CARL DATA SOLUTIONS INC.

MANAGEMENT'S DISCUSSION & ANALYSIS
FOR THE THREE AND SIX MONTHS ENDED DECEMBER 31, 2017

General

This Management's Discussion and Analysis ("**MD&A**") of CARL Data Solutions Inc. (formerly Carl Capital Corp.) ("**CARL**," or the "**Company**") is dated February 27, 2018 and provides a review of the Company's financial results, from the viewpoint of the management, for the three and six months ended December 31, 2017 ("F2018-Q2") compared to the three and six months ended December 31, 2016 ("F2017-Q2").

The following information should be read in conjunction with the Company's December 31, 2017 unaudited condensed interim consolidated financial statements with accompanying notes ("F2018-Q2 Interim F/S") which have been prepared in accordance with IAS 34 *Interim Financial Reporting*, and the Company's audited consolidated financial statements with accompanying notes and related MD&A for the fiscal year ended June 30, 2017 ("F2017"), which were prepared in accordance with International Financial Reporting Standards ("IFRS"). The F2017-Q2 Interim F/S follows the same accounting policies and methods of computation as compared with the most recent fiscal year-end financial statements.

All dollar figures are expressed in Canadian dollars unless otherwise stated. These documents and additional information on the Company are available on the SEDAR website at www.sedar.com.

This MD&A has been prepared as of February 27, 2018.

Cautionary Statement Regarding Forward-Looking Statements

Certain statements contained in this document constitute "forward-looking statements". When used in this document, the words "may", "would", "could", "will", "intend", "plan", "propose", "anticipate" and "believe", are intended to identify forward-looking statements. Such statements reflect the Company's "forecast", "estimate", "expectation" and similar expressions as they relate to the Company's current views with respect to future events and are subject to certain risks, uncertainties and assumptions.

The forward-looking statements contained in this MD&A are made as of the date hereof and represent the Company's views as of the date of this document. While the Company believes that the expectations reflected in the forward-looking statements and information contained herein are reasonable, no assurance can be given that these expectations, or the assumptions underlying these expectations, will prove to be correct. The Company acknowledges that subsequent events and developments may cause the views expressed herein to change, however, the Company has no intention and undertakes no obligation to update, revise or correct such forward-looking information, whether as a result of new information, future events or otherwise, except as required by applicable securities law. Therefore, there can be no assurance that forward-looking information contained herein will prove to be accurate as actual results and future events could differ materially from those expected or estimated in such statements. Accordingly, readers should not place undue reliance on forward-looking information.

Description of Business

CARL Data Solutions Inc. (formerly Carl Capital Corp.) was incorporated under the Business Corporations Act (British Columbia) on January 17, 2014. CARL together with its wholly owned subsidiaries, Extend to Social Media Inc. ("**ETS**") and FlowWorks Inc. ("**FlowWorks**"). CARL is a developer of Big-Data-as-a-Service ("**BDaaS**")-based solutions, providing the next generation data collection, storage and analytic solutions for data-centric companies.

CARL is a public company that is listed on the Canadian Securities Exchange ("**CSE**") (under the symbol: CRL). The head office and principal address of the Company is located at Suite 488 – 1090 West Georgia Street, Vancouver, British Columbia, V6E 3V7.

ETS was incorporated in the province of British Columbia on January 30, 2013, and its principal business is the collection of marketing data in the social network marketing industry. ETS has created a software technology that enables companies to reward existing customers for promoting or referring products and services to their social and business networks. CARL acquired all of the outstanding share capital of ETS on May 30, 2014.

FlowWorks, incorporated in Washington State, USA on May 5, 2010, is a company that specializes in providing clients with a suite of web-based water management software applications to analyze data through a variety of collection, analysis, and reporting tools. CARL acquired all of the outstanding share capital of FlowWorks on October 13, 2015.

CARL is improving the scalability and functionality of the acquired companies and building a universal platform for other data-centric applications to dramatically improve overall efficiency and end product offering for its customers. CARL is creating a virtually unlimited data storage environment from which informative visual representations of data can be created. The goal of the Company is to deliver a comprehensive data management solution for datasets of any size, type and complexity. CARL's Enterprise Application Platform has been designed to have the unique capacity to collect and store enormous data sets, and organize and display this information in an intuitive cloud based user interface. CARL offers storage for both structured and unstructured data sets from almost any data source (e.g. CRM, Accounting, Marketing, POS, Log Files, Web Services etc.).

Going Concern

This MD&A and the unaudited condensed interim consolidated financial statements have been prepared on the basis that the Company will remain a going concern which contemplates the realization of assets and the satisfaction of liabilities in the normal course of business for the Company's next fiscal year. The Company's ability to continue as a going concern is dependent upon its ability to generate future profitable operations and/or to obtain the necessary financing to meet its obligations and repay its liabilities arising from normal business operations when they come due.

The Company has not achieved profitable operations. During the six months ended December 31, 2017, the Company incurred a loss of $3,456,465, and as at December 31, 2017, the Company had a deficit of $12,427,546. The Company had working capital deficit of $1,193,977 as at December 31, 2017, and the Company expects to incur further operating losses for the foreseeable future in the development of its business and expects that it will require additional financing. The Company's ability to continue as a going concern is dependent upon its ability to find, acquire and develop various businesses with growth potential, and its ability to obtain the necessary financing to carry out this strategy and to meet its corporate overhead needs and discharge its liabilities as they come due. Although the Company has been successful in the past in obtaining financing, there is no assurance that it will be able to obtain adequate financing in the future or that such financing will be on terms advantageous to the Company. Therefore, this indicates a material uncertainty that may cast significant doubt about the Company's ability to continue as a going concern.

As a result of the above, realization values may be substantially different from the carrying values shown and the condensed interim consolidated financial statements do not give effect to adjustments that would be necessary to the carrying values and classification of assets and liabilities should the Company be unable to continue as a going concern.

