IS&T proposes retiring the following services. This document outlines the various services and explains the rational for requesting approval to retire these services, who would be affected, what alternatives there would be for the community, what the risk would be if we continue the service and what the plan is for retirement of the service.

• Brio Query – [Data Management]
• Travel – Legacy SAP [Administrative Systems]
• Learning Management – Thalia [Education Systems]
• Remote Access – Tether [Operations & Infrastructure]
• Calendaring – Tech Time [Operations & Infrastructure]
• Email – IMAP [Operations & Infrastructure]
IS&T Service Retirement Preparation

Name of Service: Brio Query

Description of Service:

Brio Query was the software recommended for querying, manipulating and reporting on data from the Institute’s Data Warehouse.

Why do we want to retire this service?

We are replacing Brio Query with IBM COGNOS, which was purchased earlier this fiscal year. IS&T is working with the MIT community to streamline data and review and redefine the DLC’s reporting requirements. In March 2012 IS&T will stop developing new reports in Brio Query for community deployment. From that point forward all community wide templates will be built in COGNOS. Data Management will still offer Brio support and help to individuals.

Which Departments, Labs, and Centers are using this service and how many people would be affected? What is the community impact? Identify any high profile members of the community that would be impacted.

All DLC’s that need to report on Administrative data are using this service.

What alternatives are there for the community?

Reporting will be done with the IBM COGNOS tool suite which is much more robust than the Brio Query tool. COGNOS is a total web based solution that has increased functionality. It eliminates the need for the community to understand how to join tables and provides the ability to drill up and down between reports.

What is the Cost of running this service and what savings would be achieved? What is the risk if we continue to utilize the existing service?

The Data Management Team is focused on what data people need to do their business and using that information to generate reports rather than just migrating existing reports to the new tool. We anticipate retiring Brio in approximately 2 – 3 years, when all reporting has been transferred to COGNOS.
What is the plan for transitioning users to an alternative service, including high-level milestones?

- Complete training modules
- Rollout training – February 2012
- Stop building community reports in Brio Query – March 2012
- Continue working with existing focus groups
- Kickoff central reporting focus groups - Q3 2012
- Kickoff student area focus group - Q4 2012
**IS&T Service Retirement Preparation**

**Name of Service:** Travel-Legacy SAP

**Description of Service:**
Custom SAP travel application that was replaced by Concur in 2010.

**Why do we want to retire this service?**
Redundant, less functionality application compared with Concur.

**Which Departments, Labs, and Centers are using this service and how many people would be affected? What is the community impact? Identify any high profile members of the community that would be impacted.**

The small number of individuals who have not adopted the Concur travel system. The Travel office is currently in the Process of converting President Hockfield to Concur and they have approx. 40 outstanding advances to be cleared in the old system. They are aggressively working to get these cleared, are hoping to have the outstanding advances cleared by June.

**What alternatives are there for the community?**
Use the current travel system, Concur.

**What is the Cost of running this service and what savings would be achieved? What is the risk if we continue to utilize the existing service?**
May require maintenance to keep it working when SAP is updated or new functions are added.

**What is the plan for transitioning users to an alternative service, including high-level milestones?**
The VPF Travel office is converting remaining users to Concur. They anticipate all outstanding advances to be cleared by June.
Name of Service: Thalia

Description of Service: Image management service

Why do we want to retire this service?

1. Usage of the service has been flat over the past several years.
2. Analogous or superior external services are currently available at low cost to interested users.

Which Departments, Labs, and Centers are using this service and how many people would be affected? What is the community impact? Identify any high profile members of the community that would be impacted.

Primary users (highest interest users are highlighted in yellow):

- Architecture and Planning
  - D-LAB
  - DAPER
  - Edgerton
  - Media Arts and Sciences
  - HST
  - McGovern
  - MISTI
  - Libraries
  - Music - Concerts Office
  - OEIT
  - CPS (formerly PSB)
  - Resource and Development
  - UROP

What alternatives are there for the community?

Third-party services such as Flickr and Picasa offer robust image collection and organization functionality under no-cost or low-cost programs, and are well-known in the community. Flickr in particular enjoys the support CPS, a major Thalia stakeholder.
What is the cost of running this service and what savings would be achieved? What is the risk if we continue to utilize the existing service?

