



TO: Harvard University CIO Council  
FROM: Ellen Gulachenski, Managing Director of Project and Vendor Management, HUIT  
RE: **ITCRB Organizational Capacity**  
DATE: October 31, 2016

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Thank you so much for setting aside time in this important upcoming CIO Council meeting on November 14. We will be discussing the potential impact of proposed Information Technology Capital Review Board (ITCRB) projects on your schools. We very much appreciate your engagement and the significant time that you are devoting to evaluating and supporting this process to prioritize Harvard's IT investments.

Organizational Impact is a concept that the ITCRB has been grappling with for a couple of years as we try to understand and plan for the impact of these large IT projects on the schools and other organizations within Harvard. We have heard from you and others that these project often require a significant effort from the schools and others to make these projects successful and we want to consider that not just for individual projects but also in the planning of the whole portfolio of ITCRB projects.

The ITCRB defines Organizational Impact as:

- The impact during the project (planning and implementation) and during the rollout of the solution with its changes to the user community.
- During Project
  - Effort from schools (and other organizations) to participate in the project's requirements definition, process re-design, interface definitions, etc.
  - Effort from schools (and other organizations) to participate in the project's governance
- During Rollout
  - Effort of school representatives directly or through engagement councils to rollout system to their school's user community
  - Effort of user community to be prepared for system including training, communications about launch dates, etc.

In the past when a new project was proposed to the ITCRB, the proposer of the project had been asked to define what types of resources (outside the sponsoring organization and HUIT) that will be needed to support the project and for how long. While the proposers estimated this impact, in some cases what was actually needed from the schools did not match, resulting in additional stress and effort from the

schools to make the solution implementation a success. With this new process, we want to hear directly from you as representatives of your schools about the impact of the proposed projects so that each project's resource plan, budget, timeline or other aspects may be altered before submission to align better with the schools' schedules and needs.

Enclosed is a set of materials for your review in preparation for the meeting on November 14. The focus of this meeting is to hear from you about the anticipated effort that these proposed projects may require from your school.

#### Background Materials about the Process

- Memo to the ITCRB about the revised Organizational Impact process recommendation
- Overview of the process from the perspective of a committee member (PowerPoint)
- Organizational Capacity Assessment form (to be collected at the meeting)

#### Materials about the Portfolio of Projects

- List of ITCRB Intent to Submit proposals – This is the list of all projects coming forward seeking funding to start in FY18. You are reviewing the subset of the list that relates most closely to your area of expertise and that is likely to impact your area the most.
- HUIT Three Year Strategic Goals and IT Roadmap

#### Proposals for Discussion

- Centralized Video Storage
- IAM and AD Improvements

At the meeting we will provide you with an assessment form to collect your feedback about the organizational impact of each proposal on your school. Since this is a new process we will be sending to you a follow up survey after the meeting asking you for feedback about the organizational impact process itself so that we can improve next year.

Thanks again for your support of the ITCRB. We are looking forward to the discussion of these proposed projects as we continue to ensure that Harvard is making the best use of its investments in IT.



**TO:** ITCRB

**FROM:** PRC Organizational Impact Subgroup - Ellen Gulachenski, Katherine Gates, Eric Hultmark, Siovhán O'Connor, Victoria Johnson, Rita Moore

**RE:** **Recommendation for New Approach to Organizational Impact for Project**

**DATE:** August 12, 2016

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The Organizational Impact subgroup met with the following objectives:

- Define meaning and need for a more accurate assessment of organizational impact
- Define method by which project proposals will define organizational impact
- Define method by which a collective view of organizational impact will be generated for assessment of needs across the schools

We believe that we have refined the concepts and determined a more effective method to assess and manage the organizational impact needs of the projects and the schools. We want this process to be part of project planning but not onerous to the project team. We felt it was important that the proposed process give the schools (and other impacted units) a sense of what impact the project will have and obtain from the schools an agreement to support/absorb that impact.

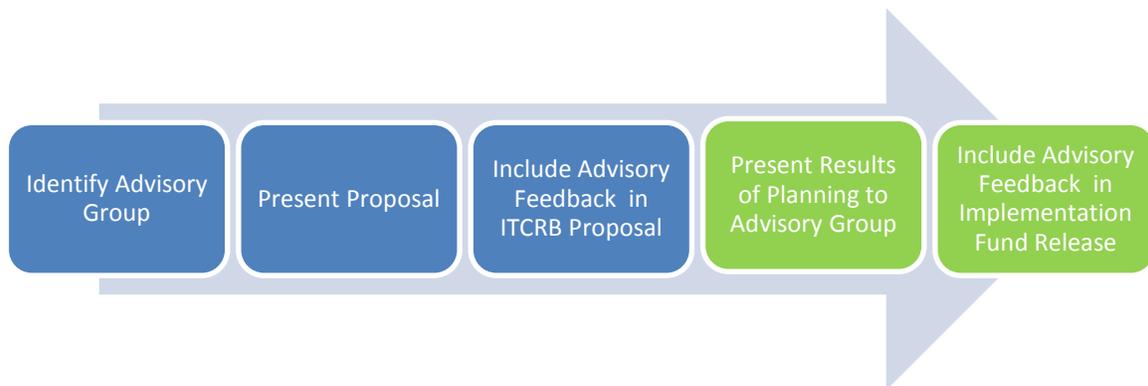
**Definition of Organizational Impact**

- There are 2 components to organizational impact and those points of impact are during the project (planning and implementation) and the rollout of the changes to the user community.
- During Project
  - Effort from schools (and other orgs.) to participate in the project's requirements definition, process re-design, interface definitions, etc.
  - Effort from schools (and other orgs.) to participate in the project's governance - Every school should have opportunity for representation on an engagement or steering committee for each project and schools can choose to opt out
- Rollout

- Effort of school representatives on the project team directly or through engagement councils to rollout system to user community
- Effort of user community to be prepared for system including training, communications about launch dates, etc.

