers. There was no integrated information system, which made it extremely difficult to resolve customer inquiries. DTS-W staff had to manually perform data entry and calculations; receive, document, and monitor promissory notes of funding available; process vendor invoices in preparation for payment; and produce customer bills and monthly usage reports. There was limited electronic interface between funding and billing. Documents were routinely printed out in hard copy and mailed to customers in a cumbersome, labor-intensive process.

**Incentive to Change:** In the late 1990s, DTS-W was struggling to meet customer requirements. A 1997 customer survey indicated that customers were dissatisfied with the funding/billing process and with the timeliness and accuracy of the information they were getting. Customers also wanted lower prices and enhanced service offerings. DTS-W was hampered by its antiquated and inflexible business processes. Further examination showed that DTS-W needed to become a competitive provider, reduce overhead cost, offer a wider range of products and services by becoming a broker of services and coordinating with vendors/agencies, provide other billing options, and provide more assistance to customers in reconciling telecommunications bills. DTS-W decided to fundamentally transform the organization by focusing on core processes and customer needs.

**New Process:** DTS-W focused on integrating e-government applications and other tools to enable the processes and efficiency of process flow. A new website was developed, and a new financial system was created to provide DTS-W with a more efficient and effective way of doing business; the system also allowed DTS-W to ensure quality service to its customers. DTS-W implemented planned staff reductions, outsourced functions to gain cost savings and higher service levels, and transitioned to electronic processes and e-government interfaces with partner agencies. Vendors can now provide direct customer billing. A Customer Care Center was established to improve customer service by creating a single entry point to address all customer needs. DTS-W now provides customers with product information, online order forms, order tracking capabilities, and electronic acceptance of the orders. Customers can now quickly and easily place orders, relieving DTS-W of much manual work. DTS-W staff can ensure that customer needs are being met. Lower line rates are saving customers \$48 million a year and DTS-W has negotiated \$8.7 million to date in refunds for customers. Additionally, DTS-W has negotiated new partnerships and vendor contracts that provide customers with more competitive prices and more choices. Staff now can provide analytical support and expert assistance instead of merely processing data.

**Results:** Over the last four and a half years, DTS-W has reduced its overhead costs by \$43.7 million on an investment of \$6.9 million. Its return on investment (ROI) is an impressive 633 percent. DTS-W has improved its systems and expanded e-government. Customer satisfaction has increased, and there is vastly better external and internal communication. DTS-W is sharing its knowledge and best practices with other DoD organizations, and is more agile and better positioned to respond to future business challenges. The DTS-W transformation demonstrates how a government organization can change its business model, reengineer processes, and utilize technology to streamline operations, create efficiencies, operate like a business, and provide better service at a lower cost.

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**STATEMENT OF PROCESS IMPROVEMENTS AND RELATED BENEFITS GENERATED  
BY THE TRANSFORMATION OF DEFENSE TELECOMMUNICATIONS SERVICE-  
WASHINGTON (DTS-W), ARLINGTON, VA**  
*—“An Integral Component of DoD Worldwide Communications”*  
**From October 1997 to August 2003**

**A. BACKGROUND**

Defense Telecommunications Service-Washington (DTS-W) is a Department of Defense (DoD) administrative service organization that is responsible for meeting the telecommunications requirements of all DoD services and agencies in the Washington DC National Capital Region (NCR)<sup>1</sup>. DTS-W manages the consolidated DoD telecom network across the NCR, serving approximately 160,000 customers (over 1000 customer accounts), and provisioning approximately 150 million dollars worth of customer goods and services annually. Customers include the Departments of the Army, Navy, Marine Corps, and Air Force, and DoD agencies and field activities in the NCR.

DTS-W establishes contracts for telecommunications products and services, manages the ordering process, reviews and reconciles vendor bills, invoices customers, and evaluates and monitors customer funding availability. It partners with vendors and other agencies, such as the General Services Administration (GSA), Defense Contracting Command – Washington (DCC-W), and Defense Finance and Accounting Service (DFAS), to accomplish these tasks. DTS-W also provides technical consulting, program/project management, and financial analysis, as required. It manages the Pentagon and Fort Belvoir Switches and switch network, provides the DoD Telephone Directory, and operates the DoD Switchboard. It also provides engineering oversight and implementation of outside cable plant, premise distribution systems, Local Area Network/Wide Area Network (LAN/WAN) services, and Private Branch Exchanges.

DTS-W is one of seven directorates in the Information Technology Agency (ITA), a field-operating agency under operational control of the Office of Administrative Assistant to the Secretary of the Army (OAA). DTS-W is organized into two divisions under the Chief Operating Officer. The Customer Support Division has three branches: Marketing, Customer Care Center, and Program Management/Technical Expertise. The Business Operations Division has two branches: Expense Management and Support.

