IT Governance Committee
Meeting Minutes
09.12.2017

Members in Attendance:
John Charles, Vice President for Information Systems and Technology
Professor Karen Gleason, Associate Provost (Co-Chair)
Anthony Sharon, Deputy Executive Vice President (Chair)
Glen Shor, Vice President for Finance
Ian A. Waitz, Vice Chancellor

Guests:
Christopher Bunn, Director of Business Operations, Information Systems and Technology
Emma Levett, Software Asset Manager, Information Systems and Technology
Michael Moody, Institute Auditor
Jessica Murray, Information Security Officer, Information Systems and Technology
Robert Redwine, Professor of Physics and Director of Bates Linear Accelerator (Chair, IT Policy Committee)
Mark Silis, Associate Vice President for Information Systems and Technology — via WebEx

I. Meeting Minutes 5.24.17 Approval (Approved)

II. IT Policy Committee (ITPC) Report (Endorsement)
Robert Redwine spoke to recent agenda items that came before the ITPC.
Issues included the following:
1. Reviewed a request from a faculty member to consider allowing MIT alumni to keep their mit.edu email addresses, as opposed to the current system of providing alum.mit.edu addresses.
   • This is a repeat suggestion from Prof. Alex Slocum in Mechanical Engineering – he has submitted this suggestion to Chancellor’s Office and Alumni Association administrators at least twice before without success. Reaction from the ITPC was mixed. The Alumni Association has not seen a demand for this.
   • Discussion: Ian Waitz acknowledged that there may be reasons for and against this, but it would make sense to have a reasonable Institute answer to give to Slocum and others. There is a reluctance on the part of students to change email addresses; some students come to MIT with a Gmail address, forward all of their MIT email to that address, and plan to continue to forward their mail to Gmail as alumni. Karen Gleason likes the idea of maintaining the distinction, noting that it’s important to understand when those who write to the president or the City of Cambridge or other high-profile recipients are alumni, not current students.
   • Action Items: It was suggested that this be discussed with Whitney Espich, the new CEO of the Alumni Association.

2. Request from a faculty member to consider allowing MIT alumni to keep their mit.edu websites created as class assignments (or for other reasons) while they were students.
   • This is also a repeat suggestion from Prof. Alex Slocum in Mechanical Engineering.
   • Discussion: Ian Waitz remarked that a separation here is relevant since websites hosted by MIT probably have obligations related to decency. Allowing alumni to keep their websites could increase MIT’s risk. Some classes do have students create web pages that are effectively living portfolios of their project work, but MIT doesn’t maintain these websites after they graduate. The graduates have to transition the content elsewhere. There are other ways to keep alumni in close contact in a positive way.
   • Action Items: It was suggested that this also be discussed with Whitney Espich, the new CEO of the Alumni Association.
3. Recent introduction of Google Analytics by the Office of Communications to public-facing websites at MIT.
   - Nate Nickerson, Vice President for Communications, wants to track interactions the outside world is having with MIT News websites. The introduction of Google Analytics for this purpose several months ago, was met with considerable pushback about privacy issues. With Google Analytics, private data is in fact anonymized, but the process of introducing the analytics could have been handled and communicated better. There is an opt-out option, which a lot of people didn’t know about. This is not just a student issue, faculty data is also involved. John Charles noted that Google Analytics actually requires that we post a privacy statement; which MIT has not yet done.
   - **Discussion:** Nickerson is considering writing an article for the *Tech* saying that MIT will pull back and not make the analytics automatic, but rather offer DLCs a choice to opt in.
   - Ian Waitz asked if the option for DLCs to opt in or out would be determined by the department head. Letting a DLC opt in or opt out doesn’t address concerns at an individual level—an open gap. On the other hand he wonders if Nickerson pulled back too far. The School of Engineering worked on a protocol for what DLCs should send out and when it should cascade up to the school level and then up to the News Office, and then getting analytics: this is seen as more effective than everyone broadcasting on every channel available.
   - **Action Items:** Create a privacy statement for MIT. Provide information to the community about opting in or out, and encourage DLC protocols for strategic communications.

4. Use of Network Address Translation (NAT) and network security monitoring at MIT
   - There was pushback from the Student Information Processing Board (SIPB) about the use of NAT and Palo Alto firewall technologies within the NextGen MITnet architecture.
   - **Discussion:** Bob Redwine reported that the ITPC does not have policy-related or privacy concerns about the use NAT or Palo Alto firewall equipment, but did note the importance of effective advance communications.
   - **Action Items:** None.

### III. Cloud Journey & Software Governance (Discussion)

John Charles gave updates on software planning, management, and funding.

1. Software Planning
   - The industry-wide cloud journey is shifting IS&T’s primary role from legacy service provider to integrator and extender of modern software-as-a-service (SaaS) solutions. In this new role, IS&T partners with VPF’s Strategic Sourcing team to function as brokers of core IT services for the MIT community – requiring effective software asset management processes.
   - Emma Levett has been hired to lead IS&T’s new Software Asset Management function. In accordance with recommendations from the Software Portfolio Planning Committee, IS&T has segmented the Institute’s Software Portfolio into three categories:
     - 1) Core infrastructure needs (e.g., cloud datacenter, etc.)
     - 2) Core administrative needs (e.g., student information systems, etc.)
     - 3) Broad-based community needs (e.g., Microsoft Office, etc.)
   - **Discussion:** Karen Gleason asked if IS&T has explored Harvard and Stanford practices around software asset management. John Charles responded that while IS&T is not as heavily staffed in this area, we’ll leverage what we can from Harvard and Stanford’s software planning practices.

2. Software Asset Management
   - Most of the software budget goes to about a dozen vendors; the budget has increased over 300% in five years. Emma Levett is examining the software management cycle, from planning, purchasing and deployment through forecasting, management and retirement.
Many items—such as vendor management, compliance, roadmaps and forecasting—still need to be fully fleshed-out.

