

**M. Monkman Affidavit #1**

**Sworn April 9, 2015**

**IN THE MATTER OF THE INQUIRY**

**between**

**An Applicant**

**and**

**THE MINISTRY OF TECHNOLOGY INNOVATION AND CITIZENS' SERVICES**

**(Public Body)**

**AFFIDAVIT**

I, MARTIN MONKMAN, Provincial Statistician & Director, BC Stats, Ministry of Technology, Innovation, and Citizens' Services, 553 Superior Street, Victoria, British Columbia, SWEAR AS FOLLOWS:

1. I have personal knowledge of the matters in this Affidavit, except where they are stated to be based on information and belief, in which case I believe them to be true.
2. I am the Provincial Statistician & Director of BC Stats.
3. I have over two decades of experience in statistical based research in the public and private sector.
4. In my job as Provincial Statistician & Director of BC Stats I am appointed as the director of statistics for the purposes of the *Statistics Act* R.S.B.C. 1996, c. 439, and carry out the duties of the director under the *Statistics Act*. In the role of the Provincial Statistician, I:

- a) Lead a team that collects, analyzes, and distributes statistical information about the socio-economic and general activities and conditions of British Columbia and persons in British Columbia or doing business in British Columbia;
- b) Collaborate with and assist public bodies in collecting, analyzing, and distributing statistical information, including information about those public bodies; and
- c) Coordinate statistical activities between the British Columbia government and the statistical agencies of other governments, including Statistics Canada.

This work includes collecting sensitive and personal information from individuals and businesses that is protected under Section 9 of the *Statistics Act*, as well as sharing certain information with Statistics Canada and other public bodies (including other provinces) in accordance with the strict provisions of Sections 11 and 12 of the *Statistics Act*.

5. BC Stats is the central statistical agency of the Province of British Columbia. The objectives of BC Stats are to:

- Produce and interpret statistical information relating to all facets of life in British Columbia, including the demographic, social and economic conditions of the province and its population;
- Serve the needs of a variety of clients in the public and private sectors, for timely and reliable statistical information and analytical services;
- Assist British Columbia provincial government ministries and agencies with their statistical activities, (e.g., collecting, compiling, analysing and distributing statistical information) and in establishing appropriate technical standards and procedures to avoid duplication in collecting information; and
- Coordinate statistical matters between the British Columbia Government and statistical agencies of other governments within Canada.

6. I am advised by Hayley Hill, barrister and solicitor with the Ministry of Justice, and do believe to be true, that the records at issue in this inquiry are records responsive to the Applicants request for:

Message tracking log files (files beginning with MSGTRK in %ExchangeInstallPath%TransportRoles\Logs\MessageTracking) from e7hub01.idir.bcgov, e7hub02.idir.bcgov, e7hub03.idir.bcgov, e7hub04.idir.bcgov, e7hub05.idir.bcgov, e7hub06.idir.bcgov, e7hub07.idir.bcgov, e7hub08.idir.bcgov, e7hub09.idir.bcgov for the time period of January 1, 2013 to July 3, 2013.

I am advised by Ms. Hill, and do believe to be true, that these records are currently withheld in their entirety under section 22 and the Ministry of Technology, Innovation and Citizens' Services takes the position in this inquiry that it cannot reasonably be severed under s. 4(2) of the *Freedom of Information and Protection of Privacy Act*.

7. I have been advised by Dan Ehle, Executive Director, Service Management Branch of the Office of the Chief Information Officer (OCIO), and do believe to be true that the records at issue in this inquiry contain an estimated 377,200,000 lines of text, each of which contain date and time of the message, event id, sender address and recipient address.
8. I have reviewed an excerpt of the records provided to me by Dan Ehle, Executive Director, Service Management Branch of the OCIO.
9. Using the email data provided to me by Dan Ehle, Executive Director, Service Management Branch of the OCIO, I created a sample network diagram. This sample network diagram is attached as *in camera* Exhibit "A" to this my affidavit.
10. The data I used to create the network diagram contained a total of 187,076 records, representing an equivalent number of emails travelling through the government system over a 24 hour period from 5:00:01 pm on October 6, 2013 to 4:59:59 pm on October 7, 2013.
11. The data I used contained the following four fields:

- EvtDateTime
  - event-id
  - recipient –address
  - sender - address
12. In the data I used to create the network diagram, a unique ID code was shown instead of the email address of recipients and senders outside the government exchange; the same ID is used for all correspondence to and from this address. As well, in many cases, the “recipient-address” field contains multiple recipient addresses.
  13. Before being able to work with the data I took two steps to clean the data.
  14. My first step in cleaning the data was to deal with emails including multiple recipients. In doing so, a unique identifying key number was assigned to each record. Those records with multiple recipients were parsed into multiple records, each with the same unique identifying key number (thus not losing the information about emails with multiple recipients).
  15. The second step in cleaning the data was to filter and perform further data cleaning. In doing so, those records sent and received by myself were selected. As well, the emails sent and received by the individuals I sent to and received from (i.e. two degrees of separation) were selected. By filtering in this way, I could understand the nature and implications of the output.
  16. I then truncated the full email address to show only the first name of the sender and recipient and I converted the unique ID code of external email addresses to a simple format, in order to ensure that the final graphic output was legible.
  17. After completing the two steps in cleaning the data, the file contained a total of 85 records, which I then saved with only the two columns representing the sender and receiver names.
  18. In working with the data, I produced a network graph using the open source statistical software **R**. Within the **R** environment, the package **igraph** was loaded, as this is necessary to produce the graph.

19. The **R** code to generate the graph was modified from an example in the book *R Graphics Cookbook* by Winston Chang (O'Reilly, 2012, pp.274-280).
20. A minimal amount of effort was required to convert the source data into a structure necessary to generate the graph. It took approximately 1 hour of time to research how to generate the graph and a further hour of working with the data to generate the graph.
21. The code necessary to produce the graph is short (20 lines of code, including comments) and available in Chang (2012) and online.
22. In my opinion, the network diagram is an effective means of displaying the social network of my workplace.
23. Given that employees can and do use their government email for personal use on occasion, I believe that disclosure of the data set would disclose personal information about these employees. It may also disclose other sensitive information.
24. Upon my review of the information in the message tracking logs and the network map, it is my opinion that the information contained in these logs can be used to create a map of interactions between individuals whose email addresses are contained in the message tracking logs. Such a map can show who an individual is interacting with and could also include the frequency of their interactions and date and times of their interactions to indicate relationships and patterns of communication.
25. From my review of the diagram, reporting structures are evident. In addition, relationships with individuals outside the BC public service become evident. These may be business relationships or personal correspondence.
26. In my opinion, the graph also begins to hint at the sensitive information that might be revealed in this data set. In the lower centre, an individual has sent an email to "Fitness Centre". There may be other accounts in government of a much more sensitive nature. Examples that are included in the data are, but are not limited to:

