

# Application programming interface (API)

## DuoHost

The API is a full-control set of programming interfaces that allow you to develop your own Website and Control Panels and integrate them into our system.

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### 1. Introduction

This reference guide describes an HTTP gateway to DuoHost distributed registration system (hereinafter DuoHost API).

An HTTP gateway is a method of interacting with DuoHost API distributed registration system, which allows real-time operations in one step.

To perform one-step operations, all information should be presented in a single HTTP request. There is no concept of “state” in DuoHost API and all requests are independent of each other. The HTTP interface supports such operations as registering a domain name, renewing a domain name, changing DNS servers, changing registration data, etc. Available operations are described in this document.

### 2. Description of HTTP gateway

DuoHost provides not only real access to the HTTP gateway, but also test access for debugging interaction with the DuoHost API system.

#### 2.1. Real access

Requests to the HTTP gateway should be directed to the URL  
<https://my.duohost.net/api.php>

The average response time under normal server loads should be no more than 5 or 10 seconds.

#### 2.2. Test access

DuoHost provides test access to its gateway to test the registration system. Differences between test access and real are the following:

- No transaction fees
- Operations with domains are not actually performed, domains are not registered
- The test system does not contain domain information that is present in the real registry.

To use the test system, HTTP requests must be directed to the same URL as for the real system. The following authorization data are used:

- Username: test
- Password: test

### 3. Sending HTTP requests

#### 3.1. Commands

An HTTP gateway allows you to execute various commands. The table below lists the commands that can be implemented using an HTTP gateway. Each operation requires an indication of various parameters (fields), which are described later in this document.

<b>Commands (command value)</b>	<b>Description</b>
createProfile	Create a new profile
updateProfile	Change existing profile
getProfile	Get profile data
checkDomain	Domain name availability check
registerDomain	Domain name registration
transferDomain	Domain name transfer
renewDomain	Domain name renewal

updateDomainContacts	Change contacts for a domain name
getDNS	Get DNS servers for a domain name
updateDNS	Change DNS servers for a domain name
getDomainStatus	Get the domain name registration status
getAvailZones	Get a list of available domain zones
getAvailOblast	Get a list of areas for a country
getAvailRegistrators	Get a list of registrars for a domain zone
getBalance	Get the available balance

### 3.2. Input format

Commands are sent as a standard HTTP / 1.0 request using the POST or GET method. Command parameters are passed as HTTP parameters. The following rules apply:

- The values of all fields are strings.
- Field values are passed in utf-8 encoding.
- All required fields must be present in the request and must contain at least one character.
- The names of the parameters of the HTTP request must exactly match the names of the fields case-sensitive.
- The values of all fields must be urlencoded.

### 3.3. Command result format

The response of HostCab API is a serialized string containing an array of parameters obtained using the PHP serialize function.

Utf-8 response string encoding.

To convert a serialized string back to an array of parameters, you must use the unserialize PHP function.

There is also the ability to receive a response in JSON format.

### 3.4. Common request fields

The table lists all the required fields that must be present in any request.

Field name	Description
command	Defines a command to be executed, for example registerDomain
login	Your HostCab username
pass	Your HostCab password. The pass and apikey fields are mutually exclusive and cannot be found in the same request.  See section 3.6.
apikey	The key to access HostCab API. The pass and apikey fields are mutually exclusive and cannot be found in the same request.  See section 3.6.

language	The language of the detailed description of errors (russian, english, spanish, armenian, ukrainian). The field is optional. Default: russian
json	If the field is set to a value of 1, the system will issue a response in JSON format. The field is optional.
currency	<p>Three-letter currency code. If a value is set for the field, all prices in the responses will be in the specified currency, otherwise the prices will be in the currency specified in the client's settings. The field is optional.</p> <p>Available currencies: USD, EUR, RUB, AMD, UAH, ARS</p>

### 3.5. Error messages

There are two types of errors: critical and non-critical.

In the event of a critical error, the command is considered to have failed.

In the case of a non-critical error, the command is considered to be completed or will be executed later.

In the event of an error executing the command, the HostCab API returns the parameters listed in the table below.

Field name	Description
status	The result of the command. In the event of a critical error, the value is always ERROR. In the case of non-critical SUCCESS.
errorCode	Error code

errorMsg	Detailed error description
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The table below lists possible critical errors when working with the HostCab API.

