

AT commands for TCP/IP User Guide

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The TCP/IP stack provided by eDevice allows Wismo module to send/retrieve email (protocols involved : POP3, SMTP) and download/upload files (protocol involved : FTP).

1 Prerequisite

The software release (e.g. 434a09gm.2d) and TCP/IP stack (eDsoft-302_V00.01) has been downloaded into a Wismo 2403A. As well the OpenAT feature has been activated.

To start the TCP/IP stack :

```
AT+WOPEN=1  
OK
```

To check the version :

```
AT#VVERSION  
VERSION = "eDsoft-302_V00.01_beta 62722 Jan 14 2003 11:26:06"
```

2 Sending/retrieving email

2.1 Setup

To setup the TCP/IP stack for that purpose, you need to know some parameters from your ISP (Internet service provider) e.g. Tiscali, Club-Internet, Wanadoo and client email e.g. Hotmail, Yahoo, LibertySurf...

2.1.1 Informations needed from your ISP:

- dialing number to reach Internet access e.g. 0426007100;
- your user name or login e.g. wede0010@tiscali.fr;
- your password e.g. wismoip;
- DNS (domain name server) address : this is a TCP/IP address normally provided during the PPP session. TCP/IP stack doesn't support yet this feature and so you need to know it. You could get it by calling your ISP's technical support. Address is for example : "213.36.80.1" .
- The DNS is used to transform name like smtp.tiscali.fr or pop3.tiscali.fr into 172.20.1.9 or 192.168.0.1 .

2.1.2 SMTP configuration

These are Informations needed from your email client to SEND email.

- server SMTP e.g. smtp.tiscali.fr;
- smtp user name e.g. "wismo.edevice";

- smtp password e.g. toto;
- smtp domain e.g. smtp.tiscali.fr;
- sender address, the one you would like to see as
From : e.g. wismo.edevice@wavecom.com .
This is the address used for the reply;
- sendername address, the one you would like to see as
From : Wismo

By default, TCP/IP stack setups SMTP port (TCP port number) as 25. If your email client used another one, you need to setup it as well.

2.1.3 POP3 configuration

These are informations needed from your email client to RETRIEVE emails.

- server POP3 e.g. pop3.tiscali.fr;
- pop3 user name e.g. "wismo.edevice".
Normally, it is the same as the smtp user name;
- pop3 password e.g. toto. Normally, it is the same as the pop3 password;

By default, TCP/IP stack setups POP3 port (TCP port number) as 110. If your email client used another one, you need to setup it as well.

2.2 Setup traces

```
at
OK
ati3
540_09gg.2D10 1243784 112002 16:24

OK
at#vversion
VERSION = "eDsoft-302_V00.01_beta 62722 Jan 14 2003 11:26:06"
OK
```

2.2.1 ISP configuration / at#vppp

```
at#ispun=wede0010@tiscali.fr          / Username
OK

at#isppw="wismoip"                    / Password
OK

at#gprsmode=0                          / GSM data configuration
OK

at#gprsmode=1                          / GPRS configuration
OK

at+cgatt=1                              / Attachment not automatic
```

OK
at+cgreg?
+CGREG: 0,1

OK

---Specific configuration / not mandatory
at#pppmyip
at#ppppeerip

PPP parameters check
at#vppp
ISPUN = "wede0010@tiscali.fr"

ISPPW = "wismoip"

PPPMODE = 1

PPPMYIP = "0.0.0.0"

PPPPEERIP = "0.0.0.0"

PPPSERVUN = ""

PPPSERVPW = ""

2.2.2 Dialing number

at#dialn1="0426007100"
OK

---More

You could setup 2 numbers to be dialled and you have to setup the one to be used by :

AT#DIALOPT1 or AT#DIALOPT2

2.2.3 Start connection for IP access

at#connectionstart / GSM data mode
DIALING

0426007100

CONNECT 9600

213.36.0.56

PPP OK

```
at#connectionstart          / GPRS mode  
172.22.0.70
```

```
GPRS SESSION OK
```

2.2.4 Stop connection

```
at#connectionstop  
OK
```

2.2.5 APN configuration (for GPRS connection)

```
at#apnserv="b2bouygtel.com"      / Bouygues Telecom configuration  
OK  
at#apnun="B2B"  
OK  
at#apnpw="NET"  
OK
```

Or

```
at#apnserv="orange.fr"          / Orange configuration  
OK  
at#apnun="orange"  
OK  
at#apnpw="orange"  
OK
```

