Bullhorn REST API Reference

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Bullhorn REST API Reference

This reference guide provides general information about the Bullhorn REST API and specific information about each API operation and supported entity type.

General API conventions

The Bullhorn REST API follows specifications, conventions, and best practices for HTTP and the web in general. This includes things such as case sensitivity of URIs, character encodings, HTTP methods, and so forth. The API follows additional recommended practices whenever appropriate.

URIs

All Bullhorn REST API URIs are case-sensitive. All URIs are namespaced by corporation. The first path element of all API URIs, after any context root, is a corporation token. For example:

```
http://rest.bullhorn.com/e999/Candidate/12933
```

Where e999 is the corporation token.

Entities

Bullhorn uses the term entity to refer to objects in the Bullhorn system. Candidate, ClientContact, JobOrder, and Placement are examples of entities. Entities capture the core concepts within the Bullhorn system and provide an organization for storing staffing data and applying the rules and processing that comprise the Bullhorn system.

For more information about these entity types, see Entity reference.

Note: The REST API supports a subset of the full set of Bullhorn entities.

JSON

The REST API follows the specifications and conventions of the JSON data format and any related JavaScript syntax specifications. For more information, see the following articles:

- http://www.json.org
- http://en.wikipedia.org/wiki/JSON

JSONP

The Bullhorn REST API supports JSON with Padding (JSONP). To enable JSONP for any request to the API, provide a value for the optional `callback` parameter. This changes the response as follows:

- The API wraps the response in a JavaScript method call. The name of the method is the same as the value of the `callback` parameter.
- The HTTP `Content-Type` of the response is "`text/javascript`" instead of "`application/json`".

For more information, see the following article:

http://en.wikipedia.org/wiki/JSONP

Authentication and session management

The user authentication and session management process flows as follows:

1. A client sends a /login request with required parameters.
2. If authentication is successful, the API sends back a session key. This is a key that represents a session established by the login process, and must be sent along with all subsequent requests to the API. The session key can be provided in a URI query string, a cookie or a special HTTP header. See Session key for details on how to provide it.
3. For individual user logins, the login call also sends back a URI with which all subsequent API requests must be prefixed.

Unauthorized requests

If a client makes a request and does not include a session key, the server sends a response with HTTP status 412 (precondition failed). If a client request contains an invalid session key, the response status is HTTP 401 (unauthorized). For more information on HTTP status codes see http://www.w3.org/Protocols/rfc2616/rfc2616-sec10.html

Session key

The REST API has the concept of a client session. Login calls return a session key that represents a successful authentication, and which can be used for additional calls without authenticating again.

The session key must be provided in HTTP requests in at least one of the following places:

- A query parameter named `BhRestToken` on the request URI.
- An HTTP header named `BhRestToken`.

- A cookie named `BhRestToken`. This cookie is set by the API at login time as a convenience for browser-based clients.

General GET request options

You can use the following API commands to retrieve data:

- /entity
- /query
- /meta
- /search

These calls share some common parameters and behavior:

Entity fields

Each entity is composed of a distinct set of fields, or properties. When retrieving entities, you specify which fields to return in a query parameter named fields. The following types of values are supported in the fields parameter:

All fields

```
fields=*
```

Note: Use fields=* sparingly. The * value returns all fields, including one-to-many association fields. Each one-to-many field affects performance of the query. Use the /meta/{entityType} call to determine which fields are one-to-many fields.

Entity ids

All entities have a field named id, which is the primary key of the entity:

```
fields=id,owner(id),categories(id)
```

When selecting to-one and to-many association fields, id is automatically included if no subfield is specified:

```
fields=owner,categories
```

Is the same as:

```
fields=owner(id),categories(id)
```

Comma-separated list of fields

```
fields=id,name,address,owner,categories
```

Nested, to select sub-fields of composite, to-one and to-many associations( )

```
fields=id,name,address(city,zip),owner(corporation(name)),categories(name)
```

Note: For nested to-many associations for which the user does not have read entitlements, only data for predefined fields is returned. The other fields are returned with a value of “null”. The following entity fields are predefined:

- Candidate: id, firstName, lastName
- Contact: id, firstName, lastName
- Job: id, Job Title
- ClientCorporation: id, Name
- Placement: id

Number of to-many entities to return [count]

```
fields=categories[3],jobSubmissions[5](dateAdded,jobOrder(name))
```

Note: The default count of to-many entities is 5. The maximum count is 10; if you specify a count greater than 15, a message at the end of the response indicates you have specified too many items.

Filter to-many entities with a sub-where clause

Use the following syntax to filter the to-many entities that are returned in a response. All three parts of the syntax are optional. The where-filter is delimited by curly braces.

```
fields=fieldName[count](sub-fields){where-filter}
```

Examples:

```
search/JobOrder?fields=id,businessSectors[3](name,id){name='Insurance'}
```

```
search/Candidate?fields=id,lastName,primarySkills(name,id){name IN (Java, 'SAP')}
```

To-many fields can only appear at the top level with no nesting

Bad: `fields=categories(children)`

Bad: `fields=owner(categories)`

Entity and property metadata

You can include metadata, data that describes the structure of returned entity data, in responses that the REST API returns.

The following two tables describe the entity and property metadata types.

* Fields that are returned only if meta=full.

Entity metadata	Description
entity	Entity name; for example, Candidate, JobOrder.
label	Entity display label from the private label attribute "EntityTitleXxx"; may be missing.
fields	Array of property metadata (see table below).

Property metadata	Description
name	Property name; for example, firstName.
label	Property display label from fieldmap; may be missing.
type	Property type, one of ID, SCALAR, COMPOSITE, TO_ONE, or TO_MANY.
dataType	Property data type: Integer, BigDecimal, Double, String, Boolean, Timestamp, byte[], Address, Address1, AddressWithoutCountry (these are composite types), and LoginRestrictions.
maxLength	Only present when dataType="String". The maximum authorized length for this String field.
dataSpecialization	Finer definition of dataType. For example, dateType=Timestamp and dataSpecialization=DATE one of NUMERIC, INTEGER, FLOAT, MONEY, PERCENTAGE, PHONE, SSN, HTML, DATE, TIME, DATETIME, COLOR, SYSTEM, or VIRTUAL; may be missing.

Property metadata	Description
* optional	Is the property value optional (specified by Hibernate, typically means database nullability); also see **required**.
* required	Is the property value required (specified by fieldmap); also see **optional**.
* readonly	Is the property hidden (specified by fieldmap).
* multiValue	Is the property multi-valued (specified by fieldmap); dataType must be String.
* inputType	Suggested input type: CHECKBOX, RADIO, TEXTAREA, or SELECT; may be missing.
* optionsType	For inputType SELECT only; for example, Country. may be missing.
* optionsUrl	If optionsType is present, where to get the list of options (displays and values).
options	The hard-coded options from fieldMap in an array of value/label pairs; may be missing.
* defaultValue	Value type depends on dataType and dataSpecialization: may be missing. If the defaultValue is not translatable, For example, cannot parse string to a date; it is ignored. If multiValue, returns as array.
fields	Array of sub-fields property meta for COMPOSITE type.
associatedEntity	Entity metadata for TO_ONE and TO_MANY type.

Bullhorn fieldmap edit types and REST metadata

The following table lists each Bullhorn fieldmap edit type and the corresponding dataSpecialization, inputType, and optionsType metadata values for the REST API.

Edit type	DataSpecialization	InputType	OptionsType
Color	COLOR		
Date	DATE		
Time	TIME		

Edit type	DataSpecialization	InputType	OptionsType
Date/Time	DATETIME		
Float	FLOAT		
Integer	INTEGER		
Money	MONEY		
Numeric	NUMERIC		
Percentage	PERCENTAGE		
Phone Number	PHONE		
Text SSN	SSN		
DHTMLEditor	HTML		
DHTMLEditor - No Toolbar	HTML		
Check Box		CHECKBOX	
Radio		RADIO	
Select		SELECT	
Text			
Text Block		TEXTAREA	
Text Block Large		TEXTAREA	
Drop Down		SELECT	
Mini Picker		SELECT	
Mini Picker - Text Block		SELECT	

Edit type	DataSpecialization	InputType	OptionsType
Xxx - Drop Down		SELECT	Country State
Xxx - Mini Picker		SELECT	Country State
Picker:[OptionsType] Stores data as an INT value unless it is a multi-picker, which stores a comma-separated list of Integers in a string field.		SELECT	BillRateCategory BusinessSector Candidate Category Certification Client ClientCorporation HousingAmenity HousingComplex HousingComplexUnit CorporateUser (Internal) JobOrder (Job Posting) Person (People) Shift Skill (Skills) Specialty WorkersComp
Picker:Text:[OptionsType] Stores data as a text value unless it is a multi-picker, which stores a comma-separated list of string values.		SELECT	BusinessSectorText CandidateText CategoryText CertificationText ClientText ClientCorporationText HousingComplexText HousingComplexUnitText CorporateUserText (Internal) JobOrderText (Job Posting) PersonText (People) ShiftText SkillText (Skills) SpecialtyText StateText
Custom Component			

Edit type	DataSpecialization	InputType	OptionsType
Custom External Control			
Section Header			
System	SYSTEM		
Virtual	VIRTUAL		

Entitlements

For GET, PUT, POST, and DELETE requests on entities, the user must have the appropriate entitlements for the action to succeed. PUT requests (adding records) require create entitlements. Read, update, and delete entitlements are divided into owned, department, and corporate entitlements. If a user tries to perform an action without the required entitlements, the call fails and an error is thrown.

A user's ability to perform file attachment GET, PUT, POST, and DELETE operations is based on the user's entitlements for the entity to which the file attachment operation applies.

Use the GET /entitlements REST operation to get the current user's entitlements for an entity. For example, the /entitlements/Candidate operation returns a user's entitlements for the Candidate entity. For more information, see GET /entitlements.

Entitlement	Description
CREATE	User can create entities.
READ_CORPORATE	Generally, user can read all entities. If the entity can be categorized into private and non-private, the user cannot read private entities owned by other users unless the user has the READ_PRIVATE entitlement.
READ_DEPARTMENT	User can read entities owned by the current user AND owned by users from the same department(s).
READ	User can read entities owned by the user only.

Entitlement	Description
UPDATE_CORPORATE	Generally, user can edit all entities. User must also have READ CORPORATE access level.
UPDATE_DEPARTMENT	User can edit entities owned by the user AND owned by users from the same department(s). User must also have READ DEPARTMENT or READ CORPORATE access level.
UPDATE	User can edit entities owned by the user only.
UPDATE_OWNER	This only applies to four entities: JobOrder, Candidate, ClientContact, and JobSubmission. Without the UPDATE_OWNER entitlement, the user is not allowed to change the owner of an entity even if the user has update entitlements to the entity. If a user has the UPDATE_OWNER entitlement, but only has department-level edit access, the user is able to edit the owners of entities belonging to users in his or her department, but not those belonging to users in other departments.
DELETE_CORPORATE	Generally, user can delete any entity. User must also have READ_CORPORATE access level.
DELETE_DEPARTMENT	User can delete entities owned by the user AND owned by users from the same department(s). User must also have READ DEPARTMENT or READ CORPORATE access level.
DELETE	User can delete entities owned by the user only.

API operations

Note: All API operations, with the exception of the GET /login and GET /logout operations, accept an optional BhRestToken query parameter. The BhRestToken is a session key that represents a session established by the login process. This session key must be sent with all subsequent requests to the API. The session key can be provided in the BhRestToken query parameter, a cookie, or the BhRestToken HTTP header. See Session Key for details on how to provide it.

GET /allCorpNotes

Returns all Notes in the specified ClientCorporation.

Specify the fields to be included in the response in the `fields` request parameter. See Entity Fields for more detail on specifying fields.

Operation details

HTTP Method	GET
URI specification	{corpToken}/allCorpNotes/?fields={fieldList}
URI parameters	
Required	
clientCorpId	id of a ClientCorporation entity.
fields	Comma-separated list of field names.
Optional	
query	Lucene query string.
sort	Field to sort result on. Precede with minus sign to perform ascending search.
meta	off, basic, or full. Default is off (no meta). Returns metadata that describes the structure of returned entity data.
Examples	
Sample URI	https://rest.bullhorn.com/e999/allCorpNotes?clientCorpId=4&fields=start=0&count=5

Operation details

Sample response


```
{
   "total": 9,
   "start": 3,
   "count": 4,
   "data":    [
            {
         "_score": 0.3471885,
         "id": 515,
         "action": "Outbound Call"
      },
            {
         "_score": 0.3091938,
         "id": 25,
         "action": "Outbound Call"
      },
            {
         "_score": 0.3091938,
         "id": 48,
         "action": "Outbound Call"
      },
...
   ]
}
```

GET /entity

Gets one or more entities or to-many associations.

Single entity

Individual entities are manifested as resources, where the entity type and id form the last two parts of the resource path.

See General GET request options for more detail on the general structure of returned data for `GET` requests.

Operation details

HTTP Method	GET
URI specification	{corpToken}/entity/{entityType}/{entityId}?fields={fieldList}
Possible errors	Returns an HTTP 404 error if the requested entity is not found.
URI parameters	
Required	
fields	Comma-separated list of field names. **Note:** Use fields=* sparingly. The * value returns all fields, including one-to-many association fields. Each one-to-many field affects performance of the query. Use the /meta/{entityType} call to determine which fields are one-to-many fields.
Optional	
meta	off, basic, or full. Default is off (no meta). Returns metadata that describes the structure of returned entity data.
showEditable	(true/false) Default value is false. Whether to show the _editable field in responses. The _editable field indicates whether an entity is editable. Setting showEditable to true results in slower performance; use this setting sparingly and only when needed.
Examples	
Sample URI	https://rest.bullhorn.com/e999/entity/Candidate/5059165?fields=firstName,lastName,address

Operation details

Sample response


```
{
  "id" : 5059165,
  "firstName" : "Alanzo",
  "lastName" : "Smith",
  "address" : {
    "address1" : "",
    "address2" : "",
    "city" : "Sacramento",
    "state" : "ca",
    "zip" : "",
    "countryID" : 1
  }
}
```

Multiple entities

This is an extension of the single GET that supports the same result set control parameters (count, start) as the query call. Id values are specified as a comma-separated list.

Operation details

HTTP Method	GET
URI specification	{corpToken}/entity/{entityType}/{entityId},{entityId},*}?fields={fieldList}
Possible errors	Returns an HTTP 404 error if none of the requested entities are found. If any of the requested entities are found, returns the found entities and does not throw an error.
URI parameters	
Required	
fields	Comma-separated list of field names. **Note:** Use fields=* sparingly. The * value returns all fields, including one-to-many association fields. Each one-to-many field affects performance of the query. Use the /meta/{entityType} call to determine which fields are one-to-many fields.
Optional	
meta	off, basic, or full. Default is off (no meta). Returns metadata that describes the structure of returned entity data.
showEditable	(true/false) Default value is false. Whether to show the _editable field in responses. The _editable field indicates whether an entity is editable. Setting showEditable to true results in slower performance; use this setting sparingly and only when needed.
Examples	
Sample URI	https://rest.bullhorn.com/e999/entity/Candidate/5059165,2362648?fields=firstName,lastName, address

Operation details

Sample response


```
{
  "data" : [ {
    "id" : 2362648,
    "firstName" : "Andrea",
    "lastName" : "Smith",
    "address" : {
      "address1" : "400 Spear Street   # 116",
      "address2" : "",
      "city" : "San Francisco",
      "state" : "CA",
      "zip" : "94105",
      "countryID" : 1
    }
  }, {
    "id" : 5059165,
    "firstName" : "Alanzo",
    "lastName" : "Smith",
    "address" : {
      "address1" : "",
      "address2" : "",
      "city" : "Sacramento",
      "state" : "CA",
      "zip" : "",
      "countryID" : 1
    }
  } ],
  "totalMatched" : 2,
  "count" : 2,
  "start" : 0,
  "fieldNames" : [ "id", "firstName", "lastName", "address" ]
}
```


To-many associations

This is an extension of the single and multiple GETs that returns the to-many associated entities of the specified type for the specified entity id(s). The call supports the same query parameters as the query call.

Operation details

HTTP Method	GET
URI specification	{corpToken}/entity/{entityName}/[{entityId},{entityId},*]/{toManyEntityName}s?fields={fieldList}
Possible errors	Returns an HTTP 404 error if none of requested to-many entities are found. If any of the entities are found, returns the found entities and does not throw an error.

