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FIBOCOM_NL668&NL652_Private_ Network_Data_Call_Guide

Version：V1.0.0

Date：2018-06-21

Applicability type

No.	Product model	Description
1	NL668 Series,	NA
2	NL652-EU-00	NA

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Versions

Version	Author	Assessor	Approver	Update Date	Description
V1.0.0	Wang Qiang	Long Yiliang	Xie Xiangcun	2018-06-21	Initial version

Contents

1 Precondition

Precondition:using network operator’s SIM card, Use data services

1. Must configure the corresponding APN name,especially, using the private network sim card, you must config the private APN message, If the operator does not provide private APN name, fill in the corresponding operator's public network APN, then UE may be reg to public network, Generally, the mark of distinction between public network and private network is APN name. If need private network, please use private network APN.

2.Must configure the corresponding user name, password, especially ,when use the private network sim card, It must have a user name and password,if you did not known them ,please ask the operater. If the operate did not have username and password, It can be configed ‘card’ ‘card’ as username and password. if you did not use them, it maybe can not register to the private network, or you can not use the data services

3.Please confirm that the authentication type with the operater ,if the operater did not give, please use the PAP type or the PAP&CHAP type.

4.The private network message , such as APN , authentication type，username and password, you can get from the network operater.

5. you can query the APN message from the module as figure 1:

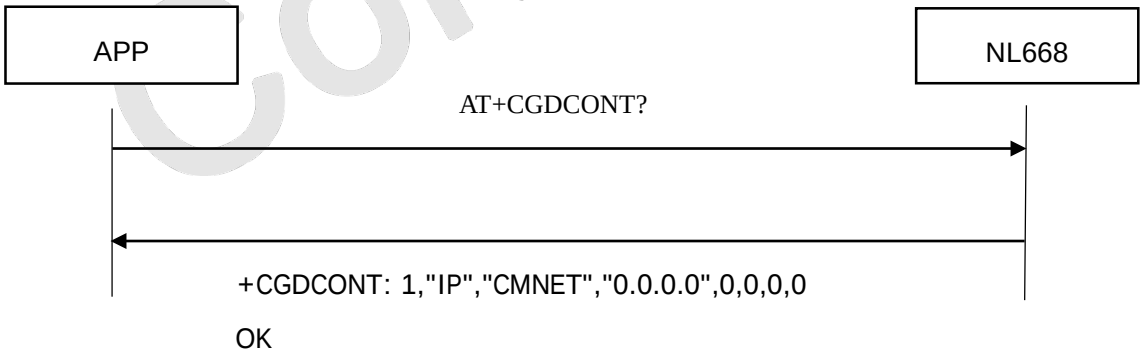

Figure 1: APN Query

2 PPP data call under 3GPP Protocol

3GPP protocol contain the RAT , such as GSM UMTS TD-SCDMA LTE

3GPP2 protocol contain the RAT , such as CDMA EVDO except EHRPD,The EHRPD network can only use NDIS or ECM dialing and cannot use PPP dialing. It is recommended to shut down the EHRPD network by default

