Utilising Technology to Deliver your Crisis Management Capability

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Many organisations, particularly in the mining, resource and energy sector, have well established crisis and emergency management systems. These systems encompass a wide spectrum of capabilities from mines rescue through to site incident management teams and corporate crisis management groups. These concepts are generally well understood and most organisations have some level of regular training and testing programs in place.

By utilising various technology solutions you can streamline training programs and reduce costs, improve response times and enhance your ability to coordinate response efforts across an organisation. E-learning, automated activation systems, portable information storage devices and online crisis management systems are some of the technology solutions that can assist you.

Crisis Management Success factors

Before discussing different technologies it is important to understand the factors that improve your chances of successfully navigating through a crisis. By understanding these factors it is easier to draw a correlation between the outcomes of implementing these technology solutions and actually improving your crisis management capability. In the crisis management discipline it is widely recognised that there are a few key factors that have a considerable influence on an organisation's performance during a crisis.

These factors are:

- Leadership
- Speed of response
- A robust plan
- Adequate resources
- Funding
- Caring and compassionate response
- Excellent communications.[1]

> *"There are far more people who can lead in a non-crisis situation than those who can lead during a crisis. You can see it in the decisiveness – or lack thereof – of purported 'leaders' during a crisis."*
> Jonathon Bernstein, President, Bernstein Crisis Management LLC

While some experts may wish to include one or two more factors, the above list represents the core set of influencers that the majority of crisis management professionals identify as critical. With these factors in mind, let's take a look at some technology that can improve your crisis management capability.

E-Learning

E-Learning, sometimes called on-line learning, is a type of education where the medium of instruction is computer technology. Typically an employee is given a user account to access lessons through web-based or server-based computer training programs. Lessons can be designed to be quite interactive and may include assessment activities.

It is important to understand that this is not a complete solution and the current trend is to move toward blended learning services, where computer-based activities are integrated with practical or classroom-based training. This integrated approach is critical to crisis and emergency management training; there is no substitute for practicing with team mates and using real equipment.

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[1] David Pearl, *Critical Success Factors for Effective Crisis Management,* Portal Publishing

Why use it?

There is no denying that e-learning presents a range of exciting and interesting ways to learn new and old topics. The International commission on workforce development found that e-learning enhances the degree by which we remember information by 75-90% - through self-reinforcement and interactivity.[2]

The ability of e-learning to improve information retention makes it very effective for raising awareness of critical emergency procedures. This makes it excellent for induction training and visitor safety briefs. For key appointments, e-learning is best used to educate people on theory elements and for conducting individual assessments. This should then be reinforced with group training and practical scenario based activities.

Currently crisis and emergency management training in the majority of organisations is conducted via traditional classroom lessons. A common problem with this is scheduling a time when everyone is available. Also it is often necessary to run multiple sessions throughout the year to cater for staff turnover. These issues impact on daily operations and for many sites their collective training requirements can be quite demanding. E-Learning negates these issues as it is flexible in delivery; lessons are easily accessed at any time and employees manage their own progress.

Visitor Induction module
- Completed on arrival at site
- Provides awareness of emergency system
- Key safety points confirmed in assessment
- Automatic out of date notification

Employee Induction module
- Completed on employment
- Tested on individual responsibilities – additional tutorial for fails
- Performance details recorded
- Automatic refresher training notification

Supervisor Emergency Coordination module
- Completed on appointment
- Tested on individual responsibilities – additional tutorial for fails
- Performance details recorded
- Automatic refresher training notification
- Reinforced by participation in a simulation exercise

Manager Crisis Management Team module
- Introduction to crisis management theory
- Interactive case studies and quizzes
- Demonstration videos
- Tested on individual responsibilities – additional tutorial for fails
- Performance details recorded
- Automatic refresher training notification
- Reinforced by participation in exercises

Figure 1: Examples of typical e-learning training modules and some of their features.

A significant benefit of using e-learning is that the system can be programmed to automatically notify people when they are required to conduct refresher training. Additionally, managers are able to access a range of reports including individual competency records, group or work area reports and even whole of organisation capability reports. Reports can be tailored to suit user preference, presenting information in different formats such as graphs or traffic lights.

Automatic Notification Systems

Automatic notification systems are designed to take an initial emergency report and, using computers and telecommunications, automatically notify nominated staff of the situation. They also provide easy information sharing or escalation capabilities through internet and mobile phone networks.