Annual cost: $17,325

Risk: Cost is negligible, but there is little justification for (a) maintaining a dated non-industry standard service or (b) rebuilding such a service to bring it up to current industry specs when viable, low-cost third party alternatives are available.

What is the plan for transitioning users to an alternative service, including high-level milestones?

Users should be allowed at least a 20-month notice period between the initial retirement announcement and the functional retirement of the Thalia service.

All users should be offered transition assistance to a recommended third-party service, including backup and transfer of image collections, training, and initial support.

All image collections should be backed up and archived for a period of 5 years following retirement of the service, unless users explicitly request their deletion (i.e., upon transition to a third-party service).

Assuming that date 0 corresponds to the date at which a decision to retire the service is made:

Date 0: Decision point

+ 3 months: internal consensus achieved on provision of required resources required for supporting the user transition and training process.

+1 month: first announcement to community regarding impending retirement of Thalia, specifying that the service will be retired in 18 months and offering to transition of interested users to <third-party service>. IS&T should be ready to transition and train interested users immediately after the first announcement.

+4 months: second announcement, reminder of deadline, reiteration of available training and support resources.

+4 months: third announcement, reminder of deadline, reiteration of available training and support resources. One-on one follow-up with departments that have not yet responded.

+4 months: fourth announcement, reminder of deadline, reiteration of available training and support resources. At this point, IS&T should offer in-office visits to individuals requiring assistance with transition to a third-party service.
+4 months: fourth announcement, reminder of imminent deadline, reiteration of available training and support resources. In-office visits to individuals requiring assistance with transition to a third-party service continue.

+4 months: service shutdown, archiving of appropriate collections. Follow-up training for <third party service> should continue for an additional 4 months in order to support late/final adopters if necessary.
IS&T Service Retirement Preparation

Name of Service: Remote Access - Tether

Description of Service:

Tether is the name for MIT’s remote access dialup service, which provides connecting users with an up to 56k connection to the MIT network with a MITnet IP address.

Why do we want to retire this service?

Remote network connectivity is today readily available outside the MIT campus through high-speed cable modem, DSL, and wireless/cellular technologies providing speeds in far excess of the 56k that we provide as part of our Tether service. The ability to obtain an unobstructed connection to the MIT network with a MITnet IP address is available today through our VPN service, which works over any standard network connection.

We maintain the following as part of the Tether infrastructure:

- A set of three dedicated dialup T1 connections in order to provide connectivity to the phone network
- Three dialup Tether servers
- A radius server for authenticating users connecting to the service

Which Departments, Labs, and Centers are using this service and how many people would be affected? What is the community impact? Identify any high profile members of the community that would be impacted.

The tether service has had a total of 50 unique users over the last 14 months:

Kirkor Bozdogan, Sociotechnical Systems Research Center (staff)
S A Crawford-Jenkins, Sloan School of Management (staff)
Douglas J Le Vie, HR/Payroll (staff)
Eleanor Chin, Sloan School of Management (staff)
Herbert H Einstein, Department of Civil and Environmental Engineering (staff)*
Frances K Goldstein, Center for Global Change Science (staff)
Gene F Dresselhaus, Francis Bitter Magnet Laboratory (staff)
Joan C Quigley, Kavli Institute for Astrophysics & Space Research (staff)
Kathleen Vandiver, Center for Environmental Health Sciences (staff)
Klaus Biemann, Department of Chemistry (staff)*
Paul Keel, Computer Science & Artificial Intelligence Lab (staff)
J. Kim Vandiver, Department of Mechanical Engineering (staff)*
What alternatives are there for the community?

There are other commercial dialup services available today from a variety of Internet Service Providers such as Earthlink, NetZero, Juno, MSN, and AOL.

What is the Cost of running this service and what savings would be achieved? What is the risk if we continue to utilize the existing service?

We incur annual costs for the T1 circuits of approximately $20k, and the current Tether dialup servers are due for replacement with an expected cost to replace the existing...
servers with two new servers expected to cost approximately $40k with annual recurring hardware support costs of approximately $3k-5k.

