

EMERGENCY BROADCAST SYSTEM

Using Streaming Real Time data to provide immediate updates for a Mobile device can be critical in Emergency situations where early warning is critical. Using the Arcanum Methodology for extracting Network Signalling Data and processing this with our Location Server software, we can deliver a graphical toolset that allow Emergency Services and Government agencies to rapidly deploy services and assistance.

Arcanum's Blazon platform delivers real-time data on the movement of mobile handsets that allows Location, Last Known Location, Movement analysis and origin destination to be shown for individuals and groups.

A user interface which combines maps and a tool to 'draw' areas allows the users to focus upon specific geographical locations where the incident is , or where an incident may be about to occur.

Blazon can send automatic warning messages to the mobile devices to vacate a specific area, to travel to specific points, to avoid specific and general locations and to inform and update.

Groups of Mobile devices can be tracked, e.g. for Fire Fighters or Flood Response Teams.

Blazon delivers this capability into the hands of Emergency Services and Government Agencies, allowing a rapid and accurate set of real time data to be better utilised.

REAL-TIME MAPPING OF SUBSCRIBERS AND CUSTOMERS

Detailed map representation of the data can be provided and combined with patterns or routes of movement, and correlated with emergency related information. The resulting information can also be used to identify and describe related patterns of movement, directions, and a wide variety of other applications.

KEY FEATURES

- Graphical presentation of real-time Locations and movements
- Map application integration for data visualisation
- Campaign creation
- Historical record creation
- Automatic Message generation
- Customised message creation
- Integration to Local Emergency systems
- SS7 Signalling data collection
- Message Filtering
- Identity Masking
- IMSI / TMSI replacement
- Heartbeat Detection
- RAN / GERAN / UTRAN
- CDR Generation
- CDR Aggregation

BENEFITS

- Fast Response
- Real-time Locations updates
- Message functionality
- Tools to define specific geo locations
- User control and management
- Non-intrusive, non-disruptive
- Future-proof NGN / LTE migration
- Real-time access to SS7 mobile signalling data
- Scalable platform solution
- Soft version available for ease of deployment

Blazon can also be used to map the origin and destination for bulk call events identifying parameters such as “from” and “to”.

Blazon can link representations of this data to any mapping system, such as Google Earth or other preferred solutions. The data can be combined with a number of rich feature layers which may include points of interest or locations related to specific clients and areas of concern.

Blazon provides a critical new link between mobile data and emergency services, enabling solutions for:

- Location-Sensitive Dangers
- Location-Specific Campaigns
- Individual and group Tracking
- Group Movement Patterns
- Group or Individual Response Measurement
- Real-time Campaign Measurement
- Real-time Campaign Optimisation and Adjustment
- Transport and escape planning
- Emergency route / evacuation planning

Create an Alert Campaign:

Save

Campaign Name

Australian Wildfires

Area Definition / Interaction Mode

Map Navigation (selected)

Automated Entry/Exit SMS Alerting

Warning! You are entering an area that is currently suffering from extreme risk of bushfires. If you see any evidence of which, please contact the national fire service IMMEDIATELY free of charge on 555-105.

Entry

Exit Disabled

Defined Area	
X	150.027746582031
Y	-33.7632871586134
X	150.604528808594
Y	-33.8956188172884
X	150.516638183594
Y	-34.3140708319358
X	150.214514160156
Y	-34.5496698656592
X	149.851965332031
Y	-34.2777659213375
X	149.829992675781
Y	-34.0368500633247

Serving Cell List	
Name:	Cell 33832
Cell ID:	33832
Location Area:	9042
Azimuth:	240
Sector Angle:	120
Est. Coverage:	5000
Name:	Cell 38052
Cell ID:	38052
Location Area:	9042
Azimuth:	120
Sector Angle:	120
Est. Coverage:	5000
Name:	Cell 49049
Cell ID:	49049
Location Area:	9042
Azimuth:	0 degrees
Sector Angle:	120
Est. Coverage:	5000
Name:	Cell 52300
Cell ID:	52300
Location Area:	9042
Azimuth:	240
Sector Angle:	120
Est. Coverage:	5000
Name:	Cell 50182
Cell ID:	50182
Location Area:	9042
Azimuth:	120
Sector Angle:	120
Est. Coverage:	5000
Name:	Cell 61070
Cell ID:	61070
Location Area:	9042
Azimuth:	120
Sector Angle:	120
Est. Coverage:	5000

Event Log

[10:19:08] Welcome to the Emergency Broadcast System by Arcanum Communications Ltd

[10:29:26] New campaign Philippines East written to database by user id: 1

Emergency Broadcast System by Arcanum Communications Ltd

Windows

Create an Alert Campaign:

Save Click to write this campaign to the database...

Campaign Name
Choose a suitably descriptive name for this Alert campaign. The name must be unique within the Campaign database.
Philippines East

Area Definition / Interaction Mode
Allows the user to adjust the interaction mode with the map as well as alternatively importing the campaign definition area.

- Map Navigation Drag the cursor on the map to pan. Use the mousewheel to zoom in/out.
- Manual Definition
- External Definition

Automated Entry/Exit SMS Alerting
Enable and define automated SMS messages that are dispatched to users entering or leaving the Campaign area.

Entry **Warning! You are entering an area that is forecast to encounter a Hurricane within the next 24 hours. For your safety, please leave by heading West toward Santa Cruz immediately.**

Exit **Disabled**

Philippines East

Emergency Broadcast System by Arcanum Communications Ltd

Windows

Run-Time Campaign Tools

Australian Wildfires

SMS Dispatcher
The SMS dispatcher allows users to send SMS messages to specific users or groups of people within the campaign area.
Dispatch Mode: Enter MSISDN:
 Individual
 Asset Group
 Broadcast
Send

Handset Geo-Locator
Use the handset Geo-Locator to attempt to locate specific handsets within the campaign area.
Locate Mode: Enter MSISDN:
 Individual **447918555123**
 Asset Group
Locate

Asset Group Management
Asset Groups allow the user to define groups of associated MSISDNs for processing as a batch.

Event Log

Australian Wildfires **GLT: Locate John Mahoney**

Geo Locate Task Simulating

Task Name: Locate John Mahoney
State: Active
Date Created: 02 June 2011 10:36:37
By: admin

Name: Unnamed Handset
MSISDN: 447918555123
State: Success
Location: Longitude: 149.8519, Latitude: -34.19095
Uncertainty: 165 metres.
Age: 255 seconds

Australian Wildfires