# **Information Technology**

### Computing and Information Services - Organization

Prior to July, 2003, Computing and Information Services was organized into the groups, 1) Academic Support and Training, 2) Customer Services and Special Projects, 3) Data Management Services, 4) Information and Technology Services, 5) Security Office, and 6) Resource Management Services.

Academic Support and Training was responsible for Lotus Notes development, email user support, training, and IT managed student computer labs. This department consisted of

- Training and Office Systems,
- Faculty Support and Statistics, and
- Labs and Facilities.

The Customer Services and Special Projects group was responsible for projects, voice customer services, IT public information, and service level agreements. This department consisted of

- Project Management,
- Customer Services,
  - Help Desk,
  - Telecommunication Services,
  - Communications, and
  - Computer Support Services.

Data Management Services managed mainframe and server data center as well as server applications interfacing with mainframe applications. This department consisted of

- Data Administration,
- Production Services,
  - Data Control,
  - Operations, and
- Enterprise Systems.

Information and Technology Services were responsible for the design, implementation and maintenance of the data and voice networks, business applications development and support, and web services supporting IT web design and applications. This department consisted of

- Network Operations,
- Enterprise Administration Services,
- Web Services, and
- LAN Systems.

Approximately 145 full-time employees worked in the Computing and Information Services Department at this time. This number does not include the 17 individuals hired by CIS and placed in various colleges across campus for technical support.

During this time the technology departments on the four branch campuses, OSU Oklahoma City, OSU Okmulgee, OSU Tulsa, and OSU Center for Health Sciences and College of Osteopathic Medicine were managed independently of the Stillwater campus.

# Computing and Information Services - Supported Environments

The OSU Information Technology Data Center operates the following mainframe hardware environment:

- IBM 7060-H70 CPU
- StorageTek SVA9500 disk array
- IBM 3494-B18 virtual tape system
- StorageTek 3490 tape drives (two)
- Xerox 4135 laser printer
- PowerWare Plus 225 UPS with battery and generator backup

The principal software used is Z/OS 1.4, CICS TS V220, DB2 V710 and IBM COBOL V320. The CICS regions have a Web interface for faculty, staff and students and are available from 7:00 AM to Midnight. The Data Center is staffed and operational 24x7. This mainframe environment is utilized by the five campus of OSU and four A & M institutions.

Software that supports data query, statistical analysis, and remote viewing and printing of output is available to the end users.

The Enterprise Administrative Systems group addresses inter-institutional concerns for the OSU/A&M core administrative systems. They are responsible for the planning, design, implementation, enhancement, maintenance, and production support. The enterprise applications consist of 1) general ledger accounting, 2) human resources, 3) budgeting, 4) loan management, 5) student records management and enrollment, and 6) recruitment. The data primarily resides in DB2 tables on an IBM host. The data and systems are secured by IBM's RACF security. The systems are transaction based and accessible via web interfaces or other TCP/IP applications.

### Information Technology – Organization

In April, 2003, a Vice President for Information Technology and Distance Learning and Chief Information Officer was hired for the OSU System. Computing and Information Services was renamed Information Technology.

In June, 2003, the Director of Computing Services for the two Tulsa branch campuses was given a system responsibility, Director of Technology Operations. This assignment included IT Security and Data Management Services in addition to the responsibilities for the OSU Tulsa and OSU Center for Health Science and College of Osteopathic Medicine. In July, 2003, two additional directors were hired, Director of Technology Support and Director of Software Services. Several organizational changes occurred shortly afterwards.

The initial responsibility of IT Security was policy administration. This responsibility quickly grew to forensics, federal and state regulation compliance, patch management, copyright violations, and business continuity/disaster recovery. A report, "The Office of IT Systems Security Staffing Assessment July, 2003," was submitted by the Security group to the CIO and Director of Technology Support. The report speaks of growing the security department in multiple phases to meet the growing security demands of the OSU network. Management supported the initiative to a degree and added three additional full-time employees to IT Security.

An additional server support group was formed to give server administration services to areas external to IT. This group was formed with one employee in the LAN Systems area. Two more LAN Systems employees were assigned to be database administrators over the Oracle cluster.

Institutional Research and Information Management was formed with Student Information System support employees from the Office of the Registrar and research employees from the Budget and Accounting Office.

Hours of Help Desk operation were extended into the weekend and more student employees were hired to cover the additional hours. A second-level support group was formed and assigned to the Help Desk. Employees were reassigned from Training and Office Systems to form this group. An existing employee was reassigned to manage the Help Desk student group.

IT computer lab and audio visual employees were combined under the same management umbrella. Executive Support was formed to give quick service to the offices of the President and Vice Presidents. Customer support for telecommunications was moved to network operations. No changes were made to the faculty support group.

The Coordinator for Web Services was moved into Technology Support as Webmaster and the remaining employees stayed with Enterprise Administrative Services as analysts and developers.

Three individuals were assigned to Executive Support. Administrative Services including human resources, payroll, travel, inventory, and budget reconciliation were disbursed into the four areas of IT.

# Current Information Technology - Organization

Additional changes were made to the organizational structure in July 2004. The Vice President for Administration and Finance was given administrative control and the Director of Technology Operations was named Chief Information Officer.

The Budget and Accounting Office was given the responsibility of the Institutional Research and Information Management group.

Faculty support for distance education and audio visual employees were moved to Educational Television Services to form the Center for Excellence in Teaching and Learning. The mission of Educational Television Services (ETA) was redefined to provide management and support of technologically facilitated instruction.

#### Information Technology – Supported Environment

The mainframe environment remains the same except for essential upgrades. Significant changes made since April, 2003 are:

- Upgrading from OS/390 V2.10 to Z/OS 1.4
- Upgrading from DB2 V610 to DB2 V710
- Expanding the capacity of the IBM 3494-B18 virtual tape system
- Increasing the amount and types of data available to end users

Information Management and Institutional Research is working to make data available to end users is a data warehouse format.

The Systems Group manages the operational status for the core server infrastructure. These services are:

- Email excluding gateway servers
- File/print and directory services Novell and Active Directory
- Storage area network services
- Course management systems BlackBoard, WebCT, and Real Audio
- Web Services four-node Linux web cluster and Lotus Notes
- Database services MS SQL and mySQL database servers
- Enterprise backup services for core and external servers

This group has done much to improve the quality and delivery of network services that includes a mixed environment of Novell and Active Directory and Lotus Notes and Exchange/Outlook email services.

OSU was one of twelve organizations to accept the early adopter program to implement Oracle's new grid database architecture. IT employees worked directly with Oracle engineers to test, document, and streamline the deployment of this new technology.

IT manages five computer labs with approximately 330 desktops. This environment is composed mainly of Dell technology with MACs in each lab. Two of the labs are open to the student body and can be reserved for classroom use. The other three labs are open solely for student use.

IT Security continues to work with Networking to develop an open, secure environment for the academic community. In 2004, the OSU system drew together and composed the IT System Security Report. This report recommends seventeen proposed actions in the areas of physical network security, server and desktop security, network security, and contingency planning. A copy of this report can be made available for review.

The completion of an Information Technology Needs Assessment is drawing near. The purpose is to evaluate the current IT environment, identify and document performance gaps and opportunities, and develop a report with recommended improvements. The assessment began with a customer satisfaction survey. The results of this survey were examined by employees from the Bureau for Social Research. IT submitted 125 invitations and received 45 responses. The survey results and needs assessment report can be found at IT Survey and Needs Assessment.