MASAS Information eXchange Pilot Project

Public Safety and Security Science and Technology   **Public Security Technical Program**
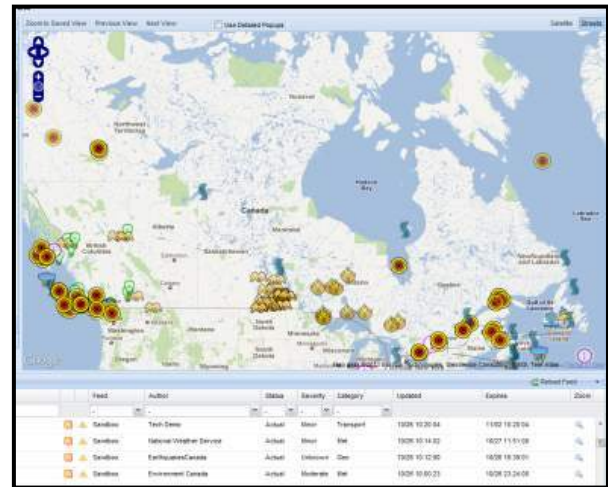
BACKGROUND

Situational awareness (SA) is essential to the planning and execution of emergency response efforts. In broad terms, SA is being aware of what is happening around you and understanding what that information means to you now and in the future. Those working in critical environments, like responders, incident commanders or emergency managers, are highly dependent on SA information to make decisions and perform their duties. SA tools enable access to knowledge, facilitate the sharing of information in real time and assist in making strategic decisions and developing proactive solutions. Several different SA tools are used across Canada and the ability to connect these different tools for shared SA is a critical capability to improve interoperability and ensure a more efficient and effective response.

Multi-Agency Situational Awareness System Development Initiative

MASAS is a multi-stakeholder federal initiative that aims to develop and support capabilities that will enable the sharing of location-based situational awareness information and alerts between emergency management and response agencies using open standards and an open architecture. The initiative is led by the Defence R&D Canada – Centre for Security Science, in partnership with Natural Resources Canada and Public Safety Canada, and represents an impressive collaborative effort involving federal, provincial, territorial and municipal governments, and industry.

MASAS INFORMATION EXCHANGE PILOT PROJECT (MASAS-X)

In November 2011, the Defence R&D Canada – Centre for Security Science launched the MASAS-X Pilot Project in support of the broader MASAS Development Initiative.

MASAS-X is focused on operationalizing the pan-Canadian system that will provide a communications link between stakeholders. These core operational services are being managed through a centralized office to offer a stable, reliable, resilient, long-term shared situational awareness capability within the Canadian public safety (and critical infrastructure) community.

MASAS-X is the first step in building an enduring national MASAS capability that aligns with Public Safety Canada's *Communications Interoperability Strategy and Action Plan for Canada.*

MASAS-X Content

MASAS-X supports the distribution of authoritative alerts and situational awareness information of a non-sensitive nature through two types of information aggregation hubs (Common Access and Special Access).

As per MASAS principles and technical architecture, the content in MASAS-X is published directly by the source, with some content coming from polling authoritative public domain sources, such as government Web sites and various sensor systems.

Canada

Registered users can, without fee, post and consume situational information to and from other users through MASAS-X by using their own application(s) or by using very basic Web hosted tools for posting and sharing information. Examples of MASAS content include:

- Current and forecasted weather and other meteorological alerts, warnings, and advisories.

- Road closures, including planned (due to road maintenance or security operations) or imposed by natural hazards such as floods and blizzards.

- Community closures or temporary relocations in the north or remote regions.

- Natural hazard alerts (i.e., earthquake, tsunami, space weather).

- Hazardous materials or incidents involving chemical, biological, radiological-nuclear or explosives agents.

- Water/stream level sensor alerts.

- Points of interest information (i.e., rest stations, first aid, emergency shelter, etc.).

- Perimeters of wildfires, quarantine zones, events, etc.

- Search and rescue activity.

- Sandbagging operations, dike construction, pumping stations.

- Health alerts, pandemic zone demarcation, etc.

In addition to alerts and points of interest, MASAS-X supports the distribution of documents, pictures, audio, video files and other geospatially-referenced information products (e.g., situation reports pertaining to an incident or alert message).

MASAS-X does not specify base maps. Efforts are focused on compatibility with a few key mapping products, including those aligned with Canadian Geospatial Data Infrastructure (CGDI) endorsed standards, and commonly used commercial products.

ANTICIPATED OUTCOMES

MASAS-X aims to serve a diverse community of public and private stakeholders, with local, regional, provincial/territorial, pan-Canadian and international scopes of focus. It is anticipated that this project will:

- Promote the adoption of an improved way of sharing trusted information for better and more accurate decision-making.

- Increase the efficiency of critical event coordination and promote the more efficient use of resources.

- Introduce situational awareness tools to a broader base of practitioners and/or easily integrate MASAS-X capability into systems already in function to improve public safety service to the public.

- Reduce duplication of efforts.

Ultimately, the project team aims to transition the MASAS-X capability from a DRDC CSS-funded pilot project to an ongoing independent self-sustainable program by approximately 1 July 2012. The business model for the longer-term program will be determined during a separate study conducted concurrently with the Pilot Project (Winter 2011/12).

For more information, please visit:
www.masas-x.ca,
or e-mail info@masas-x.ca

ABOUT DRDC CSS

The Defence Research and Development Canada - Centre for Security Science (DRDC CSS) is a joint endeavour between the Department of National Defence and Public Safety Canada. Its mission is to strengthen Canada's ability to prevent, prepare for, respond to, and recover from accidents, natural disasters, or terrorist or criminal acts that impact the safety and security of Canadians through the convergence of S&T with policy, operations and intelligence. This is achieved through collaboration, investments in S&T research and development, testing and evaluation of concepts and technologies, and by applying scientific methodologies and expertise to support decision-making, policy development, as well as emergency and security planning and operations.