



AE Initiative Business Case - Email & Calendaring Consolidation

Initiative Sponsorship and Ownership

Project Name:	IT – Email & Calendaring Consolidation
Project Summary:	<p>The objective of this project is to build out the email and calendaring consolidation proposed as an opportunity within Phase I of Administrative Excellence. This will include incorporating salient portions of the work completed within the campus project launched in May of 2010.</p> <p>Team members will identify a single email and calendaring platform for the UW-Madison community (including faculty, staff, and students) that meets the broad needs of the University. The team will identify the system, quantify the investment required and efficiencies anticipated, and determine service levels and policies that would govern the administration and use of the new system.</p>
Business Unit(s):	Vice Chancellor for Administration – Administrative Excellence
Business Process Owner(s):	DoIT, Vice Provost for IT and CIO, CIOs/IT directors of schools, colleges, and auxiliary units
Preliminary Cost Estimate:	~\$664,000 in migration costs
Preliminary Savings Estimate:	~\$11 million of savings in operating costs over 5 years; ~\$30.5 million of savings in workforce efficiency over 5 years
Proposed Go-Live Date:	Complete migration by August 2014

Business Need or Opportunity

Email is one of the most widely used communication services on campus. In March, the AE email & calendaring team conducted a campus-wide use case survey, which indicated that a majority of employees spend two hours or more per day on work-related email. Electronic calendars are also widely used, with two-thirds of employees using a UW-hosted calendar and the remaining third using either external calendars such as Google or Yahoo, or paper calendars.

WiscMail and WiscCal, the current email and calendar systems implemented and supported by the Division of Information Technology (DoIT), have not been adopted campus-wide, with many schools and colleges choosing instead to implement and support their own local email and calendaring services. While the team identified 20 systems across campus as a result of this project, the total number is estimated to be between 35 and 50 systems. These disparate systems result in increased costs due to duplication of hardware, software licensing, infrastructure, and end user support. The total operating costs of redundant systems across campus are estimated to be approximately \$1.6 million.

A survey and listening session of campus email administrators indicated the primary reasons for hosting their own systems:

A need for a custom level of service and fast turnaround time for creating, modifying, and deleting accounts (e.g. the ability to be immediately responsive to the demands of their internal customers)

A need for integrated email and calendaring products

A need to meet security requirements for HIPAA, FERPA, and onshore storage of data (in order to meet U.S. export control regulations)

A need for integration with other software or business tools

The use case survey also indicated a significant loss of productivity in the calendaring area where:

25% of employees and 13% of students manage calendars for others

18% of employees spend over an hour per day scheduling meetings

25% of employees and 17% of students report it takes over two days to schedule and confirm a meeting

40% of employees and 55% of students have to start a meeting request over more than 20% of the time

The annual financial impact on productivity from scheduling meetings across disparate systems is an estimated \$6.1 million in hours of lost labor.

A unified system for email and calendaring will reduce infrastructure costs on the IT side and will enable the recovery of a significant amount lost productivity on the end user side. This would create a significant opportunity for schools, colleges, and DoIT to redirect labor to other activities which are more beneficial to the teaching, learning, and research missions of the University. Over a five year period, the cumulative potential cost savings are estimated to be \$11 million in operating costs plus workforce efficiency gains of approximately \$30.5 million.

These savings will be achievable only if all of campus adopts the recommended solution. There currently is no formal policy for the use of email and calendaring systems.

Alternatives Considered

The team's charge was to find a single email and calendaring solution for faculty, staff, and students. With this goal in mind, the team took the following approach:

Reviewed data previously gathered by the DoIT- led Email, Calendaring, and Chat (ECC) team during the 18 month duration of that project

- Leveraged the feature and functional requirements gathered by the ECC Team as they were still reasonably accurate and relevant
- Leveraged the Google and Microsoft responses to a formal Request for Information (RFI) conducted by the ECC team in February 2010

Gathered additional requirements through a use-case survey of faculty, staff, and students

Gathered additional requirements through a survey of email & calendaring administrators, and a follow-up listening session

Interviewed a selection of faculty members about their use of email & calendaring systems

Held conversations with peer institutions that have recently undergone email & calendaring transitions (Nebraska and Minnesota)

Engaged with vendors to provide additional and updated information on key considerations

After collecting the necessary data, the team then discussed possible scenarios for faculty, staff, and students with regard to cloud-based Google Mail and Calendar, cloud-based Microsoft Office 365 and/or premises-based Microsoft Exchange, and the current WiscMail+ and interim WiscCal+ (to be deployed in June 2012) products. While the team's charge was to find one solution for campus, seven possible scenarios were considered:

Scenario	Population	
	Faculty/Staff	Students
A	WiscMail+/ WiscCal+	WiscMail+/ WiscCal+
B	Microsoft Office 365	Microsoft Office 365
C	Google Mail and Calendar	Google Mail and Calendar
D	WiscMail+ / WiscCal+	Either Google Mail and Calendar or Microsoft Office 365
E	Either Microsoft Office 365 or Google Mail and Calendar	Opposite
F	Microsoft Office 365 or Google Mail and Calendar or WiscMail+ /WiscCal+	Students provide their own email address
G	Both Microsoft Office 365 and Google Mail and Calendar (Choice)	Either Microsoft Office 365 or Google Mail and Calendar

SeparateSolutionforStudents(ScenariosD,E)

Although the team's charge was to find a single email and calendaring solution for faculty, staff, and students, the team assessed whether the needs of the student population are sufficiently different from faculty and staff and therefore warrant a separate solution. Data from the use case survey did not suggest any key differences that would require a different system. Therefore, options D and E were eliminated.

StudentsProvideTheirOwnEmailAddress(ScenarioF)

The team also considered excluding students entirely by requiring them to use a personal email address throughout their time at UW-Madison. This option was ultimately rejected because of the high value placed on the wisc.edu email identity and the large number of student employees that would require a wisc.edu address.

WiscMail+/WiscCal+ (ScenarioA)

The two major costs of this project are the initial migration to a new system and the ongoing operational costs. The cost of migrating campus to the WiscMail+ / WiscCal+ system is roughly half the cost of migrating to one of the cloud-based systems (\$310,000 vs. \$664,000). However, over a five year period, the operating cost of WiscMail+ / WiscCal+ is noticeably more than cloud-based systems (\$13.5 million vs. \$8.1-8.3 million). Therefore, significant long term cost savings can be realized by moving to a cloud-based system. Cloud-based solutions offer additional benefits to campus beyond cost, including the opportunity to collaborate with peers on best practices, and the option to integrate with robust and evolving collaboration tool suites.

Remaining Scenarios

After eliminating the above scenarios for various reasons, the team proceeded to evaluate the three remaining scenarios: B (Microsoft Office 365 for the entire campus), C (Google Mail and Calendar for the entire campus), and G (dual solution for faculty and staff). Discussions were held with both vendors to review requirements and key considerations. An evaluation matrix was developed for decision-making purposes (see appendix).

GoogleMailandCalendar(ScenarioC)

The team recognizes Google as a significant innovator within IT and education, and that UW-Madison already provides the Google Apps for Education suite for campus use. Google enjoys significant popularity among campus populations, including faculty and students, as well as staff that use their collaboration tools. Despite comparable functional performance to Office 365, the team rejected Google as an email & calendaring solution for the following reasons:

- Google does not meet UW-Madison's security requirements with respect to providing a Business Associate Agreement (BAA) for HIPAA

- Google will not ensure domestic data storage to meet U.S. export control regulations

- Google's limited delegation administration capabilities would be unacceptable to many schools and colleges

For the reasons above, Google would not be able to be adopted by the entire campus, and therefore would not provide UW-Madison with the efficiencies and cost savings associated with a single solution.

DualSolutionforFacultyandStaff(ScenarioG)

Despite a charge to find a single solution, the team also considered a dual solution for faculty and staff. This solution would offer both Office 365 and Google Mail and Calendar to faculty and staff, and would likely provide the least resistance to adoption. Google is seen as one of the most innovative IT firms, its tools are widely known and used, and its research-driven business model resonates with certain faculty in ways Microsoft does not. From a technical standpoint, a dual solution would likely provide more flexibility in the future as email/calendaring evolves and becomes integrated with other collaborative tools. However, this dual solution was rejected for the following reasons:

- Significant additional cost to migrate and maintain dual solutions

- Significant savings in calendaring efficiency can be realized by the adoption of a single system. Although there is a possibility to link Office 365 and Google calendars, the linking process and subsequent maintenance would require substantial effort

- Google's HIPAA non-compliance and international data storage practices would not align with security requirements for certain users. Sanctioning a dual solution would result in significant effort to monitor and enforce policy restricting use of a Google solution

- Additional burden placed on units to decide which system to use, either unit-wide or to develop policy on an individual user basis

- Irrespective of the email and calendaring system chosen, Google Apps for Education will remain an option for faculty, staff, and students

Proposed Solution Description

Scope

Proposed Solution

The Email & Calendaring Consolidation team considered several alternatives as described in the previous section. Based on all of the facts considered, the team proposes that the campus adopt Microsoft Office 365 as a single solution for university email and calendaring. Office 365 offers the best match for UW-Madison's functional, technical and legal requirements. Microsoft will sign a BAA for HIPAA and will commit to domestic storage of all UW-Madison data, aligning with U.S. export control regulations. Office 365 also offers native delegated administration functionality.