**Recommendation**

*When a project proposal is being developed, the proposal must be reviewed with an advisory group for the proposer’s functional area to advise on school support, rollout approach, and timeline. The feedback from the advisory group will be considered by the ITCRB and PRC as part of reviewing each proposal. Likewise when the project’s plan phase is nearly complete the project will be presented again to the functional area’s advisory group for a more detailed assessment by the school representatives of support and timing.*



	Identify Advisory Group	Present Proposal	Include Advisory Feedback in ITCRB Proposal	Present Results of Planning to Advisory Group	Include Advisory Feedback in Implementation Fund Release
Purpose	Define existing or form new group to assess school impact of project	Make schools aware of project and very high level support needs and timeline	Share feedback from schools about project with ITCRB	Share detailed timeline for rollout and support plans	Share feedback from schools about project with PRC and ITCRB
Output	Schedule before 12/1 the proposal’s presentation with the advisory group	Collect schools’ key issues, risks, and concerns with a chart of support level by school	Submit ITCRB proposal with advisory group feedback	Identify school rollout issues, risks, and concerns with a chart of support level by school	Submit implementation fund release to PRC and ITCRB

Key: Proposal Planning

## Proposal

- Match project with an existing advisory group, such as Finance Deans, HR Deans and Directors, or CIO Council, based on functional area primarily benefiting from the project.
  - For projects without an obvious matching advisory group, such as projects with a very broad functional impact, the HUIT PMO will assist the project manager with convening a special advisory group specifically for the project. The school representatives who participate in the special advisory group would not necessarily become the school local implementation managers or part of the school's engagement council.
- The proposal must be reviewed with the appropriate advisory group before submission to ITCRB.
- Project must be presented to the advisory group in context of the related functional roadmap of both active and planned projects so that the advisory group can assess the project taking into consideration the needs of all projects.
- The project manager explains the project's timeline and anticipated effort from the schools to support the project.
- A set of open ended questions are reviewed with the group to delve into the expected support needs of the project.
- Group members indicate ability to support as Red, Yellow, or Green for their school's capacity. These will be documented and included in the materials submitted for the PRC and ITCRB review.

## Planning

- The Project Manager returns to the advisory group in advance of submitting an implementation fund release to present a more detailed implementation/rollout plan.
- Project is presented again in context of related functional roadmap of both active and planned projects so that the advisory group can re-assess the project, taking into consideration the needs of all projects.
- A set of open ended questions are reviewed with the group to delve into the expected support needs of the project rollout.
- Group members indicate ability to support as Red, Yellow, or Green for their school's capacity. These will be documented and included in the materials for the PRC review for implementation fund release.

**Example of Matching of FY16 ITCRB Projects and their Advisory Group**

ITCRB Project	Advisory Committee to assess impact
Peoplesoft 9.2 Upgrade	HR Deans and Directors
Collaboration	CIO Council
MOFR Phase II	Controllers Roundtable
PI Dashboard	Specially formed committee
Harvard Training Portal	Specially formed committee
Travel and Expense (Concur)	Controllers Roundtable
HUBS Upgrade	Budget Directors
Harvard Invention Reporting and Tracking	Specially formed committee
AA&D and HR Reports migration from CREW	HR Deans and Directors + AAD Reps

**Example: Advisory Group Meeting Project Materials Provided**

- Functional roadmap which includes the project
- Scope of project
- Project Timeline
- Intended direct users of new/enhanced system
- Rollout strategy, e.g., all at once, pilot school and then the rest, rolling waves of schools, etc.
- Staffing support the project will need – LME, SME, representatives on steering committee, pilot users, participants in UAT etc. – and rough estimate of the expected timing such as fall semester or April to July. (No expectation of specific hrs.). Include Job families likely impacted (ex. payroll, benefits, data analyst, etc.) and how they will be impacted during both the project and the rollout.

**ITCRB Proposal Content**

- Advisory Group: <name>
- Review Meeting: <date of meeting>
- Feedback from schools:
  - Concern/Risk 1
  - Concern/Risk 2

Example: Summary of Support Available for Project XYZ

	HKS	SPH	HMS	FAS	HDS	GSD	HBS
Job Family 1							
Job Family 2							



**HARVARD UNIVERSITY**  
Information Technology

**Information Technology Capital Review Board (ITCRB)  
FY18 Organizational Impact:  
The Role of the Advisory Group**

# Agenda

- Organizational impact goals and process
- Role of the advisory group members
- Key Questions to Consider and Impact ratings

# Goals of the Organizational Impact Process

## Goals

- Improve decision-makers' understanding of a potential project's impact on University faculty and staff.
- Allow senior school leaders to influence the project's timeline, resources, and plans
- Provide feedback to the ITCRB so that they can make more informed decisions about project proposals.
- Allow project teams to understand school needs and adjust plans for project to ensure success at all schools

## Anticipated Result

- Better outcomes for funded projects since schools and impacted organizations will be informed, prepared, and committed to projects earlier in the process.

## Process overview

1. Proposed projects for ITCRB and HUIT Project Management Office (PMO) identify appropriate advisory group(s) of senior school leadership.
  - Potential groups include: Fin Deans, CIO Council, and Research Admin Systems Executive Committee.
2. Organizational impact presentation given to advisory group:
  - Functional area's strategic goals and IT roadmap
  - For each proposed project:
    - project vision, benefits, timeline, and anticipated organizational impact.
3. Project team documents feedback received from advisory group and submits as part of ITCRB proposal.
4. Approved/funded projects will return to advisory group during planning phase for re-assessment of impact

## Role of advisory group members:

- **Goal:** Begin a conversation between your school and the project team about potential impact of the project on your school.
- Actions before meeting:
  - Review functional area and project specific materials
  - Discuss the projects with any impacted groups within your school to gather feedback about impact
- Attend meeting to discuss projects' impact on your school.
- Give feedback to project team on any concerns that your school may have.
- Advise project team on how to continue the impact discussion at your school.
- Fill out organizational impact grid on behalf of your school and share with PMO and project team (after the meeting).

## Advisory Group Meeting Agenda and Materials

- Review Organizational Impact process and objectives (5 min)
- Review Functional Area strategic goals and IT roadmap (15 min)
- Review IT projects from functional area seeking FY18 ITCRB funding
  - Project Proposal A (10 min) review and impact discussion
  - Project Proposal B (10 min) review and impact discussion
  - Project Proposal C (10 min) review and Impact discussion
- Gather additional feedback from group (10 min)

# Key questions for the advisory group to consider

## Rollout

- Is the project rollout timed in a way to make the most positive impact on the affected users in your schools?
- Is the rollout approach (e.g. big bang, phased) appropriate?
- Could the proposed project rollout approach/timing negatively impact any key school processes?

## Resources

- Are there any internal school initiatives that would impact the same resources as the proposed project?
- Has the project appropriately defined the resources that will be impacted in your school?
- Would the support resources needed by the project be available during the proposed timeline?

