VANCOUVER POLICE DEPARTMENT
SUPPORT SERVICES DIVISION
SERVICES LIAISON SECTION

Date: November 20, 2002

To: Mayor and Members of Council

From: Sgt. Doug Fisher i/c Anti-Fencing Unit, Vancouver Police Department

Copy to: Syd Baxter, City Clerk

Re: **Clarification and Comparison of the Secondhand Property Transactions Internet Reporting System Process – XTRACT and l.e.a.d.s. Online**

The following is a memo which was requested by Council, sitting as a Committee.

This memorandum addresses Council's request for an explanation and justification of the apparent difference in cost and functionality between XTRACT, and the solution proposed by l.e.a.d.s. Online. The issues of cost and functionality are linked inextricably, since the costs associated with XTRACT reflect a degree of advanced functionality, operational value, and data control.

In essence:

- l.e.a.d.s. Online does not provide the functionality required by VPD; XTRACT does
- l.e.a.d.s. Online cannot compare its records against CPIC or PRIME; XTRACT can
- l.e.a.d.s. Online has provided unclear and inconsistent pricing information to Council and VPD; XTRACT pricing is clear
- l.e.a.d.s. Online shifts critical ownership and control of secondhand data away from police; XTRACT maintains police ownership and control of data
- l.e.a.d.s. Online cannot conform to Bylaw 2807's "immediate reporting" requirement; XTRACT can.

Introduction and Overview

The purpose of this discussion is to summarize the key differences between l.e.a.d.s. Online and XTRACT, and to explain the relevance of these differences within the context of the challenges of policing the secondhand property process activities and investigating property crime.

Our understanding of the l.e.a.d.s. Online solution is based on evaluations performed in 2000 and 2002. l.e.a.d.s. Online terminated Vancouver Police Department's access to the system after the Thursday, 07 November Council meeting, and stated that they would provide us with another 30 day "evaluation" as of December 1, 2002. We are, however, sufficiently confident in the thoroughness of earlier evaluations to state unequivocally that the functionality and conditions of l.e.a.d.s. Online access is insufficient to meet the needs of the Vancouver Police Department and the By-Law.

Cost

A perpetual license for XTRACT will cost a one-time fee of up to $136,000 (120,000 + tax). Thereafter, the vendor will charge annual product support and maintenance charges of approximately $42,000. The annual ECOMM hosting fee is $12,000. Averaged over the next 4 years, XTRACT operations will cost the City of Vancouver $96,000 per year. The software will be available to all 1100 Vancouver Police Department members.

At the November 7 2002 Council meeting, the Telus/l.e.a.d.s. Online representative stated that l.e.a.d.s. functionality "equivalent to" XTRACT would be made available to VPD for either $4,000 per year, or $10,000 per year. The l.e.a.d.s. Online representatives make this claim of functional "equivalence" without ever having discussed with VPD the functional and operational requirements of the system. Since that Council meeting, another figure has been presented, $22,000 per year. The VPD has directly asked l.e.a.d.s. Online to provide a quote based on 1100 officers; the response was a quote for 40 officers. As outlined earlier in this document, VPD has tried to make the cost comparison using figures supplied by various l.e.a.d.s Online sources. The results of our price comparison are as follow:

	l.e.a.d.s. 1	l.e.a.d.s. 2	l.e.a.d.s. 3	XTRACT
Users	5	40	1100	1100
Year 1 Cost	$1600	$30,000	$352,000	$221,200
Subsequent Years	$600	$22,000	$132,000	$54,400
4 Year Cost	$3400	$96,000	$748,000	$384,400
Annual Average (4yrs)	$850	$24,000	$187,000	$96,100
Per Officer /Year	$170	$600	$170	$87.34

The price comparison itself is not significant because the limitations of l.e.a.d.s. Online functionality would mean that the system would be of little interest to the Vancouver Police.

The relative efficiency of the two systems is demonstrated by the fact that even *before* the PRIME-BC automated matching became available, XTRACT has thus far helped VPD identify 1 out of every 458 items transacted in Vancouver's pawn and secondhand stores as stolen, whereas the l.e.a.d.s. Online solution (according to the representations made to Council on 07 November by Mr. McGowan) has detected only 486 stolen items in a database of 14.5 million, or 1 of every 29,835 items.