Operation details

URI parameters	
Required	
fields	Comma-separated list of field names. **Note:** Use fields=* sparingly. The * value returns all fields, including one-to-many association fields. Each one-to-many field affects performance of the query. Use the /meta/{entityType} call to determine which fields are one-to-many fields.
Optional	
count	Limit on the number of entities to return. If the set of matched results is larger than count, caps the returned results at size count. The default count is 15. The maximum count is 30; if you specify a count greater than 30, a message at the end of the response indicates you have specified too many items. The response also includes the start value of the request. This is useful when you want to make calls to page additional sets of data.
start	From the set of matched results, return item numbers start through (start + count).
orderBy	Comma-separated list of field names on which to base the order of returned entities. Precede field name with a minus sign (-) or plus sign (+) to sort results in descending or ascending order based on that field; default is ascending order.
meta	off, basic, or full. Default is off (no meta). Returns metadata that describes the structure of returned entity data.
showEditable	(true/false) Default value is false. Whether to show the _editable field in responses. The _editable field indicates whether an entity is editable. Setting showEditable to true results in slower performance; use this setting sparingly and only when needed.
Examples	
Sample URI	https://rest.bullhorn.com/e999/entity/ClientCorporation/5059165,2362648/clientContacts?fields=firstName,lastName,address&count=2

Operation details

Sample response


```
{
  "data" : [ {
    "id" : 1076,
    "firstName" : "Jatin",
    "lastName" : "Mohan",
    "address" : {
      "address1" : "7 Commerce Drive",
      "address2" : "",
      "city" : "Danbury",
      "state" : "CT",
      "zip" : "06810",
      "countryID" : 1
    },
    "_editable" : false
  }, {
    "id" : 941,
    "firstName" : "Leigh ",
    "lastName" : "Lavigne",
    "address" : {
      "address1" : "7 Commerce Drive",
      "address2" : "",
      "city" : "Danbury",
      "state" : "CT",
      "zip" : "06810",
      "countryID" : 1
    },
    "_editable" : false
  },
  "count" : 2,
  "start" : 0
}
```


GET /department{Entity}s

Returns the entities for the departments to which the current user belongs, for the following entity types: Candidate, ClientContact, ClientCorporation, JobOrder, Placement, and Note. For Candidate and Note requests, an _score field is included in each item returned; this is the Lucene search score.

Specify the fields to be included in the response in the `fields` request parameter. See Entity Fields for more detail on specifying fields.

Operation details

HTTP Method	GET
URI specification	{corpToken}/department{Entity}s/?fields={fieldList}

Operation details

URI parameters	
Required	
fields	Comma-separated list of field names. **Note:** Use fields=* sparingly. The * value returns all fields, including one-to-many association fields. Each one-to-many field affects performance of the query. Use the /meta/{entityType} call to determine which fields are one-to-many fields.
Optional	
departmentIds	Comma-separated list of department ids. When not specified, the call returns entities from all of the user's departments.
count	Limit on the number of entities to return. If the set of matched results is larger than count, caps the returned results at size count
start	From the set of matched results, return item numbers start through (start + count)
sort	Field to sort result on. Precede with minus sign to perform ascending search. Applies to Candidate and Note entities only.
query	Lucene query string. Applies to Candidate and Note entities only.
meta	off, basic, or full. Default is off (no meta). Returns metadata that describes the structure of returned entity data.
showEditable	(true/false) Default value is false. Whether to show the _editable field in responses. The _editable field indicates whether an entity is editable. Setting showEditable to true results in slower performance; use this setting sparingly and only when needed.
Examples	
Sample URI	https://rest.bullhorn.com/e999/departmentClientContacts?fields=lastName, address

Operation details

Sample response


```
{
   "data":    [
            {
         "lastName": "Burns",
         "address":          {
            "address1": "2 Olive Lane",
            "address2": "",
            "city": "Ridgefield",
            "state": "CT",
            "zip": "06877",
            "countryID": 1
         }
      },
            {
         "lastName": "Rackley",
         "address":          {
            "address1": "00 Jeffrey Way, Suite 400 |",
            "address2": "",
            "city": "Round Rock",
            "state": "TX",
            "zip": "78665",
            "countryID": 1
         }
      },
            {
         "lastName": "Smith",
         "address":          {
            "address1": "700 Jeffrey Way, Suite 400",
            "address2": "",
            "city": "Round Rock",
            "state": "TX",
            "zip": "78664",
            "countryID": 1
         }
      },
            {
         "lastName": "Lemon",
         "address":          {
            "address1": "700 Jeffrey Way, Suite 400",
            "address2": "",
            "city": "Round Rock",
            "state": "TX",
            "zip": "78665",
            "countryID": 1
         }
      }
   ],
   "count": 4,
   "start": 0
}
```


GET /my{Entity}s

Returns the entities that belong to the current user for the following entity types: Candidate, ClientContact, ClientCorporation, JobOrder, Placement, and Note. For Candidate and Note requests, an _score field is included in each item returned; this is the Lucene search score.

Specify the fields to be included in the response in the fields request parameter. See Entity Fields for more detail on specifying fields.

Operation details

HTTP Method	GET
URI specification	{corpToken}/my{Entity}s?fields={fieldList}
URI parameters	
Required	
fields	Comma-separated list of field names. **Note:** Use fields=* sparingly. The * value returns all fields, including one-to-many association fields. Each one-to-many field affects performance of the query. Use the /meta/{entityType} call to determine which fields are one-to-many fields.
Optional	
count	Limit on the number of entities to return. If the set of matched results is larger than count, caps the returned results at size count.
start	From the set of matched results, return item numbers start through (start + count).
sort	Field to sort result on. Precede with minus sign to perform ascending search. Applies to Candidate and Note entities only.
query	Lucene query string. Applies to Candidate and Note entities only.
meta	off, basic, or full. Default is off (no meta). Returns metadata that describes the structure of returned entity data.
showEditable	(true/false) Default value is false. Whether to show the _editable field in responses. The _editable field indicates whether an entity is editable. Setting showEditable to true results in slower performance; use this setting sparingly and only when needed.

Operation details

Examples	
Sample URI	https://rest.bullhorn.com/e999/myCandidates?fields=lastName,address

Sample response	{
	"total": 2,
	"start": 0,
	"count": 2,
	"data": [
	{
	"_score": 8.987346,
	"lastName": "Jones",
	"address": {
	"address1": "",
	"address2": "",
	"city": "",
	"state": "",
	"zip": "",
	"countryID": 1
	}
	},
	{
	"_score": 8.987346,
	"lastName": "Smith",
	"address": {
	"address1": "",
	"address2": "",
	"city": "",
	"state": "",
	"zip": "",
	"countryID": 1
	}
	}
	]
	}

PUT /entity

Create entities

You use HTTP PUT requests to create new entities. The URI looks the same as the GET request URI, but without the last path element containing an entity id. Place the data comprising the new entity to be inserted in JSON format in the request body. The structure of the JSON is identical to that returned in HTTP responses to GET requests, with a few additional restrictions:

- You cannot create to-many associations on the entity being inserted. You must create them in a subsequent "associate" call.
- You can create to-one associations. The associations can only be to existing entities; You cannot create new associated entities while creating the main entity.

You create to-one associations by providing a JSON object that contains one property named id. The value of the id property must be the id of the entity to associate.

If you specify fields that do not exist on the entity being created, returns a 400 error containing messaging about the unknown fields,

Most entities in the Bullhorn data model contain required fields. Some of these required fields have default values. All required fields without default values must have values specified in the JSON body of the PUT request or the request returns an error containing messages about missing fields.

Operation details

HTTP Method	PUT
URI specification	{corpToken}/entity/{entityType}
URI parameters	
Optional	
Examples	
Sample URI	https://rest.bullhorn.com/e999/entity/Candidate

Sample request body	<pre>{
	  "firstName": "John",
	  "lastName": "Smith",
	  "name": "John Smith",
	  "userType": { "id": 35 },
	  "category": { "id": 212822 },
	  "username": "user1",
	  "password": "secretPassword",
	  "userType": { "id": 35 }
	}</pre>

Sample response	<pre>{
	  "changedEntityId": 1489,
	  "changeType": "INSERT"
	}</pre>

Create to-many associations

You add to-many associations to an entity with a PUT request in which you specify entity ids of the entities you want to associate. The call fails if any of the association entities you specify are already associated.

Operation details

HTTP Method	PUT
URI specification	{corpToken}/entity/{entityName}/{entityId}/{toManyEntityName}s/[{entityId},*]
URI parameters	
Optional	
Examples	
Sample URI	https://rest.bullhorn.com/e999/entity/Candidate/3084/primarySkills/964,684,253

Sample response	<pre>{
	  "changedEntityType" : "Candidate",
	  "changedEntityId" : 3084,
	  "changeType" : "ASSOCIATE"
	}</pre>

POST /entity

You update entities with a POST request. The URI looks the same as the GET request URI. Place the data comprising the entity fields in JSON format in the request body. The structure of the JSON in a POST request is identical to that returned in HTTP responses to GET requests, but read-only properties cannot be changed.

- You cannot create to-many associations on the entity being updated. You must create to-many associations in a subsequent "associate" call as described in Create to-many associations.
- You can create to-one associations.

You set association fields by giving as their values a JSON object that contains a field named 'id', and providing the value the id of the entity to associate.

If you provide fields that do not exist on the entity being created, returns an error containing messages about the unknown fields.

Operation details

HTTP Method	POST

URI specification	{corpToken}/entity/{entityType}/{entityId}
Possible errors	Returns an HTTP 404 if the requested entity cannot be found, if fields are specified that do not exist on the specified entity, or if values for any mandatory fields with no default value are not supplied.
URI parameters	
Optional	
Examples	
Sample URI	https://rest.bullhorn.com/e999/entity/Candidate/[entityId}
Sample request body	`{ "firstName": "John", "lastName": "Smith", "owner": { "id": 1314 }, "userType": { "id": 35 }, "category": { "id": 212822 } }`
Sample response	`{ "changedEntityId": 1489, "changeType": "UPDATE" }`

Note: If you attempt to update read-only, unknown, or system-only fields in a POST request, the response includes messages that the fields could not be updated and the reasons why. For example, the following response contains messages for read-only fields:

```
{
   "changedEntityType": "Candidate",
   "changedEntityId": 1741,
   "changeType": "UPDATE",
   "messages":    [
            {
         "detailMessage": "unknown property: firstName",
         "propertyName": "firstName",
         "severity": "WARNING",
         "type": "READ_ONLY_FIELD_UPDATE"
      },
            {
         "detailMessage": "unknown property: customDate1",
         "propertyName": "customDate1",
         "severity": "WARNING",
         "type": "READ_ONLY_FIELD_UPDATE"
      },
            {
```

```
            "detailMessage": "unknown property: customInt1",
            "propertyName": "customInt1",
            "severity": "WARNING",
            "type": "READ_ONLY_FIELD_UPDATE"
        },
            {
            "detailMessage": "unknown property: certifications",
            "propertyName": "certifications",
            "severity": "WARNING",
            "type": "READ_ONLY_FIELD_UPDATE"
        }
    ]
}
```


Confidential fields

To update confidential fields as part of a POST /entity call, the user must have the Edit Confidential Data user action entitlement. The confidentialFieldList private label attribute contains the list of fields that are considered confidential.

DELETE /entity

Deletes an entity or to-many association.

The API supports two types of delete requests: hard delete and soft delete.

Hard delete

When you hard delete an entity, it is removed from the database. For information about which entities support hard delete, see Entity reference.

Operation details

HTTP Method	DELETE
URI specification	{corpToken}/entity/{entityType}/{entityId}
Possible errors	Returns an HTTP 404 error if the requested entity cannot be found.
URI parameters	
Optional	
Examples	
Sample URI	https://rest.bullhorn.com/e999/entity/NoteEntity/2552

Sample response


```
{
   "changedEntityType": "NoteEntity",
   "changedEntityId": 2552,
   "changeType": "DELETE"
}
```


To hard delete an entity with children, you explicitly hard delete all the children before attempting to delete the root entity.

Soft delete

When you soft delete an entity, it is not removed from the database. A soft delete operation is actually an update that sets an isDeleted field to true. For information about which entities support soft delete, see Entity reference.

Operation details

HTTP Method	POST
URI specification	{corpToken}/entity/{entityType}/{entityId}
Request Body	{"isDeleted" : true}
Possible errors	Returns an HTTP 404 error if the entity cannot be found.
URI parameters	
Optional	
Examples	
Sample URI	https://rest.bullhorn.com/e999/entity/ClientContact/1804

Sample response	{
	"changedEntityType": "ClientContact",
	"changedEntityId": 1804,
	"changeType": "UPDATE"
	}

Disassociate to-many associations

Removes a to-many association from an entity.

Operation details

HTTP Method	DELETE
URI specification	{corpToken}/entity/{entityName}/{entityId}/{toManyEntityName}s/[{entityId},*]
Possible errors	Returns an HTTP 404 error if the requested entity cannot be found.
URI parameters	
Optional	
Examples	
Sample URI	https://rest.bullhorn.com/e999/entity/Candidate/3084/primarySkills/253

Sample response	{
	"changedEntityType" : "Candidate",
	"changedEntityId" : 3084,
	"changeType" : "DISASSOCIATE"
	}

Immutable entities

You cannot hard delete or soft delete the following types of entities:

- BusinessSector
- Category
- CorporateUser
- Country
- Skill
- Specialty
- State
- TimeUnit

GET /entitlements

Gets the entity entitlements of an entity for the user who is currently logged in. Returns an array of entitlements.

Operation details

HTTP Method	GET
URI specification	{corpToken}/entitlements/{entityName}
Possible errors	Returns an HTTP 404 error if the requested entity cannot be found.
URI parameters	
Optional	
Examples	
Sample URI	https://rest.bullhorn.com/e999/entitlements/Candidate

Sample response	<pre>{
	["READ", "EDIT"]
	}</pre>

PUT /event/subscription

Lets you subscribe to event types.

Operation details

HTTP Method	PUT
URI specification	{corpToken}/event/subscription/{subscriptionId}
URI parameters	
Required	
type	entity | fieldMapChange | jobMatchSearch
names	Required with "entity" type. A comma-separated list of entity names.
eventTypes	Required with "entity" type. A comma-separated list of entity event types: INSERTED, UPDATED, DELETED
Examples	
Sample URI	https://rest.bullhorn.com/e999/event/subscription/Abcde?type=entity&names=Candidate&eventTypes=INSERTED,UPDATED,DELETED

Sample response	`{'lastRequestId': 0,`
	`'subscriptionId': 'abcde',`
	`'createdOn': 1335285871323,`
	`'jmsSelector': "JMSType='ENTITY' AND BhCorpId=44 AND BhEntityName='Candidate' AND BhEntityEventType IN ('UPDATED','INSERTED','DELETED')"}`

Get /event/subscription

Lets you get entity events, field map change events, and job match search events.

Operation details

HTTP Method	GET
URI specification	{corpToken}/event/subscription/{subscriptionId}
URI parameters	
Required	
maxEvents	Integer specifying the maximum number of events to be returned.
Examples	
Sample URI	https://rest.bullhorn.com/e999/event/subscription/Abcde?maxEvents=100

Sample response	<pre>{'requestId': 1,
	'events': [{'eventId': 'ID:JBM-40004219',
	'eventType': 'ENTITY',
	'entityName': 'Candidate',
	'eventMetadata': {},
	'updatedProperties': ['phone'],
	'entityEventType': 'UPDATED',
	'eventTimestamp': 1335286112652,
	'entityId': 123}]}</pre>

Get last request id

Operation details

HTTP Method	GET
URI specification	{corpToken}/event/subscription/{subscriptionId}/lastRequestId
Examples	
Sample URI	https://rest.bullhorn.com/e999/event/subscriptioN/Abcde/lastRequestId
Sample response	`{'result': 1}`

Reget events

Operation details

HTTP Method	GET
URI specification	{corpToken}/event/subscription/{subscriptionId}
URI parameters	
Required	
requestId	Integer specifying the request id from the last getEvents request.
Examples	
Sample URI	https://rest.bullhorn.com/e999/event/subscriptioN/Abcde?requestId=1

Sample response	`{'requestId': 1,`
	`'events': [{'eventId': 'ID:JBM-40004219',`
	`'eventType': 'ENTITY',`
	`'entityName': 'Candidate',`
	`'eventMetadata': {},`
	`'updatedProperties': ['phone'],`
	`'entityEventType': 'UPDATED',`
	`'eventTimestamp': 1335286112652,`
	`'entityId': 123}]}`

DELETE /event/subscription

Lets you unsubscribe to event types.

Operation details

HTTP Method	DELETE
URI specification	{corpToken}/event/subscription/{subscriptionId}
URI parameters	
Examples	
Sample URI	https://rest.bullhorn.com/e999/event/subscription/Abcde
Sample response	`{'result': True}`

GET /find

(FastFind) Searches the following entity types given a string containing search terms:

- ClientContact
- JobOrder
- Candidate
- ClientCorporation

The results are returned in a flat list, with results from each entity type grouped together.

