How to use Incident Management Software for Multi-Agency Major Events: White Paper

Example: The 2015 Pan American and Parapan American Games

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Introduction

This paper will look into how incident management software can be used for large-scale, multi-organizational events and will provide a number of best practices for coordinators. In particular, it will look closely at 4 of the organizations responsible for coordinating the 2015 Pan American and Parapan American Games: the Toronto Organizing Committee for the 2015 Pan American and Parapan American Games, Ministry of Transportation Ontario, City of Toronto, and Halton Region. The information in this paper is based on interviews with 8 participants from the 4 organizations.

The 2015 Pan American and Parapan American Games

The Pan American (Pan Am) Games are a multiple day, multi-sport event held every four years and include participants from nations across North and South America. Its sister event, the Parapan American Games, is held at the same time for athletes with physical disabilities. The first Pan Am Games were held in 1951, while the Parapan American Games were added in 1999.

This year, the 2015 Pan Am Games (July 10-16, 2015) and Parapan American Games (August 7-15, 2015), collectively known as the PPAG, were held in Toronto, Canada and the Greater Golden Horseshoe region. The Games hosted 6,132 athletes from 41 countries in addition to about 25,000 visitors and 4,000 media personnel in from out of town. There were a total of 30 competition venues across 14 municipalities for the 364 events comprised of 36 sports. It was the largest multi-sport event ever hosted in Canada. To compare, the 2010 Winter Olympic Games and Paralympic Games held in Vancouver had 2,600 athletes, 86 events, and 13 venues.

An event of this magnitude takes years of planning and a great deal of coordination among all responsible parties. Finding the right tools to help agencies coordinate with each other and manage the various aspects of the games was a high priority during the planning phase. To facilitate communication and coordination throughout the Games, several organizations opted to purchase a DisasterLAN (DLAN) Incident Management System prior to the PPAG. DLAN was developed by Buffalo Computer Graphics (BCG) and is a highly secure, fully mobile, web-based incident management system. Although the software was originally designed for use in incident management, it is easily adaptable to the needs of event coordinators. Its roots in incident management gives the system an advantage in its ability to be scaled up if a preplanned event turns into a major incident.

