AT Command Response Timeouts

Application Note 60

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Application Note 60:	**AT Command Response Timeouts**
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Contents

0   Document History

Preceding document: AN60: "AT Command Response Timeouts", Version 04
New document: AN60: "AT Command Response Timeouts", Version **05**

Chapter	What is new
1.1	New supported products added.

Preceding document: AN60: "AT Command Response Timeouts", Version 03
New document: AN60: "AT Command Response Timeouts", Version 04

Chapter	What is new
1.1	New supported products added.

Preceding document: AN60: "AT Command Response Timeouts", Version 02
New document: AN60: "AT Command Response Timeouts", Version 03

Chapter	What is new
1.1	New supported products added.

Preceding document: AN60: "AT Command Response Timeouts", Version 01
New document: AN60: "AT Command Response Timeouts", Version 02

Chapter	What is new
--	Document title update
1.1	New supported products added
2	Table 1: AT command response timeouts updated.

New document: AN60: "AT Command Response Timeouts", Version 01

Chapter	What is new
--	Initial document setup.

1   Introduction

This Application Note provides a list of response timeouts for selected AT commands. Application manufacturers are advised to consider these timeouts when designing mobile applications based on any of the supported products (see Section 1.1).

To avoid that command execution is aborted too early we recommend to add another 2 - 3 seconds to the specified timeouts.

Note: AT commands listed in Table 1 may not be supported with every product variant listed in chapter 1.1. Please refer to your product specific AT Command Set ([2]) for valid AT commands.

1.1   Supported Products

This Application Note applies to the following Gemalto M2M products:
*   Cinterion® ALAS5 modules
*   Cinterion® PLPS9 modules
*   Cinterion® PLAS9 modules
*   Cinterion® ALAS3K modules
*   Cinterion® AH6A modules
*   Cinterion® AH3 modules
*   Cinterion® PLS8 modules
*   Cinterion® PH8 modules
*   Cinterion® AHS3 modules
*   Cinterion® AHS2 modules
*   Cinterion® ALS3 modules
*   Cinterion® PHS8 modules
*   Cinterion® EXS62-W modules
*   Cinterion® EXS82-W modules
*   Cinterion® ELS61-E modules
*   Cinterion® ELS61-E2 modules
*   Cinterion® ELS61-US modules
*   Cinterion® ELS61-USA modules
*   Cinterion® ELS61-AUS modules
*   Cinterion® ELS81-E modules
*   Cinterion® ELS81-US modules
*   Cinterion® PLS62-W modules

1.2   Related Documents

[1]   Hardware Interface Description supplied with your Gemalto M2M product
[2]   AT Command Set supplied with your Gemalto M2M product

2 AT Command Response Timeouts

Table 1: AT Command Response Timeouts

AT command		Default timeout
A/	Repeat previous command line	1s
AT\Q	Flow control	1s
AT&C	Set Data Carrier Detect (DCD) line mode	1s
AT&D	Set Data Terminal Ready (DTR) line mode	1s
AT&F	Reset AT command settings to factory default values	1s
AT&S	Set Data Set Ready (DSR) line mode	1s
AT&V	Display current configuration	1s
AT&W	Store AT command settings to user defined profile	1s
AT^SAD	Antenna diagnostics and configuration	1s
AT^SAFH	Audio File Handling	1s
AT^SAIC	Audio interface configuration	1s
AT^SALS	Alternate Line Service	10s
AT^SATR	Query SIM's answer to reset data	10s
AT^SBNR	Binary read	1s
AT^SBNW	Binary write	2s
AT^SBV	Battery/supply voltage	1s
AT^SCFG	Extended configuration settings	20s
AT^SCID	USIM Identification number[1]	1s
AT^SCKS	Query USIM and chip card holder status	20s
AT^SCML	List concatenated short messages from preferred store	20s
AT^SCMR	Read concatenated short messages	1s
AT^SCMS	Send concatenated short messages	90s
AT^SCMW	Write concatenated short messages to memory	1s
AT^SCPIN	Pin configuration	1s
AT^SCPOL	GPIO level polling configuration	1s
AT^SCSL	Customer SIM Lock	1s
AT^SCTM	Critical Operating Temperature Monitoring	1s
AT^SDPORT	Configure Interface Allocation	1s
AT^SECALL	Originate and stop eCall	1s
AT^SFDL	Enter firmware download mode	2s (refer to AN16)
AT^SFSA	Flash file system access	1s
AT^SGAPN	Configure APN class settings	1s
AT^SGAUTH	Set type of authentication for PDP-IP connections	1s