## Impact

- Has the project accurately identified the project's long term operational impact to your school?

## Impact grid to be completed by each advisory group member

	Your school
During Project	Yellow
Go-live and stabilization	Yellow
Ongoing post-live operations	Green

**GREEN**

= Fully committed, impact can be absorbed

**YELLOW**

= Tentatively committed, impact issues identified

**RED**

= Uncommitted, significant impact issues need to be addressed

## Org. Impact Info to be included in ITCRB Project Proposal

- Information about advisory group meeting, such as date and members
- Key feedback from schools and proposal adjustments to address concerns
- Plans for continued engagement with schools if project approved

Example of grid (one column for each school/impacted unit):

	HKS	HChan	HMS	FAS	HDS	GSD	HBS	Others ...
During Project	Yellow	Red	Red	Red	Yellow	Yellow	Yellow	Yellow
Go-live and stabilization	Yellow	Red	Red	Red	Yellow	Yellow	Yellow	Yellow
Ongoing post-live operations	Green	Green	Green	Yellow	Green	Green	Green	Green

**GREEN**

= Fully committed, impact can be absorbed

**YELLOW**

= Tentatively committed, impact issues identified

**RED**

= Uncommitted, significant impact issues need to be addressed



## ITCRB Organizational Impact Assessment Form

Name: \_\_\_\_\_

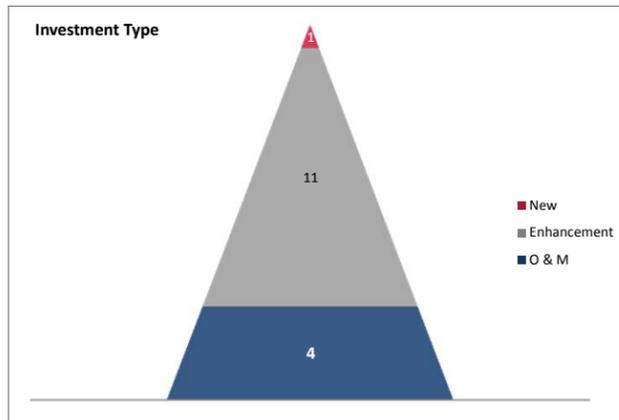
School/Org: \_\_\_\_\_

- GREEN = Fully committed, impact can be absorbed
- YELLOW = Tentatively committed, impact issues identified
- RED = Uncommitted, significant impact issues need to be addressed

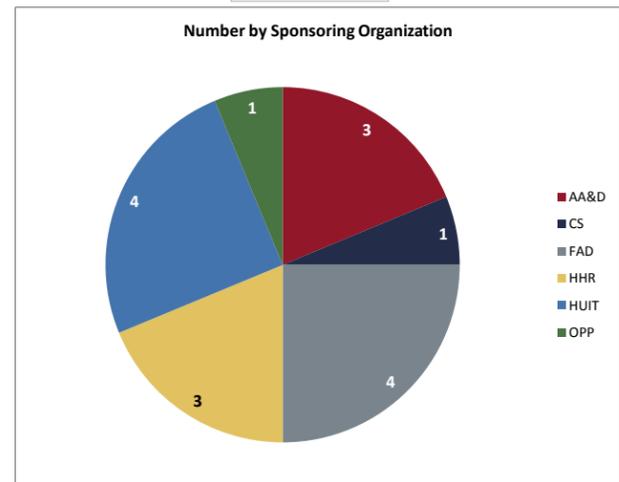
Return to Ellen Gulachenski ([ellen\\_gulachenski@harvard.edu](mailto:ellen_gulachenski@harvard.edu)) by 11/18/16

	<u>Impact</u> <u>(R/Y/G)</u>	<u>Notes</u>
		<b>Centralized Video Storage</b>
During Project		
Go-Live and stabilization		
On-going post-live operations		
		<b>IAM and AD Improvements</b>
During Project		
Go-Live and stabilization		
On-going post-live operations		

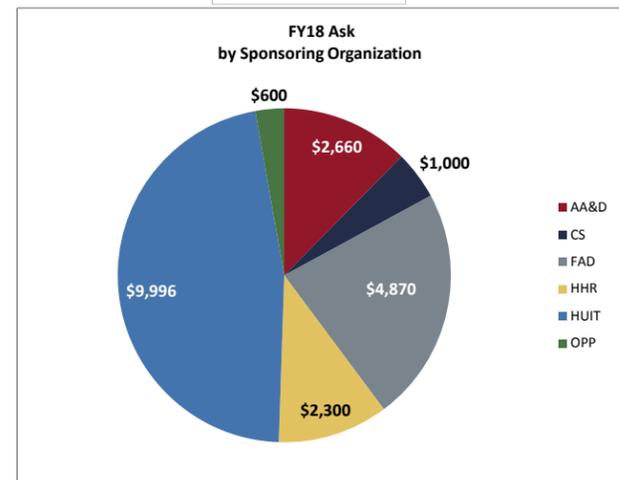
## FY18 ITCRB Funding Cycle - Intent to Submit



