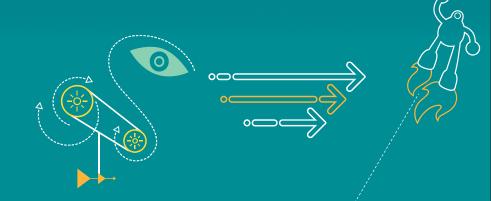# 高通协议技术期刊 –2015/03/06

QUALCOMM®

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Revision History

Revision	Date	Description
A	Mar 2015	Initial release

Note: There is no Rev. I, O, Q, S, X, or Z per Mil. standards.

Contents

- 8916/8939/9x30系统解决方案
- MBN solution number
- CMCC documents
- China Telecom documents
- China Unicom documents
- CTA documents
- Notification for New Connection Status Addition in QMI_WDS Message
- Feature FEATURE_3G_USER_NW_REDIR_TO_LTE

8916/8936/9x30系统解决方案Solution

- 为了直观，便于检索，我们在Saleforce系统上编写了系统解决方案。包含各个技术领域，便于大家查找。
- 8916系统解决方案
- Solution Number: 00029134
- 链接： https://qualcomm-cdmatech-support.my.salesforce.com/50130000000VfUZ?srPos=0&srKp=501

- 8939系统解决方案
- Solution Number: 00029333
- 链接：https://qualcomm-cdmatech-support.my.salesforce.com/50130000000Vg5B

- MDM9x30/9x35系统解决方案
- Solution Number 00029678
- https://qualcomm-cdmatech-support.my.salesforce.com/50130000000ViGQ

MBN介绍

- MBN的设计需求，文档，实现方法, 请参阅Solution number:00029357.

- https://qualcomm-cdmatech-support.my.salesforce.com/50130000000VgDA?srPos=0&srKp=501

- 因为客户量产的版本可能不是高通最新的版本，但是MBN却随着软件版本不断的更新，所以推荐将高通最新软件版本的MBN，合入客户的版本中。

- Solution 00030261
- MBN build command for Windows when Excel not work.

CMCC documents

Solution 00030525 will be available next week.

Here is CMCC documents which is helpful to customer do product acceptance.

Summary

80-NM982-1_D_CMCC_and_CTA_Test_Summary

CMCC Device Acceptance Process

80-NJ360-1_B_CMCC_Device_Acceptance_Process

80-NL851-2_A_CMCC_Lab_Conformance_SOP

80-NR877-1_A_CMCC_Precertification_Lab_OEM_Checklist

MBN configuration

80-NP425-1_G_CMCC_DevConfig_Testing_Information

80-NP686-1_C_ConfiguringUE_usingMBN

80-N5576-96_D_Modem_SW_Config_Overview

RFI

80-NR059-1_A_CMCC_Requirement_Table

UE workaround and configuration/application

80-NL684-1_A_Interop_Issue_CMCC_Networks

80-NP460-3_B_CMCC_DM_Configuration

80-NP750-1_B_Supporting_Google_SUPL_Server_CMCC_TD-SCDMA_China_NW

80-NR044-1_A_CMCC_FT_Issues_Solution

80-NT266-1_A_CMCC_Power_App

80-VL975-21_A_QRD_CMCC_WLAN_LTE_Field_Test

80-VL975-22_A_QRD_CMCC_WLAN_RF_Test

80-VL975-23_A_QRD_CMCC_WLAN_BT_FM_Function_Test

80-NV111-1 (A)_PRESENTATION: CMCC PA GUIDANCE RF VERIFICATION AND TROUBLESHOOTING

CMCC documents

Standard Operation Process(SOP)

