Letter from the CIO

This has been a difficult time at UVI over the last several weeks. Technology failures have interrupted classes and services. For your information we have included an account of the difficulties as a supplement to this issue entitled: "An Explanation is In Order". We hope by continuing to share information and time lines, you will have a better understanding of the challenges we face as a University.

ITS truly appreciates the level of patience exhibited by the University community. We express our humblest apologies to the students and faculty whose classes were negatively affected by the poor quality of videoconferencing as well as to the business side of the University whose staff was tasked with end of year activities and auditor visits without stable and consistent access to Banner.

The ITS staff has worked non-stop through the event of the last several weeks. As a CIO, this staff is one of the most diligent and dedicated that I have ever worked with. If not for their long hours, expertise and sheer determination we would have not been able to continue to move forward.

Many thanks to all of you,
Tina M. Koopmans
x1540

And the winner is....

Information & Technology Services would like to recognize all of the winners of the performance incentive awards for FY2007. These are the people at UVI who are setting the standard for excellence at the institution. We especially would like to recognize the Customer Service team from ITS -- Cherie Wheatley, Dawn Matthew, Daryl Peterson, Burt Chesterfield and Derval Prince II who received recognition for their work at the help desk. GREAT JOB!!

Online Payments

The University of the Virgin Islands is currently in the process of implementing TouchNet Payment Gateway. TouchNet serves more than 700 colleges and universities, offering students the opportunity to make tuition and other fees payments online. Once implemented, students will have the ability to make safe and secure electronic transfers such as ACH, check and credit card payments through UVI's online registration website, BUCSS. This project is slated to be rolled out in October, 2007.

Online Applications at UVI

Have you heard prospective students can now apply to UVI online? CollegeNet is the latest addition of online services offered by UVI. You can check it out by going to www.uvi.edu and clicking on the link that says "UVI apply on line". The CollegeNet system offers an online application and inquiry form, and also stores all student information in one system. In addition, it delivers numerous practical features that will add value to administration, faculty, and other stakeholders that are directly responsible for enrollment management. The features in this product will allow quick electronic access to a spectrum of information regarding the profiles and preferences of potential UVI students. One noted benefit is that information can easily be obtained and disseminated to stakeholders who request the information.

What is New in the NWW Annex?

St. Croix --Three new rooms with technology were added to the St. Croix campus. Each class or meeting room in the new North West Wing/Great Hall is equipped as follows: **NWW102** is a smart classroom and includes a projector/screen, white board, document camera and VHS/DVD player. **NWW103** includes similar, plus videoconferencing equipment. The **Great Hall,** which can be subdivided into three small rooms, is equipped for group presentations with videoconferencing hardware and a vhs/dvd player player. The videoconferencing room in the Great Hall will be paired with the first floor conference room in the Administration & Conference Center on St. Thomas.
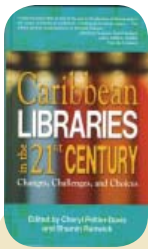
Donation from Envision

On Friday, June 15th, UVI experienced a campus-wide telephone outage due to a hard drive equipment failure. We immediately mobilized the telephone vendor, enVision, for assistance in the extensive repairs. enVision replaced the equipment and provided over 47 hours of on site programming and labor hours to restore service by Monday morning. In addition, they also provided the final tuning of the telephone system to the pre-outage state. All of this work including the cost of hardware, totaled $18,907, which enVision donated to the University. The President of enVision, Mr. Edwin Colberg, was quoted as saying; "We appreciate the opportunity to serve the University of the Virgin Islands and felt compelled to assist and you can count on our continued support."