Starting in Fiscal Year (FY) 1998, DTS-W has undergone a transformation involving the redesign of its processes and the positioning of the organization to be more agile and proactive. It was difficult for DTS-W to embark on a multi-year project involving significant funds because it works on a direct fee for service, fully reimbursable basis. DTS-W had to carefully plan each activity to minimize the impact on the customers.

DTS-W has become more customer-focused by improving communication with its customers and providing them with more product and services choices. Customers are reaping the benefits in terms of lower line rates and better access to information and, as a result, customer satisfaction has increased. DTS-W employees can now spend more time analyzing billings, advising customers on product and service options, and helping customers get credits for overbilling, rather than spending

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<sup>1</sup> DoD Directive 4640-7 and DoD Instruction 5335 require the Office of the Secretary of Defense, Military Departments, Joint Chiefs of Staff, Joint Staff, Defense Agencies, and Field Activities in the NCR to procure telecommunications products and services through DTS-W.

time trying to navigate among disparate systems or doing manual processing of records. DTS-W has gone from being viewed as the enforcer of rules (“phone police”) to being an advocate for the customer, an honest broker of services, and an adviser in choosing among technologies. With the development of electronic procurement, the Financials and Asset Management System, a new website, and a better billing/funding system, DTS-W is operating more like a business and has drastically reduced its overhead costs. Its return on investment as a result of the transformation exceeds 600 percent.

## **B. RELATIONSHIP TO MISSION**

DTS-W’s mission is to provide customers with a complete spectrum of value-added, end-to-end communications solutions. DTS-W’s vision is to be the communications solutions provider of choice. The transformation has furthered the mission and vision and provided a framework and system for measuring results. Compliance with requirements of the Government Performance and Results Act of 1993 (GPRA) drove the transformation. The strategic plan, an integral part of the GPRA, served as a road map for DTS-W’s organizational transformation. DTS-W used its Strategic Plan as the basis and driver to analyze and redesign the process, technological, and human capital elements of the entire organization. The transformation also supports the objectives of the President’s Management Agenda, especially in the areas of expanded electronic (e-) government, competitive sourcing, and streamlining of the workforce. One result of the transformation includes the ability for DTS-W to leverage existing government tools and resources to increase efficiencies in-house. DTS-W is now operating similar to a private sector organization, using tools such as a formal budget process integrated with its financial management system.

## **C. INCENTIVE TO CHANGE**

In 1996, DTS-W realized the need for transformation and the necessity of creating, implementing, and managing a budget. One stimulus was passage of the Telecommunications Act of 1996. Customers expected lower prices and enhanced service offerings due to increased competition. DTS-W could not meet these expectations because of its antiquated and inflexible business processes. Without major reform of its internal policies, it was impossible for DTS-W to meet customers needs in the new, competitive environment.

Another stimulus was the continued reduction in DoD budgets in the late 1990s, which caused DTS-W’s customers to press DTS-W to reduce its overhead costs. DTS-W is funded by a direct reimbursable process, “fee for service”, and operates on a system of pass-through billing. Its overhead costs are prorated based on the number of lines served. Customers were demanding lower prices, increased level of service, improved billing, and many indicated that if DTS-W could not provide this, they would look elsewhere to purchase the required products and services.

To address this issue, DTS-W arranged for a customer survey to be done in November 1997, and followed with an organizational and market analysis to assess the current external and internal environments and to plan for DTS-W’s future. Upon completion of the analysis, DTS-W desired to:

- Become a competitive provider and identify ways to improve efficiencies to reduce DTS-W’s overhead cost
- Become a broker of services by coordinating with vendors/agencies to offer uninterrupted access to a range of quality products and services at a competitive price

- Provide other billing options and provide assistance to customers in reconciling telecommunications bills
- Become customer-centric, redefining DTS-W's priorities and operations to act on its customers' behalf as an integral member of their organizations.

#### **D. OLD PROCESS**

Six core functional areas were identified as requiring improvement. These areas were acquisition, provisioning, billing, funding, customer relations, and human resource enrichment. Acquisition processes are those used to identify customer requirements and obtain contracts. The acquisition function was reactionary and focused primarily on solicitation. Provisioning processes place orders and fill customer requests for products and services.

Funding processes are used to provide customers with the information needed to establish and manage their telecommunications budgets. DTS-W received promissory notes of funding available (OSA Form 20, *Reservation of Funds for Telecommunications Services*) from customers, tracked the charges against those notes and, if orders exceeded promised amounts, placed further orders on hold until additional promissory notes were provided. The billing function involved processing vendor invoices in preparation for payment and producing customer bills using DA Form 4445-R (*Voucher for Transfer Between Appropriations and/or Funds*) and monthly usage reports. There was limited electronic interface between funding and billing. Staff had to perform manual data entry and calculations and were merely reactive in processing vendor invoices. Primary documents and memos informing customers of changes and noteworthy events were mailed out monthly to customers. Documents were routinely printed out in hard copy and mailed to customers in a cumbersome, labor-intensive process.

