

COMMUNICATIONS & COLLABORATION

Project Information

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TeamDynamix Project Number:	241101

Project Overview

Modernize and improve user features for communication and collaboration services while reducing on-premises IT infrastructure and streamlining services for greater standardization and efficient support.

Project Purpose and Benefits to Campus

Office 365 - Transition to cloud-based email system while providing campus with email services consistent with current service levels and functionality. Once in place as the new standard, the future email service will benefit campus with enhanced user features and greater integration with collaboration tools. Reduced infrastructure results in on-going cost savings.

VOIP/Skype for Business – Transition to IP-based voice telephony system while providing campus with voice services consistent with current service levels and functionality. IP-based telephony benefits campus with greater flexibility and enhanced user features. SIP-based voice service results in on-going cost savings.

Project Scope Statement

1. All University of Iowa email accounts excluding University of Iowa Hospital and Clinics
2. All uiowa.edu email routing services including University of Iowa Hospital and Clinics
3. All University of Iowa email anti-spam/virus services including University of Iowa Hospital and Clinics
4. All current University of Iowa telephone endpoints excluding the University of Iowa Hospital and Clinics
5. All current University of Iowa voicemail, automated call distribution and auto-attendant services excluding the University of Iowa Hospital and Clinics

High-Level Requirements

Office 365

1. Work with campus units to schedule and migrate on premise Exchange email accounts to Office 365
2. Move email routing infrastructure to Office 365 (impacts HCIS email systems)
3. Move email anti-spam/anti-virus infrastructure to Office 365 Exchange Online Protection (impacts HCIS email systems)
4. Decommission all possible on premise Exchange, email routing and anti-spam/virus systems while maintaining minimum infrastructure to communicate with HCIS
5. Identify current non-centralized campus email systems and evaluate for migration to Office 365
6. Standardize email services for all users. On-going savings is obtained by reducing the variability in email services
7. Consolidate standalone on-premises email services to centrally provided service
8. Enable hawkid@uiowa.edu email address format for all users. (first-last@uiowa.edu will continue for existing accounts, and each account will also receive a hawkid@uiowa.edu routable email address. New accounts will only receive hawkid@uiowa.edu)
9. Automatically provision email mailbox for all existing and new users (current students, faculty and staff)
10. Automatically de-provision email mailbox for all users upon leaving the University of Iowa (faculty and staff within 3 weeks, students 18 months after last registered semester)
11. Eliminate lifetime email routing. (Applies to former students, faculty, staff and retirees. Emeritus Faculty will continue to receive email routing)
12. No longer provide email services to retired staff. Will require adjustment of HR off-boarding process. (Emeritus Faculty will continue to receive email service)
13. Monitor and improve accessibility and compliance

VOIP/Skype for Business

1. Install session border controllers (SBC) as new call control/routing solution and SIP trunk termination point
2. Purchase and install session initiation protocol (SIP) trunks for new SIP based PSTN delivery
3. Port campus telephone numbers from analog PRI (primary rate interface) connection to new digital SIP trunks. This is also likely to be a transition from CenturyLink to a new vendor
4. Identify replacement use cases for IP-based voice and telephony. Will require purchase of new headsets and phones for campus
5. Identify VOIP/Skype for Business-based contact center solution to replace ACD/Auto-attendant
6. Identify and purchase smaller scale analog solutions for scenarios which cannot be converted to IP/SIP
7. Decommission or downscale existing PBX and PRI infrastructure

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8. Monitor and improve accessibility and compliance
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High-Level Risks

Shared Risks

1. Both Office 365 and VOIP/Skype for Business are on-going projects with developed teams. Each project needs review for appropriate staffing as it may be insufficient. Transitioning into OneIT format does present some challenges such as individual/team roles, governance and funding changes
2. Office 365 email and VOIP/Skype for Business telephone service are both services directly impacting users. Nearly every person on campus uses one, or both, of these services on a daily basis which increases the difficulty of making change. Communication and user training are a large component of these transitions

Office 365

1. IT support and training staff resources for the increased workload during the transition to Office 365 email. This is a short-term need for the duration of the project
2. Discovery of functionality gaps between old and new solutions
3. Integration of HCIS University accounts with the Office 365 Global Address List will require HCIS effort
4. Single Sign On (SSO) for Office 365 email is configured differently from on-premises Exchange. User experience will be slightly different from current system