Operation details

HTTP Method	GET
URI specification	{corpToken}/find?query={query}&countPerEntity={entityMaxResults}
URI parameters	
Required	
query	Text of search query.
Optional	
countPerEntity	Maximum number of results to return for each entity type.
meta	off, basic, or full. Default is off (no meta). Returns metadata that describes the structure of returned entity data.
showEditable	(true/false) Default value is false. Whether to show the _editable field in responses. The _editable field indicates whether an entity is editable. Setting showEditable to true results in slower performance; use this setting sparingly and only when needed.
Examples	
Sample URI	https://rest.bullhorn.com/e999/find?query=smith&countPerEntity=3

Operation details

Sample response


```
{
{
  "data" : [ {
    "entityId" : 5062195,
    "entityType" : "ClientContact",
    "title" : "Andrew Smith",
    "byLine" : "Bullhorn, Inc.",
    "location" : ""
  }, {
    "entityId" : 5062263,
    "entityType" : "ClientContact",
    "title" : "Jacob Smith",
    "byLine" : "NewTech Software",
    "location" : ""
  }, {
    "entityId" : 95376,
    "entityType" : "JobOrder",
    "title" : "manager",
    "byLine" : "Boston Celtics",
    "location" : "Boston, MA"
  }, {
    "entityId" : 95384,
    "entityType" : "JobOrder",
    "title" : "chemist",
    "byLine" : "Eros, Inc.",
    "location" : ""
  }, {
    "entityId" : 95096,
    "entityType" : "JobOrder",
    "title" : "Escalation Manager",
    "byLine" : "Foo Communications",
    "location" : "Brookfield, WI"
  }, {
    "entityId" : 86196,
    "entityType" : "Candidate",
    "title" : "Dana Maurice Smith",
    "byLine" : "Telecommunications/Wireless/Cable",
    "location" : "Colton, CA"
  }, {
    "entityId" : 310552,
    "entityType" : "Candidate",
    "title" : "Brandy Smith",
    "byLine" : "",
    "location" : ""
  }
}
```


About FastFind search queries

FastFind is a specialized type of search that attempts to detect the kind of information contained in the search query. It then searches against entity fields that contain that type of information. Since FastFind attempts to detect the Intent of a search query, it requires no special query language or syntax. Queries consist of only the words or numbers for which a user wants to search.

Field Type Detection

FastFind classifies a search query as one of the following types depending of the structure of the text in the query:

- entity id
- US or International phone number
- person or company name
- email address

FastFind performs classification by checking the query against the following patterns, in the order listed:

Query pattern	Description
Email address	Any combination of a-z,A-Z,0-9,!,#,$,%, &, ', *, +, -, /, =, ?, ^, _ or ` but not ., followed by @, followed by any combination of a-z, A-Z, 0-9, _, -, +, ., * For example: joe_smith@something-else.com or jon33@foo.bar
U.S. phone number	Three digits followed by any of [-.* or space, optionally followed by three more digits followed by [-.* or space, optionally followed by four digits. For example, 23- or 123-456 or 123-456-7890
International phone number	Either of the following two patterns will match: • + followed by any combination of 0-9, -, *, (,), . or space, followed by * For example: +1-234-56* • Exactly 10 digits, separated by any combination of +, -, *, (,), . or space For example 1-234-567-890)
Entity id	Only numeric characters For example: 1234567
Person or company name	One or more contiguous words that contain any combination of a-z, A-Z, 0-9, separated by any number of spaces. For multi-word queries, FastFind uses the first word to search the first name of Candidates and ClientContacts, and the remaining words to search the last name. FastFind searches JobOrders using the attached ClientContact names with the same rules.

Wildcards

You can use the * character as a wildcard inside or at the end of any word in a query. Using a wildcard changes the fields that are searched for some entity types. See the field type mappings table for details.

Field Type Mapping

The following table plots the fields that are searched for a given query classification and entity type:

Detected type	Candidate	Contact	Corporation	JobOrder
email	email1 email2 email3	email1 email2 email3		clientContact.email1 clientContact.email2 clientContact.email2
phone	phone phone2 phone3 mobile	phone phone2 phone3 mobile	phone billingPhone	clientContact.phone clientContact.phone2 clientContact.phone3 clientContact.mobile
id	id	id	id	id
multi-word name	firstName (first word) lastName (remaining words)	firstName (first word) lastName (remaining words)	name	title (all words) clientContact.firstName (first word) clientContact.lastName (remaining words) clientCorporation.name (all words)
single-word name	lastName	lastName	name	title clientContact.lastName clientCorporation.name
single-word name with wildcard	firstName	firstName	name	title clientContact.firstName clientCorporation.name

GET /file

Returns an attached file as base64-encoded text.

Files can be attached to the following types of entities:

- Candidate
- ClientContact
- ClientCorporation
- JobOrder

- Placement

Operation details

HTTP Method	GET
URI specification	{corpToken}/file/{entityType}/{entityId}/{fileId}
Examples	
Sample URIs	https://rest.bullhorn.com/e999/file/Candidate/3835/231
Sample response	{"File": { "contentType": "text/plain", "fileContent": "VGhpcyBpcyBhIHZlcnkgc21hbGwgdGV4dCBmaWxlLg0KDQpTbWFsbFRleHRGaWxl", "name": "SmallFile.txt" }}

GET /entityFiles

Returns metadata for attached files.

Files can be attached to the following types of entities:

- Candidate
- ClientContact
- ClientCorporation
- JobOrder
- Placement

Operation details

HTTP Method	GET
URI specification	{corpToken}/entityFiles/{entityType}/{entityId}
Examples	
Sample URIs	https://rest.bullhorn.com/e999/entityFiles/Candidate/203866

Sample response	<pre>{"EntityFiles": [
	{
	"id": 201,
	"type": null,
	"name": "File1.txt",
	"description" : "Resume file for candidate.",
	"contentType": "text",
	"contentSubType": "plain"
	},
	{
	"id": 202,
	"type": null,
	"name": "File2.txt",
	"description": null,
	"contentType": "text",
	"contentSubType": "plain"
	}
	]}</pre>

PUT /file

Attaches a file to an entity. You can send a file as base64-encoded text or multipart/form data (raw).

Files can be attached to the following types of entities:

- Candidate
- ClientContact
- ClientCorporation
- JobOrder
- Placement

PUT /file/{entityType}/{entityId}

Lets you attach a file as base64-encoded text. You should specify the actual contentType of the file that the Base64-encoded string is based on. For example, for a DOC file, you would specify a contentType of application/msword. For a DOCX file you would specify a contentType of application/vnd.openxmlformats-officedocument.wordprocessingml.document. For files that are over a megabyte in size, consider sending files as multipart/form data with the PUT /file/{entityType}/{entityId}/raw operation for better client-side performance.

Operation details

HTTP Method	PUT
URI specification	{corpToken}/file/{entityType}/{entityId}
Examples	
Sample URIs	https://rest.bullhorn.com/e999/Candidate/5097909
Request body fields	
Required	
externalID	External identifier for the file.
fileContent	Base64-encoded string of the file content.
fileType	Always use the value “SAMPLE”.

Operation details

name	File name.
Optional	
contentType	Type/subtype of the file content.
description	Comment that describes the file.
type	Type of file that is attached.

Sample request body	<pre>{
	"externalID" : "portfolio",
	"fileContent" :
	"VGhpcyBpcyBhIHZlcnkgc21hbGwgdGV4dCBmaWxlLg0KDQpTbWFsbFRleHRGaWxl",
	"fileType" : "SAMPLE",
	"name" : "TestResumeFile.txt",
	"contentType" : "text/plain",
	"description" : "Resume file for candidate.",
	"type" : "cover"
	}</pre>

Sample response	<pre>{"fileId": 178}</pre>

PUT /file/{entityType}/{entityId}/raw

Lets you attach a file as multipart/form data. You should verify that the content type information you send with the file is accurate and change it if necessary. You can pass "type" and "description" as multipart/form data arguments.

Operation details

HTTP Method	PUT
URI specification	{corpToken}/file/{entityType}/{entityId}/raw

URI parameters	
Required	
fileType	Always use the value SAMPLE.
externalID	External identifier for the type of file attached. For example: portfolio
Optional	
contentType	Type/subtype of the file content.
description	Comment that describes the file.
type	Type of file that is attached.
Examples	
Sample URIs	https://rest.bullhorn.com/e999/Candidate/5097909/raw?filetype=SAMPLE&externalID=portfolio
Sample response	`{"fileId": 178}`

DELETE /file

Soft deletes a file attachment. The actual file remains on the server.

Operation details

HTTP Method	DELETE
URI specification	{corpToken}/file/{entityType}/{entityId}/{fileId}
Examples	
Sample URIs	https://rest.bullhorn.com/e999/file/Candidate/3835/231

Operation details

Sample response	<pre>{
	  "fileId": 178,
	  "changeType": "DELETED"
	}</pre>

GET /login

Returns a REST API session token.

Operation details

HTTP Method	GET
URI specification	/login
URI parameters	
Required	
access_token	Access token obtained from OAuth authorization.
version	Version of the API to use (* is a wildcard for latest version).
Optional	
ttl	Session time-to-live in minutes. Default value is 10 minutes.
Possible errors	"Invalid or expired OAuth access token."
Examples	
Sample URI	https://rest.bullhorn.com/rest-services/login?access_token=xxx&version=*

Response	<pre>{
	  "BhRestToken" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx",
	  "restUrl" : "https://rest.bullhorn.com/rest-services/corpToken/"
	}</pre>

GET /logout

Logs the user out of the current session.

Operation details

HTTP Method	GET
URI specification	logout
URI parameters	None.
Examples	
Sample URI	https://rest.bullhorn.com/logout

Response	`{`
	`logout: "OK"`
	`}`

GET /massUpdate

Returns the list of entities that support mass update. Mass update is currently supported for the following entity types:

- Candidate
- ClientContact
- ClientCorporation
- JobOrder
- JobSubmission
- Placement
- Task
- Tearsheet

Operation details

HTTP Method	GET
URI specification	{corpToken}/massUpdate

URI parameters	None.
Examples	
Sample URI	https://rest.bullhorn.com/e999/massUpdate

Sample response	<pre>[
	"Candidate",
	"ClientContact",
	"ClientCorporation",
	"JobOrder",
	"JobSubmission",
	"Placement",
	"Tearsheet"
	]</pre>

GET /massUpdate/{entityType}

Returns the list of entity properties for which mass update is supported on the specified entity type. Also returns the entitlement required for updating each property.

Operation details

HTTP Method	GET
URI specification	{corpToken}/massUpdate/{entityType}
URI parameters	None.
Examples	
Sample URI	https://rest.bullhorn.com/e999/massUpdate/JobOrder

Sample response

```
[ {
  "propertyName" : "assignedUsers",
  "entitlementRequired" : "Mass Update Job Assignment"
}, {
  "propertyName" : "isDeleted",
  "entitlementRequired" : "Mass Delete Job"
}, {
  "propertyName" : "isOpen",
  "entitlementRequired" : "Mass Open/Close Job"
}, {
  "propertyName" : "owner",
  "entitlementRequired" : "Mass Update Job Owner"
}, {
  "propertyName" : "status",
  "entitlementRequired" : "Mass Update Job Status"
} ]
```

POST /massUpdate/{entityType}

Performs a massUpdate on all entities of the specified type for which the entity id is included in the request body.

The request body uses the following syntax:

```
{
  "ids" : [id, id, id],
  "{property}" : value,
  "toOneProperty" : id,
  "{toManyProperty}" : [ id, id, id],
  "{toManyProperty}" : {
                         "add" : [id, id, id],
                         "remove" : [id, id, id]
                       }
}
```

- "ids" is a list of entity ids to mass update. (mandatory, 10000 limit)
- For to-one properties, supply the associated entity id as value. For example, "owner" : 123
- For to-many properties:
  - Use the first form to replace the entire association. For example:
    `"assignedUsers": [123, 456]`
  - Use the second form to add or remove associations. For example:
    `"assignedUsers": { "add" : [123], "remove" : [456] }`
  - You must specify "add" or "remove" or both.

The response contains the count of updated entities:

```
{
  "count" : n
}
```

Operation details

HTTP Method	POST
URI specification	{corpToken}/massUpdate/{entityType}
URI parameters	None.
Examples	
Sample URI	https://rest.bullhorn.com/e999/massUpdate/Candidate

Sample request body	<pre>{
	"ids": [789,790],
	"status": "active"
	}</pre>

Sample response	<pre>{
	"count": 2
	}</pre>

GET /meta

Returns entity and property metadata for the specified entity type. Calling /meta with no entity name returns the list of available entities and their respective base URIs. Read-only system fields (fields with names prefixed with _) are never represented in entity metadata.

Operation details

HTTP Method	GET
URI specification	{corpToken}/meta/{entityType}/?fields={fieldList}&meta={basic **or** full}
Possible errors	Returns an HTTP 404 error if the requested entity cannot be found.

Operation details

URI parameters	
Optional	
fields	comma-separated list of field names. **Note:** Use fields=* sparingly. The * value returns all fields, including one-to-many association fields. Each one-to-many field affects performance of the query. Use the /meta/{entityType} call to determine which fields are one-to-many fields.
meta	basic or full. Returns metadata that describes the structure of returned entity data. For more information
Examples	
Sample URI	https://rest.bullhorn.com/e999/meta/Candidate?fields=*

Operation details

Sample response


```
{
   "entity": "Candidate",
   "entityMetaUrl": "http://rest.bullhorn.com/e999/rest-
services/meta/Candidate?fields=*",
   "label": "Candidate",
   "fields":    [
            {
         "name": "id",
         "type": "ID",
         "dataType": "Integer"
      },
            {
         "name": "address",
         "type": "COMPOSITE",
         "dataType": "Address",
         "label": "Address",
         "fields":          [
                        {
            "name": "address1",
            "type": "SCALAR",
            "dataType": "String",
            "maxLength": 40,
            "label": "Address1"
         },
...

                        {
...
            ]
         }
      ]
   },
            {
"name": "businessSectors",
         "type": "TO_MANY",
         "label": "businessSectorID",
         "associatedEntity":          {
            "entity": "BusinessSector",
            "entityMetaUrl": "http://rest.bullhorn.com/e999/rest-
services/1yg8p/meta/BusinessSector?fields=*",
            "fields": [           {
               "name": "id",
               "type": "ID",
               "dataType": "Integer"
...
```


If you do not provide an entity type in the URL, the /meta call returns the list of supported entities.

The URI **https://rest.bullhorn.com/e999/meta** returns the complete list of entities:


```
[
{
    "entity" : "BusinessSector",
```

```
    "metaUrl" : "http://rest.bullhorn.com/e999/meta/BusinessSector?fields=*"
    }, {
    "entity" : "Candidate",
    "metaUrl" : "http://rest.bullhorn.com/e999/meta/Candidate?fields=*"
    }, {
    "entity" : "CandidateEducation",
    "metaUrl" : "http://rest.bullhorn.com/e999/meta/CandidateEducation?fields=*"
    }, {
    "entity" : "CandidateReference",
    "metaUrl" : "http://rest.bullhorn.com/e999/meta/CandidateReference?fields=*"
    }, {
    "entity" : "CandidateSource",
    "metaUrl" : "http://rest.bullhorn.com/e999/meta/CandidateSource?fields=*"
    }, {
    "entity" : "CandidateWorkHistory",
    "metaUrl" : "http://rest.bullhorn.com/e999/meta/CandidateWorkHistory?fields=*"
    }
...

]
```

GET /options

Gets the list of value/label pairs (options) for a list-based entity.

Operation details

HTTP Method	GET
URI specification	{corpToken}/options/{optionType} Or {corpToken}/options/{optionType}/{value1,*}
URI parameters	
Optional	
filter	Filter on the label, prefix with an asterisk (*) to find word begins. For example, filter=foo returns all options where label starts with "foo", such as "Fool". filter=*foo returns all options where any word in the label starts with "foo", such as "A Fool". Some labels are composed of two or more parts. For example, a name is composed of firstname and lastname separated by a space. In these cases, filtering is based on each part of the label. For example, filter=Ba, will find any part of a label that starts with Ba. Therefore, the results could include "Bailey Hutchinson" as well as "Sam Bailey".

Operation details

Type-specific parameters	Some option types accept additional parameters. For example, State has an optional "country" parameter.
count	Limit on the number of entities to return. If the set of matched results is larger than count, caps the returned results at size count. The default count is 20. The maximum count is 300; if you specify a count greater than 300, a message at the end of the response indicates you have specified too many items.
start	From the set of matched results, return item numbers start through (start + count).

Examples

Sample URI	`https://rest.bullhorn.com/e999/options/Country`

Sample response	{
	{"data": [
	{
	"value": 2378,
	"label": "- None Specified -"
	},
	{
	"value": 2185,
	"label": "Afghanistan"
	},
	...
	]
	}
	}

Note: If the option is of type text, a list of input value/label pairs is returned where the label is set to the input value.

