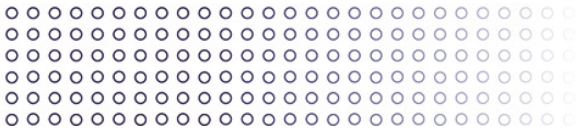

OPTION
WIRELESS TECHNOLOGY

Software API

OPTION 7.2 Interface

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About this document

Overview and Purpose

This document lists the set of AT commands that are used for connection management with Option 7.2 data cards.

Confidentiality

Version History

Date	Version	Author(s)	Revision(s)	Remarks
Jun 11, 2007	V01 – D1	J. Schrijvers		Initial version
Jan 15, 2008	002ext	J. Schrijvers		Update for AT$QCPDPP
Jan 17, 2008	003ext	J. Schrijvers		Update for AT_OWANDATA

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1 INTRODUCTION

Option 7.2 data cards are cards that contain firmware that supports the WAN interface. This WAN interface is Qualcomm's implementation to get maximum downlink throughput performance on HSDPA 7.2 networks.
In order to setup a call with such a data card, a set of AT commands are provided.

2 AT-COMMANDS FOR CALL SETUP

2.1 Network Call "_OWANCALL"

Command	Possible Response(s)
AT_OWANCALL=<c>,<s>,<u>	OK
AT_OWANCALL?	_OWANCALL: <c>, <s>, <u>

Description

This commands starts or stops a network call for a specific context. There's also an option to enable unsolicited notification of state changes in the call state of that context. Unsolicited notifications only appear on the control port, never on the application port.

Example: To set up a call on context 1 with unsolicited notifications enabled.

```
AT_OWANCALL=1,1,1     ( <- set up call )
OK

_OWANCALL: 1, 1       ( <- call is up now )

AT_OWANCALL=1,0,1     ( <- tear down call )
OK

_OWANCALL: 1, 0       ( <- call has torn down )
```

Defined values

<c>: The context corresponding to the cgdcont id.

<s>: Desired state.

0 Disconnect

1 Connected

2 Call Failed (only available at query command)

<u>: Enable (1) or disable (0) unsolicited notification of state changes for that context. If enabled the card will put unsolicited notifications to the Control port of the format:

_OWANCALL: <c>, <s>

2.2 Network Data "_OWANDATA"

Command	Possible Response(s)
AT_OWANDATA=<c>	_OWANDATA: <c>, <ip>, <gw>, <dns1>, <dns2>, <nbns1>, <nbns2>, <csp> OK
AT_OWANDATA?	_OWANDATA: <c>, <ip>, <gw>, <dns1>, <dns2>, <nbns1>, <nbns2>, <csp> … OK

Description

This command is used with an active call (set up using AT_OWANCALL) to get the IP details used for configuring the network interface.

The write command will just look up the IP details for that specific context and return nothing if the context is not active.

The query command will loop through all the contexts and display the IP details for the ones whose context is active.

Defined values

<c>: The context corresponding to the cgdcont id.

<ip>: IP address

<gw>: Gateway address

<dns1>: First DNS server

<dns2>: Second DNS server

<nbns1>: First NBNS server

<nbns2>: Second NBNS server

<csp>: Connection Speed

2.3 PDP Context Authentication "$QCPDPP"

Command	Possible Response(s)
AT$QCPDPP=<cid>,<auth-type>,<password>,<username>	OK ERROR
AT$QCPDPP?	$QCPDPP: <cid>, <auth-type>, <password>, <username> … OK

Description

This command is used to define the authentication parameters associated with a particular PDP context <cid>. <cid> corresponds to the id used in the CGDCONT command.

Defined values

<cid>: The context corresponding to the cgdcont id. 1-16.

<auth-type>:

0 None
1 PAP
2 CHAP

Defines authentication parameters on a per connection basis. Value of <auth_type> determines what additional parameters are required, as follows:
0 – Neither username nor password accepted
1 – Username and password accepted
2 – Only password (secret) accepted

<password>: password

<username>: username

3 SCENARIO

A connect scenario on an example network looks like:

```
-> Open Control port
AT+CGDCONT=1,,"my.apn.here"
```
(Configure APN)

```
OK
```

AT$QCPDPP=1,1,"mypassword","myusername”
OK
(Configure username, password)

```
AT_OWANCALL=1,1,1
```
(Set up call for context 1 with unsolicited notifications enabled)

```
OK
```

```
_OWANCALL: 1, 1
```
(Call ready !)

```
AT_OWANDATA=1
_OWANDATA: 1, x.x.x.x, y.y.y.y, d1.d1.d1.d1, d2.d2.d2.d2,
n1.n1.n1.n1, n2.n2.n2.n2
```
(IP, gateway, dns1, dns2, nbns1, nbns2 settings)

```
OK
```

Using the OWANDATA data you then need to configure the Ethernet interface and then we're ready.

To disconnect the call:

```
AT_OWANCALL=1,0,1
OK
```
(Disconnect context 1)

```
_OWANCALL: 1, 0
```
(Disconnected)