Annex 1

1. 1. A method (500) for controlling discontinuous reception, DRX, in a wireless transmit/receive unit, WTRU, (110) the method **characterized by** comprising:

receiving DRX configuration parameters from an eNodeB, eNB, (120), wherein the DRX configuration parameters comprise a first DRX cycle length, a second DRX cycle length, and a value for a <u>first</u> WTRU timer used for implicitly transitioning the WTRU between DRX cycle lengths;

operating (502) the WTRU at the first DRX cycle length;

using a second WTRU timer to trigger a transition to the second DRX cycle length;

operating (508) the WTRU at the second DRX cycle length, wherein the first DRX cycle length is a multiple of the second DRX cycle length;

setting the <u>first</u> WTRU timer upon beginning operation at the second DRX cycle length;

determining that the first WTRU timer has expired; and

responsive to determining that the <u>first</u> WTRU timer has expired, transitioning (512) to the first DRX cycle length without receiving explicit signaling from the eNB.

- 2. The method as in claim 1, further comprising synchronizing the <u>first</u> WTRU timer with a base station timer at the eNB.
- 3. The method as in claim 1, wherein the first DRX cycle length is a default DRX cycle length.
- 4. The method as in claim 1, wherein the DRX configuration parameters are received from the eNB via higher layer signaling.
- 5. The method as in claim 1, further comprising:

defining a DRX life span; and

redefining the plurality of DRX cycle lengths once per DRX life span.

- 6. The method as in claim 1, wherein the DRX configuration parameters are received in a radio resource control, RRC, message
- 7. The method as in claim 1, wherein the <u>first</u> WTRU timer is in units of Long Term Evolution, LTE, frames.
- 8. The method as in claim 1, wherein implicit transitions are implemented at a Medium Access Control, MAC, level.
- 9. A wireless transmit receive unit, WTRU, (110), **characterized by** a processor (215) being configured to:

receive discontinuous reception, DRX, configuration parameters from an eNode B, eNB, (1020), wherein the DRX configuration parameters compfirse [sic] a first DRX cycle length, a second DRX cycle length, and a value for a first WTRU timer used for implicitly transitioning the WTRU between DRX cycle lengths; and

operate (502) the WTRU at the first DRX cycle length;

use a second WTRU timer to trigger a transition to the second DRX cycle length;

operate (508) the WTRU at the second DRX cycle length, wherein the first DRX cycle length is a multiple of the second DRX cycle length;

set the <u>first</u> WTRU timer upon beginning operation at the second DRX cycle length;

determine that the first WTRU timer has expired; and

responsive to determining that the $\underline{\text{first}}$ WTRU timer has expired, transition (512) the WTRU to the first DRX cycle length without receiving explicit signaling from the eNB (120).

- 10. The WTRU as in claim 9, wherein the DRX configuration parameters are received from the eNB via higher layer signaling.
- 11. The WTRU as in claim 9, wherein the processor is further configured to synchronize the <u>first</u> WTRU timer with a base station timer utilized by the eNB.
- 12. The WTRU as in claim 9, wherein the DRX configuration parameters are received in a radio resource control, RRC, message.