

PLUGGED IN

Spring 2010: Volume 2 Issue 1

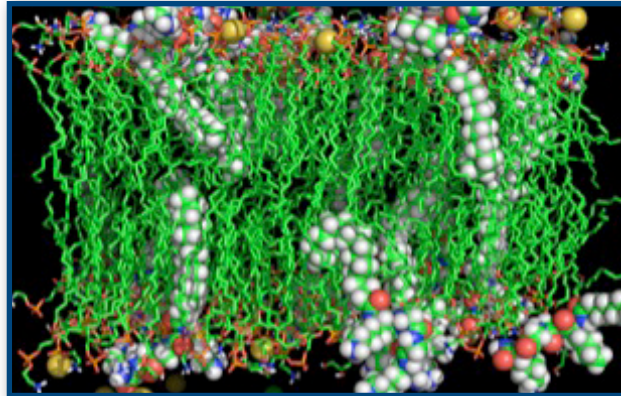
To Information Technology News @ The University of Rochester

In This Issue:

- 2. CIO Corner
- 2. Architecture 101
- 3. Electronic Medical Record
- 4. Colleague Spotlight
- 5. Eastman Technology
- 5. Data Center Migration
- 6. Working to Combat SPAM
- 6. Reducing Cellular Costs
- 6. Microsoft Outlook Tips
- 6. Upcoming Events

Enhancing Research Through High Performance Computing

A collaboration between the Medical Center and Arts, Sciences, and Engineering



Simulation of peptides, proteins, and complexes. Alan Grossfield

The Center for Research Computing (CRC) represents a forward-thinking collaboration with key research faculty and leaders in the Medical Center and Arts, Sciences, and Engineering.

Sponsored through the IT Strategic Plan, this faculty-centric program specializes in supporting and evolving research through the use of high-performance computing and a small group of key support personnel.

This program helps the University with faculty recruitment and retention, positions the institution for new funding opportunities, and ultimately helps advance scientific research and the University's place among the best research universities in the country.

This investment in collaborative resources... [page 3](#)

CIO Corner with David Lewis

Vice Provost & Chief Information Officer



Kicking off the first issue of *Plugged In* for 2010 presents a great opportunity to reflect on our University-wide strategic planning progress. Since the establishment of the Center for Research Computing, I am pleased to report that there is now six times the number of research-

ers than when this transformational effort was initiated, with the support of the Deans and faculty, 18 months ago. This growth demonstrates the University community's ability to support collaborative research through high-performance computing. The IT strategic planning projects have also resulted in increased security, a modern University web infrastructure, and progress toward a system and associated processes that will understand an individual's University relationships and roles to enable accurate communication and appropriate access to systems.

Since the new Data Center became operational just over a year ago, the migration of all of the University's essential computing systems has been completed. This momentous accomplishment will support key strategic and operational initiatives by serving the University's research, medical, academic, and administrative groups. It is also very exciting that Arts, Sciences, & Engineering is transitioning from a 25-year-old legacy system to the modern, user-friendly Zimbra email package.

All of these achievements would not be possible without the insights and dedication of information technology professionals across the University. Please enjoy this issue of *Plugged In*.

Meliora,

A handwritten signature in dark ink, appearing to read "Dave", written over a white background.

Architecture 101

With Devarajulu Ravichandran
Manager, Applications and Architecture

There were 173 reported higher educational information security breaches in [2008](#) compromising massive amounts of records. Each incident is not only expensive, it also impedes planned progress and negatively affects the institutions reputation.

While an exhaustive list of security considerations can be found in the "Security Architecture and the ADM (Architectural Developmental Method)" section of [TOGAF](#) (The Open Group Architecture Framework), the following are straightforward ways to improve security:

Access reviews – Periodically review applications with sensitive information and the individuals with access to those applications to identify and eliminate unwanted users and uncover redundant or less-efficient processes.

Aging code and content – Institute spring cleaning for your web sites and applications to address security vulnerabilities in older code.

Data Center – Consider using the new, state of the art Data Center. This will help ensure physical security and protect against unexpected data loss.

Security scans – Scan your applications for vulnerability periodically and as part of pre-deployment activities. The [Security and Policy Team](#) can help with scanning and understanding the security footprint of your applications.