Employees make emergency reports to one central point, an 1800 number for example, where a voice menu system prompts them to provide information about the incident. The system then contacts nominated staff using computer messaging services over the internet and mobile phone network. If that person is unavailable, the system moves on to another nominated person and keeps moving through a list of contacts until communication is established.

The system can then connect the person receiving the notification to the person that originally reported the emergency so they can receive a complete report of the situation. They also have the ability to share the
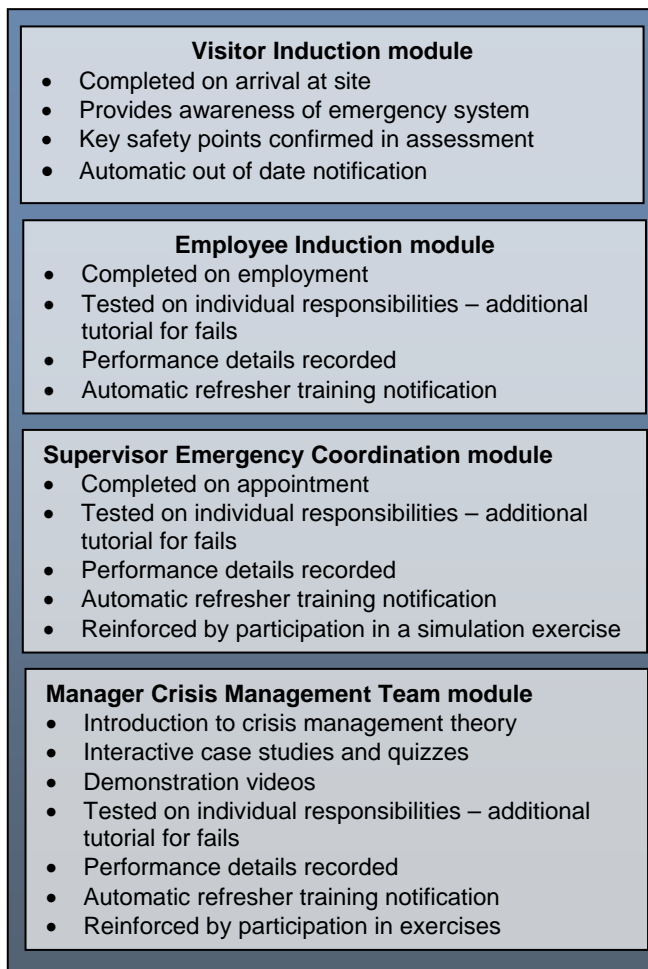
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[2] "*Latest studies in education*", The International Commission on Workforce Development

initial report with their peers, or escalate it to the next level of management using simple menu systems on their mobile phone. The sharing and escalation processes use predetermined distribution lists, thus negating the requirement to make multiple phone calls. Some systems will even override the 'silent' modes of mobile phones and interrupt meetings when major or catastrophic situations have been reported.

Advanced automatic notification systems also offer ongoing communication features that allow key staff to remain aware of the situation and provide valuable input despite being in another location. The system will record all communications and group them in 'discussion threads' making it easier to refer to previous messages.
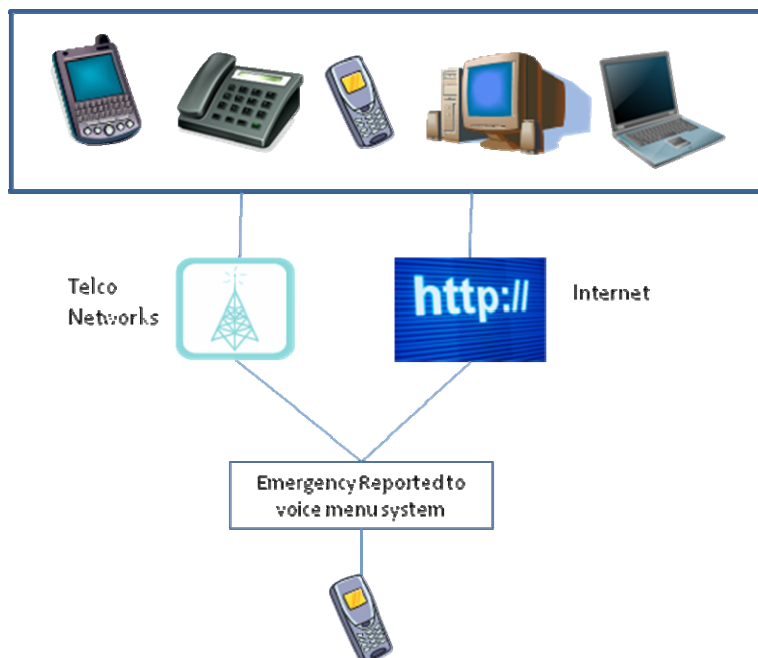
Figure 2: Representation of notification over multiple communication platforms from one initial report.