80-ND934-2，80-ND934-2EC

DATA THROUGHPUT TROUBLESHOOTING

80-NJ378-1: WCDMA AUDIO ISSUE DEBUG OVERVIEW

VD80-NJ378-1SC: VIDEO: WCDMA AUDIO ISSUE DEBUG OVERVIEW -
SIMPLIFIED CHINESE

80-ND934-1_B GSM_OOS_AND_MT_CALL_FAILURE_APPLICATION_NOTES

80-NV403-1EC MODEM协议技术普及文档

80-NV076-1EC UE掉网问题分析指导书

Test Report

80-NF025-1

80-NP554-1_C_Consolidated_CMCC_LTE_Terminal_Test_Plan_v4.0

Hardware Design Guide

80-NP135-1 QRD8926 HARDWARE AND SYSTEM MANUAL FOR CMCC

China Telecom documents

- Solution 00030526 will be available next week.
- 80-NP911-1_A_New_SPC_Code_Support_CT
- 80-NP748-6_A_China_Telecom_Lab_Conformance test case result for MSM8916
- 80-NR861-1_B_CT_Linux_Data_Add_PDN_LEVEL AUTHENTICATION SUPPORT
- 80-NU197-1_A_CHINA TELECOM A-GPS SERVER ISSUES OBSERVED
- 80-NT036-2_A_OEM_Checklist_CT
- 80-NU252-1_A_China_Telecom_Precert_Lab_Review
- 80-NR766-1_F_ChinaTelecom_DeviceConfiguration
- 80-VL975-18EC_B_QRD_China_Telecom_LBS_Test_Method

China Unicom telecom

- Solution 00030529 will be available next week.
- 80-NL855-1_A_Config_UE_Disable_LTE_FDD
- 80-NM643-1_A_Carrier_Policy_CU
- 80-NV203-1_A_China_Unicom_PLMN_ID_46009 support

CTA documents

Solution 00030530 will be available next week.

80-NM982-3 "CTA Device Configuration and Testing Information

Notification for New Connection Status Addition in QMI_WDS Message

- We have an enhancement on QMI_WDS_GET_PKT_SRVC_STATUS_RESP to avoid some race condition issue. Please refer to Application Note 80-NV629-1.

Feature FEATURE_3G_USER_NW_REDIR_TO_LTE

- This feature handles the network issue where the network issue scenario as below where UE goes for ping pong give no service to user.

- When a 3G only USIM is used in a 4G device, the UE is allowed by the 3GPP specs to try to get service on 4G NW. 4G Core Network will anyway, after having got info that this subscriber is not allowed in 4G, reject the UE request with cause #15, no suitable cells in tracking area.

- This happens at power up when UE detects 4G coverage.

- Then UE will try to get service on 3G NW; the procedure is successful, but since UE correctly communicates to NW in its capabilities that LTE is supported, the NW (since redirection from W to L is supported), unfortunately, during registration or RAU procedure, will ask UE to measure LTE cells, and since they are present in that area, as soon as UE reports them, the NW will send a redirection command to LTE via RRC Connection Release message.

- Now UE will have to stop 3G and will try to get service again on 4G (in this period on UI user should see that UE has no coverage and of course he could not do any data traffic); after first reject, UE will not even try to get service on 4G if from SIBs it detects that the TA is not allowed, but after 4G scan will be finished unsuccessfully, it will go back to 3G. Hence it's resulting to UMTS-LTE ping pong effect.

Feature FEATURE_3G_USER_NW_REDIR_TO_LTE

If this feature is enabled. Network issue is mitigated as below.

1) LTE HPLMN or EHPLMN is added to back off forbidden list for a duration mentioned in EFS(/nv/item_files/modem/mmode/extend_lte_disable_duration in seconds) if
a. Rejected on LTE with cause #8 or #15 and
b. SIM is not capable of EPS storage and
c. Current SIM was never accepted on LTE
2) On NW reject, LTE PLMN is not added to forbidden list so that on expiry of timer later on, NAS will retry registration on LTE to be able to kick in this optimization again on NW reject.
3)On NW reject, TAI is not added to FTAI list for the same reason as above
4)On NW reject with #8, we are not invalidating SIM if we are disabling LTE
5) On SIM change, this optimization is triggered again to send disable LTE indication to CM on fulfillment of the above conditions

NAS will disable LTE while camped on HPLMN or EHPLMN in GW till it's in back-off forbidden list. On timer expiry, NAS will remove HPLMN or EHPLMN from back off forbidden list i.e. enable LTE if UE is camped on HPLMN or EHPLMN in GW.

P.S
1) This feature is disabled by default as network has to correct the behavior. This can be enabled for UE as per need.
2) Code is present only on software PL DIME 2.x onwards

References

Ref.	Document	
Qualcomm Technologies		
Q1	*Application Note: Software Glossary for Customers*	CL93-V3077-1
Standards		
S1	*Title*	Standard Number (June 2002)
Resources		
R1		

Questions?

https://support.cdmatech.com