

## SIM admin API

### Introduction

This API lets you to administer USIMs that have been allocated to your account.

### Configuring USIMs

Each action has a corresponding command that should be used with the USIM gateway.

Action	Command	Information
activate	activate	Two step process
terminate	terminate	Two step process
suspend	suspend	Two step process
unsuspend	unsuspend	Two step process
add service	addservice	Two step process
remove service	removeservice	Two step process
Change ICCID	changeiccid	Two step process
Change MSISDN	changemsisdn	Two step process
Blacklist handset	blacklist	Two step process
Unblacklist handset	unblacklist	Two step process
Query ICCID	queryiccid	One step process
Check status	checkstatus	One step process. Does not perform an action on the sim but is used to query the state of a previous request

In order to configure a USIM using the gateway, you will need to send a command to the following address:

<https://mvno.aql.com/mobile/mvno-management.api.php>

The gateway accepts both HTTP GET and POST.

**One-step process:** The final state of the request is known immediately in the response.

**Two-step process:** Due to the complex nature of some of the commands, the final state cannot be determined in real time. It is recommended that you wait at least 30 minutes before issuing the first checkstatus command. These commands must therefore operate in a two-step process:

1. you must issue one of the commands and obtain a request id
2. you should periodically call the 'checkstatus' command to determine if your request was successful or if it failed.

## Activate

This must always be the first action that is ever performed on a SIM.

To provision a new SIM, you should submit a request to the gateway using the following HTTP variables.

**Note:** The following services are always enabled by default on all ICCIDs:

- LTE data

If you would like to disable these services, call the remove service command after this ICCID has been successfully activated.

For an explanation of the services, please see the services section at the end of the document.

## Request

Variable	Required	Content
username	Yes	Account username
password	Yes	Account password
command	Yes	activate
iccid	Yes	ICCID of the SIM
imei	No	IMEI number of the handset
msisdn	Yes	The telephone number assigned to the SIM
subtitle	No	Subscriber title (Mr, Dr etc)
subforename	Yes	Subscriber forename

<b>Variable</b>	<b>Required</b>	<b>Content</b>
subsurname	Yes	Subscriber surname
subaddress	Yes	Subscriber address line 1
subaddress2	No	Subscriber address line 2
subaddress3	No	Subscriber address line 3
subpostcode	Yes	Subscriber postcode
subcity	No	Subscriber city
subcontactno	Yes	Subscriber contact phone number
subcontactemail	No	Subscriber contact email
subcompanyname	No	Subscriber company name
service[int_roaming]	No	None – should be left blank
service[int_call]	No	None – should be left blank
service[premium]	No	None – should be left blank
service[internet]	No	None – should be left blank
service[lte]	No	None – should be left blank
return-mode	No	return-mode parameter
return-format	No	return-format parameter

### *Response*

If the request was successfully queued, the following will be returned:

**status: 200 id: <request\_id>**

If the request failed for any reason, the following will be returned:

**status: <error\_code>,<error\_code>,,,,,<error\_code>**

### **Terminate**

To terminate an existing SIM, you should submit a request to the gateway using the following HTTP variables.

### *Request*

<b>Variable</b>	<b>Required</b>	<b>Content</b>
username	Yes	Account username

Variable	Required	Content
password	Yes	Account password
command	Yes	terminate
iccid	Yes	ICCID of the SIM
msisdn	Yes	The telephone number assigned to the SIM
return-mode	No	return-mode parameter
return-format	No	return-format parameter

### *Response*

If the request was successfully queued, the following will be returned:

**status: 200 id: <request\_id>**

If the request failed for any reason, the following will be returned:

**status: <error\_code>,<error\_code>,,,,,<error\_code>**

### **Unsuspend**

To reactivate a previously suspended SIM, you should submit a request to the gateway using the following HTTP variables:

### *Request*

Variable	Required	Content
username	Yes	Account username
password	Yes	Account password
command	Yes	unsuspend
iccid	Yes	ICCID of the SIM
msisdn	Yes	The telephone number assigned to the SIM
return-mode	No	return-mode parameter
return-format	No	return-format parameter

### Response

If the request was successfully queued, the following will be returned:

**status: 200 id: <request\_id>**

If the request failed for any reason, the following will be returned:

**status: <error\_code>,<error\_code>,<error\_code>,<error\_code>**

### Suspend

To suspend a currently active SIM, you should submit a request to the gateway using the following HTTP variables.

### Request

Variable	Required	Content
username	Yes	Account username
password	Yes	Account password
command	Yes	suspend
iccid	Yes	ICCID of the SIM
msisdn	Yes	The telephone number assigned to the SIM
return-mode	No	return-mode parameter
return-format	No	return-format parameter

### Response

If the request was successfully queued, the following will be returned:

**status: 200 id: <request\_id>**

If the request failed for any reason, the following will be returned: status:

**<error\_code>,<error\_code>,<error\_code>,<error\_code>**

### Add service

To add one or more services to a currently active SIM, you should submit a request to the gateway using the following HTTP variables.

### Request

Variable	Required	Content
username	Yes	Account username
password	Yes	Account password
command	Yes	addservice
iccid	Yes	ICCID of the SIM
msisdn	Yes	The telephone number assigned to the SIM
service[int_roaming]	No	None – should be left blank
service[int_call]	No	None – should be left blank
service[premium]	No	None – should be left blank
service[internet]	No	None – should be left blank
service[mo_sms]	No	None – should be left blank
service[mt_sms]	No	None – should be left blank
return-mode	No	return-mode parameter
return-format	No	return-format parameter

### Response

If the request was successfully queued, the following will be returned:

**status: 200 id: <request\_id>**

If the request failed for any reason, the following will be returned:

**status: <error\_code>,<error\_code>,<error\_code>**

### Remove service

To remove one or more services from a currently active SIM, you should submit a request to the gateway using the following HTTP variables.

### Request

Variable	Required	Content
username	Yes	Account username
password	Yes	Account password

Variable	Required	Content
command	Yes	removeservice
iccid	Yes	ICCID of the SIM
msisdn	Yes	The telephone number assigned to the SIM
service[int_roaming]	No	None – should be left blank
service[int_call]	No	None – should be left blank
service[premium]	No	None – should be left blank
service[internet]	No	None – should be left blank
service[mo_sms]	No	None – should be left blank
service[mt_sms]	No	None – should be left blank
return-mode	No	return-mode parameter
return-format	No	return-format parameter

**Note on optional:** Although these rows are marked as optional, a minimum of at least one must be provided.

### Response

If the request was successfully queued, the following will be returned

**status: 200 id: <request\_id>**

If the request failed for any reason, the following will be returned:

**status: <error\_code>,<error\_code>,,,,,<error\_code>**

### Change ICCID

To migrate the settings from a previously activated USIM to a new sim, you should submit a request to the gateway using the following HTTP variables. Please note that the old USIM will be terminated permanently in the process.

### Request

Variable	Required	Content
username	Yes	Account username
password	Yes	Account password

Variable	Required	Content
command	Yes	changeiccid
iccid	Yes	ICCID of the SIM
msisdn	Yes	The telephone number assigned to the SIM
newiccid	Yes	The new ICCID. It must be unactivated
return-mode	No	return-mode parameter
return-format	No	return-format parameter

### Response

If the request was successful, the following will be returned (please see the checkstatus command for the list of possible requeststate values):

**status: 200**

**requeststate: <requeststate>**

**iccid: <iccid>**

If the request failed for any reason, the following will be returned:

**status: <error\_code>,<error\_code>,,,,,<error\_code>**

### Change MSISDN

To change the MSISDN assigned to an already active USIM, you should submit a request to the gateway using the following HTTP variables.

### Request

Variable	Required	Content
username	Yes	Account username
password	Yes	Account password
command	Yes	changemsisdn
iccid	Yes	ICCID of the SIM
msisdn	Yes	The telephone number assigned to the SIM
newmsisdn	Yes	The new MSISDN. It must be unactivated
return-mode	No	return-mode parameter



Variable	Required	Content
return-format	No	return-format parameter

### *Response*

If the request was successful, the following will be returned (please see the checkstatus command for the list of possible requeststate values):

**status: 200**

**requeststate: <requeststate>**

**iccid: <iccid>**

If the request failed for any reason, the following will be returned:

**status: <error\_code>,<error\_code>,...,<error\_code>**

### **Blacklist IMEI**

To blacklist an IMEI, you should submit a request to the gateway using the following HTTP variables.

### *Request*

Variable	Required	Content
username	Yes	Account username
password	Yes	Account password
command	Yes	blacklist
iccid	Yes	ICCID of the SIM
msisdn	Yes	The telephone number assigned to the SIM
imei	Yes	IMEI number of the handset
return-mode	No	return-mode parameter
return-format	No	return-format parameter

### Response

If the request was successful, the following will be returned (please see the checkstatus command for the list of possible requeststate values):

**status: 200 requeststate: <requeststate> iccid: <iccid>**

If the request failed for any reason, the following will be returned:status:  
<error\_code>,<error\_code>,<error\_code>

### Unblacklist IMEI

To unblacklist an IMEI, you should a request to the gateway using the following HTTP variables.

### Request

Variable	Required	Content
username	Yes	Account username
password	Yes	Account password
command	Yes	unblacklist
iccid	Yes	ICCID of the SIM
msisdn	Yes	The telephone number assigned to the SIM
imei	Yes	IMEI number of the handset
return-mode	No	return-mode parameter
return-format	No	return-format parameter

### Response

If the request was successful, the following will be returned (please see the checkstatus command for the list of possible requeststate values):

**status: 200 requeststate: <requeststate> iccid: <iccid>**

If the request failed for any reason, the following will be returned:  
status: <error\_code>,<error\_code>,<error\_code>

### Query ICCID

To query the current state of the ICCID, you should submit a request to the gateway using the following HTTP variables.

## Request

<b>Variable</b>	<b>Required</b>	<b>Content</b>
username	Yes	Account username
password	Yes	Account password
command	Yes	queryiccid
iccid	Yes	ICCID of the SIM
return-mode	No	return-mode parameter
return-format	No	return-format parameter

## *Response*

If the request failed for any reason, the following will be returned:

**status:** <error\_code>,<error\_code>,<error\_code>

If the request was successful, the following will be returned (please see the checkstatus command for the list of possible requeststate values):

**status:** 200 **requeststate:** <requeststate> **iccid:** <iccid>

If the ICCID state is 'active' or 'suspended', the following additional data will also be returned:

**msisdn:**<msisdn number of sim>

**int\_roaming:** <1 or 0>

**int\_call:** <1 or 0>

**premium:** <1 or 0>

**mo\_voice:** <1 or 0>

**mt\_voice:** <1 or 0>

**mo\_SMS:** <1 or 0>

**mt\_SMS:** <1 or 0>

**video:** <1 or 0>

**mms:** <1 or 0>

**internet:** <1 or 0>

**imsi:** <imsi of the iccid>

**pin:** <initial pin>

**pin2:** <initial pin2>**puk:** <initial puk>

**puk2:** <initial puk2>

### *Possible values for 'iccidstate'*

- unused: The ICCID is currently unused and inactive. It is available for activation
- pending: The ICCID is in a transitional state, i.e. it is in the process of becoming activated
- terminated: The ICCID has been terminated (either using the deactivate or the changeiccid commnd). This state cannot be undone
- active: The ICCID is active
- suspended: The ICCID is currently suspended

## **Check status**

To query the status of a previous request, you should submit a request to the gateway using the

following HTTP variables.

### *Request*

Variable	Required	Content
username	Yes	Account username
password	Yes	Account password
command	Yes	checkstatus
id	Yes	Request ID returned from the initial request
return-mode	No	return-mode parameter
return-format	No	return-format parameter

### *Response*

If the request was successful, the following will be returned (please see the checkstatus command for the list of possible requeststate values):

**status: 200 requeststate: <requeststate> iccid: <iccid>**

If the request failed for any reason, the following will be returned:

**status: <error\_code>,<error\_code>,,,,,<error\_code>**

additionally, if the value for requeststate is 'success', the gateway will also return the ICCID and MSISDN:

**status: 200 requeststate: <requeststate> iccid: <iccid> msisdn: <msisdn>**

Note: The blacklist and unblacklist commands are independent of the ICCID and so for these two commands, an ICCID and MSISDN will not be returned. Please see examples at the end of the documentation for clarification.