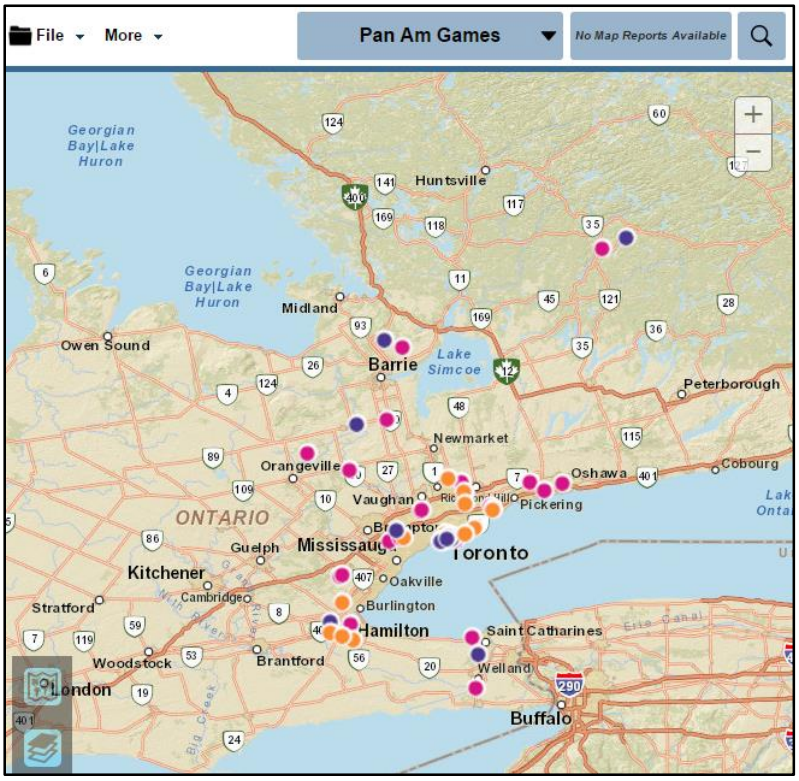

Figure 1: Pan Am Venue Locations

Organizations Using DLAN for PPAG

Organizations who opted to use DLAN for the PPAG included the Toronto Organizing Committee for the 2015 Pan American and Parapan American Games (TO2015), Ministry of Transportation Ontario (MTO), City of Toronto, and Halton Region. These agencies differed in their PPAG-specific needs and their long-term incident management goals. TO2015 and MTO licensed the system solely for the event, while the City of Toronto and Halton Region plan to keep their system as a permanent part of their larger emergency management operations. Each organization also utilized the system at different capacities and for different purposes during the Games. Below is a short description of each organization, their function during the Games, and their priorities when selecting an event management solution.

Toronto Organizing Committee for the 2015 Pan American and Parapan American Games

TO2015, a not-for-profit entity, ran the Main Operations Center (MOC) for the Games – a 24/7 central hub with oversight across all Games operations – and acted as the overseeing committee responsible for planning, organizing, promoting, financing and staging the event. Since they would only need a solution for the short life cycle of the game, they wanted a system that could be quickly installed and easy to use. TO2015 also wanted a solution that would not require any associated infrastructure and that could be used out-of-the-box with little customization. DLAN was ultimately chosen to meet these needs.

Ministry of Transportation Ontario

MTO worked closely with TO2015 and other involved agencies to deliver an extensive transportation plan for the Games. Objectives included keeping local residents and businesses moving without interference, getting athletes and officials to their events quickly and safely, and creating a safe, accessible, and positive experience for spectators and volunteers. To meet their coordination and safety goals, MTO purchased DLAN in coordination with TO2015.

City of Toronto

In addition to the PPAG-specific TO2015 MOC, the City of Toronto operates a dedicated Emergency Operations Center (EOC). As the host city, Toronto had a particular need to sure up their ability to manage a large scale event and to handle any emergency situation that might arise. They also had more long term incident management goals in mind and the Games gave them a reason to act. The City of Toronto required a web-based, out-of-the-box solution that could be easily integrated and operated in the City's existing business and technical environments with minimum modifications. Independently of other participating agencies, Toronto also chose DLAN to meet their needs.

Halton Region

In 2013, Halton Region purchased a DLAN system with their own incident management needs in mind but also leveraged it as a tool for the Games. Of the organizations using the system for the Games, they had the most experience with DLAN. The Town of Milton, which hosted cycling events, was the primary area of interest during the Games. Their system was specifically set up to link directly with the MTO DLAN system so that tickets could be sent back and forth if necessary.

Although each of these organizations had very different requirements, they all chose DLAN to meet their needs. Since DLAN is offered as a cloud-based or on-premise solution, it was able to meet the needs of both organizations who did not have the necessary infrastructure and the needs of those who wanted the software to run within their own IT environments. DLAN is a commercial-off-the-shelf (COTS) product that is also configurable to the workflow requirements of an organization; default settings are available for organizations that are just looking for basic functionality, or the software can be completely configured to mimic an organization's current processes. DLAN is a robust solution that can be quickly setup and

utilized during one-time events, but also includes a number of features designed to make it useful for long term use during daily operations as both an incident and event management tool. The flexibility of the software made it the ideal choice for the various organizations who utilized it during the Games.

Training Staff to Use DisasterLAN

In addition to different organizations using the system in diverse ways, each organization also had users with a variety of backgrounds and experience utilizing the system. Each organization also had different timeframes allotted to training. For example, Halton Region had been using their DLAN system since 2013 and therefore were already fully trained and experienced from previous exposure. Consequently, Halton Region did not need to spend any time before the Games learning the system and simply applied their normal processes to the larger scale event.

