MSC_VLR Interfaces (Intra MSC Handover Call Flow)

Highway	GSM Coverage				GSM Equipment	EventHelix.com/EventStudio 2.5
GSM Mobile	Bethesda		Rockville		MSC VLRs	
Mobile	Bethesda Cell	Bethesda BSC	Rockville Cell	Rockville BSC	Maryland MSC VLR	31-Dec-04 08:05 (Page 1)

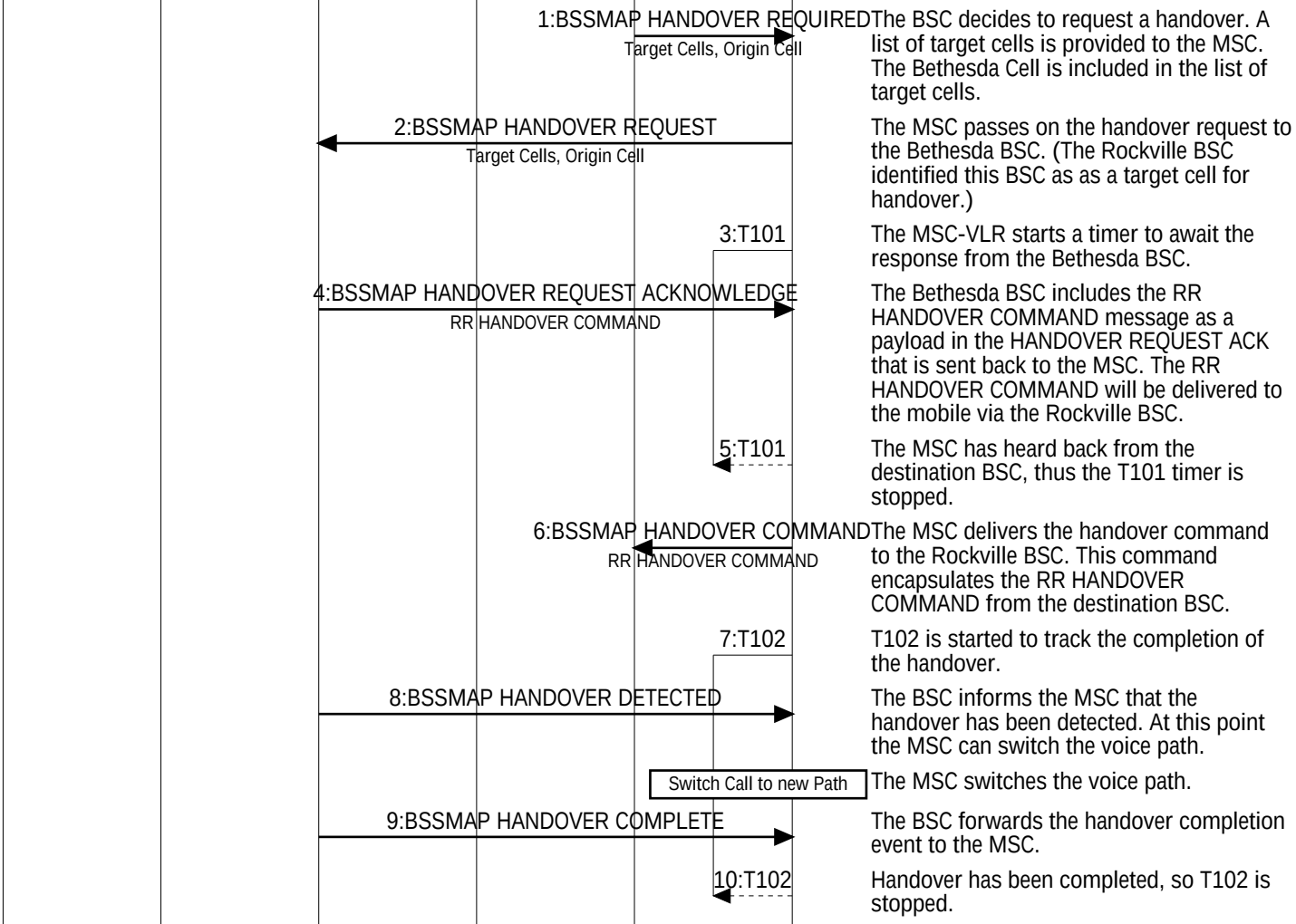
This call flow was generated with EventStudio 2.5 (http://www.EventHelix.com/EventStudio).

How does a GSM mobile phone maintain a call even when moving from one cell to another?

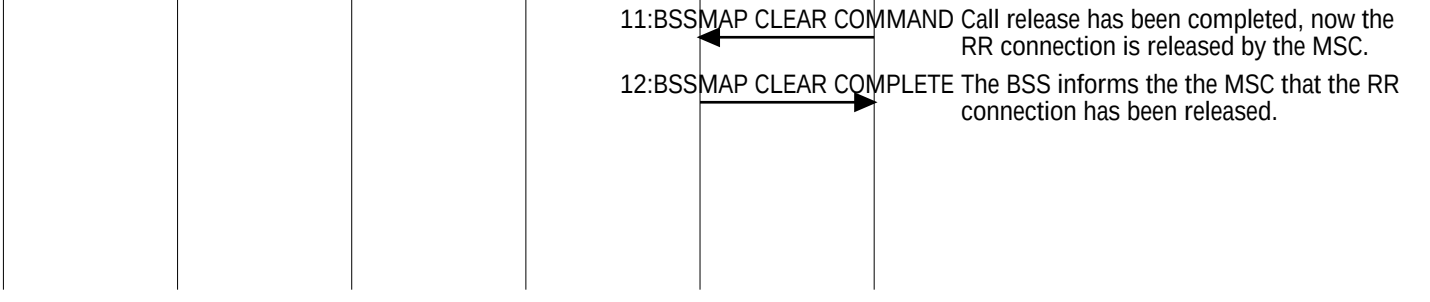
The calls are maintained by handing over a call from one cell to another. This call flow covers a simple case of call handover in GSM. Here a user has an active call and is moving from the Rockville Cell to the Bethesda Cell. As the user moves, the call will be handed over by the Rockville Cell to the Bethesda Cell.