Customer Relations processes are those used to interface with customers and resolve customer inquiries. These were severely handicapped by the lack of an integrated information system, in the absence of which it was extremely difficult to resolve customer inquiries. This functional area had been the leading cause of customer dissatisfaction. The Human Resource Enrichment processes, those used to recruit, select, develop, and assess DTS-W staff, were nonexistent in most cases and the few processes that existed were in need of change.

The organizational and market analysis, strategic planning, and benchmarking all revealed that the funding/billing structure was inadequate in meeting customer needs. The customer survey revealed that DTS-W had an inadequate, antiquated funding/billing structure that was failing to meet customers' business needs. The DTS-W funding structure and billing system resulted in unclear, inaccurate, untimely data, and unverifiable costs that were passed on to customers. DTS-W staff themselves had great difficulty preventing and resolving funding/billing problems that were created by the existing funding/billing system.

Customer analysis showed that customers primarily wanted quality products, responsive service, competitive prices, and knowledgeable technical personnel able to develop solutions specific to their business needs. The customers felt they were not receiving adequate support from DTS-W in many of these areas. In one-on-one interviews and focus groups, customers expressed frustration with the billing and funding processes at DTS-W. Less than half were happy with the accuracy of orders made for service provided, 16 percent were satisfied with the timeliness of billing, 29 percent with the

accuracy of the billing, and two-thirds were not happy with the timeliness and accuracy of funding. The bills sent by DTS-W were not timely, making it difficult to track the accuracy of the calls charged, and exacerbating customer frustration. The bills lacked consistency and details, such as definitions of acronyms used in account codes and reports, were not provided.

#### **E. IMPLEMENTING THE TRANSFORMATION OF DTS-W INTO A COMPETITIVE PROVIDER OF SERVICES**

During 1998 and 1999, DTS-W conducted extensive analysis of its internal operations and the external business environment. Information from previous analyses served as the starting point from which opportunities for improvement and change were identified. New processes were designed that were better aligned with the DTS-W Strategic Plan, addressed customer demands, and positioned DTS-W to be an active, agile organization that was able to respond quickly to changing customer needs. The business process reengineering effort focused on the processes in the six major focus areas previously described. For each of these areas, teams met weekly to document and assess the current processes, gather information from subject matter experts, identify best practices in industry and government, gather customer input through customer meetings, and develop new processes. The reengineering involved “as-is” (current capabilities) mapping, benchmarking, and evaluating best practices, and “to-be” (future state) mapping.

Although organization improvement and strategic planning efforts had been underway since 1998, implementation of the process improvements began in earnest in FY 2001 when DTS-W’s new director took charge.

The team identified opportunities to redefine organizational priorities from being “back-office” focused to becoming more “front-office” customer focused. Desktop support was outsourced to IMCEN, accounting functions to DFAS, and DTS-W funded positions in other agencies in OAA, such as RS-W, DSS-W (now DCC-W), and NISA-P (now ITA) were eliminated<sup>2</sup>. Delivery related costs were transferred to vendors who now provide online ordering and billing. Billing system maintenance costs were reduced, as were service-related “pass-throughs.” The organizational structure was redesigned to support the new processes and strategic focus on the customer. A reduction from three divisions to two enabled the more flexible use of resources. Supervisory responsibilities were redefined to maximize customer contact. The transformation team oriented staff in customer groups to provide focused support and develop high performing teams. A public relations communications function was established to promote communication with customers.

DTS-W focused on integrating e-government applications and other tools to enable the processes and efficiency of process flow. E-government applications and tools included online ordering (links to vendor sites via the redesigned DTS-W web-site) and online billing (after evaluation, DTS-W determined the best approach was to push the cost of this to the vendor). In October 2001, DTS-W deployed a new financial system, the Financials and Asset Management System (FAMS), that enabled a more efficient and effective way of doing business and allowed DTS-W to ensure quality service to its customers. The system was much smaller than originally planned, due to the funding limitations of DTS-W. The FAMS system is a Graphic User Interface (GUI)-based tool for funding, inventory, vouchering, invoicing, billing, and account management. It is the source for all financial-related information available to DTS-W in-house staff and provides much of the data and processes that aid the staff in providing quality telecommunication funding and billing support. DTS-W also

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<sup>2</sup> Information Management Support Center (IMCEN), Resource Services-Washington (RS-W), Defense Supply Service – Washington, now DCC-W, and Network Infrastructure Support Agency-Pentagon (NISA-P).

developed a new corporate brand/image and incorporated it into attractive informational tools (e.g., slick sheets, handbooks) to assist employees and customers in the use of DTS-W products and services.