**16 Proposals**



**\$23m Total FY18**



#	Title	Organization	Project Description (Business Value)
1	<b>Class Reports Production Platform</b>	AA&D	An industry standard platform that provides better capabilities for the collection and production of books leading to better engagement of alumni and activation of interest in reunions and reconnecting with classmates, as well as increased value of data AA&D can then leverage for other business purposes.
2	<b>New CRM for University-wide AAD - Discovery</b>	AA&D	A more robust, University-wide Contact Relationship Management system with improved capabilities, user experience, workflows, and integration will allow staff to re-focus time on more critical programmatic activities as well as implement new programs and services.
3	<b>Tele-fundraising Platform</b>	AA&D	Implementing a new platform for AA&D's call center for fundraising activities with integrated data model and enhanced analytics will not only provide operational efficiency and reduce manual effort, but will allow dynamic adjustments to calling strategies ensuring optimal revenue generation, increased donor participation, and alignment with future strategic growth plans.
4	<b>Broadcast Communications</b>	CS	University-wide messaging to inform and engage the Harvard community with timely and relevant broadcast communications in support of University business, culture, and campus safety, resulting in productivity increases and efficiencies by replacing duplicate local solutions, processes, and resources.
5	<b>Buy 2 Pay - Planning Project</b>	FAD	Removing the inefficiencies that plague Harvard's buy-to-pay system would reduce the administrative time required to manage procurement, leverage buying power to get good pricing, and capture discounts, thus saving millions for the University.
6	<b>Concur T&amp;E Implementation</b>	FAD	A single platform for expense reimbursement, one consolidated system for processing corporate credit card and PCARD expenses, and an integrated platform for travel booking and expense, enabling numerous administrative, end user and financial benefits.
7	<b>Research Compliance Initiative</b>	FAD	Organizations will be able to self-serve with platform as a service offerings, assuming independent control and reducing dependencies on HUIT, and address various compliance areas that have emerged as audit and risk "hot spots." Business units and project teams will be able to operate more efficiently, providing greater availability of resources to address strategic problems.
8	<b>Research Finance: Cash Management and Reporting (FRAP Implementation)</b>	FAD	The OSP's Research Finance Team automates many of their 9000 deliverables, but the FRAP system is unable to handle deviations from the automated processes, thus forcing the staff to pull deliverables out of FRAP to prepare them manually. Improved FRAP functionality would result in a reduction in backlog, increased on-time submission rates, more timely payments, and improve grant management.
9	<b>Integrate Campus Service Time and Absence systems with PeopleSoft</b>	HHR	Campus Services has two separate groups of systems that also do Time and Attendance tracking in order to enable local time cards sweeping and an integrated work order billing process. Providing a better system integration will reduce duplication of data entry, lower the risk of error and increase the accuracy of data and reporting.
10	<b>Position Management</b>	HHR	Harvard's systems will transition to a position-based model that for the first time exposes vacant positions, provides a common link between the current and past state of the workforce and organization, and provides a means for integrating the HR, budgeting, talent acquisition and financial transaction systems, data and processes.
11	<b>Retro-Costing in PeopleSoft</b>	HHR	Using retro-costing will improve the data coming out of Qlikview, enable all retro-active adjustments in PeopleSoft at the job level, and will automatically feed the GL in the form of journal adjustments, thus making it easier for line staff, particularly grant managers, to make retroactive costing changes consistent with federal effort reporting.
12	<b>Centralized video storage service planning and start-up</b>	HUIT	By providing this centralized solution, we have the opportunity to reduce the cost and complexity that users are experiencing today. Through guidelines and policy (including metadata) definition and implementation, we also will provide the the underpinnings for more robust use of the video assets that we have today.
13	<b>Collaboration - Administrative File Sharing</b>	HUIT	This project is expected to deliver easy to use file storage and sharing tools that improve collaboration across Harvard, increase security and compliance, and reduce costs.
14	<b>Data Management Services (DMS)</b>	HUIT	The fundamental objective of DMS is to enable improved decision-making and enhanced productivity through the effective use of administrative data and information management services. A more streamlined process leveraging modernized technology will remove barriers and expand Harvard's ability to maximize its administrative data assets.
15	<b>IAM and AD Security Improvements</b>	HUIT	Improved security leads to fewer data breaches. This means less impact to the community in the form of password resets. More importantly, it means less risk of reputational or financial harm or regulatory penalties to the University.
16	<b>Transformative Title IX Awareness and Engagement Program Leveraging Dynamic</b>	OPP	Reduces legal and reputational risk to the university by providing immediate access to resources, increasing reporting, and building trust with the community through responsive and innovative solutions.



