

Project	IEEE 802.16 Broadband Wireless Access Working Group <http://ieee802.org/16>	
Title	Modification of HO process SDLs	
Data	2004-06-25	
Submitted		
Source(s)	Jaesun Cha Sungcheol Chang ETRI 161, Gajeong-dong, Yuseong-Gu, Daejeon, 305-350, Korea	Voice: +82-42-860-5587 Fax: +82-42-861-1966 jscha@etri.re.kr schang@etri.re.kr
Re:	This is a response to a Call for comments about IEEE802.16e-D3	
Abstract	The document contains suggestions on modification of HO process SDLs	
Purpose	The document is submitted for review by 802.16e Working Group members	
Notice	This document has been prepared to assist IEEE 802.16. It is offered as a basis for discussion and is not binding on the contributing individual(s) or organization(s). The material in this document is subject to change in form and content after further study. The contributor(s) reserve(s) the right to add, amend or withdraw material contained herein.	
Release	The contributor grants a free, irrevocable license to the IEEE to incorporate material contained in this contribution, and any modifications thereof, in the creation of an IEEE Standards publication; to copyright in the IEEE's name any IEEE Standards publication even though it may include portions of this contribution; and at the IEEE's sole discretion to permit others to reproduce in whole or in part the resulting IEEE Standards publication. The contributor also acknowledges and accepts that this contribution may be made public by IEEE 802.16	
Patent Policy and Procedures	The contributor is familiar with the IEEE 802.16 Patent Policy and Procedures < http://ieee802.org/16/ipr/patents/policy.html >, including the statement "IEEE standards may include the known use of patent(s), including patent applications, provided the IEEE receives assurance from the patent holder or applicant with respect to patents essential for compliance with both mandatory and optional portions of the standard. "Early disclosure to the Working Group of patent information that might be relevant to the standard is essential to reduce the possibility for delays in the development process and increase the likelihood that the draft publication will be approved for publication. Please notify the Chair < mailto:chiar@wirelessman.org > as early as possible, in written or electronic form, if patented technology (or technology under patent application) might be incorporated into a draft standard being developed within the IEEE 802.16 Working Group. The Chair will disclose this notification via the IEEE 802.16 web site < http://ieee802.org/16/ipr/patents/notices >.	

Modification of HO process SDLs
Jaesun Cha and Sungcheol Chang
ETRI

1. Introduction

As specified in IEEE P802.16e/D3, after an MSS or BS has initiated an HO using MOB_MSSHO/BSHO-REQ, the MSS may cancel HO at any time. The HO cancellation means the completion of HO-related process. Therefore, after MOB_MSSHO-IND with the HO cancel option (HO_IND_type = 01), MSS and BS should complete handover process. Thus, timer T29 is useless in case of HO cancel. However, HO process SDLs depict that MSS shall wait for MOB_BSHO-RSP even after it sends MOB_HO-IND with HO cancel option.

In addition to the above problem, there is another problem in describing HO reject process. Even though MSS signaled rejection of Serving BS instruction to HO through HO_IND_type field in the MOB_HO-IND set value of 10, the MSS could choose Target BS from new Target BS list which is reconfigured by Serving BS. However, there is no such description in HO process SDLs.

In order to fix those problems, we propose the modified HO process SDLs.

2. Proposed changes to IEEE 802.16e-D3

6.3.20.5 HO process SDLs

[Change Figure 130k – locally initiated transaction MOB_BSHO-RSP pending state flow diagram]