Why use it?

Predominately these types of systems benefit:
- large scale, dispersed operations where people operate from multiple locations
- operations where the decision makers travel often and are difficult to get in contact with
- operations where there is a lack of key appointments for some shift periods, such as weekends.

The interface between the mobile and internet networks this technology provides means that senior management can continue to receive detailed updates over their mobile phone, without access to the internet.

In terms of our crisis management success factors, automated notification systems greatly enhance an organisation's **speed of response**, provide a degree of depth to **communication,** and the **leadership** is supported by being able to be involved when away from site.

Portable information storage devices

Portable information storage devices refer to data storage equipment such as USB mass storage devices or portable hard drives. On their own they are not particularly valuable to you during a crisis, but when they contain contact lists, duty statements and other crisis management information they become particularly valuable to a decision maker, especially if they are caught out of the office.

Generally one of these items is loaded with all the information relevant to a crisis situation, which is then carried by key appointments when travelling or away from the office. The device is essentially a repository

for information but if set up correctly it can offer a range of basic but very beneficial features. First among this is information security, which is achieved by protecting everything on the device with a master password that is entered when the device is first activated by connecting it to a computer.

Once the password is entered an auto-run feature will bring up a home page showing a handful of buttons. Each button leads to relevant documents, contact lists, forms and templates or duty statements – essentially any information you want or need. The benefit here is the easy interface that the home page provides, removing the need to sift through long lists of documents in a maze of directories and folders.
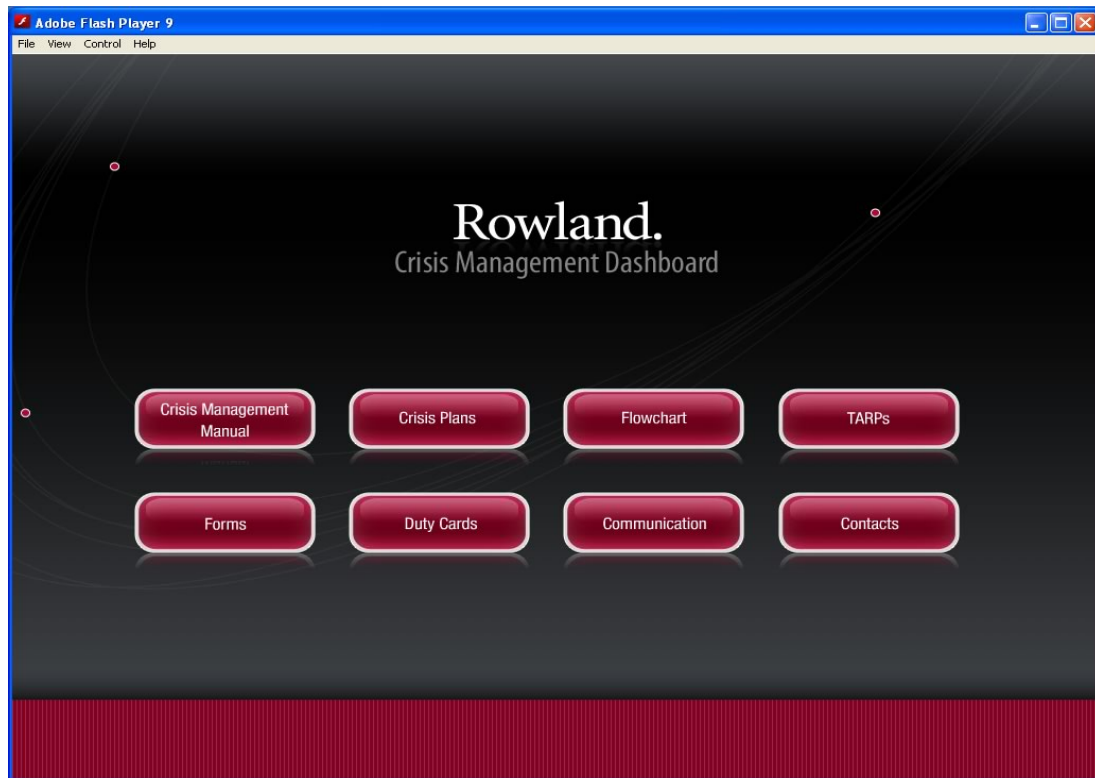
Figure 3: An example home page from a USB mass storage device set up for crisis management.