Table 1: AT Command Response Timeouts

AT command		Default timeout
AT^SGCONF	Configuration of GPRS related Parameters	1s
AT^SGIO	Get IO state of a specified pin	1s
AT^SGPSC	GNSS configuration	1s
AT^SHUP	Hang up call(s) indicating a specific 3GPP TS 24.008 release cause	1s
AT^SICA	Internet connection activate or deactivate	120s
AT^SICS	Internet connection settings	1s
AT^SIND	Extended indicator control	1s
AT^SINFO	Information output	1s
AT^SIPS	Internet profile storage	1s
AT^SISC	Internet service close	120s
AT^SISE	Internet service error report	1s
AT^SISH	Disconnect remote client	1s
AT^SISI	Internet service information	1s
AT^SISO	Internet service open	120s
AT^SISR	Internet service read data	2s
AT^SISS	Internet service setup profile	1s
AT^SIST	Transparent mode	2s
AT^SISW	Internet service write data	2s
AT^SISX	Internet service execution	1s
AT^SLCC	Extended list of current calls	1s
AT^SLED	LED feature	1s
AT^SMGL	List short messages from preferred store without setting status to REC READ	120s
AT^SMGR	Read short message without setting status to REC READ	1s
AT^SMONI	Monitor the serving cell	1s
AT^SMONP	Monitor neighbor cells	1s
AT^SMSO	Switch off	1s (for device switch off delay refer to product specific HID)
AT^SNCSGLS	Operator CSG lists on USIM	1s
AT^SNCSGSC	Closed subscriber group network scan	1s
AT^SNFI	Set microphone path parameters	1s
AT^SNFO	Set audio output parameter (loudspeaker path)	1s
AT^SNFOTA	Firmware upgrade over-the-air	2s (refer to AN17)
AT^SNFS	Select audio hardware set	1s

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AT command		Default timeout
AT^SNFTTY	Signal TTY/CTM audio mode capability	1s
AT^SNMON	Network monitoring	1s
AT^SNOMADM	Configure OMA DM	1s
AT^SOPS	Extended operator selection	155s
AT^SPIC	Display PIN counter	1s
AT^SPIO	GPIO driver open/close	1s
AT^SQPORT	Query port type	1s
AT^SRADC	Configure and read A/D converter	1s
AT^SRSA	Remote USIM access (RSA) activation	1s
AT^SRTC	Ring tone configuration	1s
AT^SSDA	Set SMS display availability	1s
AT^SSET	USIM Data ready indication	1s
AT^SSIO	Set IO state of a specified pin	1s
AT^SSRVSET	Service interface configuration	1s
AT^SSTA	Remote-SAT interface activation	120s
AT^SSTGI	SAT get information	1s
AT^SSTR	SAT response	1s
AT^SWWAN	PDP context activate or deactivate	120s
AT+CACM	Accumulated call meter (ACM) reset or query	20s
AT+CALA	Alarm configuration	1s
AT+CAMM	Accumulated call meter maximum (ACMmax) set or query	20s
AT+CAOC	Advice of charge information	20s
AT+CAVIMS	Availability for voice calls with IMS	1s
AT+CBST	Select bearer service type	1s
AT+CCFC	Call forwarding number and conditions control	60s
AT+CCHC	Close logical channel	1s
AT+CCHO	Open logical channel	1s
AT+CCLK	Real time clock	1s
AT+CCUG	Closed user group	1s
AT+CCWA	Call waiting	60s
AT+CECALL	Originate and stop eCall	1s
AT+CEER	Extended error report	1s
AT+CEREG	EPS network registration status	1s
AT+CESQ	Extended signal quality	1s
AT+CFUN	Functionality level	1s

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AT command		Default timeout
AT+CGACT	PDP context activate or deactivate	120s
AT+CGATT	PS attach or detach	90s
AT+CGCMOD	PDP context modify	1s
AT+CGCONTRDP	PDP context read dynamic parameters	1s
AT+CGDATA	Enter data state	120s
AT+CGDCONT	Define PDP context	1s
AT+CGDSCONT	Define secondary PDP context	1s
AT+CGEQMIN	3G Quality of service profile (Minimum acceptable)	1s
AT+CGEQREQ	3G Quality of service profile (requested)	1s
AT+CGEQOS	Define EPS quality of service	1s
AT+CGEQOSRDP	EPS quality of service read dynamic parameters	1s
AT+CGEREP	Packet domain event reporting	1s
AT+CGLA	Generic logical channel access	1s
AT+CGMI	Request manufacturer identification	1s
AT+CGMM	Request model identification	1s
AT+CGMR	Request revision identification of software status	1s
AT+CGPADDR	Show PDP address	1s
AT+CGPIAF	Select printing IP address format	1s
AT+CGQMIN	Quality of service profile (minimum acceptable)	1s
AT+CGQREQ	Quality of service profile (requested)	1s
AT+CGREG	Packet domain network registration status	1s
AT+CGSCON-TRDP	Secondary PDP context read dynamic parameters	1s
AT+CGSMS	Select service for MO short messages	1s
AT+CGSN	Request International Mobile Equipment Identity (IMEI)	1s
AT+CGTFT	Traffic flow template	1s
AT+CGTFTRDP	Traffic flow template read dynamic parameters	1s
AT+CHLD	Call hold and multi-party	10s
AT+CHUP	Hang up call	10s
AT+CIMI	Request International Mobile Subscriber Identity (IMSI)	1s
AT+CLCC	List of current calls	1s
AT+CLCK	Facility lock	20s for SIM facilities, 60s for call barring facilities
AT+CLIP	Calling Line Identification Presentation	1s
AT+CLIR	Calling Line Identification Restriction	60s