Option types list

Option type	Description
BillRateCategory	Same as Category where type = 'Bill Rate'
BusinessSector / BusinessSectorText	BusinessSector id and name / name and name
Candidate / CandidateText	Candidate id and firstName + lastName / firstName + lastName, and firstName + lastName
Category / CategoryText	Category id and name / name and name; Extra params: optional "type" to restrict categories of type
Certification / CertificationText	Certification id and name / name and name
Client / ClientText (alias ClientContact / ClientContactText)	ClientContact id and firstName + lastName / firstName + lastName and firstName + lastName
ClientCorporation / ClientCorporationText	ClientCorporation id and name / name and name
CorporateUser / CorporateUserText	CorporateUser id and firstName + lastName / firstName + lastName and firstName + lastName
CorporationDepartment	CorporationDepartment id and name
Country	Country id and name
HousingAmenity	HousingComplexAmenity id and amenityName / amenityName and amenityName
HousingComplex /HousingComplexText	HousingComplex id and name / name and name
HousingComplexUnit /HousingComplexUnitText	HousingComplexUnit id and name / name and name
JobOrder / JobOrderText	JobOrder id and title / title and title
Placement	Placement id and candidate.firstName candidate.lastName - jobOrder.title

Option type	Description
Person / PersonText	Person id and firstName + lastName / firstName + lastName and firstName + lastName
Shift / ShiftText	Shift id and name / name and name
Skill / SkillText	Skill id and name / name, and name
Specialty / SpecialtyText	Specialty id and name / name, and name
State / StateText	State id and name / name and name; extra parameters: optional "country" to restrict to states within that country, two-character ISO country code.
NorthAmericaState	State id and name (hard-coded)
WorkersComp	WorkersCompensation id and name / name and name

If you do not provide an option type in the URL, the /options call returns the list of supported option types.

The URI **https://rest.bullhorn.com/e999/options** returns the complete list of options:

```
{
  "data" : [ {
    "optionsType" : "BillRateCategory",
    "optionsUrl" : "https://rest.bullhorn.com/e999/options/BillRateCategory"
  }, {
    "optionsType" : "BusinessSector",
    "optionsUrl" : "https://rest.bullhorn.com/e999/options/BusinessSector"
  }, {
    "optionsType" : "BusinessSectorText",
    "optionsUrl" : "https://rest.bullhorn.com/e999/options/BusinessSectorText"
  }, {
    "optionsType" : "Candidate",
    "optionsUrl" : "https://rest.bullhorn.com/e999/options/Candidate"
  }, {
    "optionsType" : "CandidateText",
    "optionsUrl" : "https://rest.bullhorn.com/e999/options/CandidateText"
  },
...
]
```

GET /ping

Returns the time of the calling client's session expiration in Unix time format. You can use this call to test whether the client's session is valid. If the session is not valid, the response is the standard response for unauthenticated clients. See Unauthorized Requests.

Operation details

HTTP Method	GET
URI specification	{corpToken}/ping
URI parameters	
Optional	
Examples	
Sample URI	https://rest.bullhorn.com/e999/ping

Sample response	<pre>{
	  "sessionExpires" : 1323449994922
	}</pre>

GET /query

Performs a SQL-style query.

Operation details

HTTP Method	GET
URI specification	{corpToken}/query/{entityName}?where={query}&fields={fieldList}&orderBy={fieldList} &count={count}&start={start}
URI parameters	
Required	
where	SQL-style filter clause see Query where parameter for syntax.

Operation details

fields	Comma-separated list of field names. **Note:** Use fields=* sparingly. The * value returns all fields, including one-to-many association fields. Each one-to-many field affects performance of the query. Use the /meta/{entityType} call to determine which fields are one-to-many fields.
Optional	
count	Limit on the number of entities to return. If the set of matched results is larger than the count value, the returned results is capped at the count value. The default count is 15. The maximum count is 500; if you specify a count greater than 500, a message at the end of the response indicates you have specified too many items. The response also includes the start value of the request. This is useful when you want to make calls to page additional sets of data.
start	From the set of matched results, return item numbers start through (start + count).
orderBy	Comma-separated list of field names on which to base the order of returned entities. Precede field name with a minus sign (-) or plus sign (+) to sort results in descending or ascending order based on that field; default is ascending order.
meta	off, basic, or full. Default is off (no meta). Returns metadata that describes the structure of returned entity data.
showEditable	(true/false) Default value is false. Whether to show the _editable field in responses. The _editable field indicates whether an entity is editable. Setting showEditable to true results in slower performance; use this setting sparingly and only when needed.
showTotalMatched	(true/false) Default value is false. Whether to show the total number of items that match the query.
Examples	
Sample URI	https://rest.bullhorn.com/e999/query/ClientContact?fields=id,status,type,clientCorporation &where=id=%20337228%20AND%20status='Active'

Operation details

Sample response


```
{
   "data": [   {
      "id": 123,
      "status": "Active",
      "type": "",
      "clientCorporation": {
         "id": 410,
         "name": "Juniper"
      }
   }],
   "count": 1,
   "start": 0
}
```

Query where parameter

You can use the following syntax in the where query parameter:

Simple comparisons

property = value

property <> value

property < value

property <= value

property > value

property >= value

May use compound property names (not for to-many properties)

owner.lastName = 'Smith'

owner.corporation.name = 'Acme'

IS [NOT] NULL

property IS NULL

property IS NOT NULL

IS [NOT] EMPTY (only for to-many properties)

categories IS EMPTY

categories IS NOT EMPTY

[NOT] IN

property IN (value, value)

property NOT IN (value, value)

[NOT] MEMBER OF (only for to-many properties)

id-value MEMBER OF categories

id-value NOT MEMBER OF categories

Logical Expressions: NOT, AND, OR

predicate AND predicate

predicate OR predicate

NOT predicate

Grouping by parentheses

predicate AND (predicate OR predicate)

((predicate OR predicate) AND NOT (predicate OR predicate)) OR predicate

Boolean values

true | false

Examples

enabled = true

willingToRelocate = false

Datetime values

- UNIX long millis. For example, dateAdded > 1324579022
- ISO 8601 Date Time String. For example, dateAdded > '1997-07-16T19:20:30.45+01:00'
- Date Time String without Time Zone (default is America/New_York). In the format 'yyyy-MM-dd hh:mm:ss.SSS'
- Same as 3 but with Time Zone 'yyyy-MM-dd hh:mm:ss.SSS TZ' where TZ may be specified as:
    - Full TZ name such as 'Asia/Tokyo'
    - An offset [-]hh:mm. For example, 3:00 or -5:00

POST /resume

Generates useful data from a resume document. Use the /resume/parseToXXX operation to parse a resume document to JSON-formatted Candidate data or HRXML. Use the /resume/convertToXXX operation to convert a resume document to plain text or HTML wrapped in JSON. You can send a resume file as multipart form data, or send plain text or HTML as JSON-encoded text in the body of the REST request.

Parse resume to Candidate data

The parseToCandidate and parsetToCandidateViaJson operations parse a resume to unsaved Candidate data. A typical use case for this operation is to use parts of the response in the bodies of calls to create new Candidate, CandidateWorkHistory, and CandidateEducation entities. The parseToCandidate operation lets you send a resume as a file attached as multipart/form-data. The parseToCandidateViaJson operation lets you send a resume as JSON-encoded text. The parseToCandidateViaJson form is useful for scenarios where you want to parse a block of text rather than a file.

POST /resume/parseToCandidate

Lets you send a resume as a file attached as multipart/form-data.

Operation details: /resume/parseToCandidate

HTTP Method	POST
URI specification	{corpToken}/resume/parseToCandidate
File POST data	Non-base64-encoded file that you send as a multipart/form-data attachment. In a browser form, you would use <input type="file"/>. Takes one file per request.
URI parameters	
Required	
format	Input format for the resume file. Value can be text, html, pdf, doc, docx, rtf, or odt.

Operation details: /resume/parseToCandidate

Optional	
populateDescription	Including this parameter fills the Candidate description field with the text or html format of the resume. Value must be text or html. The primary use case for this parameter is to send the resume in the "description" field for a new Candidate in an /entity/Candidate PUT call. When the resume is used in a request body, it must be Json-encoded. If you have parsed the response to an object for manipulation, you must re-encode the value of the "description" as Json before using it in a request body of another call. For example, in Groovy you can use the `groovy.json.JsonOutput.toJson(java.lang.String s)` method to Json-encode a string.
Examples	
Sample URIs	https://rest.bullhorn.com/e999/resume/parseToCandidate?format=pdf&populateDescription=html

Operation details: /resume/parseToCandidate

Sample response


```
{
   "candidate":    {
      "address":       {
         "address1": "123 Osoite Katu",
         "address2": "Apartment 1",
         "city": "Kaupunki",
         "state": "MA",
         "zip": "02210",
         "countryID": 1
      },
...
   },
   "candidateEducation":    [
            {
         "startDate": 978368400000,
         "endDate": 1104598800000,
         "graduationDate": 1104598800000,
         "school": "Berkeley State University",
         "city": "Santa Cruz",
         "state": "CA",
         "degree": "B.Sc",
         "major": "COMPUTER SCIENCE",
         "gpa": 4
      }
   ],
   "candidateWorkHistory":    [
            {
         "startDate": 1015002000000,
         "endDate": 1188662400000,
         "comments": "MA    Bop  Hop  Hip"
      }
      }
   ]
}
```

POST /resume/parseToCandidateViaJson

Lets you send plain text or HTML as a Json-encoded string. This call is useful for sending resume content that a user pastes into a browser form.

Operation details: /resume/parseToCandidateViaJson

HTTP Method	POST
URI specification	{corpToken}/resume/parseToCandidateViaJson
URI parameters	
Required	
format	Input format for the resume. Value can be text or html.
Optional	
populateDescription	Including this parameter fills the Candidate description field with the text or html format of the resume. Value must be text or html. The primary use case for this parameter is to send the resume in the description field for a new Candidate in a PUT /entity/Candidate call. The text or HTML content returned in the description field of the response is JSON-encoded. When the resume is used in a request body, it must be JSON-encoded. If you have parsed the response to an object for manipulation, you must re-encode the value of the "description" as JSON before using it in a request body of another call. For example, in Groovy you can use the groovy.json.JsonOutput.toJson(java.lang.String s) method to Json-encode a string.
Examples	
Sample URIs	https://rest.bullhorn.com/e999/resume/parseToCandidateViaJson?format=text&populateDescription=text

Sample request body

Note: The value of the “resume” field must be JSON-encoded text. Most programming languages provide utility classes for generating JSON-encoded text.


```
{
  "resume" : "\r\n\r\nDr. Minun Keskimm\u00E4inen Nimi\r\n123 Osoite
Katu\r\nApartment 1\r\nKaupunki, MA 02210\r\nHome: 466-346-4663
\u00A0Business: 387-438-3874 ext. 89 \u00A0Mobile: 662-466-
6624\r\nTelephone: 835-383-8353 ext. 90 \u00A0VoiceNumber: 864-386-
8643\r\nFax: 329-329-3290 \u00A0Pager: 724-772-
7247\r\nMinun.Nimi@finland.com
\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0
mnimi2@finland2.com\r\n\r\nEmployment History\r\n\r\n\u00A0 Eighties
National Music
Bank\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\
u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0 Lexington,
MA\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u0
0A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0 Jan. 1, 1980 - Dec.
31, 1989\u00A0\r\n\u00A0 New Wave Musak Software
Engineer\r\n\r\nListen\r\nLike\r\nLearn\r\n\r\n\u00A0\r\n\u00A0
Nineties Bank of
Music\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0
\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A
0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0 Concord,
MA\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u0
0A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0 February 1991 -
November 1998\u00A0\r\n\u00A0 Hip Hop Software
Engineer\r\n\r\nBop\r\nHop\r\nHip\r\n\r\n\u00A0\r\n\u00A0 New
Millennium Music Corp."
}
```

Operation details: /resume/parseToCandidateViaJson

Sample response

A typical use case for the /resume/parseToCandidateViaJson operation is to use parts of the response in the body of PUT calls to create new Candidate, CandidateWorkHistory, and CandidateEducation entities.


```
{
   "candidate":    {
      "address":       {
         "address1": "123 Osoite Katu",
         "address2": "Apartment 1",
         "city": "Kaupunki",
         "state": "MA",
         "zip": "02210",
         "countryID": 1
        }
       "description": "\r\n\r\nDr. Minun Keskimmäinen Nimi\r\n123 Osoite
Katu\r\nApartment 1\r\nKaupunki, MA 02210\r\
...
",
      },
...
   },
   "candidateEducation":    [
            {
         "startDate": 978368400000,
         "endDate": 1104598800000,
         "graduationDate": 1104598800000,
         "school": "Berkeley State University",
         "city": "Santa Cruz",
         "state": "CA",
         "degree": "B.Sc",
         "major": "COMPUTER SCIENCE",
         "gpa": 4
      }
   ],
   "candidateWorkHistory":    [
            {
         "startDate": 1015002000000,
         "endDate": 1188662400000,
         "comments": "MA    Bop  Hop  Hip"
      }
      }
   ]
}
```

Parse resume to HR-XML

The parseToHrXml and parseToHrXmlViaJson operations a resume to a JSON-encoded HR-XML compliant XML document.

The parseToHrXml form lets you send a resume as a file attached as multipart/form-data. The parseToCandidateViaJson operation lets you send a resume as JSON-encoded text. The parseToHrXmlViaJson operation is useful for scenarios where you want to parse a block of text rather than a file.

POST /resume/parseToHrXml

Lets you send a resume as a file attached as multipart/form-data.

Operation details: resume/parseToHrXml

HTTP Method	POST
URI specification	{corpToken}/resume/parseToHrXml
File POST data	This is a non-base64-encoded file that you send as a multipart/form-data attachment. In a browser form, this is <input type="file"/>. Takes one file per request.
URI parameters	
Required	
format	Input format for the resume. Value can be text, html, pdf, doc, docx, rtf, or odt.
Examples	
Sample URIs	https://rest.bullhorn.com/e999/resume/parseToHrXml?format=pdf

Operation details: resume/parseToHrXml

Sample response


```
{"hrXml": "<?xml version=\"1.0\" encoding=\"UTF-8\"?>\n<Resume
xmlns=\"http://ns.hr-xml.org\" xmlns:hr=\"http://ns.hr-
xml.org/PersonDescriptors\"
xmlns:xsi=\"http://www.w3.org/2001/XMLSchema-instance\"
xml:lang=\"ENGLISH\">\n  <ResumeId idOwner=\"Resume Mirror\">\n
<IdValue name=\"RESUME ID\"/>\n  <\/ResumeId>\n  <StructuredXMLResume>\n
<ContactInfo>\n      <PersonName>\n        <FormattedName>Dr. Minun
Keskimmäinen Nimi<\/FormattedName>\n
<GivenName>Minun<\/GivenName>\n
<MiddleName>Keskimmäinen<\/MiddleName>\n
<FamilyName>Nimi<\/FamilyName>\n        <Affix
type=\"formOfAddress\">DR.<\/Affix>\n      <\/PersonName>\n
<ContactMethod>\n        <Use>personal<\/Use>\n        <Telephone>\n
<TaxonomyId id=\"WH-0\" idOwner=\"Resume Mirror\" description=\"RELATED
TO\"/>\n        <CompetencyWeight>\n
 ...

          <NumericValue description=\"years\">8<\/NumericValue>\n
<\/CompetencyWeight>\n      <\/Competency>\n      <Competency
name=\"Blowout preventer\">\n        <TaxonomyId id=\"FIN\"
idOwner=\"Resume Mirror\" description=\"SKILLCAT\"/>\n
<\/Competency>\n    <\/Qualifications>\n
<RevisionDate>notKnown<\/RevisionDate>\n  <\/StructuredXMLResume>\n
<UserArea>\n    \n    \n    \n    \n    \n    \n    \n
<\/UserArea>\n<\/Resume>"}
```


POST /resume/parseToHrXmlViaJson

Lets you send plain text or HTML as a Json-encoded string. This call is useful for sending resume content that a user pastes into a browser form.

