

Annual Report

Part 1

Section A

Unit Information

Unit: Computing Services

Mission Statement:

To provide centralized computing and network support for members of the university community, maintain administrative servers, university network, and information stored on its resources by members of the university community. To provide adequate access to information located on and off campus.

Section B

Unit goals set within last year's (2003-2004) Annual Report

Strategic Plan Goal

Unit Goal

With which 1 or 2 goals from the 8 current strategic plan goals does your 2004-2005 goal best align?

What were your unit level goals for 2004-2005 as contained in your [2003-2004 annual report?](#)

STATE OF THE ART
INFRASTRUCTURE (5)
High Quality Education (1)

Goal - High Speed Internet (1)

Computing Services will maintain high speed Internet access

What action did you undertake to achieve this goal?

Computing Services uses a software tool called Multi Router Traffic Grabber (MRTG) to monitor the bandwidth used by University. The assessment tool, MRTG is a real time network monitoring tool. We are basing our goal on a weekly average because of the variances in the University's bandwidth usage. The weekly average helps us take into account fluctuations that occur daily, monthly, and yearly. For example; we have daily low periods around 6:00 AM and heavy usage periods that occur mid-day. A similar pattern can be seen in the monthly and yearly data with low periods through the summer and peak periods mid semester. For these reasons the weekly average is used.

By what means did you assess goal achievement?

The assessment criteria are to insure that the thirty minute average of traffic in bits per second will not exceed 80% of FGCU's total bandwidth. Computing Services monitored the usage of bandwidth

on a weekly basis.

Describe the assessment results and the conclusions about goal attainment you inferred from them.

Once we noticed that we were exceeding our maximum usage goal we created a proposal to increase the University's bandwidth. The proposal included quotes from four suppliers and was approved by the Administrative VP. We are now working with Purchasing to procure this service.

What continuous improvement resulted from the use of the assessment data?

We now have a process in place to monitor FGCU's Internet connection and ensure faculty, staff and students have the capability to access the tools that are necessary to help student learning.

Strategic Plan Goal

Unit Goal

With which 1 or 2 goals from the 8 current strategic plan goals does your 2004-2005 goal best align?

What were your unit level goals for 2004-2005 as contained in your 2003-2004 annual report?

Goal - Quality Service (2)

ONGOING QUALITY IMPROVEMENT (8)

STATE OF THE ART INFRASTRUCTURE (5)

Provide quality service in a timely manner for all helpdesk requests and network problems.

What action did you undertake to achieve this goal?

Now that the University has grown the helpdesk is supporting roughly 1200 desktop and laptop PC's and 1700 students living in resident housing. The current helpdesk software package is limited in its ability to provide reporting, ticket monitoring and customer satisfaction surveys. We need these features to improve and measure customer service.

Due to the growth of the University and the amount of desktop work orders received by the helpdesk we established the need for a PC inventory management system. After evaluating top systems we procured System Management Server (SMS) to track software and hardware loaded on all desktop systems. We are now using the information gathered in this system to assist users having PC problems.

By what means did you assess goal achievement?

Computing Services is working with other technology departments to evaluate new Helpdesk software package. A technology evaluation group developed a list of criteria which included compulsory features and less critical but distinctive features that the ideal software could have. First, the group evaluated over thirty packages against the criteria. Four of the top helpdesk systems were chosen for demonstrations of the software. Next, the finalist was chosen by the group and

currently we are creating a recommendation for the Admin VP's office.

Describe the assessment results and the conclusions about goal attainment you inferred from them.

Computing Services goal was to evaluate and pick a new Helpdesk system by April 2005. The actual date was March 2005. Computing Services plans on implementing this system by August 2005. It will allow for tracking of work requests and improved customer service. Administrative VP office to proceed with procuring the system. We are in the process of getting a formal quote from the vendor. The costs for this system include roughly \$60,000 initial purchase costs and \$5,000 yearly service agreement fees.

SMS is a Microsoft tool that collects software and hardware information about PC's logged on to the University's network. Computing Services goal was to implement SMS by the February 1, 2005. The actual implementation date was January 2005. We will now use SMS to monitor windows updates and virus updates on all PC's.

What continuous improvement resulted from the use of the assessment data?

Procuring a new help desk system and implementing an inventory system were both part of Computing Services 2004-2005 assessment plan. The growth in the staff and faculty desktop PC's indicated that we need a helpdesk system that provided advanced features such as customer feedback surveys, software hardware tracking, priority service level agreements. Also, the number of complaints Computer Services received about faculty and staff Spam indicated that we need to provide a solution. The assessment data enabled us to plan to meet this need in the best way possible.

Although we don't have specific numbers on how many complaints we received, the new helpdesk system will allow us to track this in the future. Once we have a system in place we will have a tool that reports on the amount of Spam email blocked.

The purchase and implementation of a desktop inventory systems cost \$50 a year. The implementation of a Spam firewall included an initial price of \$8,000. In addition there is a \$2000 yearly service agreement.

Strategic Plan Goal

With which 1 or 2 goals from the 8 current strategic plan goals does your 2004-2005 goal best align?

Unit Goal

What were your unit level goals for 2004-2005 as contained in your 2003-2004 annual report?

High Quality Education (1)

Goal - Eradicate viruses (3)

STATE OF THE ART
INFRASTRUCTURE (5)

Develop and carry out plans to eradicate viruses on faculty, staff, and Student Housing residents' PC's

What action did you undertake to achieve this goal?

At the beginning for Fall 2003 semester FGCU experienced a virus attack that overwhelmed the University's network resources. As a result, one of Computing Services assessment goals for 2004-2005 was to reduce the amount of virus related activity on the network. To solve this problem we evaluated an intrusion prevention system.

Based on the types of work orders Computing Services receives on items such as managing email inboxes and complaints about the amount of Spam users were receiving we were able to determine that a SPAM firewall would be helpful. Next, a team of diverse email users representing all functional areas of the university was formed to evaluate, test and recommend a spam solution. The solution was then made available to all email users in October 2004.

By what means did you assess goal achievement?

Computer Services accomplished three major indicators associated with this goal. We evaluated, tested, and implemented an intrusion prevention system, and implemented a Spam Firewall.

Describe the assessment results and the conclusions about goal attainment you inferred from them.

A tool that monitors the amount of virus related traffic on the network was evaluated. Through this free evaluation we were able to determine that over 10% of the traffic on the network was virus related. We used this information to justify the \$76,000 purchase of an Intrusion prevention system. This enabled us to achieve the goal of reducing the amount of Spam and virus email delivered to FGCU employees.

What continuous improvement resulted from the use of the assessment data?

The intrusion prevention system monitors and blocks inappropriate network traffic including illegal activity such as file sharing and malicious virus activity. Computing Services uses this system to monitor and report on activity that is suspect of causing major network problems. The intrusion prevention system monitors four major traffic areas for the network. In the future FGCU will want to add to this system to monitor additional segments of the network.

The Spam firewall reports daily on the amount of email that is blocked and quarantined. Due to the change methods used by the developers of Spam and virus related email it is impossible to eradicate all malicious email. However, FGCU maintains a service contract through the Spam firewall vendor that includes hourly updates on the latest known viruses and spam email. The result of these actions is better access to, and more secure, network services for students, faculty, and staff.

Strategic Plan Goal

Unit Goal

With which 1 or 2 goals from the 8 current strategic plan goals does your 2004-2005 goal best align?

What were your unit level goals for 2004-2005 as contained in your [2003-2004 annual report?](#)

STATE OF THE ART
INFRASTRUCTURE (5)
ONGOING QUALITY IMPROVEMENT (8)

Goal - Enhance services (4)

Continually enhance services to support university business processes.

What action did you undertake to achieve this goal?

The Technology Advisory Committee (TAC) created a cyclical plan to upgrade technology on campus on a 5 year basis. This plan was presented to the Executive Staff and was approved in March 2004. The 2004-2005 commitment to the replacement plan was \$832,000.

In Fall 2004 the Administrative VP approved a \$68,000 request to update the power infrastructure in the Network Operation Center. Computing Services worked with Physical plant to rewire the current power structure to accommodate the new larger system. In addition, Computing Services, Facilities Planning and Physical Plant started plans to add a generator to the NOC for long periods of power failure.

By what means did you assess goal achievement?

Computing Services and Instructional Technology conducted an inventory of all classroom and desktop systems. After analyzing the data we determined that many systems were incapable of running the latest operating system.

During the 2004 hurricane season FGCU experienced several power outages that hindered the services need for student learning. The two hour battery power supply was no longer sufficient to support University needs. The upgrades made to the Network Operation Center are tied to the Presidents Performance Measure #23, Identify and evaluate technology aimed at increasing productivity at the end-user level that integrates with standard business and operating systems..

Describe the assessment results and the conclusions about goal attainment you inferred from them.

