Project Closeout

Project Details

Project Name: Communication & Collaboration
Project Team Leads: Ryan Lenger, Scott Fuller
Project Manager: Isaac Podolefsky
TeamDynamix Project Number: 241101

Project Overview (What were the goals)

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 Accomplishments (What was accomplished)

Office 365 Milestones
1. Migrate on-premises email services (mailboxes and routing) to Microsoft Office 365
   • To date, staff have eliminated more than 30 email servers.
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
   • Eliminating the on-premises Sophos solution reduced server count and saves $18,000/year in licensing costs.
6. Integrate HCIS accounts into unified Office 365 GAL
7. Automated email provisioning for students, faculty and staff
   • Automated email provisioning for students is complete. Five HR organizations have been enabled for faculty and staff auto-provisioning. Remaining work involves classifying university organizations into academic or healthcare affiliations to verify accounts are created on the appropriate system.
8. Automated, graceful email de-provisioning for students, faculty and staff
9. Identify remaining devices, applications and services connecting to on-premises Exchange

**VOIP/Skype for Business Milestones**

1. Replace legacy PBX infrastructure with VOIP-based Microsoft Skype for Business (Session border controllers, SIP Trunks, Microsoft Skype for Business servers)
   - Transferring telephone service from CenturyLink PRI connections to Level3 SIP trunks saves more than $100,000/year.
2. Review campus IP networks (wired and wireless) for increased voice and video communication traffic
   - Work continues as we partner with our consultant, Netrix, and HCIS to further develop the project.
   - This item is not a roadblock and does not result in cost savings.
3. Review current voice services staffing and implement proper roles for new VOIP/Skype for Business-based system
   - Through internal reorganization, two additional staff have been added to the Unified Communications support team. This four-person team will be charged with campus wide implementation of Skype for Business.
4. Transition from physical move/add/change physical support to IT support with virtual provisioning/de provisioning model
   - Directory and Authentication Services is working with the Unified Communications group to build automation around the new Skype for Business tools. This will eventually replace most physical move, add and change efforts.
5. Review, identify and purchase endpoint/desktop voice solutions (hard phones, headsets, cameras)
   - The Skype for Business project team engaged several vendors, reviewed products, worked with campus partners and have chosen standard devices. Vendors constantly change end-user devices so this is an on-going effort based on the needs of campus.
6. Legacy Centigram Voicemail upgrade or replacement
7. Migration of legacy voicemail to Office 365 Exchange Unified Messaging
   - This migration is now partnered with migrating telephone service from the PBX to Skype for Business. Progress is directly tied to the pace of telephone service migration.
8. Review, identify E911 solution for Skype for Business/VOIP
   - Outside consultant, Netrix, has been hired to guide this project. HCIS has implemented E911 and the teams are partnering to further leverage this existing system.
9. Review, identify financial cost model for Skype for Business/VOIP
   - Recommendations have been shared with the OneIT Operations Team, UI Budget Officers and UI Executive Leadership Team. A functional model has been identified where initial costs are balanced between IT and departments with most reoccurring costs remaining consistent.
10. Review, identify solutions for legacy TDM scenarios (FAX, Elevator phones, Alarms, Blue Light Phones)
    - Analog gateways have been identified to solve these scenarios. Gateways allow the current end-user devices to remain and have proven successful in testing. The devices will be placed in network closets to match current electricity redundancy. Campus rollout is in progress.

What Could Have Been Improved (What would you have done different)
Project Closeout

Most of the email transition went well, but it also surfaced the integrations of email with other campus functions. One technical example is the intertwined nature of Office 365 email and OneDrive for Business. In efforts to improve email functionality by merging the UI and UIHC Global Address List, we created confusion in OneDrive for Business. Most UIHC people now have two identities in OneDrive for Business. This wasn’t visible until the merge had already occurred and fixing it will involve repealing the desired GAL integration or significant effort in the identity management space.

Complexity of transition from PBX to Skype for Business was underestimated. The new telephone model challenges nearly every existing segment of the telephone service. Telephone engineers, voice support, desktop computer support, financial operations, networking, server support staff and end-users all experience change in this process. While this change is necessary to realize the on-going cost savings and modernized feature set, it requires significant communication and change management across the varied populations involved with the telephone system.

As with many of the complex systems on campus, several points of interconnection and dependency with HCIS exist. Healthcare was not in scope for the original project, but the nature of these services have surfaced several opportunities in regard to identity management, email/unified messaging, eFax, telephone routing, 911 and contact centers.

Recommendations for Further Action (What tasks are still left to do)

The primary goals of the project have been accomplished. Office 365 email and Skype for Business VoIP services are now operational for campus and the targeted cost savings have been realized. However, as with all complex services there are opportunities for future improvement. Several current efforts are included below:

- Automation of email account creation for faculty and staff. Early efforts are already in place with five HR organizations and we’re planning to expand to the remainder of the academic campus. Challenges involve determining if an individual should have Office 365 or Healthcare email services.
- Multi-year campus effort to evaluate and migrate PBX telephone services to the Skype for Business platform.
- Review campus IP networks for on-going use of voice and video communication. Current network services have proven successful, but campus continues to embrace voice and video communication as the services and devices are made available.
Project Closeout

- Develop automated telephone provisioning and deprovisioning processes. Skype for Business allows for software-based automation to replace many of the manual efforts required for PBX changes. The Directory and Authentication team is now creating tools to streamline this work.

- On-going effort to evaluate and purchase appropriate end-user devices for campus. Much like purchasing computer devices, this will be a perpetual effort as devices change and user needs evolve. Balancing features, cost and support will be critical.

- Collaboration with HCIS to leverage mutual interest in areas like E911, eFax and SBC/telephone routing. Each of these items can potentially result in decreased cost to the university and improved feature sets for users.

- Communication tools will continue to evolve at an aggressive pace. This marketplace is changing quickly with many services emerging. Microsoft has already announced many Skype for Business features will transition to Microsoft Teams over the coming 1-2 years. It is also likely that some of the campus voice communication infrastructure will transition from on-premises to cloud hosting.

Recommendations for Process Improvement (What can be done better on future projects)

Change management process for engaging various parties (leadership/political, financial) involved in the project. While we have good relationships with IT/technical staff, identifying and meeting with each of the college and departmental leadership is a challenging task. Having a collegiate/departmental champion had an exponential impact on project success both in terms of end user-satisfaction and technology adoption/impact.

<table>
<thead>
<tr>
<th>☐</th>
<th>Project Closeout Approval Date</th>
<th>MM/DD/YY</th>
</tr>
</thead>
</table>

Project Closeout - Communication & Collaboration

OneIT@Iowa