THE CITY OF SAN DIEGO

OFFICE OF THE INDEPENDENT BUDGET ANALYST REPORT

Date Issued: October 23, 2013 **IBA Report Number:** 13-47

Budget and Finance Committee Date: October 30, 2013

Item Number: 3

Public Safety Concerns With Sprint Solutions, Inc. Communication Services

BACKGROUND

On February 24, 2011, the City's Purchasing and Contracting Department issued a request for proposal (RFP) for wireless communication services and goods. The RFP solicited a wireless contract for an annual amount not to exceed $1.5 million (including General Fund and Enterprise Funds) for a period of two years, with three one-year options to renew. This contract encompassed approximately 3,500 different cellular devices throughout the City, including approximately 1,170 public safety wireless data air cards and modems. The Purchasing and Contracting department received three responses to the RFP: T-Mobile US, Inc.; Sprint Solutions, Inc. (Sprint); and Verizon Wireless, LLC (Verizon). It was subsequently determined by the Purchasing and Contracting Department that Verizon's submission was non-responsive due to it being delivered to the department after the RFP response deadline. Based on review by the evaluation committee of the two remaining qualified submissions, Sprint was determined to be the best applicant and on October 10, 2011, the San Diego City Council unanimously approved awarding this contract to Sprint.

At the October 2, 2013 Budget and Finance Committee meeting, the Department of Information Technology presented the first one-year renewal option for the Sprint contract at an increased cost of $400,000 per year (for a not-to-exceed amount of $1.9 million per fiscal year) to accommodate existing devices and to expand the agreement to include approximately 1,900 GPS location devices for fleet vehicles. When this item was presented, the President of the San Diego Police Officers Association, Brian Marvel, addressed the Committee Members during public comment informing them of communication concerns Police Officers were encountering. These problems were specifically with wireless coverage in the Police Department's Northern Division and also near the City of San Diego and Tijuana, Mexico international border. This was creating a public safety concern where Police Officers are intermittently unable to access information from their mobile digital computers (MDC) and receive or maintain a wireless signal for phone calls, among other issues.

Based on this input from the Police Officer's Association, Committee Members inquired of San Diego Police Department (SDPD) Assistant Police Chief Zimmerman if communication concerns did indeed exist in the areas mentioned by Mr. Marvel. Chief Zimmerman confirmed the level of coverage in these two areas of the City were a concern in addition to a current lack of clear communication between Sprint and the Police Department on timing and specific geographic areas of the City expected to experience temporary communication outages or poor connectivity due to network upgrades performed by Sprint. Additionally, the Chief mentioned that some Officers carry cell phones, paid for by the Police Department, that operate on a different network from Sprint to allow them to receive connectivity in the aforementioned trouble spots and other areas with a compromised cellular signal.

Due to these public safety concerns, the one-year contract extension was not approved by the Budget and Finance Committee. However, a month-to-month contract for the continuation of wireless services and goods was agreed to in principal by Sprint representatives at the Committee meeting while these public safety concerns can be further researched and addressed. Committee Members requested that the month-to-month contract proceed to City Council for approval while the following concerns be looked into by the Office of the IBA and reported back to Committee:

1. Determine how Sprint is proposing to address the areas of poor connectivity in both the Police Department's Northern Division and the City's border with Tijuana, Mexico.
2. Is Fire-Rescue experiencing any of the same concerns as the Police Department?
3. When would these solutions be implemented (provide specific benchmarks)?
4. What accountability can the City of San Diego hold Sprint to for implementing these solutions?
5. Can Sprint increase their communication to the both public safety departments in timing and location of outages due to network upgrades?
6. What is the cost associated with the additional phones carried by Officers to allow for connectivity in areas that are not being properly covered by Sprint?