Operation details: resume/parseToHrXmlViaJson

HTTP Method	POST
URI specification	{corpToken}/resume/parseToHrXmlViaJson
URI parameters	
Required	
format	Input format for the resume. Value can be text or html.
Examples	
Sample URIs	https://rest.bullhorn.com/e999/resume/parseToHrXmlViaJson?format=text

Sample request body

Note: The value of the “resume” field must be JSON-encoded text. Most programming languages provide utility classes for generating JSON-encoded text.


```
{
  "resume" : "\r\n\r\nDr. Minun Keskimm\u00E4inen Nimi\r\n123 Osoite
Katu\r\nApartment 1\r\nKaupunki, MA 02210\r\nHome: 466-346-4663
\u00A0Business: 387-438-3874 ext. 89 \u00A0Mobile: 662-466-
6624\r\nTelephone: 835-383-8353 ext. 90 \u00A0VoiceNumber: 864-386-
8643\r\nFax: 329-329-3290 \u00A0Pager: 724-772-
7247\r\nMinun.Nimi@finland.com
\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0
mnimi2@finland2.com\r\n\r\nEmployment History\r\n\r\n\u00A0 Eighties
National Music
Bank\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\
u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0 Lexington,
MA\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u0
0A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0 Jan. 1, 1980 - Dec.
31, 1989\u00A0\r\n\u00A0 New Wave Musak Software
Engineer\r\n\r\nListen\r\nLike\r\nLearn\r\n\r\n\u00A0\r\n\u00A0
Nineties Bank of
Music\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0
\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A
0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0 Concord,
MA\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u0
0A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0\u00A0 February 1991 -
November 1998\u00A0\r\n\u00A0 Hip Hop Software
Engineer\r\n\r\nBop\r\nHop\r\nHip\r\n\r\n\u00A0\r\n\u00A0 New
Millennium Music Corp."
}
```


Sample response


```
{"hrXml": "<?xml version=\"1.0\" encoding=\"UTF-8\"?>\n<Resume
xmlns=\"http://ns.hr-xml.org\" xmlns:hr=\"http://ns.hr-
xml.org/PersonDescriptors\"
xmlns:xsi=\"http://www.w3.org/2001/XMLSchema-instance\"
xml:lang=\"ENGLISH\">\n  <ResumeId idOwner=\"Resume Mirror\">\n
<IdValue name=\"RESUME ID\"/>\n  <\/ResumeId>\n  <StructuredXMLResume>\n
<ContactInfo>\n      <PersonName>\n        <FormattedName>Dr. Minun
Keskimmäinen Nimi<\/FormattedName>\n
<GivenName>Minun<\/GivenName>\n
<MiddleName>Keskimmäinen<\/MiddleName>\n
<FamilyName>Nimi<\/FamilyName>\n        <Affix
type=\"formOfAddress\">DR.<\/Affix>\n      <\/PersonName>\n
<ContactMethod>\n        <Use>personal<\/Use>\n        <Telephone>\n
<TaxonomyId id=\"WH-0\" idOwner=\"Resume Mirror\" description=\"RELATED
TO\"/>\n        <CompetencyWeight>\n
 ...

          <NumericValue description=\"years\">8<\/NumericValue>\n
<\/CompetencyWeight>\n      <\/Competency>\n      <Competency
name=\"Blowout preventer\">\n        <TaxonomyId id=\"FIN\"
idOwner=\"Resume Mirror\" description=\"SKILLCAT\"/>\n
<\/Competency>\n    <\/Qualifications>\n
<RevisionDate>notKnown<\/RevisionDate>\n  <\/StructuredXMLResume>\n
<UserArea>\n    \n    \n    \n    \n    \n    \n    \n
<\/UserArea>\n<\/Resume>"}
```


Convert resume to plain text or HTML

The convertToText|Html and convertToText|HtmlViaJson operations convert a resume to JSON-encoded plain text or HTML text. A typical use case for this operation is to use the converted resume in the body of a call to update a Candidate description.

When the resume text in the response is used in a request body of another call, it must be JSON-encoded. If you have parsed the response to an object for manipulation, you must re-encode the resume as JSON before using it in the request body of another call. For example, in Groovy you can use the groovy.json.JsonOutput.toJson(java.lang.String s) method to Json-encode a string.

POST /resume/convertToText|Html

Lets you send a resume as a file attached as multipart/form-data.

Operation details: resume/convertTo(Text|Html)

HTTP Method	POST
URI specification	{corpToken}/resume/convertTo(Text|HTML)
File POST data	This is a non-base64-encoded file that you send as a multipart/form-data attachment. In a browser form, this is <input type="file"/>. Takes one file per request. How you send multipart/form-data in a PosT request depends on your REST client.
URI parameters	
Required	
format	Input format for the resume. Value can be text, html, pdf, doc, docx, rtf, or odt.
Examples	
Sample URIs	https://rest.bullhorn.com/e999/resume/convertToHtml?format=pdf

Operation details: resume/convertTo(Text|Html)

Sample response


```
{
  "html" : "<!DOCTYPE HTML PUBLIC \"-//W3C//DTD HTML
4.0//EN\">\r\n<html>\r\n<head>\r\n    <title></title>\r\n    <meta
name=\"Author\" content=\"Rebecca Bumsted\" />\r\n    <meta http-
equiv=\"content-type\" content=\"text/html; charset=UTF-16\"
/>\r\n</head>\r\n<body>\r\n<div align=\"center\"><br /><font
face=\"Times New Roman\" size=\"3\">Dr. Minun KeskimmÃ¤inen
Nimi</font>\n<br /><font face=\"Times New Roman\" size=\"3\">123
Osoite Katu</font>\n<br /><font face=\"Times New Roman\"
size=\"3\">Apartment 1</font>\n<br /><font face=\"Times New Roman\"
size=\"3\">Kaupunki, MA 02210</font>\n<br /><font face=\"Times New
Roman\" size=\"3\">Home: 466-346-4663  Business: 387-438-3874 ext. 89
Mobile: 662-466-6624 </font>\n<br />
...
<font face=\"Times New Roman\" size=\"3\">Bachelor of Arts in Business
Administration May 2009</font>\n<br /><font face=\"Times New Roman\"
size=\"3\">Dual Concentration in International Management and Finance
</font>\n<br /><font face=\"Times New Roman\" size=\"3\">Minor in
Economics</font>\n<br /><font face=\"Times New Roman\"
size=\"3\">Cumulative GPA: 3.87</font>\n<br /><font face=\"Times New
Roman\" size=\"3\"><b><i>Activities/Honors</i></b></font>\n<br /><font
face=\"Times New Roman\" size=\"3\">Honors Student</font>\n<br /><font
face=\"Times New Roman\" size=\"3\">Dean s List: Fall 2005 and Spring
2006</font>\n<br /> <br /> </body>\r\n</html>"
}
```


POST /resume/convertTo(Text|Html)ViaJson

Lets you send a resume as JSON-encoded text.

Operation details: resume/convertToTextViaJson

HTTP Method	POST
URI specification	{corpToken}/resume/convertToTextViaJson
URI parameters	
Required	
format	Input format for the resume. Value can be text or html.
Examples	
Sample URIs	https://rest.bullhorn.com/e999/resume/convertToTextViaJson?format=html

Sample request body

Note: The value of the “resume” field must be JSON-encoded text. Most programming languages provide utility classes for generating JSON-encoded text.


```
{
  "resume" : "<html xmlns:v=\"urn:schemas-microsoft-
com:vml\"\nxmlns:o=\"urn:schemas-microsoft-
com:office:office\"\nxmlns:w=\"urn:schemas-microsoft-
com:office:word\"\nxmlns:m=\"http://schemas.microsoft.com/office/2004/1
2/omml\"\nxmlns=\"http://www.w3.org/TR/REC-html40\">\n\n<head>\n<meta
http-equiv=Content-Type content=\"text/html; charset=windows-
1252\">\n<meta name=ProgId content=Word.Document>\n<meta name=Generator
content=\"Microsoft Word 14\">\n<meta name=Originator
content=\"Microsoft Word 14\">\n<link rel=File-List
href=\"TestMappingResume_files/filelist.xml\">\n\n</head>\n\n<body
lang=EN-US link=blue vlink=purple style='tab-interval:.5in'>\n\n<div
class=WordSection1>\n\n<p class=MsoNormal align=center style='text-
align:center;text-indent:.5in'>Dr. <span\nclass=hps><span lang=FI
style='mso-ansi-language:FI'>Minun Keskimm\u00E4inen
Nimi</span></span></p>\n\n<p class=MsoNormal align=center style='text-
align:center;text-indent:.5in'>123 <span\nclass=hps><span lang=FI
style='mso-ansi-language:FI'>Osoite</span></span><span\nlang=FI>
</span><span class=hps><span lang=FI style='mso-ansi-
language:FI'>Katu<o:p></o:p></span></span></p>\n\n<p class=MsoNormal
align=center style='text-align:center;text-
indent:.5in'><span\nclass=hps><span lang=FI style='mso-ansi-
language:FI'>Apartment 1</span></span></p>\n\n<span style='mso-
spacerun:yes'>\u00A0 </span>New Wave <span\nclass=SpellE>Musak</span>
Software Engineer </p>\n\n<ul style='margin-top:0in' type=disc>\n <li
class=MsoNormal style='mso-list:l3 level1 lfo2'>Listen </li>\n <li
class=MsoNormal style='mso-list:l3 level1 lfo2'>Like </li>\n <li
class=MsoNormal style='mso-list:l3 level1 lfo2'>Learn
</li>\n</ul>\n\n<p class=MsoNormal><span style='mso-
spacerun:yes'>\u00A0</span>
...
"}
```


Sample response


```
{"text": "\r\n\r\nDr. Minun Keskimmäinen Nimi\r\n123 Osoite
Katu\r\nApartment 1\r\nKaupunki, MA 02210\r\nHome: 466-346-
4663  Business: 387-438-3874 ext. 89  Mobile: 662-466-6624\r\nTelephone:
835-383-8353 ext. 90  VoiceNumber: 864-386-8643\r\nFax: 329-329-
3290  Pager: 724-772-
7247\r\nMinun.Nimi@finland.com           mnimi2@finland2.com\r\n\r\nEmp
loyment History\r\n\r\n  Eighties National Music
Bank                    Lexington, MA                    Jan. 1, 1980
- Dec. 31, 1989 \r\n  New Wave Musak Software
Engineer\r\n\r\nListen\r\nLike\r\nLearn\r\n\r\n \r\n  Nineties Bank of
Music                              Concord,
MA                    February 1991 - November 1998 \r\n  Hip Hop
...
"}
```

GET /search

Performs a Lucene search for the following entity types.

- ClientContact
- ClientCorporation
- JobOrder
- JobSubmission
- Note
- Placement

For information about the Lucene query syntax, see:
http://lucene.apache.org/core/4_6_0/queryparser/org/apache/lucene/queryparser/classic/package-summary.html#package_description

Note: The /search call is available only for corporations that are enabled for S-Release.

Operation details

HTTP Method	GET
URI specification	{corpToken}/search/{entityType}?query={luceneQueryString}&fields={fieldList}&sort={fieldList}&count={count}&start={start}
URI parameters	
Required	
query	Lucene query string.
Optional	
fields	Comma-separated list of field names. **Note:** Use fields=* sparingly. The * value returns all fields, including one-to-many association fields. Each one-to-many field affects performance of the query. Use the /meta/{entityType} call to determine which fields are one-to-many fields.
sort	Field to sort result on. Default sort order is ascending. Precede with minus sign to perform descending sort.

Operation details

count	Limit on the number of entities to return. If the set of matched results is larger than the count value, the returned results is capped at the count value. The default count is 20. The maximum count is 500; if you specify a count greater than 500, a message at the end of the response indicates you have specified too many items. The response also includes the actual number of items returned and the start value of the request. This is useful when you want to make calls to page additional sets of data.
start	From the set of matched results, returns item numbers start through (start + count)
meta	off, basic, or full. Default is off (no meta). Returns metadata that describes the structure of returned entity data.
showEditable	(true/false) Default value is false. Whether to show the _editable field in responses. The _editable field indicates whether an entity is editable. Setting showEditable to true results in slower performance; use this setting sparingly and only when needed.

Examples

Sample URI	https://rest.bullhorn.com/e999/search/JobOrder?&query=owner.id:1314&fields=*&count=2

Operation details

Sample response


```
{
"total" : 565,
"start" : 0,
"count" : 2,
"data" : [ {
"_score" : 1.7105389,
"title" : "lava placement change request placement",
"description" : "The automation of placement change request entity.
Please do not touch this.",
"id" : 194
}, {
"_score" : 1.7105389,
"title" : null,
"description" : "put addr1_lv crud01 JobOrder composite dates
201331393331437",
"id" : 198
} ]
}
```


Note: The response contains a _score field. This is the Lucene score. Also, if the database record for an entity id is missing, the response contains an _error field for that entity.

Search metadata

Search metadata is returned if you provide no request parameters. Search metadata is a list of search field names, and optionally, the field type and lookup names.

Format


```
{
  "searchFields" : [ {
    "name" : "search.field.name",
    "type" : "FIELD_TYPE"
    "lookupNames" : [ {
```



```
    "names" : [ "lookupName", "lookupName", ... ]
   } ]
  },
  ...
}
```

search.field.name

The fields on which you can search. For example, query=isDeleted:false.

FIELD_TYPE

The type of search field.

id	The indexed entity id, same behavior as INTEGER.
STRING	Keyword, not analyzed.
STRING_ANALYZED	Analyzed string
STRING_ANALYZED_KEYWORD	Analyzed string PLUS whole unanalyzed string If search string is quoted. For example, "find me", it search for the entire string as-is. For example, it will NOT find string with embedded "find me". **Note:** The index values of STRING_ANALYZED_KEYWORD fields are consolidated in the value of the keyword field of each of entity index. For example, query=keyword:smith searches for all instances of “smith” that are also in individual index fields of type STRING_ANALYZED_KEYWORD.
INTEGER	No padding, does not support range query. For example, 1.
INTEGER_PADDED	Padded to 10 digits, supports range query. For example, 0000000001. Must pad wildcard search. For example, 00001*.
DOUBLE	No padding with four decimal places, does not support range query. For example, 1.0000.
DOUBLE_PADDED	Padded to 10 digits with 4 decimal places, supports range query. For example, 0000000001.0000 . Must pad wildcard search.
BOOLEAN	Indexed as 1 or 0.
DATETIME	Indexed in UTC as yyyyMMddHHmmss.
DATE	Indexed in UTC as yyyyMMdd.
LATITUDE	Padded to 2 digits and 13 decimal places.
LONGITUDE	Padded to 3 digits and 13 decimal places.

EMAIL	Indexed as 3 values (all lowercased): full email address, name part, and host part. For example, john.doe@bullhorn.com is indexed with: john.doe@bullhorn.com john.doe @bullhorn.com (Note the @ prefix) name and host parts are not further tokenized email not in the form of name@host are not indexed
PHONE	Indexed as two values: straight and reversed prefixed with 'r'. Without, if present, country code and extension For example, +1 (234) 567-8901 x 777 is indexed as: 2345678901 r1098765432 The query parser automatically handle the reverse search, For example, search for 567-8901 will return the above record (effectively searching "r1098765*")

Lookup queries

If lookupNames is present, the query can use an indirect lookup called a lookup query. Here is an example of a field that supports lookup queries:

```
{
  "searchFields" : [ {
    "name" : "owner.id",
    "type" : "INTEGER"
    "lookupNames" : [ {
      "names" : [ "firstName", "lastName", "primaryDepartment.id", "primaryDepartment.name" ]
    } ]
  }}
```

A standard Lucene query (with no look query) looks like this:

```
owner.id:123
```

A lookup query is a SQL where clause surounded by double-quote ("), up-caret (^), and double-quote ("). Lookup queries support the following SQL syntax:
AND, OR, IS NULL, IS NOT NULL, IN, Parenthesis, =, <>, <, <=, >, >=

Here are some example lookup queries:

```
owner.id:"^firstName='John'"
owner.id:"^firstName='John' AND lastName='Doe'"
owner.id:"^(firstName='John' OR firstName='Mary') AND lastName='Doe'"
owner.id:"^firstName IN ('John','Mary') AND primaryDepartment.id=123"
```

Note: LIKE is not supported in lookup queries.

PUT /savedSearch

Creates a saved Lucene search for a Lucene-indexed entity type. The name, indexType, data, and query fields are required in the request body. . The user who creates a saved search always gets entitlements for all operations on that saved search; for more information about entitlements, see PUT /savedSearchGrant.

Note: The saved search feature is a new REST-based feature and is not related to the saved query feature currently in the Bullhorn CRM application.

Operation details

HTTP Method	PUT
URI specification	{corpToken}/savedSearch
Examples	
Sample URI	https://rest.bullhorn.com/e999/savedSearch

Sample request body	**Note:** Only the description field is optional.
	`{`
	`  "name"  : "name",`
	`  "description" : "description",`
	`  "indexType"  : "JOBORDER",`
	`  "data"  : "data",`
	`  "query"  : "name:acme"`
	`}`

GET /savedSearch

GET /savedSearch/{savedSearchId}

Gets a saved Lucene search for any entity type for which the /search operation is supported.

Note: The saved search feature is a new REST-based feature and is not related to the saved query feature currently in the Bullhorn CRM application.

Operation details

HTTP Method	GET

Operation details

URI specification	{corpToken}/savedSearch/{savedSearchId}
Possible errors	Returns an HTTP 404 error if saved search does not exist or caller has no access to saved search (not owner and not granted entitlements via the /savedSearchGrant operation).

Examples

Sample URI	https://rest.bullhorn.com/e999/savedSearch/4

Sample response	{
	"data" : {
	"id" : savedSearchId,
	"name" : "general_ search",
	"description" : "my acme query",
	"indexType" : "JOBORDER",
	"data" : "data",
	"query" : "name:acme”
	"ownerId" : 1222,
	"dateAdded" : "2013-01-31",
	"favorite" : true
	}
	}

GET /savedSearch

The /savedSearch operation with no {savedSearchId} path parameter and no query parameters returns all saved searches in the user's corporation(s) to which the user has entitlements. Use the entity and entityId parameters to return the saved searches associated with a specific entity.

Note: The saved search feature is a new REST-based feature and is not related to the saved query feature currently in the Bullhorn CRM application.

