



# **Additional REST considerations**

## **Astra Automation**

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# Additional REST considerations

## Security

The Astra Control REST API provides multiple layers of security.



All HTTP network traffic is protected using the transport layer security (TLS) standard.

## Astra API tokens

To use the Astra Control REST API, you must provide an API token on every request in the `Authorization` request header. Note the following:

- You can generate an API token at the Astra web user interface.
- A token never expires after it is created.
- You can revoke a token at any time at the Astra web user interface.

See [Get an API token](#) for more information.

## Revoking an API access token

You can revoke an API token at the Astra web interface when it is no longer needed.

### Before you begin

You need an account for the Astra service. You should also identify the tokens you want to revoke.

### About this task

After a token is revoked, it is immediately and permanently unusable.

### Steps

1. Sign in to Astra using your account credentials.  
  
Access the following site for Astra Control Service: <https://astra.netapp.io>
2. Click the figure icon at the top right of the page and select **API access**.
3. Select the token or tokens you want to revoke.
4. Under the **Actions** drop-down box, click **Revoke tokens**.

## Roles and access control

Each Astra user is assigned to a single role which determines the actions that can be performed. The roles are arranged in a hierarchy as described in the table below.

Role	Description
Owner	Has all the permissions of the Admin role and can also delete Astra accounts.
Admin	Has all the permissions of the Member role and can also invite users to join an account.
Member	Can fully manage the Astra application and compute resources.

Role	Description
Viewer	Restricted to only viewing resources.

## Working with collections

The Astra Control REST API provides several different ways to access resource collections through the defined query parameters.

### Selecting values

You can specify which key-value pairs should be returned for each resource instance using the `include` parameter. All of the instances are returned in the response body.

### Filtering

Collection resource filtering allows an API user to specify conditions which determine if a resource is returned in the response body. The `filter` parameter is used to indicate the filtering condition.

### Sorting

Collection resource sorting allows an API user to specify the order in which resources are returned in the response body. The `orderBy` parameter is used to indicate the filtering condition.

### Pagination

You can enforce pagination by restricting the number of resource instances returned on a request using the `limit` parameter.

### Count

If you include the Boolean parameter `count` set to `true`, the number of resources in the returned array for a given response is provided in the metadata section.

## Diagnostics and support

There are several support features available with the Astra Control REST API that can be used for diagnostics and debugging.

### API resources

There are several Astra features exposed through API resources that provide diagnostic information and support.

Type	Description
Event	System activities that are recorded as part of Astra processing.
Notification	A subset of the Events that are considered important enough to be presented to the user.
Unread notification	The notifications that have yet to be read or retrieved by the user.

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