Selected Financial Information

The following sets out selected consolidated financial information of the Company for this period indicated, which has been derived from the Company's condensed interim consolidated financial statements. Users of this information should read the following in conjunction with those statements and the previously filed annual statements.

(Unaudited) *(Expressed in Canadian dollars)*	**Three months ended** December 31, 2017	**Three months ended** December 31, 2016	**Six months ended** December 31, 2017	**Six months ended** December 31, 2016
Revenue	$ 250,076	$ 285,603	$ 612,605	$ 571,632
Expenses	2,418,821	1,195,295	3,658,068	2,547,740
Operating loss	(2,168,745)	(909,692)	(3,045,463)	(1,976,108)
Loss for the period	(2,173,793)	(1,410,672)	(3,446,457)	(2,492,858)
Loss per share – Basic and Diluted	($0.04)	($0.04)	($0.08)	($0.07)

Recent Events & Overall Performance

Completed Private Placements

a) On January 18, 2018, the Company issued 99,267 common shares at a price of $0.27 per share for a total value of $26,802 to settle debt of $30,723;

b) On January 5, 2018, the Company completed a rights offering by issuing an aggregate of 11,042,331 units (each, a "Unit") of the Company at a subscription price of $0.26 per Unit, raising aggregate proceeds of $2,871,006. Each Unit consisted of one common share and one listed transferable common share purchase warrant with each warrant being exercisable for a two-year period from the date of issuance of the Units at a price of $0.35 per Share, if exercised prior to July 5, 2018, and at a price of $0.40 per Share thereafter.

   In connection with the offering, the Company paid a corporate finance fee of $40,000, a cash commission of $287,100, other share issuance costs of $74,133 and granted 2,085,002 finder's options to acquire additional Units at a price of $0.26 for a period of two years;

c) On December 12, 2017, the Company issued 44,444 common shares in settlement of the dissenting shareholder liability (note 5) at a deemed price of $0.415 per common share. Included in the statement of comprehensive loss is a loss of $3,333 related to the difference between market value of the shares on settlement and the value accrued at June 30, 2017.

d) On November 30, 2017, the Company issued 400,000 common shares on the acquisition of assets of AB Embedded Systems Ltd. (note 6) valued at $194,000.

e) On November 27, 2017, The Company completed a non-brokered private placement by issuing 6,486,921 common share units (each, a "Unit") at a price of $0.26 per unit for gross proceeds of $1,686,599. Each Unit was comprised of one common share and one common share purchase warrant, each warrant being exercisable at a price of $0.40 per share for a period of two years from issuance and are subject to accelerated expiration in the event that shares trade at a price greater than $0.75 per share for ten consecutive trading days.

   In connection with the offering, the Company paid a cash commission of $208 and issued 1,000 non-transferrable unit finder's warrants exercisable at $0.40 for a period of two years.

f) On November 2, 2017, the Company issued 272,727 common shares through the exercise of stock options for gross proceeds of $30,000.

g) On October 25, 2017, the Company settled debts with three related party debtholders in the aggregate amount of $79,500 by issuing 305,768 Units at price of $0.26 per Unit.

h) On October 25, 2017, The Company completed the second and final tranche of a non-brokered private placement by issuing 1,618,824 common share units (each, a "Unit") at a price of $0.26 per unit for gross proceeds of $420,894. Each Unit was comprised of one common share and one common share purchase warrant, each warrant being exercisable at a price of $0.40 per share for a period of two years from issuance and are subject to accelerated expiration in the event that shares trade at a price greater than $0.75 per share for ten consecutive trading days.

   In connection with the offering, the Company paid a cash commission of $11,846 and issued 45,560 non-transferrable unit finder's warrants. Each finder's warrant entitles the holder to purchase one finder's unit at a price of $0.33 per finder's unit for a two-year period from the closing date. Each finder's unit contains one common share and one common share purchase warrant, exercisable at $0.40 for a period of two years from the closing date.

i) On September 5, 2017, the Company issued 1,119,316 Units to settle future royalty payments on its convertible note (note 11) of $291,022. Included in the statement of comprehensive loss is a loss of $39,176 related to the difference between market value of the shares on settlement and the value of the debt settled.

j) On September 5, 2017, the Company issued 2,611,714 Units in settlement of loans from unrelated parties (note 12) at a deemed price of $0.26 per common share. Included in the statement of comprehensive loss is a loss of $91,409 related to the difference between market value of the shares on settlement and the value of the debt settled.

k) On September 5, the Company completed the first tranche of a non-brokered private placement by issuing 2,055,000 common share units (each, a "Unit") at a price of $0.26 per unit for gross proceeds of $534,300. Each Unit was comprised of one common share and one common share purchase warrant, each warrant being exercisable at a price of $0.40 per share for a period of two years from issuance and are subject to accelerated expiration in the event that shares trade at a price greater than $0.75 per share for ten consecutive trading days.

   In connection with the offering, the Company paid a cash commission of $42,744 and issued 164,400 non-transferrable unit finder's warrants, valued at $21,169. Each finder's warrant entitles the holder to purchase one finder's unit at a price of $0.33 per finder's unit for a two-year period from the closing date. Each finder's unit contains one common share and one common share purchase warrant, exercisable at $0.40 for a period of two years from the closing date. The Company incurred additional share issuance costs of $25,600 in connection with the closing.

l) On July 4, 2017, the Company issued 888,888 common shares in settlement of the dissenting shareholder liability (note 5) at a deemed price of $0.31 per common share. Included in the statement of comprehensive loss is a gain of $26,667 related to the difference between market value of the shares on settlement and the value accrued at June 30, 2017.

Acquisition of FlowWorks Inc.

On October 13, 2015, CARL completed its 100% acquisition of FlowWorks Inc. ("FlowWorks"), by issuing 7,629,397 common shares of the Company to two shareholders of FlowWorks. One shareholder of FlowWorks, holding approximately 11% of FlowWorks, has dissented to the transaction. The Company agreed to assume any obligation in connection with payment of fair value for such dissenting shares and all expenses in connection with the dissenter's rights.

