



Board Summary Report

Date: February 20, 2020
To: Board of County Commissioners
Through: Tyler Brown, Sheriff
From: Jared Rowilson, Investigations Captain
Subject: 2020 Sales Agreement for Nighthawk.cloud between Arapahoe County and Radix Metasystems, Inc.

Request and Recommendation

The Sheriff's Office requests the Board of County Commissioners to authorize the Sheriff to sign the Sales Agreement between Arapahoe County and Radix Metasystems, Inc.

Background

As technology has advanced and the criminal culture has become more and more savvy with its use, Sheriff's Office investigators must evaluate data from any number of sources on an extremely frequent basis for any number of criminal investigations. This could be in the form of computers, tablets, mobile devices, GPS-enabled devices, data from service providers and internet platforms, and countless other sources. The Sheriff's Office has identified a piece of software, Nighthawk by Radix Metasystems, that can evaluate data from numerous sources in a fraction of the time a human being would take to analyze it. Nighthawk will also assist in identifying relevant data, compile information for affidavits of probable cause in criminal case filings and create an understandable presentation of the data for prosecutors, judges, and juries.

Links to Align Arapahoe

Quality of Life – Safe Communities

Fiscal Responsibility – Operational Efficiency (Utility Use, Process Improvement)

Discussion

In an ongoing murder investigation, Sheriff's Office investigators received 3.5 million records related to mobile phone usage that one investigator had the skills to create a database to analyze the records. This specific work took the investigator a full work day to complete and then it took several weeks for other investigators and an analyst to examine the data to find relevant items. Radix allowed ACSO to have access to Nighthawk for this case and the software was able to upload and prepare the data for analysis in a matter of a couple hours (they had never seen a data set so large). Further, the software was able to verify the investigators

analysis and provide new leads to follow up on in a few more hours of work. Additionally, more data was able to be entered into the software for this case and significant progress has been made toward establishing enough evidence to arrest the suspect.

In another recent murder-for-hire case, an investigator had 65,000 pages of data from a social media account. The investigator had been manually going through the data over the course of what would have amounted to 4 working days using search functions to analyze the data. The investigator was allowed access to Nighthawk and the software was able to complete the same analysis and find more pertinent evidence in 15 minutes.

A local task force that the Sheriff's Office participates in has had access to Nighthawk for more than a year and used it in the 2018 case when a Cherry Hills Police Officer was shot. The task force used Nighthawk to analyze phone records, social media data, GPS data, and other sources that has thus far lead to the arrest of 9 suspects and conspirators which would like not have happened without the robust capabilities of the product.

The above cases are complex cases where Nighthawk has been used successfully but there are countless other cases investigators have that can benefit from the software. The number of cases that involved mobile devices, computers, or other data sources is growing and will only continue to grow. The Nighthawk software is a cloud-based product that is used by investigators through a web browser. Although some training is needed to learn the full functionality of the software, all investigators can use it rather than someone only with a specific, high-level computer skills. This product will save vast amounts of time spent by investigators and analysts sifting through data. It will also help present cases to the District Attorney's Office and to juries when cases go to trial.

Radix has provided a contract for 20 licenses for access to Nighthawk that will be distributed to investigators with the most frequent need for the product as well as the two intelligence analysts. By doing so, the Sheriff's Office will not need to renew the contract for another less robust data analysis product going forward. The Sheriff's Office will use operating funds to purchase the first year of service.

Alternatives

One alternative is for the Sheriff's Office to not use the product and continue doing business in a rapidly developing field with old tools. It could also go forward with an enterprise pricing model but it is too costly to use available operating funds. Lastly, the Sheriff's Office could approach Radix about a contract for fewer license at an increased cost per license.

Fiscal Impact

The first year cost will not exceed \$29,000.00, and will be \$21,000.00 in subsequent years. With the implementation of Nighthawk, as mentioned above, the Sheriff's Office will not need to renew the contract with another product later in the year. This will offset the cost of the first year to some degree.

Concurrence

The Sheriff's Office Administration and Public Safety Bureau are in concurrence with this decision.

Attorney Comments

Reviewed By

Jared Rowilson, Investigations Captain
Glenn Thompson, Public Safety Bureau Chief
Tyler S. Brown, Sheriff
Mark R. Nicastle, Undersheriff
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