Completing the first phase of the Technology Replacement plan was part of Computing Services goals for 2004-2005. Over 300 PCs were replaced. The Replacement plan is a five year plan that must be reviewed yearly to ensure that we are up to date with the latest technology. The first year of the replacement plan only replaced equipment procured from general revenue.

Computing Services achieved the goal of adding a UPS to the network operation center. As a result of the University's growth and the 2004 active hurricane season Computing Services along with Facilities Planning and Physical Plant enhanced the Network Operations Center (NOC) to provide uninterrupted power to the University's network. By providing uninterrupted power to the NOC end users will be more productive during power outages common to southwest Florida and protect the network resources from damage to data and equipment brought on by power surges and interruptions. The second phase is to add a generator which will allow for long term uninterrupted power. FGCU has worked with an engineering company to design this and expects to install the generator this summer.

What continuous improvement resulted from the use of the assessment data?

The Replacement Plan keeps the latest software and hardware on desktop computers allowing for the best services and protection against malicious attacks. To make sure that all systems can run the latest operating system the plan must add desktop PC's that are funded from Contract and Grants and Auxiliary Services.

The first phase of this plan is complete. The uninterrupted power infrastructure has been added to the Network Operation Center. This system allows for protection against short term power interruption.

Section C

Program or Service Specific Assessments

What program or service specific assessment occurred in the current academic year?

The ongoing assessment of bandwidth resulted in the decision to contract for 20 megabits of increased bandwidth. Also, the ongoing assessment of the systems performance and user interaction resulted in the purchase and implementation of a Spam Firewall.

How were the results of the assessment used to improve programs or services?

Constant assessment of performance is utilized to maintain standard level of performance.

Section D

Unit Contribution to President's Performance Measures

Please review the President's Performance Measures for 2004-2005. Did your unit contribute to any specific performance goals for the President? (If so, please indicate whether the measure set was attained and to what degree.)

As a result of the University's growth and the 2004 active hurricane season Computing Services along with Facilities Planning and Physical Plant enhanced the Network Operations Center (NOC) to provide uninterrupted power to the University's network. The 2004-2005 power structure addition costs approximately \$70,000 and provides continual power to the NOC for up to 20 minutes.

After assessing helpdesk requests and user interaction Computing Services implemented a Spam Firewall in October of 2004. The firewall costs about \$6,000. It has reduced the amount of email coming into the University by roughly 50%. This reduces the amount of time faculty and staff spend reviewing unwanted email and allows them to use this time more efficiently thus enhancing student learning.

After assessing university network resources it was determined that an Intrusion Detection and Prevention (IPS) system would improve network services. The IPS was purchased and implemented in August 2004. The IPS blocks about 50,000 attempted intrusions each week allowing Computing Services to decrease the level of threats to our network.

The upgrades made to the Network Operation Center, the Spam Firewall and the Intrusion Prevention System are tied to the Presidents Performance Measure #23, Identify and evaluate technology aimed at increasing productivity at the end-user level that integrates with standard business and operating systems.

Completing the first phase of the Technology Replacement plan which was part of the Presidents Performance Measure, Implement first phase of Information Technology cyclical upgrade plan to ensure students and faculty have access to the latest information technology. The Replacement Plan keeps the latest software and hardware on desktop computers and network infrastructure allowing for the best services and protection against malicious attacks. The total commitment for the replacement plan in 2004-2005 was \$955,000 which included replacing over approximately 300 PC's.

Part 2

Section A

Unit Goals for Coming Year (2005-2006)

Strategic Plan Goal
With which 1 or 2 goals from the 8 current strategic plan goals does your 2005-2006 goal best align?

Unit Goal

Goal for 2005-2006

STATE OF THE ART INFRASTRUCTURE (5)
ONGOING QUALITY IMPROVEMENT (8)

Goal - Quality Help Desk Service (1)

Computing Services will provide quality help desk and desktop support to faculty, staff, and students.

What action(s) will you undertake to achieve the goal?

Computing Services will complete the following initiatives in 2005-2006

Hire a help desk manager.

Complete the purchase and installation of a help desk management system.

Split the functions of the helpdesk between a call center and desktop support.

Develop documentation library for helpdesk

Use PC inventory system implemented in 2004-2005 to proactively support the desktop PC's

By what means will you assess goal achievement?

Computing service will have a help desk manager hired by Fall 2005. The new help desk system has been selected and a verbal monetary commitment of approximately \$60,000 has been approved. The goal is to have the new system in place by Fall 2005. Computer Services has received verbal commitment to fund call center staff whose responsibility will be to field work request calls and enter work orders. A major responsibility of the help desk manager will be to begin implementing a documentation library by summer 2006 and use the PC inventory system and OPS help to proactively update desktop PC's.

