2015
OFFICE OF INFORMATION TECHNOLOGY

David B. Allen | Associate Director

SERVING THE SGU COMMUNITY

Under the leadership of Executive Director Dominick Albertelli, the Office of Information Technology provide technology services and support for the University community's academic, administrative, operations, and research activities. Services include:

- Technology Help Desk: Providing assistance to our community of students, faculty, and staff
- System Support: Implementing and maintaining the University's central information systems
- Application Development: Developing internal applications and integrating vendor solutions
- Network and Data Center: Implementing and supporting the University's technology infrastructure
- Educational Computing: Developing and delivering software and hardware training and support
- Technology Research: Evaluating new technologies and recommending solutions to the University
- Business Intelligence: Providing information and analytics to support operational and strategic decision making
- Project Management Office: Facilitating governance of strategic initiatives and managing technology projects
- Multimedia: Supporting audio and video technology on campus and managing University media site solutions

IMPROVING TEACHING AND LEARNING METHODS THROUGH TECHNOLOGY

In 2015, the Educational Computing Team (ECT) continued to provide enhanced teaching and learning development offerings to the University community, while also being invited to sharing their expertise at multiple conferences, to the benefit of a wider audience in Higher Education. For 2016, the ECT will be revamping their training to target organization and department needs based on the results of a comprehensive training needs assessment.

Teaching with Technology Tuesdays (TwTT)

The Spring 2015 series began with a showcase by faculty and students highlighting their use of technology in education. This was followed by the workshop-based educational series *Energizing the Teaching and Learning Environment*, which focused on best practices in effective presentations, as well as interactive and online classrooms. At the end of the series, innovative faculty members were awarded for their commitment to teaching and learning with technology. The series will be repeated in Spring 2016 with new highlights from our faculty showcasing their use of technology in education.

Conference Presentations

Members of the ECT and Examinations Services were invited to speak at the ExamSoft inaugural user conference in June 2015. The team presented "ExamSoft Implementation at St. George's University – A Recipe for Success". The initiative, along with the project management approach used, was highly praised by conference leadership. Additionally, a member of the ECT team was awarded the *ExamSoft Excellent Educator Award*, which is bestowed upon the educator of the year whose expertise and attitude provide the greatest inspiration and guidance to fellow users.

The ECT also presented "An Introduction to the 25Live Publisher" at the CollegeNET Annual User Conference on July 15, 2015. Their novel approach of delivering the material using the features found within the CollegeNET product was very well received.

Orientation and Training

The ECT continues to provide group and individual training sessions that cover a wide variety of administrative and academic applications.   The ECT also:

- Delivers student orientation presentations on the use of campus technologies
- Introduces new faculty to the University's teaching technologies

- Educates visiting academic advisors on University resources and technologies available to students
- Manages the technical staff supporting the increasing number of computer labs and print room facilities on campus

BUILDING A STONG FOUNDATION FOR APPLICATION DEVELOPMENT

Over 2015, the Office of Information Technology achieved a significant transformation in the software development infrastructure. This enabled the team to do rapid development and deliver custom applications based on the leading-edge responsive design technologies.

Core components have been developed and integrated into a framework that is increasing the quality of applications while reducing the time required to deliver crucial functionality to the business. Core designs make consistent delivery of pleasant interactive experiences based on intuitive navigation a reality. The designs also enable the applications to adjust to a student's mobile device of choice by responding to each device based on its capabilities.

The tools and processes used during the Software Development Life Cycle (SDLC) have been aligned to best practices based on the latest software development standards. Many areas were addressed, including requirements gathering and management, source code control, development standards and designs, quality assurance and quality control, release management, and improved defect tracking and resolution.

DELIVERING CRITIAL BUSINESS FUNCTIONALITY

The University rapidly took advantage of these new development capabilities as several academic and administrative applications were delivered in 2015. Highlighted applications delivered or soon to be delivered include:

- **Patient Encounter Application** is a highly specialized solution providing clinical students with a practical way to understand what complaints and diagnoses they need to observe, and to capture and track their clinical experiences. The application also provides the Dean's office with analytic dashboards and centralized oversight capability for students, rotations, and teaching hospitals.

