

ENSURE
100% subscribers
addressing

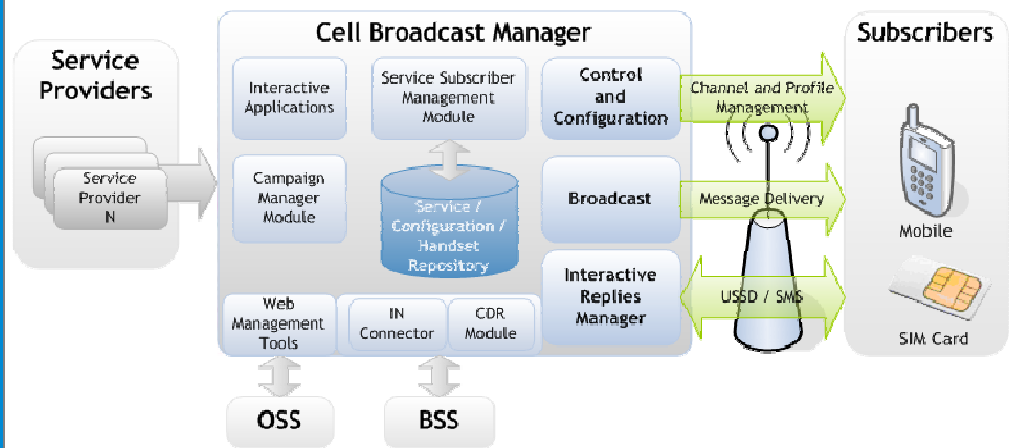
LAUNCH
Interactive CB
services

MONETIZE
Premium CB
services

UPDATE
Current rate on
subscribers'
handset display

Designed to instantly reach all subscribers in a given area or in a whole country, the Cell Broadcast technology has not met success so far. The main show stopper is the unpredictable handset behavior that varies according to the models and the usual requirement of complex subscribers' interaction to enable Cell Broadcast radio and display.

Thanks to its unique expertise in Mobile Device Management, Handset Characteristics, SIM OTA and Cell Broadcast, MCTEL has successfully overcome this technological challenge: not only does MCTEL solution enable nearly 100% subscriber reach but it also paves the way to monetizing Cell Broadcast applications.



MCTEL Cell Broadcast solution successfully blends different technologies:

- **MCTEL Automatic Device Detection** keeps track of all devices attached to the network
- **MCTEL Handset Repository**, stores the Cell Broadcast display capabilities of thousands of handset models, as well as the required configuration
- **MCTEL Device Management and SIM OTA** platform is able to configure accordingly the SIM/handset couple in order to enable the Cell Broadcast reception on the specified channels
- An especially designed **SIM Toolkit Applet** can be loaded on the SIM (using SIM OTA) in order to ensure the reception and display for handsets that require a manual configuration. In this way, no subscriber interaction is needed. The applet also allows launching interactive and Premium CB services, using SMS or USSD as return channel.
- **MCTEL USSD Gateway, SMS Gateway and IN Prepaid Interworking** are used to manage the subscription and the charging for the subscription based CB services and to cater for the interactivity of 2 way services.
- The **Cell Broadcast server** is provided by **One2Many**, the worldwide CBC supplier and trusted MCTEL partner

Cell Broadcast Center

Thanks to this unique and patented technology, MCTEL customers can now launch numerous innovative applications relying on Cell Broadcast, including:

- **Safety and alerting:** a powerful Campaign Manager allows addressing all subscribers located in a given area, or even in a whole country. Most of the subscribers receive the message over Cell Broadcast, but the Campaign Manager automatically positions and broadcasts the few remaining subscriber if needed without any CB support over SMS bearer to ensure 100% reach
- **Location based information services,** for example road traffic information, can be offered by the operator or 3rd parties' service providers. These services can be charged on a subscription basis thanks to MCTEL USSD Gateway and our IN Prepaid Interworking module.
- **2 way interactive services** address subscribers in a specific location. They offer a unique return channel over SMS or USSD, enabling the interested subscribers to reply to the CB message. The replies can be charged thanks to Premium SMS or USSD. These interactive services can run on existing Message Gateway or USSD Gateway, MCTEL can also provide these platforms.
- **Home Zone billing:** the challenge of Home Zone Billing is the ability to display in an unobtrusive way and to update in real time the discount rate provided to the subscriber. To this end, MCTEL solution updates in real time the network name display for every cell in the network, for example adding the discount percentage at the end of the name.
- **Advertising and Broadcast:** advertising and broadcast services can be deployed. MCTEL Broadcast Manager allows the operator to broadcast subscribers according to their location, their personal profile gender, age, occupation, ARPU, etc. and their handset characteristics (thanks to the link with our Automatic Device Detection).

Why CB was not successful	How MCTEL tackle the challenges
Phone CB support and behaviour is different	Thanks to Device Management ADD, MCTEL platform is aware in real time of the device type and its CB capabilities
On most handsets, a manual user operation is needed to enable CB messages display	For phones on which CB display is not enabled by default, MCTEL supplies a specific STK applet ensuring CB reception and display on more than 95% of phones. Updating the operator name in EF SPN to display small text is also possible (e.g. Home Billing)
CB services are difficult to monetize	MCTEL USSD Gateway bearer and our IN Prepaid interworking enable charging for subscription based CB services and Premium interactive services
Interactive services could not be offered	Thanks to MCTEL exclusive STK applet, 2 way interactive CB services can be launched, relying on USSD or SMS for return channel with Premium capability
Cell Broadcast Center network integration is complicated	MCTEL has a worldwide partnership with One2Many, first supplier of CBC which support nearly all core networks
Reaching 100% of subscribers	Even for subscribers whose handsets supports neither CB or MCTEL applet, MCTEL handset awareness and a combination of location based retrieval and SMS high throughput delivery ensure 100% reach



Since 1992, MCTEL delivers carrier-grade network solutions to telecommunication operators worldwide with a comprehensive suite of solutions in Advanced Messaging, Mobile Device Management and Service Delivery Platform for VAS. MCTEL proposes a powerful value chain approach from the design of innovative products up to the deployment of solutions delivered turnkey and as hosted services through MCTEL's SS7 international signalling backbone.