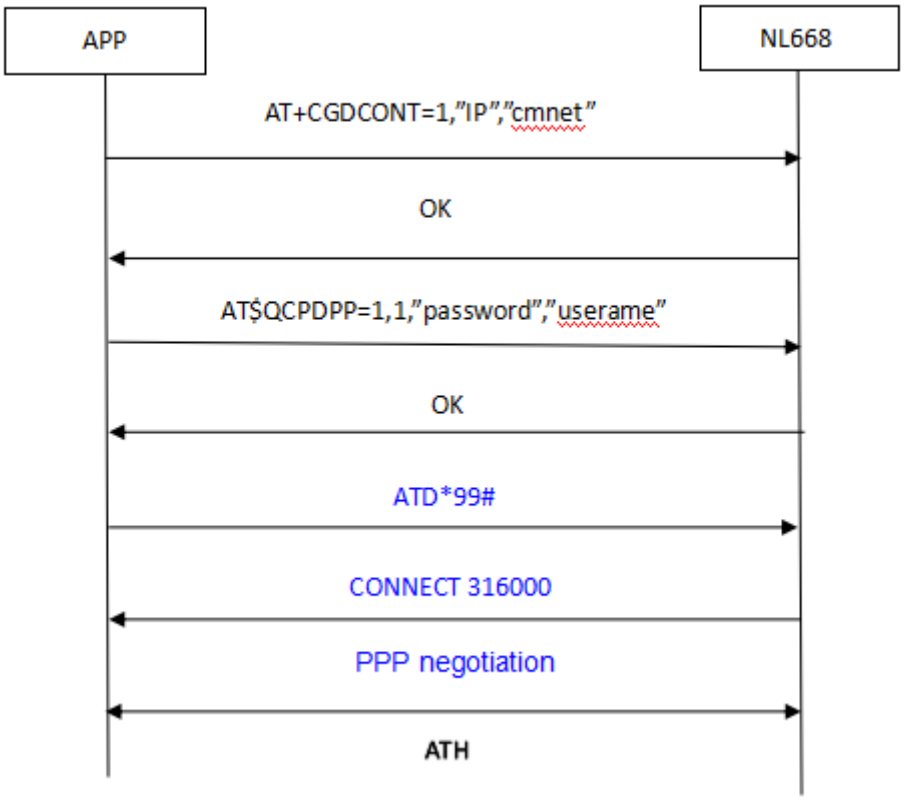

Figure 2: PPP Dial Method under 3GPP Protocol

1) Query the APN message and set the right APN by the command'AT+CGDCONT=1, IP, cmnet '(In this figure, Take the CMCC as a example, the APN is CMNET);

Note:

please contact the local operater to obtain the APN, and set it according to the actual APN.

2) sets the user name and password by the AT command ,'AT$QCPDPP = <Cid> , <Auth_Type> , <PassWord> , <UserName>', such as the command 'AT$QCPDPP = 1,1,"password","userame"' ,the second parameter mean that the authentication type is pap

The other parameter meanning ,please refer to AT manual document

3)Add the username and password keywords to the dial-up script and configure the corresponding parameters

4) Dial the data call by the command “ATD*99#”;

5) Start PPP negotiation. After the negotiation succeeds, the IP address is obtained and the network data exchange can be performed normally.

6) ATH hangs up data connection or network detach

Note:

1) If under win system, dial PPP data call by the dial-up connection , configure the user name and password,as follow

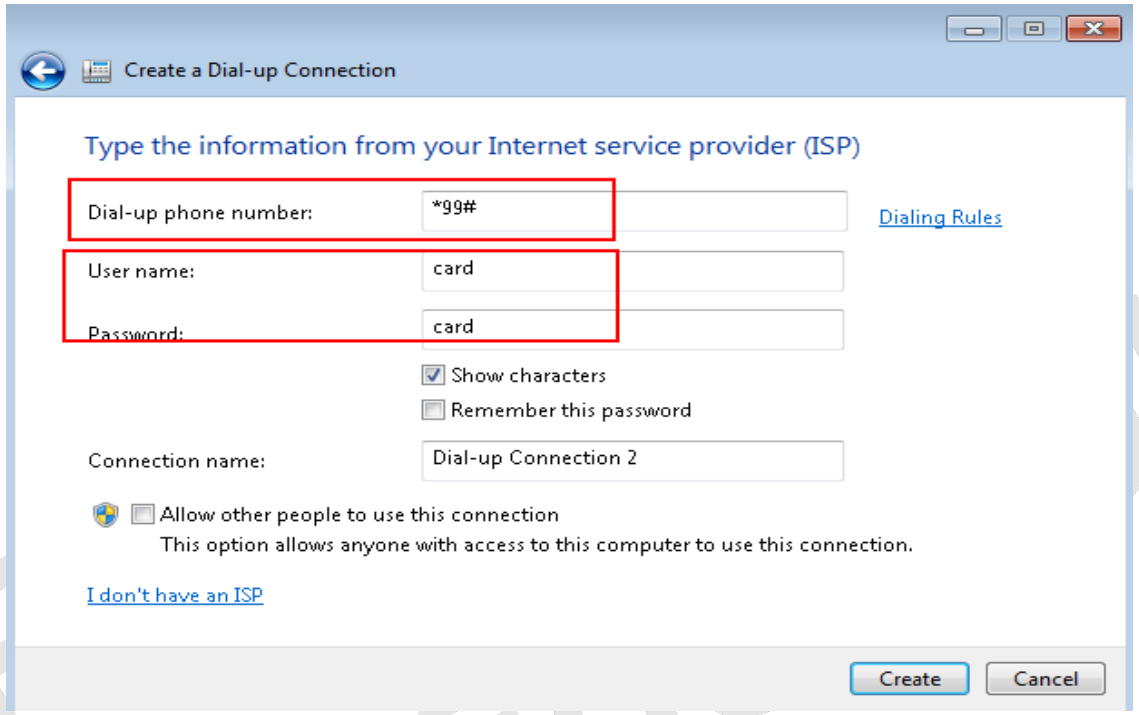

Figure 3: PPP data call under Win

2) The blue part is an command for dial under LINUX, which is not required in the windows system.