Organizations also used different training methods; some received formal training from BCG while others used more informal methods. One DLAN user, Jeremy Frederickson, Deputy Coordinator for the UTCC (MTO), was responsible for training 22 partners, each having multiple staff members. He created slide decks from BCG training materials and reported back that the materials were effective. Laura James from the City of Toronto also noted that staff was able to learn the system with only one official training, and that the quick reference guides they made were very useful for the Planning Section. Materials crafted specifically for the PPAG were particularly useful for just-in-time training of staff using the software only for the Games. She also notes the usefulness of the included online help guide, saying, “The help function was extremely helpful, staff reviewed specific modules as part of our training program.” The help guide includes how-to articles on every function in DLAN.

Those organizations learning to use the system in time for the Games found the process to be generally straightforward. When participants were asked if the system was easy to learn, responses included “Yes, DLAN was easy to use and the information was readily understandable,” “Yes, pretty straight forward,” “Pretty easy product to learn how to use; easy for data entry,” “…no problem picking it up – fairly easy, intuitive, responsive to experimentation,” and “Yes, absolutely.” Since DLAN is very similar to other computer software systems, users with more experience operating computers in general found the system easier to use than others. Those who had emergency management knowledge also found the system easier to use than others.

Participants reported that the basic functions of DLAN, such as Ticket Manager, were very easy to learn and use. Some learners had trouble with more complicated DLAN modules such as the GIS module, which assumes some familiarity with mapping tools, and the Situation Reports module, which is more geared towards emergency managers than event coordinators. The use of US Homeland Security language was confusing to some Canadian event managers. Davide Marchisio, one of the directors of the operations center for TO2015, notes “…changes need to be made to make the tool more user friendly for people who don’t plan to use it on a continuous basis like in emergency management, but just plan to use it for one event.” Based on this feedback, BCG developers incorporated more localization features into the latest version of DLAN to better serve the needs of event coordinators and users outside the US.

Pre-planning and Configuration

Agencies who had systems installed ahead of the games benefited by being able to use DLAN during the pre-planning process. Tim Lindsay and Nick Buczysky of Halton Region note, “We were able to use DLAN for pre-planning too, which was very helpful. BCG staff added additional layers to the map and [using DLAN for pre-planning] made things easier because everything we needed was already available in the system.” These functions are most useful when there is ample time between purchasing the system and the start of the event, which inevitably not all organizations will have. Davide Marchisio from TO2015 notes, “Start using the software early, in the planning stage if possible. It would give a track record and give users time to learn the system. For one-off events, it’s especially useful to let people use the tool beforehand.” Although not always possible for a variety of reasons, having the product in place and staff

trained before the planning process begins gives organizations the ability to fully utilize the pre-planning functions within the software and fully prepare for use during the event.

The ability to fully configure DLAN to an organization's needs also proved helpful for many of the organizations, though again some did not have enough time to fully utilize these functions. Deputy Coordinator for the UTCC (MTO), Jeremy Frederickson, notes, "When enhancing an off-the-shelf product, there are some problems with tweaking to meet your exact needs. Allow time to configure the product and run tests on it. Training is a big part. It was very good to have the BCG support line available – the BCG support team was great." Laura James, from City of Toronto, had similar sentiments "…configure the system to your needs. There is so much adaptability in the software; explore the configuration options prior to implementation." She also noted, "The BCG team is fantastic; they listened to our business needs and gave us solutions within the system." Although the system is fully usable off the shelf with the default settings, organizations who were able to take advantage of the configuration capabilities of DLAN and mimic their offline processes benefited from a more customized experience.