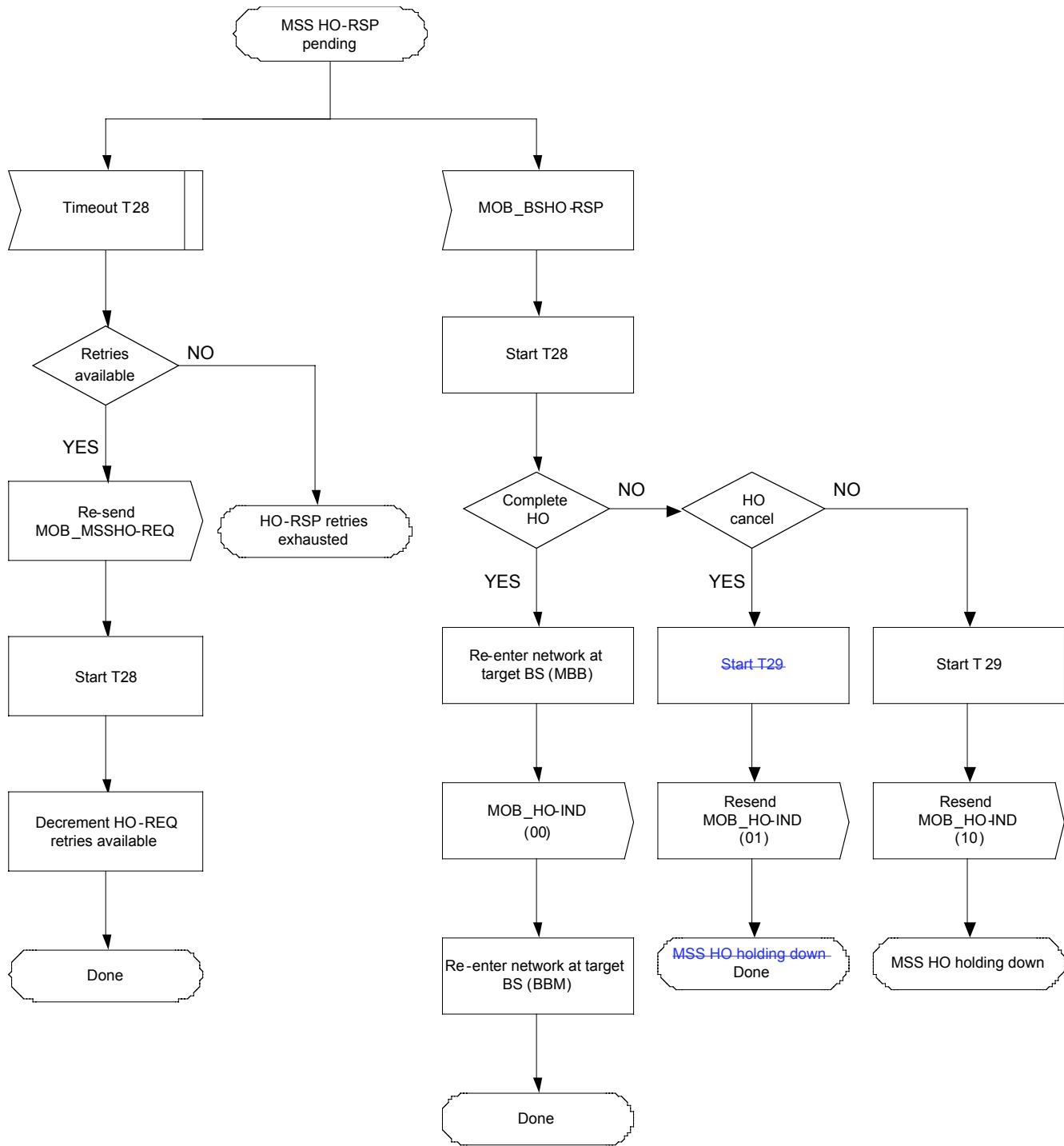


Figure 130k – locally initiated transaction MOB_BSHO-RSP pending state flow diagram

[Change Figure 1301 – MSS Handoff locally initiated transaction holding state flow diagram]