FlowWorks is the owner of a Software-as-a-Service web-based online application that provides its clients with advanced tools to analyze environmental data. The application is a powerful platform of data collection, monitoring, analysis and reporting tools. The application is currently focused on water management. The business model of FlowWorks is consistent with the business model and strategy of CARL. FlowWorks demonstrates traits which align with the CARL's values and direction. Further, the software application developed by FlowWorks has potential for additional applications.

The purchase price allocation for FlowWorks is detailed in note 5 of the accompanying unaudited interim condensed consolidated financial statements for the three and six months ended December 31, 2017.

During the six months ended December 31, 2017, FlowWorks continued to operate as the Company's primary revenue source and has realized total revenues of $564,305.

Acquisition of AB Embedded Assets

On November 30, 2017, the Company completed the acquisition of substantially all of the assets of AB Embedded Systems Ltd. ("AB Embedded"), an unrelated third party. The acquired combination of hardware designs, development tools and source code provide the Company with the opportunity to provide custom control systems developed in-house, offering synergies with the Company's existing BDaaS solutions.

In exchange for AB Embedded's assets, the Company issued 400,000 common shares valued at $194,000. Concurrent with the acquisition, the Company entered into an independent contractor agreement with AB Embedded Systems Ltd., whereby AB Embedded will provide services to the Company for an indefinite term. The Company will issue an additional 400,000 common shares one year from closing, provided neither party has terminated the independent contractor agreement.

The purchase price allocation for the assets is detailed in note 6 of the accompanying unaudited interim condensed consolidated financial statements for the three and six months ended December 31, 2017.

Cryptocurrency Service Agreement

On January 15, 2018, the Company entered into a service agreement with Connected Fintech Inc. ("Connected") whereby Connected will build and maintain a cryptocurrency mining facility on behalf of the Company. In exchange for the build-out services of the facility, the Company will pay Connected as follows:

- pay $250,000 (paid) and issue 500,000 common shares (not issued), due at the date of signing;
- issue 500,000 common shares upon the completion of development;
- issue 500,000 common shares six months from completion of development; and
- issue 500,000 common shares twelve months from completion of development.

The Company will pay a monthly retainer of $4,000 for maintenance services and an amount equal to 15% of net revenues generated from the Company's cryptocurrency mining activities. The Company intends on mining the primary cryptocurrencies including: Bitcoin, Bitcoin Cash, Ethereum and Dash. This mining facility will include both GPU (Ethereum) and the most current ASIC machines to provide versatility allowing several dozen different coins to be mined.

Convertible Debenture Financing

During the year ended June 30, 2016, the Company completed a senior secured collateralized convertible note ("Note") financing of up to $2,000,000 to be received in tranches. All tranches of the Note bear interest of 10% (12% if in default) per annum, calculated and payable monthly, in advance. Each tranche matures within two years of issuance.

On June 30, 2016, the Company issued an initial tranche of $500,000 incurring total transaction costs of $432,075. The principal, at the option of the holder, will be convertible into common shares of the Company at a conversion price of $0.45 per common share, subject to adjustment as per the agreement.

The Company paid a non-refundable commitment fee, included in total transaction costs, of $50,000 and 375,000 shares. Total commitment fees of $237,500, applicable to the full facility, were initially incurred and deferred. These fees are recognized as part of the initial carrying values of each tranche of debt issued based on the relative percentage of each tranche face value to the total facility value of $2,000,000. At June 30, 2017 $131,813 (2016 – $178,125) was recorded in prepaid expenses. The Company shall issue 800,000 bonus shares on the closing date and on the date of conversion. 400,000 of these bonus shares were issued on the closing date and included in total transaction costs.

In the event the Company does not issue Notes in accordance with the terms of the agreement, the Company is subject to a break fee of $100,000. At any time after issuance, the holder has the right to convert the principal amount of the Note at the above conversion price.

During the year ended June 30, 2017, the Company entered into an amendment allowing the conversion at the price of $0.34 per share and of the initial $500,000 tranche, $405,000 was converted through the issuance of 1,191,176 common shares. The Company recognized $458,012 to the statement of loss and comprehensive loss as a result of the conversion. In connection with the conversion, the Company was required to issue 400,000 common shares to the holder with a fair value of $156,000 to settle amounts payable of $136,000. The 400,000 common shares issued represent the balance of the bonus shares not issued during fiscal 2016.

During the year ended June 30, 2017 total finance expenses of $759,349 were charged to profit or loss (2016 - $109,456). The finance fees are comprised of bonus shares $136,000; administration fees $88,750; finance fees $31,742 and guarantee fees of $502,857. The fees for 2016 comprise primarily of due diligence fees.

During the year ended June 30, 2017, the Company initiated issuances of the Company's convertible notes and received $390,000 in proceeds, of which $87,189 was recognized to equity upon receipt.

During the period ended December 31, 2017, all future royalties, valued at $291,022, were settled by issuance of 1,119,316 common shares.

Short-Term Loans

During the period ended December 31, 2017, the Company was advanced $609,140 in non-interest bearing, unsecured loans from unrelated parties and repaid a total of $42,000 in existing loans by cash. The Company issued 2,611,714 common shares at a deemed price of $0.26 to settle $679,047.

As of December 31, 2017, the Company had loans payable balance of $357,268, inclusive of interest accrued of $20,268.

Granting of Stock options

On January 22, 2015, the Company adopted an incentive stock option plan. Under the terms of this plan, the total number of share purchase options to be granted and outstanding may not exceed 10% of the total issued and outstanding common shares of the Company at the date of grant. Options may be granted with an exercise price equal to the market price of the common shares less any permitted discount on the grant date, vest according to privileges set at the time the options, have a minimum price of $0.10 and are granted and expire no later than five years from the date of grant.

The Company did not grant any stock options during the period ended December 31, 2017 but recognized an expense of $81,842 relating to stock options previously granted that vested during the period.