Employees and managers received team-building training to help them understand the stages of team formation and the related team dynamics. Additionally, they received change management training to help them cope with the changes. Competency-based position descriptions were developed based on the roles identified for the transformed DTS-W; individual development plans were used to chart a road map to ensure employees had the skills necessary to operate in the transformed organization.

## **F. NEW PROCESS**

The Monthly Business Cycle begins with the input of vendor/customer data (e.g., service orders, local phone service, long distance, wireless, and purchase orders, inventory data and daily financial data) from DFAS into the FAMS. It is processed and input into the FAMS relational database. The data is then reconciled, voucher charges are produced, and overhead charges applied. In each step of the process the monthly data is audited and validated. After the monthly closing for accounting and billing, the proration algorithm is run to allocate overhead costs, and Customer Bills (4445-Rs) are produced, reviewed, audited, and validated once again. Once approved, the bills are made available to customers through the secure DTS-W website. Subsequently, the system produces Vouchers, Financial Reports, Consolidated Customer Bills, Customer Usage Reports, and financial data that are sent electronically to DFAS/DNO. When the formal internal budget process was first developed in 1998, it was a manual process; now, it is almost completely integrated with FAMS. When paired with the direct STANFINS<sup>3</sup> link negotiated between DFAS and DTS-W, the system allows for real-time expense management.

The primary points of customer contact for DTS-W in the agencies are Telecommunications Service Control Officers (TSCOs) and Designated Account Executives (DARs). TSCOs and DARs are responsible for ordering and tracking expenses for telecommunications products and services within their agencies. These individuals had experienced the most frustration when trying to get information on funding and billing prior to the transformation. TSCOs and DARs can now go online for automated, read-only access to billing information, information about DTS-W policies, and access to DTS-W materials such as ordering forms and catalogs. Additionally, they can access electronic service orders and usage reports at their convenience.

The DTS-W website was redesigned to be more customer friendly and provide links for customer access, ordering, and funding and billing information. The website, [www.dtsw.army.mil](http://www.dtsw.army.mil), contains information about Products and Services, Working with DTS-W, News and Events, Training, Forms and Regulations, and the DTS-W Online System. The Customer Handbook is also on the website and available for download by customers. There is a comparison chart of Advanced Paging and Messaging Services, detailed descriptions of DTS-W's contracts with five vendors for cellular services, and links to the vendor sites.

DTS-W's online billing system provides access to DA Form 4445-Rs, (customer specific telecommunications services billing), Usage Reports, and OSA Form 20s, (customer specific telecommunications accounts). Data for the usage reports are generated from long-distance and wireless services. TSCOs and DARs are the primary users of this system. TSCOs can access usage

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<sup>3</sup> Standard Finance System (DOA)

reports and the 4445-R bills online; DARs can access usage reports, 4445-R bills, and Form 20s. In addition, DTS-W is continuing to add online telecommunications procurement and data enhancements to better serve its customers.

Changes in the six functional areas have been dramatic, especially in the areas of acquisition, provisioning, funding, and billing. In acquisition, the new process has been integrated into the daily activities at DTS-W. Staff can perform analyses of customer needs, vendor performance, and contract vehicle assessment. DTS-W can foresee customer needs and plan to meet them. A partnership between DTS-W and DCC-W ensures that rework during development of an RFP is eliminated. The provisioning processes were reengineered by integrating web tools and were based on improvements that had been first instituted for the pager contract by the integration of web tools. DTS-W provides customers with product information, online order forms, order tracking capabilities, and electronic acceptance of the orders. Customers can now quickly and easily place orders, relieving DTS-W of much manual work. The leveraging of technology enables staff to communicate with customers, provide analytical support they could not do previously, and ensure that customer needs are being met. Processes have been streamlined to be process-specific rather than product-specific. DTS-W now uses Expense Management, focusing on analyzing and forecasting information rather than merely reporting it. Customers are provided with information regarding their charges made to date and the impact that orders will have on their projected total annual expenses. The new Expense Management process allows customers to approve the use of funds on an ongoing basis and assess the impact of various product options. Orders are no longer placed on hold due to funding issues. Likewise, billing has been automated, freeing staff from manual data entry and calculations, and allowing DTS-W to initiate the process rather than react to vendor invoices.

Another major change can be seen in the management of contracts for local dial tone service. Instead of competing with GSA, DTS-W now partners with the agency. Through GSA's Washington Interagency Telecommunications System 2001 (WITS2001) contract, DTS-W provides local telecommunications services that can be customized for each customer. Long-distance calling, toll-free 800 services, customer service, calling cards, and audio conferencing are part of the comprehensive digital and integrated network telecommunications services offered by DTS-W under Federal Telecommunications Systems (FTS) 2001. For cellular service, DTS-W has a multi-award contract with five vendors so that customers can purchase the airtime and billing package that best fits their needs. These five vendors are AT&T Wireless, Cingular, Nextel, Sprint, and Verizon. For paging services, DTS-W has comprehensive paging services contracted through Skytel and Metrocall that offer a variety of equipment options and quality service plans.

