



IBM technology underpins project to make British Columbia's the "smartest coast on the planet"

MARKHAM, ON & VICTORIA, BC - 14 April 2014: IBM (NYSE: [IBM](#)) today announced it is collaborating with Ocean Networks Canada (ONC) on a three-year, multi-million dollar project to equip British Columbia with a monitoring and prediction system to respond to off-shore accidents, tsunamis and other natural disasters.

[The new "Smart Oceans BC" program](#) will use marine sensors and data analysis to enhance environmental stewardship and public and marine safety along Canada's West coast. It will monitor vessel traffic, waves, currents and water quality in major shipping arteries and will include a system to predict the impact of off-shore earthquakes, tsunamis, storm surge, and underwater landslides.

ONC, which is the University of Victoria's largest research project, already operates the world's most advanced cabled ocean observatories off BC's coast. IBM is investing \$12 million in cloud computing infrastructure, analytics software, services and skills training to support this next phase of the system, which will position Canada as a global leader in ocean technology.

Western Economic Diversification is also contributing funding to bring online a number of additional underwater observatories and high frequency coastal radars.

"ONC has a world-leading marine sensor network and associated expertise," says IBM President Dan Fortin. "IBM is making significant investments in technology and skills-training to ensure ONC has the capacity to analyse data from the new sensors coming online, which will allow modeling systems to better support disaster planning and drive Canada's economic future through the development of big data skills and associated digital expertise."

ONC will use an IBM, on-premise cloud to run simulations on earthquakes and tsunamis with a goal of predicting their behaviour and potential impact on coastal areas. This information will benefit a broad spectrum of audiences from public safety agencies to public transportation, tourism, and other industries operating in the area.

Researchers will also employ a suite of IBM visual analytics, data streams processing, machine learning and data exploration software to develop, test and run decision-support systems with commercial viability that could aid industrial and governmental agencies in sea state, pollution monitoring, spill response and other aspects of ocean management.

ONC estimates the global market for smart oceans systems technology will grow from \$4 billion to at least \$6 billion by 2020. Part of IBM's commitment will go toward internships

for over a dozen students from BC universities to build subject matter expertise and practical experience in this emerging industry. The students will represent a broad cross-section of disciplines including MBAs, researchers, programmers and biologists.

IBM and ONC will also establish a Virtual Compute Lab for remote First Nations communities. The system will let First Nations people use any connected device to access a range of ONC and university curriculum in their own community via the Internet, allowing them to attend university without having to physically relocate to a campus.

“Through IBM’s contribution, we’re able to draw insights and conduct analysis of a massive amount of new data that will be critical in the implementation of a world-class marine safety system,” says ONC president Dr. Kate Moran. “The expertise we’ll gain will help develop new commercial opportunities, as well as support provincial, federal and First Nations priorities.”

Big data is quickly becoming the next big 'natural resource', but there is a current shortage of data scientists. Some global estimates put the gap at 4.4 million jobs by the end of this year, with only one third of those jobs filled.

Through a series of investments totaling more than \$200 million in the past two years alone, IBM has made it a mandate in Canada to collaborate with academia and government to help further advance this country's ability to innovate, address a critical skills gap, and drive analytics research. IBM is currently working in collaboration with more than 16 Canadian post-secondary institutions coast to coast to help advance research, curriculum and skills development to support this.

For more on IBM and Big Data, please click [here](#).

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