

CITY OF LOS ANGELES
INTER-DEPARTMENTAL CORRESPONDENCE

Date: February 22, 2018 REF: EXE-047-18

To: The Honorable City Council
c/o City Clerk, Room 395, City Hall
Attention: Honorable Monica Rodriguez, Chair, ITGS

From: Ted Ross, General Manager
Information Technology Agency 

Subject: **MOBILE WORKER PROGRAM STATUS UPDATE (FROM DESK PHONES TO SMARTPHONES)**

As part of the 2017-18 budget process the City Council added \$100,000 to Information Technology Agency's (ITA) budget to pilot the Mobile Worker Program (MWP). This transmittal provides a status report on that initial effort and includes recommendations to continue the project and to expedite additional implementations.

BACKGROUND

U.S. phone companies, along with Federal Communications Commission (FCC) guidelines, have announced the termination of traditional phone (POTS) lines by 2020. This means the City must upgrade over 30,000 aging landlines that are already operating on failing 20 year-old telephone switches and other legacy equipment. The Administrative Code designates the Information Technology Agency as the entity responsible for providing the City's telecommunications services. In this capacity, ITA considered various replacement technology options, such as the replacement of current POTS desk phones with Voice over Internet Protocol (VoIP) desk phones running over the City network or the use of cellular smartphones for POTS desk phone replacement. After careful research and deployment of a pilot across the ITA and select Mayor's Office staff, the ITA has determined that providing cellular "smartphone" devices to replace traditional POTS desk phones for the majority of the City's civilian workforce is the most beneficial for the City (aka the Mobile Worker Program). Simply put, the Mobile Worker Program (MWP) is the replacement of traditional POTS desk phones for City employees with mostly cellular smartphones and some VoIP desk phones (for jobs that must have stationary phones – e.g. LAPD stations, libraries, receptionists, call centers, etc)

ADVANTAGES OF MOBILE WORKER PROGRAM

Based on our research, surveys of other City agencies, and 5 month pilot program, the advantages of the MWP are numerous.

Smartphones give City employees much more modern options and features than traditional "dumb" desk phones, including:

1. More ways to communicate (call, text, email, chat, or video)
2. Easy access to information when you need it, where you need it (empowerment)
3. Improved emergency communications (employee safety) and disaster recovery (business continuity)
4. Smartphones are already highly popular with employees so training is minimal

It's also better for the City of Los Angeles:

1. Saves taxpayer money (costs \$6-7 Million less than VoIP desk phones to implement and 11% less per line)
2. Reduces large strain on City's data network
3. Improves cybersecurity (smartphones allow "two factor" authentication)
4. Eliminates department time and cost from desk phone "adds/moves/changes"
5. Helps recruitment of younger workforce (Millennials and Gen Z)

WORK COMPLETED-TO-DATE

ITA was funded \$100,000 in the 17-18 budget to trial this concept and began work on the Mobile Worker Program (MWP) at the end of FY 2017.

When initiating the MWP, ITA worked with General Services Department which administers the City's contracts with four mobile service providers to obtain pricing proposals from each of them. The City requested pricing for the cost of a basic smartphone devices and a monthly service rate for unlimited voice, text messaging and data. Subsequently, carriers were asked what they would provide with regard to building augmentation in order to ensure excellent signal strength across City buildings. ITA analyzed the responses and determined that T-Mobile's was the most advantageous for the City. T-Mobile offers a \$120 device credit, reducing the cost of a Samsung J3 to \$30 plus tax, and a monthly service charge of \$12.30 plus tax per line. In other words, this vendor offers a new smartphone with unlimited calls, texting, and data for \$15.35 per month with a phone replacement every two years. More importantly, T-Mobile uniquely agreed to provide engineering analysis and pay for in-building signal augmentation where necessary to provide excellent coverage and assistance in phone distribution and training.

T-Mobile engineers tested various signal boosting devices on ITA floors to determine the most appropriate technology to use. To date, T-Mobile has provided engineering and building augmentation in City Hall East for floors 9 through 14 and parking levels P1-P4, as well as floors 10, 16 and 22 in City Hall and all of Piper Tech at no cost to the City. Augmentation included an in-building antenna as well as smaller signal boosters on some floors, and the coverage has proven to be excellent. ITA's Communication Electricians additionally tested these enhanced sites to measure the electromagnetic field exposure and found them all to be significantly under the maximum permitted exposure, typically below 1% of the permitted safe level.

ITA works with the vendor on the phone distribution to assist employees to add their City email account on their phone as well as to access City phone numbers phone directory and cloud based documents in Google Drive. In addition, ITA created a website <http://phone.insidela.org> with policies and links to video instructions for how to use common device functions. Employees are advised that they are expected to keep the phone charged and accessible while at work, and they are welcome to bring the phones to meetings, work activities or home. However, non-salaried staff must follow their department's overtime policies regarding use after work hours.

