

51-102F3
MATERIAL CHANGE REPORT

Item 1 Name and Address of Company

Carl Data Solutions Inc. (the “Company”)
Suite 488 – 1090 West Georgia Street
Vancouver, BC V6E 3V7

Item 2 Date of Material Change

November 30, 2018

Item 3 News Release

The news release dated December 6, 2018 was disseminated through PRNewswire.

Item 4 Summary of Material Change

On November 30, 2018, the Company, in connection with its previously announced asset purchase agreement (the “**Asset Purchase Agreement**”) dated November 30, 2017 with AB Embedded Systems Ltd. (“**AB Embedded**”), issued a total of 400,000 common shares in the capital of the Company (each, a “**Share**”) to AB Embedded at a deemed price of \$0.32 per Share. The issuance marks the second and final issuance of Shares to AB Embedded under the Asset Purchase Agreement.

Item 5 Full Description of Material Change

5.1 Full Description of Material Change

See Item 4 above and the attached news release for a full description of the material change.

5.2 Disclosure for Restructuring Transactions

N/A

Item 6 Reliance on subsection 7.1(2) or (3) of National Instrument 51-102

N/A

Item 7 Omitted Information

None

Item 8 Executive Officer

Greg Johnston, President and Chief Executive Officer, 604.209.0034

Item 9 Date of Report

November 30, 2018



CSE: CRL
FSE: 7C5
OTC:CDTAF

CARL DATA ANNOUNCES ASTRA SMART SYSTEMS AND AB EMBEDDED INTEGRATION COMPLETE

December 06, 2018 - Vancouver, British Columbia - Carl Data Solutions Inc. (CSE:CRL, FSE:7C5, OTC:CDTAF) (“**Carl Data**” or the “**Company**”), is pleased to announce that the assets of AB Embedded Systems Ltd. (“**AB Embedded**”), are fully integrated with Astra Smart Systems Inc. (“**Astra**”) operations. With the combined talent pool, access to manufacturing capabilities, and machine learning/AI laboratory, several projects are now racing towards completion. Products such as a low-cost, IoT devices for smart city infrastructure, and Astra AirSafe, a real-time environmental sensor used for air quality and hazard detection, will be available in the new year.

“Not only are we currently seeing the benefits from our Astra acquisition, we are also well positioned to keep growing steadily throughout this year to reach our financial targets,” said Greg Johnston, Carl Data CEO and President. “We have nearly a dozen hardware and software pilots running with smart city and industrial partners that will be transitioning to full deployments early in the new year.”

The hardware and firmware assets of AB Embedded are now fully integrated with Astra’s sensor development team and facilities, which will allow for the combined expertise necessary for the continued creation of low-cost, low-power devices needed to disrupt the environmental monitoring industry.

“The hardware and firmware assets from AB Embedded, combined with Astra’s sensor expertise, manufacturing capacity and unique AI development laboratory means big steps forward for our product lines,” said Pilar Portela, Astra CEO. “We are very excited to bring affordable, easily integrated industrial IoT devices to market in the near future.”

Further to its asset purchase agreement (the “**Asset Purchase Agreement**”) dated November 30, 2017 with AB Embedded, the Company has issued 400,000 common shares of the Company (each, a “**Share**”) to AB Embedded (the “**Issuance**”) at a deemed price of \$0.32 per Share. The Issuance marks the second and final issuance of its Shares to AB Embedded as consideration for certain intellectual property assets, tangible assets, and intangible assets purchased by the Company pursuant to the Asset Purchase Agreement. In total, the Company has issued an aggregate of 800,000 Shares to AB Embedded in connection with the transaction.

About Astra Smart Systems Inc.

Astra is located at the i4C Innovation building, an Industrial IoT lab, production and development facility located in Trail, B.C., Canada. Astra's mandate is to develop E2E solutions for complex industrial challenges.

Astra's facility is at the centre of the Kootenay regions industrial fibre optic hub and sits along the newly established Metal Tech Alley. This corridor of high-technology ventures focused on industrial innovation, right across from the regional Trail Airport (YZZ) and with railway access to the US border at only seven kms away. Astra offers custom-designed infrastructure, equipment, and professional services for IIoT applications. More information can be found at <http://astra.earth>.

About Carl Data Solutions Inc.

Carl Data Solutions Inc. is an Industrial IoT (IIoT) company focused on providing next generation information collection, storage and analytics solutions for data-centric companies. Building on its recent acquisitions, Carl Data helps its clients analyze and understand all forms of environmental data through a powerful platform of data collection, monitoring, reporting, and predictive analysis tools.

Carl Data continues to develop applications to work with new cloud-based mass storage services and analytics tools (BDaaS) to provide scalability for municipalities, utilities and other industrial verticals. These data collection and storage methods allow the company to build smart Software-as-a-Service (SaaS)-based applications that can collect data from many diverse sources and provide deep insight for decision-making purposes. More information can be found at www.CarlSolutions.com.

On behalf of the Board of Directors:

Greg Johnston
President, Chief Executive Officer, Director
Carl Data Solutions Inc.

For further information please contact:

Kimberly Bruce
Corporate Communications
Carl Data Solutions Inc.
Telephone: (778) 379-0275
Email: kimberly@carlsolutions.com

The Canadian Securities Exchange (operated by CNSX Markets Inc.) has neither approved nor disapproved of the contents of this press release.

Forward-Looking Statements

This press release contains certain forward-looking statements within the meaning of applicable securities law. Forward-looking statements are frequently characterized by words such as "plan",

“expect”, “project”, “intend”, “believe”, “anticipate”, “estimate” and other similar words, or statements that certain events or conditions “may” or “will” occur. In particular, forward-looking statements in this press release include, but are not limited to, the statements that the Company is well positioned to keep growing steadily throughout this year and reach its financial targets; that the Company has nearly a dozen hardware and software pilots running with smart city and industrial partners that will be transitioning to full deployments early in the new year; that the hardware and firmware assets of AB Embedded, fully integrated with Astra’s sensor development team and facilities will allow for the combined expertise necessary for the continued creation of low-cost, low-power devices needed to disrupt the environmental monitoring industry; and that the Company and Astra are very excited to bring affordable, easily integrated industrial IoT devices to market in the near future.

Although the Company believes that the expectations reflected in the forward-looking statements are reasonable, there can be no assurance that such expectations will prove to be correct. Such forward-looking statements are subject to risks and uncertainties that may cause actual results, performance or developments to differ materially from those contained in the statements including, without limitation, risks with respect to: that the Company may lose the confidence of municipal partners in its services; the ability of the Company to establish a market for its services; competitive conditions in the industry; general economic conditions in Canada and globally; the inability to secure additional financing; competition for, among other things, capital and skilled personnel; potential delays or changes in plans with respect to deployment of services or capital expenditures; possibility that government policies or laws may change; technological change; risks related to the Company’s competition; the Company’s not adequately protecting its intellectual property; interruption or failure of information technology systems; and regulatory risks relating to the Company’s business, financings and strategic acquisitions. Any forward-looking statements contained in this press release are made as of the date of this press release. The Company disclaims any intent or obligation to update publicly any forward-looking information, whether as a result of new information, future events or results or otherwise, other than as required by applicable securities laws.