



Oak Park Elementary School District 97

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TO: Dr. Al Roberts, Superintendent

FROM: Michael Arensdorff, Director of Technology

SUBJECT: Unified Communication (VoIP)

DATE: April 3, 2015

For the past several years, District 97's phone/voicemail service has been operated by AT&T's Centrex Voice system. While the system met the districts needs at the outset, it has become increasingly antiquated, costly, and is negatively impacting our internal and external communications. That is why I believe it is time for the district to move from Centrex to a Unified Communication (UC) solution that features Voice Over IP (VoIP).

The process that led to this recommendation began approximately 18 months ago. At that time, we performed a comprehensive assessment of our existing phone/voicemail system, which included reviewing its features, functionality, costs and limitations. I solicited feedback from various stakeholder groups (UC team, FAC, the district's technology department, the members of Cabinet and other technology directors/CIOs from the area). I also spoke with vendors about the other systems/solutions that are available, which helped us evaluate both the immediate and long-term needs of the district. After completing this process, I believe switching to a UC system will benefit the district by:

- Addressing a variety of communication needs beyond voicemail
- Unifying practices, procedures and protocols (i.e., we can send/receive notifications about systems such as alarms, door security, paging/pa systems, etc.)
- Improving safety
- Maximizing instructional time
- Saving money

I have also identified ways a UC system can enhance our day-to-day operations.

- Staff would be able to make or receive secure calls from their classrooms (no more "party lines" or the need to find another room to make calls)
- District/buildings can reduce interruptions to instruction by using handsets and computers instead of the PA systems to reach individual classrooms
- District/buildings can set up and manage bell schedules from one system
- District/buildings can streamline communication/notifications through the integration of the UC system with SchoolMessenger
- District/buildings can reduce some of the front office call traffic through the use of a call manager function
- Staff can receive phone calls from outside the district routed from an office phone to mobile if desired
- District can eliminate the need for a separate server to manage the voicemail system
- Teachers can audio or video conference with parents/guardians

- District/buildings can improve/increase collaboration across buildings by leveraging audio/video via phones and projector displays
- District can use walkie talkies to leverage the functionality of the handsets

After identifying the benefits our district could derive from switching/upgrading our system, I researched a variety of VoIP options that we believed would best meet our needs. Nick Jefferson and I assessed each option based on the following factors/criteria:

- Ability to enhance district-wide communication with all stakeholders
- Efficiency and effectiveness of the features and functions
- Ability to integrate with other systems to create a more streamlined, unified approach to our communication efforts
- Cost of ownership over a 5-year, 10-year and 15-year period

From there, Nick and I narrowed the options to the three that were the most closely aligned with our goals and requirements, and had each vendor submit a proposal for services. After noticing some significant differences in the format, structure and content of the proposals we received, we asked the vendors to revise them in accordance with the following criteria so we could perform a more accurate and equitable comparison.

- Features/functions, with an emphasis on the ability to meet current and future needs
- Price, including the potential to generate savings now and in the future
- Technical experience
- Service quality/recommendations
- Scalability, including the ability to unify existing systems and scale future communication functions within the current infrastructure
- Equipment and system reliability
- Ease of implementation/management
- Vendor vision/leadership for the future

Nick and I gave each vendor a rating based on the above criteria, and developed a list of pros/cons for all three solutions. We also rated each vendor/solution using both the CapEx system and the system we utilize for eRate. These ratings are featured in the final page of this document.

Based on the data we analyzed, feedback we collected and ratings we generated, I recommend that our district go with the CDW/Cisco VoIP/UC solution. I also recommend that we develop and implement a three-year plan for rolling the solution out district wide, which will aid our transition to a new system. I believe that CDW/Cisco unified communication solution ***meets and exceeds*** each aspect of the three-year plan.

This recommendation will be presented to the board for review during its meeting on April 14, 2015. It will then be reviewed by FAC during its meeting on April 17, 2015. From there, it will be brought back to the board for approval during its meeting on April 28, 2015.

If the board approves the proposal on April 28, the implementation of the new system would take place between April 2015 and July/August 2015. This implementation would include:

- Collection of information from key stakeholders that will aid in the set up of the system
- Ordering and configuring equipment
- Setting up and testing the architecture and software
- Training/professional development for staff

- Dissemination of information about the new system to parents/guardians and community members, including updates on the implementation process

Although the district originally budgeted for the move to VoIP during the 2012-13 school year, I believe the extra time, effort and energy invested into our study of this issue will contribute to the overall success of the initiative. Our district is now better equipped and prepared to seamlessly integrate the VoIP/UC solution into our systems, and has the infrastructure in place to potentially add the resources that are featured in years two and three of our plan (e.g., digital signage inside the schools, enhanced audio and video capabilities for board meetings, etc.).

The proposed cost for this expenditure is \$450,907.10. This includes the phones, servers, licensing, software, notification system and implementation services. I requested multi-year licensing/pricing for five years, which resulted in discounted rates and significant savings. For example, our current operating budget for our phone system is \$110,000 per year. Below is a chart showing the annual cost and savings for the next five years and anticipated savings for years six through ten in comparison to the current Centrex solution.

	2015-2016 Costs/Budget Reduction	2016-2017 Costs/Budget Reduction	2017-2018 Costs/Budget Reduction	2018-2019 Costs/Budget Reduction	2019-2020 Costs/Budget Reduction	2020-2021 – 2024-2025 (anticipated) Costs/Budget Reduction Annually
New Cisco/CDW UC Solution	VoIP Tech Plan - \$220,350 Voice Budget - \$110,000	Voice Cost - \$96,400	Voice Cost - \$96,400	Voice Cost - \$26,400 (SIP Trunks, POTS lines, Local/Long distance)	Voice Cost - \$26,400 (SIP Trunks, POTS lines, Local/Long distance)	Voice Cost & Licensing - \$47,964.90
Current Centrex (AT&T) Phone Solution (If we continued with this solution)	Voice Cost - \$110,000 + maintenance costs	Voice Cost - \$110,000 + maintenance costs	Voice Cost - \$110,000 + maintenance costs	Voice Cost - \$110,000 + maintenance costs	Voice Cost - \$110,000 + maintenance costs	Voice Cost - \$110,000 + maintenance costs (annually)
	Budget Reduction - \$0	Budget Reduction - \$13,600	Budget Reduction – \$13,600	Budget Reduction - \$83,600	Budget Reduction - \$83,600	Budget Reduction - \$62,035.10 (Annually)

After implementing the VoIP/UC solution, the savings in the operating budget over the next five years will be \$194,400. The anticipated savings in years six through ten will be \$310,175.50. Over the ten years of transitioning to this solution the district will see an anticipated operating budget reduction of \$504,575.50.

I am excited about the prospect of bringing these valuable 21st century tools to our district, and look forward to providing our stakeholders with access to a unified communication system that will better meet their needs.