

**TASC FY 2000
INFORMATION TECHNOLOGY
FY-2001 FIVE-YEAR PLAN**

I OVERVIEW

The TASC Information Technology Operations (ITO) organization is one of the TASC ten business practices. ITO is composed of three primary operational entities, the TASC Computer Center (TCC), Office Automation Systems Integrated Services (OASIS), and Telecommunication Operations (TOPS). In addition, three service bureaus provide more solution-based services to customers - the TASC Year 2000 Service Bureau, the FTS 2001 Service Bureau, and the Information Technology Security Service Bureau (ITSSB). ITO provides a comprehensive array of services to include full data center services, office automation and network management, and information security to name a few. ITO supports the OS390 Enterprise Server, SL 100 Telephone Switch, Intermodal Data Network, and the Control Data Corporation Electronic mail Hub. These four systems have been designated as TASC Year 2000 mission-critical systems.

During fiscal year 1999, ITO took the necessary action to assure that these mission critical systems would meet the challenge presented by Year 2000, and was success in this endeavor. The TASC ITO mission critical systems were certified compliant ahead of the Office of Management and Budget (ONIB) deadline of March 31, 1999. In addition to certifying these systems, and although not mandated by ON4B or the department, ITO selected to conduct an Independent Verification and Validation (IV&V) of each of the mission-critical system's., The Year 2000 IV&V is a systems engineering process that employs methodologies to evaluate systems correctness and quality in performing systems operations under the new millennium. The process determines whether or not the system(s) Uftlis requirements established during Y2K renovation (the verification phase), and evaluates the system(s) renovation through testing to ensure compliance with functional and technical Y2K requirements (the validation phase). The process is conducted by an outside source independent of influence of the system owners. The independent review process assured "due diligence" on the part of the system's owners in readiness for Y2K.

ITO is experiencing extended growth as it has embarked upon a road to success with a renewed vision under new leadership. The new ITO management has instituted a philosophy that emphasizes cutting edge technological modernization coupled with implementation of best business practices. Enormous progress was made in achieving the overall goals and objectives in 1999. Management's new direction, vision, and foresight came to fruition with the many accomplishments this year and expanded goals and objectives for FY 2000, This direction has resulted in the establishment of a smoothly functioning infrastructure, which integrates all ITO program elements into a unified management structure that provides its customers with one-stop-shopping for information technology and infrastructure support. ITO expects to see further expansion in its technology investments and in service to customer in FY 2000. ITO has already solved many Year 2000 problems for DOT and other Federal agency customers, and is eagerly looking forward to meeting the additional IT management and technical challenges and opportunities presented in the new millennium and after.

ITO has experienced many successes this year, both internally and in supporting its government customers. Of significant importance has been the support for the Year 2000 provided by ITO for DOT and other government agencies. Although ITO only provides the processing vehicles for legacy systems and does not have ownership of such systems, we did recognize the problems incurred by -our DOT and external customers. We established a Year 2000 Service Bureau with systems integrators who brought the "best-of-breed" tools and personnel expertise to each phase of the Year 2000-resolution process. In addition, services

were provided to conduct Business Continuity and Contingency Plans and subsequent testing of these plans. The services were made available to any federal, state, or local government entity.

Acquisition of these services could be expedited through the DOT Information Technology Omnibus Procurement (ITOP) procurement vehicle. Prolonged procurement procedures were eliminated through the use of an already competed contract. Any potential customer had only to define their requirements and

sign an interagency agreement to use our facility. Among our customers to take advantage of the easy use method and our services were the Federal Aviation Administration, United States Coast Guard, and National Highway Traffic Safety Administration. External federal customers consisted of the Environmental Protection Agency, Securities and Exchange Commission, National Archives and Records Administration, and the Executive Office of the President.