Summary of Quarterly Results

Key financial information (unaudited) for each quarter of the 2017 fiscal year as well as the quarters spanning the two most recently preceding fiscal years is summarized as follows, reported in Canadian dollars:

	F2016-Q3 Mar 31 2016	F2016-Q4 Jun 30 2016	F2017-Q1 Sept 30 2016	F2017-Q2 Dec 31 2016	F2017-Q3 Mar 31 2017	F2017-Q4 Jun 30 2017	F2018-Q1 Sept 30 2017	F2018-Q2 Dec 31 2017
Revenue	$ 227,706	$ 295,353	$ 286,029	$ 285,603	$ 239,397	$ 379,370	$ 362,529	$ 250,076
Expenses	$ 978,775	$ 2,653,425	$ 1,368,215	$ 1,195,295	$ 1,098,162	$ 453,661	$ 876,718	$ 2,418,821
Net Loss	$ (751,069)	$(2,148,167)	$(1,082,182)	$(1,410,672)	$ (830,689)	$(1,293,221)	$(1,272,664)	$(2,173,793)
Loss per share								
Basic	$ 0.04	$ 0.07	$ 0.03	$ 0.03	$ 0.02	$ 0.03	$ 0.03	$ 0.04
Diluted	$ 0.04	$ 0.07	$ 0.03	$ 0.03	$ 0.02	$ 0.03	$ 0.03	$ 0.04
Assets	$ 3,955,986	$ 1,799,508	$ 2,196,695	$ 2,288,204	$ 1,738,034	$ 1,423,721	$ 1,435,275	$ 1,681,410
Liabilities	$ 1,775,631	$ 1,233,789	$ 1,438,013	$ 1,176,756	$ 1,317,128	$ 1,645,625	$ 1,125,277	$ 1,898,047
Shareholder Equity (Deficiency)	$ 2,180,355	$ 565,719	$ 757,682	$ 1,111,448	$ 420,906	$ (221,904)	$ 309,998	$ (216,637)

The increase in expenses in Q2 2018 as compared to previous quarters primarily relates to significant investor relations activities undertaken by the Company during the period to promote the Company's stock in advance of its rights offering. Overall operating loss in the period ended December 31, 2017, was $2,173,793 of which $1,573,352 was investor relations, $217,296 was consulting fees, and $193,563 was salaries and wages. The comparable period end had a loss of $1,410,672, which was comprised primarily of consulting fees and salaries and wages.

Discussion of Second Quarter Operations

Revenue

For the six-month period ended December 31, 2017, the Company generated $612,605 in revenues (2016 - $571,632 of which $564,305 (2016 - $571,632) related to revenue generated by FlowWorks and $48,300 (2016 - $nil) related to revenue generated by ETS. Revenue from FlowWorks is comprised of service fees from its web-based application used for data analysis in addition to set-up fees and programming costs.

Operating Expenses

Overall, the Company's operating expenses have increased over the prior period primarily as a result of investor relations activities during the period. Excluding the impact of the investor relations activities, the Company noted a small decrease in operating expenditures because of management efforts to optimize working capital and reduce expenditures.

Consulting and professional fees

Consulting and professional fees for the six-month period ended December 31, 2017 were $493,696 (2016 - $885,718) and $135,944 (2016 - $125,144), respectively. In the comparative six-month period, the Company had made some one-time share-based payments resulting in the higher consulting expense. During the three-month period, the Company's consulting fees increased because of new contractors and additional expenditures made to its consulting team in Gdansk, Poland.

Occupancy costs and office expenses

Occupancy costs and office expenses for the six-month period ended December 31, 2017 were $82,009 (2016 - $34,176) and $81,944 (2016 - $95,379), respectively. Occupancy costs have increased because of the lease of a new office with additional space to support future activities. Management has focused on cash conservation and has focused on reducing office costs.

Filing and transfer agent fees and Investor Relations

The Company incurs filing and transfer agent fees pertaining to ongoing public company related regulatory and compliance expenses. For the six-month period ended December 31, 2017, filing fees were $21,229 (2016 – $34,188). The Company initiated investor relations campaigns to ensure that the Company maintains access to public markets for fund raising and so that current shareholders can benefit from an active market for their shares. For the six-month period ended December 31, 2017 incurred expenditures of $1,848,351 (2016 – $249,888) resulting from large-scale short-term investor relations programs undertaken during the program in advance of a subsequently closed shareholder rights offering.

Marketing costs and Travel expenses

Marketing costs and travel expenses for the six-month period ended December 31, 2017 were $21,229 (2016 – $14,731) and $81,749 (2016 - $43,280), respectively. The Company has undertaken efforts to promote FlowWorks and the Company on various web based and other electronic means. Travel has also been necessary in developing new contacts, both as clients for the and as potential future investors. Travel expenditures increased during the December 31, 2017 period resulting from additional travel required by the investor relations and marketing programs during the period.

Salaries & wages

Salaries and wages expense for the six-month period ended December 31, 2017 was $445,847 (2016 - $590,052). The decrease in salaries is primarily related to changes to staffing of FlowWorks as management focused on cost optimization. Salaries and wages include payments to sales, administrative, and development staff employed by the Company and FlowWorks.

Computer costs

Computer costs for the six-month period ended December 31, 2017 was $134,278 (2016 - 25,404). The significant increase was a result of new hosting costs required for the Company's platform. Management is currently identifying solutions for the reduction of the hosting costs.

Specific items

Amortization expense for the six-month period ended December 31, 2017 of $132,364 (2016 - $147,583) relates to the amortization of FlowWorks' software and customer list along with the tangible and intangible assets of AB Embedded Ltd. that were acquired during the period. Financing costs of $292,028 (2016 - $252,575) relate primarily to the issuance of share capital in the settlement of all royalties due on the Company's debt instrument. The foreign exchange loss of $11,319 (2016 – gain of $26,113) relates to the impact of the change in the Canadian / US dollar exchange rate on transactions in FlowWorks.