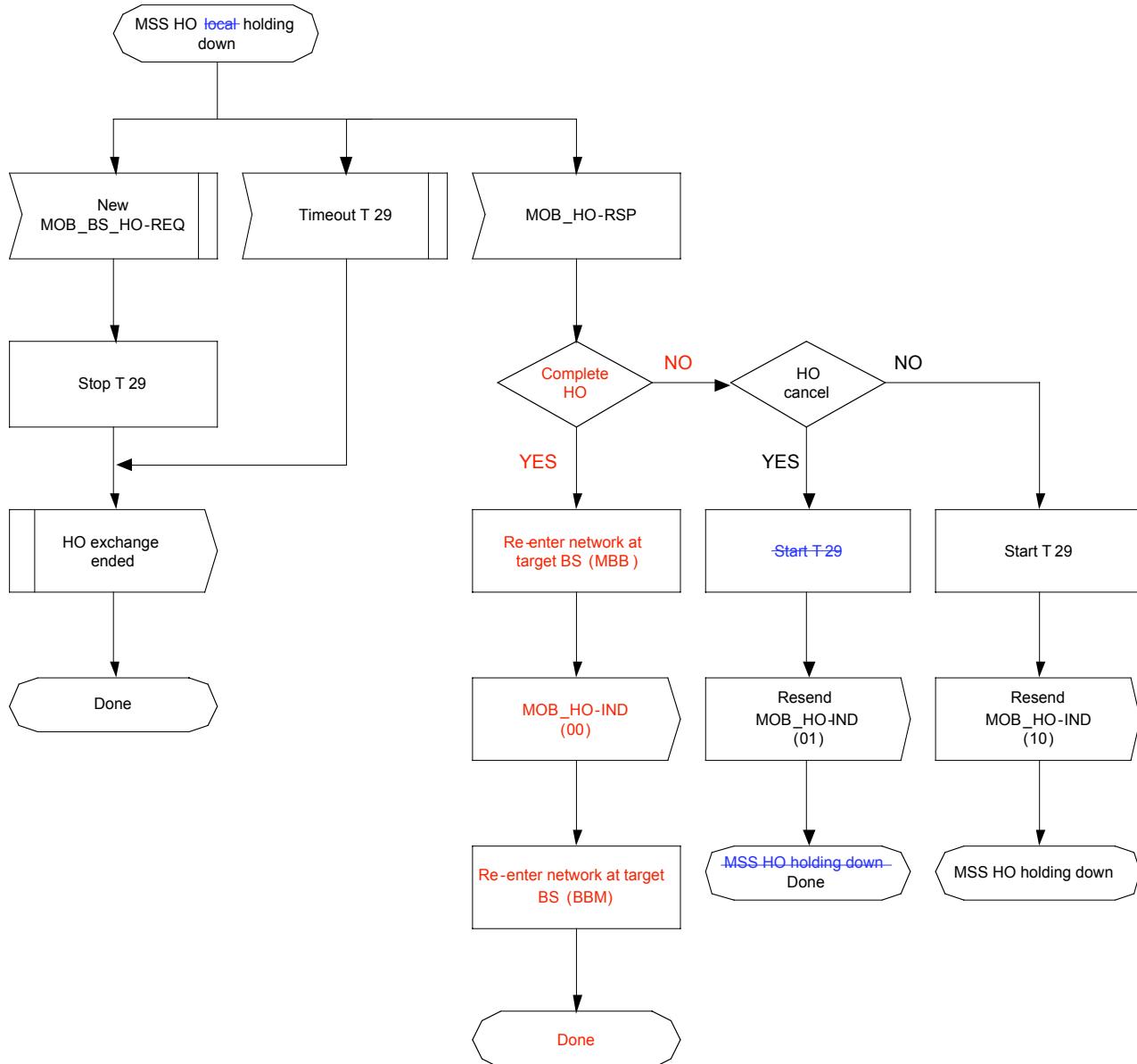


Figure 1301 – MSS Handoff locally initiated transaction holding state flow diagram

[Change Figure 130m – locally initiated transaction MOB_BSHO-RSP pending state flow diagram]