Error code	Description
1	Error connecting to database
2	Error saving data to the database
3	Username not specified
4	User is not found
5	API access disabled
6	No password or API key specified
7	Invalid password or API key specified
8	Unknown command
9	It is forbidden to use the password and API key in the same request

10	No profile found
11	Errors in profile fields: {list of fields}
12	None of the profile fields for change are specified
13	Missing domain name
14	No domain zone specified
15	The domain zone is incorrect or inactive
16	The domain name must be between {X} and {Y} characters
17	A domain name can contain only a-z, 0-9, a hyphen, and should not begin with a hyphen or end with it
18	Domain name is not available
19	The domain name has already been ordered by another user
20	Limit on the number of registered free domain names per day exceeded
21	Domain name registration term not specified

22	Valid domain name registration term, years - {X} - {Y}
23	The ability to use DNS servers is disabled by default for the domain zone
24	Primary DNS server not specified or specified incorrectly
25	Secondary DNS server not specified or specified incorrectly
26	Incorrect third DNS server
27	Invalid fourth DNS server
28	API does not support work with own DNS servers for this domain zone
29	Error checking DNS servers
31	Not enough funds
32	Domain name order not found
33	No domain for order was found
34	Domain renewal term not specified

35	The valid domain renewal term, years - {X} - {Y}
36	Operation is not possible, because there are unpaid invoices for the order
37	Operation is not possible, because order not processed
38	Renewal is not possible earlier than {X} days before the end of the paid period
39	The type of profile should not differ from the type of profile for which the domain was originally registered
40	Operation is not possible, because order expired
41	Operation is not supported for this domain zone.
42	Missing ISO country code
43	The list of areas for the country is not defined
44	For a domain zone there is no possibility to choose a registrar
45	IP address not specified for NS1

46	Specified IP address for NS1, which is not a domain's own DNS server
47	IP address not specified for NS2
48	Specified IP address for NS2, which is not a domain's own DNS server
49	IP address not specified for NS3
50	Specified IP address for NS3, which is not a domain's own DNS server
51	IP address not specified for NS4
52	Specified IP address for NS4, which is not a domain's own DNS server.
53	Error getting DNS servers
54	Access is denied. IP address is not in the list of allowed IP addresses.
55	Transfer is not supported for this domain zone.
56	The domain name is not registered

57	API does not support custom DNS servers during transfer
58	Missing AUTH-CODE
59	The profile ID must not differ from the profile ID for which the domain was originally registered
60	Error. Cannot check domain name availability
61	Trademark certificate number not specified
62	Additional fields not specified: {list of fields}

The table below lists possible non-critical errors when working with HostCab API.

Error code	Description
30	The application has been accepted, but for technical reasons it will be processed manually.

### 3.6. Authentication Methods

HostCab API registration system supports two authentication methods: by username and password, as well as authentication by API key.

#### 3.6.1. Password authentication

Authentication is performed using the username and password request fields. A user with the specified username and password must exist in the billing system for successful authentication. Also, access to the API must be enabled for it.

### 3.6.2. API Key authentication

Authentication is performed using the username and apikey request fields. A user with the specified username and API key must exist in the billing system for authentication to succeed. Also, access to the API must be enabled for it.

## 4. Description of commands

### 4.1. Create profile

This command is used to create a profile (contact) in the billing system.  
Command: createProfile.

Profiles are used when registering domain names, as well as when changing the contacts of a domain name.

There are two types of profiles: Personal and Business.

The table below lists the common fields used to create a profile, as well as the fields required for specific types of profiles.

Field Types:

R - required field

RR - required field if the profile is used for registration of Russian domains

RPPUA - required field if the profile is used for PP.UA domain registration

R\_XX - required field if country XX is specified for the profile (XX is the ISO country code)

O - optional field

O\_XX - optional field, if country XX is specified for the profile (XX - ISO country code)

Common fields for all types of profiles		
Field name	Type	Description

org	R	<p>Profile Type:</p> <p>1 - Personal</p> <p>3 - Business</p>
surname	R	<p>Business: Surname of the director or person in charge.</p> <p>Personal: Surname</p> <p>Example: Johnson</p>
name	R	<p>Business: Name of the director or person in charge.</p> <p>Personal: Name</p> <p>Example: Boris</p>
country	R	<p>Two-letter ISO country code.</p> <p>Example: US</p>
oblast	R	<p>State/Region/Province</p> <p>Example: Texas</p>

post	R	Postcode.  Example: 1023
city	R	City.  Example: New York
street	R	Mailing address.  Example: First ave., 12, 145
phone	R	Phone (including + symbol).  The country code, area code and local number are separated by spaces. Brackets and hyphens are not allowed.  Example: +1 818 1234567
mobile	RPPU A	Mobile phone (including + symbol).  The country code, mobile operator and local number are separated by spaces. Brackets and hyphens are not allowed.

		Example: +1 818 1234567
fax	O	<p>FAX (including + symbol).</p> <p>The country code, area code and local number are separated by spaces. Brackets and hyphens are not allowed.</p> <p>Example: +1 818 1234567</p>
email	R	<p>Email address.</p> <p>Example: test@hostcab.com</p>
ripen	O	<p>RIPN nichandler.</p> <p>The field may be required for certain domain zones.</p> <p>Example: RIP-RIPN</p>
ripe	O	RIPE nichandler.

