**METHODOLOGY TO EVALUATE SHARED SERVICES OPPORTUNITIES AT THE VANCOUVER POLICE DEPARTMENT**

by

Jere Tarnowski
Bachelors of Business Administration, Simon Fraser University 2001

PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR THE DEGREE OF

MASTER OF BUSINESS ADMINISTRATION

In the Management of Technology Program
of the
Faculty
of
Business Administration

© Jere Tarnowski 2010

SIMON FRASER UNIVERSITY

Term Fall 2010

# Approval

**Name:**                      **Jere Tarnowski**

**Degree:**                 **Master of Business Administration**

**Title of Project:**         **Methodology to Evaluate Shared Services Opportunities at the Vancouver Police Department**

**Supervisory Committee:**

_____

**Dr. Colleen Collins**
Senior Supervisor
Associate Professor
Associate Dean & Academic Director,
Graduate Business Programs

_____

**Dr. Michael Parent**
Associate Professor
Director, CIBC Centre for Corporate Governance and Risk Management

Date Approved:         _____

# Abstract

This paper presents a seven-step methodology that the Vancouver Police Department could use to evaluate shared services opportunities. An evaluation of the Vancouver Police Department Information Technology internal phone support function is performed as a demonstration of how this methodology should be employed.


**Keywords:** shared services; ITIL; Vancouver Police Department; stakeholder analysis; multi-attribute evaluation model

# Executive Summary

This paper lays out a seven-step methodology that the Vancouver Police Department (VPD) can follow to evaluate shared services opportunities. These seven steps consist of:

1. Determine if an activity is appropriate for shared services

2. Determine the appropriate scale

3. Perform a stakeholder analysis

4. Identify key service attributes

5. Identify alternatives

6. Evaluate alternatives

7. Develop an implementation plan

Using this methodology the VPD decision to implement shared services with respect to the internal phone support with the City of Vancouver Help Centre is evaluated. It is found that the decision is consistent with the nature of the service, is at an appropriate scale and is consistent with key stakeholder interests. While there were implementation issues and continues to be a need to refine the service offering, interests of both key stakeholders are best served in continuing to pursue this structure

# Acknowledgements

I am indebted to Dr. Colleen Collins for her dedication to reviewing and providing encouragement and feedback on my work. I could have not completed my degree without your generosity with time, guidance and helpful suggestions. I am indebted to Dr. Michael Parent for agreeing to be the second reader of this paper. I am indebted to my workplace management for allowing me to take the necessary time off work to complete this paper.  Last, but not least, I am indebted to my friends and family that encouraged me over the years.

I want to thank all those to which I am indebted for helping me complete this paper and program.


Thank-you

Jere Tarnowski

# Table of Contents

# List of Figures

# List of Tables

# 1: Introduction

The City of Vancouver (COV) regularly presents the Vancouver Police Department (VPD) with shared service opportunities, usually structured as a form of centralization. Many services are already structured at VPD in this way including: fleet maintenance, building maintenance, 311 (call centre), enterprise resource planning software and support among others. Additional areas are viewed as opportunities where efficiencies could be achieved, for example: payroll, IT, and stores operations.

VPD's current approach to evaluating such proposals involves tasking the impacted section's management with evaluating the strengths and weaknesses of the proposal and comparing it with the existing service offering. The manager would also identify any risks associated with the implementation and then present his/her findings and recommendations to upper management for further discussion. The position of the VPD would then be determined.

There are several limitations of the current approach. Two most notable limitations are: that it is reactionary and it doesn't consider alternatives besides the proposal and existing solution. This paper proposes a methodology that would enable the VPD to be proactive in evaluating shared services opportunities and defining a number of alternative options.

## 1.1 Methodology

The following seven steps guide the evaluation of shared service opportunities by ensuring that key questions are asked and answered before engaging in any service delivery change.

### 1.1.1 Step One: Determine if Activity is Appropriate for Shared Services

The first step in evaluating a shared service opportunity is determining if the activity is appropriate for shared services. Some activities can be effectively shared across organizations achieving greater efficiencies of scale while other services cannot be effectively shared. The service should be evaluated to determine if it falls into the former or latter categories prior to proceeding to the next step. The characteristics of appropriate shared service activities are discussed in Section 2.1.

### 1.1.2 Step Two: Determine the Appropriate Scale

The second step, should a service have the characteristics that make it appropriate for sharing, is to determined the scale that achieves the best balance between economies and diseconomies of scale. Different scales will result in different stakeholder groups being affected.

Services can be offered at a number of different levels and we often fail to consider scales that are beyond our experiences. By evaluating options for scale, that include partners beyond our daily interactions it may be possible to structure a far more effective service offering. After looking at possible scales, one or two should be selected as appropriate to proceed to the third step.

### 1.1.3 Step Three: Perform a stakeholder analysis

The third step involves looking at the scale(s) chosen and identifying those stakeholders that will be impacted by the change. It also will determine their interests, and each stakeholder's ability to impact the change, and how successful any change is. Selecting a different scale can result in different stakeholders needing to be considered.

### 1.1.4 Step Four: Identify Key Service Attributes

Based on the interests of key stakeholders in step three, service attributes can be identified and quantified. These service attributes can then be used to evaluate the various service structure alternatives.

### 1.1.5 Step Five: Identify Alternatives

The fifth step in evaluating an opportunity for shared services is identifying different ways upon which the service could be delivered within the scale(s) identified in step two. These options can them be evaluated with respect to the key attributes identified in step four.

### 1.1.6 Step Six: Evaluate Alternatives

Depending on the number of alternatives identified and the number of attributes, there are many different evaluation models that could be employed. For multiple options, involving multiple attributes a multi-attribute evaluation model is an effective tool. Once an alternative has been selected it then needs to be implemented.

### 1.1.7   Step Seven: Develop Implementation Plan

Once a service delivery model is selected, then it must be implemented in order to receive the benefits identified.  There are many issues that can occur with implementation.  Identifying issues that may arise and developing strategies to deal with them, greatly enhances that changes of the change being successful.

# 2: Frameworks

There are four frameworks that this paper relies upon in order to perform its analysis of the situation. The four frameworks consist of: shared services, ITIL, stakeholder analysis and multi-attribute evaluation models. Each framework is described in the sections below.

## 2.1   Shared Services

Shared services can often be confusing as the name is often used incorrectly. In the section below, shared services are defined and key attributes to implement it successfully are identified.

**What are Shared Services?**

There are a number of definitions of shared services. Bergeron defines it as:

> "Shared services is a collaborative strategy in which a subset of existing business functions are concentrated into a new, semi-autonomous business unit that has a management structure designed to promote efficiency, value generation, cost savings, and improved service for the internal customers of the parent corporation, like a business competing in the open market." (Bergeron 2003, p.3)

Shared services are an alternative method of organizing corporate functions that combine the benefits of three different approaches. Shared services attempt to capture the economies of scale associated with a centralized model; the responsive nature of a distributed model; and the market focus and best practices of outsourcing.

**How do Shared Services and Centralization differ?**

Shared Services and centralization both attempt to achieve economies of scale. Centralization achieves greater economies of scale by creating a single delivery mechanism and

standardizing the service. Centralization is based on a core value of equality. On the other hand, shared service organizations recognize the varying and changing needs of clients and attempt to provide both the correct service and level of service. These services need to have commonality to achieve economies of scale but are not necessarily the same for each client. For example, one client may have a business need to have a quicker response time than another or one may require cell phones and another landline phones.

Centralization attempts to achieve economies of scale through the centralization of both decision-making and standardization of policy and service levels. By following a "cookie cutter" approach to service delivery, the staff providing this service are able to become efficient at its delivery. The organization can provide the service with the same service levels to all clients effectively. This approach does not respond to or recognize the varying needs of clients and instead attempts to raise/lower clients to one standard level of service affordable to the organization. When a need is clearly identified as not being served by this approach an "exception" is made for this one case and the client is allowed to seek alternative solutions.

Centralization has core value of equality. This can be observed in both its approach to implementation as well as in its delivery. In some cases doing so is more expensive as a higher level of service is provided than is necessary. Problems emerge when the shared service offering is less than required for one business unit, as it is uneconomic to provide this service level to all clients. In these cases, where an "exception" is not made, the business unit either feels helpless or diverts resources to satisfy their need. The diversion of resources is inefficient as in any large organization the need may be present in a significant subset of units but not all. For example, while it may not be required for an organization as a whole to have support staff 24x7, several business units may have the same need and could be duplicating efforts. The centralized delivery mechanism could not provide this "shared service" as it violates the belief in equality and would need to make it available for all.

Schulman and co-authors summarize the characteristics of the decentralized, shared and centralized models as shown below:

| Decentralized | Shared & Decentralized | Shared | Shared & Centralized | Centralized |
|---|---|---|---|---|
| High Costs | Business Unit Control | Pooled Experience | Common Systems and Support | Unresponsive |
| Variable Standards | Recognition of Local Priorities | Enhance Career Progression | Consistent Standards and Control | No Business Unit Control of Central Overhead Costs |
| Duplication of Effort | Responsive to Client Needs | Independent of Business | Economies of Scale | Inflexible to Business Unit Needs |
| | | Synergies | Critical Mass of Skills | Remote From Business |
| | | Lean, Flat Organization | | |
| | | Recognition of Group Functions | | |
| | | Dissemination of Best Practices | | |

Table 2.1 Comparison of Service Delivery Models

(Source: Built based on Schurman et el, p12)

**Activity Characteristics**

Shared services can only be successfully implemented in transactional activities and should not include any strategic or policy based activities (Quinn et al, 2000). Transactional activities are ones that are ongoing in nature and involve providing a service. Policy and compliance activities involve determining and/or enforcing standardized rules to protect the organization.

Transactional and compliance activities are often commingled within organizations. For example, payroll processing is a transactional based activity but if the clerk processing the payroll also is checking for policy compliance and making decisions on whether to accept or reject claims for reimbursement then the service becomes very difficult to offer as a shared service.

This is because there may be different acceptance criteria for clients and it is difficult for a person in the service role to scale their understanding of multiple changing business clients.

**Charge-Back is Fundamental**

Charging for the services within a shared service model is fundamental as it determines how clients value the services and changes how the services are provided. Achieving the correct price when implementing is not as important as ensuring that the price is not zero. The price charged will change over time to eventually reflect market rates and the initial price may reflect a subsidy until the shared service organization is able to achieve the expected efficiencies.

Customers use a service up to the point of its marginal utility. If a service is free they will over use a service (use a service where it costs more to produce than the value they receive from it). This in turn drives up overall costs. Many organizations do not wish to charge back as they see it as creating additional internal bureaucracy although other authors argue, point out "[c]harge-back is a fundamental tool for accountability" (Quinn et al, 2000, p 23)

If there is no transfer mechanism between the cost to produce and the amount charged Providers of the service will not keep track of the costs to produce it and will therefore not be efficient in its delivery. Clients will force providers to be efficient, as staff know that clients will seek alternative suppliers if the costs become too high.

## 2.2   IT Best Practises

Adopting best practices is a goal of both VPD IT and COV IT. The Information Technology Infrastructure library (ITIL) is recognized as best practice in the industry.

> "ITIL (IT Infrastructure Library) provides a framework of Best Practice guidance for IT Service Management and since its creation, ITIL has grown to become the most widely accepted approach to IT Service Management in the world." (Cartlidge et el, 2007, p.2)

Both VPD IT and COV IT staff have taken training and steps to modify business processes to align more closely with this framework.

## 2.2.1 ITIL

Information Technology Infrastructure Library (ITIL) was developed in the 1980s by the UK government's Office of Government Commerce and defines a set of standard best practices and processes for the organization of IT. ITIL provides a standard nomenclature and is useful in order to discuss different roles. Based on ITIL, incident management delivery is broken down into tiers. The responsibilities of the first two tiers are described below.
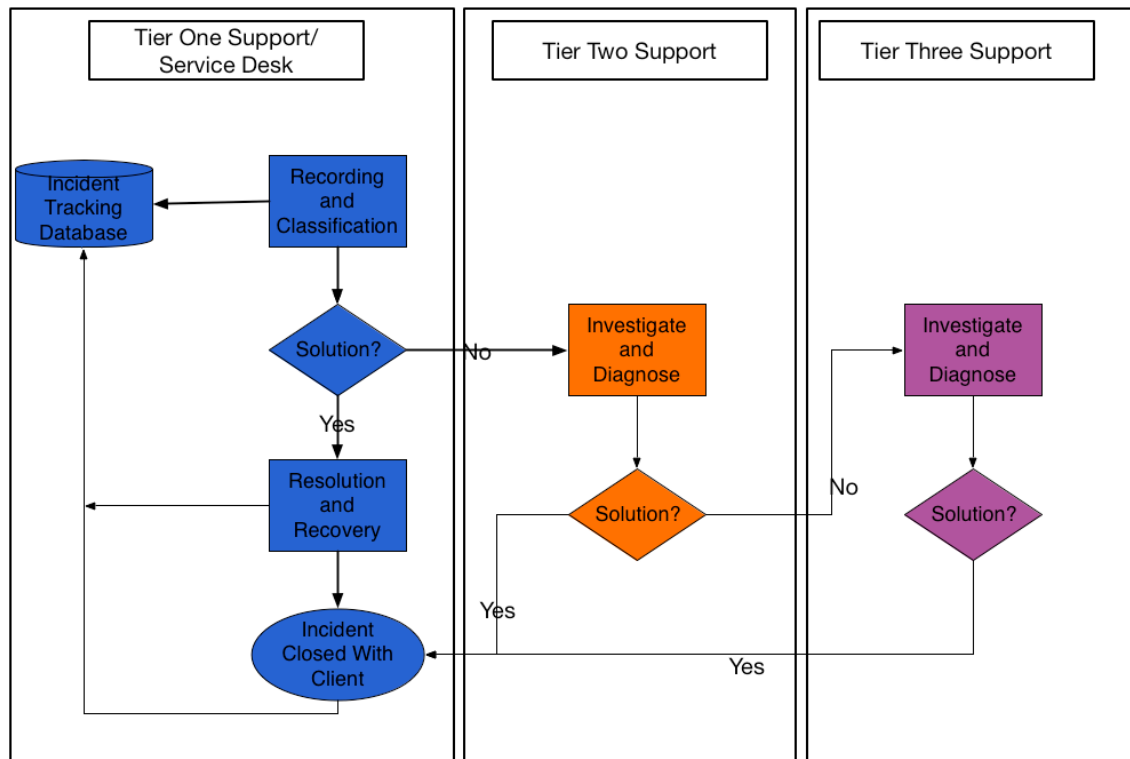


*Figure 2.1    ITIL Incident Management Tiers*

(Source Based on Van Bon, Jan; Verheijen, Tieneke, 2006)

## 2.2.1.1    Tier One/Service Desk Responsibilities

Tier One takes responsibility for resolution of calls that involve "How do I" questions and troubleshooting problems that can effectively be done without needing to visit a site. Tier

One activities consist of: recording, tracking, shepherding (including escalation of non-resoled incidents), and informing clients of where the incident is within the system.