**HARVARD UNIVERSITY FY18 ITCRB Funding Cycle - Intent to Submit**  
Information Technology

Title	Project Description (Business Value)	FY18	FY19	FY20	FY21	FY22	Total \$	Previous Award	Organization	Sponsor	Title	Project Contact	Investment Type
1 Class Reports Production Platform	<p>An industry standard platform that provides better capabilities for the collection and production of books would benefit the alumni, reunion participation, donations, and the staff who produce the books. The collection of essays and production of these books provides value in several areas. First, is the engagement of alumni and activation of interest in reunions and reconnecting with classmates.</p> <p>Second, is the value of the data captured. In the College alone, we see 50-75 percent participation per class which results in new data AA&amp;D can leverage for other business purposes such as current contact information, social media presence, employment data, familial relationships, areas of interest at the University and in the world, and publications and awards. Automatically integrating this data collection with other systems will allow us to more easily leverage and share it.</p> <p>Third, we are beginning to learn more about our alumni through analysis of the text of the essays. The Institutional Research team did a pilot research project with College class books that identified significant data findings that would enhance prospect management and solicitation for gifts.</p> <p>Fourth, we see significant engagement via donations to the College and to support publication of the books. Through these donations, the program to produce the books is self-funding. Better service offerings may increase that revenue stream and make the program even more profitable.</p> <p>Fifth, a new platform would minimize the risk we currently have using a platform provided by a small vendor with limited abilities to invest in the product.</p> <p>Finally, a platform that could be shared across the multiple schools could reduce individual costs and staff efforts in each school.</p>	\$310	\$165	\$	\$	\$	\$475	\$	AA&D	Tamara Rogers	Vice President for Alumni Affairs and Development	Julie Broad	Enhancement
2 New CRM for University-wide AAD - Discovery	<p>Approximately 1100 staff members rely upon Advance to manage daily operations related to alumni affairs and development. Beyond the traditional AA&amp;D offices, Advance is used by finance offices, affiliated units such as Athletics, and the Harvard Management Company. Advance serves as the system of record for all alumni affairs and development data - tracking over 1.1 million entities, 6 million gifts and pledges, and 340,000 prospects. The product is used to transact and manage data and activities which support staff efforts to raise \$1 Billion dollars per year as well as engage with and offer services to 350,000 alumni world-wide. Advance is the original data source and center point of many system integrations across the University. The data is used to support the work of thousands of alumni volunteers, alumni solicitors, and club administrators.</p> <p>A more robust, University-wide Contact Relationship Management system with improved capabilities, user experience, workflows, and integration will allow staff to re-focus time on more critical programmatic activities as well as implement new programs and services that cannot be supported with today's staffing levels. It will allow AA&amp;D to better track and manage new sets of data that will inform our prospect and engagement strategies. Addressing gaps in functionality will reduce the need for ancillary systems, customization, and manual processes. These improvements will help to keep the schools coordinated in their efforts and reduce individual investments in ancillary systems and processes.</p>	\$750	\$450	\$	\$	\$	\$1,200	\$	AA&D	Tamara Rogers	Vice President for Alumni Affairs and Development	Julie Broad	Enhancement
3 Tele-fundraising Platform	<p>Alumni Affairs and Development (AA&amp;D) operates a call center at 8 Story Street to conduct fundraising activities on behalf of multiple schools under the Harvard umbrella. The center is staffed by student callers throughout the academic year, under the program name Crimson Callers. Approximately 80 students are hired each year as employees of the University to call alumni and solicit pledges and credit card gifts based on school fundraising directives. Annually the program raises approximately \$1M and incentivizes approximately 6,500 alumni to donate. These are a lot of small donations, but they make up approximately 20% of the overall participation rate for Harvard College.</p> <p>Implementing a new platform with integrated data model and enhanced analytics will not only provide operational efficiency and reduce manual effort, but will allow dynamic adjustments to calling strategies ensuring optimal revenue generation. A new platform and infrastructure will provide stability to the calling program and potentially eliminate the reliance on analog phone systems.</p> <p>Better enabling the Crimson Caller Program will lead to more meaningful donor interaction. AA&amp;D will position themselves for increased donor participation. And this will align with future strategic growth plans to expand the reach of calling campaigns and move in the direction of larger, multi-channel, direct marketing efforts.</p>	\$1,600	\$1,700	\$	\$	\$	\$3,300	\$	AA&D	Tamara Rogers	Vice President for Alumni Affairs and Development	Julie Broad	Enhancement
4 Broadcast Communications	<p>Our vision is to enable University leadership and communications professionals to inform and engage the Harvard community with timely and relevant broadcast communications in support of University business, culture, and campus safety. Benefits include the following:</p> <ul style="list-style-type: none"> <li>- A comprehensive broadcast communications strategy across all categories with clear roles, responsibilities and business processes</li> <li>- Disparate systems will be replaced by a new SaaS platform which will increase efficiency for support and management</li> <li>- The list management function will be upgraded and made more robust and assigned operational resources</li> <li>- A centralized support model with pooled resources will accompany this centralized service offering</li> <li>- A transparent broadcast communications policy and formal governance structure will be created</li> <li>- A shared cost model and associated economies of scale will eventually result in productivity increases and efficiencies by replacing duplicate local solutions, processes, and resources</li> </ul> <p>Early beneficiaries include senior University leadership and Central Administration departments responsible for University-wide messaging in any category (Urgent Life Safety, Regulatory Compliance, Informational Updates, Community Engagement, Promotions) as well as the communication and emergency liaisons in each school.</p>	\$1,000	\$	\$	\$	\$	\$1,000	\$	CS	Meredith Weenick	Vice President for Campus Services	Jayashree Sengupta	Enhancement
5 Buy 2 Pay - Planning Project	<p>There is an urgent need to invest in a new Buy-to-Pay (B2P) system given the constrained financial environment in which Harvard is currently operating. Budgets are expected to be flat over the next few years and schools are under increasing pressure to decrease their administrative spending and create efficiencies. Reducing the administrative time required to manage procurement, leveraging buying power to get good pricing and capturing discounts could all translate into dollars saved. Based on a high level analysis, these savings could easily translate to millions of dollars savings for the University. Currently, the inefficiencies that plague Harvard's buy to pay system create an extraordinary burden on the workforce of every school, program and department at Harvard.</p>	\$525	\$	\$	\$	\$	\$525	\$	FAD	Thomas Hollister	Vice President for Finance and Chief Financial Officer	Dharmendra Khanna	Enhancement



**HARVARD UNIVERSITY FY18 ITCRB Funding Cycle - Intent to Submit**  
Information Technology

Title	Project Description (Business Value)	FY18	FY19	FY20	FY21	FY22	Total \$	Previous Award	Organization	Sponsor	Title	Project Contact	Investment Type
6 Concur T&E Implementation	<p>The combined scope of this request would result in the realization of numerous administrative, end user and financial benefits for Harvard University.</p> <p><b>Module 1: Expense</b> Completing the roll out of Concur's Expense module will result in a single platform for expense reimbursement. This will provide full visibility into detailed expense reimbursement data for vendor negotiations, policy compliance and auditing, eliminate expenses related to imaging of paper expense reports and reduce the administrative burden of managing two systems across the university. From an end user perspective, the implementation of Concur offers a significantly enhanced user experience through mobile functionality, corporate credit card integration and visibility into the status of reports.</p> <p><b>Module 2: PCARD</b> Implementing Concur's PCARD functionality will create one consolidated system for processing corporate credit card and PCARD expenses. Migrating from the current solution will provide PCARD administrators and users with the benefits of Concur including digital receipts, visibility into the process from start to finish, workflow routing, rules customized to Harvard's policies and full audit capabilities.</p> <p><b>Module 3: Travel</b> Implementing Concur's travel module would provide an integrated platform for travel booking and expense. Implementing Concur's travel module could significantly enhance compliance with travel policies related to sponsored funds (ex. Fly America Act, Lowest Airfare) and Harvard University travel policies at the time of booking. It would also significantly enhance the end user experience for expense reporting by activating electronic receipt functionality (prepopulating receipts items like air, hotel and car rentals into expense reports). Additionally, this could also result in potential savings through improved vendor negotiations and reduced booking fees.</p>	\$1,123	\$692	\$	\$	\$	\$1,815	\$2,231	FAD	Thomas Hollister	Vice President for Finance and Chief Financial Officer	Emily Livingston	O & M
7 Research Compliance Initiative	<p>The Research Compliance Initiative includes several components designed to understand, scope, and plan for addressing various compliance areas that have emerged as audit and risk "hot spots." The initiative includes the following components:</p> <ol style="list-style-type: none"> <li>1). Electronic inventory technology solution (RFID)/Planning and Implementation. Currently, there is not one, unified system for tracking the University's inventory of equipment. This initiative was scoped out of the Oracle Fixed Assets project, but is a business need that persists. From a compliance perspective, the University is required to track and report on its equipment with specific focus on equipment funded and/or furnished by the federal government. Without a central solution, schools are left to their own processes and comprehensive, accurate reporting is impossible. This portion of the project fund the planning and implementation of an RFID solution that is much needed and requested; the need is particularly great at HMS, FAS, and SEAS. Implementing an RFID solution would stave off significant audit risk, support the indirect cost rate analysis, and enhance local equipment processes. This is one of few projects in this space that has a direct ROI and creates significant efficiencies.</li> <li>2). University-wide Conflict of Interest system/Planning. Faculty and researchers have a requirement to disclose their financial holdings per University and federal regulations. Currently there are several conflict of interest (COI) systems in place. Faculty members, who hold dual appointments (example: Wyss) or are working across schools, endure a less-than-optimal experience. This project component would seek to plan for implementation of Huron's Click COI module. HMS already has this module in place in conjunction with their affiliates. Going with Huron/Click is in line with the broader strategy of using Click across the University supporting compliance functions and integration with various systems (such as GMAS, IDM, etc.). This project would include building the plan for de-commissioning the fCOI system currently in place.</li> <li>3). University-wide Contracts systems/Planning. Increasingly, researchers are engaging in data use agreements that require scrutiny and approval by local and central IT units, the sponsored offices, and the IRB offices. With HUIT's efforts to review research data, compliance and develop policy, this planning project would follow on to address the compliance requirements and needs. This, too, is a Click module and this component of the initiative would plan for implementation of this module and assessment of de-commissioning ADAMS.</li> <li>4). Committed Effort/Planning and Implementation. Currently, the University does not have a centralized method for capturing, tracking, and projecting effort committed by faculty researchers to sponsored grants. Tracking committed effort is a requirement for schools and departments to adequately plan and monitor a faculty member's commitments. Without a method for tracking commitments, the University runs the risk of over or under-commitments and serious audit risk. Committed effort has been the focus of several audit findings (and payouts) at federally-funded research institutions within the last few years; faculty effort is expected to continue to be a focus of audit scrutiny from federal agencies and regulators. This component of the project would include an analysis of current state (process, systems, reports, policy), fit/gap analysis, and implementation of recommended solutions (using University systems such as ecrt, GMAS, and OBI/reporting).</li> </ol>	\$1,900	\$	\$	\$	\$	\$1,900	\$	FAD	Thomas Hollister	Vice President for Finance and Chief Financial Officer	Simone Alpen	Enhancement



