PERFORMANCE REVIEW FY: 2000-2001

OFFICE OF INFORMATION TECHNOLOGIES

Fedro S. Zazueta

INTRODUCTION

The UF/IFAS-IT Office was created in October, 1997 as a result of recommendations from the Infostructure Task Force. At the time several units were merged in order to make IT effective in supporting the institutional mission and increase efficiency of resources. The units merged included Business Systems, District Support staff, FAIRS, ICON, Research Dean Support Staff, and the Software Support Office.

ROLE OF UF/IFAS IT

The mission of the UF/IFAS IT office is to provide support systems and services that are based on modern information technologies in order to facilitate and further the UF/IFAS mission.   The role of the UF/IFAS IT-Director's Office is to: 1) Provide a unified IT vision for the institute, 2) develop comprehensive strategic planning, 3) assist the VP's Office in centralized coordination of efforts and funding, 4) establish an effective dialog between IT implementers and UF/IFAS policy makers, 5) establish integrated, cooperative IT efforts on a sustained basis, and 6) leverage extramural funding for IT.

Performance evaluation of UF/IFAS IT needs to be gauged by the following:

Short Term: The ability of UF/IFAS IT to resolve the issues of connectivity, training and support.

Medium Term: The ability of UF/IFAS IT to integrate the diverse corporate-level information systems currently being used by the institution.

Long Term: The ability of UF/IFAS IT to exploit the power of new and developing technologies that leverage the ability of faculty and staff to carry out their role in fulfilling the UF/IFAS mission. Also, the ability of IT to design information systems that survive technology changes.

SHORT-TERM GOALS AND ACHIEVEMENTS:

CONNECTIVITY:

On 4/6/98 a plan for connectivity was presented to the IFAS Administrative Council. In this plan it was stated that connecting County extension offices and Research Centers to the IFAS WAN would be a process that would involve from 3 to 5 years depending on the resources allocated to it. During this fiscal year, using resources generated from savings as a result of internal reorganization and additional resources provided by the UF/IFAS-VP's Office all unites within UF/IFAS are now connected to the IFAS WAN. This represents a change from 9 county extension offices initially on the WAN to ALL County Extension Offices on the WAN. Likewise, Connectivity for the Research Centers increased from a total of 14 units to ALL units connected during this year. Figure 1 summarizes the current status of connectivity for UF/IFAS External units. Note that units on campus have been connected for some time.

Figure 1: Curent Statues of Connectivity for Off Camps UF/IFAS Units

County Extension Offices: In cooperation with the county governments, ALL counties are connected with a dedicated line. This includes a variety of connectivity solutions: T1 lines, Frame Relay, Web Ramps and dedicated analog lines. A next stage for CEO connectivity is to convert units on NAT32 to higher speed connections as broadband technologies become available. (e.g. DSL, cable modem, satellite)

Research Centers: Research Centers are connected to the WAN through FIRN using variety of speeds for the local loop. A next stage for the connectivity is to increase the level of connectivity of the REC to at least a full T1 line at each site.

Department and support units. On campus units have been connected for some time. Improvements conducted were mainly related to changing infrastructure from outdated thin wire (coaxial) wiring to Category 5 cabling. Conversion of remaining units continues.

NETWORKING

Using the systems installed (Windows/Intel) last year, the transition from current systems to the new platform has been initiated. Progress is adequate to meet the deadline of the end of FY00-01 to divest from the old VAX/VMS systems for most applications. This includes the conversion of web pages from the old web server to the new as well as personal information management systems such as email. However, its unlikely that some systems outside the control of IT will be ready, making it necessary to maintain the VAS/VMS system in place until these are resolved (e.g. soils lab. management software).

Problems have been encountered in the transition from the old system to the new one due to a combination of factors, including poorly organized transition, user resistance to change, and lack of capacity in IT for support. This situation has been resolved by setting a formal procedure in place to conduct the transition.

Virus infection incidence increased substantially during this year, forcing IT to invest substantial resources and time into virus protection. A system was put in place that attempts to prevent infection at the server and client levels. This is done by eliminating virus that are routed through our mail server. Also, software was deployed that automatically updates the DAT files in cline machines. Signature files are updates daily for server and client machines.

TRAINING

A training program has been well established. During this fiscal year 88 courses were taught throughout the state (See attachment 1.) In addition a procedure for training "on demand" has been established in which IT provides training classes on any related topic for groups of 10 people or more. A total of 28 "on-demand " courses were taught.