DTS-W now offers customers centralized bills through its partnership with GSA and the use of the TOPS billing system. It is currently working to give customers direct vendor billing on the WITS contract. The multi-award wireless contract gives customers the choice of direct or consolidated billing. DTS-W has set up a WITS billing liaison team to assist customers in reconciling TOPS and other vendor bills and has provided online web-based billing.

DTS-W has implemented multi-award contract vehicles with technology refreshment clauses (wireless and paging). This saves additional contract administration time and allows customers to get regular technology updates at no increased cost. DTS-W has diversified its revenue stream by increasing the contribution from alternative sources. Revenues in local dial tone products were declining so DTS-W replaced them with wireless products. Roughly 50 percent of DTS-W's revenue came from wireless products in 2002, whereas in 1998, 75 percent came from local dial tone.

DTS-W has also developed and implemented an integrated call center, the Customer Care Center, with advanced call tracking and distribution features to track customer inquiries and ensure timely and accurate resolution. Information repositories were developed and implemented to utilize customer data for better servicing, as well as assisting in the proactive identification of future customer needs. Business and system requirements were developed to guide the selection and implementation of future technologies, as well as to provide the groundwork for the evaluation of COTS products and development of DTS-W's high-level architecture. Slick sheets, one-page descriptions of different services and other background information, provide succinct information on the service, what is included, and how to contact DTS-W to procure the service.

In May 2003, DTS-W conducted a subsequent customer survey with customers from the Army, Navy, Defense Agencies, OSD/Joint Staffs, Air Force, Other Agencies, and the Marine Corps. The responses highlighted improved customer satisfaction and loyalty. Some of the results of the survey were: 79 percent of respondents think that the DTS-W staff who provide expense management advice for the Form 20 are knowledgeable; 78 percent think that their agency's wireless bills (for cell phone and pagers) are accurate; and 78 percent think it is valuable for DTS-W to assist in billing dispute resolution with vendors.

DTS-W has eliminated the erosion of its customer base and has created substantial savings for its customers. It is operating more like a business, has streamlined its processes, and made full use of internet technology to create time savings and increase the accuracy of the information available to customers.

## **G. ACHIEVED RESULTS – COSTS AND SAVINGS**

The most spectacular result has been the return on investment, as measured by the cumulative reduction in overhead costs of \$43.7 million from FY 1998 to FY 2002. This has been achieved by:

- Reduction in staff levels, spans of control, and a shift of resources from "back office" operations to "front office" customer interfacing roles.
- Planned reduction in staff from 156 to 66, realized through attrition and outplacement within other government agencies.
- Outsourcing functions to gain cost savings and increased service levels.
- Transition to electronic processes and e-government interfaces with partner agencies.
- Reduction in billing system maintenance costs by requiring vendors to provide direct customer billing.
- Establishment of a customer care center, creating a single entry point to address all customer needs.

The schedules of savings on pages eleven and twelve show details of the transformation outcomes. There were both immediate and long-term returns on investment. The investment was the cost of developing, implementing, and managing the continuation of the process improvement, and is calculated as the contract cost for the two companies providing strategic management expertise and systems development, Booz Allen Hamilton and TeleCommunication Systems, Inc., respectively. The total contract costs were \$6.9 million over a four and a half year period. Returns are measured as the reduction in DTS-W's corporate overhead of \$43.7 million over the same period. The efforts of the regular DTS-W staff in effecting the changes is considered to be part of their normal workload so is not included in the investment cost.

Schedule I shows revenues and expenses from FY 98 through FY 04. Using FY 98 as the base year, cumulative overhead savings were \$43.7 million in FY 02 and are anticipated to exceed \$15.5 million of additional savings by the end of FY 03. Schedule II shows contractor costs, and Schedule III calculates the return on investment for DTS-W in the transformation process – an impressive 633 percent.

Schedule IV shows savings for customers. DTS-W used its partnership with GSA for WITS and successfully negotiated with vendors for reductions in line rates. Rates declined from approximately \$34 a line to \$9 a line, creating ongoing savings totaling \$101 million based on 160,000 lines. DTS-W has also been able to act as a customers' advocate and has generated \$8.7 million in vendor credits from analysis of billing statements and identifying where vendors have been overcharging DTS-W customers. Customers, approximately 800 TSCOs and DARs, also save time previously spent getting the information and dealing with the paper flow. They are now able to access the information anytime at their convenience from their own computer. The value of time customers save can be estimated at their hourly rate (GS-7/-9) times half an hour a month, or \$135,504 a year. This estimate of time savings does not include time customers spent trying to have errors, overbillings, or other problems arising from the antiquated funding and billing structure corrected.

