



AT commands for TCP/IP User Guide

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Contents / Sommaire

1	Prerequisite	5
2	Sending/retrieving email.....	5
2.1	Setup	5
2.1.1	Informations needed from your ISP:	5
2.1.2	SMTP configuration.....	5
2.1.3	POP3 configuration.....	6
2.2	Setup traces.....	6
2.2.1	ISP configuration / at#vppp.....	6
2.2.2	Dialing number	7
2.2.3	Start connection for IP access	7
2.2.4	Stop connection	8
2.2.5	APN configuration (for GPRS connection).....	8
2.2.6	SMTP configuration / at#vsmt.....	8
2.2.7	POP3 configuration / at#vpop3.....	9
2.2.8	DNS configuration / at#vdns	9
2.3	Sending email.....	10
2.3.1	Sending predefined email	10
2.3.2	Sending email through the serial port	11
2.4	Retrieving email	11
2.4.1	Establish the connection	11
2.4.2	Retrieving email	11
3	FTP: Download / upload files	11
3.1	FTP Setup / at#vftp.....	12
3.1.1	FTP server configuration.....	12
3.1.2	Setup of the file to upload	12
3.1.3	Setup of the file to download.....	12
3.2	Transfer	13
3.2.1	Establish a connection	13
3.2.2	Upload the file	13
3.2.3	Download the file.....	13
3.2.4	Release the connection	13
4	TCP Socket.....	14
4.1	Listener configuration	14
4.2	Caller configuration.....	14
5	Automatic Operations	15

6	WAP operators datas.....	15
6.1	SFR	16
6.2	Bouygues (corporate)	16
6.3	Bouygues (public)	16
6.4	Orange.....	17
6.5	Atos	17

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#vsmtp

```
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 ftpput
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?  
TCPPOPT = 23
```

```
at#tcp serv="255.255.255.255" / Listen to all IP addresses  
OK
```

```
at#l t c start / Listen mode activated  
OK  
Hello
```

```
at#l t c stop / Stop the TCP socket connection  
OK
```

4.2 Caller configuration

```
at#connectionstart  
DIALING
```

```
0426007100
```

```
CONNECT 9600
```

```
213.36.3.61
```

```
PPP OK
```

```
at#tcp serv="213.36.2.6" / IP address to call  
OK
```

```
at#tcpport? / check TCP port  
TCPPOPT = 80
```

OK	
at#tcpport=23	/ same port
OK	
at#otcp	/ open socket
STCP OPEN	
Hello	/ text is seen at the same time on both machines
Ctrl C	/ Close the connection

5 Automatic Operations

at#answer3	/ Call back the GSM number
OK	

+CRING: REL ASYNC

+CLIP: "+33603456483",145

DIALING
+33603456483

at#answer2	/ Call back ISP number (dialn1)
OK	

+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"