How will you know if you have successfully attained each goal?

The current helpdesk software package has limited capabilities. With the new system Computer Services will be able to add customer satisfaction surveys, service level agreements, reporting, and ticket monitoring. We need these features to improve and measure customer service.

Once the new helpdesk manager is hired this person will create the document library which will be used to train the call center/help desk employees.

How will the results of the above assessments be used to improve student learning or services?

Procuring a new helpdesk system will complete an indicator outlined in Computing Services 2004-2005 assessment. This will also allow the department to improve customer services and track work orders thus improving student learning.

Strategic Plan Goal

With which 1 or 2 goals from the 8 current strategic plan goals does your 2005-2006 goal best align?

Unit Goal

Goal for 2005-2006

STATE OF THE ART INFRASTRUCTURE (5)

ONGOING QUALITY IMPROVEMENT (8)

Computing Services will provide quality Network support and backbone services to students, faculty, and staff.

What action(s) will you undertake to achieve the goal?

Computing Services will complete the following initiatives in 2005-2006

Complete a wireless assessment of Campus and increase the wireless coverage on campus

Work with a team of students to implement a spam firewall for the student email systems

Oversee new construction of voice and data cabling in academic building 5 and the new modular building 2 to ensure that FGCU standards are met

By what means will you assess goal achievement?

The director of Computing Services will direct and monitor the projects for successful completion.

How will you know if you have successfully attained each goal?

Successful completion of the authorized projects will be reported to the Vice president of Administrative Services.

How will the results of the above assessments be used to improve student learning or services?

Expanding the wireless coverage is a continuous plan that started in the 2004-2005 assessment with a campus wireless survey. The following years will include expanding wireless to coverage as outlined by the Administrative VP and directly depending on funding. Completion of the project will allow students to access the network and its resources virtually from anywhere on campus.

Strategic Plan Goal

With which 1 or 2 goals from the 8 current strategic plan goals does your 2005-2006 goal best align?

Unit Goal

Goal for 2005-2006

ONGOING QUALITY IMPROVEMENT (8)

Continually enhance services to support university business processes.

What action(s) will you undertake to achieve the goal?

As a result of the University's growth and the 2004 active hurricane season Computing Services along with Facilities Planning and Physical Plant enhanced the Network Operations Center (NOC) to provide uninterrupted power to the University's network. This goal will be completed in 2005-2006 by the addition of a generator to The NOC.

Computing Services will complete the second year of the Technology replacement plan.

Computing Services will work with Housing staff to assist students living on campus with connecting to the campus network for fall and spring semesters.

By what means will you assess goal achievement?

The successful completion of the generator installation, the Replacement plan, and Housing students connecting to the campus network will be monitored by the Director of Computing Services.

How will you know if you have successfully attained each goal?

The target number of successfully completed projects will be attained.

How will the results of the above assessments be used to improve student learning or services?

Overall, enhanced efficiency and greater productivity increases the university's ability to attain all of its goals.

Section B

Resources

What additional resources have you requested and received a commitment for during 2005-2006 from your area VP or the President that is based on your analysis of assessment data for 2004-2005?

Most of the goals set for the department were met, resulting in greater efficiency and productivity of university departments. To support the new systems and services being deployed over the last year, additional staffing is needed

1 - To support the increasing clerical demands in the department, it is requested that the current .50 FTE Office Manager be funded at 1.0 FTE

As a result of the University's growth and the 2004 active hurricane season Computing Services along with Facilities Planning and Physical Plant enhanced the Network Operations Center (NOC) to provide uninterrupted power to the University's network. This goal will be completed in 2005-2006 by the addition of a generator to The NOC. Adding a Generator to the N.O.C. is estimated to cost roughly \$320,000. This should be completed before hurricane season 2005. This request is directly tied to goal number two for Computing Services, Provide quality network support and backbone services, faculty, and staff.

The procurement of the helpdesk Customer Resources Management software estimated to be 60,000 will greatly improve operations in Computing Services as well as Instructional Technology, Library

Services, Information Systems and Telecommunications. This request is directly tied to goal number one for Computing Services, provide quality helpdesk and desktop support to students, faculty and staff.

In addition, Increasing the University's Bandwidth has been approved by the Vice Presidents office. This request is directly tied to goal number two for Computing Services, Provide quality network support and backbone services, faculty, and staff.