<http://www.rochester.edu/IT/cio/>



Electronic Medical Record

The \$49 million eRecord project aims to bring URMIC's technology infrastructure on par with that of the nation's top academic medical centers – ultimately better connecting caregivers and promoting safer, more efficient, more patient-centric care. The five key components, listed in order of priority, will make this modernization possible:

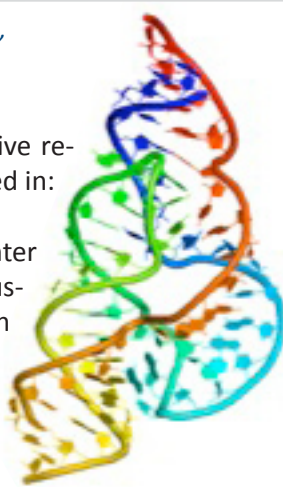
- *The project's keystone is a single, shared acute care electronic medical record (EMR) that will serve both Strong and Highland hospitals. Regardless of a patient's point of entry, a comprehensive view of all records pertaining to them are available under one unifying patient number.*
- *The platform (provided by Epic Systems) chosen to power eRecord will accommodate select existing applications that we plan to maintain.*
- *The launch also will include the implementation of a new Personal Health Record application for oncology patients.*
- *eRecord will include evidence-based clinical decision-making support (for instance, prompting aspirin orders for heart attack patients), and also will provide a more robust means for capturing data (for research), tracking core measures, and conducting operations analyses and other required reports.*
- *Community physician access to eRecord, to better support URMIC's referring network, is a priority.*

In its initial phase, eRecord will roll-out to both hospitals' inpatient units, where it replaces the current clinical information system (CIS), as well as Emergency Departments, pharmacies and oncology departments. Down the road – possibly in the next three to five years – remaining key areas will be converted to the eRecord system (likely cardiology, peri-op, transplant, OBGYN, anesthesia and radiology).

"Center for Research Computing"
Continued from Page 1

This investment in collaborative resources at the CRC has resulted in:

- **Further collaboration** – Center for Research Computing users have grown to more than 225 users, and average utilization is more than 95%
- **External funding** – the CRC participated in more than 25 grant applications this past year
- **The gift of a Blue Gene super-computer** from IBM through the Shared University Research (SUR) grant program representing the first phase of the Health Sciences



David Mathews
RNA Modeling

Center for Computational Innovation (HSCCI)

- **Increased ownership by the researcher community** through contributions of hardware and software

- **Education and outreach** through monthly symposiums of researchers' experiences and expertise.

Colleague Spotlight: SUE STEWART

Senior Vice President and General Counsel



Sue Stewart has been Senior Vice President, and General Counsel of the University of Rochester since 2003. She has overall responsibility for the legal matters of the University and its affiliates including legal counseling and advice to the Board of Trustees, the President and the University's senior leaders. She co-chairs the Compliance Committee with the Sr. Vice President for Finance and Administration. She is the lawyer primarily responsible for advising issues concerning conflicts of interest. She supervises the other attorneys in the Office of Counsel and the engagement of outside lawyers to advise or defend the University.

PI: What do you value in your colleagues in information technology?

Support for both my individual and departmental needs from information technology has been invaluable. IT executive support is always available to answer questions and resolve issues. Projects such as the implementation of the documentation management system Time Matters for the Office of Counsel have been highly successful. The complexity of this modern filing and project management system necessitated one-on-one assistance by the IT support staff during rollout and implementation, an approach that has been instrumental to our success.

PI: What are some of the challenges you face with IT that are unique to your work?

I see a key part of my role as communicating to Senior Leadership the challenges that IT is experiencing with respect to improving

data security so that these issues get the attention and priority they deserve. Given the complex nature of IT at the University, understanding these issues and their possible resolutions is hard for a layman. In spite of the serious consequences of potential security breaches, it can be challenging to convince people to take the actions that are nec-

“Support for both my individual and departmental needs from information technology has been invaluable.”

essary, either individually or collectively, to decrease the risk that personal identity information will be stolen or compromised. People underestimate how important simple actions are. For example, a laptop that was stolen recently was encrypted, but the username and password were taped to the laptop, compromising its security. People also underestimate how complicated some issues are

to solve, like securing or removing social security numbers from University systems vulnerable to hacking.

PI: Can you cite some past success you've had with University IT or highlight some current/future projects you're excited about?

