

Introduction

This document describes the standards to use when designing any REST API for EGA/EVA services. We will use the Apigee e-book ([link](#)) / ([link](#)) as reference or extended rationale for the guidelines.

API Calls considerations

- Use nouns, not verbs, when referring to a general or an specific resource.
 - Use plural nouns. I.e.: /studies /studies/EGA0001
 - Use verbs only when the API is referring to a global action (i.e. /search?q or /stats)
- Include the API version in the URL
 - i.e. /ega/v1/studies
 - All the responses should include the API version used in the body
- Inclusion/exclusion parameters:
 - Use include to specify which fields should be included in the response body
 - Use exclude to specify that all fields, except the listed ones, should be included in the response body
 - If both include and exclude parameters are present, include overrules exclude, meaning that just the ones in the include parameter would be returned.
- Pagination. Use
 - limit: to specify how many results should be returned.
 - skip: to specify which is the starting point to return results from.
- Result formats:
 - By default we will return Json
 - Other formats like XML or Protocol Buffer (protobuf) could be returned using a query parameter in the following format:
 - ?outputformat=protobuf
- Search functionality: No DSL would be defined. We will decide when this functionality has more specific requirement.
- HTTP verbs usage:
 - We will allow for using both:
 - The 4 HTTP verbs (PUT, GET, POST and DELETE) as equivalent of CRUD operations if possible.
 - Just GET and an action query parameter, for limited clients or for easy testing:
 - i.e. /studies?action=delete&id=EGA00001
 - Action parameters are:
 - create
 - (read is implicit in the GET operation)
 - update
 - delete
 - If both an action and a non-GET verb are used, then API should return a 400 error

Error codes to return:

- Use the following errors at the HTTP Response Header:
 - 200 (Success): The REST call ran OK
 - 400 (Client Error): The REST call has some error on it, this error should be addressed by the client
 - 500 (Server error): We get an internal error, that is not actionable by the client.
- Use the following error code inside the HTTP Response "Body"
 - 404: The requested resource is not found
 - 401: Not authorized to access the resource. Authentication is required.
 - 403: Forbidden. Authentication would not allow access to the resource either.
- The body of the response, when an error happens, should include:
 - developer message: details on the error condition that could be actionable by the developer of the API client.
 - user message: readable explanation that could be leveraged by the API client to show an error message to the user.
 - internal error code: Error code managed by EGA/EVA
 - link to error documentation: Link to a page containing a list and brief description of the errors or link to a more detailed page.