FISCAL/POLICY DISCUSSION

<u>Connectivity Concerns in Northern / Southern Areas of the City</u>

Addressing Connectivity in SDPD Northern Division

In discussions with SDPD Information Services, personnel were experiencing connectivity concerns immediately surrounding the Northern Division, located at 4275 Eastgate Mall in La Jolla. To address these concerns, Sprint will install new tower equipment adjacent to the station to enhance both voice and data services for the area. Dates for construction and implementation for these new capabilities are as follows:

- Construction start date: October 18, 2013
- Third generation (3G) on-air: November 9, 2013
- Fourth generation (4G) on air: November 16, 2013

The following map shows SDPD's Northern Division in relation to the new cellular tower equipment location (in shaded area):

Addressing Connectivity in City of San Diego / Tijuana, Mexico Border

Connectivity concerns for the SDPD occur mainly south and west of the Interstate 5 & Interstate 805 confluence, with specific troubles when attempting to utilize their MDCs. Sprint currently has two towers in the vicinity; however, this has proven insufficient and a third will be constructed to address these concerns. Attachment one of this report shows Sprint generated maps that illustrate the coverage provided in this area prior to the installation of this new tower. Dates for construction and implementation for this new tower are as follows:

- Construction start date: October 29, 2013
- Third generation (3G) on-air: December 6, 2013
- Fourth generation (4G) on air: December 10, 2013

The following map shows the area in which SDPD is having current connectivity concerns and the new cellular tower location:

It should also be noted that prior to June 2012 there were continuing concerns with Sprint wireless communications devices near the border due to bandwidth interference with wireless towers in Mexico. This was subsequently resolved by Sprint, the Federal Communications Commission, and Mexican telecommunication officials to allow enhanced data services for both customers and public safety near the border area.

The SDPD has expressed an interest to possibly utilize the Southern Division (which operates in this area of the City) as a pilot area to test connectivity with Verizon services for Police Officers. In our Office's discussion with Sprint and Verizon representatives, Sprint would be willing to release any portion or all of public safety wireless services from this contract and Verizon would be willing to accommodate this request. It is unclear if there would be any additional cost for this scenario or what would be required of City staff to implement this pilot area.

Fire-Rescue Connectivity Concerns

The Fire-Rescue Department indicated they are experiencing connectivity concerns at and around Fire Station 43, located adjacent to Brown Field Municipal Airport at 1590 La Media Rd., in the Otay Mesa area of the City. Sprint noted that they currently have a site adjacent to the station and are investigating why it is not providing adequate coverage. Outside of this issue at Fire Station 43, the Fire-Rescue Department has not indicated they are currently experiencing any other significant connectivity issue with Sprint.

Connectivity Performance Measurements

The cell phone tower that is going to be upgraded with enhanced communication services to address SDPD's Northern Division concerns is currently registering measurable performance statistics. The most recent 90 day average performance statistics for this site are:

% of Voice Devices Unable to Connect:	1.31%
% of Voice Devices Dropped After Connect:	0.61%
% of Data Devices Unable to Connect:	0.33%
% of Data Devices Dropped After Connect:	0.70%

These statistics can be measured after installation of Sprint's new equipment to determine any improvement in performance. Additionally, the SDPD has provided Sprint with the electronic serial numbers (ESNs) for their wireless devices so usage can be tracked to how many devices are connecting to this tower prior to and after the upgrade. For the connectivity solution near the Tijuana, Mexico border, there are no performance statistics that currently exist due to no existing tower location in this area. However, Sprint can measure the performance of this site with the same information as shown previously for percentage of devices that are unable to connect and are dropped, in addition to the number of SDPD devices utilizing this tower based on the ESNs after installation. We would also note that Sprint was given Fire-Rescue ESNs to use for tracking usage on any upgrades or existing network infrastructure if requested.

In addition to connectivity performance measurements, it will be important to continue conversations with SDPD and Fire-Rescue after implementation to determine if they believe that their public safety communication requirements are being met by the Sprint network and the installed solutions.

Sprint City-Wide Connectivity Concerns

Sprint is currently upgrading their network equipment City-wide to provide customers with enhanced data and communication services, which may cause service interruptions in specific areas where work is taking place. At the October 2, 2013 Budget and Finance Committee meeting, Chief Zimmerman discussed concerns the SDPD was having with Sprint notifications of potential service interruptions due to these upgrades and general maintenance.