Technology Changes ....COMING SOON

- Integration of Banner and Blackboard
- New Audio Conferencing Solution
- Student conversion to Outlook/Exchange
- Campus wide wireless access
- Online OTS reporting
- Exciting changes in Outlook
- Cell phone communication for students
- New web site for ITS
- PC replacement plan roll out

Caribbean Libraries

An article, "*Building a Digital Library of the Caribbean*" by Judith Rogers (UVI), Erich kesse (U. of Florida), and Catherine Marsicek (formerly of Univ. of New Mexico), was recently published in *Caribbean Libraries in the 21st Century (2007)*. The new book published by Information Today, Inc. takes an in depth look at libraries and librarianship in the region. The article documents UVI's experience in a collaborative library digitization project to expand access to unique resources, to preserve deteriorating materials, and to promote understanding of Virgin Islands history and culture. UVI's experience in the pilot project in 2002 serves as the foundation for an ambitious vision to build a digital library of the Caribbean (dLOC) in which UVI is a collaborating partner. The dLOC project seeks to address the challenges of resource sharing across languages and cultures by providing a multilingual interface for online access to digitized resources held in unique collections in the region. Founding members of dLOC include: Archives national d'Haiti, National Library of Jamaica, CARICOM, Universidad de Oriente (Venezuela), and Fundacion Global Democracia y Desarrollo (Dominican Republic).

Caribbean Libraries in the 21st Century (Z753 .A1 C37 2007) is available at both campus libraries. For additional information on dLOC, see poster displays at UVI libraries or visit http://www.dloc.com.

ITS launches a re-designed web site

The web site for ITS (http://infotech.uvi.edu) is now sporting a new look. During the Summer 2007, Adrian Durant, a student intern from University of South Carolina, worked on St. Croix to assist ITS staff with creation of the framework for a new ITS web site. The site will enable the component to link resources for all units under a single home page.

Visit the ITS website to find copies of the ITS newsletter, approved policies and draft policies that are under review, and current ITS component planning documents. The new website will complement the Blackboard communication course. The updated site gives the component an additional option for communicating activities and services to the University community.

VPN Remote Access

Have you ever wanted to work from home but didn't know how to get on to the UVI network? Or have you tried to use the old modem pool to get on the UVI network from home and been frustrated because of the lag time?

Information & Technology Services has the answer for you – VPN. VPN is short for virtual private network, a network that uses a number of systems that enable the creation of private networks using the Internet as the medium for transporting or tunneling the data. These systems use encryption and other security mechanisms to ensure that only authorized users can access the UVI network, and that the data cannot be intercepted.

The VPN project is slated to be ready for faculty and staff to take full advantage of in Spring '08. All UVI faculty and staff with high speed internet connectivity and a computer, will be able to access the UVI network through a secure VPN tunnel.

Look for more details on this new service in the Spring '08 newsletter.

Event Management Systems (EMS)

EMS is being implemented in order to centralize scheduling throughout UVI. Academic scheduling, done in Banner, will be synchronized with EMS ensuring that conflicts do not arise. EMS offers a full suite of meeting and event management, academic scheduling and master calendaring solutions and is used to reserve resources, arrange for services, handle billing, produce online calendars and much more. Persons involved in scheduling events and facilities throughout UVI will participate in training scheduled for October 8th to the 12th.

Pavilion Sound System

ITS staff worked with the St. Thomas CEA's Office and Student Housing to install a sound and projection system in the dining pavilion. This ensures equipment does not have to be brought in each time an event is scheduled there. The pavilion now has speakers, amplifiers, a projector/screen, and provides VGA and SVIDEO inputs for other devices

Update on Internet2

The University's Information & Technology Services component is collaborating with Research and Technology Park to provide network engineering design and implementation for the Internet2 STM1, which is the equivalent of 155.52 Mbps of bandwidth, circuit facilitated through Florida International University. The circuit's service order is currently delayed by Global Crossing in Miami due to facilities challenges that are currently being worked on. We are making strides, however, on the network engineer design and have even begun procurement and implementation within Global Crossing in St. Croix's landing.

What is Internet2?
A national high speed network dedicated to research and education. Internet2 is also the name of an organization of Universities and other research partners for developing the I2 network and emerging technologies.

What is I2's purpose and how did it come to be?
I2 was built to provide high speed data communications between National Research labs, Universities, Government Research facilities and other research partners for the development of a variety of research activities which could not be conducted on the commercial Internet.