Schedules V and VI address time and material savings from IT improvements. Expanding e-government replaces labor-intensive manual procedures with on-line processing, eliminating paper and paperwork, reproduction and mailing, and creating significant time savings for DTS-W staff. TSCOs and DARs used to get Form 20s, Telecommunications Billings (Form 4445-Rs), Usage Reports (for local and long distance) and TSCO memos mailed to them. Four DTS-W employees spent four days each month doing this. Form 20s had two pages, 4445-Rs three pages, memos typically one page, and usage reports, typically ten pages. Given 800 customers, this represents postage and printing/reproduction costs of \$24,906 a year that are no longer incurred. The value of the time that DTS-W employees save as a result of expanding e-government is 80 percent of one FTE at a GS-6 level. It is calculated as the hourly rate of a GS-6, with salary and benefits, for four people for four days a month, for a total of \$35,220 a year. This figure does not include the cost of the time it took to respond to customers' queries or complaints or to correct errors. By the year 2000, all of these documents were made available to customers electronically via the DTS-W secure website or e-mail, eliminating the need to mail them out and so creating cost avoidance of \$23,104 a year.

Twenty of the 90 positions eliminated from DTS-W were placed in other positions within OAA, precluding the need for recruitment costs. Recruitment costs for the OAA can be considerable. For employees at the GS levels who were transferred to other OAA units, private sector estimates of recruitment costs range from about \$14,000 to \$66,000; recruitment costs for the Federal Government are comparable, if not higher, than the private sector. For OAA, this means cost avoidance savings between \$280,000 to \$1.3 million over the time period in which the downsizing took place.

## **H. ACHIEVED RESULTS – OTHER BENEFITS**

**Improved Customer Satisfaction** – Customers can take advantage of multi-award contracts with technology refreshment clauses. No modifications to the current contracts are needed in order to get technology upgrades a benefit to DTS-W through less contract administration time and a benefit to the customer through the acquisition of up-to-date technology at a competitive price. Line rates are lower because of contract negotiations and a partnership with GSA on the WITS contract vehicle. Nearly \$9 million in vendor credits has been generated by DTS-W from analysis of billing statements and identification of instances where vendors have been overcharging customers. DTS-W could not perform this service in the past, as staff did not have time and the system could not provide timely

information. Customers can get centralized bills and DTS-W provides web-based billing. The redesigned website allows customers to have easy access to their information. Customer satisfaction has increased. Comparisons between the survey done prior to the transformation and the survey done in 2003 show that satisfaction has increased in most functional areas, especially in accuracy of wireless (cell phone and pager) bills and advice on expense management advice for the Form 20.

**Improved Market Positioning** – DTS-W has diversified its revenue stream. In 1998, 75 percent of DTS-W's revenue came from local dial tone products; on 2002, wireless products generated the majority of revenue, representing approximately 50 percent of revenue.

**Sharing of Knowledge and Best Practices Across DoD** – DTS-W provided and funded two facilitators for the two OAA strategic planning offsites and an additional facilitator to assist with the ITA strategic planning offsites. DTS-W provided ITA with a copy of its competency-based positions descriptions to use as a guide in its planned improvement efforts.

**Better Internal and External Communications** – The website provides information about forms, rules, price changes and other noteworthy events and enables both customers and vendors to be knowledgeable. FAMS provides monthly budget and actual financial and other management information which allows DTS-W staff to easily track actual expenditures against targets. Internally, the communications plan developed by DTS-W as a Change Management tool is being offered as a resource elsewhere in OAA. The template/shell from the Communications Plan is available for use, as required, across the entire OAA. DTS-W is also currently developing specific communication plans for OAA and ITA.

**Achieving the Goals of the President's Management Agenda** – DTS-W is committed to the goals of the President's Management Agenda. DTS-W has utilized competitive sourcing to provide better service at a reduced cost. It has developed paperless systems, and has leveraged existing technology to improve its systems and expand e-government. The integrated financial management and budgeting system it developed has increased transparency and accountability. DTS-W is striving to operate like a business, using market-based approaches and embracing the concept of competition as a stimulus to innovation. It has made huge strides in developing e-government solutions and improving the strategic management of human capital. DTS-W represents 3 percent of total OAA staff; DTS-W staff cuts have been 12 percent of total staff. Its use of intelligent, planned downsizing, using realignment of the task force rather than reductions in force, has allowed DTS-W to improve its services even as it has experienced this significant staff cut.