### 2.2.1.2    Tier Two Responsibilities

Tier Two responsibilities involve resolving calls escalated from tier one, including networking and other problems that may make remote control not possible. This tier is also responsible for installation of hardware and software and is involved in a significant amount of project work.

## 2.3    Stakeholder Analysis

A stakeholder analysis is a tool to identify groups and their interests that will be affected by a project or can have influence over the project's success or failure. By identifying the stakeholders involved and their point of view, it is possible to observe common interests that can be built upon and the differences that must be addressed.

First identified as a management tool in the 1930s (Clarkson, 1995), stakeholder analysis has grown in popularity as the complexity of issues and diffusion of power has occurred.

### 2.3.1    What is a Stakeholder?

The Oxford dictionary defines a stakeholder as "a person with an interest or concern in something" (Barber, 2004) Essentially a stakeholder is any party that has the ability to influence or be impacted by the decision being under taken.

### 2.3.2    Stakeholder Mapping

Not all stakeholders are created equal. Some stakeholders have considerably more power over a project or decision than others. Stakeholders also vary by how much they will be impacted by a decision. For the purpose of this analysis Mendelow's Power-Interest grid was used (Olander and Landin 2005, Persson and Olander 2004).

Mendelow's Power-Interest grid maps the ability to influence (power) the eventual decision with the interest of the party in that decision. Stakeholders will then appear in any one of the four quarters and those that appear in the same quadrant can have there interests addressed

in similar techniques. For example, those in quadrant II (upper-right), that both have high ability to influence an initiative and interest in an initiative must have their interests fully incorporated into the decision.

## 2.4   Weighted Multi-Attribute Evaluation Model

Questions that involve more than one possible solution that vary in a number of important attributes require a way to effectively evaluate them. Huber (1974) is a well-cited source for the development of multi-attribute utility models. While significant research has been subsequently done, the essence of this approach remains the same. These models are able to determine the desirability of outcomes based on weight of particular criteria and standardizing the evaluation of individual attributes. In doing so, discussions can be more constructive as assumptions and evaluations are explicit.

# 3: Situation

## 3.1  Background

The Vancouver Police Department has provided help services for its computer systems since the personal computer was introduced into the department.  As the number of computers increased, VPD proceeded to increase the number of staff in this area.  This was the subject of another request for increased staffing in 2003.

The VPD receives funding for staffing from the City of Vancouver.  Prior to approving any further staffing increases, the determination was made that a staffing study should be conducted to ensure there was no duplication and that staffing resources were most efficiently employed.  The MTG Management Consultants LLC report that came out of this study made several staffing recommendations including that shared services opportunities existed in using the COV Help Centre for tier one functions (phone support) and that there may be efficiencies in combining tier two functions (desk side support). (Confidential report, only available to staff)

Upon closer review of the practicality of this recommendation, COV IT and the VPD determined that only transferring the functions of tier one would be practical, as the physical separation of buildings and specific application knowledge required meant there was little overlap or efficiencies to be gained beyond telephone support.  Efforts to undertake this transition have been underway since 2005 but have hit a number of stumbling blocks.  Finally, in 2009 the centralized service with the COV was implemented.  In each of the quarterly reviews since then, the COV centralized service has failed to meet the service levels agreed to.  VPD would like to confirm that they selected the most appropriate option.  They would also like to identify how implementation could be performed in a timelier manner going forward.

### 3.1.1  City of Vancouver

The City of Vancouver was incorporated in 1886 (McDonald, 1986) and according to the 2006 census is home to 578,041 residents (Statistics Canada, 2006).  The City is governed under the Vancouver Charter (BC provincial legislation) that spells out boundaries as well as the obligations and limitations of council's power.  In addition to land use decisions and providing civil services, council is also responsible for running a balanced budget and collecting taxes for a

number of provincially mandated programs (e.g. school boards and Translink). City of Vancouver is also responsible for providing the funding requested by the Vancouver Police Board to fund policing services within the city.

### 3.1.2    Vancouver Police Board

The Vancouver Police Board is the civilian governance body established under the BC Police Act, 1996. The board is made up of up to seven people. The Chair is the Mayor of Vancouver. The municipal council also is allowed to select one other member. The Lieutenant Governor appoints the remaining five members of the board for a term of up to four years and may reappoint members as long as they do not serve more than six years. The Police Chief and all members of the VPD (through the Chief) report directly to the board. The legislation is written such that the Police Board determines the resources needed to cover policing costs and submits the bill to city council for funding with the option of going to court should funding not be sufficient. In practice the process is collaborative between Police Board and City Budgets so that an agreed amount can be requested that fits into the overall COV fiscal capacity.

### 3.1.3    COV IT

City of Vancouver Information technology is a service group that provides storage, e-mail, network and other IT services to internal COV departments. Certain services provided by Information Technology are shared with VPD such as the enterprise resource planning software while other services are maintained within the VPD department due to security requirements such as file storage.

### 3.1.4    Relationship between VPD and COV IT

VPD takes advantage of many of the services offered by corporate IT, such as the enterprise resource planning software (ERP) currently SAP. The VPD IT section works collaboratively with COV IT to develop shared standards. This adoption of sharing standards is relatively new (began around 2004). Prior to this VPD IT acted entirely independently and developed standards and solutions independent of corporate IT. This sharing of standards and desire to work more closely together, when appropriate, has lead to a better understanding of each

other's business.  VPD IT credits this better understanding with allowing many capital requests to be successful and it has a strong desire to solidify and strengthen the relationship as a result.

### 3.1.5    Role of IT Within VPD

Information Technology is becoming more critical to enabling effective policing within VPD.  The VPD 2008-2012 Strategic plan notes that "We are experiencing a growing emphasis on technology, as new technology tools for law enforcement are created and as the department looks at best practices and ways to create internal efficiencies." (Vancouver Police Department 2007, p.48) The VPD IT group is responsible for implementing new tools that are identified, ensuring business processes are modified to take advantage of the tools, training clients on the use of the tools and supporting the existing and new tools and platforms on which they are based.

### 3.1.6    Original Service Offerings

VPD IT and COV IT both offered tier one support services. VPD IT offered services exclusively to VPD personnel.  COV IT offers services to all city departments.  VPD personnel also take advantage of COV IT Help Centre services for the SAP ERP system,.  VPD and COV IT maintain separate e-mail, Active Directory (AD) and file services with no access to each other's respective systems.

VPD IT's service offering consists of the following:

| Example Services | Monday – Friday 0730 – 2200 | Saturday- Sunday 1000-2200 | All Other Hours |
|---|---|---|---|
| AD Password Reset | Tier One Phone | Tier One Phone | Pager Coverage |
| Office Support | Tier One Phone | Tier One Phone | Pager Coverage |
| Email | Tier One Phone | Tier One Phone | Pager Coverage |
| Printers | Tier One Phone | Tier One Phone | Pager Coverage |
| SAP | N/A –use COV IT | N/A –use COV IT | N/A –use COV IT |

*Table 3.1 VPD IT Service Offerings*

COV IT's service offering consists of the following:

| Example Service | Monday – Friday 0700-1800 | All Other Hours |
|---|---|---|
| AD Password Reset | Tier One Phone | VoiceMail –Returned Next Business Day |
| Office Support | Tier One Phone | VoiceMail –Returned Next Business Day |
| Email | Tier One Phone | VoiceMail –Returned Next Business Day |
| Printers | Tier One Phone | VoiceMail –Returned Next Business Day |
| SAP | Tier One Phone | VoiceMail –Returned Next Business Day |

Table 3.2 COV Help Centre Service Offerings

## 3.2   Evaluate the Scale

Services can be provided on a variety of scales.  This section identifies the different options that may be available to the VPD to provide services and determines which are appropriate for VPD to offer Tier One IT support services.

### 3.2.1   International

An International shared service organization would be appropriate if in order to provide the service it was necessary to cross national borders or if global workloads were required to achieve economies of scale.

VPD as a city police force does not often have the need to participate regularly in activities of International scope.  Technology may over time make this a desirable option for new services.  For example, if a new forensic scientific method required significant investment but would rarely be used and required international co-operation to make it economically viable.  An international scope is inappropriate for the VPD tier one IT support services as standards vary dramatically across different departments, laws vary significantly between countries necessitating different systems and language barriers would make it a challenge.

### 3.2.2　National

A national shared service organization would be appropriate if there were efficiencies in being able to offer the service across the country. Given that Canadian Criminal Code is national in scope there are a number of opportunities that present themselves on this level.

CPIC (Canadian Police Information Centre) is perhaps the best known and most frequently used of these services. Created in 1966 to create tools to assist the police community in combating crime, it houses criminal records, warrants and other information critical to effective policing. VPD also participates in a number of other national shared service organizations that are mandated by legislation.

In order for VPD to use a national tier one support service, there would need to be agreement on the technology used. While CPIC is an example of a standardized platform across the country, no such standardization has occurred in e-mail, ERP, office suites (word processing, number crunching, presentations) or other programs, which would be the subject of many, tier one calls. The lack of standardization or organization to partner with for such a shared service organization makes a national scope inappropriate for VPD tier on IT support.

### 3.2.3　Inter-Provincial

An inter-provincial shared service organization is possible but not actively pursued within Western Canada given the national nature of the criminal code and the decision of BC not to create a provincial police force. An inter-provincial shared service organization would not be appropriate for VPD tier one IT support as there is no appropriate organization to offer such services.

### 3.2.4　Provincial

A provincial shared service organization occurs when the scale is appropriate on a provincial level or when mandated by legislation. The VPD's police records management system and support organization is an example of a shared service organization that is provincial

in scope.  Police Records Information Management Environment (PRIME) was originally a regional shared service initiative but was expanded by legislation to cover the entire province.

Other than the applications used to access PRIME and JUSTIN (another provincially mandated application), there are no other shared standards across policing agencies within BC.  A provincial shared service organization would be impractical unless standards emerged for commonly used applications for which tier one support is commonly requested.

### 3.2.5  Regional

A regional shared service organization would, with respect to the VPD, encompass most of the Vancouver Census Metropolitan Area (CMA).  Emergency Communications for Southwest British Columbia Inc (EComm) is the best known of these agencies and is responsible for 911 call taking, radio systems for policing as well as ambulance and fire departments within the CMA and dispatching services.

EComm is the most likely potential agency to partner with in order to form a regional shared tier one support service.  This would have the advantage of having a single number to call for both standard office applications and operational laptops (these already call EComm for support).  The disadvantage would be that there are no additional participants wanting to enter shared service and no standardization of platforms between VPD and EComm.  The lack of both standardization and interest from other regional partners makes using a region tier one support service undesirable.

### 3.2.6  Municipal

A municipal shared service would be one that would be shared between VPD and departments within the City of Vancouver.  VPD uses a number of service offerings provided by the City of Vancouver such as: fleet, building services, human resources learning programs, enterprise resource planning systems, network services (dark fiber builds) and many more.  Most of these are offered as centralized services with a few (e.g. fleet and building services) charging back for usage.

Offering tier one support on a municipal level is practical as long as standards used within VPD IT stay synchronized with those of other departments within the City of Vancouver.  Since 2004, efforts have been made to ensure that standards are shared across organizations.

### 3.2.7 Departmental

A departmental shared service is appropriate when there are economies of scale achieved at a departmental level and the service matches or is below where the standards are set. Many services are offered on a departmental scale within the VPD including: telecommunications, printing services, stores and ballistics. Each of these functions offers services to the entire department but does so on a centralized model within the department.

IT standards for the VPD are determined on a departmental level including both new hardware and software standards as well as any change to existing standards. When any change occurs, it is VPD IT's responsibility to facilitate training and support for the new technology. It is appropriate that tier one support also be offered on this level as part of the overall support infrastructure within the department.

### 3.2.8 Sectional

A sectional service would be appropriate if there are effectively limited or no economies of scale. This would occur when there is a specialized piece of equipment that is only in use by the one section. Training on that piece of equipment would be section specific and the need would be met internally within the section. An example would be training employees on the SuperText high-speed scanner and software. This application is only used in one section and therefore training and support is offered within the section via experienced staff within the section as opposed to departmentally.

A sectional approach would not be appropriate for tier one support for the VPD. Not only would such a solution be cost prohibitive (requiring ten times or more the number of tier one support personnel) and inefficient (most sections have a low or no call volume on any given day) but may undermine the standard setting process and make tier two support more challenging.

### 3.2.9 Scale Recommendation

The VPD Tier One Help Desk could be effectively offered on two scales: departmentally and municipally. Offering the service departmentally has the advantage of aligning the scale with the same scale as the one responsible for setting standards and ensuring that tier one support staffs are familiar with VPD specific applications. Offering the service municipally achieves greater economies of scale and serves to solidify the relationship between COV IT and VPD IT.

Solutions looking at both departmentally and municipally will be evaluated within this paper. Stakeholders will be indentified in relation to these two scales.

## 3.3   Stakeholder Analysis

There are nine key stakeholder groups involved in the determination of how VPD tier one IT support services are structured.   The key stakeholder groups include: Citizens of Vancouver, COV IT, City Help Centre personnel, current city help centre clients, CUPE 15 Union, VPD members, VPD IT, VPD Telecomm, VPD Help Desk personnel and Teamsters Union.  Each of the stakeholders involved has a different set of interests, degree of influence over the final configuration of the service offering and importance to the eventual success or failure of any restructuring.  In the sections below each stakeholder is evaluated to identify each of these key attributes. Importance of a stakeholder is the degree to which the success of a project requires the active involvement of the stakeholder group.  Influence relates to the direct power that a stakeholder has over a project both to stop it and to shape its eventual form.

Both of these attributes are rated on a scale of 1 to 5 (1-Low, 2- Below Average, 3 – Average, 4-Above Average, 5-High).

### 3.3.1   Citizens of Vancouver

Citizens of Vancouver have a vested interest in receiving civic and policing services in an effective and timely manner provided in the most cost effective manner as possible.  The influence of citizens lies not in their direct influence on how the project is conducted, but by determining relevant outcomes such as cost efficiency and effectiveness of policing services which would be one of the most important but indirect outcomes of the IT decision. That is, the citizens don't have an interest in the effectiveness of the help services per se, but they do have major interest in how that service supports effective policing services for the community. In addition, citizens are concerned about the privacy and security of their personal information -- they wouldn't want their complaints to become public or to have their reputations harmed by allegations that were not appropriate to become public knowledge.

### 3.3.1.1 Interests

**Cost**

Citizens of Vancouver are primarily concerned with the costs associated with any internal service offering and that it be offered as efficiently as possible.

### 3.3.1.2 Importance of Stakeholder for Project Success

1 - Low

The general public within the City of Vancouver does not need to be engaged for the project to be successful.