Key features of Office 365 include:

- Web and desktop clients for Mac and Windows with integrated calendar and email functions

- Supports IMAP email and iCal calendar clients

- Full support of major mobile devices

- Extensive calendaring capability with delegation, sharing, free/busy, and resource management

- 25GB email storage

- Ability to create private and shared mailing lists

- A highly available solution with a licensing agreement featuring protections for intellectual property, privacy, and security

- Delegated administration so local IT staff can manage and support local users

- Ability to continue use of “vanity” domain names if desired

Additionally, Office 365 features a suite of collaboration applications. Beyond email and calendaring, the suite includes contacts, file storage and sharing, messaging and conferencing, and an option for Microsoft Office

Proposed Technical Solution Overview

From a technical standpoint, the team recommends the following steps be taken to migrate from the current state:

- Install a single forest Active Directory campus-wide (this is required by Office 365)

- Support federated authentication and single sign-on to ensure security of user credentials and privacy

- Maintain a central premises-based email routing infrastructure, anti-spam and anti-virus service (during the transition phase; could be re-evaluated after migration is complete)

- Migrate all campus email and calendar systems to Office 365

- Migrate local Exchange instances to Exchange Online

Future State Infrastructure

The future state should rely on cloud services as much as possible for all components of enterprise email and calendaring

Infrastructure should allow for a “hybrid” solution that provides for extensions and customizations using the system’s APIs (application programming interface) to enhance functionality, but manage them through shared governance to ensure that customizations support the overall goal of one system and are reusable across the campus

Google Apps for Education will remain as an option for users on campus

Implementation

Implementation should center on minimizing disruption to university business, and ensuring a full user training and support program

- Provide an IT “swat team” to assist departments during migration
- Develop training for IT administrators and support staff
- Develop training for end users
- Training should include both classroom style and self-guided online opportunities
- Provide support documentation and procedures

Plan a phased approach with a goal to complete migration by August 2014. This timeline would give academic units two summers to transition. Migrations could begin as early as winter 2012-13 depending on the technical assessment of our current environment

- Design and deploy the technical infrastructure required to support Office 365 implementations
- Develop a detailed migration plan for each email/calendar system technology to be migrated (e.g. Oracle, GroupWise, Exchange, etc.)
- Develop a detailed migration plan for each group of users to be migrated
- Develop an appropriate order of migration to maximize adoption – key “influencers”, systems that include multiple units, etc.

Plan for programmatic and manual data migration options as warranted

- Provide an option for individual self-service migration
- Provide tools for large email and calendar repository migration

While the implementation team should ultimately be responsible for evaluating the benefits and considerations of any particular rollout strategy, the AE team proposes the following rollout plan:

Proposed Rollout Plan	
Order	Entity
1.	VCA, Chancellor's Office, Provost's Office
2.	Units with an immediate business need (e.g. because of technical issues)
3.	WiscMail/WiscCal users
4.	Existing Exchange environments
5.	All other units

Proposed Policy Framework

The project team recommends the following framework be considered in development of policy language:

To whom does it apply

- All academic and administrative units

Process

- Over time, expectation that all units migrate to the proposed solution. The following strategies should be used to encourage adoption:
 - Provide clear university policy language about duplicative systems
 - Provide central funds for migration process and ongoing services so units aren't burdened with costs
 - Create procurement barriers to operating duplicative local services
 - Provide professional development opportunities for local IT email staff to acquire more strategic, mission-related skill sets
 - Consider financial or other penalties for non-adoption

Compliance/oversight

- Responsibility for oversight needs to be distributed and occur at multiple levels (e.g. VCA, business process owner, Dean's Office/Department leadership, etc.), rather than falling solely on the central service provider
- If units don't adopt the solution within a given timeframe, the following strategies could be used:
 - Financial impact; per-user, per-month fee
 - Technical/security performance audit; require unit-funded security and performance audits to ensure data integrity and quality

Proposed Milestones and Timing

Milestone	Timing
Develop communications plan	1-2 weeks
Determine procurement requirements and conduct vendor negotiations	3-4 weeks
Vendor engagement for project discovery, design, and technical requirements	4-6 weeks
Plan project & advisory roles and responsibilities; identify participants	2-4 weeks

