

Azavea Exhibit A NYPD Demonstration Project Price Proposal

Azavea believes that, where possible, vendors should provide low-cost opportunities for governments to validate solutions before committing to long-term acquisition. To support this belief, we have designed a custom demonstration project for NYPD that provides experience with HunchLab and validation of adoption within the agency. The demonstration project begins with a short configuration period in which settings are tweaked and the system is aligned with the department's priorities. The demonstration project provides 24 months of subscription. During this period, the New York City Police Department can use HunchLab operationally within up to three police precincts. Predictions will also be available for some areas outside of these three operational precincts for purposes of accuracy evaluations.

Phase 1: Configuration and Vetting

The initial configuration will commence once we receive historic crime data. Over the course of the configuration timeframe, Azavea will work with NYPD to make sure the mission areas make sense, to tweak settings as necessary so the system reflects the priorities of the department, and to measure the initial accuracy of the system.

Phase 2: Operational Use

The operational use will begin immediately after the configuration and vetting phase. During this phase, HunchLab will be deployed in up to three police precincts of the Department's choosing. Command staff will task officers to focus on mission areas. Mission areas will be disseminated as deemed most appropriate by NYPD (through the web application, electronic PDFs, or physical print outs).

Optional Activities

There are several additional activities NYPD may want to conduct during the demonstration project. The HunchLab API will be fully accessible, allowing your IT department to pull data out of HunchLab and into other mapping or analysis applications such as the Domain Awareness System. You might also want to collaborate with an academic during this period to examine the adoption, impact, and accuracy of the tool.

The team at Azavea that works on HunchLab also looks forward to the feedback that NYPD can provide about the application. This feedback may take the form of user surveys, conference calls, visits to the precinct, and officer "ride-alongs" as deemed appropriate by NYPD. Our past pilot implementations of HunchLab have been a rich source of enhancement ideas and we have often delivered such enhancements before the pilots have concluded.

Project Deliverables

The demonstration project will deliver a view into the operational impact of predictive analysis at your department. It will also validate the technical requirements of such systems in regards to data formats, data cleanliness, and timely dissemination of information to the field. The HunchLab pilot program provides insight into the expected level of accuracy for predictive modeling of your data through



automated accuracy measurements from the HunchLab modeling process. Finally, summary information about the factors represented in the HunchLab models for each crime type will be provided.

Project Features

- Automated advanced crime forecasts using crime data and other related data sets
- Interactive modern desktop browser interface to configure and view mission areas
- On-demand generation of PDF reports for mission areas for print and email distribution
- Adaptive mobile browser interface to HunchLab (as available based upon NYPD roll out of devices and tweaks by Azavea)
- User single sign-on via the SAML standard
- Access to HunchLab Advisor as it become available

Project Assumptions

- HunchLab will be provided for a period not to exceed 24 months (configuration and operational periods) unless extended by the mutual agreement of both parties.
- HunchLab will be utilized operationally in up to three police precincts.
- HunchLab will be hosted in Azavea's secure Amazon Web Services cloud infrastructure with data stored only in data centers on United States soil.
- NYPD will provide access to key crime data fields in an open format for a five-year period either in a specified CSV or in a similar, accessible format that Azavea can transform into such CSV such as an ODBC connection.
- Daily (or more frequent) crime data uploads to HunchLab will be posted out of NYPD's internal network automatically via a scheduled task or similar process. Azavea can support the development of this process or NYPD's IT department can handle the process.
- NYPD users will access the application from modern web browsers that support secure connections as specified in the application requirements provided below.
- Azavea will not utilize NYPD data for any purpose other than to provide this project.
- Azavea will purge NYPD data from HunchLab upon NYPD request at any time.

Demonstration Project Cost

Item	Total
Setup & Integration Fee	
1^{st} Year Annual Service & Connection Fees (First 6 Months Free)	
2 nd Year Annual Service & Connection Fees	
Total	

Our quoted price is \$ **Constant of** for this demonstration project in up to three New York precincts. Out of consideration for the nature of this demonstration and the feedback we will receive through this project, this quoted price represents a discount of **Constant** over our standard retail pricing of **Constant**.



In addition to the above discount, there are additional aspects of this project that would typically incur additional services cost. We are not charging for this additional work. While the demonstration project is limited geographically, the setup work will likely remain at the same order of magnitude as a full implementation. NYPD is a sophisticated client that will likely exercise HunchLab in ways not applicable to typical jurisdictions. NYPD has expressed the desire to leverage many distinct data sets including complaints, calls for service, arrests, GPS feeds, and geographic layers. We expect to spend significant time incorporating such data sets into the demonstration project along with the relevant security requirements of the department. NYPD has also expressed the desire to model crime at a smaller geographic unit than the default 250m resolution. While HunchLab currently supports a customizable resolution, we have not explored the limits of the modeling system in this regard. We intend to do so in order to support unique environments such as New York City. NYPD also presents unique challenges related to the verticality of the city. We will likely be building more statistical models than we normally would in order to separate ground-level activity from activities both above and below ground. NYPD has also expressed the desire to consume our predictive layers within existing systems such as the Domain Awareness System, which will warrant some support on Azavea's part.

Milestone Payments

Payments for HunchLab will be tied to project milestones, outlined below:

- Setup Milestone (Setup Fee, Connection Fees, and 1st Annual Service Fee)
 - This milestone is complete once Azavea has completed the initial setup and NYPD has vetted the missions being generated by HunchLab. Azavea will provide up to 6 weeks for vetting the mission areas, crime models, and resource configuration settings once the mission areas are available for consumption. After the mission areas have been recognized as vetted by the client or have been available for 6 weeks whichever occurs first the system will be considered vetted and an invoice will be issued. In other words, the annual service fee period will begin on the first day that missions were provided to the client (which indicates that base configuration is complete) but the client will not be invoiced until the vetting process has been completed.
- Additional Yearly Subscription Milestones (Connection Fees, Annual Service Fee):
 - Subscription fees for subsequent years will be invoiced at beginning of each additional year of service.

Implementation Timeline

Azavea has delivered a configured HunchLab system from start to finish in under a week. Most deployments, however, benefit from additional time for the client to vet the configuration decisions being made within the system, to validate the resulting missions, and to educate staff as the client progresses toward operational use of the tool. A more typical timeline lasts 2-3 months. Below is a sample work plan that was designed in collaboration with another client: