CanOps MASAS

Overview & Backgrounder Document

Consultation Package

Defining MASAS

CanOpS' Multi-Agency Situational Awareness System (MASAS) is a national information aggregation system that facilitates sharing 'situational awareness' within the public safety community. More simply put, it is a dynamic online tool designed for improved emergency communication and situational awareness at all levels of public safety across the country.

MASAS facilitates the efficient discovery and distribution of unclassified, non-sensitive, authoritative, transient and persistent, situational information. The type of information shared can relate to both incidents and planned events of all sizes and includes public alerts, risks to responders, as well as community profiles, and road safety. It is interoperable with commercial and custom public safety applications, as well as IPAWS (US System) for cross border situational awareness, and features easy to use web applications for viewing and sharing incident, operations and infrastructure information.

MASAS was created in response to the growing need for accurate, verified, real time data from multiple sources, leading to more complete and accurate situational awareness in incidents or events concerning public safety.

Built for purpose, it is the only proven and scalable Canada-wide online public safety situational awareness system, operated and overseen by a national not-for-profit that is dedicated to public safety.

Those who participate in MASAS can connect in many ways. Commercial and custom incident management, wildfire, dispatch, routing, geographic, and other systems can publish to MASAS, and poll content from MASAS, using the MASAS API. A common MASAS web application ensures all public safety organizations can benefit from MASAS using desktop and mobile browsers. And recently, an ArcGIS REST Feature Service was added so that users can present MASAS as a layer in their ArcGIS applications.

Hundreds of Canadian public safety organizations have already had access to MASAS through involvement in the pilot phase, using a 'beta' version, which first became available in late 2011. MASAS is now transitioning into a fully sustainable product phase.

During the pilot stage, several of the first response agencies involved have been using MASAS to help reduce call times and improve the safety of responders. Others have used MASAS to prepare for, and mitigate, resource conflicts before and during planned events e.g. marathons, festivals, etc. MASAS was also used during major government and agency exercises and is being used by the Government of Canada's Government Operations Centre (GOC).

Breaking it down by levels of government, municipal officials have used MASAS to reduce response times and risks to responders, and to communicate operations information on maps showing major incidents and planned events; provincial officials have used MASAS to bring awareness to incidents, and to share their response and recovery operations status and activity; while federal agencies have communicated weather, earthquake and space weather alerts, and used MASAS as an authoritative source of situational information they can associate with critical infrastructure throughout the country.

CanOps
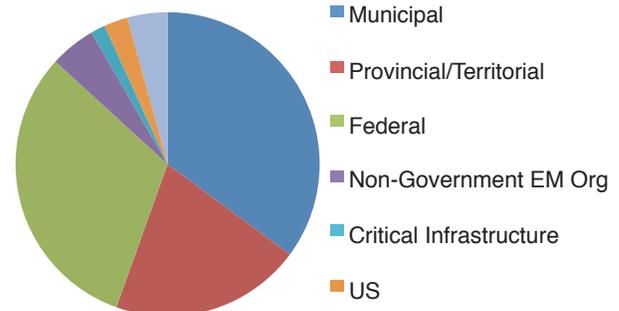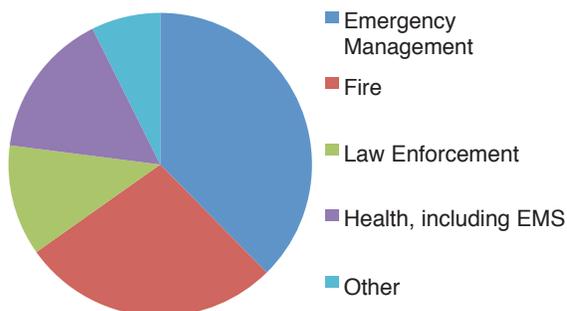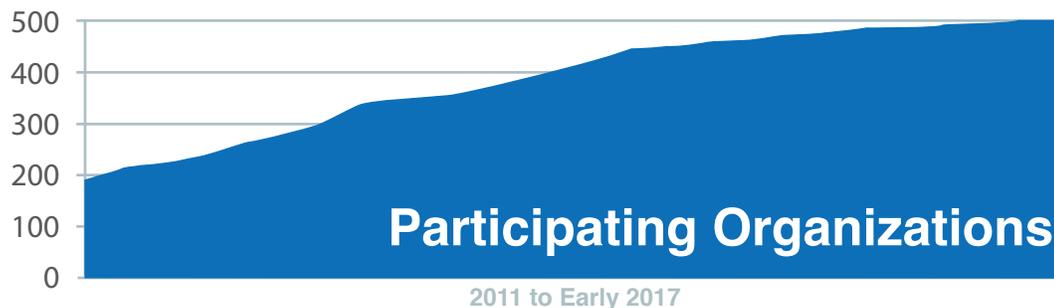Canadian Public Safety Operations Organization