Operation details

HTTP Method	GET
URI specification	{corpToken}/savedSearch {corpToken}/savedSearch
URI parameters	
Optional	
type	Returns only records of the specified index.
entity & entityId	Returns only saved searches associated with the specified entity. Both parameters must be present. For information about associating a savedSearch with a specific entity, see PUT /savedSearchAssociation.
start	From the set of matched results, returns item numbers start through (start + count).
count	Limit on the number of items to return. If the set of matched results is larger than count, caps the returned results at size count.
orderBy	Value can be id or name. Precede field name with a minus sign (-) or plus sign (+) to sort results in descending or ascending order based on that field; default value is "-id".
showTotalMatched	Default value is false. Displays count of matching records.

Operation details

Examples	
Sample URIs	https://rest.bullhorn.com/e999/savedSearch https://rest.bullhorn.com/e999/savedSearch?entity=Candidate&entityId=20

Sample response	{
	"data" : {
	"id" : 3,
	"name" : "nnn_candidate",
	"description" : "my description",
	"indexType" : "CANDIDATE",
	"data" : "data",
	"query" : "name:lv_",
	"ownerId" : 1314,
	"dateAdded" : "2013-01-31",
	"favorite" : false
	}, {
	"id" : 2,
	"name" : "nnn_job",
	"description" : "my description",
	"indexType" : "JOBORDER",
	"data" : "data",
	"query" : "name:lv_",
	"ownerId" : 1314,
	"dateAdded" : "2013-01-31",
	"favorite" : false
	}],
	"start" : 0,
	"count" : 3
	}

GET /mySavedSearch

The /mySavedSearch operation returns all saved searches that the user owns.

Note: The saved search feature is a new REST-based feature and is not related to the saved query feature currently in the Bullhorn CRM application.

Operation details

HTTP Method	GET
URI specification	{corpToken}/mySavedSearch

Operation details

URI parameters	
Optional	
type	Returns only records of the specified index type.
entity & entityId	Returns only records associated with the specified entity. Both parameters must be present.
start	From the set of matched results, returns item numbers start through (start + count).
count	Limit on the number of records to return. If the set of matched results is larger than count, caps the returned results at size count.
orderBy	Value can be id or name. Precede field name with a minus sign (-) or plus sign (+) to sort results in descending or ascending order based on that field; default value is "-id".
showTotalMatched	Default value is false. Displays count of matching records.

Examples	
Sample URIs	https:// rest.bullhorn.com/e999/mySavedSearch

Sample response	{
	"data" : {
	"id" : 2,
	"name" : "nnn_job",
	"description" : "my description",
	"indexType" : "JOBORDER",
	"data" : "data",
	"query" : "name:lv_",
	"ownerId" : 1314,
	"dateAdded" : "2013-01-31",
	"favorite" : false
	}],
	"start" : 0,
	"count" : 3
	}

POST /savedSearch

Updates a saved Lucene search for Lucene-indexed entity types. The following fields are optional in the request body: name, description, indexType, data, and query.

Note: The saved search feature is a new REST-based feature and is not related to the saved query feature currently in the Bullhorn CRM application.

Operation details

HTTP Method	POST
URI specification	{corpToken}/savedSearch/{savedSearchId}
Examples	
Sample URI	https://rest.bullhorn.com/e999/savedSearch

Sample request body	**Note:** All fields are optional.
	`{`
	`  "name"  : "my_note_search",`
	`  "description" : "my description",`
	`  "indexType"  : "NOTE",`
	`  "data"  : "data",`
	`  "query"  : "name:pinacle"`
	`}`

DELETE /savedSearch

Deletes a saved Lucene search for a Lucene-indexed entity type.

Note: The saved search feature is a new REST-based feature and is not related to the saved query feature currently in the Bullhorn CRM application.

Operation details

HTTP Method	DELETE
URI specification	{corpToken}/savedSearch/{savedSearchId}

Operation details

Examples	
Sample URI	https://rest.bullhorn.com/e999/savedSearch

PUT /savedSearchAssociation

Creates an association between a saved search and a specified entity id.

Note: The saved search feature is a new REST-based feature and is not related to the saved query feature currently in the Bullhorn CRM application.

Operation details

HTTP Method	PUT
URI specification	{corpToken}/savedSearchAssociation/{entityName}/{entityId}
Possible errors	Returns an HTTP 404 error if the saved search is not found. Returns an HTTP 403 error if the saved search exists but the user is not the owner.
Examples	
Sample URI	https://rest.bullhorn.com/e999/savedSearchAssociation/4/JobOrder/1495

DELETE /savedSearchAssociation

Deletes an association between a saved search and a specified entity id.

Note: The saved search feature is a new REST-based feature and is not related to the saved query feature currently in the Bullhorn CRM application.

Operation details

HTTP Method	DELETE

Operation details

URI specification	{corpToken}/savedSearchAssociation/{entityName}/{entityId}
Possible errors	Returns an HTTP 200 code if the saved search is not found (beware of this). Returns an HTTP 403 error if the saved search exists but the user is not the owner Returns an HTTP 200 code if the saved search exists and the user is the owner (even for missing association).
Examples	
Sample URI	https://rest.bullhorn.com/e999/savedSearchAssociation/4/JobOrder/1495

PUT /savedSearchGrant

Adds entitlements to view a saved search. The user who creates a saved search always gets entitlements for all operations on that saved search.

Note: The saved search feature is a new REST-based feature and is not related to the saved query feature currently in the Bullhorn CRM application.

Operation details

HTTP Method	PUT
URI specification	{corpToken}/savedSearchGrant/{savedSearchId}/CORP {corpToken}/savedSearchGrant/{savedSearchId}/DEPT/{departmentId} {corpToken}/savedSearchGrant/{savedSearchId}/USER/{corporateUserId}
Possible errors	Returns an HTTP 404 error if the saved search is not found. Returns an HTTP 403 error if the saved search exists but the user is not the owner.
Examples	
Sample URI	https://rest.bullhorn.com/e999/savedSearchGrant/10/CORP https://rest.bullhorn.com/e999/savedSearchGrant/10/DEPT/44 https://rest.bullhorn.com/e999/savedSearchGrant/12/USER/1222

GET /savedSearchGrants

Returns entitlements for a saved search.

Note: The saved search feature is a new REST-based feature and is not related to the saved query feature currently in the Bullhorn CRM application.

Operation details

HTTP Method	DELETE
URI specification	{corpToken}/savedSearchGrants/{savedSearchId}
Possible errors	Returns an HTTP 200 code if the saved search is not found. Returns an HTTP 403 error if the saved search exists but the user is not the owner. Returns an HTTP 200 code if the saved search exists and the user is owner (even for missing association).
Examples	
Sample URI	https://rest.bullhorn.com/e999/savedSearchGrants/4

Sample response	`[`
	`  { "type"="CORP", "targetId"=null},`
	`  { "type"="DEPT", "targetId"=12},`
	`  { "type"="USER", "targetId"=1333}`
	`]`

DELETE /savedSearchGrant

Removes entitlements from a saved search.

Note: The saved search feature is a new REST-based feature and is not related to the saved query feature currently in the Bullhorn CRM application.

Operation details

HTTP Method	DELETE

Operation details

URI specification	{corpToken}/savedSearchGrant/{savedSearchId}/CORP {corpToken}/savedSearchGrant/{savedSearchId}/DEPT/{departmentId} {corpToken}/savedSearchGrant/{savedSearchId}/USER/{corporateUserId}
Possible errors	Returns an HTTP 200 code if the saved search is not found. Returns an HTTP 403 error if the saved search exists but the user is not the owner. Returns an HTTP 200 code if the saved search exists and the user is owner (even for missing association).

Examples

Sample URI	https://rest.bullhorn.com/e999/savedSearchGrant/15/CORP https://rest.bullhorn.com/e999/savedSearchGrant/10/DEPT/44 https://rest.bullhorn.com/e999/savedSearchGrant/12/USER/1222

PUT /savedSearchFavorite

Adds a saved search to saved search favorites.

Note: The saved search feature is a new REST-based feature and is not related to the saved query feature currently in the Bullhorn CRM application.

Operation details

HTTP Method	PUT
URI specification	{corpToken}/savedSearchFavorite/{savedSearchId}
Possible errors	Returns an HTTP 404 error is saved search is missing or user has no access to it.

Examples

Sample URI	https://rest.bullhorn.com/e999/savedSearchFavorite/4

DELETE /savedSearchFavorite

Removes a saved search from saved search favorites.

Note: The saved search feature is a new REST-based feature and is not related to the saved query feature currently in the Bullhorn CRM application.

Operation details

HTTP Method	DELETE
URI specification	{corpToken}/savedSearchFavorite/{savedSearchId}
Examples	
Sample URI	https://rest.bullhorn.com/e999/savedSearchFavorite/4

GET /settings

Returns the value(s) of the specified system setting(s). The value type (Integer, string, Boolean, and so forth) depends on the specified setting name.

Note: In the allDeptIds field of a /settings response, the primary department id is always first in the list of department ids.

Operation details

HTTP Method	GET
URI specification	{corpToken}/settings/{setting-name1,*}
URI parameters	
Optional	
Examples	
Sample URI	https://rest.bullhorn.com/e999/settings/isNoteActionRequired, allDeptIds,commentActionList

Sample response	{
	{
	"allDeptIds": [
	9998,
	8889
	],
	"isNoteActionRequired": true,
	"commentActionList": [
	"Outbound Call",
	"Inbound Call",
	"Left Message",
	"Email",
	"AppoIntegerment",
	"Other"
	]
	}
	}

System settings list

You can use any of the following predefined systems setting names on a /settings call:

- accountLockoutDuration
- allDeptIds
- allPrivateLabelIds
- allowColumnCustomization
- bullhornStaffingHost
- commentActionList
- confidentialFieldList
- corpPrivateLabelId
- corporationId
- corporationName
- currencyFormat
- defaultListColumnsCandidate
- defaultListColumnsClientContact
- defaultListColumnsClientCorporation
- defaultListColumnsHousingComplex
- defaultListColumnsJobOrder
- defaultListColumnsJobSubmission
- defaultListColumnsPlacement
- defaultMinutesSpent
- deptId
- emailMaxTotalAttachmentSize
- entityTitleCandidate
- entityTitleClientContact
- entityTitleClientCorporation
- entityTitleJobOrder
- entityTitlePlacement
- failedLoginLockoutThreshold
- headingBGColorCandidate
- headingBGColorClientContact
- headingBGColorClientCorporation
- headingBGColorJobOrder
- isNoteActionRequired
- jobOrderWorkFlowSteps
- jobResponseStatusList
- llistExpandedLeftCandidate
- llistExpandedLeftClientContact
- listExpandedLeftClientCorporation
- listExpandedLeftHousingComplex
- listExpandedLeftJobOrder
- listExpandedLeftPlacement
- mobileEnabled

- mobileWebAccess
- privateLabelId
- rememberLastCommentAction
- resumeWizardSkillLevel
- userEntitlements
- userId

/settings/userEntitlements list

The /settings/userEntitlements call can return the following values. The list of values returned depends on the user actions enabled on the user type of the user.

- Change Any Candidate Submission Status
- Change Client Status
- Customize Columns Client List
- Customize Columns Contact List
- Customize Columns Job List
- Customize Columns Placement List
- Customize Columns Submissions List
- Delete Submissions
- Edit Placement Account Info
- Edit Placement Commissions
- Edit Placement Date Added
- Edit Placement From List
- Export Client Corporation
- Export Contact
- Export Job
- Export Placement
- Export Submission
- Export Web Response
- Inline Edit Client List
- Inline Edit Contact List
- Inline Edit Job List
- Inline Edit Placement List
- Inline Edit Submission List
- Mass Delete Candidate
- Mass Delete Client Contact
- Mass Delete Job
- Mass Open/Close Job
- Mass Publish/Unpublish Job
- Mass Update Candidate Database Field
- Mass Update Candidate Owner
- Mass Update Candidate Status
- Mass Update Client Contact Owner
- Mass Update Client Contact Status
- Mass Update Client Corporation

- Mass Update Job Assignment
- Mass Update Job Owner
- Mass Update Job Status
- Placement Approval
- Placement Approval From List
- Placement Change Request Approval
- Send Mail 200 Recipients
- Send Mail 50 Recipients
- Send Mail 500 Recipients
- View Placement Files

If you do not provide any query parameters, the /settings call returns the list of predefined setting names and their metadata. Return types are defined in the metadata. If conversion fails, for example cannot convert "abc" to Integer, the raw string is returned.

The URI **https://rest.bullhorn.com/e999/settings** returns the complete list of settings:


```
{"data": [
      {
      "name": "accountLockoutDuration",
      "valueUrl": "http://rest.bullhorn.com/e999/settings/accountLockoutDuration",
      "valueType": "INTEGER",
      "isArray": false
   },
      {
      "name": "allDeptIds",
      "valueUrl": "http://rest.bullhorn.com/e999/settings/allDeptIds",
      "valueType": "INTEGER",
      "isArray": true
   },77
      {
      "name": "allPrivateLabelIds",
      "valueUrl": "http://rest.bullhorn.com/e999/settings/allPrivateLabelIds",
      "valueType": "INTEGER",
      "isArray": true
   },
      {
      "name": "commentActionList",
      "valueUrl": "http://rest.bullhorn.com/e999/settings/commentActionList",
      "valueType": "STRING",
      "isArray": true
   },
...

]}
```


Entity reference

This section provides information about each of the entity types that the REST API supports.

The following table lists the supported entity types and the allowed create, read, update, and delete (CRUD) operations.

You can also use the /meta/{EntityType}?fields=* call to get the full set of entity meta data for any given entity.

Note: A soft delete is an POST operation in which you change the isDeleted value to true. A hard delete is a DELETE operation.

Entity name	Allowed CRUD operations	Delete type
Appointment	READ, CREATE, UPDATE, DELETE	Soft
AppointmentAttendee	READ, CREATE, UPDATE, DELETE	Hard
BusinessSector	READ	N/A

Entity name	Allowed CRUD operations	Delete type
Candidate	READ, CREATE, UPDATE, DELETE	Soft
CandidateCertification	READ, CREATE, UPDATE, DELETE	Soft
CandidateEducation	READ, CREATE, UPDATE, DELETE	Soft
CandidateReference	READ, CREATE, UPDATE, DELETE	Soft
CandidateSource	READ, CREATE, UPDATE, DELETE	Hard
CandidateWorkHistory	READ, CREATE, UPDATE, DELETE	Soft
Category	READ	N/A
ClientContact	READ, CREATE, UPDATE, DELETE	Soft
ClientCorporation	READ, CREATE, UPDATE	N/A
CorporationDepartment	READ	N/A
CorporateUser	READ	N/A
Country	READ	N/A
CustomAction	READ	N/A
JobOrder	READ, CREATE, UPDATE, DELETE	Soft
JobSubmission	READ, CREATE, UPDATE, DELETE	Soft
Note	READ, CREATE, UPDATE, DELETE	Soft
NoteEntity	READ, CREATE, UPDATE, DELETE	Hard
Placement	READ, CREATE, UPDATE, DELETE	Hard
PlacementChangeRequest	READ	N/A

Entity name	Allowed CRUD operations	Delete type
PlacementCommission	READ, CREATE, UPDATE, DELETE	Hard
Sendout	READ, CREATE, UPDATE, DELETE	Hard
Skill	READ	N/A
Specialty	READ	N/A
State	READ	N/A
Task	READ, CREATE, UPDATE, DELETE	Soft
Tearsheet	READ, CREATE, UPDATE, DELETE	Soft
TearsheetRecipient	READ, CREATE, UPDATE, DELETE	Hard
TimeUnit	READ	N/A

Appointment

Represents an appointment on a Bullhorn user's calendar. A separate Appointment instance is created for each user who is invited to the appointment; the instance belonging to the Appointment owner (the person who created it) is the parent, and has a null value for the parentAppointment property. The Appointment instances belonging to the invitees are the child instances; these refer to the parent in their parentAppointment properties, and are associated with the parent through its childAppointments association. Each user who is invited to the appointment is represented by an AppointmentAttendee instance.