VOIP/Skype for Business

1. Transitioning from PRI to SIP based PSTN connections can largely be done by IT staff behind the scenes, but transitioning from PBX telephones to Microsoft Skype for Business for voice service will require significant IT staff effort for support and training
2. Cost/Benefit analysis is difficult to determine as we're comparing different attributes of voice communication. Some of the factors involved are cost avoidance for PBX upgrade, implementation cost of Skype for Business Voice infrastructure, sunk cost of existing copper plant and PBX telephone devices, purchase cost of Skype for Business telephones/headsets, increased user features/flexibility, increased IT support effort
3. Transitioning away from the PRI/PBX infrastructure will likely influence changes in the overall financial planning of the University of Iowa telephony and voice services in terms of cost recovery, common good service or some combination.

Assumptions and Constraints

Office 365

1. Current on-premises Exchange infrastructure is at end of life. Hardware is out of warranty and Exchange 2010 Forefront Threat Management Gateway server (Exchange internal anti-virus) is end of life 12/31/2015. On-premises Sophos Anti-Virus software expires 4/1/2018. Infrastructure must be upgraded or replaced
2. Centigram voicemail is also at end of life. Project underway to potentially replace with Unified Messaging which is a component of Exchange and must be factored in this transition. A second option in this space is to upgrade the current Centigram voicemail system and postpone migration to Exchange UM
3. Modern email systems provide significantly larger mailbox quotas and the new system must be comparable (minimum 10 GB storage per mailbox). Building on-premises will come with cost increase over current system
4. Public and state government perceive email as a service offered to universities at no cost via cloud services. While partially true from a licensing cost perspective, the implementation and on-going support carries different costs. Upgrades for features such as Exchange UM require monthly fees
5. Move all University of Iowa email accounts to Office 365 with the exclusion of current HCIS email accounts
6. Leaving any email accounts on-premises requires a fixed level of infrastructure (storage, transport, client access servers) and support which detracts from savings
7. Moving email routing infrastructure to Office 365 will impact HCIS email
8. Office 365 includes services other than email. DNA staff will need to maintain eligibility rules along with provisioning and de-provisioning tools for services such as OneDrive for Business, Office ProPlus, Skype for Business and Yammer

VOIP/Skype for Business

1. NEC PBX is nearing end of life. Maximum of 2-3 years remain without significant updates
2. Majority of current PBX telephone numbers can be ported to SIP networking and Microsoft Skype for Business telephone service
3. Advanced telephony configurations (Automatic Call Distribution systems, Boss/Admin configurations, Fax, Shared Lines) would remain on PBX while standard telephone connections are ported
4. After migration of standard telephone services to Microsoft Skype for Business Voice with SIP trunk telephone connections it will be possible to revisit advanced configurations to identify Skype for Business/VOIP based solutions

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5. Skype for Business Voice will be provided via computing devices with software clients such as desktop computers, laptops or smartphones. Existing analog desktop telephones will be removed and computer headsets will be purchased to replace this function
6. Moving telephone service to Microsoft Skype for Business will reduce the need for physical move/add/change work for telephone ports on campus and shift this work to traditional IT support and virtual provisioning and de-provisioning
7. On-campus costs for VOIP will cancel out any savings from PBX retirement. The gain is modernization and service flexibility

Project Governance

The OneIT Steering Committee is ultimately responsible for overseeing and certifying the viability, support, and overall success of the Communication and Collaboration project at the Department and Organization levels.

OneIT Steering Committee

1. Champion the Communication and Collaboration project
2. Approve the Communication and Collaboration Project Charter
3. Provide adequate staffing and resources
4. Provide high-level oversight, and support
5. Review and approve major scope changes to the Communication and Collaboration project

OneIT Program Office

1. Champion the Communication and Collaboration project
2. Provide escalation resolutions
3. Provide oversight of requirements, and support
4. Provide clarification of issues, questions, and concerns

Office 365 and VOIP/Skype for Business Advisory Committees

1. Provide feedback and input
2. Representation of various viewpoints and departments
3. Validate draft procedures and policies
4. Provide clarification of issues, questions, and concerns