The GSM Mobile has an active call in the Rockville Cell.

The user reaches the boundary between the Rocville Cell and Bethesda cell.



Release call resources in Rockville BSC.



This call flow was generated with EventStudio 2.5 (http://www.EventHelix.com/EventStudio).

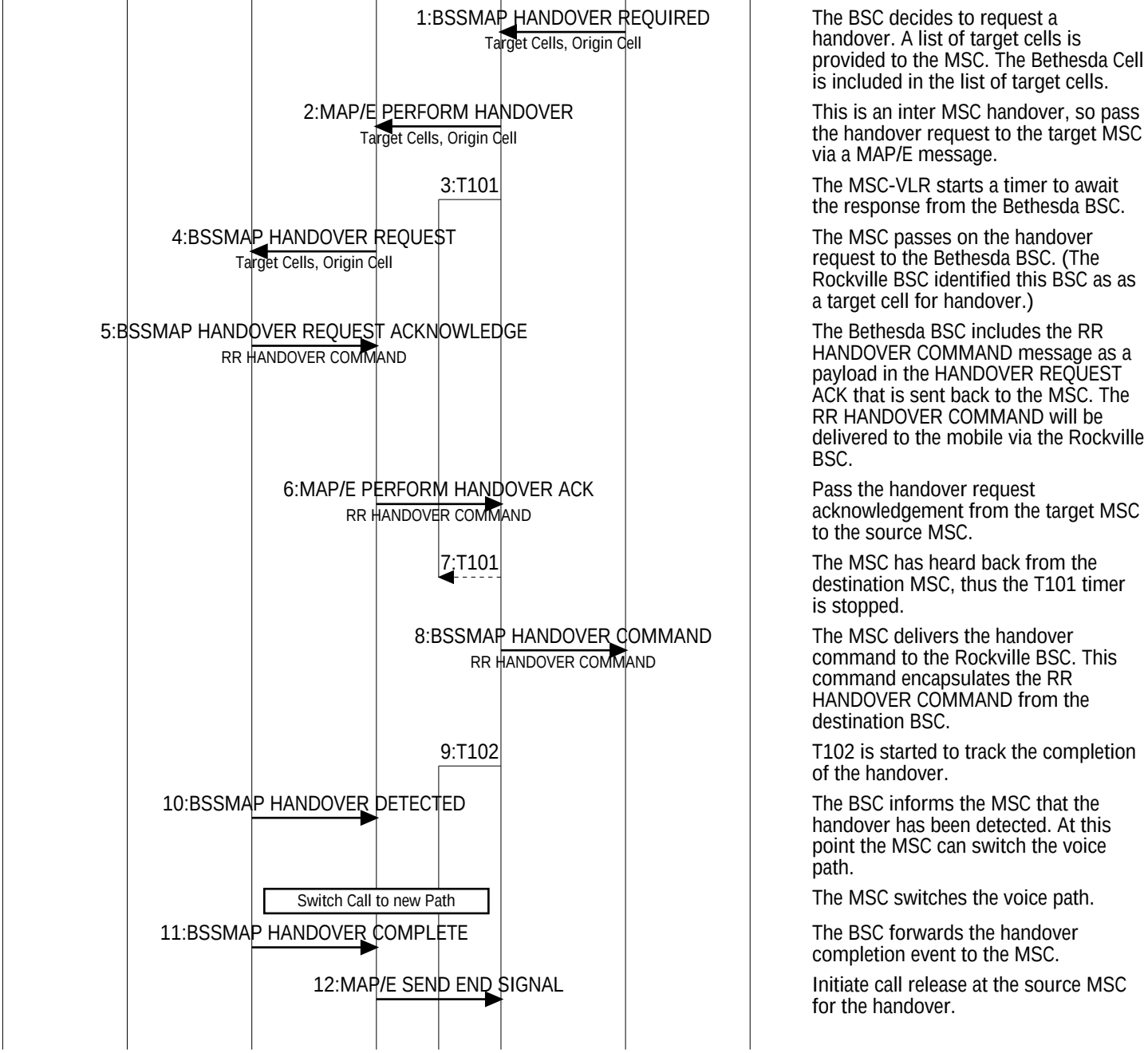
How does a GSM mobile phone maintain a call even when moving from a cell controlled by one MSC to a cell controlled by a different MSC?

The calls are maintained by handing over the call from the source MSC to the target MSC. The MAP/E protocol is used to manage the interactions between the source MSC and the target MSC.

In this example, a user has an active call and is moving from the Rockville Cell to the Bethesda Cell. As the user moves, the call will be handed over by the Rockville Cell to the Bethesda Cell. The Bethesda cell and the Rockville cell are controlled by different MSCs, thus an Inter-MSC hardover will be performed from the Rockville MSC to the Bethesda MSC.

The GSM Mobile has an active call in the Rockville Cell.

The user reaches the boundary between the Rocville Cell and Bethesda cell.



13:T102

Handover has been completed, so T102 is stopped.

Release call resources in Rockville BSC.

14:BSSMAP CLEAR COMMAND

Call release has been completed, now the RR connection is released by the MSC.

15:BSSMAP CLEAR COMPLETE

The BSS informs the the MSC that the RR connection has been released.

16:MAP/E SEND END SIGNAL RESPONSE

Signal the end of the call.