Develop project plan	2-4 weeks
Deploy departmental support team	Timing dependent on technical assessment
Deploy supporting technical infrastructure	Timing dependent on technical assessment
Deploy Office 365 & migrate “early adopters”	Timing dependent on technical assessment
Migrate all	Completion by August 2014

Alignment with Strategy

Applicable Strategic Objectives	Alignment with Strategy
University Strategy – For Wisconsin and the World, Campus Strategic Framework (2009-2014)	
Be responsible stewards of our resources Align resources with priorities Make our administration more effective, efficient, and flexible	Standardization and adoption of a single email and calendaring system saves financial resources for the campus, allowing for funds to be used for more strategic objectives A single system would allow for efficiencies in the support of email & calendaring across campus Widespread adoption would reduce the labor associated with scheduling meetings and managing calendars
Institutional IT Strategy – IT Strategic Plan (2010-2014)	
Guiding Principles: Leverage enterprise infrastructure and avoid unnecessary replication of infrastructure and services Maximize transparency across the campus Work toward green computing strategies	Would reduce unnecessary effort and duplication of IT resources dedicated to email and calendaring Would support the secure storage and transfer of institutional and research data across all campus units Through standardization, would aid an enterprise infrastructure that promotes the deployment of information and services on mobile devices Would reduce the number of servers and related energy dedicated to running email & calendaring systems
Functional Area Strategy – VCA Strategic Plan (2009-2014)	
Resource Stewardship: Improve services and clearly demonstrate to campus customers and the public that resources are used responsibly by: Improving process efficiencies in order to enhance services and responsiveness to campus customers as well as identify cost savings and improve the institution’s financial performance Sharing services across VCA units and with VCA partners to increase collaboration, reduce redundancy and duplication, and free up resources for reallocation	Simplifying the calendaring process will lead to greater efficiencies across campus Reduced time spent supporting shadow systems will result in cost savings One solution, managed both centrally and in distributed units will ensure ongoing end-user needs are met

Anticipated Benefits

Benefit Categories	Description
Improve productivity/efficiency	<p>By migrating all users to one system, campus will greatly improve productivity and efficiency related to calendaring, mainly involving the scheduling of meetings. According to the March, 2012 use case survey, almost 50% of employees are sending three or more appointment requests per week, with 18% spending over an hour a day scheduling meetings. With a large percentage of employees spending time scheduling meetings, and the unnecessary time burden associated with this due to multiple campus systems, a single system will free up employee time to spend on other activities</p> <p>By switching to one system, IT labor savings will be realized in both central and distributed environments in the areas of system administration, development, and hardware maintenance. Labor could then be redistributed to other IT initiatives</p> <ul style="list-style-type: none"> For example, consolidating management of spam and anti-virus functions will result in significant labor savings for campus email administrators <p>Microsoft offers an advanced and evolving collaboration tool suite that could be adopted by campus and used to foster more integrated and efficient communication across all user groups and within particular units</p> <p>Standardized training for employees campus-wide</p> <p>Simplify email and calendaring end user support</p>
Reduce Costs	<p>Server and software license cost savings</p> <p>Acquisition costs and complexity (purchasing resources, software servers etc.)</p> <p>Decreased SPAM and virus protection costs</p>
Improve Service/Product Quality	<p>Improved quality of service (Improved availability, uptime)</p> <p>Formal SLA with vendor guarantees service quality across campus</p> <p>Integrates email and calendaring services</p> <p>Meets needs specified in the use case survey (attached)</p> <p>Meets campus security requirements</p>
Mitigate Compliance Risk	<p>Microsoft will sign a BAA No off shore data storage</p> <p>HIPAA and FERPA compliant</p> <p>Single system supporting all of above as opposed to current diverse environment</p> <p>Ability to manage system access down to the person level</p> <p>Advanced compliance features available for purchase</p>

Customer Readiness

Based on various stakeholder engagements, the team believes that a large number of campus email and calendaring users will present minimal cultural resistance to migration. For many users, campus' adoption and the related benefits of one system outweigh the particular system selected. From a technical standpoint, the level of effort associated with migration will vary based on the current system being used. The team recommends the following considerations to prepare the UW community for implementation:

Migration will be dependent on the current state email and calendaring situation in the local units. The backing and support from both IT and unit leaders will be crucial to the implementation team's success:

- The AE Email & Calendaring Administrator Survey (March 2012) identified a variety of email and calendaring systems that are currently being administered in distributed units
- Of the 31 respondents, approximately one-third are using Exchange, one-third are using a variety of open source applications including Postfix, 10% are using GroupWise, and the remainder are using WiscMail
- While not all systems were captured, results should indicate the general breakdown