# HARVARD UNIVERSITY FY18 ITCRB Funding Cycle - Intent to Submit

## Information Technology

Title	Project Description (Business Value)	FY18	FY19	FY20	FY21	FY22	Total \$	Previous Award	Organization	Sponsor	Title	Project Contact	Investment Type
8 Research Finance: Cash Management and Reporting (FRAP Implementation)	In FY'16, OSP's Research Finance team (utilizing FRAP) managed approximately \$846 million in annual sponsored reporting, and billing and collections. This work required over 9,000 deliverables including invoices, financial reports and grant reviews, of which FRAP helped automate approximately 71% of these transactions. The automation has decreased slightly over the past year because FRAP is unable to handle deviations from the automated processes thus forcing the staff to pull deliverables out of FRAP to prepare them manually. The system is not flexible and even minor changes require inordinate amount of research and development time. Supporting, improving, and scaling these functions is critical to the sponsored function of the University. Nearly 20% of the University's operational budget is derived from external sponsored funding. It is imperative that those funds are managed efficiently and effectively.  Some key benefits of this functionality include: --Reduction in report and invoice backlog for sponsored grants and contracts --Increased on-time submission rates while the number of deliverables due increased --4% increase in on-time invoice submissions and 5% increase in on-time financial report submissions --The number of overall deliverables due increased by almost 40% from FY11 to FY16 --Improved cash position --On-time invoicing has resulted in more timely payments and less issues with sponsors. Since the inception of FRAP Harvard's overdue AR has decreased significantly from \$61.2M in FY12 to \$46.3M in FY16, a 24% decrease. Receivables over 1 year old also decreased by 55% during that time. --The write-offs for FY16 were .0003% of our expenditures, which is well below Harvard's threshold of materiality. Maintaining low accounts receivables and write-offs has become more critical since the overdue AR reserves were moved out to the individual school's balance sheet for FY17. --Increased capacity for staff to focus on more complex issue resolution and "value-added" activities --Financial Analysts now meet regularly with their departments which improves grants management of awards and ensures issues are resolved timely and proactively --Departments have access to a dashboard to help them better manage deadlines and workload --Improved quality and standardization of reporting and invoicing, which also leads to improved credibility and reputation with our sponsors and subcontractors --Reduction in administrative burden through the automation of electronic invoice submissions and automated record retention of invoices and financial reports in GMAS	\$1,322					\$1,322	\$390	FAD	Thomas Hollister	Vice President for Finance and Chief Financial Officer	Simone Alpen	O & M
9 Integrate Campus Service Time and Absence systems with PeopleSoft	Campus Services has two separate groups of systems that also do Time and Attendance tracking. Due the specific nature of the work, we need to keep these systems to enable local time cards sweeping (Kronos) and an integrated work order billing process (Maximo/Progress/Interpro). The complexity of these systems however requires a more in-depth analysis (planning) before we can implement the optimum solution (implement).  Providing a better system integration will reduce duplication of data entry, lower the risk of error and increase the accuracy of data and reporting.	\$600					\$600		HHR	Meredith Weenick	Vice President for Campus Services	Isabelle Modiano	O & M
10 Position Management	A position management solution will give University and School/Unit leadership the tools to not only spend less time on the administrative tasks associated with managing their workforce, but also to make well informed and strategic decisions in response to changing conditions. Harvard's systems will transition to a position-based model that for the first time exposes vacant positions, provides a common link between the current and past state of the workforce and organization, and provides a means for integrating the HR, budgeting, talent acquisition and financial transaction systems, data and processes.	\$500					\$500		HHR	Thomas Hollister	Vice President for Finance and Chief Financial Officer	Ryan Sullivan	Enhancement
11 Retro-Costing in PeopleSoft	Using retro-costing will enable to make all retro-active adjustments in PeopleSoft, at the job level, and will then automatically feed the GL in the form of journal adjustments. This will potentially make it easier for line staff, particularly grant managers, to make retroactive costing changes consistent with federal effort reporting. More importantly, we will improve the data coming out of Qlikview, which relies on PeopleSoft data, and does not incorporate changes to allocations from journal entries.	\$1,200					\$1,200		HHR	Michael Kan	Executive Dean for Administration	Isabelle Modiano	Enhancement
12 Centralized video storage service planning and start-up	By providing this centralized solution, we have the opportunity to reduce the cost and complexity that users are experiencing today. Through guidelines and policy (including metadata) definition and implementation, we also will provide the the underpinnings for more robust use of the video assets that we have today.	\$1,500					\$1,500		HUIT	Anne Margulies	Vice President, University Chief Information Officer	Benjamin Bielak	Enhancement
13 Collaboration - Administrative File Sharing	This project is expected to deliver easy to use file storage and sharing tools that improve collaboration across Harvard, increase security and compliance, and reduce costs.	\$1,500					\$1,500	\$520	HUIT	Anne Margulies	Vice President, University Chief Information Officer	Katie Kilroy	Enhancement
14 Data Management Services (DMS)	Harvard's data transformation will enable people to work more efficiently and redirect saved effort towards innovation.  The fundamental objective of DMS is to enable improved decision-making and enhanced productivity for our staff, faculty, and students through the effective use of administrative data and information management services. Through the course of these efforts we will increase workforce efficiency, simplify data exchange, enable cross-school and cross-functional collaboration, and empower schools and communities. A more streamlined process leveraging modernized technology will remove barriers and expand Harvard's ability to maximize its administrative data assets.  In the envisioned future state, business decision-makers will know how to get the data they need, and have robust documentation about what the data means and where it comes from. Projects will be implemented faster and easier. Organizations will be able to self-serve with platform as a service offerings, assuming independent control and reducing dependencies on HUIT. But most importantly, business units (including HUIT) and project teams will be able to operate more efficiently, providing greater availability of resources to address strategic problems.  Realizing the future state vision requires an evolution of Harvard's people, processes, and technology. By removing barriers to innovation like cumbersome processes, lack of transparency, and constant repetitive work, DMS can deliver a nimble business environment with unbounded possibilities. This investment will create an administrative data ecosystem that disrupts the way the University thinks of data today, and unleashes yet undiscovered potential.	\$4,996	\$6,134	\$6,078	\$4,487	\$3,436	\$25,131	\$1,610	HUIT	Anne Margulies	Vice President, University Chief Information Officer	Erin Gregory	New
15 IAM and AD Security Improvements	Improved security leads to fewer data breaches. This means less impact to the community in the form of password resets. More importantly, it means less risk of reputational or financial harm or regulatory penalties to the University. This project is to redesign the Active Directory implementation for the university and transition the existing Active Directory implementations across the university into the new, more secure architecture.	\$2,000	\$2,000				\$4,000	\$12,524	HUIT	Anne Margulies	Vice President, University Chief Information Officer	Christian Hamer	O & M
16 Transformative Title IX Awareness and Engagement Program Leveraging Dynamic Multimed	Reduces legal and reputational risk to the university by providing immediate access to resources, increasing reporting, and building trust with the community through responsive and innovative solutions. Positive long-term budget impact through reduction operational and staffing costs. Directly responds to ongoing quantifiable demands and needs from students, staff, and faculty as addressed in AAUW Survey and President's Task Force report.	\$600					\$600		OPP	Margaret Newell	Deputy Provost	Alexandria Masud	Enhancement

