

**COUNTY OF MILWAUKEE
INTEROFFICE COMMUNICATION**

Date: March 16, 2018

To: Supervisor Theodore Lipscomb, Sr., Chairman, County Board of Supervisors

From: Laurie Panella, Chief Information Officer, Department of Administrative Services – Information Management Services Division

Subject: Supplemental Report File 18-217: Authorization to enter into a Countywide Master Services Agreement with Integration Partners Corporation for Avaya Aura VoIP Phone and Voicemail System.

Request

On March 05, 2018, the Chairman of the Milwaukee County Board of Supervisors referred County Board File 18-217 (File) to the Capital Improvements Committee (CIC). Subsequent to the referral, the Chairman of the CIC referred the File to the CIC Sub-Committee for review of funding and project status. Further clarification was required of the Department of Administrative Services – Information Management Services Division (DAS-IMSD) as follows:

*"...the Department of Administrative Services- Information Management Services Division communicates to the Committee on Finance and Audit the scope of work and risk mitigation that would be addressed with **existing** appropriations and what the impact would be if **future** appropriations were not to be approved."*

2018 Project Scope of Work and Risk Mitigation

The Phone and Voicemail project addresses phone system replacements for General Mitchell International Airport (GMIA), the Milwaukee County Transit System (MCTS) and the County locations managed by DAS-IMSD: The Courthouse, Children's Court, BHD, Housing, Coggs, House of Corrections and the Zoo (County Proper). The three (3) agencies combined efforts and competitively bid for a vendor to replace the phone system at each agency's facility - Integration Partners Corporation (IPC) was the successful proponent. Leveraging one vendor to replace all three (3) phone systems reduces the overall cost of the project for each agency, reduces maintenance cost in the out years as well as provides the opportunity for operational efficiencies through cross departmental expertise.

Each legacy phone system at GMIA, MCTS and County Proper are aged and are at risk of failure. The 2018 appropriation for this project will address the following tasks and the noted

risks for each agency:

General Mitchell International Airport (GMIA): The scope of work for GMIA includes a full phone system replacement including voicemail and network connections. GMIA has full funding for the portion of the project specifically pertaining to the airport facility. All phones, phone systems, voicemail systems, necessary network connections and related hardware will be replaced in 2018. It is anticipated all risks involved with operating a legacy phone and voicemail system at GMIA will be mitigated.

Milwaukee County Transit System (MCTS): In 2017, MCTS completed the network component of the phone replacement for their facilities. MCTS did not receive funding in 2018 to continue with the phone system replacement therefore no work will be completed in 2018. Risk for intermittent system outages will remain.

DAS – IMSD supported Facilities (County Proper): \$1.212M is available in 2018 to replace the highest risk components of the phone system in the various County facilities supported by DAS –IMSD (The Courthouse, Children’s Court, BHD, Coggs, Housing, House of Correction, Zoo). Upon execution of the contract with IPC, in 2018 the following work will be completed and the noted risks addressed:

- Installation of the new primary phone system with voicemail service
- Installation of the secondary backup phone system with voicemail service
- The modern phone service for the primary and secondary phone systems will be ordered and configured
- Migration of up to 2,700 phones and phone service to the new phone system; the risk of a prolonged system outage is mitigated for up to 40% of County phones
- All County phones will be migrated to the new primary and secondary voicemail systems and the risk of a prolonged outage of County voicemail service is mitigated.
- All County phones will be migrated to the new primary and secondary phone system Automatic Call Distribution system (ACD). The risk of a prolonged phone system outage is reduced significantly.

Impact to Operations if Future Appropriations are Not Approved

As noted above, GMIA has full funding for the portion of the project specifically pertaining to the airport facilities - the GMIA phone system will be replaced in 2018. Though the project will be complete, support and maintenance of the new system will be required and funding will be included in GMIA’s annual operating budget. MCTS and County Proper, however, will have risk as it relates to system outages and security. Please see below:

Milwaukee County Transit System (MCTS): MCTS has approximately 300 phones connected

to a complex phone system that has multiple components from multiple manufacturers. The following are those items that pose the greatest risk to MCTS until the legacy phone system is replaced:

- Legacy phone gateways will continue to fail 1-2 times per month which renders phone service inoperable for internal communications and the general public wishing to contact MCTS
- The legacy phone system will continue to be difficult to support. There are multiple versions of software in production that are no longer supported by the vendor and internal staff knowledge for repair of system issues is limited due to retirement of legacy personnel
- Replacement parts will continue to be difficult to locate. Various pieces of hardware required to operate the legacy phone and voicemail systems are not available on the primary or secondary markets; failure in any of these components could lead to a long-term phone system outage
- MCTS operates a legacy open source Interactive Voice Response (IVR) system with no vendor or staff support

DAS – IMSD supported Facilities (County Proper): DAS – IMSD supports a large legacy Avaya phone system that services ~6,000 phones and ~10,000 phone lines. The system is comprised of several system cores and six (6) voicemail/call distribution servers, all located at various sites across the County. Using the 2018 appropriation, several risks associated with the current system will be mitigated but the project will be partially complete and will require DAS –IMSD to support two (2) separate phone systems - the costly, unsupported legacy system and the new modern phone system. While there are features and benefits to upgrading the phone system to a modern one, there are also cost savings associated with migrating to a new system and those savings cannot be recognized until we are completely migrated off the legacy system. Below are some specific impacts that will be realized if future appropriations are not approved:

- Up to 3300 phones will be forced to continue running on legacy phone systems with no manufacturer support. The support for hardware is done via best effort by a 3rd party (at the cost of \$300,000 per year, 2018 cost) and refurbished replacement parts not readily available in the secondary market. The probability of phone system failure is high; it is estimated that an outage could be as long as 3-5 days
- Until the legacy phone system is replaced, the County will be required to fund the costs associated with maintenance, support and staff to manage and maintain two phone systems: the legacy phone system (~3300 phones) and the new phone system (~2700 phones)
- Until the legacy phone system is replaced, the County will be required to fund the costs associated with phone company services (phone lines and numbers) for two phone systems, possibly doubling the cost of phone service.

- Integrations of legacy and new phone systems will be an inconvenience to employees on each system
- County locations such as the HOC, Housing and the Zoo are all at capacity for phones; no new phones or phone lines can be added to these locations until they are migrated to a new system
- Security vulnerabilities inherent with running legacy phone system will remain
- The software for the legacy phone system is out of support as of March 2018

Additional details related to future funding requirements for both the project and for maintenance and support into the out years is available in the original report, resolution and fiscal note.

Recommendation

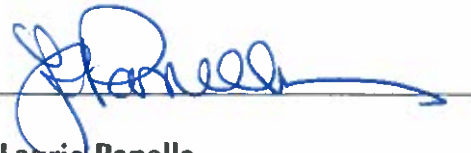
The Department of Administrative Services – Information Management Services Division (DAS-IMSD) respectfully requests that this supplemental report be received and placed on file.

Prepared by:



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Approved by:



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