ARIN Registration Core Services API - REST Methods Documentation

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API Keys

API keys act as a shared secret and provide a link between the RESTful caller and a web-user account. Most service calls require an API key. Any calls that do will be labeled in the specification below.

To define an API key, you just need to specify the request parameter "apikey" on the URL of the call. Note that the "apikey=" variable name in the URL must be all lowercase. Sending an uppercase (APIKEY) or camel case (apiKey) version of the variable name will result in an exception. The API Key itself must be in uppercase; that is, it must match case just like a password does. Below is an example of a POC delete call with the API key specified:

Using the "apikey" on a POC delete
DELETE /rest/poc/DUDE1-ARIN?apikey=API-1234-1234-1234-1234 HTTP/1.1

General Error Codes

There are several error status codes that could occur on almost every call. If you receive a status code that was unexpected based on the service definition below, the details of the error code could be here. In cases where there's a generic status code, i.e. 400 Bad Request, the Registration Core will return an ErrorPayload containing further details about the error and how to resolve it.

In nearly all cases, the status codes map to the HTTP specification.

Status Code	Description
400	You sent the Registration Core a bad request. Common causes could be: missing or incorrect "apikey" parameter, misconfiguration or the data received couldn't pass our entity validation rules. See the ErrorPayload for a concrete explanation of why you received this status.
404	The main component of your service call couldn't be found in the database. For instance, if you get a 404 while trying to modify a POC it probably means we couldn't find a matching POC handle in the database.
405	If you're seeing this, check the interface of the service you're calling and verify that the URL and HTTP method match to something in our specification. Chances are you're missing some element of the URL path to sync it up to the proper call.
409	If you receive this error, you probably tried deleting something that was still linked to something else in our database. For example, if you tried to delete POC it is probably still linked to an organization or a network.

The error message "The API key specified was missing or invalid." can be caused by one of two issues:

- Your API key was not found in our database.

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- The API key you specified could not be found associated with the resource you've requested.

Please keep in mind that if you specify a resource that doesn't exist (i.e. you misspell your handle), we will return this error as well. So, if you're seeing this error and you're sure that your API key is correct you should also verify that your resource exists and that the handle/key for that resource is correct.

An error will also result if "application/xml" is not specified as the mime type.

Poc Service

These services provide interaction with your point-of-contacts (POC) information at ARIN.

Get

Definition	
Method	GET
URL	/rest/poc/POCHANDLE?apikey=APIKEY
Content	NONE
Returns	PocPayload

Returns the details of a POC record.

If no POC can be found with the handle specified, an exception containing an ErrorPayload will be thrown.

Delete

Definition	
Method	DELETE
URL	/rest/poc/POCHANDLE?apikey=APIKEY
Content	NONE
Returns	PocPayload

Removes a POC record.

This service will return a payload containing the POC record that was removed. If the POC is still associated with an organization or resources, the delete will fail and result in an exception containing an ErrorPayload.

Create

Definition	
Method	POST
URL	/rest/poc/?apikey=APIKEY

Content	PocPayload
Returns	PocPayload

Create a POC.

This call will create a POC record based on the payload provided. Once the POC has been created, a new payload will be constructed and returned back to the customer showing what was committed to the database. This returned payload will also contain the new POC handle that was created.

Modify

Definition	
Method	PUT
URL	/rest/poc/POCHANDLE?apikey=APIKEY
Content	PocPayload
Returns	PocPayload

This call will modify an existing POC record based on the payload provided.

This service will return a payload containing the new POC record and all the modifications that were accepted. If a validation error occurred, your changes were not committed to the database and you will receive an ErrorPayload instead.

If you send any phone or email information along with this payload it will replace all current phones and emails associated with this POC. If you want to add or remove individual phones or emails from a POC, please use the services detailed below.

Add Phone

Definition	
Method	PUT
URL	/rest/poc/POCHANDLE/phone?apikey=APIKEY
Content	PhonePayload
Returns	PhonePayload

Associates a phone with a POC.

Delete Phone

Definition	
Method	DELETE
URL	/rest/poc/POCHANDLE/phone/NUMBER;type=TYPE?apikey=APIKEY
Content	PhoneTypePayload
Returns	PayloadList

Removes a phone from a POC. This method is different from the most service calls. It was added as a convenience method to our customers to allow them to remove individual phones without specifying their entire POC structure or phone list. It has several options; you can make the call with or without a phone number and with or without a type.

If you don't specify the "type" matrix parameter then the phone number specified will be removed from all the types. If it matches a single record, it will remove that one record, but if the number is specified as both an OFFICE and FAX record it will be removed for both. The possible types are detailed in the PhonePayload.