3 PPP Data call under 3GPP2 Protocol

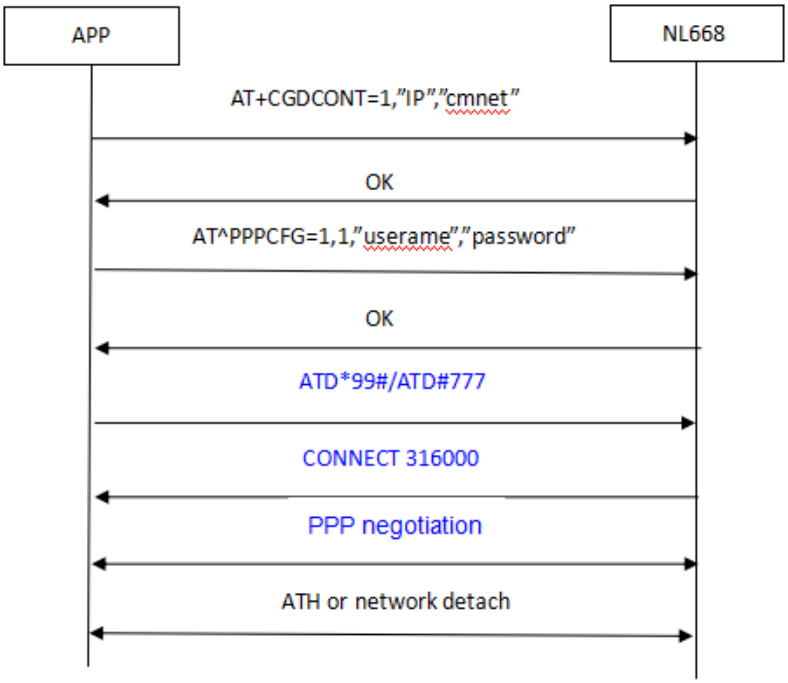

Figure 4: PPP data call under 3GPP2 Protocol

1) Query the APN message and set the right APN by the command'AT+CGDCONT=1, IP, CMNET '(In this figure, Take the CMCC as a example, the APN is CMNET);

Note:

please contact the local operater to obtain the APN, and set it according to the actual APN.

2) sets the user name and password by the AT command 'AT^PPPCFG="username","password"'

3）Add the username and password keywords to the dial-up script and configure the corresponding parameters

4)Dial the data call by the command "ATD*99#" or "ATD#777";

5) Start PPP negotiation. After the negotiation succeeds, the IP address is obtained and the network data exchange can be performed normally.

6) ATH hangs up data connection or network detach

Note:

In the china, Please note that Telecom 4G is a 3GPP protocol, and 2G, 3G is Telecom 3GPP2 protocol. The way to configure user name and password is different. One is the qcpdpp command, and the other is the pppcfg command.

4 NDIS Data call under 3GPP Protocol

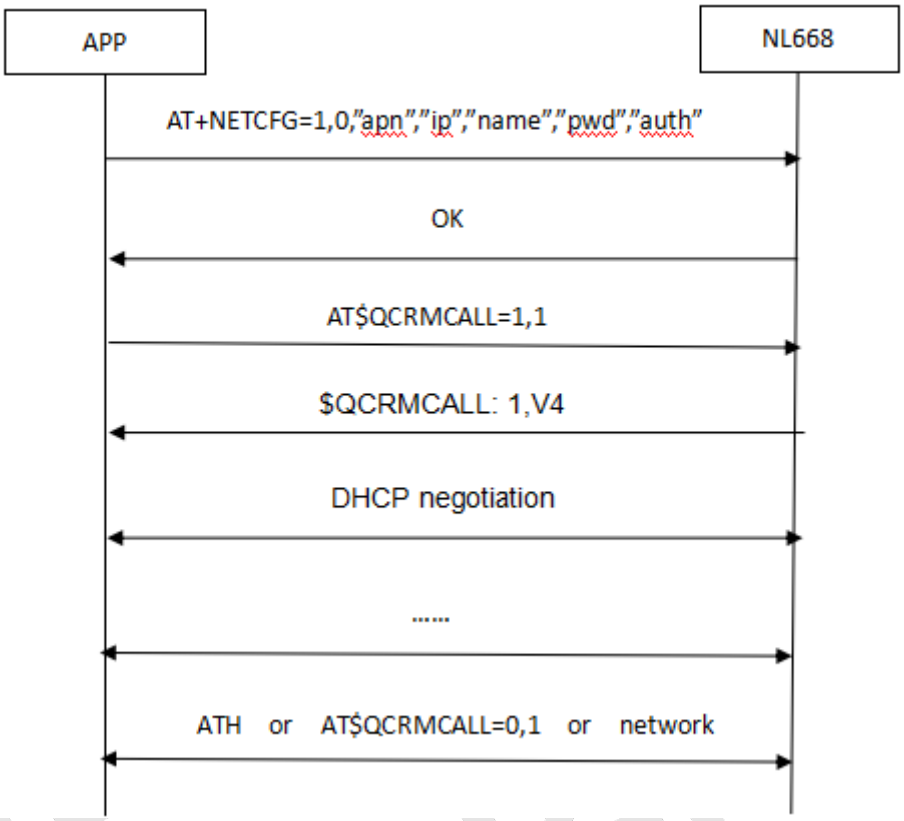

Figure 5: NDIS Dial under 3GPP Protocol

1)set the right APN by the command'AT+NETCFG=1,0,"apn","ip","username","pwd","auth"

', apn is APN name of the private sim card;pwd mean password, auth mean the authentication type, it is PAP，CHAP or PAP_CHAP

2) Input command 'AT$QCRMCALL=1,1', dial ndis data call

3) Start the NIDS negotiation. After the negotiation succeeds, the IP address is obtained and the network data exchange can be performed normally.

4) disconnect by the AT command'ATH' or ' AT$QCRMCALL = 0, 1' , or the network hangs up.

5 NDIS Data call under 3GPP2 Protocol

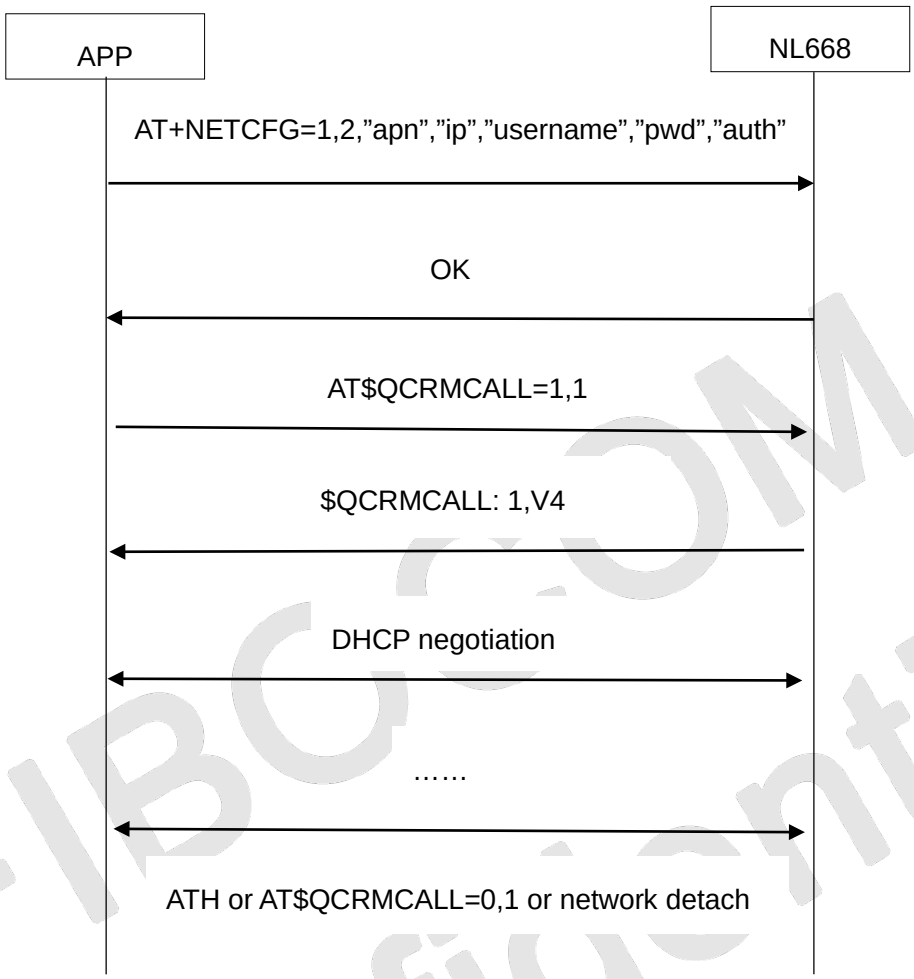

Figure 6: NDIS Dial under 3GPP2 Protocol

1)set the right APN by the command‘AT+NETCFG=1,2,”apn”,”ip”,”username”,”pwd”,”auth”’, apn is private APN name of the private sim card;pwd mean password, auth mean the authentication type, it is PAP ,CHAP or PAP_CHAP

2) Input command ‘AT$QCRMCALL=1,1’, dial ndis data call

3) Start the NIDS DHCP negotiation. After the negotiation succeeds, the IP address is obtained and the network data exchange can be performed normally.

4) disconnect by the AT command‘ATH’ or ‘ AT$QCRMCALL = 0, 1’ , or the network hangs up.