Chapter 2

GET APIs General Concepts for eXpert BR

from General Marketplace ESI Guide for ADP eXpert BR Guide

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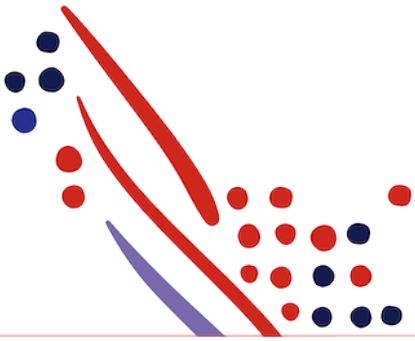

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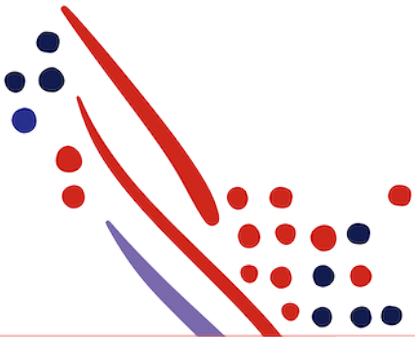

Chapter Contents

Chapter 2

GET APIs General Concepts for eXpert BR

In this chapter we will cover some general concepts for GET APIs.

GET API Purposes

The GET APIs should be used to retrieve the information registered in the ADP eXpert Brazil system, which can be done in two ways:

- Retrieving only the data needed for use in the moment.
- Sync the whole data periodically by asking for all the elements through multiple calls.

For the specific data retrieval, you should use data filtering, where only the elements that meet the filtering criteria will be returned to the call. Now, for data sync, you should retrieve the data by pages, where each page will contain a part of the records of the API's type of data (for example the Workers API will have a subset of workers in each page). For more details, go to the Data pagination and Data Filtering sections.

Data pagination

The APIs allow the retrieval of large sets of data, what implicates that some rules must be followed to garantee the process and comunication in a timely manner, specially on APIs with higher amounts of fields available.

The first point, specially when syncing the data between two systems is to retrieve the data in pages, with smaller groups of elements per call instead of requesting the full list at one call. For performances reasons, we limit the maximum pagesize in 100 elements accross the different APIs, however you may use smaller pagesizes if you prefer.

We strongly advise that when syncing data, you take advantage of the use of the commands $top and $skip in a sequencial manner, retrieving the sequential pages one at time, taking full advantage of the performance functionalities built for this kind of Marketplace use. In this case, you should ask, for example, for the first 100 elements, then skipping those 100 in you next call and asking for the next 100 workers in your next call. This can be done combining the $top and $skip commands, like in the example:

- First call: $top=100
- Second call: $top=100&$skip=100
- Thrid call: $top=100&$skip=200

You can continue this loop until you recieve an empty page, sinalizing there's no more elements to be retrieved.

Data Filtering

When your integration needs specific sets of elements in an API, then you can use the filtering functionalities of each API to receive only the elements that meet the criteria sent. Each API has a set of available filters, allowing for you to choose between the available options according to the integration needs.

On some APIs, the search period is going to be mandatory and in this cases the API Guide will have a section explaining on how to proceed and the behaviour presented if the filter isn't informed. Most APIs will also have the possibility to search directly for an element by sending it's ID, but in this case, you should know the precise element ID to use it in the request, as there's no approximate match.

Please be aware that, depending on your criteria, more than 100 records can meet the criteria and in this cases you should use pagination to receive the nexts sets of elements.

Data Access Control

The ADP eXpert system allows two complementary types of Data Access Control in the Marketplace offer, where we can configure who the integration will see (Data Entitlements) and what the integration will see of these workers (Field Entitlements). These two types of access controls will be applied in the result of every call made by the integration user, restraining the result to only what the integration should have access to.

Please be aware that on the grounds of the LGPD, only data necessary to the business purpose of the integration should be requested and the Field Entitlements will ensure that based on the list of fields sent in the Discovery phase. Also, by limiting the amount of fields, the JSON payload could be significantly smaller, speeding up the data transfer and reducing the bandwith needed, making a more seamlessly integration.

In the next two sessions we will explain further this types of Data Access Control.

Keep in mind that those Data access control functionalities are applied to the comunication between the two applications, which means that you still need to have a Data access control mecanism on your application if there's any kind of interface used by end users.

Data Entitlements

The Data Entitlements allows you to receive only the data from the workers your integration is allowed to see, respecting the ADP eXpert model based on the organizational structure of the company.

For that we need to explore some basic organizational concepts:

A client is divided in companies ("Empresas"), following the legal division of the client as registered in Brazil's government ("CNPJ Raiz"), where each company have one or more branches ("Estabelecimento" or "Filial") that is also a division following the way the client is registered in the Brazil's government ("CNPJ"). Furthermore, each branch is divided in result centers or departments, where each worker is vinculated to a home work result center.

There's two models of data entitlement you can use, depending on the type of restriction policy needed for the integration:

- The integration can only see the workers in certain areas of the client (White List Model or "Permissivo")
    - In this case, the integration user will have access to the data of the worker's vinculated with the result centers, branches or companies selected, restricting access to everyone else.
    - In this model, you can configure the parts of the client's workers list following two levels of configuration:
        - Configuration by company
            - In this level, the configuration is based on a list of companies the integration can access and every worker in these companies is accessible to the integration.
        - Configuration by Branch/Result Centers
            - In this level, the configuration has more granuality, allowing to give access only to certain branches or result centers in a company.
            - In this level, if the integration has access to areas of more than one company, we will provide one user for each company where the integration has access to at least on result center or branch.
- The integration can see all the client's workers, with few exceptions (Black List Model or "Restritivo")
    - In this case, the integration user will have access to the data of all the workers in the client's database, with the exception of the workers in the branchs or result centers configured as forbidden.
    - This type is more indicated when the integration only can't access small, clearly defined parts of the company (the senior leadership team for example).

Please be aware that all this rules will need maintance whenever the company structure changes, so try to keep the rules as simple as posible to ease this process afterwards.

This type of data access control isn't applied in APIs where you don't have workers data, like Organization Jobs and Organizational Units APIs, showing the entire correspondent table for this special cases.

Field Entitlements

The Field Entitlements allows you to receive only the data needed for your particular business needs by configuring the fields returned in the API call among the complete list of API's fields.

In order for this to happen, you should consult the list of fields of the API you're going to integrate with in the respective guide (in the appendixes section of each API guide you can check the full list) and when talking to the ADP representative, send the list of fields to be configured.

Please be aware that the configuration is done considering only leaf fields (string, numbers, booleans, dates, ...) so when asking for the configuration, you must request directly the leaf fields. This way we can assure the full field granularity, for example, an integration that can access the worker's remuneration type but not the remuneration actual value.

As this configuration is done API by API, you have to keep in mind the point of data linking betwee the APIs, for example, if you want to access details of the worker's job, you have to have the job code in the list of fields permited both in the Workers API as well as in the Organization Jobs API, as to allow to have the same key code for the element in both lists.

In the JSON you will receive only the allowed fields, which means that the JSON will probably be smaller than the example showed in the API respective guide and every time you want to add a new available API field you should contact your ADP representative to update the Field Entitlements configuration.