What additional resource needs do you have for fulfillment of your goals that you wish for consideration from your area VP or the President that is based on your analysis of assessment data for 2004-2005?

Now that the University has grown Computing Services helpdesk is supporting roughly 1200 desktop PC's and soon to be 2000 students living in resident housing. To support this user base we are in the process of adding the following new services:

- A new helpdesk system which will allow the help desk to maintain work order history and track requests and user problems more efficiently.
- The second phase of the desktop hardware and software inventory system which allows the technicians to see what desktops are not receiving the latest protection from viruses and malicious attacks.
- The second year of the technology Replacement plan
- Begin rollout of a new program called Secure PC's, that will allow critical desktop PC's to run more efficiently and safe guard them against viruses and spy ware.
- Support new fall faculty and staff including new PC's and introducing them to FGCU's network and email system.

In addition to the projects above, the University's growth has increased the amount of desktop work orders received by the helpdesk. We are unable to maintain our goal of keeping the number of desktop work orders under 30 with our current four technicians. We consistently have over 60 open work orders and are receiving complaints from faculty and staff daily. The added work load during fall semester will increase these problems. Two additional helpdesk positions would improve turn around time on helpdesk work orders and allow the helpdesk to handle the influx of work orders created during fall semester. This request is directly tied to goal number one for Computing Services, provide quality helpdesk and desktop support to students, faculty and staff.

In addition, to the current operation of the helpdesk there are additional tasks that, if accomplished proactively, would make desktop computing more efficient. We are using an inventory system to collect data on 1200 PC's and found that 67 PC's still need to be replaced, 30 PC's still running Windows 98, 6 PC's running XP with No Service pack, 234 PC's running XP Service Pack 1 only, and 593 PC's running XP service Pack 2 with no new updates. These PC's are at risk of viruses and malicious attacks and could causes problems that effect the entire campus network. Taking the time to do some preventative maintenance will be a huge step in getting the helpdesk ready for fall. Computing Services would like to hire OPS help to spend the summer checking computers, department by department starting with the colleges. It is estimated that it will take about 2000

hours to check the following on roughly 600 PC's University wide:

- Operating system updates
- Windows Updates.
- Network Associates updates (anti-virus)
- Adware (anti-spyware)
- Office 2003 upgrades
- Office Sp 1
- Adobe Acrobat 7 upgrades
- load VNC and SMS/Dell open manage

This request is directly tied to goal number one for Computing Services, provide quality helpdesk and desktop support to students, faculty and staff.

The Help Desk supports 1200 networked PC's on a continual basis. During fall moving in housing will add an additional 2000 users in a four day time period. Computing Services struggles every year to make sure ever student can connect to the network and does not infect the network or other students and staff PC's. This year Computing Services has worked with housing staff to be a part of the fall move in weekend. We would like to provide technical assistance to students as they move in. Two additional OPS positions will be necessary to ensure that the 2000 students moving into resident housing for fall semester register their computer on the network and have proper virus and spy ware protection. This additional help is estimated to cost \$3,900. This request is directly tied to goal number three for Computing Services, Continually enhance services to support university business processes.

As the University grows Computing Services is continually adding services and infrastructure to the University's network. One additional Network position could be effectively utilized to assist the additional services being added; voice over IP, increasing wireless coverage, overseeing voice and data cabling in new construction projects and renovation of existing space, connecting and support of satellite offices (Cape Coral, Port Charlotte, CLI, and Naples center), monitoring increased bandwidth, and continual monitoring of network traffic and the Intrusion Prevention System. This request is directly tied to goal number two for Computing Services, Provide quality network support and backbone services, faculty, and staff.

It is estimated that wireless coverage for campus and resident housing will cost \$250,000. Some portion of this should be complete in 2005/2006. This request is directly tied to FGCU's strategic plan goal number two for Computing Services, Provide quality network support and backbone services, faculty, and staff.

Section C

Assessment Plans

What assessments are you planning to conduct during 2005-2006?

Computing Services will continually monitor high speed internet performance, the Spam firewall and the Intrusion Prevention systems activity to make sure these systems are performing at acceptable levels.

Computing Services will create surveys of user satisfaction using the helpdesk customer relations management software system in the 2005-06 year.

Section D

Coming Year - Strategic Plan Contributions

Notable events include completing the second year of the replacement plan and increasing the wireless coverage on campus.

Also, continual operation and development of campus infrastructure to attain the target standard of performance will continue to be the ongoing goal.
