**CT - LTE TDD data only feature memo**

**Design**

MP can allow AP to change LTE band pref by NAS client,

QMI command: #define QMI\_NAS\_SET\_SYSTEM\_SELECTION\_PREFERENCE\_REQ\_MSG\_V01 0x0033

MP use 64 bit to store LTE full band pref, the 0~31 bit is for TDD band, the 32~63 bit is for FDD band.

So if want to set TDD only, just clear 32~63 bit will be ok. If want to set FDD only, just clear 0~31 bit.

**API**

Exposed from OemHook.

/\*\*

\* FuncName: qcRilSetPreferredNetworkBandPref

\*

\* Description: Set preferred network band pref.

\*

\* @param bandPref band pref map

\* @param sub subscription ID

\*

\* @return true Or false

\*/

public boolean qcRilSetPreferredNetworkBandPref(int bandPref, int sub)

**bandPref** value pls refer to ENUM qcril\_qmi\_band\_pref\_e\_type

typedef enum

{

QCRIL\_QMI\_BAND\_PREF\_NONE = 0,

QCRIL\_QMI\_BAND\_PREF\_LTE\_FULL,

QCRIL\_QMI\_BAND\_PREF\_TDD\_LTE,

QCRIL\_QMI\_BAND\_PREF\_FDD\_LTE

} qcril\_qmi\_band\_pref\_e\_type;

**Implementation.**

1. Set LTE full band property in customer build version

persist.radio.lte\_full\_band 0x7ff5bdf3fff (0x7ff5bd3fff just a reference)

1. Invoke qcRilSetPreferredNetworkBandPref() to set LTE FULL, TDD LTE or FDD LTE
2. Invoke setPreferredNetworkType to set NW to trigger the whole process.

**Sample**



Enable 4G (set NW -> PREF\_NET\_TYPE\_LTE\_CMDA\_EVDO\_GSM\_WCDMA )

Disable 4G (set NW -> PREF\_NET\_TYPE\_GSM\_WCDMA\_CDMA\_EVDO\_AUTO)

Please refer to RIL\_PreferredNetworkType

*typedef enum {*

*PREF\_NET\_TYPE\_GSM\_WCDMA = 0, /\* GSM/WCDMA (WCDMA preferred) \*/*

*PREF\_NET\_TYPE\_GSM\_ONLY = 1, /\* GSM only \*/*

*PREF\_NET\_TYPE\_WCDMA = 2, /\* WCDMA \*/*

*PREF\_NET\_TYPE\_GSM\_WCDMA\_AUTO = 3, /\* GSM/WCDMA (auto mode, according to PRL) \*/*

*PREF\_NET\_TYPE\_CDMA\_EVDO\_AUTO = 4, /\* CDMA and EvDo (auto mode, according to PRL) \*/*

*PREF\_NET\_TYPE\_CDMA\_ONLY = 5, /\* CDMA only \*/*

*PREF\_NET\_TYPE\_EVDO\_ONLY = 6, /\* EvDo only \*/*

*PREF\_NET\_TYPE\_GSM\_WCDMA\_CDMA\_EVDO\_AUTO = 7, /\* GSM/WCDMA, CDMA, and EvDo (auto mode, according to PRL) \*/*

*PREF\_NET\_TYPE\_LTE\_CDMA\_EVDO = 8, /\* LTE, CDMA and EvDo \*/*

*PREF\_NET\_TYPE\_LTE\_GSM\_WCDMA = 9, /\* LTE, GSM/WCDMA \*/*

*PREF\_NET\_TYPE\_LTE\_CMDA\_EVDO\_GSM\_WCDMA = 10, /\* LTE, CDMA, EvDo, GSM/WCDMA \*/*

*PREF\_NET\_TYPE\_LTE\_ONLY = 11, /\* LTE only \*/*

*PREF\_NET\_TYPE\_LTE\_WCDMA = 12, /\* LTE/WCDMA \*/*

*PREF\_NET\_TYPE\_TD\_SCDMA\_ONLY = 13, /\* TD-SCDMA only \*/*

*PREF\_NET\_TYPE\_TD\_SCDMA\_WCDMA = 14, /\* TD-SCDMA and WCDMA \*/*

*PREF\_NET\_TYPE\_TD\_SCDMA\_LTE = 15, /\* TD-SCDMA and LTE \*/*

*PREF\_NET\_TYPE\_TD\_SCDMA\_GSM = 16, /\* TD-SCDMA and GSM \*/*

*PREF\_NET\_TYPE\_TD\_SCDMA\_GSM\_LTE = 17, /\* TD-SCDMA,GSM and LTE \*/*

*PREF\_NET\_TYPE\_TD\_SCDMA\_GSM\_WCDMA = 18, /\* TD-SCDMA, GSM/WCDMA \*/*

*PREF\_NET\_TYPE\_TD\_SCDMA\_WCDMA\_LTE = 19, /\* TD-SCDMA, WCDMA and LTE \*/*

*PREF\_NET\_TYPE\_TD\_SCDMA\_GSM\_WCDMA\_LTE = 20, /\* TD-SCDMA, GSM/WCDMA and LTE \*/*

*PREF\_NET\_TYPE\_TD\_SCDMA\_GSM\_WCDMA\_CDMA\_EVDO\_AUTO = 21, /\* TD-SCDMA, GSM/WCDMA, CDMA and EvDo \*/*

*PREF\_NET\_TYPE\_TD\_SCDMA\_LTE\_CDMA\_EVDO\_GSM\_WCDMA = 22 /\* TD-SCDMA, LTE, CDMA, EvDo GSM/WCDMA \*/*

*} RIL\_PreferredNetworkType;*



**Enable 4G single data**

**Checked,** set TDD only by qcRilSetPreferredNetworkBandPref(); set NW to LTE only.

**Unchecked,** set FDD only by qcRilSetPreferredNetworkBandPref(); set NW to value cached last time.