Appointment field	Type	Description	Not null	Read-only
id	Integer	A unique identifier for this entity.	X	
attendees	To-many association	Ids of the AppointmentAttendees for this Appointment.		
appointmentUUID	String	A secondary unique identifier for this entity. Used to identify the record when it is synchronized to external systems. Format is 8-4-4-16 where all characters are A-Z or 0-9.	X	

Appointment field	Type	Description	Not null	Read-only
candidateReference	To-one association	The Candidate with whom this Appointment is associated, if any. Included Candidate fields are: id firstName lastName		
clientContactReference	To-one association	The ClientContact with whom this Appointment is associated, if any. Included ClientContact fields are: id firstName lastName		
childAppointments	To-many association	Child Appointments associated with this Appointment. The ownerID of any child Appointment represents a user who has been invited to this Appointment.		
communicationMethod	String (30)	Indicates how the appointment will be conducted: phone, on-site, off-site, and so forth.	X	
dateAdded	Timestamp	The date on which this record was created in the Bullhorn system.	X	
dateBegin	Timestamp	The date on which the appointment began/will begin. The default value is current time rounded up to next half hour, or 15 minutes before dateEnd if it is provided.	X	
dateEnd	Timestamp	The date on which the appointment ended/will end. The default value is 15 minutes after dateBegin.	X	
dateLastModified	Timestamp	The date on which this record was last modified.		
description	String	Free-text description of the appointment. The default value is “”.	X	
isAllDay	Boolean	Indicates whether the appointment will last all day.		
isDeleted	Boolean	Indicates whether this record has been marked as deleted in the Bullhorn system.	X	
isPrivate	Boolean	Indicates whether the appointment is viewable by others. If set to private, only the appointment owner and attendees may view the appointment details.	X	

Appointment field	Type	Description	Not null	Read-only
jobOrder	To-one association	JobOrder associated with the appointment, if any. Included JobOrder fields are: id title		
location	String (100)	Indicates where the appointment will take place (conference room name, and so forth). The default value is “”.	X	
notificationMinutes	Integer	Indicates when the Bullhorn application should remind the user of the appointment. May be zero for no reminder.	X	
owner	To-one association	Bullhorn user (Person) who owns the appointment. The default value is user who creates the Appointment. Included fields are: id _subtype (the type of Person object)	X	
parentAppointment	To-one association	Appointment that is the parent of this one, if any. Included Appointment field is id.		
placement	To-one association	Placement associated with the appointment, if any. Included Placement field is id.		
recurrenceDayBits	Integer	Indicates which days are part of the recurrence pattern, if the appointment is a recurring one. The value of this field is the sum of the days included in the series: Sun = 2, Mon = 4, Tue = 8, Wed = 16, Thur = 32, Fri = 64, Sat = 128. For example, a meeting that occurs on Monday and Friday would have a recurrenceDayBits value of 68 (4+64).		
recurrenceFrequency	Integer	The frequency with which the appointment recurs: e.g., a recurrenceFrequency of 2 for a weekly meeting would imply the meeting occurs every 2 weeks. Null for a one-time appointment.		

Appointment field	Type	Description	Not null	Read-only
recurrenceStyle	String (10)	A=absolute, R=relative: e.g., an absolute would be the third week of every month, whereas a relative would be every third week.		
recurrenceType	String (1)	The type of recurrence. D=daily, W=weekly, M=monthly, A=annually.		
subject	String (100)	Subject header of the appointment.	X	
type	String (30)	Used to distinguish appointments by an identifiable class or kind, for example Interview, Call, Personal, and so forth.	X	

AppointmentAttendee

Represents a person who has been invited to an appointment.

AppointmentAttendee field	Type	Description	Not null	Read-only
id	Integer	Id of this entity.	X	X
appointment	To-one association	Appointment to which this AppointmentAttendee corresponds.	X	
attendee	To-one association	The ClientContact, Candidate, or CorporateUser id for this person. Included fields are: id _subtype	X	
acceptanceStatus	Integer	Indicates whether attendee has accepted, accepted tentatively, declined, or not responded to this invitation. (-1 = declined, 0 or null = has not responded, 1 = accepted, and 2 = tentative.)	X	

BusinessSector

Represents a business sector, which can be associated with Candidates, ClientCorporations, and JobOrders for classification purposes.

BusinessSector field	Type	Description	Not null	Read-only
id	Integer	Id of this entity.	X	X
dateAdded	Timestamp	When the entity was created.		
name	String (100)	Name of this business sector.	X	X

Candidate

Represents a person seeking a job.

The Candidate entity supports the massUpdate operations.

Candidate field	Type	Description	Not null	Read-Only
id	Integer	Id of this entity.	X	X
address	Address	Candidate address: • address1 • address2 • city • state • zip • countryID: options: value: 1 value: 2 Use the following REST call to get the list of countryIDs and labels: /meta/Candidate? fields=address(countryID)		
businessSectors	To-many association	Ids of BusinessSectors with which Candidate is associated.		
candidateID	Integer	Unique identifier of the Candidate source.		
category	Integer	Candidate's primary Category. The default value is the Other Area(s) category for the user's private label or the first Category. **Note:** This property refers to the original category assigned to the Candidate. To retrieve or update categories for the Candidate, you should use the categories associations (see below).	X	
categories	To-many association	Categories assigned to Candidate.		
certifications	String	Candidate's certifications.		

Candidate field	Type	Description	Not null	Read-Only
comments	String	Free-text comments on Candidate.	X	
companyName	String (100)	Name of company where the Candidate currently works.		
companyURL	String (100)	Candidate's personal URL.		
customDate1 to 3	Timestamp	Configurable date fields that can be used to store custom data depending on the needs of a particular deployment.		
customFloat1 to 3	Double	Configurable numeric fields that can be used to store custom data depending on the needs of a particular deployment.		
customInt1 to 3	Integer	Configurable numeric fields that can be used to store custom data depending on the needs of a particular deployment.		
customText1 to 20	String (100)	Configurable text fields that can be used to store custom data depending on the needs of a particular deployment.		
customTextBlock1 to 5	String	Configurable text fields that can be used to store custom data depending on the needs of a particular deployment.		
dateAdded	Timestamp	Date on which this record was created in the Bullhorn system.	X	X
dateAvailable	Timestamp	Date on which Candidate will be available to begin work.		
dateAvailableEnd	Timestamp	Date on which Candidate's availability will end, if applicable.		
dateI9Expiration	Timestamp	Date on which the Candidate's I9 form will expire.		
dateLastComment	Timestamp	Date of the most recent Note referencing Candidate.		
dateNextCall	Timestamp	Date when the Candidate should next be called.		
dateOfBirth	Timestamp	Candidate's date of birth.		
dayRate	BigDecimal	Candidate's desired per-day pay rate.		

Candidate field	Type	Description	Not null	Read-Only
dayRateLow	BigDecimal	Lowest per-day rate the Candidate will accept.		
degreeList	String	List of Candidate's educational degrees. Field on the edit screen, not the field in People Template.		
description	String	Text field, usually used to contain the Candidate's resume.		
desiredLocations	String	Locations where Candidate would like to work.		
disability	String (1)	Indicates whether Candidate has a disability. Allowable values can be configured using field maps. Default values are U (Unknown), Y (Yes), and N (No).		
educationDegree	String	Candidate's highest level of education.		
email	String (100)	Candidate's email address.		
email2	String (100)	Additional email address.		
email3	String (100)	Additional email address.		
employeeType	String (30)	Candidate's employee type: for example 1099 or W2.	X	
employmentPreference	String (200)	Indicates type of employment the Candidate would prefer: for example, permanent, part-time, and so forth.		
ethnicity	String (50)	Candidate's ethnicity.		
experience	Integer	Number of years of experience that the Candidate has.		
externalID	String (50)	Used for records migrated in from other systems; often used for the Candidate's external/backoffice Id.		
fax	String (20)	Candidate's fax number.		
fax2	String (20)	Additional fax number.		
fax3	String (20)	Additional fax number.		

Candidate field	Type	Description	Not null	Read-Only
federalAddtional WitholdingsAmount	BigDecimal	Number of federal withholdings the Candidate has selected on his or her W-2 tax form.		
federalExemptions	Integer	Number of federal exemptions the Candidate has indicated on his or her W-2 tax form.		
federalFilingStatus	String	Candidate's federal tax filing status.		
firstName	String (50)	Candidate's first name.	X	
gender	String (6)	Candidate's gender.		
hourlyRate	BigDecimal	Candidate's desired hourly pay rate.		
hourlyRateLow	BigDecimal	Lowest hourly pay rate the Candidate will accept.		
i9OnFile	Integer	Indicates whether Candidate's I-9 form has already been filled out and is on file.		
interviews	To-many association	Interviews for Candidate. This field is populated when you create Appointments where Appointment.candidate is this Candidate and Appointment.type is “Interview”.		X
isDeleted	Boolean	Indicates whether this record is marked as deleted in the Bullhorn system.	X	
isEditable	Boolean	Indicates whether Candidate can edit his or her profile information; applicable to Candidate/Client login.	X	
lastName	String (50)	Candidate's last name.	X	
linkedPerson	To-one association	If person represented by Candidate is also a ClientContact, this field includes the following ClientContact fields: id _subtype		
localAddtional WitholdingsAmount	BigDecimal	Number of local withholdings the Candidate has selected on his or her W-2 tax form.		
localExemptions	Integer	Number of local exemptions Candidate has indicated on his or her W-2 tax form.		
localFilingStatus	String	Candidate's local tax filing status.		

Candidate field	Type	Description	Not null	Read-Only
localTaxCode	String	Candidate's local tax code (if local taxes apply); not required.		
massMailOptOut	Boolean	Indicates whether Candidate has chosen not to be included in mass emails through the Bullhorn system.		
middleName	String (50)	Candidate's middle name.		
mobile	String (20)	Candidate's mobile (cell) telephone number.		
name	String	Candidate's full name. If setting firstname or lastname, you must also set this field; it does not populate automatically.	X	
namePrefix	String (5)	Candidate's name prefix, for example Dr., Ms., Mr., and so forth.		
nameSuffix	String (5)	Candidate's name suffix, for example Jr.		
nickName	String	Candidate's nickname.		
numCategories	Integer	Number of Category objects associated with Candidate.		
numOwners	Integer	Number of CorporateUsers that are listed as owner of Candidate.		
occupation	String (50)	Candidate's current occupation or job title.		
owner	To-one association	CorporateUser who is the primary owner of Candidate. The default value is user who creates the Candidate.	X	
pager	String (20)	Candidate's pager number.		
paperWorkOnFile	String	Configurable field that tracks whether the Candidate's tax paperwork has been received.		
password	String	Candidate’s password. The default value is a randomly generated string.	X	
phone	String (20)	Candidate's home telephone number.		

Candidate field	Type	Description	Not null	Read-Only
phone2	String (20)	Candidate's telephone number at work.		
phone3	String (20)	Alternate telephone number.		
placements	To-many association	Placements for Candidate. This field is populated when you create Placements where Placement.candidate is this Candidate.		X
preferredContact	String (15)	Candidate's preferred method of contact (for example, phone, email, and so forth.)	X	
primarySkills	To-many association	Skills that are listed as primary Skills for Candidate.		
recentClientList	String	List of ClientCorporations for which Candidate has worked.		
referredBy	String (50)	Name of person who referred Candidate.		
referredByPerson	To-one association	Person who referred Candidate, if applicable.		
salary	BigDecimal	Candidate's desired yearly salary.		
salaryLow	BigDecimal	Lowest yearly salary the Candidate will accept.		
secondaryAddress	Address	Candidate's work address: • address1 • address2 • city • state • zip • countryID: options: value: 1 value: 2 Use the following REST call to get the list of countryIDs and labels: /meta/Candidate? fields=address(countryID)		

Candidate field	Type	Description	Not null	Read-Only
secondaryOwners	To-many association	CorporateUsers who are additional owners of Candidate.		
secondarySkills	Skill	Skills that are listed as secondary skills for Candidate.		
sendouts	To-many association	Sendouts for Candidate. This field is populated when you create Sendouts where the Sendout.candidate is this Candidate.		
skillSet	String	Text description of Candidate's skills.		
smsOptIn	Boolean	Indicates whether Candidate has granted permission to be sent messages via SMS.		
source	String (200)	Candidate source: for example, Advertisement, Client Referral, LinkedIn, Monster.com, and so forth. Allowable values can be configured using field maps.		
specialties	To-many association	Candidate's specialty skills. This field is populated when you associate a Specialty with this Candidate in a to-many association operation.		
ssn	String (18)	Candidate's Social Security Number. Check field map for proper format.		
stateAddtional WitholdingsAmount	BigDecimal	Number of state withholdings Candidate has selected on his or her W-2 tax form.		
stateExemptions	Integer	Number of state exemptions Candidate has indicated on W-2 tax form.		
stateFilingStatus	String	Candidate's state tax filing status.		
status	String (100)	Candidate status with company: for example, New Lead, Active, Offer Pending, Placed, and so forth. Allowable values can be configured using field maps.	X	
submissions	To-many association	JobSubmissions for Candidate. This field is populated when you create JobSubmissions where JobSubmission.candidate is this Candidate.		X

Candidate field	Type	Description	Not null	Read-Only
tasks	To-many association	Tasks associated with Candidate. This field is populated when you create Tasks where Task.candidate is this Candidate.		
taxID	String (18)	Id that Candidate uses for tax purposes if not SSN.		
taxState	String	State in which Candidate pays taxes.		
timeZoneOffsetEST	Integer	Indicates the number of hours by which the Candidate's time zone differs from Eastern Standard Time. For example, Pacific Standard Time is -3, three hours earlier than Eastern.		
travelLimit	Integer	Maximum distance Candidate is willing to travel.		
type	String (100)	Candidate type: for example, Active, Passive, and so forth.		
userDateAdded	Timestamp	Date the record was added to the system.		X
username	String	Candidate’s username for logging in to Bullhorn. The default value is _[random number]	X	
veteran	String (1)	Indicates whether Candidate is a veteran: Y for yes, N for no, or U for unknown.		
webResponse	To-many association	Web responses for Candidate. This field is populated when you create JobSubmissions where JobSubmission.candidate is this Candidate and JobSubmission.status is “New Lead”.		
willRelocate	Boolean	Indicates whether Candidate is willing to relocate for a position.		
workAuthorized	Boolean	Indicates whether Candidate is authorized to work in the U.S.		
workPhone	String (20)	Candidate's telephone number at work.		

Candidate confidential fields

By default, candidate fields listed in the ‘Confidential Fields’ private label attribute are returned with the value “**CONFIDENTIAL**”. However, confidential fields can also be included in the ‘Candidate Viewable Confidential Fields’ private label attribute. Only users with the ‘View Candidate Viewable Confidential Fields’ user action entitlement can view candidate viewable confidential fields.

User who have both the ‘View Candidate Viewable Confidential Fields’ and ‘Edit Confidential Fields’ user action entitlements can edit candidate viewable confidential fields.

CandidateCertification

This entity represents a certification that a Candidate may have.

Category field	Type	Description	Not null	Read-only
id	Integer	Id of this entity.	X	X
description	String	Free-text description of this certification.		
name	String (100)	Name of this certification.	X	

CandidateEducation

Represents an educational degree or course of study that a Candidate lists on his or her resume. Each CandidateEducation instance corresponds to a line item on the "Education" tab of a Candidate in the Bullhorn application.

CandidateEducation field	Type	Description	Not null	Read-only
id	Integer	Id of this entity.		X
candidate	To-one association	Candidate with whom this entity is associated. Included Candidate fields are: id firstName lastName		
certification	String	Certification received with this education, if applicable.		
city	String (40)	Name of the city where the education took place.		
comments	String	Free-text comments on this record.		
customDate1 to 5	Timestamp	Configurable date fields that can be used to store custom data depending on the needs of a particular deployment.		
customFloat1 to 5	Double	Configurable numeric fields that can be used to store custom data depending on the needs of a particular deployment.		

CandidateEducation field	Type	Description	Not null	Read-only
customInt1 to 5	Integer	Configurable numeric fields that can be used to store custom data depending on the needs of a particular deployment.		
customText1 to 5	String	Configurable text fields that can be used to store custom data depending on the needs of a particular deployment.		
customTextBlock1 to 3	String	Configurable text fields that can be used to store custom data depending on the needs of a particular deployment.		
dateAdded	Timestamp	Date on which this record was created in the Bullhorn system.		X
degree	String (100)	Indicates what educational degree the Candidate received; for example, B.A., M.A., Ph.D., and so forth.		
endDate	Timestamp	Date when Candidate finished this education.		
expirationDate	Timestamp	Expiration date for a certificate or other credential that needs to be periodically renewed.		
gpa	Double	Indicates Candidate's grade point average.		
graduationDate	Timestamp	Date when Candidate graduated.		
isDeleted	Boolean	Indicates whether this record has been marked as deleted in the Bullhorn system.		
major	String (100)	Indicates the field in which Candidate majored.		
school	String (100)	Name of the educational institute where this education took place.		
startDate	Timestamp	Date when Candidate began study.		
state	String (50)	Name of the U.S State in which the education took place.		

CandidateReference

Represents a person who serves as a reference for a Candidate.