		<p>The field may be required for certain domain zones.</p> <p>Example: RIP-RIPE</p>
uanic	O	<p>UANIC nichandler.</p> <p>The field may be required for certain domain zones.</p> <p>Example: RIP-UANIC</p>
dpnic	O	<p>DPNIC nichandler.</p> <p>The field may be required for certain domain zones.</p> <p>Example: RIP-DPNIC</p>
epnic	O	<p>EPNIC nichandler.</p> <p>A field may be required for certain domain zones.</p> <p>Example: RIP-EPNIC</p>

Additional fields for personal profiles

Field name	Type	Description
seriya	R	Attention: Required only for Russian domains (.ru, .рф etc.).

		<p>Attention: Required only for Russian domains (.ru, .рф etc.).</p> <p>Series and number of the National ID/Passport.</p> <p>Example, Russia: 34 02 651241, Ukraine: NS 223344</p>
by	R	<p>Attention: Required only for Russian domains (.ru, .рф etc.).</p> <p>Full name of the authority issuing the National ID/Passport.</p> <p>Example: 0004 Police Dept.</p>
date	R	<p>Attention: Required only for Russian domains (.ru, .рф etc.).</p> <p>Date of issue of the National ID/Passport.</p> <p>Example: 23.07.1999</p>
birthday	R	<p>Attention: Required only for Russian domains (.ru, .рф etc.).</p> <p>Date of birth.</p> <p>Example: 20.07.1983</p>
idnum	R_BY	<p>Identification number.</p>

socstrahnum ber	R_FI	Social security number.
oib	R_HR	Company or Personal ID (OIB).
oib	R_GE	Personal ID.

#### Additional fields for Business

Field name	Type	Description
firma	R	<p>Full name of the business in local language.</p> <p>Example: Φηρδ UηC</p> <p>If not available then use the same as “firmaeng” field.</p>
firmaeng	R	<p>Full name of the business in latin characters.</p> <p>Example: Test LLC</p>
address_org	R	<p>Address.</p> <p>Example: Second Ave., 173</p>

inn	R	Taxpayer Number (TIN) Example 789012345678
kpp	R_RU	КПП of the business Example: 632946014

## 4.2. Change Profile

This command is used to change the profile (contact) in the billing system. The value of the command field for this command must be specified as updateProfile.

Attention! The contact of the domain name when changing the profile in the billing system remains unchanged. To directly change the domain name contacts, you should use the command described in section 4.5.

Field name	Description
profileid	Profile ID. If not specified, the default profile is used.
<parameters>	As parameters, any fields described in Section 4.1. can be used, either individually or together.  It is forbidden to change the value of the org field (profile type).

## 4.3. Domain name registration

This command is used to register a domain name.  
Command: registerDomain.

Field name	Description
domain	<p>Fully qualified domain name, for example example.com. Alphanumeric and hyphen characters are allowed.</p> <p>IDNs (like <code>hαjβγδ. hαj, русский.рф</code>) are specified in utf-8 encoding.</p>
period	Domain name registration duration. The value must be specified in years. Example: 1.
profileid	Profile ID. If not specified, the default profile is used.
defaultns	<p>1 - Use default DNS servers.</p> <p>0 - Use custom DNS servers.</p>
ns1	Primary DNS server. This field is required if the default DNS servers are not indicated.
ns2	Secondary DNS server. This field is required if the default DNS servers are not indicated.
ns3	Optional. Third DNS server. This field is required if the default DNS servers are not indicated.
ns4	Optional. Fourth DNS server. This field is required if the default DNS servers are not indicated.

ns1ip	IP address for the primary DNS server. This field is required only if ns1 uses custom DNS server.
ns2ip	IP address for the secondary DNS server. This field is required only if ns2 uses branded DNS server. Like ns2.yourdomain.com.
ns3ip	IP address for the third DNS server. This field is required only if ns3 uses branded DNS server. Like ns2.yourdomain.com.
ns4ip	IP address for the fourth DNS server. This field is required only if ns4 uses branded DNS server. Like ns2.yourdomain.com.
license	Trademark certificate number. The field can be either mandatory or not, depending on the settings of a domain zone.

#### 4.4. Domain name renewal

This command is used to renew a domain name.

Command: renewDomain.

Field name	Description
domain	Fully qualified domain name, for example example.com. Alphanumeric and hyphen characters are allowed.  IDNs (like <code>hαjтrтú. hαj, русский.рф</code> ) are specified in utf-8 encoding.
period	Domain name registration duration. The value must be specified in years. Example: 1.

#### 4.5. Change contacts for a domain name

This command is used to change contacts for a domain name.

Command: updateDomainContacts.