The service is on an aging hardware platform and the technology involved is in very limited use with limited staff with expertise or experience in supporting it, thereby making its continued support difficult.

**What is the plan for transitioning users to an alternative service, including high-level milestones?**

Given the relatively small number of users who are utilizing the service, the transition plan would consist of personal outreach to each member of the approximately fifty-person community currently using the service. We would work with them to find a comparable offering if they still need dialup access functionality or work to migrate them to more modern connectivity methods if possible and desirable. There may be some cost implications that would need to be considered as Tether is an effectively free service to the MIT community as there is not an additional charge for its use, and the use of a commercial service provider may have cost implications that would need to be considered.
IS&T Service Retirement Preparation

Name of Service: Calendaring – Oracle Techtime

Description of Service:

Techtime calendar was the name of the MIT branded name for the Oracle calendar product, which IS&T offered as its first enterprise-wide calendar service for the MIT community. The enterprise calendaring functionality that was provided as a standalone service with Techtime, has since been migrated to an integrated email/calendar service offered as part of our Exchange service offering.

Why do we want to retire this service?

Oracle calendar is a service that is no longer offered or supported by Oracle as they have replaced their standalone calendar product with an integrated email/calendar collaboration suite offering. IS&T already offers an integrated email/calendar service to the MIT community as part of the Exchange service and we would like to retire this no longer supported service that is running on an antiquated Sun Solaris hardware/software platform.

Which Departments, Labs, and Centers are using this service and how many people would be affected? What is the community impact? Identify any high profile members of the community that would be impacted.

All MIT DLCs have completed a migration to the integrated email/calendar Exchange service as part of the campus migration, with the exception of Koch Institute for Integrative Cancer Research, which comprises a user community of approximately 400 users. They are currently using The Techtime calendar for scheduling the use of several pieces of laboratory equipment that has very limited availability and requires a tightly coordinated schedule to ensure their use and availability to the researchers.

What alternatives are there for the community?

IS&T does not currently have a standalone calendar service offering, but there are several DLCs at MIT operating standalone calendar solutions for the purpose of managing equipment. The Koch Institute facilities folks have decided to move forward with migrating their lab equipment scheduling needs into The Coral Lab Management system developed here at MIT and at use in MTL. There are other commercial offerings that could be
considered should they run into difficulties in their migration, but a relevant question to consider is whether there is a broader need for a central offering to support the scheduling of laboratory equipment at MIT or if this is a space best left to the locally provided solutions of the DLCs.

**What is the Cost of running this service and what savings would be achieved? What is the risk if we continue to utilize the existing service?**

The costs of the service are primarily related to maintaining its existing hardware software environment that currently includes a single Sun Solaris server and approximately 1TB of SAN storage space. There is additional staff time and resources spent addressing account management requests and issues that come up and require support or assistance. The current hardware platform is in need of an upcoming upgrade and would require the expenditure of an additional $20-30k, and support costs for the hardware platform are approximately $3-5k a year.

The risk of continued use of the existing service is limited skills available to support the current platform and its integration with our other systems including Moira and the Data Warehouse, and the age of the current hardware/software platform.

**What is the plan for transitioning users to an alternative service, including high-level milestones?**

The current plan is for the Koch Institute facilities staff to work on migrating their calendaring needs over to The Coral Lab Management System. We have as of yet not been able to set a date or schedule for the completion of this activity, and recognizing the integral role this service plays in the research activities of The Koch Institute we have continued to try and be as flexible as possible since we began discussing this specific use of The Techtime calendar back in April 2011.
IS&T Service Retirement Preparation

Name of Service: Email - IMAP

Description of Service:

IS&T operates central email services that are generally available to the MIT community. Today that service offering is comprised of two technology solutions, a Cyrus IMAP service running on a Sun Solaris platform w/ EMC SAN storage, and a Microsoft Exchange 2010 service running on IS&T’s VMware virtualization platform. The Cyrus IMAP service provides email services using both the IMAP and KPOP (Kerberized POP) protocols. The IMAP protocol is a widely supported protocol available in all modern email clients and mobile devices, and the KPOP protocol is supported by a very limited number of clients on the unix/Linux platforms and Eudora on the Mac and Windows platforms.