Operating Activities and Plans

Infrastructure Development

Following the successful acquisition of FlowWorks, three large infrastructure development projects were required to integrate Carl's existing ETS technology with the FlowWorks application:

1. Move the application onto Carl's cloud based platform and off the servers of KWL engineering ("Lift and Shift");
2. Separate the frontend user interface of the application from the backend data management then re-attach a re-designed user interface using a library of web services ("UI Replacement"); and
3. Switch the backend data management system that FlowWorks uses to the ETS NoSQL cloud based storage and analytics platform ("Cloud Resolve").

Each of these important steps are scheduled to be accomplished by the end of fiscal year 2018.

Lift and Shift

The benefits of moving FlowWorks onto Carl's cloud based system included; ease of administration, scalability, reduced reliance on external IT resources and ultimately the first stage of integration with Carl's new and powerful BDaaS platform. This phase of the project was completed in Spring 2017. This was a complex task that involved ensuring each of FlowWorks existing customers made updates to their hardware and software setups. Though there were some unavoidable delays, the work was a success that resulted in a considerable performance gain for users and no significant loss of customers due to the inconvenience associated with the project.

UI Replacement

This project was completed in the summer of 2017. It allows for rapid development of new features and quick changes to User interfaces. The project also allows very large customers who do not require an application to support the data produced by Carl/FlowWorks to access all information through a series of web services. This is particularly important to the new B-B verticals that Carl is pursuing as it provides extensive flexibility in delivering our Analytics and data monitoring services.

Cloud Resolve

Although started in Fiscal 2016, this project is scheduled for completion in during fiscal 2018. Cloud resolve completely integrates the ETS NoSQL storage and analytics platform with Flowworks. The benefits are enormous as this will allow Carl developers to build machine learning features right into the applications that are delivered to client – or – simply receive and transform massive amounts of data through web services with any customer. This Big Data as a Service capability is fundamental to Carl's growth as a company. The technology behind our "cloud resolve" project is cutting edge. There are very few companies who have the skill and capability to provide this service in any sector. As the last major non-revenue producing infrastructure project, completion will allow many of Carl's developers to move to revenue producing customization projects similar to what was released to the City of Los Angeles in Spring 2017.

New Products

FlowWorks Application

Parallel to the large infrastructure projects that Carl has undertaken, the company has also introduced advanced features to attract new customers. Topping this list is the new Inflow and Infiltration feature now available to all customers. This feature allows cities and their engineers to look at the overall performance of their infrastructure to check for limitations and degradation that come with age. As North America's cities become older, this is a very high priority for city engineers when allocating resources, upgrades and repairs. Other new features specific to the Flowworks Application are:

- Enhanced multisite reporting capabilities
- Unassisted client site setup
- Advanced data export capabilities
- The completion of a comprehensive knowledge base for users
- Many user experience updates that allow non-technical people to access the FlowWorks application

Flood Risk Assessment

In keeping with Carl's goal to market its services across new vertical, A Flood Risk Assessment and Risk assessment tool was built for Teck Resources and run in parallel with Teck's traditional risk assessment reporting system during the Spring 2017. This product was built using Carl's BDaaS infrastructure and served up to Teck as an "Application within and Application". The tool allows analysts to look as much as seven days into the future to see if environmental conditions will impact their tailings pond dams. The pilot was a success. Carl now has a customer in the mining sector and is expected to roll out the product in a second version format to five Teck Resource sites in British Columbia. The revenue and expertise gained from this collaboration with Teck is significant and leads the way into other profitable verticals.

Cryptocurrency Mining

Subsequent to December 31, 2017, the Company entered into an agreement for the development of a cryptocurrency mining facility. The Company intends on mining the primary cryptocurrencies including: Bitcoin, Bitcoin Cash, Ethereum and Dash and expects to leverage its existing technologies in the integration of blockchain into the Industrial Internet of Things. The Company intends on applying predictive analytics and machine learning to develop Fintech technology to improve operational efficiencies.

EU Grant

One of the biggest problems that data analysts face is "noise" or "anomalies" within the datasets that they use to create their models. Using the ETS NoSQL data collection and storage platform, Carl has been developing an anomaly detection application for its customers. As reducing noise in datasets can eliminate as much as 90% of the work involved in producing accurate reports and models, an automated anomaly detection tool can dramatically increase overall operational efficiency by significantly reducing labour costs. The tool should also eliminate human error and provide near real time accurate data for reporting, alarming and analysis. Subsequent to the year ended June 30, 2017, the Company was accepted for an EU Development Grant which will provide funding for the project based on its overall importance to the field of data science and the high probability that it can be quickly monetized once complete.

Carl's consulting team in Gdansk, Poland is working to deliver several versions of the product over the next twelve months. Carl expects it will receive approximately 75% of the cost of running the Gdansk office during the development and implementation of the project.

Anomaly detection is common to all areas of data analysis. This feature will accelerate Carl's growth into new verticals. In particular – Oil & Gas and Utilities.

Acquisition Strategy

Fundamental to Carl's growth has been to acquire new technology that is complimentary and can assist in developing new revenue streams. During the years ended June 30, 2016 and 2017, Carl has focused on technology that would allow the company better access to and more control over the data the feeds our applications. As a result, The Company has acquired a significant portion of the assets and Intellectual Property of AB Embedded Systems. This integration of a hardware company that can produce superior data collection devices at a much lower cost than any competitor will be a big competitive advantage for Carl. The Company expects to have our prototypes in the field during Q3 of fiscal 2018.

Another target vertical that is added with this acquisition is solid waste management. By installing Carl's devices on collection bins, where real time data is collected and then fed into our applications, waste management companies can save time, money and provide their customers with a superior service to their competitors. In addition to the hundreds of companies throughout North America, Carl is working with the Harmon Group, A subsidiary of Samsung, to produce a solution in waste management for Bhopal, India. Carl's solution has passed the technical review of the request for proposal process and we are waiting for financial approval.

Other acquisitions are being evaluated based on their ability to provide additional revenue streams and new target verticals for the company.