**Improves Partnership with Other Government Organizations and Vendors** – Instead of competing against GSA, DTS-W is working with the agency in offering the WITS2001 contract, which benefits customers in terms of price and breadth of choice. Other partnerships with the following organizations/agencies have also been improved:

- DISA
- Defense Information Technology Contracting Office (DITCO)
- GSA
- RS-W
- Booz Allen Hamilton
- MITRE
- DCC-W
- WHS
- DFAS
- IM&T
- TeleCommunications System, Inc.
- ASDC<sup>3</sup>I
- AT&T
- ITA
- MCI
- Verizon
- Wireless Vendors

**Providing Better Technical Consulting Help** – DTS-W staff are now able to provide better quality technical consulting help to customers. This is illustrated by the current feasibility study that is being developed for the Army Research Labs (ARL). ARL is considering Voice-Over IP and Disaster Recovery Planning and looked to DTS-W for guidance. DTS-W is working with ARL to ensure that Voice-Over IP is applicable to the latter's current situation.

## **I. LESSONS LEARNED**

The process of organizational transformation takes time, even when an organization is fully committed and actively working towards transformational goals, and is a continuous process. The external business environment is constantly changing, and the organization must be prepared to adapt to the current situation. DTS-W is now positioned to be able to change quickly and be proactive rather than reactive.

Enlisting the support of experienced technical professionals is the most effective and efficient means of garnering the subject matter expertise required to undertake a large-scale transformation effort. To date, over 50 different Subject Matter Experts (SMEs) from Booz Allen Hamilton and TeleCommunication Systems, have contributed to the DTS-W transformation effort. These SMEs were utilized for specific tasks because of their deep knowledge of the subject matter, then transitioned off the project.

The reengineering process has to be thoroughly researched, and any downsizing has to be carefully thought out and planned to avoid losing skills that later must be replaced at a greater cost. Top leadership support is critical to the success of any transformation effort. Finally, it is extremely difficult to do this type of transformation while employees have to meet their daily obligations. It is important to remember that organizational transformation is an investment in the future performance of the organization. When evaluating the prospects of undergoing transformation, the most compelling consideration is the expected Return on Investment (ROI) of the effort. A focus on the big picture of how the future will be must be steadily maintained, because results are not always quickly realized.

## **J. CONCLUSION**

DTS-W has recently updated its strategic plan to position itself to be competitive for the next five years. It is considering further streamlining of the organization, including additional outsourcing of functions, and is developing new contract and product options for customers. DTS-W has listened to its customers and addressed their needs. In the 1997 Customer Survey, the information management services that customers said they would most like to have were automated, read-only access to DTS-W billing information, information about DTS-W policies, and access to DTS-W materials such as ordering forms and catalogs. DTS has given them that ability plus a wider variety of choices for products and services and enhanced management support.

DTS-W is a leader in the DoD community in the way it has accomplished a transformation from an agency having severe problems in even addressing its customer needs to an agency that is in a position to anticipate them. Its budget process enables it to manage its operations effectively and efficiently and is a model for other agencies, as well as reflecting the Administration's vision of business transformation. The DTS-W transformation demonstrates how a government organization can change its business model, reengineer processes, and utilize technology to streamline operations, create efficiencies, operate like a business, and provide better service at a lower cost.

## SCHEDULE I

### SCHEDULE OF REDUCTION IN DTS-W OVERHEAD COSTS AS A RESULT OF DTS-W'S TRANSFORMATION PROCESS IMPROVEMENTS

	FY 98	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04
<b>DTS-W Prorated Charges (Budget)</b>	<b>Actual</b>	<b>Actual</b>	<b>Actual</b>	<b>Actual</b>	<b>Actual</b>	<b>Proj</b>	<b>Proj</b>
<b>in millions (000,000s)</b>							
Revenue (rounded to nearest million)	\$168	\$146	\$132	\$140	\$147	\$142	\$145
<b>Expenses</b>							
Labor Costs (DTS-W, including benefits)	\$11.61	\$10.54	\$8.76	\$6.48	\$5.71	\$4.74	\$3.75
Overtime	\$0.21	\$0.20	\$0.15	\$0.10	\$0.12	\$0.05	\$0.03
Reimb Labor (RSW, DCCW, NISA-P)	\$1.40	\$1.03	\$1.05	\$1.00	\$0.04		
Admin Support, Materials, and Supplies	\$1.25	\$0.23	\$0.12	\$0.05	\$0.03	\$0.10	\$0.10
Network Costs and Operators	\$4.42	\$2.20	\$1.17	\$1.21	\$2.00	\$2.39	\$1.50
Pub Relations, Comm., & Customer Trng	\$0.19	\$0.49	\$0.05	\$0.26		\$0.20	\$0.15
Contractors	\$1.85	\$1.94	\$3.24	\$3.27	\$2.03	\$1.70	\$2.85
Agency Training	\$0.48	\$0.26	\$0.10	\$0.17	\$0.05	\$0.10	\$0.08
Internal Telecomm	\$3.84	\$2.91	\$0.09	\$0.17	\$0.62	\$0.20	\$0.12
Travel	\$0.01	\$0.01	\$0.05	\$0.05	\$0.08	\$0.05	\$0.05
Consulting	\$1.10	\$1.10	\$1.10	\$1.15	\$1.30	\$1.30	\$1.30
Other Charges	\$0.53	\$0.97	\$0.09	\$0.03	\$0.03	\$0.30	\$0.20
Care Center						\$0.07	\$0.07
IMCEN					\$0.06	\$0.44	\$0.40
<b>Total</b>	<b>\$26.88</b>	<b>\$21.87</b>	<b>\$15.95</b>	<b>\$13.93</b>	<b>\$12.06</b>	<b>\$11.63</b>	<b>\$10.59</b>
Reduction From FY 98 Base Amount		\$5.01	\$10.93	\$12.95	\$14.83	\$15.25	\$16.30
<b>Cumulative Reduction in Overhead Costs</b>			<b>\$15.94</b>	<b>\$28.89</b>	<b>\$43.72</b>	<b>\$58.97</b>	<b>\$75.26</b>
Overhead as a Percentage of Revenue	16.00%	14.97%	12.09%	9.95%	8.20%	8.19%	7.30%