Regardless of the combination you use to remove phone numbers, the resulting POC record must still pass validation before the changes are final. If you were to try and delete all office phone numbers, it will fail with a validation error and your changes won't be flushed to the database. Instead you'll receive a "400" status code and ErrorPayload denoting a validation error occurred.

This service will return a PayloadList of PhonePayload objects that were removed from the POC record. If no records were removed, you will still receive a "200 OK" and an empty PayloadList record. Due to the querying capability and open ended nature of these queries, returning a 404 didn't make sense. Also, since this is a subservice off of the main POC service, a 404 will be used to denote that the POC-HANDLE provided does not exist.

Add Email

Definition	
Method	POST
URL	/rest/poc/POCHANDLE/email/EMAIL?apikey=APIKEY
Content	NONE
Returns	PocPayload

Add an email address to POC.

Delete Email

Definition	
Method	DELETE
URL	/rest/poc/POCHANDLE/email/EMAIL?apikey=APIKEY
Content	NONE
Returns	PocPayload

Delete an email address from the POC.

Similar to the method for removing a phone from a POC record, this will take the email address as a path parameter in the URL and remove it from the POC-HANDLE specified. If successful, it will return a PocPayload structure representing what was removed. If it fails, it will return an ErrorPayload object denoting the reason for failure.

Net Service

These services provide interaction with your network resources at ARIN.

Please note that these service calls will work with IPv4 and IPv6. The handle provided to any of these services can represent either type.

Get

Definition	
Method	GET
URL	/rest/net/NETHANDLE?apikey=APIKEY
Content	NONE
Returns	NetPayload

Returns the details for a network.

Delete

Definition	
Method	DELETE
URL	/rest/net/NETHANDLE?apikey=APIKEY
Content	NONE
Returns	TicketedRequestPayload

This call will remove the network from our database. It is only applicable for reallocations (A) or reassignments (S).

If there are no errors and the network being deleted has no children networks, this method will return a TicketedRequestPayload with an embedded NetPayload with details of the deleted network. If the network being deleted has children, this method will return a TicketedRequestPayload containing the details of the ticket created for the request in a TicketPayload. If you plan to reissue the space to another customer, please wait until the ticket successfully processes and is closed before reissuing the space.

During the deletion of a Customer network obtained via a simple reassignment, only the network record will be removed - the Customer record will remain on record. You will need to issue a separate customer delete request to remove the customer record.

To return direct assignments (DS) or direct allocations (DA) please use Ask ARIN when logged in to ARIN Online. You will receive an ErrorPayload if you attempt to use this REST service to return a DA or DS network.

Modify

Definition	
Method	PUT
URL	/rest/net/NETHANDLE?apikey=APIKEY
Content	NetPayload
Returns	NetPayload

This call allows you to modify a network record in our database.

Reassign

Definition	
Method	PUT
URL	/rest/net/PARENTNETHANDLE/reassign?apikey=APIKEY
Content	NetPayload
Returns	TicketedRequestPayload

This method performs a reassignment for a network. It handles both detailed and simple reassignments.

This method will take a NetPayload object and use it to reassign a portion of the parent network defined by PARENT-NET-HANDLE. This service call should be used if the space is being given to a customer for their own use and will not be reallocated or reassigned further.

There are two types of reassignments that can take place: simple and detailed.

A simple reassignment is used when allocating resources to a Customer Org (i.e. an Org without customer contact information). You can create a Customer Org via Net Service Create Recipient Customer. The Customer Org to which resources are reassigned will use the POC records of the parent Org. A simple reassignment is performed when a customerHandle is given in the NetPayload that is submitted to the service.

A detailed reassignment is used when allocating resources to a Recipient Org (i.e. an Org with customer contact information). You can create a Recipient Org via Net Service Create Recipient Org. A detailed reassignment is performed when an orgHandle is given in the NetPayload that is submitted to the service.

If there are no errors, this method will return a TicketedRequestPayload. If the reassignment can be auto-processed, this TicketedRequestPayload will have an embedded NetPayload with the details of the reassignment.

If the request cannot be auto-processed, the TicketedRequestPayload returned will have an embedded TicketPayload containing the details of the ticket created for the request.

If a reassignment can not be processed, the reason for rejection will be returned in an ErrorPayload. This method will return a 409 Conflict if the network block specified in the payload isn't a part of the

PARENT-NET-HANDLE from the URL. It will return a 403 Forbidden if the PARENT-NET-HANDLE isn't associated with the API Key specified or if the block specified by the payload cannot be reassigned.

Reallocate

Definition	
Method	PUT
URL	/rest/net/PARENTNETHANDLE/reallocate?apikey=APIKEY
Content	NetPayload
Returns	TicketedRequestPayload

This service method performs a reallocation of a network. This service call should be used if you're reallocating space to allow your customer to reassign or reallocate it further. If there are no errors, this method will return a TicketedRequestPayload.