ONLINE BUDGET CHECKING: Effective November 1, 2007 Administration and Finance is implementing online budget checking for Banner. This means that purchase orders and requisitions must be entered into Banner online and there must be dollars in the account drawn upon. This is a first step in moving towards less paper and faster processing! Training is being provided. If you have any question please contact Accounting.

Feedback From the Faculty Institute

The faculty institute on teaching with technology was held by videoconference August 13-14. Presenters were Nicholas Laudato and Joanne Nicoll, from the Center for Instructional Design and Distance Education, University of Pittsburgh.

HIGHLIGHTS
The presentation addressed the three major areas of emphasis for effective teaching with technology: design of instruction, technological tools, and administration of systems.

Attendees were invited to participate in an initiative to continue building a cadre of faculty with expertise to function as peer technology supporters for their colleagues. The participants in this project will each receive a Tablet PC.

There are currently six faculty scheduled to participate in this project: On St. Croix - John Munro, Kathy Sheats, Karen Cooper, Valerie Combie; on St. Thomas – Christy Vineyard, Kimarie Engerman. The next call for participation will be issued shortly

CONGRATULATIONS!

Suzanne Darrow
IT Supervisor /Blackboard
Administrator

Blackboard - What's New?

Installation of the Enterprise version of the Blackboard Course Management system was completed in July 2007. Staff training for implementation continued through the beginning of August and new Blackboard was launched at the beginning of the Fall Semester 2007. In an attempt to ease student and faculty transition to the new system and to allow ITS to continue building capacity for supporting the expanded functions of Blackboard, both the old version 6.3 and the new version 7.2 will run simultaneously through the end of the Fall Semester 2007.

Continuing users of Blackboard will appreciate some of the new functions of the Learning System now available in the new release such as:

Adaptive Release – which provides the ability for an instructor to create custom learning paths through course content and activities. Content items or other activities can be released to students based on a set of criteria.

Safe Assign – a plagiarism prevention feature similar to Turnitin, checks student papers against papers publicly available on the Internet.

Review Status - allows the Instructor to track user review of specific content items.

Syllabus Builder - provides the ability for instructors to easily create a course syllabus by uploading an existing syllabus or by using the built-in syllabus creation functionality.

Gradebook and More Advanced Assessment Questions – new features include: ability for Self-Assessment quizzes to be used and not counted towards the final grade; additional questions types, including: Multiple Fill-in-the-Blank, Jumbled Sentence, Opinion Scale, Short Response, Either/Or, and Quiz Bowl questions.

ITS is continuing to upgrade Blackboard to address integration with Banner for increased efficiency in course creation and student enrollment. We expect this feature to be available in the Spring 2008 semester.

Blackboard Faculty Center

There is now a 'Blackboard Faculty Center' course on the new Blackboard server. This course provides Blackboard tutorial information and links to Blackboard resources, including updated features via newly installed Building Blocks. There is also a Discussion Board for faculty members to share their thoughts and ideas regarding the use of Blackboard here at UVI. Instructions on how to self-enroll in the course are available at this Self Enroll link.

http://www.uvi.edu/pub-relations/blackboard_link/fac_center_steps.pdf

New Feature in Blackboard

We have recently installed a new feature into Blackboard entitled, 'Blackboard Scholar'. You will see it available as a separate 'Scholar' tab when you log in to your account. Blackboard Scholar is a social book marking service, customized for education. Built on the principles of Web 2.0, Blackboard Scholar is a rich, user-driven service that engages students and promotes more collaborative learning communities. To learn more about how Scholar works, visit the public site at http://www.scholar.com.

We are currently in the beta testing phase with this product. Please send your comments, questions and concerns to Suzanne Darrow, Blackboard Administrator, sdarrow@uvi.edu.

Please inform your students accordingly.

UVI Libraries Seek Input on InfoTrac OneFile Database

UVI's Information Technology Services department is seeking feedback from the UVI community on a recommendation to cancel the UVI libraries' InfoTrac OneFile database. The subscription expires on Sept. 30 and is now due for renewal. Other databases have been added including Academic Search Premier and JSTOR. The UVI community's input is needed for evaluating the continuing benefit of InfoTrac OneFile.