#### *Possible values for 'requeststate'*

- success: The request was successful. This is a final state
- failed: The request failed. This is a final state. The network rejected this request
- pending: The request is not yet in a final state. Please wait a short while and re-try the checkstatus request

## Error codes

This table lists all the error codes that the gateway can return:

Error code	Description
200	ok
400	Bad request
401	Authentication error
500	Internal system error
600	Invalid command
63001	Invalid ICCID
63003	ICCID not on user's account
63004	Invalid or missing service parameter
63007	Invalid IMEI
63014	SIM incorrectly configured. Cannot activate. Contact support
63017	ICCID not active
63021	Not owner of IMEI
63022	Poll again later (only returned by checkstatus)
63023	No services specified
63024	IMEI not blackliated
63025	Invalid checkstatus ID
63026	ICCID is in an invalid state
63027	Network congested – command not executed. We recommend waiting at least five minutes before retrying this request
63028	Subscriber name is invalid
63029	Subscriber address is invalid
63030	Subscriber postcode is invalid
63031	Subscriber contact number is invalid
63032	Service(s) not yet supported
63033	Request rejected by network
63034	Invalid service for data SIM

63102	Invalid MSISDN
63104	Invalid service name
63105	Cannot set up fax service during activate
63106	Invalid fax MSISDN
63108	Porting not enabled
63109	New port in MSISDN is invalid
63110	Invalid PAC code
63111	Invalid port date
63112	Invalid network operatoe code
63113	Invalid service provider code
63115	MSISDN not paired with ICCID
63116	ICCID not paired with MSISDN
63118	MSISDN not active
63119	Fax already active on ICCID
63120	MSISDN/ICCID pair not active
74001	IMSI associated with the ICCID invalid
74014	SIM not assigned to contact
75013	ICCID is active

## Examples

Note: The examples only use the HTTP GET method however you can also use HTTP POST.

[Activate example](#)

To activate a USIM with the following data over HTTP GET:

Data	Value
iccid	1111111111000000001
username	myusername
password	mypassword
msisdn	44113000000
subname	My Name
subaddress	11 – 15 Hunslet Road, Leeds
subpostcode	LS101JQ

<b>Data</b>	<b>Value</b>
subcontactno	441133203040



### *Request*

https://mvno.aql.com/mobile/configure\_sim.php?username=myusername&password=myspassword&command=activate&iccid=1111111111000000001&geo\_nos=44113000000&subname=My+Name&subaddress=11+--+15+Hunslet+Road%2C+Leeds&subcontactno=441133203040&subpostcode=LS101JQ

### *Response*

If the request was successful, you would get a result similar to:

**status: 200**

**id: 117234**

If the request was not successful, you would get a response similar to:

**status: 63001**

### *Check status example*

To check the status of the above request you would assemble the following request:

### *Request*

https://mvno.aql.com/mobile/configure\_sim.php?username=myusername&password=myspassword&command=checkstatus&id=117234

### *Response*

In this situation, examples of possible return values could be

status: 401

or

**status: 200**

**requeststate: success**

**iccid: 1111111111000000001**

or (wait a short period and issue the checkstatus again)

**status: 200**

**requeststate: pending**

**iccid: 1111111111000000001**

or

**status: 200**

**requeststate: failed**

**iccid: 1111111111000000001**

## Distributing USIMs

To query or submit a despatch, you will need to call the following URL:

[http://gw.aql.com/mobile/despatch\\_sim.php](http://gw.aql.com/mobile/despatch_sim.php)

For each request, you will need to pass the following variables:

- username (username of your mobile account)
- password (password of your mobile account)
- order\_ref (your unique reference for this order)

Followed by the specific command and associated variables. All commands will return one of the following exit codes or as listed for that command:

- 0: Successful
- 1: Authentication error
- 8: Unrecognised command
- 9: Undefined error

### *Despatch a SIM*

To despatch a SIM, you will need an order reference which can be used to query the status of the order at a later date. This should be included as part of the following:

- command=despatch
- name
- company
- address
- postcode
- contact\_no

### *Return codes*

- 2 - Missing parameters
- 3 - Insufficient SIMs on account

### *Query an order*

- command=query

If successful, the following response will be returned in the form:

item:value pairs separated by newlines, e.g.

0: Successful

name:John Smith

company:aql

address:11-15 Hunslet Road,Leeds

postcode:LS10 1JQ

contact\_no:441133203040

iccid:1234567890123

status:despatched (or processing if still awaiting despatch, or cancelled if the order was rejected)

### *Querying stock*

- Levels command=check\_stock

This will either return a successful response followed by a colon separated list of your SIM batches in the form:

product\_code:quantity

i.e. 0: Successful

AQL-123:2031

ABC-456:20000

### *Return codes*

Or, in the event of an error, will return one of the following:

- 1: Authentication error
- 9: Unknown error