If the reallocation can be auto-processed, this TicketedRequestPayload will have an embedded NetPayload with the details of the reallocation.

If the request cannot be auto-processed, the TicketedRequestPayload returned will have an embedded TicketPayload containing the details of the ticket created for the request.

If a reallocation can not be processed, the reason for rejection will be returned in an ErrorPayload. This method will return a 409 Conflict if the network block specified in the payload isn't a part of the PARENT-NET-HANDLE from the URL. It will return a 403 Forbidden if the PARENT-NET-HANDLE isn't associated with the API Key specified or if the block specified by the payload cannot be reallocated.

Create Recipient Org

Definition	
Method	POST
URL	/rest/net/PARENTNETHANDLE/org?apikey=APIKEY
Content	OrgPayload
Returns	OrgPayload

This method should be used to create downstream organizations with customer contact information to which you will reassign or reallocate (SWIP) network address space. If you are wanting to request resources directly from ARIN, use the organization Org Service Create.

This call will create an organization record based on the payload provided. Once the organization has been created, a new payload will be constructed and returned showing what was committed to the database. This returned payload will also contain the new Org handle that was created.

This call must include the PARENT-NET-HANDLE of the network from which you will be reassigning or reallocating space.

In order for this method to succeed, one of the following three conditions must be met:

1. The API Key must belong to a Web User that is associated with the Tech POC of the Network specified by PARENT-NET-HANDLE.
2. The API Key must belong to a Web User that is associated with the Tech POC of the Org to which the network indicated by PARENT-NET-HANDLE is allocated.
3. The API Key must belong to a Web User that is associated with the Admin POC of the Org to which the network indicated by PARENT-NET-HANDLE is allocated.

Create Recipient Customer

Definition	
Method	POST
URL	/rest/net/PARENTNETHANDLE/customer?apikey=APIKEY
Content	CustomerPayload
Returns	CustomerPayload

This method should be used to create downstream customer organizations without customer contact information to which you will reassign network address space. If you are wanting to request resources directly from ARIN, use the organization Org Service Create.

This call will create a customer organization record based on the payload provided. Once the customer organization has been created, a new payload will be constructed and returned showing what was committed to the database. This returned payload will also contain the new Customer handle that was created.

This call must include the PARENT-NET-HANDLE of the network from which you will be reassigning or reallocating space.

In order for this method to succeed, one of the following three conditions must be met:

1. The API Key must belong to a Web User that is associated with the Tech POC of the Network specified by PARENT-NET-HANDLE.
2. The API Key must belong to a Web User that is associated with the Tech POC of the Org to which the network indicated by PARENT-NET-HANDLE is allocated.
3. The API Key must belong to a Web User that is associated with the Admin POC of the Org to which the network indicated by PARENT-NET-HANDLE is allocated.

If creating a private customer (i.e. the "privateCustomer" element in the payload is set to "true"), an additional criteria for success exists: there must be an upstream Abuse POC and an upstream Tech POC on either the parent net specified in the URL or that parent net's organization.

Customer Service

From a service perspective, the differences between customers and organizations are minimal. Customers can be made private to keep the contact information hidden. Also, only customers can be

used for simple reassignment. Organizations cannot be used for that purpose. See CustomerPayload for further details on the differences between a customer and an organization.

Most service calls in this class will reference the comparable call for organizations. Response codes and behavior will be identical except for the different payload object returned.

Customers should only be created in relation to a network that will be reassigned. Therefore, the creation of a customer is triggered off of a parent network. See the Net Service Create Recipient Customer call under the network services for more information.

Get

Definition	
Method	GET
URL	/rest/customer/CUSTOMERHANDLE?apikey=APIKEY
Content	NONE
Returns	CustomerPayload

Returns the customer details.

Delete

Definition	
Method	DELETE
URL	/rest/customer/CUSTOMERHANDLE?apikey=APIKEY
Content	NONE
Returns	CustomerPayload

Delete the customer.

See the organization Org Service Delete for a detailed description of response codes and expected behavior.

Modify

Definition	
Method	PUT
URL	/rest/customer/CUSTOMERHANDLE?apikey=APIKEY
Content	CustomerPayload
Returns	CustomerPayload

Modify a customer.

See the organization Org Service Modify for a detailed description of response codes and expected behavior.

Org Service

These services provide interaction with your organization information at ARIN.

Get

Definition	
Method	GET
URL	/rest/org/ORGHANDLE?apikey=APIKEY
Content	NONE
Returns	OrgPayload

Returns the details of an organization.

Delete

Definition	
Method	DELETE
URL	/rest/org/ORGHANDLE?apikey=APIKEY
Content	NONE
Returns	OrgPayload

Removes an organization. This call will delete an organization record based on the ORG-HANDLE in the URL.

