



# **Job objects API and asynchronous processes**

## **Active IQ Unified Manager**

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# Job objects API and asynchronous processes

The management-server category consists of the jobs API that provides information about the Jobs performed while running Active IQ Unified Manager APIs. you must know how asynchronous processing works using the Job object.

Some of the API calls, particularly those that are used for adding or modifying resources, can take longer to complete than other calls. Unified Manager processes these long-running requests asynchronously.

## Asynchronous requests described using Job object

After making an API call that runs asynchronously, the HTTP response code 202 indicates the request has been successfully validated and accepted, but not yet completed. The request is processed as a background task which continues to run after the initial HTTP response to the client. The response includes the Job object anchoring the request, including its unique identifier.

## Querying the Job object associated with an API request

The Job object returned in the HTTP response contains several properties. You can query the state property to determine if the request completed successfully. A Job object can be in one of the following states:

- NORMAL
- WARNING
- PARTIAL\_FAILURES
- ERROR

There are two techniques you can use when polling a Job object to detect a terminal state for the task, either success or failure:

- Standard polling request: The current Job state is returned immediately.
- Long polling request: When the job state moves to NORMAL, ERROR, or PARTIAL\_FAILURES.

## Steps in an asynchronous request

You can use the following high-level procedure to complete an asynchronous API call:

1. Issue the asynchronous API call.
2. Receive an HTTP response 202 indicating successful acceptance of the request.
3. Extract the identifier for the Job object from the response body.
4. Within a loop, wait for the Job object to reach the terminal state NORMAL, ERROR, or PARTIAL\_FAILURES.
5. Verify the terminal state of the Job and retrieve the Job result.

## Viewing Jobs

In Active IQ Unified Manager, operations like adding and modifying resources are performed by synchronous and asynchronous API invocations. Invocations that are

scheduled for asynchronous execution can be tracked by a Job object created for that invocation. Each Job object has a unique key for identification. Each Job object returns the Job object URI for you to access and track the progress of the job. You can use this API for retrieving the details of each execution.

You can query all of the Job objects. You can also use the Job key and Job object details to run the next set of operations on the resources.

### View jobs

You can use this method to obtains a list of all of the Jobs. The response body consists of the Job details of all of the Jobs. You can also view the details of a particular Job object by specifying the Job key in the URI. The response body consists of the details that are identified by the Job key. In the response, the latest Job object is returned to the top. If you want to query a particular Job object, enter the Job ID of the job.

Category	HTTP verb	Path
management-server	GET	/management-server/jobs  /management-server/jobs/{key}

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