### 3.3.1.3 Degree of Influence

1 – Low

The structuring of internal processes is not visible and there is therefore very limited influence on its eventual structure. However, those responsible for providing police services (police board and VPD) are responsible for structuring the service will need to keep the public's interest in mind.

### 3.3.2 COV IT

COV IT has been tasked with three key deliverables: ensuring services are delivered as cost effectively as possible, adopt best practices, as well as ensuring equitable access to these services regardless of an employee's location both geographically or departmentally the city. Key projects that have already been undertaken that reflect these goals include: VanStor (centralizing of file server storage) and VanPhone+ (centralizing telecomm budgets and deploying new technology).

Help desk services are seen as another opportunity to achieve economies of scale and standardization.

### 3.3.2.1    Interests

**Cost**

COV IT is interested in any solution achieving economies of scale and being able to drive down overall costs.

**Capacity**

Departments within the COV using COV Help Centre would be negatively impacted should the service offering not scale with the demand.  COV IT would have a strong desire that any solution have adequate capacity.

**Acceptance by VPD Staff**

Should VPD staff not accept the proposed change there would be strong demand to change back which would represent a failure for COV IT.  Ensuring that this constituency is accepting of any change is therefore an interest.

**Ability to Implement ITIL best practices**

Adoption of best practices has been a goal of COV IT and ITIL is recognized within the IT as best practice.  COV IT would look favourably on options that more closely align the service delivery with these best practices.

**Project Interdependence**

COV IT is continually launching new services to COV staff.  To support these new initiatives COV Help Centre provides the support.  Should Help Centre take on additional clients the desire would be to ensure that service is provided at appropriate levels therefore staging of projects is important.

**Reporting Requirements**

Reporting Requirements increase the overhead costs of providing tier one support services as they require different parameters to be measured and time to develop the generate the appropriate reports.  COV IT would seek to minimize the reporting requirements to avoid having a significant drain on its resources.

**Enhance Service to all COV Clients**

Enhanced service for all COV clients would be an additional benefit for existing Help Centre clients should it be used for providing tier one services to VPD as the hours would need to be extended for all COV staff members in order to address VPD needs.

### 3.3.2.2  Importance of Stakeholder for Project Success

5- High

COV IT along with VPD IT are the primary project champions for restructuring VPD Tier one support.  COV IT must remain actively engaged in order for the project to be successful.

### 3.3.2.3  Degree of Influence

4 – Above Average

COV IT has the ability to determine the structure of any service offering that occurs at the municipal level.  They also have the ability to influence VPD IT not to proceed with an offering at the departmental level.  They scored a four instead of a five with respect to power as VPD IT could still decide to proceed at the departmental level and so exert slightly more influence in terms of the final structure.

### 3.3.3  COV Help Centre Personnel

COV Help Centre personnel currently provide standardized IT support services to City of Vancouver's internal staff.  This section has grown as the centralized help model expanded across the City.  Generally, the help centre staff has been accepting of new clients as long as staffing increases matched the increased workloads. (MTG Management Consultants LLC Report).

### 3.3.3.1  Interests

**Capacity**

The MTG Report noted that Help Centre staff would be accepting of additional clients as long as staffing was adjusted appropriately.  Capacity is therefore a key issue for this stakeholder group, as insufficient staffing will directly impact them.

**Interface with Tier Two**

COV Help Centre need to be able to effectively communicate with Tier two support in order to be able to escalate calls as well as to get solutions to problems and be able to resolve calls on first incidence.

**Inter-Project Dependence**

COV Help Centre personnel are interested that the issue of Project interdependence dependence be resolved so that should the service offering be structured at the municipal level so

that they are able to adequately deal with any system implementation.  If multiple projects are scheduled to launch simultaneously, Help Centre staff would appreciate a mechanism so that they are not overloaded at that time (either through enhanced staffing or staggering releases).

**Acceptance by VPD Staff**

COV Help Centre would desire any solution offered at the municipal level and involving their service meet with the acceptance of VPD staff as they will be interacting with them on a daily basis and non-acceptance can translate into much more difficult interactions.

### 3.3.3.2   Importance of Stakeholder for Project Success

5 –High

COV Help Centre personnel must be actively willing and supportive of the taking on of new clients in order for the project to be successful should a solution be chosen that occurs on a municipal scale.  Failure of Help Centre personnel to be willing to learn new applications or procedures would result in a failed transition. Would they also be concerned about security checks?

### 3.3.3.3   Degree of Influence

2 –Below Average

COV Help Centre personnel have no direct control over the eventual extension of tier one service offerings  to VPD .  They are able to express concerns about a particular matter and may have small changes made.

### 3.3.4   CUPE 15

The CUPE 15 union represents the inside workers at the City of Vancouver including the Help Centre staff.  This analysis focuses on the union's perspective – the staff will be considered separately.

### 3.3.4.1   Interests

**Capacity**

CUPE 15 is primarily interest in ensuring that sufficient staff are hired (capacity) so that staff are not overworked.

**Impact of a failed security check**

CUPE 15 is also concerned that should staff fail a security check that appropriate accommodation is made and that they do not loose their job as a result.

### 3.3.4.2    Importance of Stakeholder for Project Success

2- Below Average

CUPE 15 does not need to be engaged in order for the project to be successful. Any issues that the union brings forth will need to be appropriately addressed but will not impact the success/failure of the project unless they can not be resolved.

### 3.3.4.3    Degree of Influence over Project

2 – Below Average

CUPE 15 has limited ability to delay the project. CUPE 15 has no ability to cause a restructuring of tier one support services to fail.

### 3.3.5    COV Help Centre Current Clients

COV Help Centre current clients are generally unaware of the planned transition. While they will benefit from the extended hours as the service offering would need to extend to the same (or longer) hours offered by the current VPD help desk. Should staffing be inadequate to handle the increased call volume, the decreased service would be noticed and resistance to the change would occur.

### 3.3.5.1    Interests

**Capacity**

Existing Help Centre clients would not be concerned by any structure that is offered at the municipal level maintain or enhance the available capacity for existing clients.

### 3.3.5.2    Importance of Stakeholder for Project Success

2 – Below Average

COV Help Centre current clients have little interest in the structure of VPD tier one support and their involvement is not required in order to make the project a success. They can

contribute to the success/failure by noticing any change in service delivery and commenting either positively or negatively on it.

### 3.3.5.3   Degree of Influence

1 –Low

Existing clients of COV Help Centre would have no ability to determine the structure of VPD tier one support.

### 3.3.6   VPD IT

VPD IT is responsible for the effective adoption and usage of technology within the VPD.  VPD IT is a key stakeholder and a project champion for the restructuring of tier one support services.

### 3.3.6.1   Interests

**Capacity**

VPD IT recognizes the need for strong tier one support for the VPD to effectively use and adopt technology.  The primary limitation of the current configuration is the inability to handled increased call volume.  In any proposed solution PVD would need it to be able to have sufficient capacity to handle the increasing call volume as a result of increasing numbers of VPD members and information intensity of policing.

**Cost**

VPD IT has a desire for any proposed solution to be cost efficient and effectively use limited budgets.

**Corporate Relations**

VPD IT has made significant effort over the last several years to foster a better understanding between itself and COV IT.  VPD IT would support a  solution would at a minimum maintain this relationship.

**Interface with Tier Two**

VPD IT is responsible for overall support of the IT infrastructure.  To successfully be able to offer support their needs to be an effective two-way communication between tier one and

tier two support personnel.  VPD IT will continue to provide tier two support services and so is interested in the richness of the interface between tier one and tier two.

**Adaptability**

VPD IT needs to address new departmental challenges in a timely manner.  Some of these challenges may result in new systems being implemented while others may required enhanced service offerings for a short period of time (e.g. change in hours during a kidnapping). Any tier one support offering should be able to quickly adapt to the challenges in hours, or call volume that may be experienced or have an alternative way of addressing these needs.

**Support Capability for Standard Applications**

The value of tier one is to be able to resolve as many calls on first contact as possible. VPD IT recognizes that support for standard applications (Office, SAP etc) would most effectively be accomplished where this skill set is strongest.

**Support Capability for VPD Specific Applications**

VPD IT prefers tier one support that is able to handle calls related to VPD specific applications on first call.   Requiring a strong skill set for VPD specific applications.   First call response is important at VPD as many users are mobile and making return calls can be difficult and time consuming. The ability to achieve sufficient skill levels by a greater number of staff for COV help staff is a critical concern.

**Ability to Implement ITIL Best Practises**

VPD IT has made several attempts to align its processes with the ITIL framework. Solutions that more closely align tier one support with the ITIL framework would be of greater interest than those that do not.

**Likelihood of Service Disruption**

A service disruption to tier one support would present serious challenges to VPD members in conducting their work.  Solutions that are least prone to disruption would be favoured.

**Acceptance by VPD Staff**

VPD IT will experience any backlash from a proposed change that is not accepted by VPD staff.  VPD IT would therefore be interested in solutions where VPD staff would be most accepting.

**Inter-Project Dependence**

VPD IT is currently able to implement projects based on its own priorities and often has internal scheduling conflicts.  If the service is offered at a municipal level, VPD IT projects would need to compete with resources from COV IT and may need to be rescheduled.  Solutions that enable VPD IT to implement projects in a manner that conflicts least with their project scheduling would be favoured over those that require waiting.

**Reporting Requirements**

VPD IT prefers solutions that minimize the Reporting Requirement, as this would represent overhead work that would need to be managed.  VPD does not have staffing that could be dedicated to monitoring and so this would impact other workloads.

### 3.3.6.2   Importance of Stakeholder for Project Success

5 –High

VPD IT must be actively involved in order for the project to be successful.  If VPD IT is not involved, there would be no support for the changes that would be necessary.

### 3.3.6.3   Degree of Influence

5 – High

VPD IT has the ability to change how tier one services are structured.  The interests of VPD IT must be incorporated into any solution in order for the solution to move forward.

### 3.3.7   VPD Help Desk personnel

VPD Help Desk l consists of six civilian staff:  one dedicated tier one support person who works day shift;   Three tier two personnel that work day shift.  Two tier two personnel that work afternoon shift.  All six work as a dedicated team and assist the tier one support person when call volumes exceed what one person can handle.

### 3.3.7.1   Interests

**Capacity**

VPD Help Desk personnel would desire that any solution have sufficient capacity to handle call volumes.  A lack of sufficient capacity, would lead to calls not being properly triaged on tier one and slip to tier two and/or clients that were unhappy when a tier two person arrived due to long wait times**.**


**Interface with Tier Two**

VPD Help Desk would want as rich an interface between tier one and tier two as possible to assist the two way communication (e.g. being able to share a solution to a problem so that tier one would be able to resolve in the future). Training time and access

**Support for Standard Applications**

VPD Help Desk would benefit from reduced call volume if the standard application support calls could be handled by tier one and not forwarded to tier two to resolve.

**Support for VPD Specific Applications**

VPD Help Desk would benefit from reduced call volume if the VPD specific application support calls could be handled by tier one and not forwarded to tier two to resolve.

**Acceptance by VPD Staff**

VPD Help Desk directly interfaces with VPD Staff and if they are satisfied with the tier one service offering, tier two support has a much easier time.  If VPD staff are not happy with the tier one support, the tier two personnel hear about it first hand.  VPD Help Desk staff would value a solution that was more accepted by VPD staff.

### 3.3.7.2   Importance of Stakeholder for Project Success

5 –High

VPD Help Desk personnel need to be heavily involved in the adoption of any change, as it will likely involve changing processes and systems that they use as well as potential training. Failure to adequately involve Help Desk personnel in any transition would result in a project failure.

### 3.3.7.3 Degree of Influence

2 –Low

VPD Help Desk personnel have little control over the eventual form of the service offering.

### 3.3.8 Teamsters Union

The Teamsters union represents unionized staff at VPD. These staff members include the one that will have her position eliminated in the event that tier one support services are restructured. Transferring was evaluated but CUPE 15 would not accept a transfer with years of service as it would leapfrog their existing staff and member would rather find an alternative position within VPD than give up the additional weeks vacation.

### 3.3.8.1 Interests

**Impact on Teamster Member**

The Teamster union's primary concern it to ensure that any members displaced by a change in the way that services are offered are protected by due process and accommodated as much as possible. The Teamsters union would seek to work within any implementation plan to ensure that such arrangements are made.

### 3.3.8.2 Importance of Stakeholder for Project Success

2 –Below Average

The Teamster union involvement in the project is not required in order for any restructuring to be successful.

### 3.3.8.3 Degree of Influence

2 –Below Average

The Teamsters union has little power to affect the eventual outcome of the design of VPD tier one support offering, as this remains a management decision. They could delay any elimination of the position at VPD by ensuring that all procedures are followed.

### 3.3.9 VPD Members

VPD members consist of all staff members at the VPD both sworn and civilian. All staff members currently use VPD IT Help Desk for both tier one and tier two support services. These services continue to increase in importance as the technological intensity of policing increases.

### 3.3.9.1 Interests

**Capacity**

VPD members desire sufficient capacity such that the phone can be answered in a timely manner when they call for support. Long queue lengths would be undesirable, as it would detract from their ability to continue performing policing services.

**Support Capability for Standard Applications**

As the clients of the tier one support, VPD members would desire that as many calls related to standard applications could be resolved on first contact. Solutions that increase first contact resolution would be supported.

**Support Capability for VPD Specific Applications**

As clients of the tier one support, VPD members would desire that as many calls related to VPD specific applications could be resolved on first contact. Solutions that are able to offer greater rates of first contact resolution would be supported over those that have lower first contact resolution rates.

**Likelihood of Service Disruption**

VPD members value a service that is reliable. Solutions that have a lower likelihood of service disruption would be favoured over those that have a higher incidence of a disruption occurring.

### 3.3.9.2 Importance of Stakeholder for Project Success

5 –High

VPD members need to be involved in the implementation of any solution in that they need to direct there calls for support to the location and be willing to continue to call. The entire purpose of whichever service delivery mechanism is chosen is for the benefit of the VPD members.

### 3.3.9.3   Degree of Influence

2 –Below Average

VPD members have little influence on how the VPD IT tier one support service is structured.

### 3.3.10   VPD Telecomm

VPD Telecomm provide support for VPD landline and cell phones as well as other wireless services (data and pager).  VPD Telecomm was originally beyond the  scope of this project but as VPD and the COV simultaneously migrate to VoIP, the need to combine support facilities for the two sections becomes obvious.  COV already has combined telecomm and computer help desks.  VPD telecomm sees the adoption of a call tracking system as valuable tool in to track support incidents and create a record that can be used for staffing level justification.

### 3.3.10.1   Interests

**Adaptability**

VPD Telecomm is interested in the VPD Tier one IT support service only to the degree to which at some point it may be leveraged in order to offer VPD Telecom support.

### 3.3.10.2   Importance of Stakeholder for Project Success

1 – Low

VPD Telecom does not need to be involved in the project for it to be successful but is interested in any result.

