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# 高通协议技术期刊 – 2015/01/26

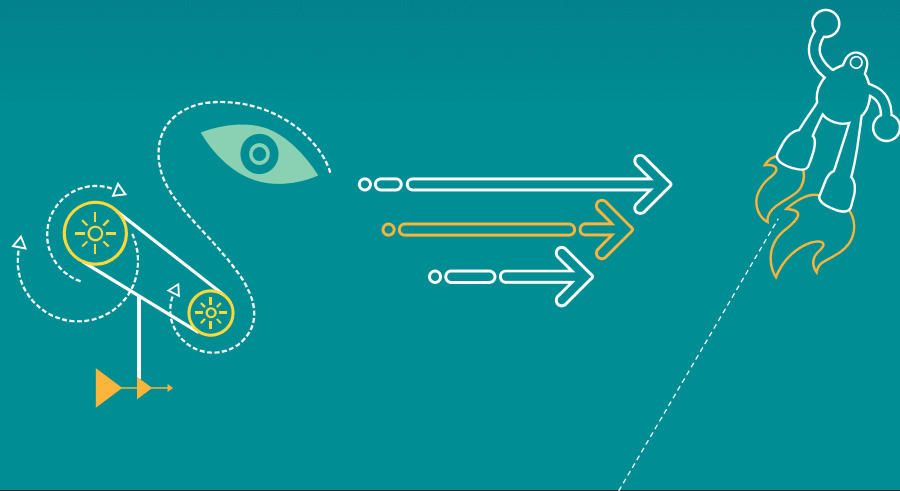
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Qualcomm Technologies, Inc.

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**Qualcomm Technologies, Inc. 5775 Morehouse Drive San Diego, CA 92121 U.S.A.**

高通技术股份有限公司，美国加利福尼亚州圣地亚哥市莫豪斯路 5775 号，邮编 92121

# Revision History

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Revision	Date	Description
A	Jan 2015	Initial release

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

# Contents

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- 8916/8939/9x30系统解决方案
- MBN solution number
- CMCC/CT项目推荐版本
- 中国联通USIM卡启用新PLMN460-09
- CMCC CSFB TAU被网络拒绝问题
- 8994/8939不识别卡问题
- 全网通解决方案文档

# 8916/8936/9x30系统解决方案Solution

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- 为了直观，便于检索，我们在Salesforce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

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- 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。

# CMCC/CT项目推荐版本

为了更快速有效的支持客户在CMCC/CT的测试认证，我们推荐在一段时间内，所有客户使用统一的高通软件版本，以便于快速发现和解决问题。

以下是截止到2015年1月23日，推荐的软件版本。如有客户近期产品要送测CMCC/CT，请使用如下软件版本。

Date	MSM8916.LA.1.0	MSM8916.LA.1.1	Recommendation	
01/02/15	M8916AAAAANLYD103513	M8916AAAAANLYD113513	Recommended for OEMs entering CMCC/CU/CT PA	CMCC: 80-NT946-3 CT: 80-NT945-4"

Date	MSM8939.LA.1.0	MSM8939.LA.1.1	Recommendation	
01/07/15	M8939AAAAANLYD1038	M8939AAAAANLYD1138	Recommended for OEMs entering CMCC/CU/CT PA	80-NU399-3 - CT 80-NU398-3 - CMCC

# CMCC/CT项目推荐版本

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Date	MSM8939.LA.2.0.1.c9	MSM8939.LA.2.1.1.c9	Recommendation	
01/09/15	<a href="#">M8939AAAAANLYD2010902.6</a>	<a href="#">M8939AAAAANLYD2110902.6</a>	Release on China CPL	
12/26/14	<a href="#">M8939AAAAANLYD2010901.1</a>	<a href="#">M8939AAAAANLYD2110901.1</a>	First release from China CPL	



# 中国联通USIM卡启用新PLMN460-09

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中国联通USIM卡启用新PLMN460-09，以下文档是为了满足中国联通的需求而制定的解决方案。

80-NV203-1\_A\_China\_Unicom\_PLMN\_ID\_460-09\_Support

# CMCC CSFB TAU被网络拒绝问题

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- **test step**

- 1. UE do CSFB and successful
- 2. After CSFB, UE fast return to LTE
- 3. CMCC LTE NW rejected UE TAU request with cause\_value = 9 (0x9) (UE identity cannot be derived by the network)

- **Solution: disable DTM function**

- 3628
- NV\_DTM\_FEATURE\_SUPPORT\_I (DUAL TRANSFER MODE (DTM)) ---- set to 0
- 3629
- NV DTM Multislot class set to 0
- 4209
- NV\_EDTM\_FEATURE\_SUPPORT\_I (ENHANCED DUAL TRANSFER MODE (EDTM)) ----set to 0