CanOps is a national not-for-profit organization that provides a trusted framework of operational supports and related governance to advance and deliver highly relevant national public safety programs, products and services. As a member-based and broadly representative organization, the CanOps governing members are able to make strategic decisions with collective impact, streamlining and expanding funding options, simplifying oversight and ownership, improving efficiency, and advancing effective technologies, operating models and closer integration across the Canadian public safety system.

A Proven Model for Situation Awareness

In January of 2011, multi-agency situational awareness was identified as a national public safety priority in the Communications Interoperability Strategy for Canada (CISC). Based on this, by the end of that year, Defence Research and Development Canada's Centre for Security Science (DRDC CSS), in partnership with Natural Resources Canada (NRCan) and Public Safety Canada, launched the national Multi-Agency Situational Awareness System (MASAS) operational pilot.

During the pilot project phase, which ended officially in early 2017, these MASAS partners connected more than 500 operating units from all levels of government, and across all public safety sub-sectors, including some that used commercial and custom software applications, and others using the common MASAS web application to capture and share situational information.

Pilot Phase Numbers:

This pilot was a strong success and demonstrated the MASAS system's initial effectiveness and broad appeal. The pilot also confirmed that there is a sustainable interest in continuing the national MASAS solution.
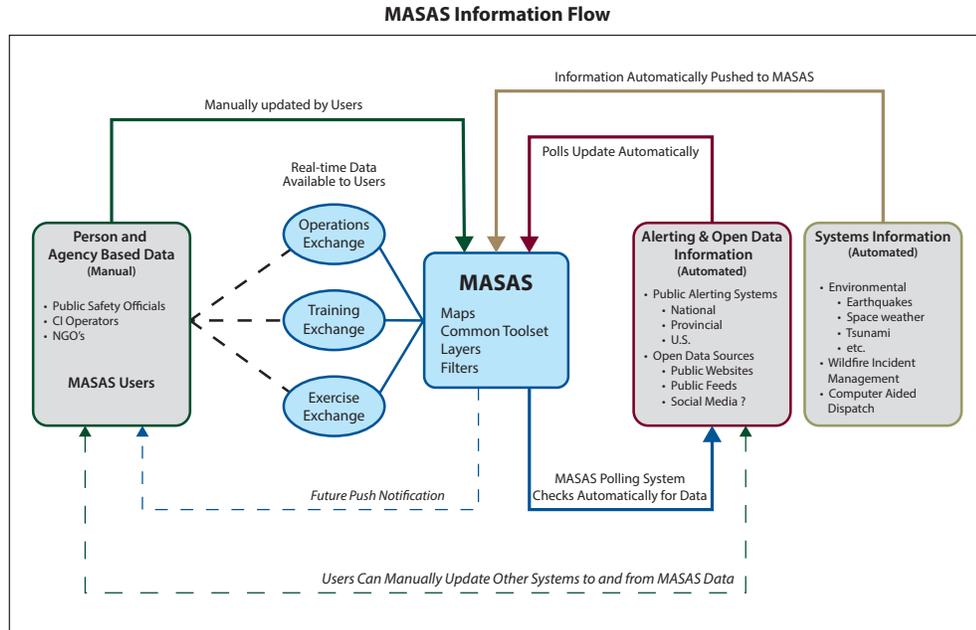
This success led DRDC CSS and Public Works and Government Services Canada (PWGSC) to put out an open Request for Information (RFI), seeking solutions that would ensure MASAS continued to operate and serve the public safety community, and that the system would continue to operate under a suitable national governance framework.

Noting that there was no natural national organization at the time to own and govern MASAS, the Council of Canadian Fire Marshals and Fire Commissioners (CCFMFC) proposed a creative solution. This solution involved the establishment of a national not-for-profit corporation (CanOps) that would be governed by senior public safety officials, and that would fulfill operational roles for a growing range of national public safety programs and services, including MASAS.

