Project	**IEEE 802.16 Broadband Wireless Access Working Group <**http://ieee802.org/16**>**	
Title	**Femtocell Base Station State Diagram**	
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Source(s)	Andreas Mäder, Linghang Fan, Tetsu Ikeda NEC Rong-Terng Juang, Pang-an Ting, Yu-Tao Hsieh, Fang-Ching Ren ITRI Hsin-Piao Lin NTUT	E-mail: andreas.maeder@nw.neclab.eu linghan.fan@eu.nec.com t-ikeda@ap.jp.nec.com rtjuan@itri.org hplin@ntut.edu.tw

Re:	Category: SDD comments / Area: Chapter 15 (Femtocell)
Abstract	The contribution provides a clarifying state diagram for femtocell base stations
Purpose	To be discussed and adopted by TGm for the 802.16m SDD
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Femtocell Base Station State Diagram

Andreas Mäder, Linghang Fan, Tetsu Ikeda
NEC

Motivation

Low duty mode has been introduced in the femtocell operation. However, the relationship among different modes in the femtocell BS is not very clear. It would be beneficial to define the state diagram to illustrate the transition among different states in the femtocell BS.

Insert the following text into the "Support for Femto" clause (IEEE 802.16m-08/003r8***):***

---------- Proposed text ----------

15. Support for Femtocell BS

Section 15.X Femtocell BS State Diagram

Figure XX illustrates the Femtocell BS state diagram. The state diagram contains an initialization and operational state.

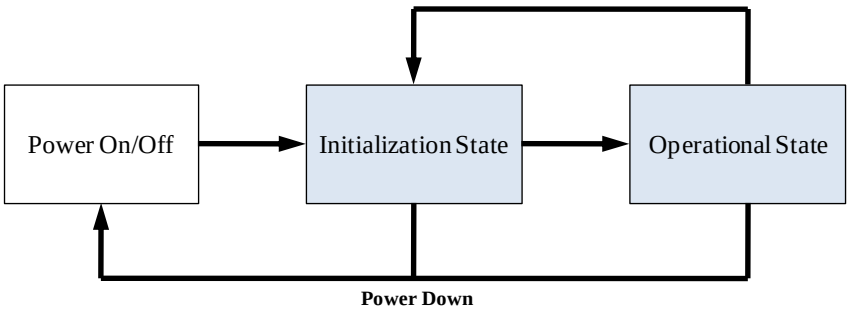

Figure XX: State transition diagram of Femtocell BSs

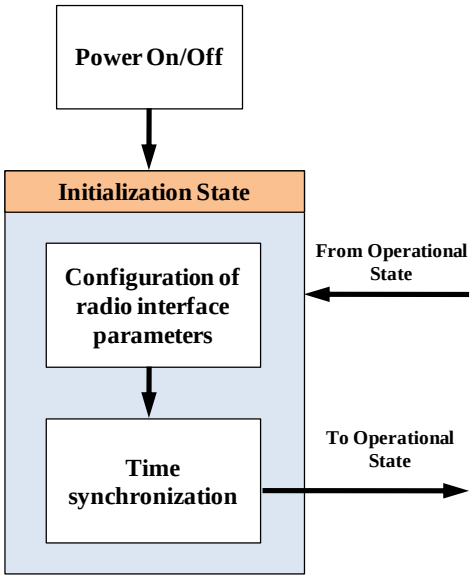

Figure YY: Femtocell BS initialization state

In the initialization state, procedures like configuration of radio interface parameters and time synchronization may be performed. See Figure YY for a graphical representation.

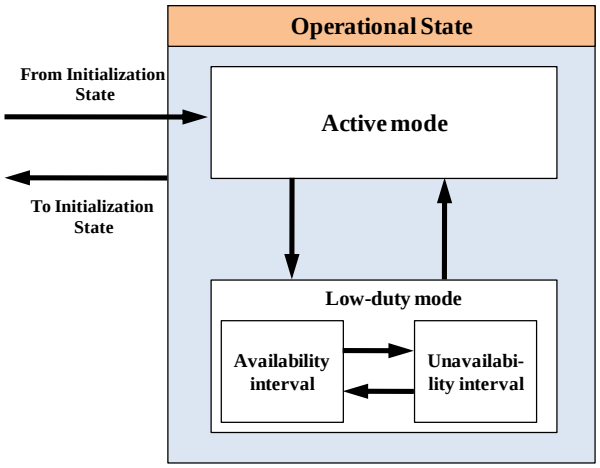

Figure ZZ: Femtocell BS operational state

After successfully attaching to the network, a femtocell BS enters the operational state. In the operational state, two operational modes may be supported: active mode and low-duty mode. In the low duty mode, availability intervals alternate with unavailability intervals. See Section 15.Y for further Details.