Existing Exchange instances should be relatively easy to migrate although issues may arise regarding Active Directory configuration and the impact on other premises-based systems

The June WiscCal migration will help to the extent that the updated calendar is more similar to Office 365 than the previous iteration. However, there will be concern among users about successive migrations

The team believes campus readiness would benefit from a number of implementation tools:

- A presentation showing the features of the solution and benefits to UW-Madison with campus leaders prepared to engage in dialog
- A fully developed training program with online and in-person resources
- A fully developed user support program with a blend of local IT and central help desk support
- A migration timeline planned in conjunction with groups to be migrated to minimize disruption to academic activity

Stakeholders Impacted

The team identified all major categories of internal and external stakeholders. The following table describes the possible issues and concerns that may occur during the implementation phase of our recommendations. The purpose of this table is to assist the implementation team as they plan their communications and engagement with stakeholders.

Internal Stakeholder Group	Anticipated Impact
Departmental Administrators	Eliminates system administration of email servers (patches, upgrades, back-ups and other maintenance) Account maintenance remains under local control
DoIT	Will impact helpdesk operations including volume of issues through migration and expertise required Roles and responsibilities of calendar service team will evolve May impact roles and responsibilities of email service team Will impact middleware configuration Will impact the need for professional technical education (PTE) and training Will impact role as it relates to vendor relationships Potential for increased partnership with departmental administrators Communication requirements and adjustments
End-users	For those currently scheduling meetings, decreased time will be required to do so in the future For those not scheduling meetings, there may be more incentive to do so Possible new collaborative tools suite Potential to receive more standardized training (job competencies will be aligned across campus for training staff)

Purchasing	Fewer software, server and maintenance agreements
Steering Committee/Executive Leadership	Expectation of time and leadership to implement and support solution Will be needed as a funding resource to support implementation and ongoing operation May be called upon for conflict resolution (see change management plan and project risks)
CIO's Office	Expectation of time and leadership to implement and support solution Office of Campus Information Security will monitor risk associated with implementation and the new system's operation

Impact on Other Initiatives

This is a high level list. A more comprehensive list will need to be developed by the implementation team.

Initiative	Impact
Other AE Initiatives: Data center aggregation team Enterprise IT Decision-Making	A migration to Office 365 should reduce the number of servers required to host email and calendaring systems, both within DoIT and in the distributed campus units The consolidation of email and calendaring systems is an example of a major IT decision that affects business process owners across the IT community
Implementation of CRMs (Customer Relationship Management systems)	An email and calendaring consolidation may impact the interdependency of email and calendaring with CRMs
Identity and Access Management Initiatives Campus active directory Net ID authentication WiscStart & Early/Late provisioning	To ensure synergy with existing initiatives, the completion and validation of the campus Active Directory project will need to occur before implementation
Application development Scheduling	An email and calendaring consolidation may impact existing and future applications related to scheduling. The relationships between these applications and the new system will need to be verified and adapted
Collaboration tools	The solution will impact the selection and use of collaboration tools. Campus should seek to take advantage of integrated tools for efficiency purposes
Procurement	The selection of MS Office 365 may impact other Microsoft purchasing negotiations at UW-Madison and at the UW System level

Project Success Factors

Change Management Plan

The impact of any IT project depends on the quality of the technical solution and its acceptance by the target community. The equation $Q \times A = E$ describes this relationship, where the technical quality (Q) is multiplied by its social acceptance (A) to produce an effective result (E). All too often, projects underperform or fail because implementation teams do not employ change management to drive social acceptance of innovative technical solutions.

Change management and project management are, therefore, inextricably tied in achieving the project success envisioned by the email & calendaring team. Change management should focus on the social side of the proposed solution: how people actually use email & calendaring systems in their daily activities.

The key elements of our plan are:

Leadership

A critical requirement is highly visible and engaged support from the Chancellor, Provost, Vice Chancellor for Administration, Deans, and other campus leaders. Without visible, committed leadership that connects our solution to broader campus goals and initiatives, we will not achieve the full, anticipated benefits of consolidating email and calendaring systems.

Creating a Shared Need

The need for change must clearly outweigh the obstacles. The leadership team must communicate a sense of urgency that the current state is unacceptable and a clear imperative that change must be made. Communications should relay the true cost of current inefficiencies, as well as their impact on the mission of the University. Similarly, the leadership team must communicate that the current state puts UW-Madison at a distinct competitive disadvantage, and threatens the long-term viability of our teaching, research, and service initiatives.