If successful, this service will return a payload containing the organization record that was removed. In cases where the organization is still linked to resources, this method will return a 409 Conflict status code to notify the user that we were unable to process this request.

Create

Definition	
Method	POST
URL	/rest/org/?apikey=APIKEY
Content	OrgPayload
Returns	TicketPayload

Create an organization. This method should be used if you plan to request resources directly from ARIN.

Modify

Definition	
Method	PUT
URL	/rest/org/ORGHANDLE?apikey=APIKEY
Content	OrgPayload
Returns	OrgPayload

Modifies an organization. A new payload will be constructed and returned back to the customer showing what was committed to the database.

If you send a list of POC links for this organization it will replace all existing links that this org may have.

Remove Poc

Definition	
Method	DELETE
URL	/rest/org/ORGHANDLE/poc/POCHANDLE;pocFunction=POCFUNCTION?apikey=APIKEY
Content	NONE
Returns	OrgPayload

Similar to how a phone can be removed from a POC (Poc Service Delete Phone), this call allows you to optionally specify both the POC handle and the type to remove a POC from an organization, but at least one of those must be specified.

If you don't specify the type matrix parameter, the POC corresponding to POC-HANDLE will be removed from all the types. If it matches a single record, it will remove that one record; but if the POC is specified as both an ADMIN and TECH record, it will be removed for both.

Regardless of the combination you use to remove POC links to organizations, the resulting organization record must still pass validation before the changes are final. If you were to try and delete all POC tech roles, it will fail with a validation error and your changes won't be flushed to the database. Instead you'll receive a "400" status code and ErrorPayload denoting a validation error occurred.

This service will return a PayloadList of PocLinkPayload objects that were removed from the POC record. If no records were removed, you will still receive a "200 OK" and an empty PayloadList record. Due to the querying capability and open ended nature of these queries, returning a 404 didn't make sense. Also, since this is a subservice off of the main organization service, a 404 will be used to denote that the ORG-HANDLE provided does not exist.

Add Poc

Definition	
Method	PUT
URL	/rest/org/ORGHANDLE/poc/POCHANDLE;pocFunction=POCFUNCTION?apikey=APIKEY
Content	NONE
Returns	OrgPayload

This call will associate a POC to an organization record using the ORG-HANDLE and POC-HANDLE specified. You must specify a type. The possible types are detailed on the PocLinkPayload.

This call requires both the ORG-HANDLE and POC-HANDLE to exist prior to execution. If the ORG-HANDLE or POC-HANDLE do not currently exist, a 404 will be returned with an ErrorPayload detailing which was missing.

Please note: linking a new ADMIN POC to an organization will result in the current record being replaced. Any other type of POC will simply be added to the organization and not replace the existing POCs which are currently linked.

Ticket Service

Ticket details can be queried using a number of different services, and they are not limited to interaction with tickets started via RESTful calls. Any ticket related to your ARIN Online account (except W-series tickets) can be accessed via these services. For example, if you initiated an Ask ARIN ticket while logged in to ARIN Online, it can accessed with these services.

Only a subset of functionality is provided by these REST services. For messaging or a detailed view of your ticket or its history, you will need to log in to ARIN Online. These services only allow simple hooks from your provisioning system into our ticketing system.

When specifying a ticket number in the URL or as a parameter for any calls, please use this format: 20090526-X1.

Add Message

Definition	
Method	PUT
URL	/rest/ticket/TICKETNUMBER/message?apikey=APIKEY
Content	MessagePayload
Returns	MessagePayload

Adds a message to the ticket specified. This should be used to add any additional information to a ticket. Files may be attached using this service.

You are not allowed to add a message to a ticket with the status of CLOSED.

Modify

Definition	
Method	PUT
URL	/rest/ticket/TICKETNUMBER?apikey=APIKEY
Content	TicketPayload

Returns	TicketPayload

This call will modify a ticket. The only field which is modifiable is the status and it can only be set to CLOSED if the ticket is already RESOLVED. All other calls to this will result in an error stating that you cannot modify the element.

Get Ticket Details

Definition	
Method	GET
URL	/rest/ticket/TICKETNUMBER?apikey=APIKEY
Content	NONE
Returns	TicketPayload

This method returns a TicketPayload which contains the details of the ticket specified.

Get Tickets

Definition	
Method	GET
URL	/rest/ticket;ticketType=TICKETTYPE;ticketStatus=TICKETSTATUS?apikey=APIKEY
Content	NONE
Returns	PayloadList

This call will list all of the tickets associated with this API key. Any ticket related to your ARIN Online account (except W-series tickets) can be accessed via these services. For example, if you initiated an Ask ARIN ticket while logged in to ARIN Online, it can accessed with these services.