### 3.3.10.3   Degree of Influence

1 – Low

VPD Telecom does not have the ability to change the structure of any VPD IT tier one support structure.

### 3.3.11   Stakeholder Analysis Summary

The following table summarizes the interests of each of the stakeholder groups.  Two groups stand out as key stakeholders and are the project champions; these are VPD IT and COV

IT. Both these groups must be fully engaged in order for the project to be successful and also have the power to change how it is implemented.

| Stakeholder Group | Interests of Stakeholder Group | Support for Initiative (Positive, Neutral or Negative) | Importance of Stakeholder for Project Success (5 –highest, 1 –lowest) | Degree of Influence Over Project |
|---|---|---|---|---|
| VPD IT | -Sufficient capacity to handle all calls<br>-Cost<br>-Corporate Relations<br>-Interface with Tier Two<br>-Adaptability<br>-Support capability both standard and VPD specific applications<br>-Ability to Implement ITIL best practices<br>-Likelihood of Service Disruption<br>-Acceptance by VPD Staff<br>-Inter-Project Dependence<br>-Reporting Requirements | + | 5 | 5 |
| VPD Help Desk Staff | -Capacity<br>-Interface with Tier Two<br>-Support capability both standard and VPD specific applications<br>-Acceptance by VPD Staff | + | 5 | 2 |
| VPD Telecomm | -Adaptability | + | 1 | 1 |
| Teamsters | -Teamster membership decrease<br>-Impact on member | - | 1 | 1 |
| CUPE 15 | -Capacity<br>-Impact of enhanced security checks | + | 1 | 1 |
| VPD Members | -Sufficient capacity to handle all calls<br>-Support capability for both standard and VPD specific applications<br>-Likelihood of Service Disruption | - | 5 | 2 |
| COV IT | -Cost<br>-Capacity<br>-Acceptance by VPD Staff<br>-Ability to Implement ITIL best practices<br>-Inter-Project Dependence<br>-Reporting Requirements | + | 5 | 4 |

| Help Centre Staff | -Sufficient capacity to handle all calls<br>-Interface with Tier Two<br>-Inter-project Dependence<br>-Acceptance by VPD Staff | + | 5 | 2 |
|---|---|---|---|---|
| Help Centre Existing Clients | -Capacity | 0 | 3 | 1 |
| Citizens of Vancouver | -Cost | 0 | 1 | 1 |

Table 3.3 Stakeholder Analysis Summary

### 3.3.12  Stakeholder Mapping

Stakeholder mapping allows a visual representation of stakeholder influence and importance to a project or decision.  Using the Stakeholder analysis table above the stakeholders were mapped in relation to these two attributes.  Based on the mapping, those in quadrant two (VPD IT and COV IT) represent the stakeholder that have the greatest capability to shape the structure of tier one support services.  The evaluation will be conducted with weightings for these two groups.
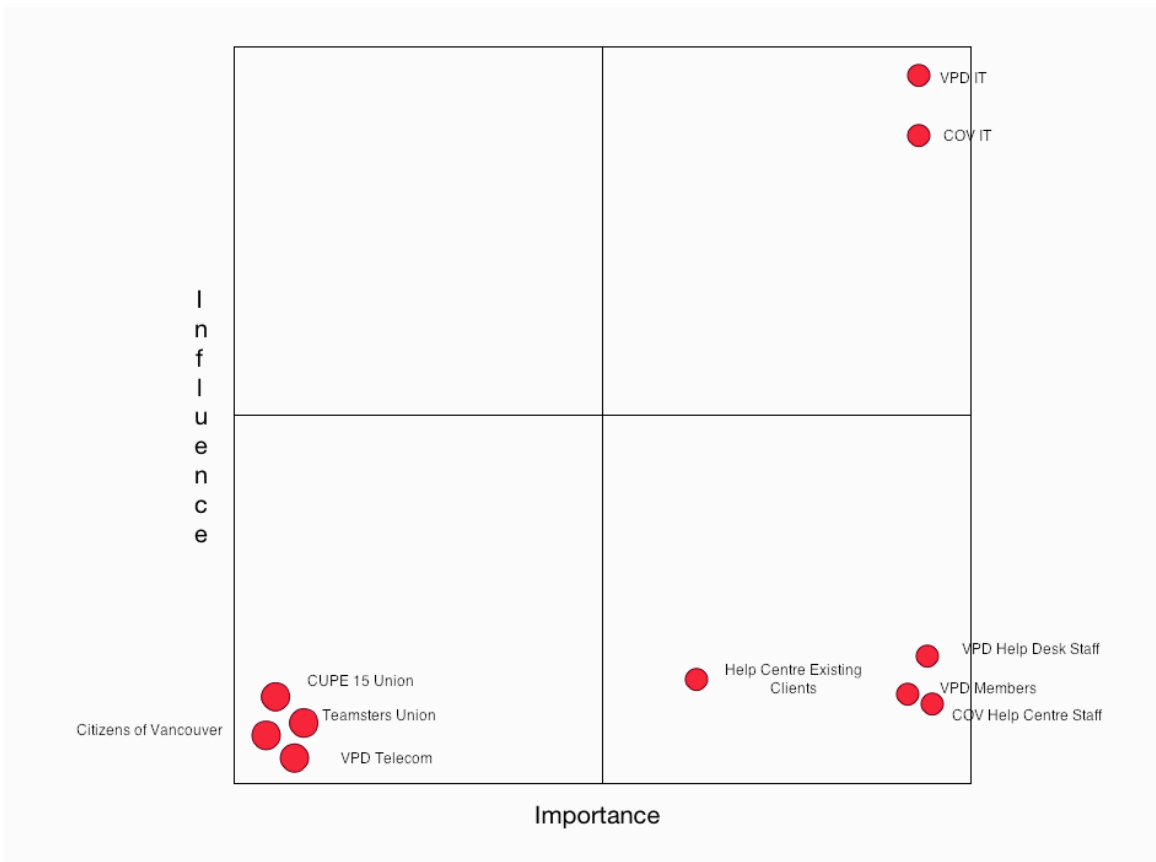
*Figure 3.1      Stakeholder Mapping  Influence – Importance Grid*

# 4: Alternatives and Evaluation

There are several options for structuring tier one support services at the VPD.   When examining the scope at which these services should be provided it is best to provide them either at the departmental or municipal level.  It was also determined that a tier one support services was appropriate to structure as a shared service.  Six options in total were examined.  Two have a departmental scope: status quo and scaling the in house VPD Help Desk.  Three have a municipical scope: Centralized with COV Help Centre (with SLA), Centralized with COV Help Centre (with SLA) but maintain a single VPD tier one support specialist, and creating a semi-autonomous shared service organization with COV Help Centre as its core service offering.  The other option that is available would be to outsource to a private firm.

| Departmental Scope Options | |
|---|---|
| Option One | Status Quo |
| Option Two | Outsource to a Private Firm |
| Option Three | Scale in house VPD Help Desk |
| **Municipal Scope Options** | |
| Option Four | Centralized with COV Help Centre (with SLA) |
| Option Five | Centralized with COV Help Centre (with SLA) but maintain a single VPD tier one support specialist |
| Option Six | Create semi-autonomous Shared Service Organization from COV Help Centre |

Table 4.1 Option Table Summary

## 4.1  Option One:  Status Quo

VPD currently has one dedicated Tier One support person and six that provide Tier Two support on different shift schedules.  The Tier Two support personnel spend approximately 20% of their time covering Tier One duties. Under this option, no additional staffing would be provided and no transfer of work would occur.  Hours of operation would continue to be 0740-2200 with emergency after hours support handled by a Tier two personnel with an on call pager.

## 4.2   Option Two: Outsource to Private Firm

Direct the support line to a firm specializing in help desk services. To be cost effective, this would likely need to be restricted to standardized apps (e.g. Office, Acrobat etc) that could be run without connection to the VPD network. Tracking and status updates would be handled through the private contractor hosting a call tracking system that VPD had remote access to.

## 4.3   Option Three: Scale VPD Help Desk

Increase the number of staff to form a dedicated Tier One support team.  Tier Two personnel would then have more time to perform their duties.  This option would require at least two but more likely three additional staff to handle call volume, vacations and breaks.  Hours would remain 0740-1630 for core tier one personnel with afternoon shift tier two support fielding calls during the lower volume periods of 1630 to 2200.

## 4.4   Option Four: Centralize Service with the COV

Have the COV Help Desk perform Tier One responsibilities.  VPD would transfer all support calls to the COV Help Centre for initial recording, troubleshooting and sheepherding the call through to resolution for all applications.   COV Help Centre would also be responsible for keeping the client informed of the status of the call and confirm with the client when the call had been resolved.

## 4.5 Option Five: Centralize Service with COV and allocate a VPD App Tier 1 Specialist

Have the COV Help Centre perform Tier One responsibilities for all standard applications (ones they currently support) and transfer calls to a person experienced in supporting VPD apps for tier 1 service on VPD applications.  This person would also act as a backup to the COV Help Centre in the event of labour disruption and take on general admin duties during periods of reduced call volumes.

## 4.6 Option Six: Create a Shared Help Centre Service Organization

Creating a Help Centre with its own governance structure that is responsible for tier one function and has the option to market itself to COV departments, other public service entities and private companies.  It would eventually charge back for services at full cost recovery and would have the potential to become its own entity over time.  It could cover additional hours and VPD apps.

## 4.7 Key Service Attributes

Twelve key service attributes were identified from the stakeholder analysis as important in structuring tier one support services at VPD.  The decision criteria include: capacity (volume), cost, corporate relations, interface with tier two, Adaptability, tier one support ability for standard applications, tier one support ability for VPD specific applications, ability of option to implement ITIL best practices, likelihood of service disruption, acceptant by VPD staff, inter-project dependence, and Reporting Requirements.

Additional interests were identified for the Teamster and CUPE15 stakeholder groups consisted of: impact on the restructured member and impact of the enhanced security checks. While these two interests were identified they are associated with the implementation as opposed to the selection of the most appropriate service delivery model and so are not included in the selection analysis.

### 4.7.1   Rubric

A rubric is a scoring tool used for subjective assessments.  It is used to allow a standardized evaluation in order to provide transparency.  The scoring table included within each of the decision criteria served to ensure consistency in scoring the options.

### 4.7.2   Capacity (Volume)

Ability to handle the volume of calls coming in, including potential spikes as a result of an outage.  This metric takes into consideration existing call volumes at the COV Help Centre as well as VPD and recognizes the additional staffing (if any) proposed with each option.

**Scoring**

| Score | Description |
|-------|-------------|
| 5 | All calls are answered within 10 seconds. |
| 4 | 95% of calls are answered within 20 seconds |
|   | Less than 5% abandonment rate |
| 3 | 90% of calls answered within 30 seconds |
|   | Less than 10% abandonment rate |
| 2 | 85% of calls answered within 30 seconds |
|   | Less than a 10% abandonment rate |
| 1 | Less than 80% of calls answered within 30 seconds |
|   | Abandonment rate over 10% |

*Table 4.2 Capacity - Scoring Table Summary*

### 4.7.3 Cost

      Includes the total cost of each of the options taking into consideration staffing costs as well as other infrastructure costs. A complete quantitative analysis was not performed, as exact numbers would depend on the individual personnel performing the functions under each of the scenarios and negotiations of contracts. The relative costs of each option can be effectively estimated given what is known about current staffing pay rates and anticipated staffing levels.

**Scoring**

| Score | Description |
|---|---|
| 5 | Annual operating costs of under $100,000 |
| 4 | Annual operating costs of between $100,000 and under $175,000 |
| 3 | Annual operating costs of between $175,000 and under $250,000 |
| 2 | Annual operating costs of between $250,000 and $325,000 |
| 1 | Annual operating costs of over $325,000 |

*Table 4.3 Cost - Scoring Table Summary*

### 4.7.4 Corporate Relations

Evaluates the impact on the VPD IT relationship with City of Vancouver IT group should an option be adopted.  VPD IT values the relationship that has been attempted to be built over the last few years and a decision to either keep tier one services in house or to by-pass City of Vancouver IT group and seek services from an outside provider would reduce much of the good will that had been established.

**Scoring**

| Score | Description |
|---|---|
| 5 | Relationship with COV significantly enhanced.  There is a full understanding of VPD needs and Corporate IT is supportive of requests for resources. |
| 4 | Relationship is marginally enhanced.  There is a partial understanding of VPD needs. |
| 3 | Relationship with VPD is neither enhanced nor degraded. |
| 2 | Relationship with VPD is marginally degraded.  Perception is that PVD attempts to be cooperative but unable to achieve its needs within the overall interests of the City. |
| 1 | Relationship with VPD deteriorates.  Perception is that VPD is uncooperative and takes actions against the overall interests of the City. |

*Table 4.4 Corporate Relationship - Scoring Table Summary*

**4.7.5   Interface with Tier Two**

Effectiveness of each option allowing information to flow from Tier One to Tier Two. The richer the communication capabilities between the two groups the quicker and more easily problem identification can occur and be rectified.

An incident is a single occurrence of an issue. A problem is the underlying cause of one or more incidents. Often problem identification can only occur through the correlation of multiple incidents and hence requires effective communication between Tier 1 (who receives all the calls) and Tier Two.

**Scoring**

| Score | Description |
|-------|-------------|
| 5 | Rich interface with strong relationships between tier one and tier two teams. Problems are immediately identified and both teams work as one cohesive unit. |
| 4 | Physical distance separates teams but they maintain strong relationships and problems are identified together quickly (under 20 minutes). |
| 3 | Physical distance and other barriers make maintaining relationships difficult but they manage to be maintained. Teams work together and identify problems within 2 hrs. |
| 2 | Limited communication barriers exist and there is a neutral relationship between teams. Problem identification is left to tier two. |
| 1 | Significant communication barriers exist and there is a negative relationship between teams. Problems are only identified after escalation. Teams operate independently and push work back and forth. |

*Table 4.5 Interface With Tier Two - Scoring Table Summary*

**4.7.6    Adaptability**

Change is perhaps the only constant in the IT environment.  Each option has a certain level of rigidity in it's ability to change (e.g. change the application that is supported or hours of work).  The ability to implement new solutions and meet operational requirements is important in any tier one service desk design.

**Scoring**

| Score | Description |
|---|---|
| 5 | Service offerings and levels can be changed in under 24 hrs with no negotiations required. |
| 4 | Service offerings and levels can be changed with 48 hrs with little negotiation. |
| 3 | Service offerings and levels can be changed with one week notice and little negotiation. |
| 2 | Service offerings and levels can be changed with one month notice with moderate level of negotiation |
| 1 | Service offerings and levels are fixed and changes require significant negotiation and ramp up time of greater than a month. |

*Table 4.6 Adaptability - Scoring Table Summary*

### 4.7.7 Tier One Support Capability -Standard Apps

Evaluates each option's ability to provide Tier one support for standard apps, on first contact. Standard applications include: SAP, Microsoft Office and all other applications that are used by VPD and the COV in the general course of business.