Creating the Shared Vision

In addition to communicating the unacceptability of the current state, leaders need to communicate a clear, concise and consistent vision of the improved state. This includes the positive impact the new email and calendaring solution will have on people's daily activities, the improved efficiency in time and cost, and new capabilities for the organization. More importantly, the positive dimensions of this IT solution should be connected to the University's broader mission of resource stewardship, the Wisconsin Idea, and our continued leadership in the areas of research, teaching, and service.

Mobilizing Commitment

Key to successful project management is the staging and support of early adopters. This includes executing the implementation plan in such a way as to create early "wins", communicating them broadly, and recognizing individuals who have committed to the program.

Monitoring Progress and Making Change Last

Critical to success is establishing measurement systems that monitor progress toward project goals and once the goals are achieved, maintaining the change. Eliminating incumbent systems as well as organizational support for non-conforming systems is critical to prevent backsliding.

Changing Systems and Structures

A major reason for the proliferation of email and calendaring systems on campus is because the organization not only tolerates them, it supports them. In addition, current financial models and practices actually provide disincentives for adoption of an enterprise solution. Aligning financial models to reward compliance and penalize non-conformity is critical to the change management imperative. Similarly, eliminating campus support for non-sanctioned systems must be clearly and consistently applied.

The change management plan, as described above, will support the effective implementation of an enterprise solution. Failure to manage change effectively will likely result in failure.

Dependencies and Constraints

The following dependencies and/or constraints were identified as keys to success:

- The recommendation is seen as a campus-wide solution
- Senior leaders must consistently champion the solution
- An agreement must be finalized with Microsoft that aligns with campus interests
- The solution is dependent on having a campus Active Directory
- Realignment of technical and business systems and structures will need to occur

Assumptions

Several assumptions were made in support of the proposed solution:

- Appropriate policy will be developed to support implementation
- Resources will be provided to assist with transition and training costs
- The service will not have a chargeback associated with it
- A campus Active Directory is developed and adopted
- A multifaceted employee training plan will be offered
- The scope is the Madison campus
- The vendor will be engaged and supportive

Project Risks

Risk Prioritization Matrix:

The following risk prioritization matrix is a tool employed to identify and prioritize significant project risks. The matrix is structured in six columns. The first column describes the risk, while the second describes how the risk may play out if not mitigated. The three following columns measure the severity of the outcome on the project (S), the next, the likelihood of occurrence (O), and the third, the ability to detect the risk before the outcome occurs (D). For each of these three, S – O – D, the likelihood is rated Low (L), Medium (M) or High (H). Points are assigned as followed, L=2, M=4, and H=8. The sum of the three provides a priority score. Any score greater than 13 must be addressed prior to moving forward with the project.

In the risk prioritization matrix, we have sorted the potential risks into three categories. These include the risks associated with mobilizing commitment and engagement within the campus community, the quality of the technical solution, and the ability to successfully implement the recommended solution and sustain the improvement over time. As you can see, significant project risks exist in each of the three categories, with engagement and mobilization having the greatest risks.

Risk Prioritization Matrix					
Risk	Outcome	Severity (S)	Likely to Occur (O)	Ability to Detect (D)	Priority
ENGAGEMENT / MOBILIZATION					
Failure of a major school, college or department to adopt	Inability to realize calendaring benefits	H	H	L	18
Ineffective, insufficient, and/or under-communicating of project goals - organizational vision	Delayed adoption, some units opt out	H	H	L	18
Employees fear job loss	Passive to active resistance, sabotage, divisive activities	M	M	H	16
Insufficient engagement and support of senior campus leaders	Significant number of campus units "opt out"	H	M	L	14
Unfamiliarity of departmental IT support staff with the suite of vendor services	Failure to realize full benefits of conversion - retreat to incumbent systems	L	M	H	14
Brand resistance to Microsoft	Passive resistance, increased complaints, delayed adoption timeline	M	M	M	12
Failure to accurately and completely communicate distributed capabilities	Loss of local control and customization - some departments opt out	M	M	L	10
TECHNICAL SOLUTION					
Misalignment of campus systems and structures	Presents significant obstacles to adoption - prevents adoption	H	H	M	20
Unforeseen technical difficulties - major bugs	Negative experience - some units retreat to previous systems	H	L	H	18
The selected product does not meet the requirements for a significant portion of users	Negative experience - some units retreat to previous systems	H	L	L	12
Delay in conversion – custom scripts	Negative experience - some units retreat to previous systems	M	M	L	10
IMPLEMENTATION AND SUSTAIN					
Organizational structure for long-term support of the service	Organization support and adoption relies on long-term vision for support and process	M	H	L	14

