

# Cell Broadcast System

## Whitepaper



### CellBell

#### Service overview

CellBell is an interactive cell broadcast service, which is commercially viable because users generate and pay for their own content. The service allows users to broadcast classifieds-type announcements through CellBell, which turns handset-originated SMSs into CB messages.

Experience in Poland has shown that around 10% of the subscriber base has activated the service. This is despite little marketing. Usage has mostly spread through viral marketing, and a service announcement on the operator's website.

New content is generated continuously by users. In addition, the system triggers responses from subscribers. One CB message can generate dozens of responses – either SMSs or voice calls. A very powerful traffic generator indeed!

#### Topics

Users can broadcast messages through a number of channels, each on a different topic. These topics can be freely chosen by the operator. Not all topics will work equally well in all countries. For instance dating channels may not be desired everywhere. Successful examples of what kind of channels could be offered are:

- Dating channels;

##### Dating channels

20	Misc (trash channel)
21	He is looking for her
22	She is looking for him
23	She is looking for her
24	He is looking for him
25	Greetings

- Community channels for discussing music, politics, sports, health, TV and topics of regional interest;

##### Community channels

40	Misc (trash channel)
41	Music
42	TV
43	Sports
44	Health
45	Politics
46	Regional Interest

- Advertising channels. These are classified according to subject and whether the sender is buying or selling, like the classifieds section of a newspaper;

##### Classifieds

60	A job to give
61	Private lessons to give
62	I'll renovate your house
63	Looking for a house renovator
64	Real estate for sale/rent
65	Looking for real estate to buy/rent
66	A car to sell
67	Looking for a car to buy
68	A pet to sell
69	Looking for a pet to buy
70	GSM phones and accessories to sell
71	Looking for GSM phones and accessories to buy
72	Miscellaneous to sell
73	Looking for miscellaneous to buy

#### Receiving CB messages

Users who want to receive the CB messages need to activate the relevant channels on their phone. The operator's website may give an overview of how this is done. Some examples (in various languages) of this are:

- [www.cb-diensten.nl/cbdiensten/settings/](http://www.cb-diensten.nl/cbdiensten/settings/)
- <http://www.turkcell.com.tr/yardim/telefonavarlari>

The Cell Broadcast Index channel can be used to provide the subscriber with a list of channels, which can be activated from the Index menu on the phone.

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### **Sending Premium SMS content**

All it takes to submit a message to CellBell is to send an SMS to a short code. The message content consists of the channel number, followed by the hash sign and then the message. This is open to errors, and to avoid refund claims from these users, misdirected messages are broadcast in a “trash” channel.

CellBell has embedded sophisticated mechanisms to support help desk staff. Incoming messages can be traced as well as the status of broadcasted messages and the general user activity. Lawful interception is also supported.

Depending on the local market, experience has shown that messages sent to the community channels could be billed at €0.25 each. Dating messages could cost €0.50 and classifieds €0.75. Senders must include their phone number when broadcasting a message if they want people to respond. For the advertising and dating channels, the number is automatically appended to the message.

### **Broadcasting CB messages**

Messages in the dating channels and the classifieds can be broadcast regionally; finding a date nearby is far more attractive than a contact that fails because the distance is too large.

Messages that are broadcast regionally are broadcast in the region of the sender of the Premium SMS. To determine where the sender is located, CellBell requests a location feed from the core network when an SMS has been received.

When there are a large number of messages to be broadcasted, these messages are queued on the network and broadcasted at specific intervals.

A safeguard against dirty or offensive messages, a danger when content generation is left up to users, has been introduced. CellBell has been designed to

filter out messages with swear words or other offensive content. Also, the operator can employ moderators who regularly monitor content on the different channels and blacklist any users who appear to be exploiting the service for illicit activities such as paedophilia or drug dealing. These moderators are also able to livening up discussions during quiet moments.

There is advertising potential in the channels. Once sizable communities build up around special-interest subjects like music or sport, they could become interesting for advertisers targeting these groups. However, it will take some time before these channels are ready for marketing to businesses.

It is important to keep a good balance between the user generated content and the advertisements. Too many advertisements may lead to users opting-out of the service.

Corporate advertising is not the main business case for CellBell. The service’s main source of income comes from users paying to post CB messages and from the SMS and voice traffic generated in response.

### **Business Case**

To get an idea of the revenue, assume the following:

- 10 Million subscribers,
- 1% usage, which means that 1% of the subscribers will send one single premium SMS each month. This results in 1,2 million messages per year,
- The average price of a Premium SMS message is € 0.50.

The revenue would amount to 600k€ per year. The additionally generated traffic should be added to this and can easily lead to revenues of more than 1 M€.

*The Return on Investment on CellBell is less than a year!*

CellBell has been designed by useIT, for which one2many is the global reseller.