The Data Security Task Force has made great progress over the last few years bringing together IT representatives from across key functional areas including IT, ISD, HR, Audit, and Finance. Members talk about current issues and help prioritize remediation activities. One example: methods to increase compliance with Payment Card Industry standards that govern credit card transactions. Raising awareness for IT security issues at the Compliance Committee and President's Cabinet has also resulted in greater buy-in and support for the IT strategic plan initiatives and the reprioritization of projects to place a greater emphasis on IT security activities.

Continued on Page 5

Technology Updates at the Eastman

Eastman School of Music received numerous IT enhancements this past year, including improvements to educational technology, media production capabilities, and online content and offerings.

The Eastman Theater is also seeing technology enhancements with a building addition on Swan Street currently in progress. Technology and network infrastructure plans include an audio/video control room in the addition, performance technology in the new recital and rehearsal halls, advanced recording capabilities, and technology enabled office spaces.

Advancements in the addition's new atrium entrance will also allow theater patrons to enjoy concessions, a gift shop, and an upgraded ticket office.



Data Center Migration

Progress to Date

**As of
March 2010**

*97% of Systems
Migrated*

460

Servers Moved

1,103

*Applications
Migrated*

"Colleague Spotlight" Continued from Page 4

PI: What future IT opportunities are you looking forward to?

Much like the "Tragedy of the Commons," individual departments sometimes make decisions that make sense from a departmental perspective, but weaken the security of the entire University. The University needs greater IT collaboration and coordination to ensure that our information remains secure. The IT Steering Group, chaired by Provost Kuncl, has also agreed that it's time to start preliminary planning for the replacement of the legacy student and financial systems in order to manage the real risks these old systems represent for the University.

Working to Combat SPAM

Although Security and Policy strives to safeguard the University against malicious emails, the best defense is to be knowledgeable about threats posed by SPAM and phishing scams.

- Do not disclose personal or financial information via email. Legitimate companies and the University of Rochester will NOT ask for this information through an email.
- If you receive a suspicious email from a known contact or company, contact them directly over the phone to verify that the message originated from them.
- Do not click on links or open attachments from senders that you cannot identify.

Please call 275-2000 if you have any questions regarding SPAM and phishing scams.

Reducing Cellular Costs

Mobile device and cell phone use continues to expand at the University. However, department Administrators have noted an increase in charges incurred outside of basic service plans in cases where plans are not well understood or have been changed. Please review the [Cellular Cost Containment Notice](#) for Jan 2010 for strategies to avoid unnecessary cellular costs in your department.

Upcoming Events

+ Center for Research Computing User Days

April 16, 2010 11:30 - 1:00PM Goergen 108

For more information on upcoming User Days or to register to attend, please click [HERE](#)

+ Trends in Technology

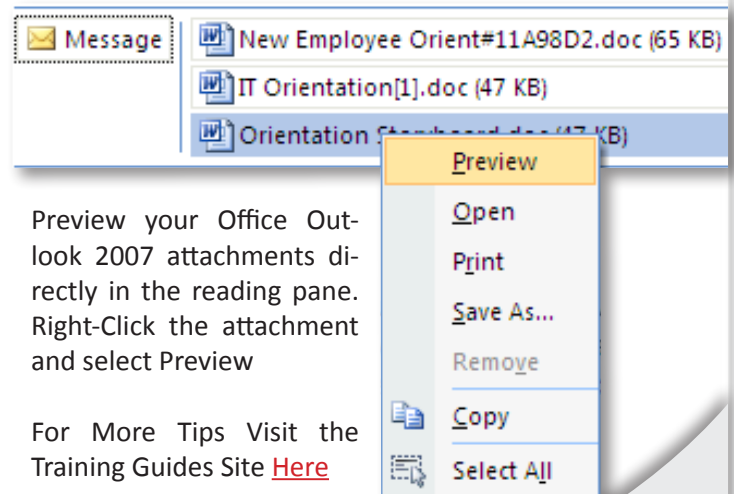
May 10, noon - 1:00PM TowneHouse 118W.

For more information or to register to attend, please contact Samantha Singhal:

samantha.singhal@rochester.edu

Office 2007 Tip:

Preview Your Attachments



Preview your Office Outlook 2007 attachments directly in the reading pane. Right-Click the attachment and select Preview

For More Tips Visit the Training Guides Site [Here](#)

Is Plugged In Meeting Your Needs?

Send feedback, article suggestions, and submissions to:

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