Once employees have their new mobile devices, ITA coordinates among the carriers to "port" or transfer employees' existing desk phone numbers to their mobile device so employees maintain the same office phone number. This allows departments to continue to use business cards and literature with existing City phone numbers.

ITA has now activated 464 smartphones in seven locations for ITA, LAPD Van Nuys Homicide and Narcotics and the Mayor's office. Employees in our 311 Call Center are even trying mobile devices along with headsets to take customer requests (allowing a mobile 3-1-1 Call Center in case of building evacuation or disaster). ITA will also be providing 52 stationary VoIP phones for administrative employees who heavily transfer phone calls or who work in with shared phone numbers that ring on multiple phones (e.g. Shop Services).

LESSONS LEARNED

During the pilot project, the ITA learned key lessons that will greatly improve a citywide rollout, including the importance of ubiquitous coverage, deployment timing, employee training, and department participation. After surveying employees across various classifications, it is clear that the Mobile Worker Program is advantageous for the City and is the best path forward for replacing traditional POTS telephone lines, while certainly requiring adjustment for some employees. Additionally, ITA recognizes that there are some situations which are better served by Voice Over Internet Protocol (VoIP) phones, such as when employees must periodically receive and transfer phone calls or when multiple employees share a desk and phone line. However for the majority of the City's workforce, most of whom average three calls per day from their current desk phone, a smartphone provides capability, flexibility, and reliability not present in the current landlines.

As we look ahead to bringing additional departments into the pilot to replace their land lines, the first step will be information gathering. ITA will rely on these departments to provide the location and type of phone usage for each of their employees, as well as whether employees already have a City-issued mobile device, in order to determine the number and type of phone solution that is appropriate for each employee. We are recommending that each department assign a coordinator to work with ITA to ensure that the vendor has facility access to perform the necessary site assessments and equipment installation, that information is communicated to the affected employees, and that employees are prepared when they receive their new device.

CHALLENGES FOR THE MOBILE WORKER PROGRAM

There are some facility issues that present challenges to a larger implementation of the MWP. First, in order for T-Mobile to review and engineer the building augmentation solution, they must have floor plans for the facilities. The City does not have these documents in a single place. ITA will require the cooperation of all City departments to obtain current diagrams and floor plans for their facilities.

Additionally, the City must execute access agreements with T-Mobile in order for the company to continue to provide the level of investment in in-building augmentation. General Services Department executes these agreements. This project will require the cooperation of General Services and their City Attorney in executing access agreements with T-Mobile for City facilities.

Another area of complexity for this project is the fact that mobile device management has always been decentralized and each departments purchases and pays for its own mobile services. The result is that many City employees already have City-issued mobile devices and service from one of the four GSD-contracted carriers. While allowing departments to select which mobile providers they want to use has not been an issue in the past, as the

City moves to using these devices as a desk phone replacement, this requires assurance of excellent signal strength across all City facilities (a City employee should be able to take and receive calls in any City facility). In order to ensure that a phone that works well in City Hall also works well in City Hall South and Marvin Braude, as well as to expeditiously move off the landlines by 2020, the City must work with a single provider to engineer and install the augmentation solutions and cellular service. Departments must be directed to use T-Mobile augmentation for the desk phone replacement project and transfer to this service as their existing contracts permit.

A secondary facet to the decentralized mobile device management is that departments budget and pay for these devices today. This arrangement will continue under the MWP, with ITA transferring funding to departments from ITA's telephone budget to cover the new mobile services. The transfer amount will cover the monthly service and tax, as well as funding for device replacement on a two year cycle.

To date, the Department has spent \$58,000 on the pilot effort (out of \$100,000). ITA proposes to continue the desk phone replacement for departments in City Hall East, Piper Tech, and Marvin Braude as funds allow.

RECOMMENDATIONS

1. That the Council direct ITA to continue the Mobile Worker Program pilot using T-Mobile's service with other City departments at City Hall East, Piper Tech, Marvin Braude or other facilities until all funds are expended; and,
2. That the Council direct General Services to work with ITA and T-Mobile to execute Building Access Agreements; and,
3. That the Council direct all City departments to designate a Mobile Worker Program Coordinator to work with ITA to provide floorplans, employee location and function data, and current mobile device assignments.
4. That the Council direct ITA to roll out the Mobile Worker Program to all City Departments, subject to funding approval in the 2018-19 budget.

cc: Councilmember Monica Rodriguez, Chair of ITGS
Councilmember Bob Blumenfield, Vice Chair of ITGS
Councilmember Mitch O'Farrell, Member of ITGS
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