ETS Software in Development

A total of $83,428 has been expended on third party software programmers in the development of the customer referral software that ETS has created. The remaining $204,172 is a fair market valuation adjustment upon the acquisition of ETS by CARL. The following table shows the composition of the value of the software in development:

	ETS Software in Development	Fair Value on adjustment of acquisition of ETS	Total
Balance- June 30, 2016	83,428	204,172	287,600
Expenditure on software development	-	-	-
Balance – June 30, 2017	83,428	204,172	287,600
Expenditure on software development	-	-	-
Balance – December 31, 2017	$ 83,428	$204,172	$ 287,600

FlowWorks Acquired Software Application

The software application relates to the web-based application acquired with FlowWorks. The application is in use and being amortized over a period of three years.

	Value	Amortization	Cumulative Translation Adjustment	Total
Balance – June 30, 2016	$ 387,634	$ (91,641)	$ (1,934)	294,059
Amortization	-	(132,427)	-	(132,427)
Foreign currency translation	-	-	12,407	12,407
Balance – June 30, 2017	$ 387,634	$ (224,068)	$ 10,473	174,039
Amortization	-	(62,986)	-	(62,986)
Foreign currency translation	-	-	(5,968)	(5,968)
Balance – December 31, 2017	$ 387,634	$ (287,054)	$ 4,505	$ 105,085

Sources and Uses of Cash

Liquidity and Capital Resources

During the six months ended December 31, 2017 the Company's operating activities required $2,634,313 (2016 - $961,980) in cash stemming from an increased investor relations program commencing in November 2017.

The company's cash as at December 31, 2017 was $69,122 and the Company's working capital deficit was $1,193,977.

Financing Activities

During the six months ended December 31, 2017, the Company:

- Received $2,066,996 in net proceeds from non-brokered private placements.

- Received $30,000 in proceeds on the exercise of stock options.

- Received $609,140 in cash from unsecured, non-interest bearing short-term loans. The Company also made payments of $42,000 on existing short-term loans.

Capital Structure

As at the date of this MD&A, the Company has 66,397,698 common shares, 26,900,834 warrants, and 4,877,425 stock options outstanding.

Stock Options

On January 22, 2015, the Company adopted an incentive stock option plan. Under the terms of this plan, the total number of share purchase options to be granted and outstanding may not exceed 10% of the total issued and outstanding common shares of the Company at the date of grant. Options may be granted with an exercise price equal to the market price of the common shares less any permitted discount on the grant date, vest according to privileges set at the time the options, have a minimum price of $0.10 and are granted and expire no later than five years from the date of grant.

Financial Instruments and Risk Management

The Company's objectives of capital management are to create long-term value and economic returns for its shareholders. It does this by seeking to maximize the availability of funds for growth and development of its projects, and to support the working capital required to maintain its ability to continue as a going concern. The Company manages its capital structure and makes adjustments to it in light of changes in economic conditions and the risk characteristics of its assets, seeking to limit shareholder dilution and optimize its cost of capital while maintaining an acceptable level of risk.

To maintain or adjust its capital structure, the Company considers all sources of finance reasonably available to it, including but not limited to issuance of new capital, issuance of new debt and the sale of assets in whole or in part. The Company's overall strategy with respect to management of capital at December 31, 2017 remains fundamentally unchanged from the year ended June 30, 2017.

Market risk

Market risk is the risk that changes in market prices, such as foreign exchange rates, interest rates and equity prices will affect the fair value or future cash flows of a financial instrument. The objective of market risk management is to manage and control market risk exposures within acceptable parameters, while optimizing the return. At December 31, 2017, the Company considered that foreign exchange risk was a significant market risk.

Following the acquisition of FlowWorks, the Company has increased exposure to the United States dollar. FlowWorks has sales in Canada and the United States and incurs expenses in the Canadian and United States dollar. As such, the Company is exposed to foreign currency risk in fluctuations among these currencies. Fluctuations in the exchange rate between the Canadian dollar and United States dollar may have a material effect on the Company's business and financial condition.

Credit risk

Credit risk arises from the non-performance by counterparties of contractual financial obligations. The Company's maximum exposure to credit risk at the reporting date is related to the collection of amounts receivable from customers and Canada Revenue Agency. The Company monitors accounts receivable for aging and changes in customer credit to indicate bad debts. Other credit risk is related to the carrying value of cash, which the Company holds at a major Canadian chartered bank and a US-based bank, in various chequing and savings accounts.

Interest rate risk

Interest rate risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market interest rates. The Company's interest rate risk mainly arises from changes in the interest rates on cash. Cash generates interest based on market interest rates. At December, 21, 2017, the Company was not subject to significant interest rate risk.

Liquidity risk

Liquidity risk is the risk that an entity will encounter difficulty in meeting obligations associated with financial liabilities that are settled by delivering cash or another financial asset. The Company manages liquidity risk by striving to maintain adequate cash balances. If necessary, the Company may raise funds through the issuance of debt, equity or sale of non-core assets. The Company works to meet its obligations by continuously monitoring and reviewing actual and forecasted cash flows, and matching the maturity profile of financial assets to development, capital and operating needs. The Company's accounts payable are due within 30 to 60 days, and the convertible debt becomes due in June 2018. The Company has worked to reduce liquidity risk by leveraging equity instruments.

Off-Balance Sheet Arrangements

The Company has no off-balance sheet arrangements.

Related Party Transactions

The Company has entered into an executive consulting agreement with a company controlled by the President, CEO and director of the Company. Under the terms of the agreement, the Company will pay the company a total of $10,833 per month.

During the period ended December 31, 2017, the Company paid or accrued, to key management personnel and their related companies, total compensation of $168,000 (2016 - $650,567) in consulting fees and expensed $19,236 (2016 - $36,428) in share-based payments to key management personnel and their related companies. Key management personnel includes a company controlled by the CEO of the Company, companies controlled by directors of the Company, and a company related to the CFO of the Company.