- **Clinical Evaluation Application** captures a student's overall performance during core clinical rotations. The solution integrates student performance data from multiple sources and presents the information to the grading faculty during the evaluation period. An advanced workflow integrates teaching hospital and University staff tasks, enabling timely and high quality evaluation of a student's performance, while providing students with the ability to review a physician's feedback.

- **Medical Excuse Application** reads class rosters and high-stakes exam schedules and then enables students to use their phone or other device to select upcoming exams and submit a medical excuse to the appropriate Deans, faculty, and the campus clinic.

- **Student Health Insurance Application** provides students with the ability to manage their insurance needs directly from the University portal. It will also enable the University to secure the most comprehensive and competitive coverage for our students by removing the dependency on using a given carrier's portal for student insurance related transactions.

THE RACE IS ON

The University is in a race to stay ahead of the growing demand for bandwidth, processing power, and data management. A multi-faceted approach to evolving both the physical and the logical components of the network and data centers is required with a goal of meeting current usage while positioning the University a safe distance ahead of soaring demands.

Network Infrastructure

Staying ahead of the growing demands placed on the University's network is challenging as the network now supports over 60 buildings on campus and several remote sites, including the University Club and Grand Anse campus. Voice and data traffic capacity are consuming up to 15 times the bandwidth required just four years ago. WiFi access has grown to over 1,300

Wireless Access Points (WAPs) on campus supporting 8,000+ simultaneous devices (multiple devices per person). To meet the challenge, a multi-year program is delivering evolutionary improvements to the network through annual projects.

- 2014 – Delivered redundant and diverse routing and significantly increased the network capacity
- 2015 – Upgraded existing network components and improved logical routing
- 2016 – Replace core switching and edge routing layer of the network and provide improved redundancy
- 2017 – Begin replacing aging physical fiber optic and copper cabling; add redundancy to the distribution layer

Virtualization and Data Storage

Technical staff are busy implementing leading-edge technology solutions to support the explosive demand for processing power while supporting close to 200 servers and vast amounts of stored data.   Like the network program, a multi-year data center program is delivering evolutionary improvements through annual projects.

Having completed work on fire suppression, power management, environmental control and improved security, the focus is now on enterprise server virtualization and Storage Area Network (SAN) technologies. As virtualization significantly increases hardware utilization and appreciably expands our data center capacity, new SAN technology will enable consolidation and sharing of storage capacity, and improve scalability, performance, and availability.

In the future, the University will be very well positioned to leverage these investments to support improved business continuity and disaster recovery planning.

ADDITIONAL INITIATIVES: A LOOK AT 2015 AND 2016

In addition to the initiatives highlighted above, during 2015 the Office of Information Technology supported the successful deployment of numerous technologies, including:

- Improving building access control systems and access administration for greater security and control on campus
- Performing major upgrades to the Banner ERP platform and related architecture
- Enhancing the Exam Verification solution to include the School of Veterinary Medicine and additional venues
- Upgrading and relocating the Learning Management solution
- Implementing a Curriculum Mapping solution for the School of Medicine
- Delivering a best-of-class enterprise survey solution

In 2016, the Office of Information Technology will focus on supporting many technology initiatives, some of which are:

- Continued implementation of the Enterprise Constituent Relationship Management platform with ERP integration
- Migration to a new imaging and document management system
- Migration of the VoIP system to a modern, enhanced solution with hospitality features for the University Club
- Continued migration of Lotus Notes applications to our new technology platform for custom applications
- Development and implementation of an enhanced Clinical Medical Records system

LOOKING FORWARD

The Office of Information Technology continues to identify, evaluate, and implement tools that enhance customer service. We strive to provide the best available connections to information, training, and technical resources needed for all associated with the University to achieve their objectives.

Editors

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