To support large mainframe customers, ITO offered services on the TASC Computer Center (TCC) mainframe enterprise server. The TCC provided a fully Y2K compliant, IBM OS/390 based, isolated testing environment, capable of supporting customer code remediation, and unit, integration, system, and acceptance testing. TCC made hardware and software resources available to host a mirror image of any customer's production environment. This mirror image was used to test Y2K transition dates and date manipulation without the possibility of contaminating the original data. The customer was able to have an environment that was built to their specific user specifications. TCC incorporated customer specific program products as the customer required. This mirror image, established in a separate Logical Partition (LPAR) on the OS/390 was made available to internal DOT customers for testing of their legacy applications. During this testing period, TCC and their customers were able to detect applications deficiencies due to bad code and systems resource allocations that were promptly corrected within the new environment. It is likely that these inefficiencies could have persisted for a longer period had it not been for Y2K testing. ITO feels that the overall Y2K effort resulted in establishing a more precise systems inventory, better allocation of systems resources, and improved processing for customers. All this was accomplished while normal business and customer services were being performed. External agencies, the Securities and Exchange Commission in particular, were able to take advantage of these service offerings as well to complete Y2K readiness of their legacy applications.

II TASC Computer Center (TCC)

TCC is responsible for providing System/390 information processing services to the Department of Transportation and serves as the "corporate" computing facility for the agency. TCC is a nonprofit service provider and receives no direct appropriations. Over the past 3-1/2 years of operation, TCC has provided its customers with almost 100% availability. While maintaining this unparalleled level of system availability and reliability, TCC has experienced a growth in usage of approximately 30% per year. The continuous improvements, added efficiencies, and upgrades to the operational environment have, at the same time, allowed TCC to make significant rate reductions each year.

Fiscal Year 1999 Accomplishments

- Operated the Operating system from MVS/FSA, 5.2.2 to the year 2000 compliant OS/390, 2.4 Operating System. Operating system change also required upgrade of over 187 software support products as well.
- Provided year 2000 compliant platform for ITO customers to conduct application testing in readiness for the year 2000. Mirrored image of each customer's environment was developed to allow migration from the non-compliant environment to the compliant environment.

- Installed EBM Program Product ADSTAR Distributed Storage Manager (ADSM) which enabled backup of network server and workstations to disk storage devices on the OS/390 mainframe.
- Constructed a new command center which houses the Enterprise Network Operations Center (ENOC) which allows the computer operations staff to electronically monitor the network, telephone and OS/390 infrastructure as well as future monitoring of environmental systems.
- Designed and developed a Data Warehousing application for the bureau of Transportation Statistics which will enable BTS to perform detail analysis and "what if" scenarios against various elements of transportation data. The analysis will be conducted on desktops from large volumes of data housed on the OS/390 Enterprise Server.
- Consolidated ITO supported hardware, primarily network servers and communications equipment into one central location. Reduced operator consoles from 18 to 5 with the construction of the ENCO center.
- Relinquished office space previously occupied in room 7200 by using space in the computer room which was made available through equipment consolidation. The new space was used to centralize, and make systems furniture offices for 18 ITO personnel.

FY 2000 Goals and Objectives

- Increase computer center resources sold.
- Market new service offerings such as remote backup and restore and disaster recovery for client server platforms.
- Improve workload mix with emphasis on increased use of non-prime time shifts and weekend time. • Insure successful completion of Year 2000 rollover processing.
- Continue the development of the BTS Data Warehouse application.
- Increase DOT use of E-Commerce applications and web-enabling legacy applications.
- Continue to consolidate mid-tier servers through the use of OS/390 Enterprise Server resources. • Continue the development of the Enterprise Network Operating Center (FNOC) process to fully monitor all ITO assets and environmental conditions.
- Install and configure OS/390 release 2.6 and release 2.8 on the Enterprise Server.

III Telecommunications Operations (TOPS)

TOPS is a "full" service provider and support organization that provides telephone services and equipment for over 18,000 customers in the Washington Metropolitan Area. Services include telephone services and equipment, operator and locator services, wireless and fax services as well as procurement & billing customized for each customer's individual needs. Additionally TOPS provides local, metropolitan and nationwide data communications services and support for all of DOT via the Department of Transportation Intermodel Data Network (IDN). The Intermodel Data Network (EDN) is the Department of Transportation's data backbone. The IDN provides access to many of the Telecommunication resources offered by TASC such as access to the Internet. Management of the IDN is a collaborative effort between Government staff and contractor personnel.