Field name	Description
domain	Fully qualified domain name, for example example.com. Alphanumeric and hyphen characters are allowed.  IDNs (like <code>հայերեն. հայ</code> , <code>русский.рф</code> ) are specified in utf-8 encoding.
profileid	Profile ID. If not specified, the default profile is used.

#### 4.6. Get DNS servers for a domain name

This command is used to get DNS servers for a domain name.

Command: getDNS.

Field name	Description
domain	Fully qualified domain name, for example example.com. Alphanumeric and hyphen characters are allowed.  IDNs (like <code>հայերեն. հայ</code> , <code>русский.рф</code> ) are specified in utf-8 encoding.

#### 4.7. Changing DNS servers for a domain name

This command is used to change DNS servers for a domain name.

Command: updatedDNS.

Field name	Description
domain	Fully qualified domain name, for example example.com. Alphanumeric and hyphen characters are allowed.  IDNs (like <code>հայերեն. հայ</code> , <code>русский.рф</code> ) are specified in utf-8 encoding.
defaultns	1 - Use default DNS servers.  0 - Use custom DNS servers.
ns1	Primary DNS server. This field is required if the default DNS servers are not indicated.
ns2	Secondary DNS server. This field is required if the default DNS servers are not indicated.
ns3	Third DNS server. The field is optional.
ns4	Fourth DNS server. The field is optional.
ns1ip	IP address for the primary DNS server. This field is required only if ns1 uses branded DNS server. Like ns1.yourdomain.com.

ns2ip	IP address for the secondary DNS server. This field is required only if ns2 uses branded DNS server. Like ns1.yourdomain.com.
ns3ip	IP address for the third DNS server. This field is required only if ns3 uses branded DNS server. Like ns1.yourdomain.com.
ns4ip	IP address for the fourth DNS server. This field is required only if ns4 uses branded DNS server. Like ns1.yourdomain.com.

#### 4.8. Getting a list of areas/regions for a country

This command is used to get a list of valid regions for a country.

Command: getAvailOblast.

Field name	Description
country	Two-letter ISO country code.  Example: UA

#### 4.9. Get a list of registrars for a domain zone

#### 4.10. Get a domain name registration status

This command is used to get a domain name registration status.

Command: getDomainStatus

Field name	Description
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domain	The fully qualified domain name to renew, for example example.com. Alphanumeric and hyphen characters are allowed.  IDNs (like հայերեն. հայ, русский.рф) are specified in utf-8 encoding.
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#### 4.11. Get profile data

This command is used to get the profile (contact) data.

Value: getProfile.

Field name	Description
profileid	Profile ID. If not specified, the default profile is used.

#### 4.12. Get available balance

This command is used to get the amount of the available balance.

Command: getBalance.

#### 4.13. Domain name transfer

This command is used to request a domain name transfer from another registrar. The

Command: transferDomain.

Field name	Description
domain	Fully qualified domain name, for example example.com. Alphanumeric and hyphen characters are allowed.  IDNs (like հայերեն. հայ, русский.рф) are specified in utf-8 encoding.
period	Domain name registration duration. The value must be specified in years. Example: 1.

authcode	Domain name authorization/transfer code. The field can be either mandatory or not, depending on the settings of the domain zone.
profileid	Profile ID. If not specified, the default profile is used.
defaultns	1 - Use default DNS servers. 0 - Use custom DNS servers.
ns1	Primary DNS server. This field is required if the default DNS servers are not indicated.
ns2	Secondary DNS server. This field is required if the default DNS servers are not indicated.
ns3	Third DNS server. This field is required if the default DNS servers are not indicated.
ns4	Fourth DNS server. This field is required if the default DNS servers are not indicated.
license	Trademark certificate number. The field can be either mandatory or not, depending on the settings of a domain zone.

#### **4.14. Domain name availability check**

This command is used to check the availability of a domain name for registration.

Command: checkDomain.

Field name	Description
domain	<p>Fully qualified domain name, for example example.com. Alphanumeric and hyphen characters are allowed.</p> <p>IDNs (like հայերեն. հայ, русский.рф) are specified in utf-8 encoding.</p>

#### 4.15. Get a list of available domain zones

This command is used to get a list of available domain zones.

Command: getAvailZones.

Field name	Description
status	If the command is successful, the value will always be SUCCESS.
zones	<p>This field returns an array of fields. Each field of the array, in turn, is also an array and contains the following fields:</p> <p>id - domain zone ID</p> <p>zone - domain zone</p> <p>registratorid - registrar ID</p> <p>registratorname - name of registrar</p> <p>regcost - registration cost</p> <p>renewcost - renewal cost</p>

regperiod - available registration period

renewperiod - available renewal period

currency - currency code

If a transfer is allowed for the domain zone, additional fields are displayed:

transfercost - transfer cost

transferneedauthcode - if 1, then you must specify AUTH-CODE when placing an order