The SDPD was being notified of these service interruptions; however, the notifications provided only dates, times, and approximate locations of areas that may experience connectivity concerns. It was requested that Sprint begin providing both SDPD and Fire-Rescue notifications of potential connectivity concerns with time and date in addition to maps showing the affected areas that could be distributed to personnel. This additional information is now being provided by Sprint with each notification to both SDPD and Fire-Rescue (notification example shown as attachment two). These network upgrades are projected to be over 75 percent complete within six months, which should reduce the number of service interruptions that are currently being experienced in addition to providing better communication abilities throughout the City.

These connectivity concerns are particularly troublesome for SDPD MDCs. When a connection is lost, it is required of the officer to reboot and / or log-in again to the MDC, causing the Officer critical downtime. To help address this specific issue, Sprint has agreed to provide a $11.99 credit (up to $90,000) for each installation of NetMotion Mobility software[1]. This software "pauses" mobile applications when the Officer does not have a reliable signal instead of freezing or dropping the connection on the MDC altogether.

[1] This is estimated to pay for full SDPD implementation through May, 2014

Accountability for Implementation of Connectivity Solutions

As previously mentioned, the City is finalizing a month-to-month contract with Sprint to continue to provide wireless goods and services, which is expected to be brought forward for Council approval on October 28, 2013. If Council should determine that these connectivity concerns have not been properly addressed or are dissatisfied for any other reason , this contract extension can be terminated with a 30 day notice for general convenience. However, no penalty can be extracted from Sprint for failure to perform based on service levels determined in the RFP or provisions in the contract extension.

Sprint has also stated that the City would have the option of removing public safety communication services (SDPD and Fire-Rescue) from this contract and keep the remaining portions of wireless communication services intact. If this contract were to be terminated for public safety, a sole source contract for communication services would be needed that would allow continuous and seamless coverage for all public safety communication devices. However, our Office has been informed that the modems in SDPD MDCs will not currently work on any other wireless carrier's network though the modems installed are not Sprint specific. The Department of Information Technology is currently working to address this issue.

Additional Areas for Consideration

Additional Devices with Other Carriers

At the October 2, 2013 Budget and Finance Committee, Chief Zimmerman mentioned that some SDPD personnel had opted to carry other City paid wireless devices that worked on a different network than Sprint to address connectivity concerns they were experiencing. Council Member Lightner inquired about the additional cost to the City to provide these additional devices and if Sprint would be willing to pay for these additional devices.

In our discussions with SDPD staff, there are a number of Police Officers and other personnel that have been issued a Sprint wireless device in addition to having an additional wireless devices that work on a different network than Sprint. These additional wireless devices are paid for with the newly implemented City stipend program. It is unknown if the devices that are paid through the stipend program are utilized by staff in addition to the Sprint devices or if the Sprint device issued to the SDPD staff person is duplicative to their other device and is not needed. However, we would note that the stipend program is subject to meet and confer issues as a benefit to City employees.

Finally, our Office discussed with Sprint if they would be willing to pay for these additional devices, who responded that "Sprint is not able to assume liability for costs related to City personnel utilizing cellular devices on other networks."

Sprint Marketing Partnership

On October 18, 2011 the City Council unanimously approved a marketing partnership with Sprint Solutions, Inc. to be the official wireless provider for the City of San Diego. This partnership stipulated that Sprint pay an annual $100,000 marketing rights fee to the City per year, expressly conditioned upon the execution and continued standing of the wireless goods and services contract under review. If the contract for wireless goods and services is cancelled in

part or whole, the marketing partnership agreement between the City and Sprint would be invalidated. Also, in our Office's discussions with the Director of the Corporate Partnership Program and the City Attorney's Office, the month-to-month extension of the wireless goods and services contract also invalidates this marketing partnership agreement and the City will not collect the annual $100,000 in marketing rights fee.

CONCLUSION

Sprint Solutions, Inc. has been receptive to the City's wireless communication concerns, specifically those related to public safety. Staff from the Department of Information Technology, the Office of the IBA, the San Diego Police Department, and the San Diego Fire-Rescue Department have met in person to outline needs and establish the timelines for addressing them as shown in this report. These departments are meeting again on October 25, 2013 to continue to discuss resolution of these and other issues.