Campus Communities

1. CITL, ITADmins – Provide feedback, assist in implementation

Anticipated Cost Savings Categories

Efficiency -

1. Potentially consolidate non-central email systems
2. Standardized email service will reduce support costs

Server Retirements -

1. On-premises Exchange server reductions (\$14,000/year)
2. On-premises email routing servers (\$7,000/year)

Vendor Changes -

1. Transition from CenturyLink PRI to Level 3 SIP Trunks (\$147,000/year)

Staffing -

1. Email routing application admin (.25 FTE)
2. Email anti-spam/virus application admin (.25 FTE)
3. Email Exchange server admin (.5 FTE)
4. Email user support (.5 FTE)

Licensing -

1. Sophos email anti-spam/virus (\$17,500/year)

Sub Projects

Office 365

1. Migrate on-premises email services (mailboxes and routing) to Microsoft Office 365
2. Evaluate HCIS impact of uiowa.edu email domain moving to Office 365
3. Implement hawkid@uiowa.edu email routing as address standard
4. Exchange on-premises server upgrades (hybrid servers connecting to HCIS for comparable federation)
5. Anti-spam/virus migration to Exchange Online Protection
6. Integrate HCIS accounts into unified Office 365 GAL
7. Automated email provisioning for students, faculty and staff
8. Automated, graceful email de-provisioning for students, faculty and staff
9. Identify remaining devices, applications and services connecting to on-premises Exchange

Skype for Business/VOIP

1. Replace legacy PBX infrastructure with VOIP-based Microsoft Skype for Business (Session border controllers, SIP Trunks, Microsoft Skype for Business servers)

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2. Review campus IP networks (wired and wireless) for increased voice and video communication traffic
3. Review current voice services staffing and implement proper roles for new VOIP/Skype for Business-based system
4. Transition from physical move/add/change physical support to IT support with virtual provisioning/de-provisioning model
5. Review, identify and purchase endpoint/desktop voice solutions (hard phones, headsets, cameras)
6. Legacy Centigram Voicemail upgrade or replacement
7. Migration of legacy voicemail to Office 365 Exchange Unified Messaging
8. Review, identify E911 solution for Skype for Business/VOIP
9. Review, identify financial cost model for Skype for Business/VOIP
10. Review, identify solutions for legacy TDM scenarios (FAX, Elevator phones, Alarms, Blue Light Phones)

Preliminary Milestones

Office 365

Milestone	Due Date
Migrate on-premises email services (mailboxes and routing) to Microsoft Office 365	1/1/2016
Exchange on-premises server upgrades (hybrid servers connecting to HCIS for comparable federation)	1/1/2016
Integrate HCIS accounts into unified Office 365 GAL	1/1/2016
Evaluate HCIS impact of uiowa.edu email domain moving to Office 365	2017
Identify remaining devices, applications and services connecting to on-premises Exchange	2017
Email Service Standardization	
a) Implement hawkid@uiowa.edu email routing as address standard	2016
b) Automated email provisioning for students, faculty and staff	2017
c) Automated, graceful email de-provisioning for students, faculty and staff	2017
Identify remaining devices, applications and services connecting to on-premises Exchange	2017
Anti-spam/virus migration to Exchange Online Protection	2018

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VOIP/Skype for Business

Milestone	Due Date
Legacy Centigram Voicemail upgrade or replacement	2015
Replace legacy PBX infrastructure with VOIP-based Microsoft Skype for Business (Session border controllers, SIP Trunks, Microsoft Skype for Business servers)	2015
Review campus IP networks (wired and wireless) for increased voice and video communication traffic	2016
Review current voice services staffing and implement proper roles for new VOIP/Skype for Business-based system	2016
Review, identify and purchase endpoint/desktop voice solutions (hard phones, headsets, cameras)	2016
Migration of legacy voicemail to Office 365 Exchange Unified Messaging	2017
Review, identify E911 solution for Skype for Business/VOIP	2017
Review, identify financial cost model for Skype for Business/VOIP	2017
Review, identify solutions for legacy TDM scenarios (FAX, Elevator phones, Alarms, Blue Light Phones)	2018

Project Team

Ryan Lenger, Team Leader
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Isaac Podolefsky, Project Manager

Stakeholders

Refer to Stakeholder Registry

Potential Implementation Cost

To Be Determined during project planning

Key Dates

Target Start Date: 5/1/2015
Target Close-Out Date 1/1/2019
Charter Ratification Date 06/01/2015