# 8994/8939不识别卡问题

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- Here's a hot issue on 8994/8909 platform.
- Because from BO2.0 modem, SIMLOCK will use a brand new implement (old perso engine was completely removed).
- Many customer still use old way to backup efs->delete /mmgsdi to avoid SIMLOCK check failure issue, but found not work.
- 
- For 8994/8909 with new SIMLOCK feature present. They should use new method which is summarized as below:
- 
- **Issue Description:**
- SIM cannot recognized when use a backup EFS from another device.
- 
- **Log Analysis:**
- 00:15:55.522    simlock\_modem\_lib.c 00633 ENTER simlock\_run\_algo
- 00:15:55.522            simlock.c 00653 simlock\_run\_algorithm
- 00:15:55.523            simlock\_sfs.c 00186 **sfs\_open error**
- 00:15:55.523            simlock\_config.c 00458 config file check failed, status: 0x1, len: 0x0
- 00:15:55.523            simlocklib.c 00170 simlock process message, status: 0x1
- This is because new simlock use configure file store under /safe which was a private folder.
- Customer cannot delete simlock folder under /safe directory.
- 
- *static char \*simlock\_sfs\_dir            = "/safe/simlock";*  
*static char \*simlock\_sfs\_config\_file   = "/safe/simlock/config";*

# 8994/8939不识别卡问题

- 
- **Solution:**
- Customer can comment out below highlighted line to remove protection for /safe folder . then they can delete /safe/simlock to resolve the issue.
- 
- void
- efs\_privatedir\_init (void)
- {
- /\* Remove any file by this name and then try to create this directory \*/
- (void) efs\_unlink (FS\_EFS\_PRIVATE\_DIR\_PATH);
- (void) efs\_mkdir (FS\_EFS\_PRIVATE\_DIR\_PATH, 0755);
- /\* Blow away if there are any contents in the iter directory. \*/
- (void) efs\_deltree (FS\_EFS\_PRIVATE\_DIR\_ITER\_PATH);
- /\* Remove any file by this name and then try to create this directory \*/
- (void) efs\_unlink (FS\_EFS\_DIAG\_SAFE\_DIR\_PATH);
- (void) efs\_mkdir (FS\_EFS\_DIAG\_SAFE\_DIR\_PATH, 0755);
- /\* Register a callback with diag for any attempt to access to our
- '/.efs\_private and /safe' folder \*/
- fs\_privatedir\_list[0] = FS\_EFS\_PRIVATE\_DIR\_PATH;
- fs\_privatedir\_list[1] = FS\_EFS\_DIAG\_SAFE\_DIR\_PATH;//comment out this line
- diag\_fs\_register\_access\_check (fs\_privatedir\_list, FS\_PRIVATE\_DIR\_COUNT,
- efs\_privatedir\_check\_diag\_access\_cb);
- }

# 全网通解决方案文档

- 针对全网通手机需求，高通推出了基于MBN自动切换，而且支持主卡在卡1和卡2之间任意切换的全网通解决方案。它的基本设计思想如下。
- 软件和配置数据（包括NV/EFS/Policy文件）分离。
- 针对某一个运营商的配置数据（包括NV/EFS/policy文件）被放到一个新的文件里面，这个文件叫做mcfg\_sw.mbn，这个mcfg\_sw.mbn是可以用Excel表格的宏来编辑的。对于DSDS产品，3个运营商的CMCC CSFB+G DSDS，CU CSFB+G DSDS，以及CT SRLTE+G DSDS需求，需要用户预先用QPST的MCFG\_PDC工具把这3种MBN装载到手机里面。
- 软件是多卡多模的，能支持中国三个运营商的所有频段和制式。
- MBN自动切换功能。MCFG作为一个新的模块被引入，它的功能是在modem启动之前，检测SIM卡的ICCID号码，来判断这个SIM卡属于哪个运营商，然后自动将这个运营商的配置数据，即MBN文件，装载到手机里面。然后手机的modem重新启动。modem不需要重新启动的解决方案将会在Bolt 2.1/ TH1.0.1 (2015年3月)/ TH1.1 以及以后的版本中实现。
- 主卡在卡1和卡2之间任意切换的功能。当手机开机和从用户界面上改变主卡的时候，MBN可以根据主卡的类型而自动切换。这个功能在DPM2.0/JO.1.0上已经实现。对于双卡产品，一个卡槽支持包含LTE的各种制式，称为多模主卡；另一个卡槽仅仅支持GSM。在DPM2.0/JO1.0上，当用户将多模（包含LTE的mode prefer）和数据业务（data service）由一个卡槽切换到另外一个卡槽的时候，MBN会检测新的主卡的SIM卡的ICCID属于哪个运营商，然后就装载这个运营商的MBN。
- 在DPM2.0/JO.1.0以及以后的芯片中支持主卡在卡1和卡2之间任意切换的功能，推荐客户使用这些芯片来开发全网通产品。
- 详细解决方案文档80-NR083-1\_C会在2015年1月底之前发布给客户。

# References

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

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## Questions?

<https://support.cdmatech.com>