Upgrade fatigue of WiscCal users leads to delayed adoption by that group	Resistance to adoption - increased support requirements	M	M	L	10
User dissatisfaction	Resistance to adoption - increased support requirements	M	M	L	10
Insufficient support for technical professionals	Sub-optimization failure to achieve project benefits, retreat to previous systems	M	M	L	10
Insufficient user support for the transition process	Sub-optimization failure to achieve project benefits, retreat to previous systems	M	L	L	8

Criteria for Measuring Success

Ultimately, the success of the proposed solution will depend on widespread campus adoption and use of the email and calendaring system. To ensure success, the project must embrace a commitment to continuous improvement. Central to successful continuous improvement programs are robust measurement systems that assure that customer requirements continue to be met. In addition, the efficiency of email and calendaring systems must be monitored.

Beyond adoption, the following criteria should be used to evaluate the success of the proposed solution:

Customer-centric metrics include:

- Lead time to schedule a meeting
- Number of attempts to schedule a meeting
- Amount of time users spend on email and calendaring system
- Number and nature of help desk support calls
- Measures of productivity gain / financial impact
- User satisfaction with service offering

System performance metrics:

- Uptime
- Lead time to convert a defined population to new system
- Time department IT personnel dedicate to email and calendar support
- Number and nature of tier 2 and above support calls
- Measures of operations and maintenance cost
- Number of interfaces to be managed
- Technical professional satisfaction with service offering

Supporting Documents

- Appendix 1: Solution Assessment Matrix (attached)
- Appendix 2: Administrator Survey Analysis (available upon request)
- Appendix 3: Use Case Survey Analysis (available upon request)

Appendix 4: Financial Model (available upon request)

Report on Data

The team was faced with a lack of campus-wide data on distributed email & calendaring systems, and sought to collect this data in support of our analysis and to build a foundation for implementation. The following data collection processes were initiated by the team:

Scan of mail exchanger (MX) records to identify email servers for domains on campus

- The team presented the MX records list to MTAG to identify administrators of campus-wide email servers for survey targeting
- 59 email & calendaring administrators were identified

Survey of email & calendaring administrators to collect characteristics of distributed email and calendaring systems

- 31 responses from 59 invitees

Follow-up focus group with sample of nine email & calendaring administrators

Use case survey to determine how faculty/staff/students use their current email and calendaring system

- 3,350 responses from 57,159 invitees – 6% response rate

Data Accuracy

Data Accuracy / Data Reliability:

- Administrator data on characteristics of distributed email and calendaring systems – data accuracy and confidence in data is reliant on administrators providing the AE team with accurate data
- Location and scope of distributed email & calendaring systems – administrators were targeted for outreach and systems located via a combination of the MX record scan and MTAG self-reporting. Data on systems not identified via this method will not have been captured

Data Recommendations

During implementation, the team recommends additional outreach to locate distributed email and calendaring systems that may not have been identified. This information will ensure distributed units and the implementation team will be best prepared for migration

The team also recommends that ongoing use case data be collected to assess the impact of a new solution on the campus community and ensure any systems are meeting user needs across various constituent groups

Signoffs

Advisory Committee	Full endorsement received on 5/17
Steering Committee	Approved on 6/05/2012



AE Initiative Financial Model

Anticipated Solution Costs

	Up-Front or One-Time	Recurring (annually)	Notes
Labor	543,750	1,241,250	Assumes administrators in distributed units will continue to spend 15% of their time managing email & calendaring
Infrastructure	-	122,000	Includes routing, admin. console
Licensing	-	303,020	Per mailbox fees are based on defined plans and may fluctuate based on user needs
Communication	-	9,000	-
Training	120,000	-	-
TOTAL COSTS	663,750	1,675,270	-

Anticipated Savings, Revenues, and Cost Avoidance

	Recurring (annually)	Notes
Operating costs	\$2,347,027	-
Workforce efficiency through a single calendaring solution	\$6,100,000	Assumes an average of 30 extra minutes to schedule a meeting; 0.1 meetings per person per day
TOTAL SAVINGS	\$8,447,027	-

Five-Year Financial Projection

	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017
Up-Front Costs (\$)	663,750	-	-	-	-
Recurring Costs (\$)	1,675,270	1,675,270	1,675,270	1,675,270	1,675,270
One-Time Savings	-	-	-	-	-
Recurring Savings	\$8,447,027	\$8,447,027	\$8,447,027	\$8,447,027	\$8,447,027
Net Savings/(Costs)	\$6,108,007	\$6,771,757	\$6,771,757	\$6,771,757	\$6,771,757

Advisory Committee: Themes and Q&A

Advisory Committee Meeting: May 17, 2012 10:00am-11:30am

Discussed Q&A:

Question – Is Office 365 a scalable system?