**Scoring**

| Score | Description |
|---|---|
| 5 | Excellent level of understanding of the applications core and extended functions. Tier one can handle all calls that involve usage and 80% that involve troubleshooting. |
| 4 | Good level of understanding of the applications core functionality and limited understanding of extended functions. Tier one can handle 80% of calls involving usage. |
| 3 | Limited knowledge of applications core functionality and no understanding of extended functions. Tier one can handle 60% of calls involving usage. |
| 2 | FAQ used to answer basic questions all other are forwarded to tier two. |
| 1 | No knowledge of the applications, all call details are recorded and forwarded to tier two. |

*Table 4.7 Tier One Support Capability for Standard Applications - Scoring Table Summary*

**4.7.8    Tier One Support Ability - VPD Specific Apps**

Evaluates each option's ability to provide Tier one support for VPD specific apps, on first contact.  VPD specific applications would be those applications used by VPD but not by other departments in the COV (City of Vancouver) or general industry.  VPD specific applications would include: Versadex, Justin, POIS, EEPS etc.

**Scoring**

| Score | Description |
|---|---|
| 5 | Excellent level of understanding of the applications core and extended functions. Tier one can handle all calls that involve usage and 80% that involve troubleshooting. |
| 4 | Good level of understanding of the applications core functionality and limited understanding of extended functions.  Tier one can handle 80% of calls involving usage. |
| 3 | Limited knowledge of applications core functionality and no understanding of extended functions.  Tier one can handle 60% of calls involving usage. |
| 2 | FAQ used to answer basic questions all other are forwarded to tier two. |
| 1 | No knowledge of the applications, all call details are recorded and forwarded to tier two. |

*Table 4.8 Tier One Support Capability VPD Specific Applications - Scoring Table Summary*

**4.7.9    Ability to Implement ITIL Best Practices**

Tier 1 and Tier Two are distinct functions.  These roles are currently combined at VPD and interfere with one another  i don't recall this in your discussion of the situation.  Each option is evaluated to the degree it allows for separation of these job duties.

**Scoring**

| Score | Description |
|-------|-------------|
| 5 | All tier one and tier two functions are fully performed.  Full separation between teams performing tier one and tier two functions exists. |
| 4 | Tier one and tier two functions are adequately performed (>80% of the time).  Full separation between teams performing tier one and tier two functions exists. |
| 3 | Tier one and tier two functions are adequately performed (>80% of the time).  Minor overlap between teams performing tier one and tier two functions exists. |
| 2 | Tier one and tier two functions are mostly performed (>60% of the time).  Significant overlap between teams performing tier one and tier two functions exists. |
| 1 | Tier one and tier two functions are combined. |

*Table 4.9 Ability To Implement ITIL Best Practises – Scoring Table Summary*

### 4.7.10 Likelihood of Service Disruption

Evaluates the impact to VPD based on the likelihood of a service disruption (significantly reduced service resulting from a decreasing in staffing of over 50%) under each of the options. Service disruptions may be caused by: inadequate staffing, absenteeism, labour disruption or other events.

**Scoring**

| Score | Description |
|---|---|
| 5 | Low likelihood of a service disruption.  (<0.5% of the time or < 9 days over 5 years) |
| 4 | Below average likelihood of a service disruption. (>0.5% and <1% of the time, between 9 and 18 days within a 5 year contract) |
| 3 | Average likelihood of a service disruption. (>1% of the time but less than 1.5%, between 18 and 27 days within a 5 year contract). |
| 2 | Above average likelihood of a service disruption. (>1.5% of the time but less than 2%, between 27 and 36 days within a 5 year contract). |
| 1 | High likelihood of a service disruption.  (>2% of the time or 36 days within a 5 year contract) |

*Table 4.10 Likelihood of Service Disruption – Scoring Table Summary*

### 4.7.11  Acceptance By VPD Staff

VPD staff currently receives a Tier One help desk service and with it have certain expectations.  VPD will be more willing to accept an option that meets the current expectation in every way and keeps consistent the individuals with which they interact or one that provides an observably better quality of service.

**Scoring**

| Score | Description |
|---|---|
| 5 | VPD Staff notice a significant increase in service and are appreciative of the change. |
| 4 | VPD staff does not notice a change in service or the service is effectively equivalent to current service offerings. |
| 3 | VPD staff notice a slight change in service but are willing to accept, as they understand the need for new processes and the learning curve of the new provider. |
| 2 | VPD Staff notice a decrease in service and actively complain about wanting to change back.  Clients still actively call the support line. |
| 1 | VPD Staff notice a decline in service and refuse to call the support line and instead seek alternative methods of support. |

*Table 4.11 Acceptance By VPD Staff - Scoring Table Summary*

### 4.7.12 Project Interdependence

VPD currently is able to implement projects/solutions in a timeframe that is for the most part independent of other agencies. This operational ability is potentially limited by some of the proposed solutions. Co-ordination between VPD and other departments for the launch of new services may be necessary should the same tier one organization be used in order to avoid calls from being abandoned.

**Scoring**

| Score | Description |
|-------|-------------|
| 5 | VPD can implement new projects, solutions or other changes that may lead to increased call volume independently from any other projects that may be underway by other clients. |
| 4 | VPD can implement new projects, solutions or other changes that may lead to increased call volume in set windows but outside those windows must provide two weeks notice to avoid conflict with other clients. Service provider cannot limit the time in which changes are made. |
| 3 | VPD can implement new projects, solutions or other changes that may lead to increased call volume with two weeks notice to avoid conflict with other clients. Service provider can limit the time in which the changes can be made. |
| 2 | VPD can implement new projects, solutions or other changes that may lead to increased call volume with six weeks notice to avoid conflict with other clients. Service provider can limit the time in which the changes can be made. |
| 1 | VPD can implement new projects, solutions or other changes that may lead to increased volume based on the service providers' availability window. |

*Table 4.12 Project Inter Dependence - Scoring Table Summary*

### 4.7.13 Reporting Requirement

VPD must ensure that Tier one services are being performed with an acceptable level of performance. Monitoring this performance against key metrics (to be defined in an SLA) needs to be done on an ongoing basis. While ad hoc reporting gives the flexibility to do this, the need to generate, format and present regular reports pulls limited staff resources away from their regular roles and requires significant effort. The requirement and frequency of the required reporting is captured in this metric.

**Scoring**

| Score | Description |
|-------|-------------|
| 5 | Ad hoc reporting available but not required. |
| 4 | Minimal monitoring and reporting required of call handling statics. A minimum of an annual report/analysis required. |
| 3 | Basic monitoring and reporting requirement of call handling statistics and ratios but not of invoicing. A minimum of semi-annual report/analysis is required. |
| 2 | Significant monitoring and reporting requirement of call handling statistics and ratios but not of invoicing. A minimum of quarterly report/analysis is required. |
| 1 | Significant monitoring and reporting requirement of the call handling statistics and ratios as well as invoicing. At minimum a monthly report/analysis is required. |

*Table 4.13 Reporting Requirement - Scoring Table Summary*

## 4.8   Weighting

Weights are used to determine the importance of any particular interest to a stakeholder. Two stakeholders can be described as key.  In that these two stakeholders have the power to influence the design of the service offering.  Those stakeholders with an influence rating over three were: VPD IT and COV IT.  The weights developed for each are described below.

### 4.8.1   VPD IT

The following weightings were determined to be appropriate for evaluating the decision criteria from the perspective of VPD IT.  The determination was based both on personal experience within the department and through consultation with the director of VPD IT, Kathy Wunder.

|  | Weighting Percentages |
|---|---|
| Capacity (Volume) | 30.0% |
| Cost | 15.0% |
| Corporate Relations | 20.0% |
| Interface with Tier Two | 5% |
| Ability to Implement ITIL Best Practises | 5% |
| Adaptability | 7.5% |
| Acceptance By VPD Staff | 5.0% |
| Tier One Support Ability -Standard Apps | 2.5% |
| Tier One Support Ability - VPD Specific Apps | 2.5% |
| Likelihood of Service Disruption | 2.5% |
| Inter-Project Dependence | 2.5% |
| Reporting Requirement | 2.5% |
| Total | 100.0% |

*Table 4.14 VPD IT Weights Summary*

|                                                | *Weighting Percentages* |
|------------------------------------------------|-------------------------|
| Capacity (Volume)                              | 20%                     |
| Cost                                           | 25%                     |
| Corporate Relations                            | 20%                     |
| Interface with Tier Two                        | 5%                      |
| Ability to Implement ITIL Best Practises       | 10%                     |
| Adaptability                                   | 2%                      |
| Acceptance By VPD Staff                        | 5%                      |
| Tier One Support Ability -Standard Apps        | 2%                      |
| Tier One Support Ability - VPD Specific Apps   | 2%                      |
| Likelihood of Service Disruption               | 2%                      |
| Inter-Project Dependence                       | 5%                      |
| Reporting Requirement                          | 2%                      |
| Total                                          | 100.0%                  |

*Table 4.15 COV IT Weights Summary*

## 4.9   Assumptions

Each of the options presented represents a potential state and as such requires a significant number of assumptions to be made.  For the purposes of evaluating the options it is assumed: a competent execution of the option is undertaken, that staff are of equivalent skill set, that pay is roughly equivalent between private and public sector, and that each option would have the political will to be executed.

## 4.10 Evaluation

A quantitative analysis is performed for five of the six options using a weighted multi-attribute evaluation model.  Each of these options are described and scored on the key attributes in the section that follows.

Option six, create a semi-autonomous shared service organization, does not have a through quantitative analysis performed as the number of staff at a municipal level IT service desk would not be sufficient to justify an additional level of management. The resulting significant costs would make this option not politically possible to execute unless additional clients were identified (other municipalities, police agencies etc) and had agreed to participate. Such parties have not been approached but given the need to develop shared standards; it would be a difficult to get agreement and would require significant resources to change to shared platforms. Literature suggests that there is a need to create a semi-autonomous unit in order for it to focus on service delivery and develop its own independent culture as well as to stay away from internal political struggles. This option was therefore described but given the political impossibility was not quantitatively evaluated.

### 4.10.1  Weighted Multi-Attribute Evaluation Model

When making a decision where there are multiple options and each has positives and negatives, a multi-attribute evaluation model is one way that the relative strengths of each option can be compared. To use such a model the decision criteria are identified and given relative weightings. Each option is then compared with respect to the decision criteria. Once each option has been evaluated the score is multiplied by the weighting in order to establish the option that has the best mix of desirable criteria.

The multi-attribute evaluation model was chosen to evaluate the help desk options as not only were there many options but twelve decision criteria were identified.

A multi-attribute evaluation model gives a framework to evaluate options. It allows decisions to be quantified and discussions around decisions to be focused by breaking down the decision making process.

The weightings signify the value of each criterion to the stakeholder. Depending on the stakeholder the weightings will be different. For the purpose of this analysis the weightings were established from the perspective of VPD IT and COV IT, as these were the key stakeholders that had the ability to influence the decision as identified in the stakeholder analysis and mapping. Other stakeholders may have different weights but have limited ability to influence the outcome. For example, the Teamsters Union would have rejected any option that would result in a reduction of Teamster member staff but has no legitimate say in a managerial decision.

The second area where the model involves judgment is in the ratings of options. Except where the ratings are derived from direct physical measurement, the evaluation of options on each criterion is subjective. The ratings are consistent across VPD IT and COV IT for decision criteria as they look at the performance of the option overall. The only decision criterion that has slightly different perspectives (but with the same scoring) was Corporate Relations as in this case the relationship between the two parties. For the description of the score for Corporate Relations, the VPD IT perspective was used to describe the impact of the choice.

Despite the limitations of the model, it provides a structured and rational approach to evaluating potential options. The framework makes assumptions and evaluations explicit and as such it can be adapted when additional information is available or for different decision makers.

## 4.11 Evaluation of Options:

Each of the five options was evaluated against the 12 decision criteria identified and scored based on the evaluation grid for each attribute. A summary table of all the scores is below. A description of the reasoning behind each score identified

|  | *Option 1: Status Quo* | *Option 2: Outsource Help Desk to Private Corporation* | *Option 3: Scale VPD Help Desk* | *Option 4: Centralize Service at COV with SLA* | *Option 5: Shared Service With VPD App Tier 1 Specialist* |
|---|---|---|---|---|---|
| Capacity (Volume) | 1 | 5 | 3 | 4 | 5 |
| Cost | 5 | 2 | 3 | 3 | 2 |
| Corporate Relations | 2 | 1 | 2 | 5 | 3 |
| Interface with Tier Two | 5 | 1 | 5 | 3 | 4 |
| Ability to Implement ITIL Best Practises | 2 | 5 | 4 | 5 | 4 |
| Adaptability | 5 | 1 | 4 | 3 | 3 |
| Acceptance By VPD Staff | 4 | 1 | 5 | 2 | 3 |
| Tier One Support Ability -Standard Apps | 5 | 4 | 5 | 5 | 5 |
| Tier One Support Ability - VPD Specific Apps | 5 | 1 | 5 | 1 | 4 |

| Likelihood of Service Disruption | 3 | 4 | 5 | 3 | 3 |
|---|---|---|---|---|---|
| Inter-Project Dependence | 5 | 5 | 5 | 2 | 3 |
| Reporting Requirement | 5 | 1 | 5 | 2 | 2 |

*Table 4.16 Option Decision Criteria Score Summary*
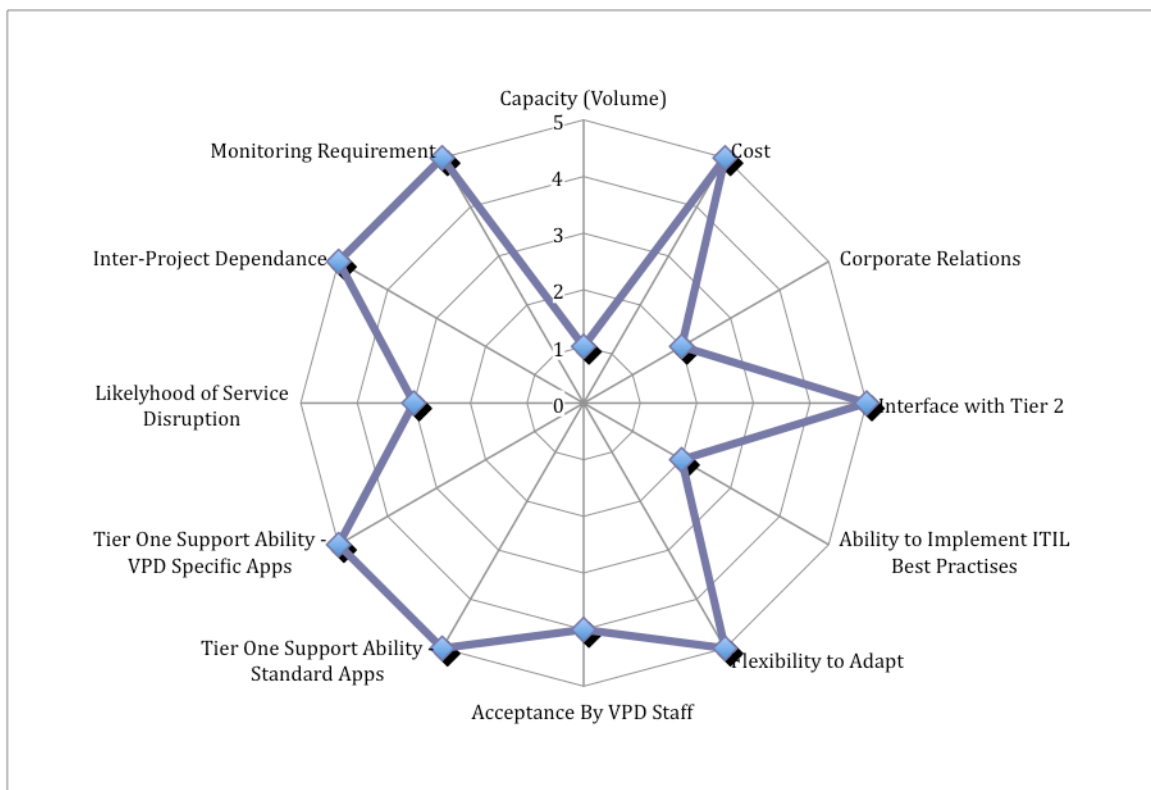
## 4.12 Option 1: Status Quo



*Figure 4.1    Option One Summary*

### 4.12.1  Capacity

Capacity was given a one out of five as the current problem is there is not enough current capacity with on person answering the phones to handle more than one simultaneous call.