A well set up device will save your draft documents and personal log in one location on the USB device, not the computer you are working on, which are then accessed through a 'My Drafts' button. This saves time when looking for them later, the documents come with you when you take the device out of the computer and they are protected by the system logon password.

While portability is a key element of this technology, if you want to practice using the system or want to use the home page interface to access your crisis management material normally, then the system can also be loaded onto a desktop or laptop.

Why use it?

The major feature of carrying a portable information storage device loaded with crisis management information is so you can access large volumes of information from any computer at any time, regardless of internet connectivity. Additionally, the development of this technology is relatively inexpensive and relies on existing technology already in common use.

In relation to the crisis management success factors, once again the organisation's **leadership** is supported by having ready access to the **plan**, supporting documents and contact lists.

On-line crisis management systems

An on-line crisis management system is a web-based information exchange where multiple users access live content through a remote portal. These systems provide users with easy access to crisis management information and enhance internal and external communication capability. In simple terms it is like combining many of the features of an automated notification system with a well set up portable information storage device.

Figure 4: An example home page from an on-line crisis management system.

Why use it?

Like the automatic notification systems, on-line crisis management systems typically allow you to use both SMS text messaging and email to share information rapidly with multiple people. They can also keep everyone updated via live situation status boards displayed in a virtual crisis room. A good system will allow you to access document templates, create drafts and send them for approval by the appropriate authority in an easy to follow process. Additionally, once documents are approved for release, they can be distributed rapidly to stakeholders via pre-determined mass email lists.

An on-line crisis management system will also give you an accurate log of all communication exchanges that occurred during a crisis, which is very beneficial to post event analysis and business improvement. Finally, these systems are hosted at a secure external site so that they are still operational should your own intranet systems be affected in the event of a crisis.

By using an on-line crisis management system you will have improved **speed of response** from enhanced **internal communication** capability. Your **external communication** capability is also improved by the rapid dissemination of information to stakeholders via the mass email function. The **leadership** of your organisation is supported by easy access to the **plan** and other relevant information, and improved situation awareness from live updates, all of which can be accessed remotely.

Integrated options

Each of these technologies should not be considered in isolation. There is no reason why an e-learning program could not be linked to your on-line crisis management system. In fact a good on-line crisis management system will have its own e-learning modules. Another smart integration would be to have portable information storage devices that operate as standalone devices when off-line, however, when they detect the internet they will automatically access your on-line crisis management system.

Is it worth it?

Perhaps the most important question to consider is whether the expenditure on this technology is really worth it. The answer lies in the cost of a crisis to your organisation.

To determine the cost of a crisis to your organisation you must look at your risks and consider the worst case scenario. Almost invariably the costs resulting from the impacts of a worst case scenario will far outstrip what you may spend on improving your crisis management capability. So the decision really comes down to how much you have available to spend on reducing the costs of a worst case scenario.

When deciding *what* you should spend your money on, consider the nature of your operation and the state of operations at any given moment. For example, if your operations are spread over multiple sites and the management team are often in different locations then an automatic notification system will help you to rapidly contact them and assist them to communicate with each other, until they can assemble in one place. On the other hand, if key decision makers are often away from the operation altogether, then you would probably consider a portable information storage device or an on-line crisis management system.

Whether you choose to apply a simple low cost solution such as a USB device, or you implement a comprehensive solution such as an on-line crisis management with integrated e-learning modules, the application of technology can dramatically improve your organisation's crisis management capability.

References

Critical Success Factors for Effective Crisis Management, David Pearl, Continuity Central, Portal Publishing Ltd, www.continuitycentral.com

"*Latest studies in education*", The International Commission on Workforce Development, http://www.icwfd.org/latest_studies_in_education.html