Answer – Office 365 is a relatively new service, but the earlier Microsoft cloud service, Live@edu, has been widely adopted in large university settings including the University of South Carolina and the University of Pennsylvania. Office 365 has been adopted/is in the process of being adopted by a variety of institutions including Georgia State (37,000 students, faculty, and staff), Kentucky Community Technical College System (110,000+ students, faculty, and staff), the University of New Mexico (45,000 students, faculty, and staff), and the University of Nebraska-Lincoln (8,600 faculty and staff; students are already on Live@edu; other NU campuses to follow). Office 365 has also been adopted by large corporations such as Dell, and by the State of Minnesota for 35,000 state employees.

Question – Can the migration timeline be accelerated?

Answer – Given required contract negotiations, upfront technical infrastructure requirements, and a complex migration, the team has proposed a migration completion date of August, 2014. Under this timeline, academic units would be given two summers to migrate, yet 80-90% of all users are expected to be migrated by the end of summer 2013. While certain elements of the project plan are unlikely to be able to be accelerated, the team believes that additional resources in the form of personnel to serve on IT “swat teams” to assist units would enable a complete migration by early 2014. Executive support will be crucial to any accelerated timeline.

Milestone	Scenario A	Scenario B
Develop communications plan	1-2 weeks	1-2 weeks
Determine procurement requirements and conduct vendor negotiations	3-4 weeks	3-4 weeks
Vendor engagement for project discovery, design, and technical requirements	4-6 weeks	4-6 weeks
Plan project & advisory roles and responsibilities; identify participants	2-4 weeks	2-4 weeks
Develop project plan	2-4 weeks	2-4 weeks
Deploy supporting technical infrastructure	Mid fall 2012	Mid fall 2012
Deploy Office 365 & migrate "early adopters"	Beginning Jan 2013	Beginning Jan 2013
Migrate all	~Aug 2014	~Jan 2014*

*Additional personnel to support IT swat teams for Oracle, Exchange, GroupWise, and other platforms would likely enable an accelerated migration

Question – is Office 365 a secure system?

Answer – Security was a core component of the team’s analysis. Microsoft facilities meet all of the known security standards including FISMA, ISO 27001, and SAS 70.

Appendix 1

UW-Madison Email & Calendaring – Assessment Matrix

Category	WiscMail+/WiscCal+	Google Mail and Calendar	Microsoft Office 365
Financial	~\$13.8M over 5 years (transition and operating cost)	~\$9.0M over 5 years (transition and operating cost)	
Security	Deemed HIPAA non-compliant by the School of Medicine – additional customization required Campus retains control over data storage	Won't sign HIPAA BAA Stores data internationally	Will sign HIPAA BAA Guarantees domestic data storage (aligns with U.S. export control regulations)
Performance/ Functionality	Customizable	99.9% uptime SLA – pushes burden to vendor 25GB mailboxes, with no ability to exceed	99.9% uptime SLA – pushes burden to vendor 25GB mailboxes; unlimited archive available
Technical integration	Administrators report a lack of integration between WiscMail+/WiscCal+ and other local systems <ul style="list-style-type: none"> o List management (WiscLists) o Distributed lists 	Cloud solution only Offer extensive set of APIs for customization List capabilities integrated into solution	Both cloud and on-premise solutions available Offer extensive set of APIs for customization List capabilities integrated into solution
Delegated Administration	Extensive delegated administration capability	Limited out of the box capabilities APIs allow for customization	More robust out of the box capabilities Fully customizable delegated administration capabilities
Change Management	Interim solution would become permanent (one migration) Interoperability concerns/limitations without additional customization Brand inequity among existing non-adopters	Two migrations would be required Security profile and delegated administration limitations would limit adoption Strong brand among student, faculty and research community No vendor on-site support for migration	Two migrations would be required Many units are already running Exchange (32% of units from Admin survey) School of Business switching to 365 – others likely to follow On-site support available for migration
Sustainability	Physical infrastructure required centrally (e.g. servers, utilities) Robust investment lifecycle required to meet	Universal adoption not possible; significant effort/resources required to maintain shadow systems	Opportunity for peer collaboration/ best practices Robust, evolving suite of complementary products

	campus needs Heavy customization required to integrate with other systems	Opportunity for peer collaboration /best practices Robust, evolving suite of complementary products	
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