Why do we want to retire this service?

IS&T began the offering of a Microsoft Exchange email/calendar service in 2008, with the service providing Email services available through both IMAP and Microsoft’s Exchange protocols. IS&T worked with Departments, Labs and Centers throughout MIT to assist interested units in migrating to the Exchange email/calendar service over the last approximately three years, and began issuing mailboxes to newly created user accounts for students on only the Exchange platform as of April 2009 and for all faculty and staff as of January 2010.

The Exchange platform offers near parity with our Cyrus IMAP service as both services offer email access via IMAP, with the Exchange solution lacking only support for the KPOP protocol. The Exchange service also offers levels of redundancy and management that are not available in our Cyrus IMAP system. The current Cyrus IMAP infrastructure accounts for a server and storage footprint of:

- 10 Sun Solaris servers
- 10 webmail virtual servers (1 vCPU and 6GB of RAM)
- 11 Symantec virtual anti-spam appliances (2 vCPU and 4GB of RAM)
- Approximately 15TB of EMC SAN storage

The Cyrus IMAP service also requires us to maintain additional skills and resources to support the system both on the system administration and user support areas that are not widely available as it is essentially a homegrown platform with a very small set of folks with the local MIT knowledge to provide effective support for the platform.
The ten Sun Solaris servers are an aging hardware platform and an additional investment into migration to a new platform will need to be undertaken in the future should we opt to continue to maintain this service for the MIT community.

Which Departments, Labs, and Centers are using this service and how many people would be affected? What is the community impact? Identify any high profile members of the community that would be impacted.

The population of active user accounts for the Cyrus IMAP system (users who are publishing an @mit.edu email address and receiving mail at the Cyrus IMAP server either exclusively or via split forwarding) is approximately:

6240 – Affiliates  
2953 – Faculty and Staff  
2410 – Students  

Total – 11603

The population breakdown of faculty and staff user accounts for the Cyrus IMAP system by DLC is as follows:

184 - Department of Mechanical Engineering  
147 - Department of Biology  
96 - Research Laboratory of Electronics  
96 - Department of Biological Engineering  
95 - Dept of Earth, Atmospheric, & Planetary Sciences  
86 - Picower Institute for Learning & Memory  
85 - Dept of Electrical Engineering & Computer Science  
83 - Department of Brain and Cognitive Sciences  
81 - Department of Physics  
81 - Department of Civil and Environmental Engineering  
80 - Sloan School of Management  
79 - Department of Materials Science and Engineering  
79 - Department of Chemical Engineering  
70 - Department of Aeronautics and Astronautics  
69 - Harvd-MIT Division of Health Sciences & Technology  
69 - Department of Nuclear Science and Engineering  
63 - McGovern Institute for Brain Research  
61 - Laboratory for Nuclear Science  
53 - Division of Comparative Medicine  
53 - Department of Chemistry  
52 - Music and Theater Arts Section  
51 - David H Koch Institute for Integrative Cancer Res  
50 - Computer Science & Artificial Intelligence Lab*  
41 - Department of Urban Studies and Planning  
41 - Center for International Studies
6 - Edgerton Center
6 - Center for Biomedical Engineering
5 - Naval Science
5 - MIT-Portugal Program
5 - Gordon Engineering Leadership Program
5 - Center for Educational Computing Initiatives
5 - Center for Collective Intelligence
4 - Singapore-MIT Alliance for Research and Technology
4 - Research Laboratory of Electronics HQ
4 - Office of the Institute Professors***
4 - MIT Program in Art, Culture and Technology
4 - Center for Materials Science and Engineering
4 - Center for Environmental Health Sciences
4 - Campus Activities Complex
3 - School of Science
3 - School of Engineering
3 - Operations Research Center
3 - Office of the Vice President for Institute Affairs**
3 - Office of the Arts
3 - MIT-SUTD Collaboration
3 - MIT Press
3 - Legatum Center for Dev Entrepreneurship
3 - Information Services & Technology
3 - Copy Technology Centers
3 - Center for Real Estate
3 - Abdul Latif Jameel Poverty Action Lab
2 - Whitaker College of Health Science & Technology
2 - School of Architecture and Planning
2 - Masdar
2 - List Visual Arts Center
2 - Design Laboratory
2 - Corporate Relations/Industrial Liaison Program*
1 - Unknown
1 - Undergraduate Advising and Academic Programming
1 - Terrascope
1 - Technology Review*
1 - Technology Licensing Office
1 - Technology and Policy Program
1 - Singapore/MIT Alliance Program
1 - OpenCourseWare
1 - Office of Development Services
1 - MIT Investment Management Company*
1 - Microphotonics Center
1 - Kuwait-MIT Center for Natural Resources
1 - Haystack Observatory*
1 - Experimental Study Group
1 - Earth System Initiative
1 - DLC Heads Science
1 - Deshpande Center for Technological Innovations
1 - DAPER Facilities
1 - Concourse
1 - Chancellor’s Office**

