Billing Code: 4410-18

DEPARTMENT OF JUSTICE

Office of Justice Programs

[OJP (NIJ) Docket No. 1693]

Offender Monitoring Analytics Market Survey

AGENCY: National Institute of Justice, Justice

ACTION: Notice of Request for Information

SUMMARY: The National Institute of Justice (NIJ) is soliciting information in support of the upcoming National Criminal Justice Technology Research, Test, and Evaluation Center (NIJ RT&E Center) "Market Survey of Offender Monitoring Analytics (OMA) Technologies." This market survey, which will address offender monitoring in community settings, will be published by NIJ to assist agencies in their assessment of relevant information prior to making purchasing decisions on commercially-available systems being marketed for use by criminal justice professionals. The NIJ RT&E Center also invites comments with regard to the market survey itself, including which categories of information are appropriate for comparison, as well as promotional material (e.g., slick sheets) and print-quality images in electronic format.

DATES: Responses to this request will be accepted through 11:59 p.m. Eastern Daylight Time on September 25, 2015.

ADDRESSES: Responses to this request may be submitted electronically in the body of or as an attachment to an email sent to administrator@nijrtecenter.org with the recommended subject line "OMA Federal Register Response". Questions and responses may also be sent by mail (please allow additional time for processing) to the following address: National Criminal Justice Technology Research, Test and Evaluation Center, ATTN: OMA Federal Register Response, Johns Hopkins University Applied Physics Laboratory, 11100 Johns Hopkins Road, Mail Stop 17-N444, Laurel, MD 20723-6099.

FOR FURTHER INFORMATION: For more information on this request, please contact Hal Heaton (NIJ RT&E Center) by telephone at 443-778-5025 or administrator@nijrtecenter.org. For more information on the NIJ RT&E Center, visit http://nij.gov/funding/awards/Pages/award-detail.aspx?award=2013-MU-CX-K111 and view the description or contact Jack Harne (NIJ) by telephone at 202-616-2911 or at Jack.Harne@usdoj.gov. Please note that these are not toll-free telephone numbers.

SUPPLEMENTARY INFORMATION:

Information Sought: The NIJ RT&E Center seeks input to its upcoming "Market Survey of Offender Monitoring Analytics (OMA) Technologies," which seeks to identify commercially-available products being marketed to the offender monitoring community to facilitate the discovery and communication of meaningful patterns in diverse data that address their strategic and tactical information needs. OMA products may (but aren't necessarily restricted to) use various combinations of statistical analysis procedures, data

and text mining, and predictive modeling to proactively analyze information on community-released offenders to discover hidden relationships and patterns in their behaviors and to predict future outcomes. They may feature dashboards (i.e., user-interfaces) that provide easily understandable information in either real-time or off-line to a wide variety of professionals, which are customizable to permit command staff, Probation and Parole Officers (PPOs), crime analysts, and officers on the street to view all content permitted by their roles, permissions and information technology devices.

Usage: This market survey will be published by NIJ to assist agencies in their assessment of relevant information prior to making purchasing decisions. Whether an agency faces a mandate to monitor the habits of offenders released into the community, institute proactive policing by performing crime-scene correlation, or to more effectively allocate resources based on real-time planning, OMA technologies can provide cost-effective tools for quickly extracting actionable knowledge from the plethora of available data.

Information Categories: The NIJ RT&E Center invites comments with regard to the market survey, including which categories of information are appropriate for comparison, as well as promotional material and print-quality images (e.g., of analytical graphics and associated dashboards) in electronic format.

At a minimum, the Center intends to include the following categories of information for *each* OMA model, service, or product:

1. Vendor Information:
    a. Name
    b. Address of corporate office
    c. Years your company has been in the OMA business

2. Product Information:
    a. Product name and version number
    b. Purpose of the OMA product
    c. Intended market (e.g., community corrections, crime-scene correlation)
    d. Method for accessing product (e.g., purchase, lease, vendor-hosted)
    e. Installation options (e.g., stand-alone package or networkable)
    f. Time required to install the software on compatible computers
    g. Supporting (i.e., tethered) software packages required to implement/use the OMA product (including their version numbers)
    h. Licenses required to use the product and/or tethered software
    i. Manufacturer Suggested Retail Price for the base product, including licenses
    j. Cost of any tethered software, including licenses
    k. Terms and cost of any standard and extended warranties offered
    l. Software version-upgrade approach (e.g., expected release frequency, cost)
    m. Approach and cost to customers for post-procurement technical assistance
3. Performance Characteristics and Validation:
    a. Criminal justice (or other) requirements the product was developed to address
    b. How the tool adds value to and differs from other commercial products
    c. Whether the product offers configurable levels of Administrative Privileges
    d. Approach for evaluating whether the product meets user needs (e.g., repeat customers, interviews, satisfaction surveys)

e. Whether and how product performance has been verified and validated

f. Examples of the OMA product's impact on users

4. Analyses Performed by the Product (minimum Y/N; additional detail welcomed):

   a. Geospatial analysis of offender habits;

      - Track individual offenders
      - Track groups of offenders
      - Offender stop-analysis and drill-down capabilities
      - Offender association monitoring/congregation analyses
      - Entity-resolution
      - Identify patterns of activity
      - Visually differentiate client data points obtained on different days
      - Victim monitoring

   b. Geo-contextualization of offender habits on commercially-available maps and/or archived imagery (Identify compatible mapping and imagery products);

      - Perform geocoding and reverse geocoding
      - Provide both aerial and street views of local and regional scenes
      - Overlay points-of-interest on maps/imagery (e.g., offender residences, public transportation types/routes, schools, parks and other landmarks)
      - Conduct geographic profiling
      - Heat maps

   c. Social Network Analysis

   d. Automated crime-scene correlation with offender space-time habits;

      - Requires separate analysis of the data acquired from each jurisdiction

- Requires separate analysis of the habits of each offender
- Encompasses multiple jurisdictions over defined space-time windows and all offenders monitored by a PPO
- User specification of time and distance thresholds for analyzing events
- Ability to hover over map points-of-interest to obtain more information
- Identification of possible travel routes following commission of a crime
- Automatic creation (and updating) of offender watch lists

e. Case-load management planning by PPOs;

- Definition of curfews (i.e., confinement and restriction zones)
  - Creation of global zones
  - Creation of free-form zones
  - Configuration of zones as circles, rectangles or arbitrary polygons
  - Customization of monitoring parameters to individual offenders
  - Application of established zones to more than one client
  - Creation of zone templates for certain classes of participants
  - Implementation of mobile restriction zones
  - Setting of warm zones around hot zones
- Review of tracking points and approval of acceptable behavior
- Automated configuration of logged events as alerts when appropriate, and implementation of event escalation procedures

f. Basic predictive modeling (e.g., spatial regression analysis);

- Prediction of offender behavioral trends
- Prediction of good candidates for community monitoring

- Next-event forecasting based on linked crime-incident locations
- Computation of statistical significance of spatial-temporal crime repetition probabilities (e.g., using Monte Carlo simulation techniques)
- The location of a serial offender anchor point(s)

g. Additional capabilities not covered above (please list)

5. Data Formatting and Information Exchange:

a. Method for entering/accessing/exchanging data (e.g., manual, created using other applications (list them), Web Services, other);

- Data sharing protocols adopted (e.g., NIEM)
- Acceptable data-input file formats (e.g., ASCII files, .csv text files, .shp, .dbf, .bmp, other)
- Number of data-streams that can be concurrently monitored
- Ability/need to create a new database that aggregates the acquired data, and if so, the data-basing approach (e.g., relational, semantic)

b. Type and purpose of any databases supplied with the analytics software

c. Additional databases that must be accessed to operate the software

d. Known issues germane to easily integrating the software with existing criminal justice information systems and technology

e. Analytic products provided by the OMA software in real-time, as well as those that require post-processing;

- Underlying statistical approach used to produce product (e.g., cluster analysis, autocorrelation analysis, others)

f. Ability/need to export output files to other applications for further analyses

g. Output file formats produced by the analytics software (e.g., .kml, .shp, .csv)

h. Method for maintaining cyber-security of the data and analysis products

i. Method for protecting confidentiality of personally-identifiable information

j. Types of available reports and the extent to which they are customizable

k. Standard dashboard configurations provided by the product

6. Requirements for Host Agency Computing Systems:

   a. Computer operating systems capable of running the product

   b. Minimum amount of RAM (GB), hard disk space (GB), and speed (MHz) required to install and run the OMA product on each type of operating system

   c. Minimum graphics board (e.g., must support OpenGL 1.0) and display (e.g., size, resolution, color levels) requirements for each type of operating system

   d. Approximate amount of time taken to provide the principal analysis products on computers configured to meet these minimum requirements

   e. Whether the product must be used with a particular vendor's offender monitoring technology or is vendor-agnostic

7. Operator/Analyst Training Requirements:

   a. Minimum education level/experience needed to set-up and operate the software (e.g., high-school level knowledge of computers; college-level statistics to create required input files and select appropriate options)

   b. Minimum education/experience needed to interpret the output results

   c. Number of training hours necessary to set-up/operate the product

d. Types of available documentation and training aids (e.g., embedded help files, accessible help desk, user manuals, on-line instruction videos, screen shots; sample data; training classes)

e. Support programs the user must be familiar with to use the tool.

Dated: August 21, 2015.

Nancy Rodriguez,
Director, National Institute of Justice

[FR Doc. 2015-21564 Filed: 8/31/2015 08:45 am; Publication Date: 9/1/2015]