TOPS is prepared to provide its customers access to its telecommunications infrastructure, employing state-of-the-art technologies, experienced government and contractor staffs, and a strong commitment to customer satisfaction.

Many customers transitioned from other service providers simply because of the customer-oriented Environment, and quality of services and support TOPS offers.

Fiscal Year 1999 Accomplishments

- Conducted Independent Validation and Verification (IV&V) of Y2K compliant mission critical systems - Hardware and Software for the 2 SL-100 Central Office PBXs to include Nassif, FAA and the remote RSC at USCG.

- Installed additional Teleconferencing capability, system was upgraded from 186 to 486 ports. This upgrade helped increase business in this area by over 100%. 260 teleconferences per month average in FY-98, 645 teleconferences per month average in FY-99.

- Transitioned the USCG National Response Center from a Y2K non-compliant NUTEL PBX to the USCG Remote Switching Center.

Installed telephone services including follow-on operation and maintenance for 3 DOT remote locations: FAA-ANI A Rosslyn, Va. 152 ports, FHWA @ McLean, Va. 504 ports and USCG @ Ballston, Va. 504 ports.

Upgraded the Octel VMX Voice Mail Systems to full Y2K compliance.

- Provide continuous support for the Y2K Crisis Management Teams and exercises.

- Completed 90% of an in-building infrastructure upgrade for the Nassif building from Cat 3 to Cat 5 cable.

- Upgraded Coast Guard Headquarters Command Center telecommunications equipment and included unique new conferencing capability, Automatic Call Distribution (ACD), and Call Center Management Information System with graphic display wall board. Provide 24 hour, seven day per week, 2-hour emergency response and other life-cycle services.

- Installed T- I links to connect NOAA Networks to DOT headquarters.

- Supported OST, (Office of Policy, Budget) OIG, RSPA, and MARAD, in upgrading their network infrastructure.

- Deployed the IDN Centralized and Distributed DMZ;

- Completed the deployment of the IDN IP and EPX Routed Network,

- Deployed the CISCO 5500 switch in a VLAN configuration for the IDN Office, OIG, Budget, and P&X Networks;

FY 2000 GOALS and Objectives:

- Develop a nationwide network that all DOT organizations could take advantage of to provide high bandwidth, cost effective solutions to their networking requirements. A Virtual Private Network (VPN) would allow all the existing networks to be consolidated into one large cost-efficient network with increased

performances at lower a cost. This would also allow telecommuters and traveling employees greater access through INTERNET and INTRANF-T gateway points.

- Identify and establish a Disaster Recovery Site or backup site to serve as an alternative for IDN users in case of a catastrophe at the Nassif building, DOT headquarters site.
- Upgrade current MSL-100 telephone operating system software.

IV Office Automation & Services Integrated Systems (OASIS)

OASIS is an information technology support organization that is focused on providing quality desktop computing services. Services encompass a wide range of technologies including Local Area Network management; Novell and Microsoft NT Server OASIS is dedicated to providing consultation, management, and technical support services for our clients in a cost-effective manner. OASIS operates as a fee-for-service organization available on a reimbursable basis to federal, state, and local government organizations. A full spectrum of services can be quickly delivered when and where our customers need them through our many existing contracts. Some of the ways we help our customers include:

- Help determine options to satisfy special needs
- Help identify the best option to deploy
- Procure the entire system Implement systems
- Develop applications
- Deliver training, documentation, and procedures Provide technical staffs

Complete customer satisfaction is the single goal of OASIS approach to service.

FY 1999 ACCONIPISHMENTS:

- Redesigned the DOT Web-page, receiving a GovSpot award.
- Redesigned the DOT Intranet web site.
- Developed several web-sites for DOT customers including OST, OIG, and Amtrak Reform Council.
- Consolidated office automation servers from 32 platforms to 17

platforms, thereby reducing support and Y2K renovation costs.