Table 1: AT Command Response Timeouts

AT command		Default timeout
AT+CMEE	Error message format	1s
AT+CMGC	Send an SMS command	1s
AT+CMGD	Delete short message	1s
AT+CMGF	Select SMS message format	1s
AT+CMGL	List SMS messages from preferred store	20s
AT+CMGR	Read SMS messages	1s
AT+CMGS	Send short message	60s (not concate-nated)
AT+CMGW	Write short messages to memory	30s (not concate-nated)
AT+CMMS	More messages to send	60s
AT+CMSS	Send short messages from storage	60s
AT+CMUT	Mute control	1s
AT+CMUX	Multiplex mode	1s
AT+CNMA	New message acknowledgment to UE/TE	1s
AT+CNMI	SMS event reporting configuration	1s
AT+CNMPSD	No more PS data	1s
AT+CNUM	Read own numbers	1s
AT+COLP	Connected Line Identification Presentation	60s
AT+COPN	Read operator names	10s
AT+COPS	Operator selection	155s
AT+CPAS	Activity status	1s
AT+CPBF	Find phonebook entries	40s
AT+CPBR	Read from phonebook	40s
AT+CPBS	Select phonebook memory storage	1s
AT+CPBW	Write into phonebook	1s
AT+CPIN	PIN authentication	30s
AT+CPLS	Selection of preferred operator list	1s
AT+CPMS	Preferred SMS message storage	1s
AT+CPNER	Notification event reporting	1s
AT+CPOL	Preferred operator list	1s
AT+CPUC	Price per unit and currency table	20s
AT+CPWD	Change password	20s for PIN change, 60s for call barring facili-ties
AT+CR	Service reporting control	1s
AT+CRC	Set cellular result codes for incoming call indication	1s

Table 1: AT Command Response Timeouts

AT command		Default timeout
AT+CREG	Network registration status	1s
AT+CRLP	Configure RLP parameters for ongoing non-transparent	1s
AT+CRSM	Restricted USIM access	60s
AT+CSCA	SMS service center address	1s
AT+CSCB	Select cell broadcast message indication	1s
AT+CSCS	Character set	1s
AT+CSDH	Show SMS text mode parameters	1s
AT+CSIM	Generic USIM access	60s
AT+CSMP	Set SMS text mode parameters	1s
AT+CSMS	Select message service	1s
AT+CSQ	Signal quality	1s
AT+CSSN	Supplementary service notifications	1s
AT+CSTA	Select type of address	1s
AT+CSVM	Set voice mail number	1s
AT+CTZU	Automatic time zone update	1s
AT+CUSD	Unstructured supplementary service data	60s
AT+CVMOD	Voice call mode	1s
AT+ES	Synchronous data mode configuration	1s
AT+ESA	Synchronous access mode configuration	1s
AT+GCAP	Capabilities list	1s
AT+GMI	Request manufacturer identification	1s
AT+GMM	Request model identification	1s
AT+GMR	Request revision identification of software status	1s
AT+GSN	Request International Mobile Equipment Identity (IMEI)	1s
AT+IPR	Bit rate	1s
AT+VTS	DTMF and tone generation	parameter <duration> +1s
AT+WS46	Select wireless network	1s
ATA	Connect to incoming call	90s
ATD	Mobile originated call to specified number	1s
ATE	AT command echo	1s
ATH	Disconnect existing data connection	10s
ATI	Display product identification information	1s
ATL	Set monitor speaker loudness	1s
ATM	Set monitor speaker mode	1s

Table 1: AT Command Response Timeouts

AT command		Default timeout
ATO	Switch from command mode to data mode	1s
ATP	Select pulse dialing	1s
ATQ	Result code presentation mode	1s
ATS0	Automatic answer	1s
ATS<x>	Set modem parameters	1s
ATT	Select tone dialing	1s
ATV	Result code format mode	1s
ATX	CONNECT result code format	1s
ATZ	Restore AT command settings from user defined pro-file	1s

[1.] **Note:** During the SIM initialization phase, i.e., before SIM ready, all SIM related commands may answer with a delay. During this phase, the timeout for these commands may thus increase by a factor 10.

About Gemalto

Since 1996, Gemalto has been pioneering groundbreaking M2M and IoT products that keep our customers on the leading edge of innovation.

We work closely with global mobile network operators to ensure that Cinterion® modules evolve in sync with wireless networks, providing a seamless migration path to protect your IoT technology investment.

Cinterion products integrate seamlessly with Gemalto identity modules, security solutions and licensing and monetization solutions, to streamline development timelines and provide cost efficiencies that improve the bottom line.

As an experienced software provider, we help customers manage connectivity, security and quality of service for the long lifecycle of IoT solutions.

For more information please visit
www.gemalto.com/m2m, www.facebook.com/gemalto, or Follow@gemaltoIoT on Twitter.

THALES DIS AIS Deutschland GmbH
Werinherstrasse 81
81541 Munich
Germany

gemalto
a Thales company