* Departments that have their own local email service offerings

** VIP/High Profile DLC

The population breakdown of student user accounts for the Cyrus IMAP system by DLC is as follows:

1673 – Graduate students
621 – Class of 2012
65 – Class of 2013
32 – Class of 2016
15 – Class of 2014
2 – Class of 2015

The population breakdown of affiliate user accounts for the Cyrus IMAP system by DLC is as follows:

2158 – Guest Accounts
182 – Voucher Accounts
3900 – Accounts pending for deactivation

What alternatives are there for the community?

IS&T offers an Exchange email/calendar service and we can provide migration of their current Cyrus IMAP data, and the Exchange service offers an IMAP interface if they desire to continue to access their email using that method. Users of our Cyrus IMAP service who desire an Email service supporting POP functionality (currently not configured in our Exchange environment) may be able to seek service from their own DLC if they offer email services locally or external email service providers such as Yahoo, Google and Microsoft.

What is the Cost of running this service and what savings would be achieved? What is the risk if we continue to utilize the existing service?

We completed an analysis for 2009 for Terry Stone and Sr. Management as part of the decision to move forward with an Exchange email/calendar offering for the MIT community. The cost per mailbox (including all the relevant hardware, software and staff costs) is approximately $49 per mailbox per year. As the total number of mailboxes on the Cyrus IMAP system is 11603, this translates to an annual cost of approximately $570,000.
The largest risk associated with continuing to offer the current service to the community is the age of the platform, the limited skills and expertise available both internally and externally to provide support for it, and its relatively limited features and functionality as compared to modern and integrated email/calendar systems. We have experienced outages over the last year, which have highlighted the risks involved with continuing to offer this service to the community. In each case the outage was a result of a failed hardware component or file system corruption, and there were outages that on the Exchange service would have been remediated much more quickly with its increased level of redundancy and automated failover.

**What is the plan for transitioning users to an alternative service, including high-level milestones?**

IS&T would plan to follow a very similar approach to the transition of the remaining Cyrus IMAP users as we did in the initial opt-in migration effort that IS&T managed over the last 12-18 months. IS&T would reach out to those DLCs with faculty and staff currently using the Cyrus IMAP and work with them to develop transition plans with their IT contacts (where available) or provide direct support and assistance through IS&T support resources. As we experienced during the initial Exchange migration effort, each DLC has different scheduling constraints and factors that need to be considered in this type of activity, and IS&T would work to complete this effort with the DLCs cooperatively and flexibly as possible.

IS&T would work to migrate the students by dividing the remaining Cyrus IMAP student population into several large groups and reaching out in directed mass-communication methods to engage them in the process, provide relevant information and answer any questions or concerns. As the majority of our student community accesses their email through webmail and or mobile devices, the migration process is somewhat simplified as compared to faculty and staff as there is not the same level of effort required by the desktop clients. This work would be scheduled around the academic calendar with any migration effort targeted around the Christmas/Spring breaks, IAP, or summer vacation.

The migration of affiliate user accounts on the Cyrus IMAP system would be approached in a similar fashion to the student approach with a similar outreach and communications effort targeted at large groups of the affiliates. There would be potentially greater flexibility in the schedule but efforts would be targeted around lower activity periods in order to minimize the impact to the users involved.