- Implemented standardized PC configurations, thereby reducing support and Y2K renovation costs.
- Implemented a new seat management program for 500 customers. • Completed Y2K remediation on all systems. • Prepared BCCP plans.

FY 2000 CTOALS and Objectives:

- Maintain Y2K compliance.
- Develop Web portal and E-Commerce technology into a viable fee-for-service business.
- Respond to the One DOT Communications Strategy with web-based information clearing house solution.

- Put the billing information contained in the TCC White Book, telephone call records and Service Level Agreements on a web site for customer convenience and reduced printing cost.
- Upgrade office automation servers to Netware version 5 (after 1 January 2000).
- Replace electronic mail and calendar/scheduling systems.
- Implement Public Key Infrastructure into the enterprise directory system.
- Integrate telephone, personnel and e:mail directories.
- Implement expanded web-based electronic forms for TASC.
- Evaluate, test and implement enhancements to the standard desktop (PC) operating environment.

V Year 2000 Service Bureau

ITO is deeply involved with, and advocates intergovernmental cooperation and the ultimate realization of benefits from sharing experience and expertise. To that end, ITO established a Year 2000 Service Bureau, with services available to all Federal, State, and Local governments. Its goal is to help our clients attain Year 2000 solutions that are right for them, using proven technologies, tools, and methodologies while keeping costs to a minimum through economies of scale.

TASC/ITO provides a Year 2000 compliant computing platform and an isolated test environment focused on legacy and large enterprise-wide application systems. This computing facility provides our customers with a secure environment to perform analysis, remediation, and testing. Additionally, we can work with any organization to plan for and set up remediation and test suites for mid-range, small system, and networks configurations and applications. In addition to the assessment and re-engineering of legacy systems and infrastructure, the Service Bureau also offers full system life cycle services, including but not limited to: web enabling of legacy applications, full program management support, Independent Verification and Validation (IV&V), configuration management planning and implementation, Business Continuity and Contingency Planning (BCCP), and Continuity of Operations Planning (COOP) for its customers.

The Year 2000 Service Bureau has partnered with its commercial system integrator, Science Applications International Corporation (SAIC), to bring best-of-breed tools and personnel expertise to each phase of the Year 2000 program.

FY 1999 Accomplishments

- Completed Year 2000 nationwide infrastructure assessments and inventory tracking database for the Environmental Protection Agency (EPA), National Archives (NARA), and FAA's Air Traffic Services,
- Completed the of Securities and Exchange Commission's (SEC) system upgrade and Y2K renovation activities for 4 large mission critical systems. Additionally, performed the full redesign, redevelopment, and implementation of three mission critical web-enabled legacy applications.
- Performed Independent Validation and Verification activities for the SEC, EPA, FAA, NARA, and DOT's; pay and personnel system, Bureau of Export Administration's infrastructure.

- Completed Contingency Plans for the TASC CPNUS, IPPS and CUPS systems, USCG, EPA, NARA, and Executive Office of the President's Business Continuity and Contingency Plans, as well as individual system Contingency Plans.
- Supported the USCG with the satellite rollover of tests of the Global Positioning system (GPS), as well as the planning, implementing and publication of their International Maritime Y2K Conference held in London in March, 1999.
- More than tripled the size of the staff and the revenue, between FY '98 and FY' 99, growing to upwards of 180 personnel (including 10 subcontractors), and revenue in excess of \$22 million.

FY 2000 Goals and Objectives for the Service Bureau

- Award new support contract under the new name of the "Millennium Solutions Center, to accommodate continuing Y2K support activities (e.g., transition support and trouble-shooting, configuration management, non-mission critical renovations, re-platforming and redesign of applications to take advantage of new web technologies, contingency and continuity of operations support).
- Provide new service offerings emanating from gains of prior Year 2000 activities and current Federal mandates, to include:
 - Electronic Data and Records Management E.-Gov.
 - Configuration Management
 - Critical Infrastructure Protection
- Consolidate space to accommodate support staff for new functionality under the new support requirements.