## SCHEDULE II

### DTS-W TRANSFORMATION DEVELOPMENT COSTS

	FY 98	FY 99	FY 00	FY 01	FY 02	Total
Contractor costs	\$1.1	\$1.25	\$1.8	\$1.45	\$1.3	\$6.9

## SCHEDULE III

### DTS-W's RETURN ON INVESTMENT

Cumulative Reduction in Overhead Costs From FY 98 to FY 02	\$43.7
Transformation Development Costs	\$6.9
<b>Return on Investment</b>	<b>\$43.72/\$6.9 = 633%</b>

## SCHEDULE IV

### SAVINGS TO CUSTOMERS AS A RESULT OF DTS-W'S TRANSFORMATION

Credits from contract overbillings (FTS2001) from FY 00 to FY 03	\$8,693,243
Line Rate Reductions from \$35 to \$9 on 160,000 lines (\$101 for 25 mths from FY 00 to FY 02 plus \$48 expected in FY 03)	\$149,000,000
Manpower Savings As A Result of Online Access (see below)	<u>\$135,504</u>
Total	<u>\$157,828,747</u>

## SCHEDULE V

### ANNUAL COST AVOIDANCE SAVINGS TO DTS-W CUSTOMERS AND STAFF AS A RESULT OF ON-LINE ACCESS TO INFORMATION

Org/Dept	# Staff	Redn in Hrs	Grade	Salary (Hrly Rate)	Sal w/Ben @ 25%	Annual Cost Avoidance
TSCOs/DARs	800	6 (0.5 X 12)	GS-7/-9	\$22.58	\$28.23	\$135,504
DTS-W Staff	4	384 (32 X 12)	GS-6	\$18.35	\$22.93	\$35,220

## SCHEDULE VI

### DTS-W ANNUAL SAVINGS IN COST AVOIDANCE FROM ELIMINATING PAPER FORMS

Documents	# Pgs/ Form	# Cust	# Pgs / Period	# Pgs / Year	Prntg Cost/ Page	Prtg costs	# Mailed/ Year	Mail'g Cost/ Packet	Mailing Costs	Total Cost Avoidance
Form 20 (Qtrly)	2	800	1,600	6,400	0.05	\$320	3,200	0.37	\$1,184	\$1,504
4445-R (Mthly)	3	800	2,400	28,800	0.05	\$1,440	9,600	0.37	\$3,552	\$4,992
Memo (1.5/Mth)	1	800	1,200	14,400	0.05	\$720	14,400	0.37	\$5,328	\$6,048
Usage Rpt (Mthly)	<u>10</u>	<u>800</u>	8,000	<u>96,000</u>	0.05	<u>\$4,800</u>	<u>9,600</u>	0.60	<u>\$5,760</u>	<u>\$10,560</u>
<b>Total</b>	<u>16</u>	<u>800</u>		<u>145,600</u>		<u>\$7,280</u>	<u>36,800</u>		<u>\$15,824</u>	<u>\$23,104</u>

**Notes:** (1) Salary and benefits are calculated using the FY 2003 General Schedule (GS) Tables and the Schedule of DoD Civilian Fringe Benefits, Dept. of the Army.

(2) The \$35,220 (Schedule V) and \$23,104<sup>4</sup> (Schedule VI) are included in the results shown in Schedule I on the previous page. They are shown in detail here as examples of the kind of e-government and paperless workplace savings that IT process improvements can generate.

<sup>4</sup> This does not include savings from eliminating bulk mailings to DoD agencies that used to receive financial reports.  
 Anna D. Gowans Miller Page 12 08/13/03