**ALL PROPOSALS TOTAL \$21,426 \$11,141 \$6,078 \$4,487 \$3,436 \$46,568 \$17,275**



**Harvard University Information Technology Mission**

We strive to make it easier for faculty, students, and staff to teach, research, learn, and work through the effective use of information technology.

**Harvard University Information Technology 3 Year IT Strategic Goals**

Strategy				Future state
	FY18	FY19	FY20	
<p><b>Service Delivery</b></p> <p>Deliver IT services that meet the needs of faculty, students and staff</p>	<ul style="list-style-type: none"> <li>#1 Develop a next generation campus network roadmap, including an Allston regional design</li> <li>#2 Develop UX policy, tools and supporting service</li> <li>#3 Enhance end-user support experience through knowledge management and self-service portal</li> <li>#4 Rationalize and mature service ownership</li> <li>#5 Define a set of sustainable and centralized video storage services</li> <li>#6 Assess current state of tools used by HUIT to deliver services</li> </ul>	<ul style="list-style-type: none"> <li>#1 Implement next generation campus network roadmap</li> <li>#2 Roll out UX service and evolve tools and support</li> <li>#3 Continue to enhance end-user experience through broader knowledge base</li> <li>#4 Rationalize and mature service ownership</li> <li>#23 Upgrade Oracle/PeopleSoft Campus Solutions</li> <li>#5 Evolve video storage services and define a set of sustainable and centralized services for other growing storage needs</li> <li>#6 Rationalize tools used by the HUIT community to deliver services</li> </ul>	<ul style="list-style-type: none"> <li>#1 Implement next generation campus roadmap</li> <li>#2 Evolve UX service and evolve tools</li> <li>#4 Rationalize and mature service ownership</li> <li>#6 Continue to standardize tools and practices for service delivery</li> </ul>	<p>HUIT delivers high quality services which meet the evolving needs of the Harvard Community</p>

<p><b>Implementation of New Systems</b></p> <p>Implement new technology through programs and strategic initiatives</p>	<ul style="list-style-type: none"> <li>• #7 Complete phase one and launch phase two of the Collaboration program</li> <li>• #8 Create a data management strategy, roadmap and service model</li> <li>• #9 Build a University Cloud Service and continue migrations</li> <li>• #10 Continue to roll out Aurora for FAS</li> <li>• #11 Deliver Harvard Phone VoIP program</li> </ul>	<ul style="list-style-type: none"> <li>• #7 Launch phase three of Collaboration program focused on group file shares</li> <li>• #8 Implement data management strategy and continue data management services initiative</li> <li>• #9 Roll out University Cloud Service</li> <li>• #10 Complete Aurora project and retire ASPerIN.</li> <li>• #11 Deliver Harvard Phone VoIP program</li> </ul>	<ul style="list-style-type: none"> <li>• #8 Continue data management services initiative</li> </ul>	<p>The Harvard community has best in class technology</p>
<p><b>Strategies, Plans and Process</b></p> <p>Develop IT strategies, plans and process</p>	<ul style="list-style-type: none"> <li>• #12 Partner with CIO Council to develop new CIO Council Strategic</li> <li>• #13 Plan Develop and roll out Information Security Risk Governance structure and Information Security Controls Framework</li> <li>• #14 Leverage Research Computing Council to drive alignment in research computing resources across the university</li> <li>• #15 Establish and roll out Enterprise Architecture policy, standards and reference architecture for the University</li> <li>• #16 Continue to mature VMO, PMO, ITSM and Account Management focusing on adoption of Agile and key ITIL processes</li> </ul>	<ul style="list-style-type: none"> <li>• #12 Prioritize and launch CIO Council Strategic Initiatives</li> <li>• #14 Leverage Research Computing Council to plan for increased need for data science facilitation across the University</li> <li>• #24 Develop holistic strategy for leveraging operational technology</li> <li>• #15 Continue roll out of Enterprise Architecture standards and policies</li> <li>• #16 Continue to mature VMO, PMO, ITSM and Account Management focusing on adoption of Agile and key ITIL processes</li> </ul>	<ul style="list-style-type: none"> <li>• #12 Launch CIO Council Strategic Initiatives</li> <li>• #25 Explore strategy and opportunities related to Internet of Things</li> <li>• #15 Continue roll out of Enterprise Architecture standards and policies</li> <li>• #16 Continue to mature VMO, PMO, ITSM and Account Management</li> </ul>	<p>HUIT has a strong foundation from which to deliver services and implement new technology</p>