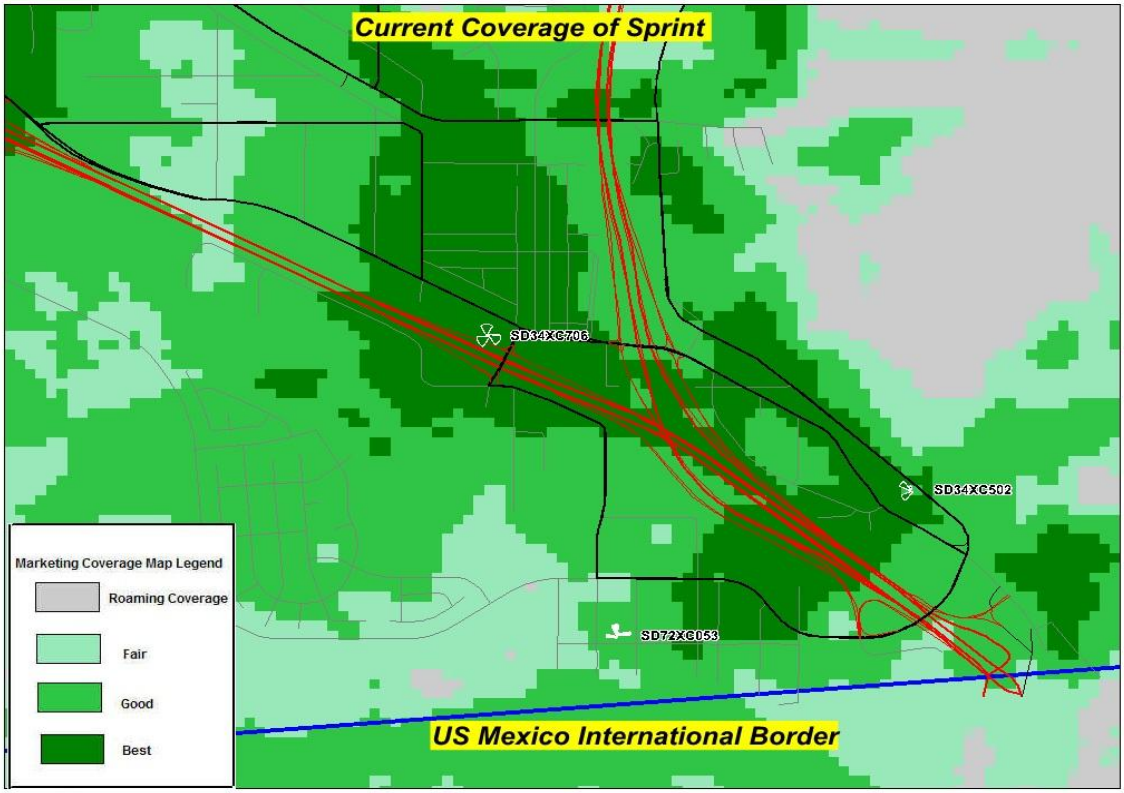
Based on the solutions identified by Sprint to address these concerns, it is our recommendation that the City continue with the month-to-month contract and allow Sprint to implement the enhanced data and voice communications equipment adjacent to the SDPD Northern Division station and near the Tijuana, Mexico border. Completion of both enhancements should occur prior to the start of the new calendar year, with Sprint and the Department of Information Technology returning to the Budget and Finance Committee in the first quarter of calendar year 2014 to outline the new performance measurements of these two locations (voice / data performance in addition to ESN connectivity) and address any other concerns, such as Fire-Rescue Station 43's communication issue resolution. Furthermore, staff from SDPD and Fire-Rescue should also attend to inform Committee Members of any continued concerns or issues with Sprint connectivity that cannot be encompassed in these performance measurements. The Committee may determine at this time that it is in the interest of public safety to switch carriers, recommend the requested year extension move forward to full Council, or have the contract continue on a month-to-month basis.