Under four major headings, these key differences include:

- **Data Ownership and Location Control**: l.e.a.d.s. Online stores data owned by the submitting pawn and secondhand merchants at a third party data centre, while XTRACT stores Vancouver Police Department-owned data on Vancouver Police Department-controlled computers. Retaining ownership and physical control of submitted data is critical to VPD.

- **System Functionality**:
  - l.e.a.d.s. Online captures a bare minimum of data on persons and transactions, while XTRACT captures a high degree of detail on persons and items, including specialty data elements for jewellery, bicycles, firearms, motors, motor vehicles, watercraft, coins and currency, and art and antiques
  - l.e.a.d.s. Online provides no automated comparison functionality with CPIC, and due to police data security rules and the location of the l.e.a.d.s. database, their solution *cannot be made compliant* with our requirement to compare against PRIME-BC. XTRACT automatically compares CPIC and PRIME-BC stolen item databases against the full database of secondhand items to present investigators with daily "Potential Matches". It should be noted that this is the first successful application of an automated search of mass-property data by description only.
  - l.e.a.d.s. Online restricts police searches of their database to persons and items associated with known police incident reports, while XTRACT supports proactive police efforts to identify criminal activities and return property to victims of crimes and to administer and enforce the City By-Law.
  - l.e.a.d.s. Online provides little in the way of search functionality (in essence, only "name" or "item"). This means that l.e.a.d.s. Online can identify property by item such as "bicycle", whereas XTRACT provides over 50 distinct ways and descriptors to search for persons and items of interest; investigators can also search for a *combination* of item and person, a critical function *not* provided by l.e.a.d.s. Online
  - l.e.a.d.s. Online provides no online analytical or compliance reports, while XTRACT provides 5 analytical reports, several of which enable police officers to identify merchants who have not properly complied with By-Law 2807
  - l.e.a.d.s. Online delays limited "alert" functionality for next-day delivery, while XTRACT will page, email, or text message the police *within seconds* of flagged property or a person of interest becoming involved in a transaction in a store. This XTRACT functionality can enable police to effect an immediate arrest, or initiate surveillance, saving innumerable police resource hours and dollars. l.e.a.d.s. online will tell the police the next day where the suspect was.

- **Cost**: The proposed $600/$4000/$10,000/$24,000/$132,000 per year cost for l.e.a.d.s. Online cannot be compared realistically to the $96,000 annual cost required to run XTRACT, just as a $300 Police Records Management System (see, for example, http://peace-officers.com/catsoft.shtml) cannot be compared realistically to PRIME-BC.

- **Business Sustainability**: Texas-based l.e.a.d.s. Online, incorporated in June 2000, supports a 5 person staff with reported revenues of $100,000 during its last fiscal year (Lexus-Nexus search). The British Columbia firm that will support XTRACT has been in business for

almost 20 years focusing on providing solutions to justice agencies throughout North America, employs a staff of 75, with revenues of $8 million in its last fiscal year.

Last November council approved XTRACT in Bylaw 2807, and instructed that the program be cost neutral. VPD believes that staff's recommendations for license fee increases meet this requirement. We further argue that given that pawnbrokers and secondhand dealers are aware that their business involves the risk of purchasing stolen property and having such property seized by police, and that since their approach to value discounting and interest rates mitigates this risk from a financial perspective, it is entirely just to expect them to cover the additional costs associated with policing their business and administering the By-Law through business license fees.

The Relevance of Key Differences

Property Crime is a Regional Problem

While property crime is undoubtedly a problem experienced nation-wide, the nature of the crime requires that it be challenged at the community and regional level. The nature of the problem is roughly similar in the United States and Canada, but US statistics better make the point: 75% of all crime is property-related, and two thirds of all property crime involves items valued at less than $250.00. (Canadian statistics use a category that counts goods valued below and above $5000.)

l.e.a.d.s. Online places great emphasis on the fact that their solution is "nation-wide." However, the typical value of the goods stolen in daily property crime activities is so low that it cannot justify the costs of transportation to distant jurisdictions. We know through experience that pawn and secondhand merchants are one of the easiest and fastest ways to convert stolen property to cash. The typical pattern for these high volume, low value thefts is driven by immediate cash conversion needs; a drug-addicted offender will tend to convert stolen property to cash as quickly as he can. It is no coincidence Vancouver has such high drug and property crime rates. The problem with l.e.a.d.s. national scope is that good "local" data is obscured by meaningless "national" data; the fact that a search for specific property may generate multiple potential "hits" from Victoria to St. Johns both reduces the usefulness of the system, and may weaken "probable cause" arguments for local pawnshop inspections in cases where multiple items have the same description.