2.2.6 SMTP configuration / at#vsmtpt

```
at#domain="tiscali.fr"  
OK  
at#smtpserv="smtp.tiscali.fr"  
OK  
at#senderaddr="wismo.edevice@tiscali.fr"  
OK
```

---depending on ISP / Not always required

```
at#smtpun=""  
at#smtppw=""
```

if required:

```
SMTP user name :  
at#smtpun="login"  
SMTP password :  
at#smtppw="password"
```



```
---Not mandatory  
at#sendername="Wismo"  
OK
```

SMTP parameters check

```
at#vsmtp  
DOMAIN = "tiscali.fr"  
  
SENDERADDR = "wismo.edevice@tiscali.fr"  
  
SENDERNAME = "Wismo"  
  
SMTPPORT = 25  
  
SMTPPW = ""  
  
SMTPSERV = "smtp.tiscali.fr"  
  
SMTPUN = ""  
  
OK
```

2.2.7 POP3 configuration / at#vpop3

```
at#pop3serv="pop.tiscali.fr"  
OK  
  
at#pop3headermode = 0 / mail with no header  
at#pop3headermode = 1 / mail with header  
OK  
  
at#pop3un="wismo.edevice" / User Name  
OK  
at#pop3pw = "wismoip" / Password  
OK
```

POP3 parameters check

```
at#vpop3  
POP3HEADERMODE = 1  
  
POP3PORT = 110  
  
POP3PW = "wismoip"  
  
POP3SERV = "pop.tiscali.fr"  
  
POP3UN = "wismo.edevice@tiscali.fr "
```

OK

2.2.8 DNS configuration / at#vdns

```
at#dnsserv1="213.36.80.1"  
OK
```

---A second DNS is possible

2.3 Sending email

Before making the TCP session or during the session, you could prepare up to 3 emails to be sent (mail1, mail2, mail3).

You need to setup the email address, the subject, the body (content of the email) and CC (carbon copy) if needed.

You could write the emails by 2 ways either you prepare it beforehand or you write it during the TCP session.

2.3.1 Sending predefined email

You configure the emails completely up to 3 emails. The content is up to 120 characters.

2.3.1.1 Mail 1 configuration / at#vmail1

Only two recipients could be configured: receiver and copy address

```
at#rec1="firstname.lastname@wavecom.com" / Email 1 receiver address  
OK  
at#ccrec1=wismo.edevice@tiscali.fr / Email 1 copy address  
OK  
at#subj1="Wismo IP email" / Email 1 subject  
OK  
at#body1 Enter / Email 1 body  
<content> Ctrl z / Ctrl z to end the text input
```

2.3.1.2 Mail sending

```
at#sendmail1 / Send mail1
```

MAIL SENT

```
at#vmail1
BODY1 = "totototo"

CCREC1 = "wismo.edevice@tiscali.fr"
REC1 = "luc.beugin@wavecom.com"
SUBJ1 = "Wismo IP mail"

OK
```

2.3.2 Sending email through the serial port

You have to configure ONLY the receiver address 1, the copy address 1 and the subject 1 before or during the session but the content (body) of the email is typed when the TCP/IP session is established. Content is not echoed.

```
at#putmail Enter           / Wait for OK
OK
<content>      [CR]       / content is not written when typing, Enter
[LF]           / Ctrl Enter
. [CR]         / . and then Enter
[LF]           / Ctrl Enter
MAIL SENT
```

2.4 Retrieving email

2.4.1 Establish the connection

```
at#connectionstart       / Connection establishment
172.22.0.70

GPRS SESSION OK         / GPRS connection (for GSM data,
                        see above)
```

2.4.2 Retrieving email

```
at#getmail              / retrieve the first mail in the stack. If several
                        mails, need to do again at#getmail. Once done,
                        you cannot retrieve it again.
```

MAIL / mails to retrieve
<mail content>

NO MAIL / No mails to retrieve

3 FTP: Download / upload files

You use FTP protocol. By default the TCP port number are put to 20 for the transfer and 21 for the control. The control port could be changed with `at#ftpport=21`. FTP doesn't work on all GPRS network. The following demo has been done over GSM data.