In November 2014 PWGSC and DRDC CSS selected the CCFMFC approach, and in 2015 the duly formed CanOps was contracted to develop and operate a self-sufficient business model for MASAS, providing governance administration, business operations, communications and outreach, and user technical support for MASAS.
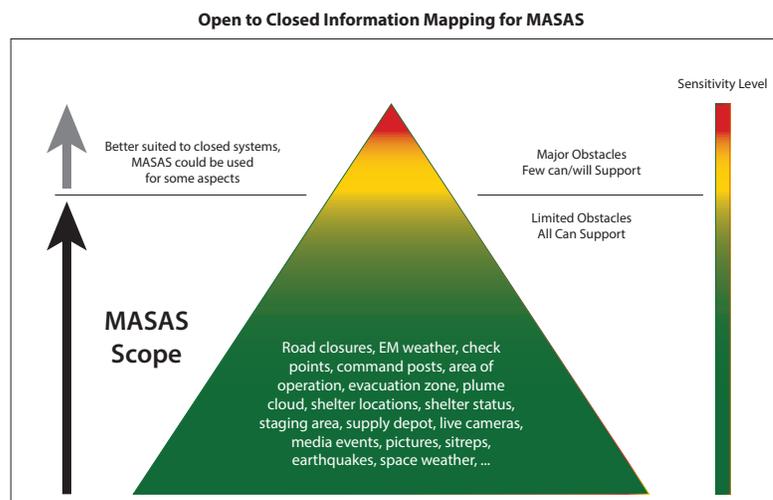
How It Works

This national online tool works to publish real-time information, for both immediate and ongoing incidents or in advance for future events. MASAS is an interoperable system that works with a number of existing alerting systems and data sources, and also relies heavily on the public safety professionals uploading relevant information. Information is uploaded, polled or pushed into MASAS in a number of ways, and displayed to all users in real-time.

MASAS Information Flow

The Scope of MASAS in Public Safety Information Sharing

There has been some debate as to whether MASAS should be used to share 'sensitive' information, however, when it became clear that nearly all information relating to situational awareness shared between agencies was non-sensitive, and that sharing highly sensitive information would preclude many agencies from connecting to MASAS, the content scope was limited to non-sensitive.

Open to Closed Information Mapping for MASAS

To address this limitation and still ensure information is shared, some organizations have opted to post an alert on MASAS that more sensitive information is available, and provide information on how to obtain that information (e.g. Health and safety risks to responders). This way only those who should have access to a more secure platform will be able to see that additional data on the appropriate system.

What Comes Next for MASAS Under CanOps?

Following two years of general operations experience, and a year of direct experience managing MASAS, CanOps has been moving forward with the development of a sustainable business model, and the rebranding and re-launching of MASAS as a viable and continuing service across the country. The aim is to have this initiative ready to go forward to the market by Summer of 2017.

Future Vision for MASAS

The new business model for MASAS will build on the experience gained under the beta system, but also aim to add more immediate and direct value to attract the critical mass of users required to deliver multi-agency value in every response call, incident and planned event.

The CanOps-led MASAS solution would continue to be the leading source of authoritative situational information and include a long list of authoritative situational information collections, including transient incidents, planned events, road obstructions, service outages, and operations, as well as persistent infrastructure, resource, and hazard locations. Information discovery, such as service areas, community profiles, and known web and map situational information sources could also to be supported. Going forward there may be a role for non-authoritative content (e.g. social media) as well.

Although MASAS makes information available for polling and viewing in the MASAS common tools, CanOps may move to make push notification a key feature. With this in place, authorized users would have the opportunity to subscribe to an area of interest, and then have transient information changes in that area pushed to them by email and/or by mobile apps.

There has been some consideration to having aspects of the system made available to the public, however, after careful consideration it has become clear to CanOps that MASAS should remain a tool for situational awareness amongst public safety professionals to ensure its highest utility and user confidence. This allows MASAS to focus on offering the best value in that regard, without complicating the coding and functionality. However, should there be a strong need to allow for some sharing with the public, CanOps may consider creating a separate but linked system or module, which will pull the limited allowable data from MASAS and display it in a similar manner, while operating separately and keeping MASAS private.

In addition, CanOps will be establishing an advisory group to address and manage client needs and interests, ensuring ongoing communication in both directions.

Becoming a MASAS Subscriber

MASAS, through CanOps, is moving to a subscription based licensing system, where organizations can become a part of MASAS with pricing tailored to their size. This includes a base fee for administration as well as a set number of seat licenses. The administration fee is a one-time payment, and the licensing fees are renewed annually. Additional seat licenses can also be purchased individually, at any time, should an organization need to add to the base number.

To find out more or to become a subcriber of MASAS please contact:

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