Matching Against National and Local Databases

l.e.a.d.s. Online currently does not have the functionality to automatically compare its database against CPIC. CPIC staff has advised recently that they will only give l.e.a.d.s. Online access to their stolen property data once l.e.a.d.s. secures Canadian police department sponsorship. *The nature of local police data security rules and the structure of the l.e.a.d.s. Online service - using a centralized, national-scope database housed in a non-police environment - would prevent it from ever performing comparisons against local police records management solutions.* PRIME-BC data, for example, is governed by tight security restrictions that proscribe transmissions of data to non-police systems. The nature of these security rules has driven a modification of the

XTRACT business model from application-service to a traditional licensing arrangement, and has caused VPD to negotiate a hosting arrangement with ECOMM (pending Council approval). In fact, testing and operational use of the PRIME-BC matching functionality has been delayed by the fact that the XTRACT servers currently reside off-site, and in a non-police environment. While l.e.a.d.s. Online may at some point enable comparison functionality against CPIC, they will not be able to offer such a service at the local level, with local records management system data. XTRACT will begin routine comparisons against PRIME-BC as soon as the move to ECOMM is funded.

Operational Availability for 1100 members

We have made XTRACT available to all VPD officers, partly to enable officers responding to theft reports to immediately search secondhand data, and partly to demonstrate to officers the new value in entering accurately stolen property data in PRIME-BC. Most break-and-enter activities occur between 0900 and 1200, while victims are at work. Most pawn/secondhand transactions occur between 1300 and 1600. Most theft reports are made in the evening, when the victims return to their vehicles or homes and discover the theft. Enabling officers to conduct immediate searches for unique items of stolen property will both improve the overall effectiveness of policing and provide victims with a sense that "something is being done about what happened to me.". Any tool that helps officers solve crimes is welcomed in the field.

Ownership, Location and Control of Data

Through the City By-Law, secondhand businesses have been required to submit daily transaction reports to the police. These reports became the property of police, who have the unrestricted right to examine the data. Ownership, location and control of data are important for three reasons. First, it is essential to examine submitted data as we see fit, and as our investigative techniques suggest, without having to apply for a search warrant. Secondly, automated comparisons of the data against other sensitive police data must occur within a secure law enforcement environment. The data against which we seek to compare secondhand transaction records cannot be released to non-justice agencies. Thirdly, for the By-Law to be effective, there must be quality control over the data entered and submitted to us.

Consultations with VPD's Coordinator of the Information and Privacy Unit yielded an opinion that underscored concerns about data ownership, and the importance of VPD maintaining both ownership and control over secondhand transaction data. It would be difficult to negotiate an acceptable legal arrangement with l.e.a.d.s Online and Telus, to actually ensure the security of personal information data in a three-way, multinational, contractual arrangement involving foreign software and private data storage."

Maintaining the ownership and control of secondhand transaction data has been instrumental in developing a deeper understanding of the characteristics of the movement of stolen property. Vancouver Police Department's use of the XTRACT data goes far beyond what l.e.a.d.s. Online would provide. By establishing ownership and control over secondhand transaction data, l.e.a.d.s. Online requires police departments to agree to restrict their searches of the database only to circumstances in which an official police incident report has been opened. In other

words, police may not survey the data looking for anomalies, which may indicate that a crime has been committed. In fact, l.e.a.d.s. functionality does not provide the analytical capabilities that would enable this.

Council and the VPD are committed to doing the best they can to combat property crime. It is the VPD's opinion that at this time, XTRACT is the best possible tool. The VPD recommends that Council accept Staff's report of November 6, 2002. The VPD also recommends that any XTRACT related contracts be for a four year duration.

Therefore, the VPD RECOMMEND that the recommendation G in the report be modified to include reference to a four-year contract.

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