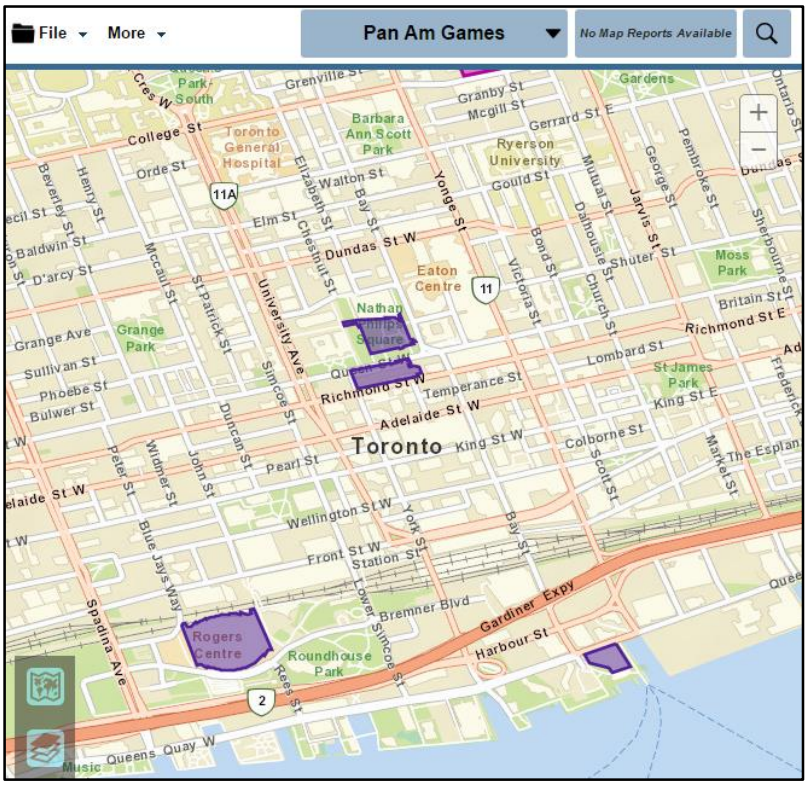

Figure 2: Venue Parameters

During the Games

All of the participants agreed that DLAN improved their ability to manage the Games. Fortunately, no major incident occurred that would have required agencies to scale up their system and utilize emergency response functions. Carl Higgins, City of Toronto, noted, "They got practice in the system and practice on the protocols but didn't really get to see how the system would perform during an incident." From an emergency management perspective, the Games were uneventful. This did give users a chance to gain experience using the system in a non-emergency setting. Laura James, City of Toronto, notes, "Since the weather cooperated and there were no major incidents, the event allowed us to really get comfortable with the system." DLAN was also very useful for normal event management functions, specifically in the areas of creating a common operational platform and enhancing situational awareness.

Common Operational Platform

One major benefit of DLAN was giving all organizations a common operational platform. Before, the agencies had no easy way to collaborate with one another or ensure that everyone had access to all necessary information. DLAN gave them a common place to share information and communicate with one another. Since DLAN is web-based, it also allowed people in different locations to log in to the event and stay connected. Laura James, City of Toronto notes, “It allowed us to input information from staff offsite and get instant information from them. We were able to coordinate messages between teams. It also forced users to work within our business process because the software led them through it.” Having one common, easily accessible portal for monitoring and responding to daily activities during the Games allowed for better communication and coordination, improving everyone’s ability to manage their portions of the event.

Situational Awareness

DLAN also increased situational awareness across all organizations. Steve Lonz, UTCC Municipal Representative for Peel Region (MTO), notes, “Having multiple users provide updates keeps information timely and accurate.” Configurable status boards allowed users to see the most pertinent information at any time including tickets, social media feeds, live video images, incident trackers, and GIS maps. Jeremy Frederickson, MTO, noted that it helped with bringing all the partners together and keeping everyone informed via the incident tracker. He concluded, “DLAN was a key piece to keeping everyone coordinated and informed.” DLAN’s situational awareness tools ensured everyone could quickly view the most up-to-date information throughout the Games.