<p><b>HUIT Administration</b></p> <p>Create the best work environment</p>	<ul style="list-style-type: none"> <li>• #17 Implement recommendations from master space plan</li> <li>• #18 Continue to reduce complexity of HUIT finances</li> <li>• #19 Continue focus on employee engagement</li> <li>• #20 Implement business process redesign for contingent labor and travel/expenses</li> <li>• #21 Enhance external and internal communications</li> <li>• #22 Explore opportunities to strengthen and streamline talent acquisition</li> </ul>	<ul style="list-style-type: none"> <li>• #18 Continue to reduce complexity of HUIT finances</li> <li>• #19 Continue focus on employee engagement</li> <li>• #20 Implement business process redesigns for workforce planning and buy-to-pay system</li> <li>• #21 Enhance external and internal communications</li> <li>• #22 Roll out program to strengthen and streamline talent acquisition</li> </ul>	<ul style="list-style-type: none"> <li>• #18 Continue to reduce complexity of HUIT finances</li> <li>• #19 Continue focus on employee engagement</li> <li>• #20 Refine business processes impacted by changes to University financial systems</li> <li>• #21 Enhance external and internal communications</li> <li>• #22 Strengthen program to strengthen and streamline talent acquisition</li> </ul>	<p>HUIT provides a work environment that allows staff to meet the needs of our stakeholders across the University</p>
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*Note: Numbers are intended to show how the strategic goals in this plan span over the years. The numbers do not relate to the HUIT FY17 Top 10 or the CIO Strategic Initiatives.*



**HARVARD UNIVERSITY**  
Information Technology

# **ITCRB Organizational Impact for: Video Storage**

November 8, 2016 | Video Storage Work Group

# Project Overview

- Problem Statement
  - Video is a critical component of the evolving teaching and learning landscape. We are seeing an expanded need to support the use and storage of video throughout the video production workflow. There is an opportunity to provide a set of sustainable infrastructure, process, and policy solutions to support this growing need in a cost-effective manner
- Business Value from “intent to submit”
  - By providing this centralized solution, we have the opportunity to reduce the cost and complexity that users are experiencing today. Through guidelines and policy (including metadata) definition and implementation, we also will provide the the underpinnings for more robust use of the video assets that we have today
- This project is a sub-component of the Strategic Storage effort
- This is a cross HUIT effort. Many groups are expected to be involved including Academic Technology, ITS (storage and networking), Cloud/DevOps, LTS, IAM, ATS, and Research Computing

Note: we are aware of the temporal disconnect between the goal of retiring the Science Center SAN at the end of FY'17 and the start of this implementation in FY'18. We are exploring approaches to mitigate this (e.g. operational cost solutions, temporary storage)

# Timeline

- Planning 12/1/16 – 6/30/17 (not funded by ITCRB)
  - Use case validation
  - Vendor selection
  - Pilot
  - Migration planning (SAN is targeted to retire at end of FY17)
  - Business case development
  - Service desk coordination
  - Network testing
- Implementation 7/1/17 – 6/30/18
  - Network mitigation
  - Video file migration
  - Service Startup (e.g. installation, configuration)
- Roll-out Strategy
  - Support current clients HarvardX, FAS (IMS), and HPAC during planning in FY17 and migration work in Q1 FY18
  - Present the service to other groups who have expressed interest for implementation in FY18

# Anticipated Impact on Schools

- Planning (12/1/16 to 6/30/17)
  - Each school may, at their discretion, provide a subject matter expert(s) to participate in service offering validation, process review sessions and, later, pilot validation
  - Existing Science Center SAN clients (HarvardX, HPAC, FAS) will participate in migrating a subset of files to pilot solution and confirm applicability to need
- Implementation (7/1/17 to 6/30/18)
  - Decide to participate in the initial launch of the service
  - Determine which solutions to leverage and what content to move over
  - Work with HUIT to integrate solution into workflow
  - Decommission current video storage solutions
  - Integrate the new service into their current video workflow



**HARVARD UNIVERSITY**  
Information Technology

# **ITCRB Organizational Impact for: IAM and AD Security Improvements**

November 14, 2016 | CIO Council

# Project Overview

This project is to redesign the Active Directory implementation for the University and transition the existing Active Directory implementations across the University into the new, more secure architecture.

## Problem Statement:

- Our IAM and Active Directory systems provide critical underpinning to management of user access to sensitive data. Our Active Directory systems were designed many years ago and are not currently resilient to attacks. We have made tactical efforts to address this but the problem requires a strategic re-evaluation and, potentially, redesign.

## Business Value:

- Improved security leads to fewer data breaches. This means less impact to the community in the form of password resets. More importantly, it means less risk of reputational or financial harm or regulatory penalties to the University.

# Timeline

## Timeline:

- FY18: primarily assessment and analysis work
- FY19: primarily implementation work

## Rollout strategy:

- We are not yet clear on what changes will be required, however, we would expect to work with each School on rolling out one large set of defined changes as opposed to an ongoing series of smaller changes

## Anticipated Impact on Schools

We are not clear on what the implementation, and therefore, the impact, will be at this point. We expect it to be on a spectrum that ranges from:

- A set of standards that must be implemented in each School's Active Directory, with accompanying guides and tools to audit against the standards. These would be much more robust than what we've done so far; to:
- Some version of Microsoft's "red forest" design in which HUIT would provide a new top-level AD domain that any School that wanted to federate with University AD services would have to join

The needs that we currently understand are:

- During Project: Each school will need to provide a subject matter expert to participate in analysis and design
- Rollout: Each school will need to provide resources to make the necessary changes to their local Active Directory environment
- Post Rollout: We will continue to convene AD SMEs likely 1-4 times/year (a process we have already begun) to talk about ongoing and continuing evolution of these environments