Send comments to jrogers@uvi.edu or bwilkes@uvi.edu . Thanks for your assistance.

Who's Happening in Information & Technology Services

Harris to attend Management Academy

Ms. Sharlene Harris has been selected to participate in the Triangle Research Libraries Network (TRLN) Management Academy. This training consists of online course work as well as a five day intensive training session in Chapel Hill, NC. Ms. Harris received a scholarship for this event because of her previous success in management and libraries. She will join thirty-two other participants from across the US and Canada in this prestigious training opportunity.

Welcome to ITS....

Sarah Coutlee, a May 2007 graduate of Wellesley College, joined the staff of the St. Thomas campus library on September 17th, 2007. Sarah will be working primarily at the circulation desk. She will assist faculty and students with course reserves and provide classroom technology support. She will also oversee the operations of the circulation desk, manage all area student employees and provide call center support. Sarah is available Tuesdays through Saturdays to assist you with your information and technology needs.

MCSE Training for Herman Hart

From July 15th to July 29th, **Mr. Herman Hart** participated in an intense training program that allowed him to complete two of the most recognized industry certifications. The Microsoft Certified Systems Engineer must complete 7 test requirements. Microsoft Certified Systems Engineer (MCSE) credential is the premier certification for professionals who analyze the business requirements and design and implement the infrastructure for business solutions based on the Microsoft Windows client operating systems and Microsoft Windows Server operating systems platforms. The MSCE candidate must have the ability to implement and administer a network operating system in environments with 200 to 26,000 supported users, 5 to 150 physical locations with typical network services and applications including file and print, database, messaging, proxy server/fire wall, dial-in server, desktop management, and Web hosting, and and or connectivity needs including connecting individual offices and users at remote locations to the corporate network and connecting corporate networks to the Internet.

Herman also received Cisco certification. The Cisco CCNA network associate certification validates the ability to install, configure, operate, and troubleshoot medium-size routed and switched networks, including implementation and verification of connections to remote sites in a WAN.

Moving up in the ranks....

Sherna Gumbs has been employed with the Ralph M. Paiewonsky Library for the last eight (8) years as a Library Specialist I. Through the IMLS grant obtained by UVI Librarians to educate Virgin Islands residents in the field of Library Science, Sherna is working on her Masters through the University of Pittsburgh's online FastTrack program and will graduate in May 2008. Upon graduation, she will be fully promoted to the position of Librarian II for Special Collections & University Archives. Sherna will then be responsible for the development of the University's Archives as well as promotion and maintenance of its special collections.

ITS supports community outreach for libraries and literacy

Information and Technology Services partnered with the Virgin Islands Library Association and with the Caribbean Museum Center for the Arts (CMCArts) to present a one-day conference on October 6, 2007 at the St. Croix Campus Great Hall. The conference culminates a year-long after-school and summer pilot project to model a learning community in Frederiksted, St. Croix. Through a grant ($152,000) from the Institute of Museum and Library services awarded to the St. Croix Library Association (under the leadership of Judith Rogers, President) and to CMCArts, youth of Frederiksted area schools were taught arts and crafts skills as well as research, reading and writing skills using topics related to the vocational activities.

The keynote speaker for the morning plenary conference session was Robert Wedgeworth, CEO of Proliteracy Worldwide. A representative of Governor John P. DeJongh presented the keynote luncheon address, to promote the development of a national information policy for addressing concerns of libraries and literacy program leaders in the Territory. The conference is a strategy for sustaining the outcomes of the learning community project to improve the literacy level of families within the Territory.

To enroll in the Information & Technology Services Blackboard Course:
- Access the Blackboard site: http://newblackboard.uvi.edu/Login
- Click on the "Courses" tab in the upper right-hand corner of the screen
- In the "Course Search" box enter information technology services
- Click on the "Enroll" button next to the Information & Technology Services class
- Click "Submit"
- Click "Okay," and the user will be directed to the course

Definitions

task of rebuilding the network -- this is a 30-month project funded by the UVI Foundation (FUVI) as part of "Project Leap Frog"

network design -- the network design was part of the EPSCoR project for FY2006

St. Croix Campus -- ITS began the conversion in St. Croix because the network was newer and better maintained

Harris Communications -- ITS is currently working to establish semi-annual maintenance checks of the microwave system

central core router -- this router is a single point of failure in the network, redundant systems were included in the new network design and will be implementation by February 2008.

main power supply -- spare parts to the microwave are stocked by ITS for such emergencies

An explanation is in order ...