Keeping the status quo would not address this problem and likely would continue to get worse as call volumes increase.

**4.12.2 Cost**

Cost associated with the status quo option is estimated to be $76000 annually.   This cost places results in a score of five out of five for cost.

| Description | Estimated Annual Cost |
|---|---|
| Salaries | 50000 |
| Benefits (40% of Salaries) | 20000 |
| Office Space ($5000/employee) | 5000 |
| Telecomm Costs | 1000 |
| Monitoring (VPD) | 0 |
| Management of Team | 0 |
| Profits & Overhead | 0 |
| Total | 76,000 |

*Table 4.17 Option One Cost Estimates*

**4.12.3   Interface with Tier Two**

Interface with Tier Two was given a five out of five as the personal handling the phones is in direct physical contact with Tier Two and Tier Two is able to hear any increase in call volume.  Tier Two also must assist tier 1 in fielding the calls and so can assist in problem identification directly.

**4.12.4   Ability to Implement ITIL Best Practises**

Ability to Implement ITIL best practises as given a two out of five as it is not possible to separate the call taking/tracking and client advocate side from the tier two desk side support.  It was not given a score of one as there have been improvements to the call taking/tracking side that have been made (for example: recording calls in a centralized tracking system).

**4.12.5   Adaptability**

Adapt was given a five out of five as any change in needs can be directly communicated and all the staff are responsible to the Chief and so have a common mission.  Should the needs of the department dictate a change in service hours or quickly ramp up on a new solution this can be

done almost instantaneously. Examples of this have already occurred when staffing was needed to go to 24x7 and was accomplished before the person on shift went home.

### 4.12.6 Acceptance by VPD Staff

Acceptance by VPD staff was given a five out of five as this is the current solution and one that they are already familiar with. VPD staff would not experience any change in service and therefore would not need to prepare for any changes.

### 4.12.7 Tier One Support Ability –Standard Applications

VPD staff has knowledge of the basic and extended features of common applications and are able to solve usage issues and most troubleshooting while on the phone. This level of service scores a five out of five for support of standard applications.

### 4.12.8 Tier One Support Ability –VPD Specific Applications

VPD staff has knowledge of the basic and extended features of VPD specific applications. They are able to solve usage issues and troubleshoot over the phone. The status quo option scores a five out of five for support of VPD specific applications.

### 4.12.9 Likelihood of Service Disruption

VPD has a long history of no labour disputes (>15 years) and of co-ordinating vacation scheduled to minimize the chance of service disruption. At the same time, the limited number of staff, vacations, inability to fill vacancies quickly and absenteeism contribute to an average level of service disruption. The resulting score is three out of five.

### 4.12.10 Inter-Project Dependence

VPD projects can proceed without impacting other city departments or initiatives. This independence gives great flexibility should a new project need to be implemented quickly. As a result of no -project inter dependence across clients, the status quo option receives a five for this decision criteria.

### 4.12.11 Reporting Requirement

Reporting in the Status Quo option can be done ad hoc and does not require resources pulled away to generate formalized reports on standard intervals; for this reason it scored a five out of five.

## 4.13 Option 2: Outsource to Private Firm



*Figure 4.2      Option Two Summary*

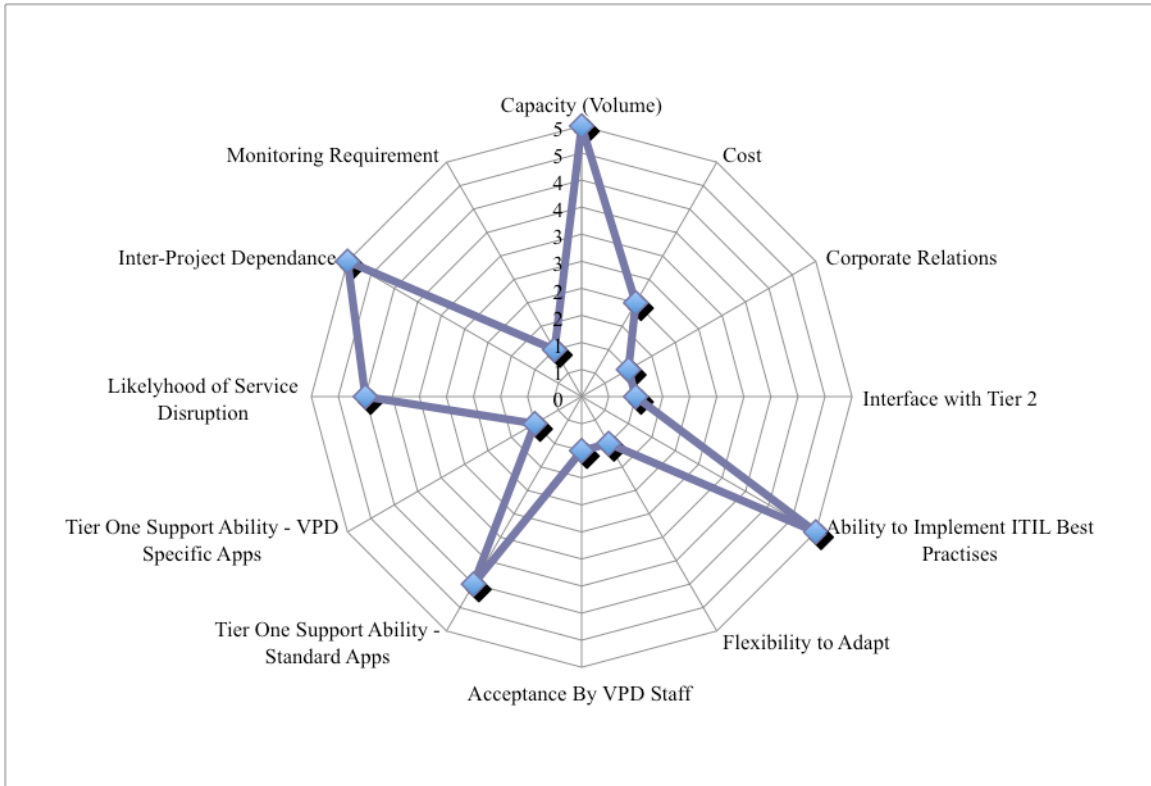### 4.13.1  Capacity (Volume)

The capacity of an outsourced firm could be variable based on the firm/partner selected. If the RFP (Request for Proposal) to select a vendor is properly designed and the appropriate SLA (Service Level Agreement) is in place, a vendor will ensure that there is adequate staffing to meet its obligations and as a result this option rates a five out of five for capacity.

**4.13.2  Cost**

| Description | Estimated Annual Cost |
|---|---|
| Salaries | 200000 |
| Benefits (40% of Salaries) | 80000 |
| Office Space ($5000/employee) | 0 |
| Telecomm Costs | 0 |
| Monitoring (VPD) | 5000 |
| Management of Team | 0 |
| Profits & Overhead | 20000 |
| Total | 305000 |

*Table 4.18 Option Two Cost Estimates*

The cost associated with a private firm could be substantially higher than in house.  The reason for this is that in addition to the staffing in the Help Centre operation, it is also necessary to pay for the corporate overhead and profit margins.  These costs are only partially off-set by efficiencies that the company may be able to achieve and is willing to pass-on due to the high labour component of the service.

The cost of outsourcing to a private firm is likely to be one of the higher cost options and was rated two out of five.  It would have rated one out of five but competitive pressure may keep costs within line.

**4.13.3  Corporate Relations**

The relationship with corporate IT would be severely damaged should this option be chosen.  This is especially the case should corporate IT not also chose to select this option for the other city departments.  Outsourcing to a private firm was give a one out of five to reflect the negative impact it would have on the corporate relationship.

**4.13.4  Interface with Tier Two**

By moving the solution to an outside firm, the barriers between tier one and tier two are significantly increased.  In addition to the added physical separation, there would also be bureaucracy on each side and may require escalation to avoid a front line staff member exposing the company to legal liability.  The lack of direct contact would result in no ability to build

positive relationships and any errors in handling incidents resulting in negative feelings toward the other team.

Based on the significant communication barriers and negative relationship that is likely to develop between teams, outsourcing to an external firm received a score of one in relation to interface with tier two.

### 4.13.5 Ability to Implement ITIL Best Practises

A private firm would be able to perform all the client advocacy and call tracking function of tier one and allow tier two to concentrate on desk side support. All tier one functions could be put into an SLA and monitored to ensure that they were completed as designed.

This ability to ensure that all functions are performed and that desk side support teams can concentrate on their assigned work matches with a rating of 5 for a private firms ability to implement ITIL best practises.

### 4.13.6 Adaptability

In order to change services with a private partner (e.g. new applications) or change the level of service (e.g. time support is offered), it would be necessary to negotiate such a change. The business partner may see such a change as an opportunity to increase profit margins or bring up other issues, which would further delay a negotiated solution.

The need to negotiate any change, the fact the private firm will likely have competing interests and as a result the time delay means that such a solution is not very flexible. Given the fixed nature of the service offerings and levels without negotiation, a score of one is most appropriate for a private sectors firm's ability to adapt to changing VPD needs.

### 4.13.7 Acceptance by VPD Staff

VPD staff members are very concerned about the confidentiality of their work as evidenced by departmental policy and staff behaviour. There would be great resistance to calling an outside firm for assistance. Given the significant staff resistance, many would look seek alternative methods of support (e.g. co-workers).

This low acceptance of this option by VPD staff is reflected in the score of one out of five.

### 4.13.8 Tier One Support Ability –Standard Applications

Standard applications are used throughout the industry and could be supported such as Microsoft Office. Other applications common to the COV clients such as SAP are more specialized and have configurations and options that are not shared across industry. This results in a significant gap in a private firms ability to support COV standard applications and a rating of three out of five.

### 4.13.9 Tier One Support Ability –VPD Specific Applications

The ability to support VPD specific applications would be very low as there would be no direct exposure to these applications and keeping personnel trained on them would be difficult. Given the sensitive nature of the applications, some information may be withheld further hampering a private firm's ability to offer assistance on VPD specific applications. While support for these applications on a tier one basis would be desirable it is unlikely a private firm could offer it profitably. As a result, the ability to support VPD specific applications received a one out of five.

### 4.13.10 Likelihood of Service Disruption

The likelihood of a service disruption was rated a four out of five reflecting a relatively high reliability of the service. This rating reflects decreased chance of service disruption caused by a labour dispute due to the low instances of unionization within the private IT sector. It did not rate a five out of five as private sector firms have a chance of going out of business even during a contracted period or attempting to walk away from a non-profitable contract.

### 4.13.11 Inter-Project Dependence

A private sector firm would have sufficient scale that the projects of one client would not impact others. With an appropriately negotiated SLA, a private firm should be able to be prepared for any project rollout without needing to request delays as a result of another client. This would give the VPD the flexibility to rollout projects independently of others schedules and therefore rated a five out of five for inter-project dependence.

### 4.13.12 Reporting Requirement

Significant monitoring would be required with a private sector firm. Not only would time need to be spent reviewing the service offerings, procedures and if the service was performed as expected additional oversight would be required with respect to invoicing and ensuring that services received reflected what was invoiced. Due to this significant monitoring burden, outsourcing to a private firm rated one out of five with respect to Reporting Requirements.

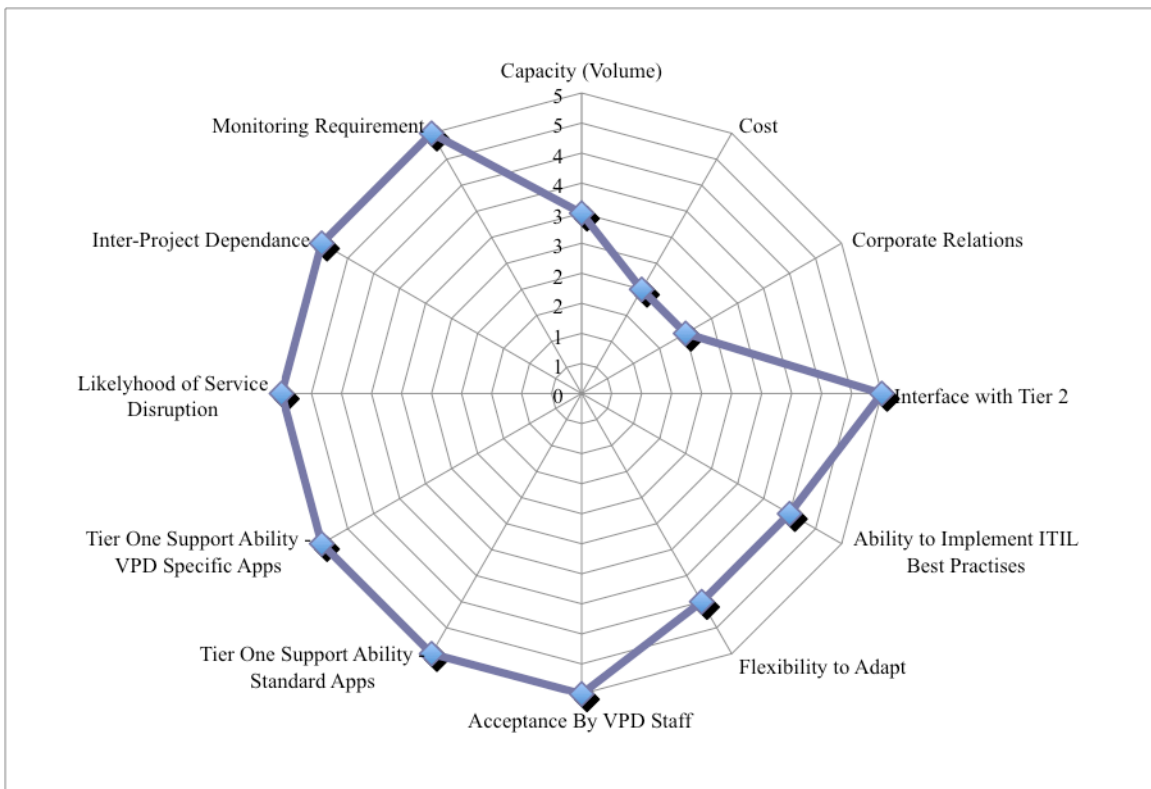## 4.14 Option 3: Scale VPD Help Desk



*Figure 4.3    Option Three Summary*

### 4.14.1  Capacity (Volume)

Scaling the VPD Help Desk would increase capacity but not to the same levels possible with a private sector firm or a service desk that serves more than one client. The rating for

capacity is in the middle of the scale (3), to reflect its improvement over current levels but lack of ability to handle the same volume as other options.