SUPPORT

Help Desk: The help desk has continued to improve. Tracking procedures are fully in place. The number of staff has

been increased to 5 (OPS). However it continues to suffer from excessive turnaround, which severely impacts quality of service. Services provided by the help desk include phone support and on site support for hardware and software, wiring and punch-down, diskette and CD-ROM duplication. The type of call and number of call is shown in Figure 2. A total of 2290 help desk calls were resolved with an average duration each of 3:20 hrs.
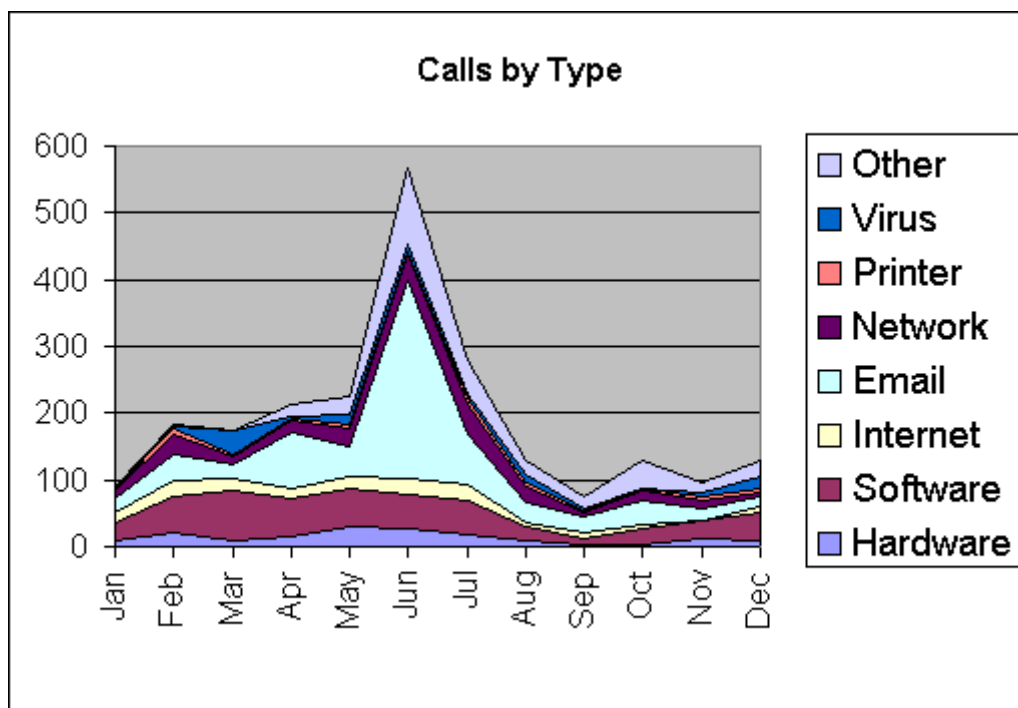

Figure 2: Distribution and number of calls handled by the Help Desk.

Note that Fig. 2 does not include calls addressed by Email, these are shown in Table 1.

Table 1	
Email Support instances	
Month	Total
Dec-99	65
Jan-00	126
Feb-00	102
Mar-00	56
Apr-00	91
May-00	73
Jun-00	43
Jul-00	56
Aug-00	30
Sep-00	98
Oct-00	33
Nov-00	49
Totals	822
Monthly Average	68.5

County Extension Office: All District Support positions are filled. This has greatly improved the use of computers in the counties, especially in Districts 1 and 2 where no support was available for over a year. After numerous hiring attempts, the entry level salary was changed from $26,500 to $35,000 and a conversion fo the positions from USPS to A&P. This resulted in hiring a Computer scientist in District 1 and an MSCE with a MS degree in agriculture in District 2. This has contributed to both these districts leapfrogging over others in adopting technology. (e.g. all of District 2 in on Outlook).

APPLICATIONS DEVELOPMENT

In the third quarter of 2000, three programmers left the unit. Primarily for positions offering substantive salary increases. This had a serious effect on the ability of IT to deliver critical systems on schedule. This resulted in deep dissatisfaction from several client groups. Projects, problems and corrective measures are outlined in Table 2 below.

