



## CASE STUDY: Supporting Evidence for the Nomination of the Emergency Management Communication Tool (EMCT)

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*For the TELUS Outstanding Product Achievement Award to Recognize Mobility  
Health (m-Health) Innovation Excellence in Canada's Health Care Sector*

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## Emergency Management Communication Tool (EMCT)

The Emergency Management Communication Tool (EMCT) is a digital web-based Health Care solution that was implemented in preparation for the Toronto 2015 Pan Am Games and Parapan Am Games (PPAG). The design goal of the EMCT was to provide a unique and innovative technology capable of establishing a common communication and situational awareness reporting platform among 350 different health service providers, organizations, agencies, and care providers within the Toronto PPAG footprint.

This was made possible by use of cutting edge incident management web technologies provided by Buffalo Computer Graphics, Inc. (BCG) and managed by FutureShield, Inc. of Bolton Ontario and the University Health Network (UHN). Combining proven communication and data sharing standards with an HTML5 based web platform designed for universal use on mobile devices and at hospital operation centres.

## Using EMCT at PPAG

Operationally, the EMCT was a resounding success. Administrated by UHN, it was used to monitor critical metrics before, during, and after the games. These include monitoring and reporting of hospital status and bed availability at hospitals across 7 of the 14 Ontario Local Health Integration Networks (LHINS). Additionally the EMCT was used for syndromic surveillance and geographic mapping of top syndromes as reported by Emergency Departments within the PPAG footprint in preparedness for potential public health concerns. Incorporating information gathering and aggregation of environmental conditions and public event information, the EMCT provided a digital picture of public health across much of Ontario.

The EMCT, however, proved itself a truly innovative solution in the way that it not only brought together health service providers across a wide geographic area but also fostered real-time communication between all participating public organizations involved in the Games. For the first time all critical information and communications as relates to public health notifications, risks, and current health care system capacity levels was available to all participants in one secure platform via the web. Real-time messaging, situational updates, geo-mapping, prioritization of risks and problems were centralized and streamlined with near universal information sharing and participation across the geographic area.

With more than 7000 athletes representing 41 Delegations competing in 364 events at more than 50 different venues across the Greater Golden Horseshoe area, the PPAG sold more than a million tickets and saw hundreds of thousands of Canadians, tourists, athletes, and families attend. The EMCT was a critical component of Ontario's readiness and preparation for the games, a highly visible Canadian project that enhanced Canada's reputation for technologically advanced health care planning, public health risk mitigation, and social sensibility on a world stage.

## Setting a New Standard

The unprecedented scale and scope of this technology solution that allowed for coordinating many hundreds of Canadian healthcare service providers within Ontario with an equal voice and a common toolset while integrating critical information from provincial systems and social media in order to provide more comprehensive health system planning, making EMCT a paradigm to be followed.

Although the immediate concern was the PPAG, a long-term, sustainable solution was desired for future planned and unplanned events. Designed to persist after the Games, the EMCT continues to offer true region-wide common operating picture and situational awareness for daily hospital and healthcare operations and ensures that Canada is not only ready for the next international event using the EMCT as a model, but can also provide superior health care services for Ontarians every day.

## About the Authors

### About Buffalo Computer Graphics Inc.

BCG is a global provider of Incident Management Software, Mass Notification Systems, Maritime Training Solutions, and Custom Hardware & Software Engineering.

### About FutureShield Inc.

FutureShield Inc. was founded in Toronto, Canada in 2005 on the premise that there is a strong need for domain expertise in integrating software solutions for security, emergency management, and critical infrastructure protection.

### About University Health Network

University Health Network consists of Toronto General and Toronto Western Hospitals, the Princess Margaret Cancer Centre, Toronto Rehabilitation Institute, and The Michener Institute of Education at UHN. The scope of research and complexity of cases at University Health Network has made it a national and international source for discovery, education and patient care. It has the largest hospital-based research program in Canada, with major research in cardiology, transplantation, neurosciences, oncology, surgical innovation, infectious diseases, genomic medicine and rehabilitation medicine. University Health Network is a research hospital affiliated with the University of Toronto.