**4.14.2 Cost**

The cost associated with scaling the VPD Help Desk would consist of a minimum of two additional personnel, for a total of three.

| Description | Estimated Annual Cost |
|---|---|
| Salaries | 150000 |
| Benefits (40% of Salaries) | 60000 |
| Office Space ($5000/employee) | 15000 |
| Telecomm Costs | 3000 |
| Monitoring (VPD) | 0 |
| Management of Team | 0 |
| Profits & Overhead | 0 |
| Total | $228000 |

*Table 4.19 Option Three Cost Estimates*

**4.14.3 Corporate Relations**

Scaling the VPD Help Desk would result in the relationship between VPD IT and COV IT being marginally degraded. This option scored two out of five as scaling the VPD Help Desk provides no additional opportunity for COV IT and VPD IT to work co-operatively together.

**4.14.4 Interface with Tier Two**

A scaled VPD Help Desk (two additional people on tier one support) is likely to benefit from a rich interface and strong relationships between tier one and tier two teams. This would follow as a result of working within the same physical area and seeing each other daily. Reporting to the same management and operating in the same organizational environment further enhances working relationship bonds. A scaled VPD Help Desk scored five out of five on the richness of the interface with tier two.

**4.14.5 Ability to Implement ITIL Best Practises**

With additional staffing on the tier one support side there will be a greater separation of roles between tier one and tier two support. The processes would need to be changed to ensure

all tier one functions occurred.  There would still need to be some overlap to take into account vacations and other coverage issues.  This need for overlap as a result of a lack of sufficiently large service desk results in a rating of four out of five.

### 4.14.6  Adaptability

A scaled VPD service desk would maintain its reporting structure to the Chief of Police.  Any directive that would require a change in services or hours can be implemented immediately with the agreement of staff or through the ability to order overtime.  The staffing levels are small and so ramping new technology offerings can occur quickly, almost day-of cutover training.  A scaled VPD service desk scores a five on its ability to adapt.

### 4.14.7  Acceptance by VPD Staff

The tripling of staffing on tier one support should result in a recognizable increase in support capabilities provided to VPD members.  While there may be some changes in process, VPD members would be more than welcoming of such changes as they would be able to see a clearly defined benefit.  This is the most acceptable option for VPD service desk users and so rates a five out of five.

### 4.14.8  Tier One Support Ability –Standard Applications

A scaled VPD service desk would be able to support standard applications with a high level of proficiency.  Team members would have an excellent level of understanding of the applications core and extended functions and could handle all usage calls and most calls that involve some troubleshooting.  The dedicated team would likely be drawn from VPD civilian staff who already had this experience and so the learning curve would be minimal.  A scaled VPD service desk rated five for its ability to support standard applications.

### 4.14.9  Tier One Support Ability –VPD Specific Applications

Team members would receive training and be able to use all the applications they would be expected to support including core and extended functions.  Given the relatively small scope of applications needing to be learned (only standard and VPD applications), the team would soon develop a high level of proficiency at these apps and be able to support almost all usage questions.  A scaled VPD service desk rated five for it is ability to support VPD specific applications.

### 4.14.10 Likelihood of Service Disruption

A service disruption was defined as significantly reduced service resulting from a decrease in staffing of greater than 50%. A scaled VPD Help Desk would be very unlikely to experience a labour disruption (VPD Teamsters Union has never struck since forming at VPD) but may experience a service disruption as a result of other factors. One potential example would be a vacancy (someone getting promoted) followed shortly by pre-scheduled vacations or a sickness. There would be some coverage from Tier two for tier one in this instance. Given the ability to control vacancies and minimize the impact of decreased tier one staffing, there is a very low likelihood of a service disruption (<0.5% of time). The scaled VPD service desk scored five out of five for its ability to recognize its low likelihood of experiencing a service disruption.

### 4.14.11 -Project Inter Dependence

A scaled VPD service desk would only be responsible for VPD projects and so could proceed without concern of affecting other departments or clients of a shared service desk. This independence results in a score of five for inter-project dependence.

### 4.14.12 Reporting Requirement

Monitoring can be done on an ad hoc basis as issues arrive or in preparation for staffing reports. There is no requirement to provide ongoing monitoring and so this overhead is eliminated. Not being required to monitor, is the best scenario for staff and receives a score of five for this option.
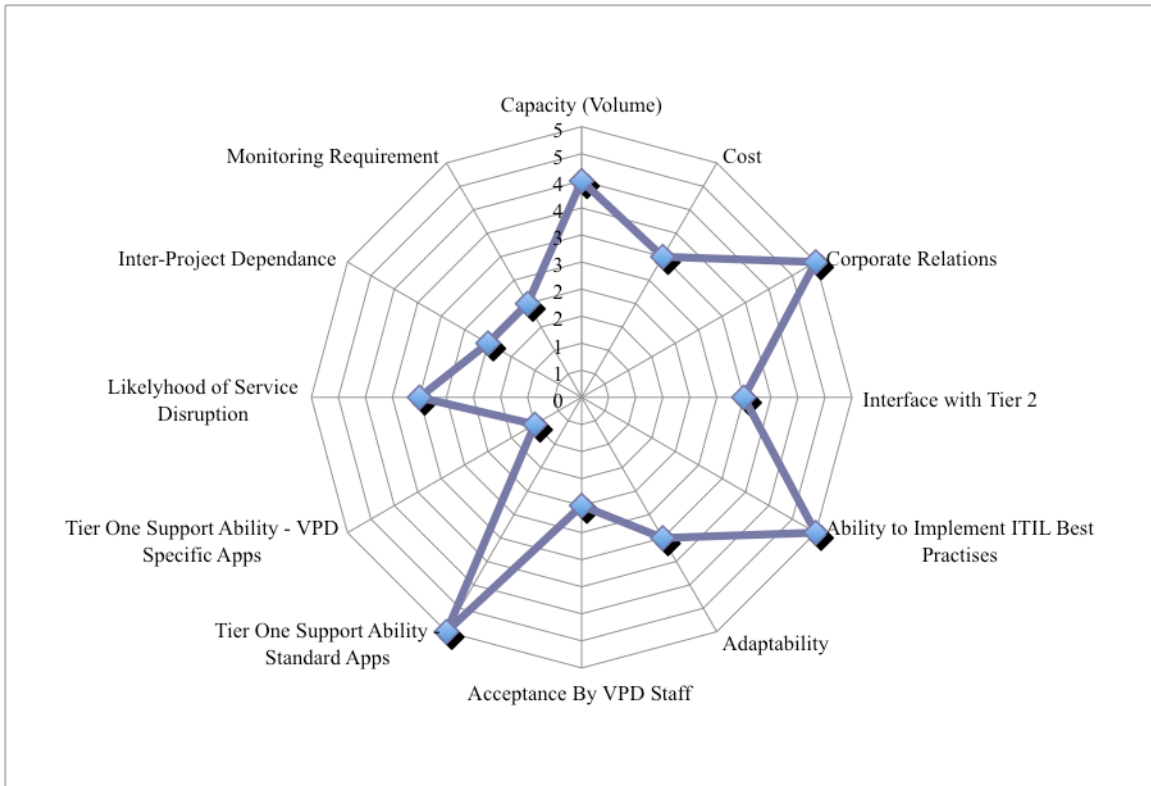
## 4.15 Option 4: Shared Service with the COV



*Figure 4.4     Option Four Summary*

### 4.15.1   Capacity (Volume)

The capacity of a centralized tier one support service with the COV would be variable based on the staffing levels and other COV projects that may tie up resources.  Any shortfall is likely to be rectified quickly as a result of active monitoring and the impact on all client groups. The COV service desk is not a profit centre but a shared organizational resource and it tends to be designed such that agents are busy all the time (i.e. a small queue is part of the design).  Any SLA is likely to target the 95% of calls answered within 20 seconds and a less than 5% abandonment rate and capacity would be increased to match.  Given these factors, the centralized service with the COV receives a four with respect to capacity.

### 4.15.2   Cost

| Description | Estimated Annual Cost |
|---|---|
| Salaries | 150000 |
| Benefits (40% of Salaries) | 60000 |

| Office Space ($5000/employee) | 15000 |
|---|---|
| Telecomm Costs | 3000 |
| Monitoring (VPD) | 1000 |
| Management of Team | 0 |
| Profits & Overhead | 0 |
| Total | 229000 |

*Table 4.20 Option Four Cost Estimates*

### 4.15.3  Corporate Relations

A centralized service at the COV provides other departments within the city a service desk that is open longer.  It also provides corporate IT with a greater degree of understanding of VPD systems and call volumes.  This is seen as the best option with respect to corporate relations as it demonstrates VPD's willingness to accommodate change in order to provide other parts of the COV with enhanced services.  As a result of the better understanding and enhanced VPD image, a centralized service desk at the COV scores a five with respect to corporate relations.

### 4.15.4  Interface with Tier Two

There are physical barriers to communication between tier one and tier two in this scenario and each is under a different reporting structure which results in a less rich interface than if both services were offered in-house.  The interface is much more rich than a private or outside firm as staff are able to communicate directly with one another without concern of litigation (say something that indicates proper process wasn't followed) and work together on resolving problems that are creating multiple incidents.  This scenario scored a three out of five with respect to interface with tier two.

### 4.15.5  Ability to Implement ITIL Best Practises

Centralizing service at the COV enabled tier one and tier two service delivery to be distinct.  This is best practise as recognized in the IT industry and so scores five out of five.

### 4.15.6  Adaptability

Managing a larger size service desk with multiple clients and projects, results in reduced flexibility relative to an in-house operation.  New projects would need to be scheduled to ensure

adequate staffing. Changes in hours on a temporary basis may be able to be accommodated via overtime but extended periods would require negotiation. This option is more flexible than a private sector firm but less flexible than direct reports and most closely aligns with a rating of three out of five.

### 4.15.7 Acceptance by VPD Staff

VPD staff would likely be able to accept the change in personnel and business process after a transition period, if the service offering was the same or higher. While capacity would be significantly improved versus the status quo the ability to support VPD Applications would be reduced. Clients would actively complain about wanting to switch back if the service desk is not able to handle a significant number of calls and is instead seen as a store-and-forward operation. VPD staff would however be much more accepting of this option than calling an outside firm. This option scored a two with respect to acceptance by VPD staff.

### 4.15.8 Tier One Support Ability –Standard Applications

The centralized service desk at COV would handle standard applications with a high level of knowledge and experience calls for these applications on a regular basis. Due to this depth of knowledge and frequency, all usage calls would be able to be handled, as well as many of the troubleshooting calls. A rating of five is achieved for a centralized service desk at COV's ability to support standard applications.

### 4.15.9 Tier One Support Ability –VPD Specific Applications

The ability to support VPD specific applications is directly related to the training received and the percentage of calls that relate to such applications. A centralized service desk at the COV is required to support a significant number of applications for each of its client departments (Engineering, Fire, Community Services, and VPD) as the number applications supported increases the proficiency at supporting any one particular application decreases. The large number of applications means that most departmental specific applications could only be supported to the level of an FAQ (Frequently Asked Questions) addressing the top 10-20 issues.

**4.15.10 Likelihood of Service Disruption**

The risk of service disruption comes from the unionized nature of the COV Help Centre. CUPE 15 has gone on strike in several of the last rounds of bargaining and when this occurs Help Centre service capacity is significantly reduced (although call volumes from COV clients is also reduced). This option scored a three for the likelihood of service disruption.

**4.15.11 Inter-Project Dependence**

Several sections within the COV have launches that could impact the Help Centre. To avoid multiple projects going live simultaneously advanced notice and co-ordination is required. Should a project miss its window a new one will need to be scheduled. The need to schedule new initiative launches and/or changes results in a score of two for this metric.

**4.15.12 Reporting Requirement**

The monitoring frequency for centralized service with the COV would depend on the SLA, requirement for reports to be generated at least quarterly. Based on the rubric this results in a score of two.

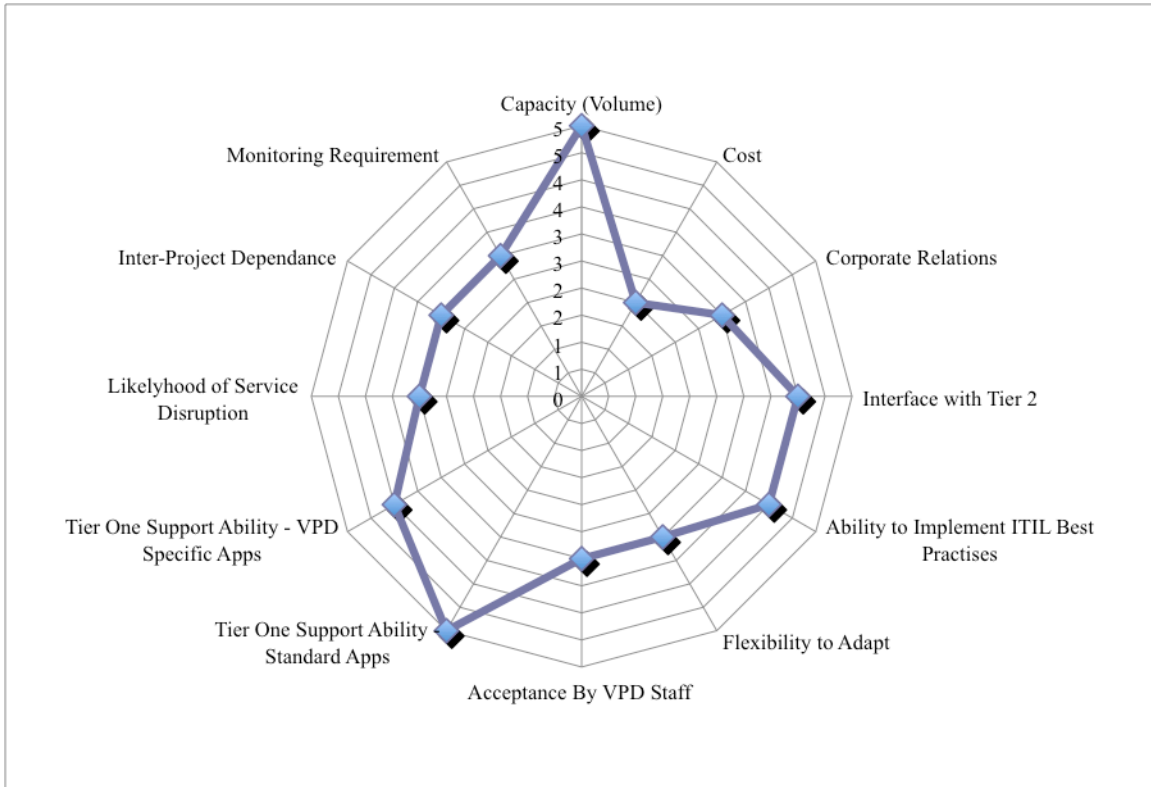## 4.16 Option 5:  Shared Service with VPD App Tier 1 Specialist



Figure 4.5        Option Five Summary

### 4.16.1  Capacity (Volume)

All calls should be handled within 10 seconds with this option as longer VPD application specific calls could be transferred further increasing capacity from that identified in Option 4. This option scores a five for capacity.