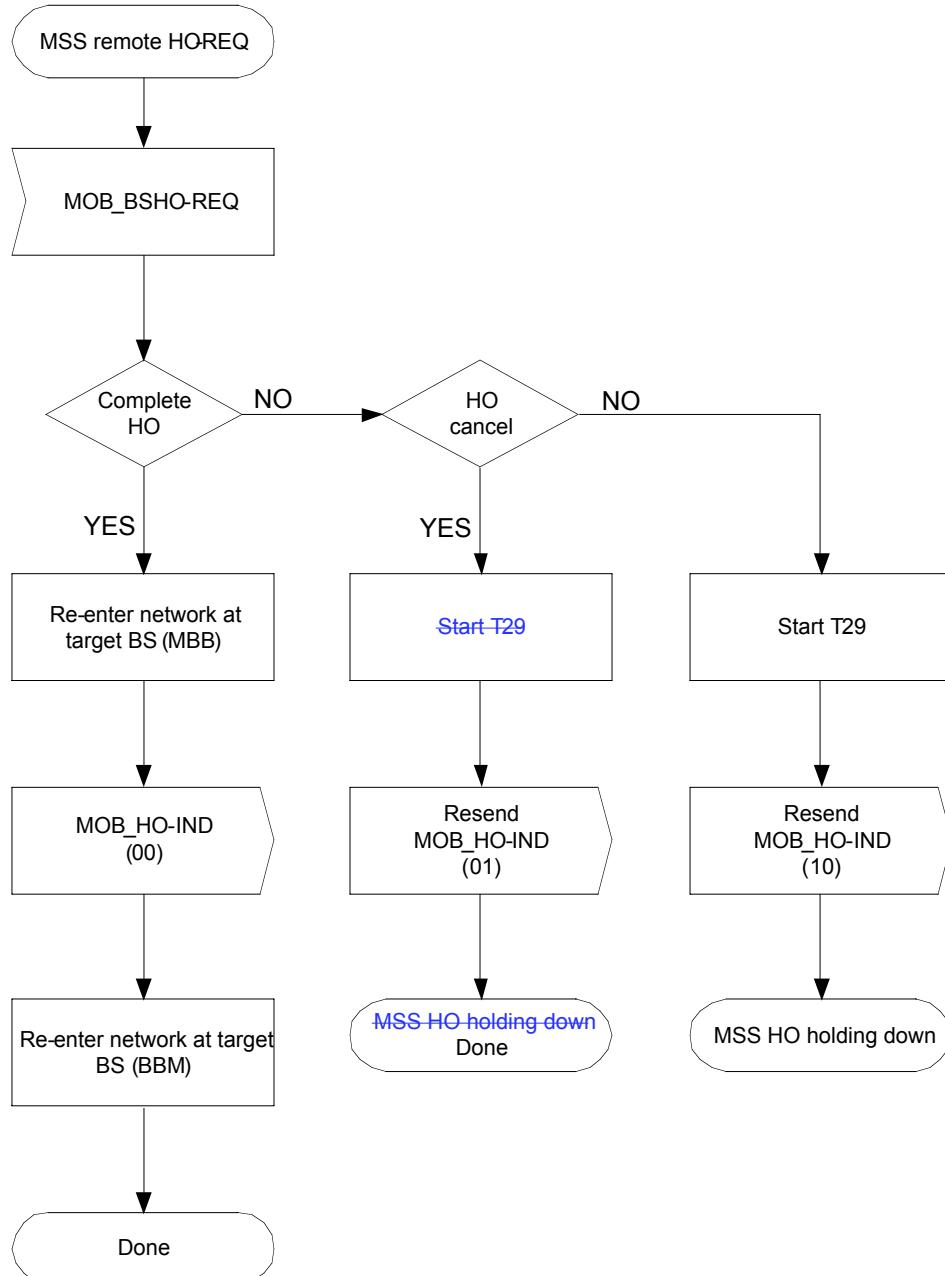


Figure 130m – locally initiated transaction MOB_BSHO-RSP pending state flow diagram

[Change the last row of Table 340a – Parameters and Constants]

System	Name	Time Reference	Minimum Value	Default Value	Maximum Value
MSS	Min_Sleep_Interval	Minimum sleeping time allowed to MSS	2 Frames		
MSS	Max_Sleep_Interval	Maximum sleeping time Allowed to MSS			1024 Frames
MSS	Listening_Interval	The time duration during which the MSS, after waking up and synchronizing with the DL transmissions, can demodulate downlink transmissions and decide whether to stay awake or go back to sleep			64 Frames

MSS	MOB_NBR-ADV interval	Nominal time between transmission of MOB_NBR-ADV messages			1s
MSS	ASC-AGING-TIMER	Nominal time for aging of MSS associations	0.1s		1s
MSS	Serving BS ID AGING-TIMER	Nominal time for aging of Serving BS association. Timer recycles on successful Serving BS DL-MAP read			5s
MSS	T28	Timer the SS waits for MOB_BSHO-RSP message			
MSS	T29	MOB_HO-IND timeout when sent with HO_IND_type= 01-0F 10			