3. Software Funding Challenges

- Most vendors are moving away from perpetual licenses to annual subscription-based models - some of which also include consumption-based pricing. CPI/inflation is not currently built into IS&T’s software budget, and consumption-based cost controls are not in place.
- Discussion: Ian Waitz observed that his area has not budgeted for ongoing costs associated with critical software for campus tours, the new admissions system, and blockchain-based diplomas. Karen Gleason asked if standardization would save a lot of money. Perhaps MIT could adopt a model of standardized centrally-funded software, with DLCs spending their own money if they want to use something else. It’s important to determine which software is used by which groups and identify options for cost recovery and handling growth. Consider standardizing on a baseline level of centrally-funded software for use by the MIT community.

IV. Software Asset Management — Dropbox (Endorsement of next steps)

Chris Bunn and Emma Levett summarized the background and current status of Dropbox usage at MIT.

- Effective July 2018, Dropbox will no longer offer MIT unlimited storage. The MIT Dropbox storage at current pricing will be capped at 1.9 petabytes. Growth on campus has been huge and it’s expected that MIT will reach the 1.9 petabyte limit in the next four months. Two options were reviewed:
  1) 200GB baseline quota for all users
  2) 200GB baseline quota for all users, with a cap that grandfathered users exceeding 200GB but under 1TB
- Dropbox is used not just for storage but for sharing. Because Dropbox was created by MIT alumni and is part of the culture here, MIT is on the leading edge with Dropbox, compared to Harvard and Stanford.
- Discussion: Questions included the following:
  1) Who are the big users? (biggest user is the Media Lab)
  2) What is a reasonable amount of “free” storage?
  3) How would a chargeback model work for researchers? And how would IS&T recover costs?
  4) What levels/principles of use should be documented and communicated?
A community business model is key. It’s important to talk to mega-users. There’s an inherent risk when we don’t know who’s using which products. Emma Levett is doing an analysis of consumption-based usage.
Dropbox can be used as a test case over the next 9 months for how MIT and IS&T can manage consumption-based software costs in the future.

- Action Items (and further discussion): Tony Sharon outlined three steps.
  1) Update Dropbox usage figures based on new students on campus; how much has it increased?
  2) Communicate with heavy users about changes ahead.
  3) Give Schools and DLCs a heads-up about changes in the budget process; a year from now they may need to pick up costs.
Glen Shor suggested determining a “sweet spot” quota that might grow over time, as well as doing a step analysis of costs at different levels.
Karen Gleason observed that in tracking use, we need to be careful that is doesn’t require hours and hours of oversight.
Ian Waitz noted that it’s important to remember that staff work on annual budgets in November. With 19,000 people in the community who will be impacted, a well-timed communications strategy is important.

V. Budget & Governance (Discussion)
In the interests of time, Tony Sharon did not go deeply into budget and governance. He commented that Provost Martin Schmidt, Executive Vice President and Treasurer Israel Ruiz, EVPT Executive Director Robin Elices, and Assistant Provost Doreen Morris will all be involved and that prioritization will be key. He mentioned three FY18 projects with new ongoing costs:
- Administrative Systems Steering Committee (ASSC): HANA Data Warehouse
- Student Systems Steering Committee (SSSC): Learning Machine Admissions System Integrations
- SSSC: Blockchain-based Diplomas

VI. **Telephone Systems Update** (Discussion)
This agenda item was also touched on only briefly, in the interests of time. Tony Sharon recapped the causes of two phone system outages, noting that deferred maintenance on older systems contributed to the outages. 5ESS lines are being phased out and upgrades should be treated like a capital renewal program.

VII. **Draft Security Protocol for Endeavors Involving High-Risk Entities** (Discussion)
This agenda item was skipped entirely.

VIII. **NextGen MITnet Update** (Discussion)
John Charles discussed the implementation approach, communications and coordination, and the current schedule for the consolidation of IPv4 addresses.

1. Implementation approach
   - In the pilot tranche, 10 buildings on west campus with small numbers of devices were renumbered, along with IS&T Buildings W91 and W92. The operational risk was determined to be low.
   - An automated self-service process will be put in place for community members to obtain public-facing IPv4 addresses at any time. No approvals will be required. This work is in progress.
   - There are a number of DLCs (CSAIL, Media Lab, etc.) that operate private networks outside of the firewall and this will continue.
   - The goal is to move to dual stack (IPv4 and IPv6) while minimizing end user disruptions and continuing to foster experimentation and innovation.

2. Communications and coordination
   - The ITPC has reviewed the security and privacy plans. The ad hoc Advisory Group will review the network architecture and renumbering plans on September 25.
   - IS&T will be publishing the initial building-by-building IPv4 renumbering schedule soon. However, specific dates for individual buildings are subject to change as IS&T works with DLCs and building occupants.
   - There is some risk involved, an example being WMBR’s playlist website (track-blaster.com) becoming unavailable from off campus because it was not identified as a public facing website.
   - **Discussion:** Karen Gleason noted that the glitch involving WMBR’s playlist website created a lot of static on campus and asked how we can to avoid this type of situation in the future. John Charles responded that it will be important to ask DLCs more questions about externally facing sites well in advance of renumbering.

3. Current schedule
   - IS&T has an obligation to free-up another 4M IPv4 addresses for transfer to Amazon by the end of June 2018. After that, switch and configuration updates will be made in the remaining campus buildings. All the flexibilities that MITnet currently has will be maintained.
   - **Discussion:** Karen Gleason mentioned that other than SIPB, students don’t communicate much. The *Tech* is one avenue for reaching them. An effective communications strategy is critical and should be launched well in advance.