During the period ended December 31, 2017, the Company issued 305,768 (2016 – 2,282,282) common shares to related parties to settle debt of $79,500 (2016 – $931,597).

Included in accounts payable and accrued liabilities is $110,576 (June 30, 2017 - $164,901) due to officers and directors.

On June 9, 2014, ETS signed a referral services agreement with RA Revenue Automation Inc. ("RA") whereby RA agreed to use ETS as its exclusive referral marketing application and include the concept in all relevant business development pitches to customers. A company controlled by the Company's CEO owns 10% of RA. Revenue of $48,300 (2016 - $nil) was recorded on the statement of comprehensive loss from RA for the period ended December 31, 2017. As at December 31, 2017, $25,358 (June 30, 2017 - $8,453) was owed from RA.

Kerr Wood Leidal Associates Ltd. ("KWL")

KWL, a consulting engineering company, founded and created FlowWorks and is a significant shareholder of the Company. During the period ended December 31, 2017, the Company earned sales revenue from KWL of $55,800 and incurred expenses from KWL of $6,290. Included in accounts receivable as at December 31, 2017 is a balance owing from KWL of $26,094. The Company owed accounts payable of $nil to KWL as at December 31, 2017.

During the year ended June 30, 2017, the Company paid $nil (2016 - $433,552) to KWL, on behalf of FlowWorks, to pay down balances owing.

Subsequent Events

Subsequent to December 31, 2017, the Company:

a) completed a rights offering by issuing an aggregate of 11,042,331 units (each, a "Unit") of the Company at a subscription price of $0.26 per Unit, raising aggregate proceeds of $2,871,006. Each Unit consisted of one common share and one listed transferable common share purchase warrant with each warrant being exercisable for a two-year period from the date of issuance of the Units at a price of $0.35 per Share, if exercised prior to July 5, 2018, and at a price of $0.40 per Share thereafter.

   In connection with the offering, the Company paid a corporate finance fee of $40,000, a cash commission of $287,100, other share issuance costs of $74,133 and granted 2,085,002 finder's options to acquire additional Units at a price of $0.26 for a period of two years;

b) issued 99,267 common shares at a price of $0.27 per share for a total value of $26,802 to settle debt of $30,723; and

c) entered into a service agreement with Connected Fintech Inc. ("Connected") whereby Connected will build and maintain a cryptocurrency mining facility on behalf of the Company. In exchange for the build-out services of the facility, the Company will pay Connected as follows:

   (i) pay $250,000 (paid) and issue 500,000 common shares (not issued), due at the date of signing;

   (ii) issue 500,000 common shares upon the completion of development;

   (iii) issue 500,000 common shares six months from completion of development; and

   (iv) issue 500,000 common shares twelve months from completion of development.

   The Company will pay a month retainer of $4,000 for maintenance services and an amount equal to 15% of net revenues generated from the Company's cryptocurrency mining activities.

Critical Accounting Estimates

The Company's financial statements are impacted by the accounting policies used and the estimates and assumptions made by management during their preparation. The Company's accounting policies are consistent with those used to prepare the audited consolidated financial statements for the year ended June 30, 2017 except where the Company has adopted new policies. The accounting estimates that the Company considers to be critical are described in Note 4 of the accompanying interim condensed consolidated financial statements for the three and six months ended December 31, 2017. The accounting estimates considered to be significant to the Company include the review of the carrying values of software development assets, acquisition date fair values of identifiable assets and liabilities of FlowWorks and equity transactions. Management reviews the carrying values of its assets on a quarterly basis to determine whether any impairment should be recognized.

Future Changes in Accounting Policies

At the date of authorization of these condensed interim consolidated financial statements, the IASB and IFRIC have issued the following new and revised standards, amendments and interpretations which are not yet effective during the period ended December 31, 2017:

IFRS 9 Financial instruments (revised)

IFRS 9, Financial Instruments is part of the IASB's wider project to replace IAS 39 Financial Instruments: Recognition and Measurement. IFRS 9 retains but simplifies the mixed measurement model and establishes two primary measurement categories for financial assets: amortized cost and fair value. The basis of classification depends on the entity's business model and the contractual cash flow characteristics of the financial asset. The standard is effective for annual periods beginning on or after January 1, 2018. The Company has not yet made an assessment of the impact of the amendments.

IFRS 15 Revenue from Contracts with Customers

IFRS 15 is a new standard to establish principles for reporting the nature, amount, timing, and uncertainty of revenue and cash flows arising from an entity's contracts with customers. It provides a single model in order to depict the transfer of promised goods or services to customers. IFRS 15 supersedes IAS 11, Construction Contracts, IAS 18, Revenue, IFRIC 13, Customer Loyalty Programs, IFRIC 15, Agreements for the Construction of Real Estate, IFRIC 18, Transfers of Assets from Customers, and SIC-31, Revenue – Barter Transactions involving Advertising Service. IFRS 15 is effective for annual periods beginning on or after January 1, 2018. The impact of IFRS 15 on the Company's financial instruments has not yet been determined.

IAS 16 Property, Plant and Equipment and IAS 38 Intangible Assets

IAS 16 and IAS 38 have been amended to (i) clarify that the use of a revenue-based depreciation and amortization method is not appropriate, and (ii) provide a rebuttable presumption that amortization of an intangible asset based on revenue generated by using the asset is inappropriate. The amendments to IAS 16 and IAS 38 are effective for annual periods beginning on or after January 1, 2016. The Company is currently evaluating the impact of adopting these amendments on its financial statements.

There are no other IFRS or IFRIC interpretations that are not yet effective that would be expected to have a material impact on the Company.

Risk Factors

The following are major risk factors management has identified which relate to the Company's business activities. Such risk factors could materially affect the Company's future financial results and could cause events to differ materially from those described in forward-looking statements relating to the Company. Though the following are major risk factors identified by management, they do not comprise a definitive list of all risk factors related to the Company's business and operations. Other specific risk factors are discussed elsewhere in this MD&A.