3.1 FTP Setup / at#vftp

3.1.1 FTP server configuration

FTP server :
`at#ftpserv="81.1.55.70"` / customer FTP server IPaddress
OK
`at#ftpun="microtest"` / FTP username
OK
`At#ftppw="Porsche"` / FTP password

3.1.2 Setup of the file to upload

`at#ftpputpath="."` / Path of the file to upload (default ".")
OK
`at#ftpputfilename="car.txt"` / Name of the file (with extension)
OK
`at#ftptype=l` / binary transfer (by default)
OK
or
`at#ftptype=A` / ASCII transfer
OK

3.1.3 Setup of the file to download

`at#ftpgetpath="."` / Path of the file to download (default ".")

OK

at#ftpgetfilename="Ferrari" / Name of the file

OK

FTP parameters check

at#vftp

FTPSERV = "81.1.55.70"

FTPPORT = 21

FTPUN = "microtest"

FTPPW = "porsche"

FTPTYPE = I

FTPGETFILENAME = "car.txt"

FTPGETPATH = "."

FTPPUTFILENAME = "car.txt"

FTPPUTPATH = "."

OK

3.2 Transfer

3.2.1 Establish a connection

at#connectionstart / connection over GSM data

DIALING

0426007100

CONNECT 9600

213.36.0.56

PPP OK

3.2.2 Upload the file

at#ftpput

OK

/ data to input (no echoed) example:

Ferrari are better than Porsche

/ Ctrl C to finish

FTP PUT SUCCEED

3.2.3 Download the file

```
at#ftpget / get what you have typed just before
with ftpget
OK
Ferrari are better than Porsche
FTP GET SUCCEED
```

3.2.4 Release the connection

```
at#connectionstop
```

4 TCP Socket

Open a TCP socket between two machines. One machine acts as a caller, and one as a listener. Both machines have to be on the same TCP port. Doesn't work well over GPRS at the moment.

4.1 Listener configuration

```
at#connectionstart
DIALING
0426007100
CONNECT 9600
213.36.2.6
PPP OK
at#tcpport?
TCPPOORT = 23
at#tcpserv="255.255.255.255" / Listen to all IP addresses
OK
at#lrcstart / Listen mode activated
OK
Hello
```

at#lrcstop
OK

/ Stop the TCP socket connection

4.2 Caller configuration

at#connectionstart
DIALING

0426007100

CONNECT 9600

213.36.3.61

PPP OK

at#tcpserv="213.36.2.6"
OK

/ IP address to call

at#tcpport?
TCPPOINT = 80

/ check TCP port

OK

at#tcpport=23

/ same port

OK

at#otcp
STCP OPEN

/ open socket

Hello

/ text is seen at the same time on both machines

Ctrl C

/ Close the connection

5 Automatic Operations

at#answer3
OK

/ Call back the GSM number

+CRING: REL ASYNC

+CLIP: "+33603456483",145

DIALING
+33603456483

at#answer2
OK

/ Call back ISP number (dialIn1)

```
+CRING: REL ASYNC
+CLIP: "+33603456483",145

DIALING
0426007100
CONNECT 9600
213.36.0.168
PPP OK
at#end
OK
```

6 WAP operators datas

Here is a list that summarizes the WAP configuration parameters for several GSM/GPRS operators.

6.1 SFR

Homepage: "http://sfr.fr"
Adresse IP Gateway: 195.115.025.129

GSM:
Tel n°: +33613000010
Data call type: ISDN
Username: "" (vide)
Password: ""

GPRS:
APN: "wapsfr"
Ip address: dynamic
Username: ""
Password: ""

6.2 Bouygues (corporate)

Homepage: "http://wap.b2bouygtel.com"
Adresse IP Gateway: 172.020.001.007

GSM:
Tel n°: +33660640640
Data call type: ISDN
Username: "B2B"

Password: "NET"

GPRS:

APN: "b2bouygtel.com"

Ip address: dynamic

Username: "B2B"

Password: "NET"

6.3 Bouygues (public)

Homepage:

Adresse IP Gateway: 212.208.044.125

GSM:

Tel n°: +33660639639

Data call type: ISDN

Username: "wap"

Password: "wapwap"

6.4 Orange

Homepage: "http://wap.itineris.com"

Adresse IP Gateway: 192.168.010.100

GSM:

Tel n°: +33671927927

Data call type: ISDN

Username: "wap.itineris.com"

Password: "ftm"

GPRS:

APN: "orange.fr"

Ip address: dynamic

Username: "orange"

Password: "orange"

6.5 Atos

Homepage: "http://www.wapfr.net",

Adresse IP Gateway: 160.0 92.122.122

GSM:

Tel n°: +33170917102

Data call type: Analogic (ISDN ?)

Username: "wapfr"

Password: "atos"