<table>
<tr><th colspan="3">Table 2
Current Problems Status and Remedy for Software Projects</th></tr>
<tr><th>Project</th><th>Current Problems</th><th>Solution</th></tr>
<tr><td>EDIS</td><td>Version 2 review recommendations have not been implemented. Problems with pdf generator for certain documents.</td><td>Fill vacant EDIS programmer position. Outsource debugging of pdf generator system.</td></tr>
<tr><td>CRIS Linkages</td><td>Project stalled with loss of SQL programmer.</td><td>Fill SQL vacant programmer position.</td></tr>
<tr><td>Personnel DB</td><td>Project stalled with loss of SQL programmer. User level of competence not at expected level to manage database. Need to develop simple user interface.</td><td>Developed single Access table view of database as temporary solution. Fill SQL vacant programmer position.</td></tr>
<tr><td>Personnel DB Bridge</td><td>Establish connection between Personnel DB and other DBs such as Directory.</td><td>This is a temporary solution to the Personnel DB problem.</td></tr>
<tr><td>FAS</td><td>Reports for Chairs and Tenure and Promotion</td><td>FSZ to get involved in programming. Install Active Toolkit to develop interface to Crystal Reports.</td></tr>
<tr><td>IST</td><td>Has many design flaws. Requires redesign and rebuilding the interface.</td><td>Outsource.</td></tr>
<tr><td>SAN</td><td>None</td><td>Continue to run on OPS.</td></tr>
<tr><td>IMM</td><td>New Project under consideration for managing delivery of Internal Management Memoranda.</td><td>Simple project that can be done in-house.</td></tr>
<tr><td>Sponsored Progs. DB</td><td>Project has not been initiated due to lack of personnel</td><td>Consider outsourcing.</td></tr>
<tr><td>Directory</td><td>System has been deployed with no problems. Requires standard maintenance.</td><td>Continue on current track. Some enhancements needed for listserv component</td></tr>
<tr><td>DDIS</td><td>System will soon require major upgrade due to change in platform version.</td><td>Continue on current track. Delay conversion until staffing levels are adequate.</td></tr>
<tr><td>iPac Applications</td><td>New platform. Need to organize specifications group for applications development.</td><td>FSZ to get involved in organizing group and programming.</td></tr>
<tr><td>DISC</td><td>Progress on system has been slow.</td><td>Hire vacant programmer positions to free faculty time for HWB.</td></tr>
<tr><td>Multimedia DB</td><td>Progress on system has been slow due to externalities. The project has become connected to PLG providing new opportunities but requiring constant reassessment and reevaluation of goals and objectives.</td><td>Hire vacant programmer positions to free faculty time for HWB.</td></tr>
<tr><td>FAWN</td><td>Project is progressing well.</td><td>Need to find alternative funding sources.</td></tr>
<tr><td>Journal Series DB</td><td>Project is static. Needs are being met but major improvements could be made by connecting to FAS.</td><td>Need to fill vacant programmer positions in order to implement improvements.</td></tr>
<tr><td>Wildlife MMDB</td><td>Project is progressing well.</td><td></td></tr>
<tr><td>Tropical Fruits DB</td><td>Project is progressing well.</td><td></td></tr>
<tr><td>DISC Irrigation Module</td><td>Project is static.</td><td>Neet to fill vacant programmer positions in order to implement improvements.</td></tr>
</table>

Web Pages	Currently operated using OPS funded from grants.	Need reoccurring funding for maintenance.

Note: This is not a complete list of current IT software projects. Other projects and project components not needing attention are not mentioned here.

MEDIUM AND LONG TERM ISSUES:

To successfully address short, medium and long term issues, it is necessary to create a working environment that achieves better integration of IT areas, increases the effectiveness of services delivered, and increases the efficiency of resource utilization. This requires that UF/IFAS IT leadership and staff: 1) maintains at least current levels of productivity, 2) remain current and technically competent in a rapid change environment 3) remain in tune with internal and external constituents and, 4) are clearly aware of budgetary limitations.

A set of goals having strategic implications towards the medium and long term were identified for IT in early 98 by area. These are outlined in Table 3 with a comment on the progress towards success achieved.