Stage of Development

The Company's software is in the early prototype stage and the Company does not have an operating history. The process of developing new technology and new markets involves a high degree of risk and the technology could contain defects that lead to costs, damage to reputation or litigation. The amounts attributed to the Company's holdings in its software in development as reflected in its financial statements represent development expenses and fair value adjustments and should not be taken to represent realizable value. There is no assurance that the Company's software development activities will result in commercially profitable operations.

Capitalization and Commercial Viability

The Company will require additional funds to continue operations. The Company has limited financial resources, and there is no assurance that additional funding will be available to the Company to carry out the completion of all proposed activities. There can be no assurance that the Company will be able to obtain adequate financing in the future or that the terms of such financing will be favourable. Failure to obtain such additional financing could result in the curtailment of operations, liquidation of assets, seeking of additional capital on less favourable terms and/or other remedial measures.

History of Operating Losses

The Company has an accumulated deficit since its incorporation through December 31, 2017 of $12,427,546. The deficit may increase in the near term, as the Company continues its product development and establishes sales channels for its new products.

General Economic Conditions

The Company currently operates in Canada and the United States and, like all global businesses, it has been subject to the impact of the current global credit and financial crisis on consumers in its areas of operations and the discretionary spending available to them. General economic conditions have resulted in reduced consumer and government spending and have impacted the Company's profitability. Should these conditions continue to prevail, there will be further pressure on the Company's profitability.

Key Employees

The success of the Company, like all marketing and software companies, is largely dependent on the performance of its key employees and directors. The failure to retain key employees and directors and to attract and retain additional key employees with necessary skills could have a material adverse impact upon the Company's growth and profitability. Competition for highly skilled management, technical and other employees is intense. There can be no assurance that the Company will be successful in attracting and retaining such personnel and the departure of any of the members of the Company's executive team or key directors could have a material adverse effect on the Company's business, results of operations and financial condition.

New Market Risk

The Company is operating in a large market, but is providing a previously unavailable service. The Company faces uncertainty as to the degree of new and continuing market acceptance of its products. The performance of the Company also depends on the performance on agencies that the Company partners with along with their end customers.

Customer Risks

The Company is dependent on proper pricing of products, reporting of successful results of referral campaigns and timely collection of customer accounts. The Company is also dependent on its ability to ensure that their customers operate within the terms of its service agreements.

Intellectual Property Risks

The Company has taken steps to protect its proprietary technology. The Company relies on a combination of trademark, trade secrets, laws and other intellectual property protection methods to protect its proprietary technology. These steps may not completely protect the Company's proprietary technology, nor give it a competitive edge. Others may independently develop substantially equivalent technology or gain access to our trade secrets. If the Company is unable to protect its intellectual property, the business over time could be materially affected. The Company will pursue all avenues available to it, if necessary, to enforce its patents, and to protect its trademarks and other intellectual property rights owned by the Company.

Reliance on Information Systems and Technology

The Company's business relies upon information technology systems to service customers at the point of sale. Its information technology systems may be vulnerable to unauthorized access, computer viruses, system failures, other malicious acts or acts of nature. Should a significant disruption to its information technology to occur, the Company's earnings could be adversely affected through loss of revenue and the costs to rectify the disruption. The Company is in an industry with many competitors that lay claim to intellectual property. The Company may receive notice from a third party asserting the Company has infringed on their intellectual property rights. As a result of such claims the Company's earnings could be adversely affected by costly litigation, product injunctions or consumption of management attention. The Company may also be required to expend significant capital and resources to protect against the threat of security, encryption and authentication technology breaches or to alleviate problems caused by such breaches.

Reliance on Third Party Licenses

The Company relies on certain software that it licenses from third parties, including a software program that is integrated with internally developed software and used in the Company's products to perform key functions. There can be no assurance that these third-party licenses will continue to be available to the Company on commercially reasonable terms. The loss of, or inability to maintain, any of these licenses, could result in delays or reductions in product and service deployment until equivalent software can be developed, identified, licensed and integrated, which could materially adversely affect the Company's business, results of operations and financial condition.

Risk Associated with International Operations

Management of the Company believes that its continued growth and profitability will require expansion of its sales further in the United States and into other foreign markets. This expansion will require significant management attention and financial resources and could adversely affect the Company's operating margins. In order to increase international sales in subsequent periods, the Company may establish additional foreign operations, incur substantial infrastructure costs, hire additional personnel and recruit international resellers. To the extent that the Company is unable to expand international sales in a timely and cost-effective manner, the Company's business, results of operations and financial condition could be materially adversely affected. In addition, even with the possible recruitment of additional personnel and international partners, there can be no assurance that the Company will be successful in maintaining or increasing international market demand for the Company's applications and services. The risk associated with currency fluctuations are comprised mainly of the Company's United States denominated sales, component purchases and other expenses. In the future, it is expected that a portion of revenues may be realized in other foreign currencies as a result of international sales. Fluctuations in the exchange rate between the Canadian dollar and other currencies, particularly the United States dollar, may have a material adverse effect on the Company's results of operations, financial condition and any business prospects. The Company may use hedges to mitigate the risk of foreign currency exposure.

Goodwill

Goodwill is the excess of the cost of an acquired enterprise over the net amount assigned to individual assets acquired and liabilities assumed in a business combination. Goodwill is not amortized and is tested for impairment annually by comparing the fair value of the operating cash flows to the carrying value of the reporting unit.

Expansion

The success of the Company's continued expansion will depend upon many factors, including the ability of the Company to maintain acceptable attrition rates and control of operating costs. There can be no assurance that the Company will be able to grow or achieve its continued expansion. Such risks, if they materialize, could have a material adverse effect on the Company's business, financial condition, liquidity and results of operations.

Available Workforce

The Company's continued success will depend on the performance and continued service of the Company's employees. The Company relies on the ability to attract new software engineers and developers, research and development staff, production personnel and key sales and marketing employees. The Company will continue to develop our employees and search for key new hires, however there is no assurance that the Company will be able to retain existing personnel or attract, hire and retain additional qualified personnel.