Online Emergency Information Update: 2011

How to transfer LOCAL emergency information fast and to prevent server overload problems during a crisis.

Introduction

Firedog was the working name for a Community Bushfire Alert Plan. Draft copies were sent to every Government minister, every Shire fire officer and to the heads of the CFA and the DSE. First conceived in 2006, the expected outcomes were:

- To prevent the CFA & DSE websites from failing under pressure caused by extraordinary demand during emergencies.
- To provide residents of each Shire with a clear online map that shows the current status of bushfires in their area.

This update incorporates the use of touch-screen technology in the form of the iPad, not widely available until now.

1.0 2006-2009

An Online Bushfire Information Plan for Local Districts was drafted out following the Australia Day fires of 2006. It involved a simple process of translating the CFA and DSE updates into graphic symbols over a Shire map, and publishing that to a website at the time official updates are released.

The original plan relied upon the involvement of a web-savvy person to help upload fresh information. This process has been simplified with the advent of the iPad.

The original scenario described how local retired CFA officers could contribute on a day of extreme bushfire conditions by participating in a monitoring service based at their shire office's emergency HQ. Their job would be to monitor the chat between fire crews using a frequency scanner and to translate the information to icons on a local map. In 2006 and in 2009 a web operator would have been needed but now with the availability of the iPad everything has changed.

The process of plotting information is as simple as dragging an icon into place and pressing SEND. The updated map would appear on the desktop of the CFA or DSE officer at emergency

HQ responsible for that district. The information could then be used to compile the next public update or even be broadcast as it appears after sign-off.

There is a mock-up of the web page for your reference. It is not interactive.
http://www.thereef.com.au/fire/nillumbik_fire_alert.htm

2.0 The question of Trust

Both the CFA and DSE would prefer their own people to participate in information-gathering. A retired officer would know most crews by name and would have a comprehensive knowledge of local landmarks and conditions. He or she would understand the jargon and abbreviations for place names, such as “Jackson's” or “Stumpy's yard” and would be able better able than most to put a pin on the map, or in this case, push an icon to a new position. The local crew would trust in the involvement of one of their own, and would be more likely to cooperate with providing information on-the-fly; “Fred here... heading for St Andrews over Hildebrand, ETA 5 minutes. Spots on Beale and Jacksons”.

3.0 How it's done

This is not some over-blown scheme that requires millions in funding. The software does not attempt to automate the whole process from GPS feeds, for instance. A very short development time would be needed to produce the web software that would do the job of grabbing the latest screen shot and sending it direct to another computer. Other functions such as permissions, approvals, sign-offs, menus and broadcasting are straightforward and reliable. Most of the artwork has been carefully considered and created for the demonstration web pages.

It would seem obvious that retired CFA officers would want to be useful on a big fire day. Those that live in safer parts of the shire would be keen to play a part. It would be no more difficult to organise than a local darts club. From a roster of four-hour shifts to a communal activity, there is nothing complicated involved. Participants would be familiar with communications equipment and protocols and would have no trouble adapting to iPad techniques.

4.0: No more crashes

Melbourne is home to quite brilliant IT contractors who can solve the overload problems. I discussed the matter with a specialist ISP in 2006 following the crashes of the emergency service's websites. He expressed a real interest in helping out. He saw no problem in setting

up an auxiliary system that would handle the load from Nillumbik residents, if not from every shire in the whole State. I am certain he would be even more keen to help out following Black Saturday. His company is well respected in the Melbourne IT and business communities.
Again, this is not a high cost proposition. Basically, each shire would have its own server that is dedicated to the emergency web page. All links to the map on the local shire website and on the CFA and DSE websites would jump one off that site and over to the dedicated server.
This splits the load across the state and takes pressure off the Government servers.

5.0 Cost

This is a low cost scheme. Its hardware needs are simple enough: one or two iPads and a couple of frequency scanners for each shire. Dedicated server rental at normal business rates. Software development would need under 25K to produce a working model and possibly another 25K to conduct field tests and produce a training package. These figures are approximate, however they should give an indication that this plan is not a big-budget risk nor is it a pitch for a slick offshore corporate solution involving delays and blow-outs. The developers live here, in the path of the firestorms. Local residents have given the scheme the thumbs-up.

6.0 Background

All documentation mentioned above can be viewed here:
http://www.thereef.com.au/fire

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