### 4.16.2  Cost

| Description | Estimated Annual Cost |
|---|---|
| Salaries | 200000 |
| Benefits (40% of Salaries) | 80000 |
| Office Space ($5000/employee) | 20000 |
| Telecomm Costs | 4000 |
| Monitoring (VPD) | 1000 |
| Management of Team | 0 |
| Profits & Overhead | 0 |
| Total | $305000 |

*Table 4.21 Option Five Cost Estimates*

### 4.16.3   Corporate Relations

Relationship between the COV and VPD would be marginally enhanced, as COV would be able to provide other departments within the city with longer hours.  IT would also demonstrate VPD's willingness to co-operate and provide COV IT with a better understanding of VPD needs.  This option only receives a score of four as the VPD tier one specialist would provide VPD with a benefit not available to other departments.

### 4.16.4   Interface with Tier Two

Interface with Tier Two would consist of phone communication, email and shared service desk software.  The richness of this interface scores a three out of five.

### 4.16.5   Ability to Implement ITIL Best Practises

Centralizing service at the COV enabled tier one and tier two service delivery to be distinct.  This is best practise as recognized in the IT industry and so scores five out of five.

### 4.16.6   Adaptability

Managing a larger size service desk with multiple clients and projects, results in reduced flexibility relative to an in-house operation.  New projects would need to be scheduled to ensure adequate staffing.  Changes in hours on a temporary basis may be able to be accommodated via overtime but extended periods would require negotiation.  This option is more flexible than a private sector firm but less flexible than direct reports and most closely aligns with a rating of three out of five.

### 4.16.7   Acceptance by VPD Staff

VPD staff would still call COV Help Centre and notice the change in staffing but would be able to still receive support for VPD specific applications on first contact either directly or through a warm transfer.  As a result this option scores a three out of five for acceptance by VPD staff.

### 4.16.8 Tier One Support Ability –Standard Applications

The centralized service desk at COV would handle standard applications with a high level of knowledge and experience calls for these applications on a regular basis. Due to this depth of knowledge and frequency, all usage calls would be able to be handled, as well as many of the troubleshooting calls. A rating of five is achieved for a centralized service desk at COV's ability to support standard applications.

### 4.16.9 Tier One Support Ability –VPD Specific Applications

Being able to support VPD specific applications requires usage of the applications and fielding a significant number of support incidents. A dedicated VPD tier one support specialist, would develop these skills but may not always be available (due to holidays, sickness etc) and so therefore this option scores a four out of five.

### 4.16.10 Likelihood of Service Disruption

The risk of service disruption comes from the unionized nature of the COV Help Centre. CUPE 15 has gone on strike in several of the last rounds of bargaining and when this occurs Help Centre service capacity is significantly reduced (although call volumes from COV clients is also reduced). This option scored a three for the likelihood of service disruption.

### 4.16.11 Inter-Project Dependence

Several sections within the COV have launches that could impact the Help Centre. To avoid multiple projects going live simultaneously advanced notice and co-ordination is required. Should a project miss its window a new one will need to be scheduled. VPD may have the flexibility to work around this with the tier one support person to minimize the need to reschedule and as a result this option scored one more than the Centralized Service at COV alone.

### 4.16.12 Reporting Requirement

Quarterly reporting would be required with this option. The rubric indicates a score of two out of five if quarterly reports need to be generated.

## 4.17 Summary of Model Results

Using the scoring identified with each of the options and multiplying by the weighting decided upon, the overall weighted average scores for each of the key stakeholders and preferred option can be identified.

The model results are illustrated in graphical and tabular form below.
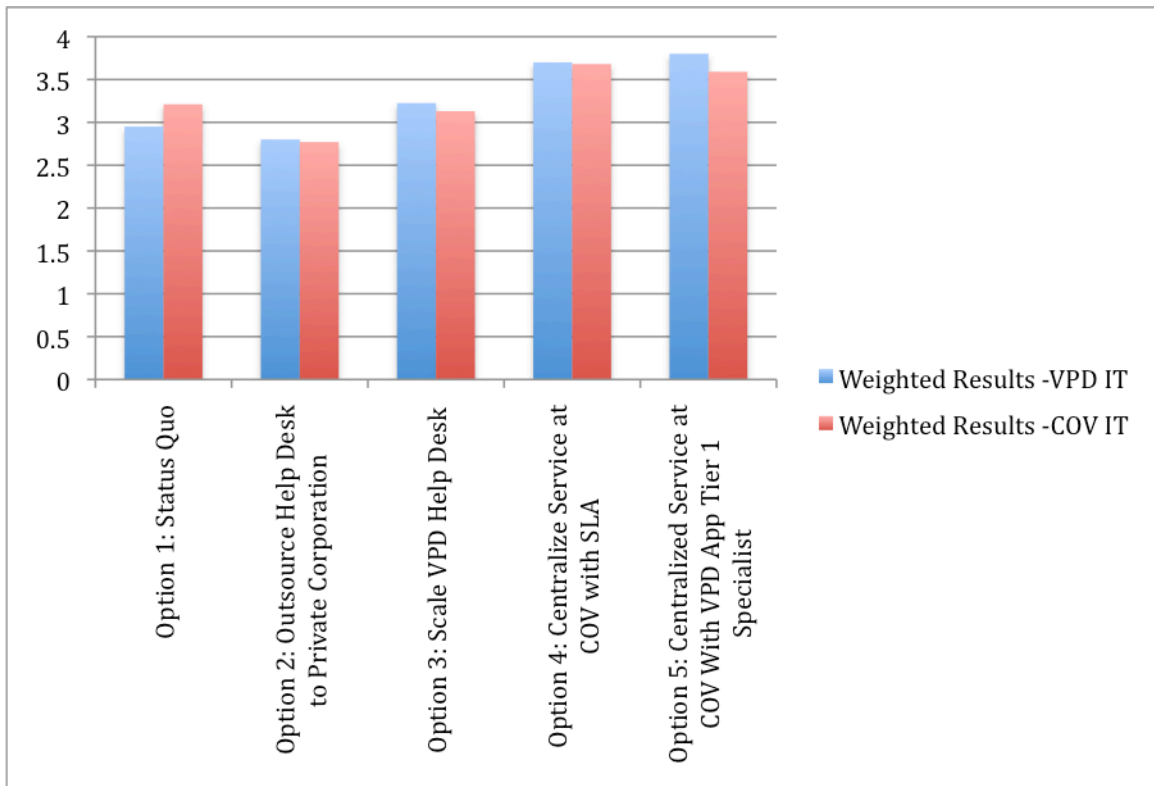


Figure 4.6        Weighted Average Score Summary

|              | VPD IT | COV IT |
|--------------|--------|--------|
| Option One   | 2.95   | 3.21   |
| Option Two   | 2.8    | 2.77   |
| Option Three | 3.225  | 3.13   |
| Option Four  | 3.7    | 3.68   |
| Option Five  | 3.8    | 3.59   |

*Table 4.22 Weighted Average Score Summary*


There results indicated that there are different preferred rankings for options between VPD IT and COV IT. VPD IT has option five ranked higher and COV IT has option four ranked higher. Options four and five were ranked one and two amongst both key stakeholders.

|  | *VPD IT* | *COV IT* |
|---|---|---|
| Option One | 4 | 3 |
| Option Two | 5 | 5 |
| Option Three | 3 | 4 |
| Option Four | 2 | 1 |
| Option Five | 1 | 2 |


*Table 4.23 Key Stakeholder Option Ranking*


If a sensitivity analysis is performed, with either weights or evaluation of the heavily weighted criterion the rank order for options can change. Changes in weights could be the result of changes in the desirability of a criterion (e.g. a budget crisis resulting in cost being more important) or differences in who is interviewed to determine weightings. Changes in evaluation can be the result of differing implementations resulting in slightly better or worse result or in perception of how the potential state would exist.

# 5: Recommendations

Based on the literature, analysis and observations in the transition, several recommendations have been made. These recommendations are outlined below.

## 5.1 Evaluation Recommendation

The selection of implementing a centralized service with the COV with an SLA is consistent with the nature of the service, scale and stakeholder analysis. This selection was only marginally out ranked from a VPD IT perspective by also including a person that specializes in VPD applications and can move to address any shortcoming in VPD application knowledge over time.

The current inability for the centralized service to meet its agreed upon service levels is as much related to inexperience in defining effective metrics (e.g. a tier one resolution rate that does not consider a high number of service requests as opposed to trouble ticket incidents) as it is a failure to adequately train and staff the centralized service offering.

VPD would be best served to continue working with the COV to increase training and capacity of COV Help Centre to be able to reach SLA levels; in this process a redefinition of some of these metrics is advisable.

## 5.2 Future Implementation Recommendations

VPD entered the change in service offering without a full analysis of the options and attempted to implement the change as a "side of desk" project. This lack of analysis or dedicated resources resulted in the project being significantly delayed. Due to the growth of technology usage over that time it is also partially responsible for the lack of capacity within the COV Help Centre.

To better enable and future service restructuring initiative, it is recommended.

### 5.2.1    Perform Analysis in Advance

A model within this applied project was proposed to assist VPD in structuring its analysis of shared service opportunities.  It is a flexible model that can accommodate most opportunities that may be presented.  While its use would be encouraged, it is more important that an thorough analysis be done in advance to act as a communication tool and ensure that the initiative is appropriate.

### 5.2.2    Ensure Management Support and Visibility

Management supported the transition to a centralized service desk but this transition still took over five years from the time it was initially proposed to when it was implemented.  This occurred as a result of not only several issues along the way but also as it was allowed to fall below management radar.  To avoid this occurring in the future, it is recommended that regular reports be provided to management on the initiatives status.

### 5.2.3    Have a Dedicated Project Team

VPD and COV completed this initiative with a project manager that was only assigned part time and no dedicated resources.  The significant delays that resulted could have been avoided if dedicated resources were allocated and not continually drawn away by other priorities.  Having a dedicated project team would also serve to enhance visibility.

## 5.3   Conclusion

VPD and COV managed to implement the restructuring of tier one support service into a model that is consistent with the nature of the service, is at an appropriate scale and is consistent with key stakeholder.  While there were implementation issues and continues to be a need to refine the service offering, interests of both key stakeholders are best served in continuing to pursue this structure.

VPD and COV can learn from this implementation to ensure that future service restructurings are completed in a more timely fashion.  These three recommendations include: performing an thorough analysis in advance, ensuring management support and visibility including regular reporting and having a dedicated project team.

# Bibliography

## Works Cited

"stakeholder noun"  The Canadian Oxford Dictionary. Katherine Barber. Oxford University Press 2004. Oxford Reference Online. Oxford University Press.  Simon Fraser University.  20 December2010  http://www.oxfordreference.com/views/ENTRY.html?subview=Main&entry=t150.e66785

Bergeron, Bryan (2003) "ESSENTIALS of Shared Services", New Jersey: John Wiley & Sons, Inc

Huber, George P. (1974) "Multi-Attribute Utility Models: A Review of Field and Field-Like Studies" Management Science Vol. 20, No 10 (Jun., 1974) pp.1393-1402

McDonalds, Robert A.J. (1986) "Working Glass Vancouver, 1886-1919: Urbanism and Glass in British Columbia" BC Studies #69/70 (Spring/Summer 1986); pp.33-69

Orlander, Stefan; Landing, Anne (2005) "Evaluation of stakeholder influence in the implementation of construction projects" International Journal of Project Management (2005); pp321-328

Persson, Urban; Orlander, Stefan (2004) "Methods to Estimate Stakeholder Views of Sustainability for Construction Projects" The 21st Conference on Passive and Lowe Energy Architecture. Eindhoven, The Netherlands, 19-22 September 2004

Quinn, Barbara; Cooke, Robert; Kris, Andrew (2000), Shared Services Mining for Corporate Gold, London: Pearson Education Limited

Schulman, Donniel S.; Harmer, Martin J.; Dunleavy, John R.; Lusk, James S. (1999) Shared Services Adding Value to the Business Units, New York: John Wiley and Sons, Inc

Van Bon, Jan; Verheijen, Tieneke (2006), Frameworks for IT Management, Van Haren Publishing, ISBN 9789077212905

Vancouver Police Department (2007). "VPD 2008-2012 Strategic Plan"

## Interviews

Kathy Wunder, Director, IT, VPD

## Statutory Laws

Police Act of British Columbia, 1996

## Works Consulted

Blair, J. D., J. Stanley, et al. (1992). "A Stakeholder Management Perspective on Military Health Care." Armed Forces & Society 18(4): 548-575.

Greene, J. G. (1988). "Stakeholder Participation and Utilization in Program Evaluation." Evaluation Review 12(2): 91-116.

Mitchell, R., B. R. Agle, et al. (1997). "Toward a Theory of Stakeholder Identification and Salience: Defining the Principle of Who and What Really Counts." Academy of Management Review 22(4): 853-856.

Office of Government Commerce (2001). Service Delivery. IT Infrastructure Library. The Stationery Office. ISBN 0113300174.

Office of Government Commerce (2000). Service Support. The Stationery Office. ISBN 0113300158.

Sinclair, J. and D. Hutchinson (1998). "Multi-stakeholder Decision Making: The Shoal Lake Watershed Case." Canadian Water Resources Journal 23(2): 167-179.

## Websites Reviewed

www.vpd.ca

www.vancouver.ca

www.cpic-cipc.ca