TABLE 3		
GOALS/STRATEGIES FOR UF/IFAS-IT		
AREA		
	Goals	**Level of Success**
Business Systems:		
	Initiate shift to Web-based application development.	Stalled due to loss of SQL programmer.
	Reduce NERDC-related expenditures from $300K to $150K by June 2000.	Successful.
Customer Support:		
	Develop a strategy and implementation plan based on funding available by the end of the first quarter of FY98-99.	Successful: A plan was put in place and executed. However, requires better needs assessment and higher level of funding.
	Develop feedback mechanisms to insure that training program design and delivery is relevant to UF/IFAS needs.	Successful: Evaluations and user input is being sought to improve direction of services, including help desk assessment and visits to external units. Developed tracking mechanism. Implemented software tolls to assist in management. Need improvement in insuring that every support call is evaluated.
	Integrate computer support across different areas.	Limited success: Different areas continue to work mostly independent from each other. This is a result of IT being located at 4 different buildings.
Network Systems:		
	Establish Windows NT as the primary network platform by June 2001.	Very Successful: All hardware required (central computing facility) is now in place. Substantial progress is being made in divesting from VAX/VMS.
	Establish platforms needed to integrate with university-wide systems, such as GatorLink.	Limited Success: Attention has not been focused on this goal due to other higher priorities (connectivity, unit relocation, and conversion of legacy systems to NT). Only area addressed is that of Dist. Ed. UF has not been receptive to suggestions made by IFAS-IT.
Research and Development:		
	Decrease participation in production systems.	Successful: All production systems (EDIS, CDROM, software) are now managed and operated by staff and not research faculty.
	Initiate a mentoring program on Web-based approaches for design, development and maintenance of software systems, for all programming staff.	Successful: Software projects involve programming staff from different areas. The accountability system, Y2K, and conversion from legacy systems to NT are driving this. Some staff still needs to be trained.
	Increase resources used in R&D.	Successful: The combination of grant and state funds has been adequate for some major systems (EDIS, publication tools, and digital diagnostics). In need of funds to support some major systems (FAWN).
	Explore creative arrangements with the private sector for application development.	Not addressed: No action has been taken. Responsibility was transferred to CS.

	Identify development tools and IDE's for IT areas to standardize on.	Very Successful: The development platform has been standardized, it is based on NT, SQL, Objectstore, RMI, CORBA and Java. This is the single most important step towards corporate system integration and unit level skill resource allowing cross-training and group collaboration. IT has now initiated to deploy UML (Rational Rose). Most recent standardization is on PocketPC for PIM devices.
Software Systems:		
	Explore new markets and delivery channels for software products.	Not addressed: No action has been taken. Responsibility taken over by CS.
	Establish advisory mechanisms for www-based systems.	Limited success. Currently seeking input from off campus units
	Establish a GroupWare platform for electronic collaboration.	Limited success: Efforts have been initiated but have not yielded any results. The technology platform is not yet in place. Some success has been achieved with distance education.

Unit Goals for upcoming year:

Continue to implement Infostructure Task Force recommendations and successfully complete the list of goals in the table above with an emphasis to:

- · Improve communications amongst IT and other UF/IFAS units
- · Improve connectivity for all UF/IFAS units.
- · Improve quality of training and support.
- · Complete transition of services from VAX/VMS to Windows/Intel (especially email and www.)
- · Enable customer support to supply services for Windows 2000
- · Resolve personnel stability problem in the Help Desk
- · Review unit goals with staff and advisory committee to assess current direction

Key trends that will affect the unit over the next five years.

Factors that will affect the ability of this unit to perform in the near future continue to be:

- · Rapid evolution of computer and communication technologies with a trend towards increasing levels of complexity. Although tools for development of IT applications will become more powerful, they will also require a substantial investment in human resource development in order for them to be effectively deployed.
- · Shrinkage of traditional funding source. As resources continue to shrink, IT will have to compete with other UF/IFAS mission critical components for the necessary resources to provide the services and products demanded by constituents.
- · No appropriate budgetary alternatives. Yearly cycle budgets for software and hardware systems is difficult to implement and manage, other more appropriate alternatives, such as life cycle budgeting need to be explored.
- · Increasing stakeholder expectations. Users are becoming more sophisticated, they demand more complex and user-friendlier applications, reliable network systems and the associated training and support. This further increases the need for better human resources and tools.
- · Inertia of legacy systems, methodologies and applications. Many of the current mission critical systems are running on outdated platforms that need to be ported to new technologies in order to meet stakeholder expectations.
- · High industry demand for IT professionals that will drain human resources due to the inability of the State system to compete salary wise.