During FY2006, ITS worked diligently to analyze and assess the technology at UVI. We discovered and documented the need to upgrade our network infrastructure. UVI was in a place that many Universities find themselves – years of network expansion without the budget to plan for it effectively and because of rapidly changing technologies, investments were short lived So the **task of rebuilding the network** to increase capacity, increase redundancy and implement standard best practices and documentation was undertaken.

The **network design** was created to take advantage of the new data center that was being constructed as part of the Administration and Conference Center (Harvey). This design provided scalability for future growth – like the implementation of Internet2 and system redundancy.

The first step of this implementation was the **St. Croix Campus.** The last two weeks in June, ITS staff worked with engineers and consultants to install the new electronics and new addressing scheme on St. Croix. This work was completed and much testing was done to make sure that the new network on St. Croix and the old network on St Thomas could talk effectively.

The next step was the conversion of the St. Thomas campus, which needed to be coordinated with the completion of the Administration & Conference Center construction. Because of construction delays, this work did not begin until the second week in August. It also included the installation of a redundant telephone switch in the Conference Center. As the installation of the electronic equipment was nearing completion, the videoconferencing system started to demonstrate something called 'packet loss' which meant that the picture and sound between the islands was intermittent and the quality was extremely poor. Our on–island microwave technician was able to troubleshoot four distinct problems with the microwave. However, he was scheduled to leave island for six weeks and could not be available to actually make the repairs.
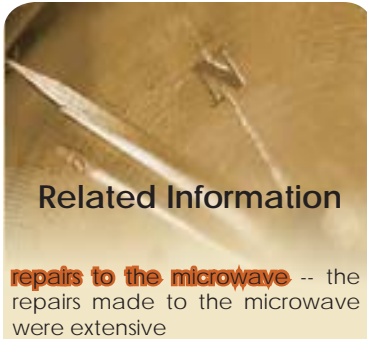
Right before Labor Day, ITS began an extensive search for another technician to repair the failing microwave. Working with **Harris Communications** (the manufacturer of the microwave), we identified someone that could work on our old model of microwave and was available to come to St. Thomas. We were able to identify needed spare parts, ship them to St. Thomas and mobilize the technician He arrived September 19th from Canada and immediately started working. He traveled between the islands several times to properly diagnose and repair the system.

That is when the "slow downs" in core services like Banner, Blackboard and access to the Internet became a problem. During testing we discovered that it was not only the microwave that was ailing. We suspected that a **central core router** that connects St. Thomas to St. Croix;, the Internet to St. Thomas; and users to our servers, was not functioning properly. So as the microwave technician continued his repairs, troubleshooting on the router began. We also looked closely at all of the newly installed electronics to make sure they were functioning as required.

On Tuesday September 25th, Penha House experienced a brown-out that killed the **main power supply** on the microwave. This also killed our connection to the Internet. We summoned the microwave technician from St. Croix, where he was working, to St. Thomas where the problem existed. At the same time, we contacted an engineer from Choice Communications, who was familiar with the router we believed was failing, and worked with him to identify any problems and acquire the necessary spare parts.

The microwave power supply was repaired, and the technician went back to St. Croix to finish the other repairs. The engineer from Choice continued to work on the router and identified an interface card in the router that needed to be replaced. On Thursday night and into the wee hours on Friday the engineer and the ITS staff worked together to resolve this issue. The router was brought online and at 3:00 pm on Friday the 28th . It appeared

As part of the FUVI, Leap Frog Project, funding for the replacement of the microwave will be available starting in August of 2008. ITS and the UVI RTPark are working together to see if there are possibilities to begin the replacement of the system prior to August. This would also provide a path for the Internet2 connection. This replacement is estimated at $300,000.