Seth Gates
Fiscal & Policy Analyst

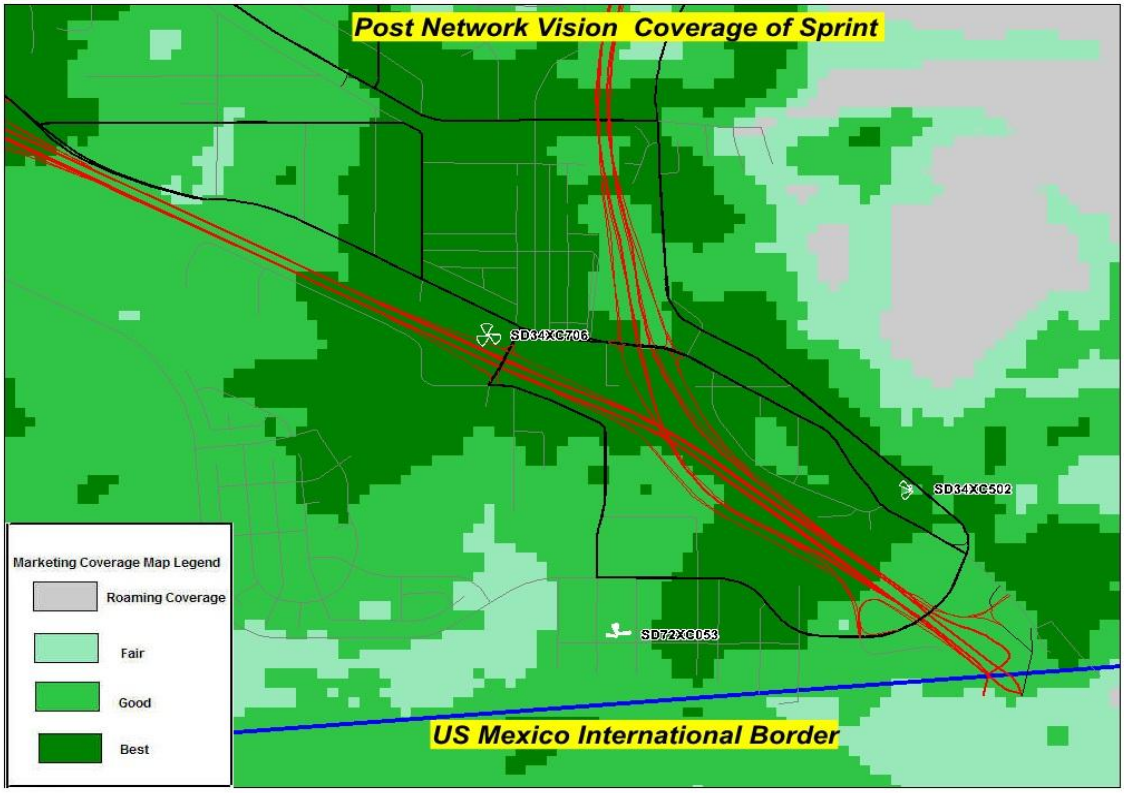
APPROVED: Andrea Tevlin
Independent Budget Analyst

ATTACHMENT ONE

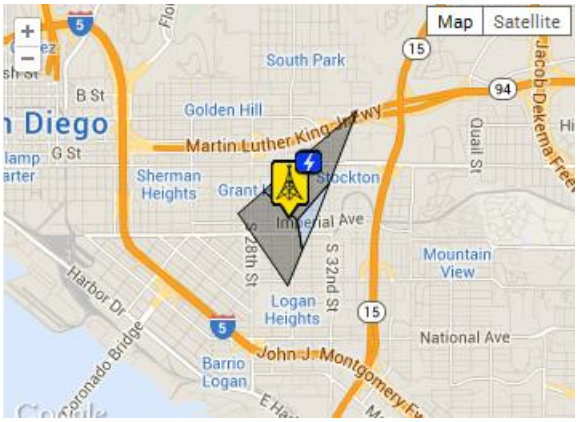
CURRENT SPRINT COVERAGE



UPDATED SPRINT COVERAGE AFTER TOWER COMPLETION



Sprint CMC #244259 Intermittent Data Impairments on 10/18/2013… 1am to 6am PT



3040 Imperial, San Diego, CA [#244259]

2901 Nimitz Blvd, San Diego, CA [#244259]

3901 Lomaland Dr, San Diego, CA [#244259]