



SPECIFICATIONS KEROS SMS COMMANDS

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2019/06/13	- Initial release - Describe SMS previously described in DRD Wiki. - Corresponds to 4.1.2 firmware	Christophe Ronco	0.1
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REFERENCE

Reference	Document / link	Description

GLOSSARY

Abbreviation	Description
SMS	Short Message Service
DHCP	Dynamic Configuration Host Protocol
IP	Internet Protocol
LAN	Local Area Network
Wi-Fi	Wireless-Fidelity
WLAN	Wireless LAN

Introduction

Some SMS received by gateways with Keros firmware are interpreted as commands used to take special actions on gateway or to configure gateway. This document describes these special SMS.

1 Command syntax

SMS received by gateway are read to see if they are special SMS or just standard text SMS. All SMS command will follow the same pattern :

```
[login:password] [command_id] command field value
```

With:

- **login**: the login use for the board configuration (admin)
- **password**: the password of the configuration user (pwd4admin by default)
- **command_id**: a six characters identification for the command to be sent
- **command**: the command to be executed with '/' separated fields
- **field**: the configuration field to be set/get (optional)
- **value**: the value that has to be set to a configuration field (optional)

2 Response syntax

Each time an SMS command is received, a response is sent (by SMS, using the same modem). All SMS responses use the same syntax:

```
[command_id:command_status] value
```

With :

- **command_id**: the value of this field is equal to the value of the command_id field used in the command. The purpose of this field is to match the command with the reponse
- **command_status**: ok or error
- **value**: SMS error information (if command_status is error) or value (for get configuration commands)

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3 Special SMS

3.1 System commands

Description	command	field	value
Halt the board	system/halt	N/A	N/A
Reboot the board	system/reboot	N/A	N/A
Request a board update	system/update	N/A	N/A
Request a backup restore	system/restore/backup	N/A	N/A
Request a stock restore	system/restore/stock	N/A	N/A

Sending update, restore stock and restore backup SMS commands will only set up a flag used to record the request.

The action will only be triggered only **after a board reboot**. Reboot the board manually or by sending a reboot SMS command.

Examples:

- Reboot command:

```
#SMS sent to the gateway
[admin:pwd4admin] [reboot] system/reboot
```

```
#SMS response from the gateway
[reboot:ok]
```

- Restore stock command with wrong password:

```
#SMS sent to the gateway
[admin:badpassword] [rstock] system/restore/stock
```

```
#SMS response from the gateway
[rstock:error] login/password
```

3.2 Configuration commands

There are two kinds of configuration commands: get_value commands and set_value commands.

Value fields are used in :

- commands for set configuration commands
- responses for get configuration commands

They can be :

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- true or false when value is a boolean (in command `sysma.gsm.enable` for example)
- numbers when value is numeric (in command `statm.ram` for example)
- other types (list of several parameters, IP addresses, ...) are represented as strings. They are surrounded by double quote characters. Examples :
 - in `timem.date` : "20180710192000"
 - in `sysma.gsm.add_operator` : "124,10,myapn,user,pass"

3.2.1 Get value commands

For these SMS, command is `configuration/get_value`

Description	field	Example of value in response
Get CPU board serial number	<code>statm.serialnumber</code>	"54020001"
Get Keros firmware version	<code>statm.version</code>	"4.1.2_20190610073708"
Get board platform type	<code>statm.platform</code>	"istation"
Get CPU usage (value is a string)	<code>statm.cpu</code>	"0.3%"
Get RAM usage (value is a string)	<code>statm.ram</code>	"32.0%"
Get userdisk usage (value is a string)	<code>statm.userdisk</code>	"0%"
Get board temperature (value is a string)	<code>statm.temperature</code>	"48°C"
Get ethernet connectivity state (value is a boolean)	<code>statm.lan.state</code>	true
Get ethernet hardware address	<code>statm.lan.hardware.address</code>	"70:76:FF:03:00:0B"
Get ethernet IP address	<code>statm.lan.address</code>	"192.168.4.156"
Get ethernet broadcast IP address	<code>statm.lan.broadcast</code>	"192.168.5.255"
Get ethernet netmask	<code>statm.lan.netmask</code>	"255.255.254.0"
Get GSM connectivity state	<code>statm.gsm.state</code>	true

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Description	field	Example of value in response
Get GSM IP address	statm.gsm.address	"10.172.108.48"
Get GSM netmask	statm.gsm.netmask	"255.255.255.0"
Get Wifi connectivity state	statm.wlan.state	true
Get Wifi hardware address	statm.wlan.hardware.address	"EC:24:B8:39:50:FC"
Get Wifi IP address	statm.wlan.address	"192.168.3.148"
Get Wifi broadcast IP address	statm.wlan.broadcast	"192.168.3.255"
Get Wifi netmask	statm.wlan.netmask	"255.255.255.0"
Get ethernet configuration (if static, return static ipAddr netmask gateway dnsServerList)	sysma.lan.ipv4	"off", "dhcp" or "static 192.168.4.10 255.255.254.0 192.168.4.1 192.168.1.1,192.168.1.3"
Get GSM operator list (MNC,MCC,APN,login,user)	sysma.gsm.operator s	"('208','01','orange','','') ('208','10','websfr','','') ('','','biscapn','','')"
Get time synchronization mode (auto or manual)	timem.mode	"auto" or "manual"
Get list of NTP server address	timem.ntp	"0.pool.ntp.org,1.pool.ntp.org"
Get timezone use on the board	timem.timezone	"Europe/Paris"
Get current date (yyyymmddHHMMSS)	timem.date	"20180710192000"

Examples:

- Get GSM IP address:

#SMS sent to the gateway

```
[admin:pwd4admin] [getgsm] configuration/get_value statm.gsm.address
```

#SMS response from the gateway

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[getgsm:ok] "10.172.108.48"

3.2.2 Set value commands

For these SMS, command is configuration/set_value

Description	field	Example of value in command
Set admin user password	sysma.password	"mynewpassword"
Set ethernet connectivity state	sysma.lan.enable	true or false
Set ethernet connectivity mode	sysma.lan.ipv4	"off", "dhcp" or "static 192.168.4.10 255.255.254.0 192.168.4.1 192.168.1.1,192.168.1.3"
Set ethernet IP address	sysma.lan.ipv4_address	"192.168.4.10"
Set ethernet netmask	sysma.lan.ipv4_netmask	"255.255.254.0"
Set ethernet gateway IP	sysma.lan.ipv4_gateway	"192.168.4.1"
Set list of ethernet DNS IP address	sysma.lan.ipv4_dns	"192.168.1.1,192.168.1.2"
Add a GSM operator	sysma.gsm.add_operator	"124,10,myapn,user,pass" or "123,10,apn2,, " or ",,defaultapn,, "
Remove a GSM operator	sysma.gsm.remove_operator	"124,10" or ", " for default operator
Update a GSM operator	sysma.gsm.update_operator	"124,10,myapn2,, " or ",,defaultapn,, "
Set Wifi connectivity state	sysma.wlan.enable	true
Time synchronization mode	timem.mode	"auto"
Set List of NTP servers	timem.ntp	"0.pool.ntp.org,1.pool.ntp.org"

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Description	field	Example of value in command
Set Timezone used on gateway	timem.timezone	"Europe/Paris"
Set date	timem.date	"20180710192000"

END OF DOCUMENT