An explanation is in order ... continued

as if the router was fully functional and the **repairs to the microwave** were complete. Final testing would take place on Saturday.

On Sunday morning at approximately 1:00 am the power supply on the microwave (yes, the one we just replaced) died. This was likely an electrical problem that has been corrected. We got the microwave technician out of bed Sunday morning to replace it. Monday, the latency in the router returned and Banner, Blackboard and other services were very slow. Even though the microwave was repaired, the router caused the same 'packet loss' therefore the picture and sound quality was again poor.

At this point, we needed to make a command decision to reduce dependency on the failing router. This meant moving ahead with the migration to the new network for all users and servers. This would reduce the traffic touching the router by half and should have the effect of restoring speed to services like Banner and to the videoconferencing rooms. Again all new electronics were tested and data paths were checked to verify this solution would resolve the problem. The conversion was started at 3:00 pm on October 4th.

As of 1:00 pm on Friday, October 5th, all mission critical servers were moved to the new network. Programming was done to streamline the data path users take to get to servers like Banner and Exchange. All of this traffic was diverted from the failing the router. ITS staff walked through the Administration and Conference Center logging users on to Banner and checking results. Although a few refinements were required, all users reported connections at increased speeds.

The next step took place between 2:00 pm on Saturday and 6:00 pm on Sunday, October 6th and 7th, when the final clean up for the move of the servers, some cabling issues and testing occurred to make sure everything was functioning properly. Adjustments to the router were required on Monday morning to improve connection speeds to the St. Croix campus.

The Technical Jargon

Although services and speed were restored, it has been determined that the interfaces on the failing router (Cisco 7206) are not working properly when transmitting packets from the old to the new networks. These interfaces connect to several of the subnets that our major services are running on such as Banner, Exchange, and Blackboard.

The following was accomplished over the weekend:
1.   The direct connection from the Cisco 7206 to the HP 5308.
Configured the appropriate VLAN in all switches that we are using in the data center (HP 2524's). We will get VLAN configurations from them.
Configured port descriptions for each switch that corresponds with each server. We will get port description info. from them.
2.   Transferred subnet .152 and .2 networks from the Cisco 7206 interface to the HP 5308. The .130, .50, .128 networks were completed Thursday night.
3.   Corrected and completed VLAN configurations from the work completed last Thursday. Basically cleaned up what was missing in configurations.
4.   Corrected duplex mismatch issues for subnet .2 in all switches.
5.   Traced physical cable in data room from switches to servers.

Two items were not completed:
1.   The labeling of the physical cable from switch to server. Caribbean Datacom was hired to do this as a part of the Harvey Center RFP. They are scheduled to do this work next week.
2.   The .4, .154, .151 subnets were not cut over to the new network. The .4 and .154 subnets are for the Bookstore and the .151 subnet is for the Business Admin Bldg (CAB). These will be completed over Thanksgiving

Testing will continue until a hardware problem in the router is verified and repaired or eliminated as the cause for the problem.

Related Information

repairs to the microwave -- the repairs made to the microwave were extensive

STX:
1.   Replace MUX mother board at the block house.
2.   Repaired at the block house receiver A1 modem IF connectors that were not operational.
3.   Readjusted voltage on power supply at Mt. Welcome that repaired a receiver error.
4.   Replace low speed switch at Mt. Welcome on MUX B. This resolved the ability to switch traffic from M12 card to standby.

STT:
1.   At Crown Mt. replaced a PLS (oscillator that gives frequency to the receiver) on radio A1.
2.   Repaired, twice, the power battery back up system for Microwave radio site 1 (located in Penha House).
3.   Replaced PLS on transmitter facing Mt. Welcome. The frequency was drifting.

Pending Issues:
Compression hardware (dehydrator) located at Crown Mountain is running all the time and does not pressurize the line. We need to replace this unit.

Between Crown Mountain and Mt. Welcome we are getting frame loss and pattern loss. This means that the traffic drops for a second or two intermittently. We still are averaging 0% packet loss in the video conference rooms so this issue is not as critical at this point.