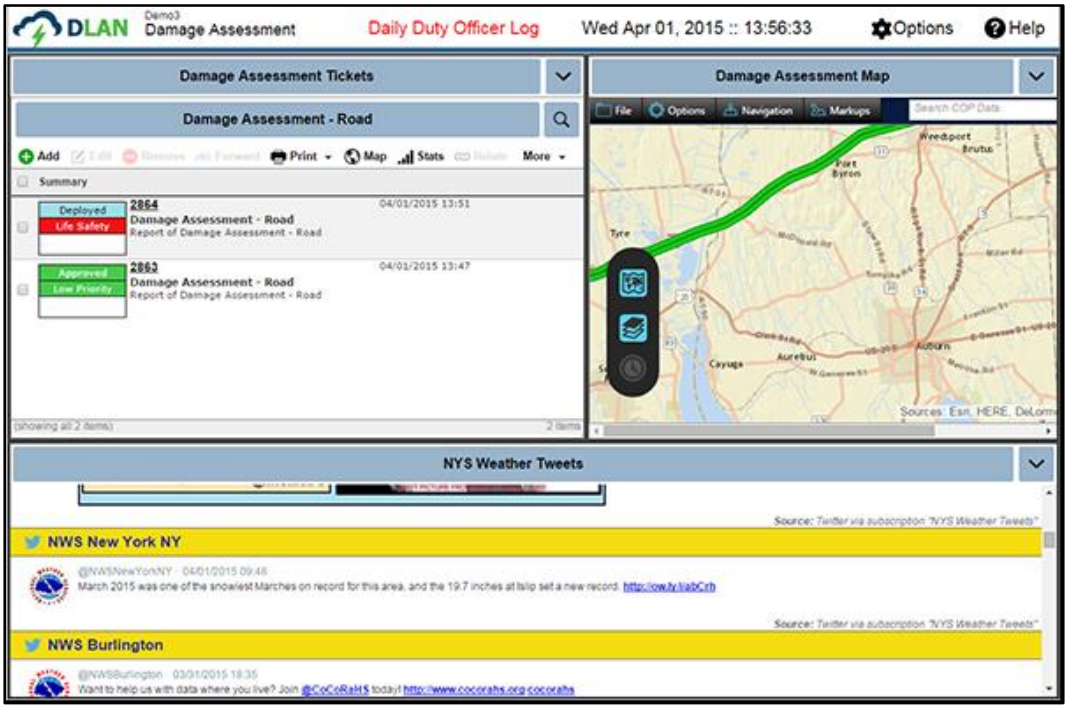

Figure 3: Sample Status Board

Lessons Learned

Overall, the use of DLAN for the PPAG was very successful. Interviews with participants produced three major lessons learned that can be applied by other event managers when using DLAN or another incident management system during a major event.

1. Give Your Team Ample Time to Prepare

The number one piece of advice given – and one that is the backbone of the other two – is to purchase the system well in advance of the planned event. Although not always possible, the more time available to use the tool during the pre-planning process, the better. This will allow for proper configuration and for the addition of event-specific information to be made available to users during the event. It also allows users to become acquainted with the product. This will ensure that all features are being used to their fullest capacities and, as a result, will maximize the benefits of using the system.

2. Properly Configure the System

Although the system can be used out-of-the-box, configuring the system to meet organizational needs and the particular workflow of the event will help users both learn the system and follow predefined business processes. BCG has developed user-friendly administrative tools to customize almost everything in the system including field names, menu structure, images, login screens, status boards, business logic, and automated decision making. BCG staff can help organizations setup the system to guide users through the desired workflow for an event.

3. Properly Train Users

The more exposure to the software users have before the event, the easier it will be for them to use the software during the event. Proper training is key to eliminating confusion and time spent learning the software during the event. This allows users to focus on the tasks they need to perform instead of how they can perform these tasks using the system. Quick guides tailored to the specific event and the role of the user are also helpful, especially for users who are only using the software for the single event.

Conclusion

Incident Management Software, such as DLAN, can be successfully applied to large-scale multi-organizational events. The tools needed to manage both pre-planned events and emergency incidents overlap in many ways, and using an incident management product has an advantage in its ability to be scaled up in the case of a crisis.

Although some organizations involved, such as TO2015, stopped using the system at the end of the games, since once the Games had ended their mandate was also over, most plan to continue to use the system for other planned events, daily operations, and in the case of a major incident. For example, the City of Toronto plans to roll out the system to other city divisions and to utilize the system more frequently in the future. These organizations will benefit from the lessons learned, both by their organization and BCG, during the Games. As they continue to utilize the software, they will continue to tweak and configure the software to better suit their needs while BCG continues to roll out new features and functions to meet the needs of the event management community.

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