CandidateReference field	Type	Description	Not null	Read-only
id	Integer	Id of this entity.	X	X
candidate	To-one association	Candidate for whom this person is a reference. Included Candidate fields are: id firstName lastName	X	
candidateTitle	String (50)	Candidate's title when he or she worked with or for the reference.		
clientCorporation	To-one association	ClientCorporation where the CandidateReference works.		
companyName	String (50)	Name of the company where reference works, if it does not have a ClientCorporation record in Bullhorn.		
customDate1 to 5	Timestamp	Configurable date fields that can be used to store custom data depending on the needs of a particular deployment.		
customFloat1 to 5	Double	Configurable numeric fields that can be used to store custom data depending on the needs of a particular deployment.		
customInt1 to 5	Integer	Configurable numeric fields that can be used to store custom data depending on the needs of a particular deployment.		
customText1 to 5	String	Configurable text fields that can be used to store custom data depending on the needs of a particular deployment.		
customTextBlock1 to 3	String	Configurable text fields that can be used to store custom data depending on the needs of a particular deployment.		
dateAdded	Timestamp	Date on which this record was created in the Bullhorn system.	X	

CandidateReference field	Type	Description	Not null	Read-only
employmentEnd	Timestamp	End date of Candidate's employment with the reference.		
employmentStart	Timestamp	Start of the period during which the Candidate worked with the reference.		
isDeleted	Boolean	Indicates whether this record has been marked as deleted in the Bullhorn system.	X	
jobOrder	Integer	JobOrder for which Candidate is being considered.		
referenceClientContact	To-one association	Bullhorn ClientContact for this reference, if applicable.		
referenceEmail	String (50)	Email address for reference; not used if the CandidateReference is a client contact.		
referenceFirstName	String (50)	Reference's first name; not used if reference is a ClientContact.		
referenceLastName	String (50)	Reference's last name; not used if the CandidateReference is a ClientContact.		
referencePhone	String (20)	Phone number for the CandidateReference; not used if the reference is a ClientContact.		
referenceTitle	String (50)	Reference's job title; not used if the reference is a ClientContact.		
status	String (20)	Status of this reference request.		
yearsKnown	Integer	Indicates how long reference has known the Candidate.		

CandidateWorkHistory

Represents a single entry in the "Work History" section of a Candidate's resume: that is, a job the Candidate has had. For each current or former position the Candidate has held, there is a unique CandidateWorkHistory instance associated with that Candidate. Each CandidateWorkHistory instance corresponds to a line item on the "Work History" tab of a Candidate record in the Bullhorn application.

CandidateWorkHistory field	Type	Description	Not null	Read-only
id	Integer	Id of this entity.	X	X
bonus	Double	Amount of the bonus paid to Candidate.		
candidate	To-one association	Candidate with whom CandidateWorkHistory is associated.	X	
clientCorporation	To-one association	ClientCorporation associated with Candidate.		
comments	String	Free-text comments on CandidateWorkHistory.		
commission	Double	Amount of commission earned by Candidate at this position.		
companyName	String (100)	Name of the company where the Candidate worked.		
customDate1 to 5	Timestamp	Configurable date fields that can be used to store custom data depending on the needs of a particular deployment.		
customFloat1 to 5	Double	Configurable numeric fields that can be used to store custom data depending on the needs of a particular deployment.		
customInt1 to 5	Integer	Configurable numeric fields that can be used to store custom data depending on the needs of a particular deployment.		
customText1 to 5	String	Configurable text fields that can be used to store custom data depending on the needs of a particular deployment.		
customTextBlock1 to 3	String	Configurable text fields that can be used to store custom data depending on the needs of a particular deployment.		
dateAdded	Timestamp	Date on which this record was created in the Bullhorn system.	X	X
endDate	Timestamp	Date on which job ended, if applicable.		

CandidateWorkHistory field	Type	Description	Not null	Read-only
isDeleted	Boolean	Indicates whether this record has been marked as deleted in the Bullhorn system.	X	
isLastJob	Boolean	Indicates whether this was the Candidate's most recent job.	X	
jobOrder	To-one association	JobOrder associated with the CandidateWorkHistory, if applicable.		
placement	To-one association	Placement representing the Candidate's placement in a job, if applicable.		
salary1	BigDecimal	Candidate's starting salary at this position.		
salary2	BigDecimal	Candidate's final salary at this position.		
salaryType	String (20)	Indicates how the Candidate was paid: Hourly, Yearly, and so forth.		
startDate	Timestamp	Date on which Candidate began working at this position.		
terminationReason	String (100)	Reason for the Candidate's termination from this position, if applicable.		
title	String (50)	Candidate's job title in this position.		

Category

This entity represents a category in which a Candidate or JobOrder can be placed. A category that has a value for `parentCategoryId` greater than zero is a specialty.

Category field	Type	Description	Not null	Read-only
id	Integer	Id of this entity.	X	X
dateAdded	Timestamp	Date on which record was created in the Bullhorn system.	X	X
description	String (255)	Free-text description of this category.		X

Category field	Type	Description	Not null	Read-only
enabled	Boolean	Indicates whether category is available for use in the Bullhorn system.	X	X
name	String (100)	Name of the category + PLId (for categories)	X	X
occupation	String (50)	Occupation.		X
skills	To-many association	Ids of the Skills associated with this Category.		
specialties	To-many association	Ids of the Specialties that are children of this Category.		
type	String (20)	Bill Rate Category, Skills Checklist Category, and so forth.		X

ClientContact

Represents a contact person who works at a ClientCorporation. A ClientContact can be any person at the ClientCorporation whom you wish to track in the Bullhorn system: a hiring manager, HR staffer, executive, or other employee. Note that a Candidate may become a Client Contact after being placed in a job; or a ClientContact may become a Candidate after deciding to look for another position.

The ClientContact entity supports the massUpdate operations.

ClientContact field	Type	Description	Not null	Read-only
id	Integer	Id of this entity.	X	X
address	Address	Contact's address: • address1 • address2 • city • state • zip • countryID: options: value: 1 value: 2 Use the following REST call to get the list of countryIDs and labels: /meta/ClientContact?fields=address(countryID)		
businessSectors	To-many association	Ids of BusinessSectors in which the Contact operates.		
category	To-one association	Contact's primary Category. The default value is the Other Area(s) category for the user's private label or the first Category.	X	
categories	To-many association	Ids of the Categories associated with the Contact. Note that the categoryId property is used to store the contact's primary Category, while this association hold that Category and any other Categories to which the Contact belongs.		
certifications	String	Contact's certifications.		

ClientContact field	Type	Description	Not null	Read-only
clientCorporation	To-one association	ClientCorporation for which the Contact works.	X	
comments	String	Free-text comments on this Contact.		
customDate1-3	Timestamp	Configurable date fields that can be used to store custom data depending on the needs of a particular deployment.		
customFloat1-3	Double	Configurable numeric fields that can be used to store custom data depending on the needs of a particular deployment.		
customInt1-3	Integer	Configurable numeric fields that can be used to store custom data depending on the needs of a particular deployment.		
customText1-20	String (100)	Configurable text fields that can be used to store custom data depending on the needs of a particular deployment.		
customTextBlock1-5	String	Configurable text fields that can be used to store custom data depending on the needs of a particular deployment.		
dateAdded	Timestamp	Date on which this record was created in the Bullhorn system.	X	
dateLastVisit	Timestamp	Date of ClientContact's last visit.		
description	String	Large text field for additional information about the contact.		
desiredCategories	String	Categories that the ClientContact wants Candidates to belong to.		
desiredSkills	String	Skills that the ClientContact wants his or her Candidates to have.		
desiredSpecialties	String	Specialties that the ClientContact wants his or her Candidates to have.		
division	String (40)	Department that the Contact is associated with.		
email	String (60)	ClientContact's primary (work) email address.	X	
email2	String (100)	Additional email address. Typically used for the ClientContact's home or personal email.		

ClientContact field	Type	Description	Not null	Read-only
email3	String (100)	Additional email address.		
externalID	String (30)	External identifier for the record, used for migrations and back-office Integration.		
fax	String (20)	ClientContact's primary (work) fax number.		
fax2	String (20)	Additional fax number. Typically used for the contact's home or personal fax.		
fax3	String (20)	Additional fax number.		
firstName	String (50)	ClientContact's first name.		
isDayLightSavings	Boolean	Indicates whether the ClientContact's location is using Daylight Saving Time.		
isDeleted	Boolean	Indicates whether this record has been marked as deleted in the Bullhorn system.	X	
lastName	String (50)	ClientContact's last name.		
linkedPerson	Person (superclass of Candidate and ClientContact)	If the person represented by this ClientContact is also a Candidate, this field includes the following Candidate fields: id _subtype		
massMailOptOut	Boolean	Indicates whether the Contact has chosen not to be included in mass emails through the Bullhorn system.		X
middleName	String (50)	ClientContact's middle name.		
mobile	String (20)	ClientContact's mobile (cellular) telephone number.		

ClientContact field	Type	Description	Not null	Read-only
name	String	ClientContact's full name. Should be a combination of the firstName and lastName fields separated by a space. **Notes:** If you create a ClientContact with no value in the name field, users will have no way to select that ClientContact in the Bullhorn staffing application. If you create or modify a ClientContact name that is not a combination of the firstName and lastName fields, the name will be overwritten when a user saves the ClientContact in the Bullhorn staffing application. The name will change to a combination of the firstName and lastName fields.		
namePrefix	String (5)	ClientContact's name prefix, for example Dr., Ms, Mr., and so forth.		
nameSuffix	String (5)	ClientContact's name suffix, for example Jr.		
nickName	String	ClientContact's nickname.		
numEmployees	Integer	Number of employees who report to this Contact.	X	
occupation	String (50)	ClientContact's job title.		
office	String (40)	For companies with multiple locations, this field can be used to indicate which office this contact works out of.		
owner	To-one association	CorporateUser who is the owner of this Contact record. The default value is user who creates the ClientContact.	X	
pager	String (20)	ClientContact's pager number.		
password	String	ClientContact's password for logging in to Bullhorn. The default value is a randomly generated string.	X	
phone	String (20)	ClientContact's primary (work) telephone number.		

ClientContact field	Type	Description	Not null	Read-only
phone2	String (20)	Alternate phone number. Typically used for the contact's home phone number.		
phone3	String (20)	Alternate phone number.		
preferredContact	String (15)	Contact's preferred method of contact (For example, phone, email, and so forth.)	X	
referredByPerson	Person	Person who referred this ClientContact.		
reportToPerson	Person	Person to whom this ClientContact reports.		
secondaryAddress	Address	ClientContact's secondary (home) address: • address1 • address2 • city • state • zip • countryID: options: value: 1 value: 2 Use the following REST call to get the list of countryIDs and labels: /meta/ClientContact?fields=address(countryID)		
secondaryOwners	To-many association	Ids of internal users who are secondary owners of this Contact. Note that the owner property is used to store the ClientContact's primary owner, while this association hold that person and any other owners of the Contact.		
skills	To-many association	Ids of Skills that the ClientContact wants Candidates to have.		
smsOptIn	Boolean	Indicates whether the ClientContact has granted permission to be sent messages via SMS.		
source	String (200)	Source from which this ClientContact was found.		

ClientContact field	Type	Description	Not null	Read-only
status	String (30)	Status of the contact; for example, New Lead, Active, Prospect, and so forth. Possible values can be configured using field maps.	X	
timeZoneOffsetEST	Integer	Indicates the number of hours by which the ClientContact's time zone differs from Eastern Standard Time. For example, Pacific Standard Time is -3, three hours earlier than Eastern.		
type	String (30)	Describes the type of ClientContact (for example, Primary, Secondary, Target, Gatekeeper). Possible values can be configured using field maps.	X	
username	String	ClientContact's username for logging in to Bullhorn. The default value is _[random number]	X	

ClientCorporation

Represents a company that is a client of a company; for example, a company with jobs to fill.

The ClientCorporation entity supports the massUpdate operations.

ClientCorporation field	Type	Description	Not null	Read-only
id	Integer	Id of this entity.	X	X

ClientCorporation field	Type	Description	Not null	Read-only
address	Address	ClientCorporation's main address: • address1 • address2 • city • state • zip • countryID: options: value: 1 value: 2 Use the following REST call to get the list of countryIDs and labels: /meta/ClientCorporation?fields=address(countryID)	X	
annualRevenue	BigDecimal	ClientCorporation's annual revenue in millions of U.S. dollars.	X	
billingAddress	AddressWithout-Country	Address that contains the address to which bills should be sent for this ClientCorporation. • address1 • address2 • city • state • zip		
billingContact	String (100)	Name of the person to whom bills should be sent.		
billingFrequency	String (20)	Frequency with which bills should be sent to the ClientCorporation: for example, Weekly, Bi-Weekly, Semi-Monthly, Monthly.		
billingPhone	String (20)	Phone number of the billing contact person.		

ClientCorporation field	Type	Description	Not null	Read-only
businessSectorList	String	Comma-separated list of BusinessSectors in which the ClientCorporation operates. See field map data for a list of possible values.		
childClientCorporations	To-many association	ClientCorporations that are children of this one. Included ClientCorporation fields are: id name		
clientCorporationCertifications	To-many association	**Not supported in this release.** ClientCorporationCertifications associated with this corporation.		
clientContacts	To-many association	ClientContacts who work at this ClientCorporation. Included ClientContact fields are: id firstName lastName		
companyDescription	String	Text description of the company.		
companyURL	String (100)	Company's website URL. May use http:// but not required.		
competitors	String	Company's major competitors.		
culture	String	Text description of the corporate culture.		
customDate1-3	Timestamp	Configurable date fields that can be used to store custom data depending on the needs of a particular deployment.		
customFloat1-3	Double	Configurable numeric fields that can be used to store custom data depending on the needs of a particular deployment.		
customInt1-3	Integer	Configurable numeric fields that can be used to store custom data depending on the needs of a particular deployment.		

ClientCorporation field	Type	Description	Not null	Read-only
customText1-20	String (100)	Configurable text fields that can be used to store custom data depending on the needs of a particular deployment.		
customTextBlock1-5	String	Configurable text fields that can be used to store custom data depending on the needs of a particular deployment.		
dateAdded	Timestamp	Date on which this record was created in the Bullhorn system.	X	X
dateFounded	Timestamp	Date on which the ClientCorporation was founded.		
department	To-one association	Department in the ClientCorporation that has primary responsibility for this client (for example, a regional office). Default value is primary department of user who adds the record.		
feeArrangement	Double	Fee, expressed as a percentage, that this ClientCorporation will pay for each Placement.	X	
funding	String	Current funding status of the ClientCorporation.		
industryList	String	Comma-separated list of industries in which the company operates. See field map data for the list used by a particular company.		
invoiceFormat	String	Configurable field to be passed to a back-office system to indicate how to group invoices for this company (Per Placement, Per Billing Contact, and so forth.)		
invoiceGroups	To-many association	**Not supported in this release.** Invoice groups associated with this ClientCorporation.		

ClientCorporation field	Type	Description	Not null	Read-only
invoices	To-many association	**Not supported in this release.** Invoices associated with this corporation.		
name	String (100)	Name of the company.	X	
notes	String	Free text field for entering any comments or notes about the company.		
numEmployees	Integer	Total number of people employed by the company.	X	
numOffices	Integer	Total number of offices for the ClientCorporation.	X	
Owners	To-many association	Owners of the ClientContacts for this ClientCorporation.		
ownerShip	String (30)	Status of the ClientCorporation's current ownership (for example, Public, Private).		
parentClientCorporation	To-one association	ClientCorporation that is a parent of this one. Included ClientCorporation fields are: id name		
phone	String (20)	Main phone number for the ClientCorporation.		
rateCards	To-many association	**Not supported in this release.** Rate cards associated with this ClientCorporation.		
revenue	String	Estimated annual revenue in millions for the company.		
status	String (30)	Status of the business relationship with this company; for example, Prospect, Active, and so forth.	X	
taxRate	Double	Tax rate for the company expressed in percentage: for example, 28%. Passed to a back-office system if applicable.		

ClientCorporation field	Type	Description	Not null	Read-only
tickerSymbol	String (20)	Stock market ticker symbol for the company.		
workWeekStart	Integer	Day of the week on which the work week starts for this company. 1=Sunday, 2=Monday, and so forth.		

CorporationDepartment

Represents a department in a corporation.

CorporationDepartment field	Type	Description	Not null	Read-Only
id	Integer	Id of this entity.	X	X
dateAdded	Timestamp	Date when this record was created in the Bullhorn system.	X	X
description	String (255)	Text description of the CorporationDepartment.		
enabled	Boolean	Indicates whether this CorporationDepartment is enabled for use in the system.	X	X
name	String (100)	Name of the CorporationDepartment.	X	X

CorporateUser

Represents an Internal user at your organization. CorporateUser is read-only.

CorporateUser field	Type	Description	Not null	Read-only
id	Integer	Id of this entity.	X	X

CorporateUser field	Type	Description	Not null	Read-only
customDate1 to 3	Timestamp	Configurable date fields that can be used to store custom data depending on the needs of a particular deployment.		
customFloat1 to 3	Double	Configurable numeric fields that can be used to store custom data depending on the needs of a particular deployment.		
customInt1 to 3	Integer	Configurable numeric fields that can be used to store custom data depending on the needs of a particular deployment		
customText1 to 20	String	Configurable text fields that can be used to store custom data depending on the needs of a particular deployment.		
dateLastComment	Timestamp	Date on which CorporateUser's last comment was made.		
departments	To-many association	Ids of departments to which the CorporateUser belongs.		
address	Address	CorporateUser's main address: • address1 • address2 • city • state • zip • countryID: options: value: 1 value: 2 Use the following REST call to get the list of countryIDs and labels: /meta/CorporateUser?fields=address(countryID)	X	
emailNotify	Boolean	Indicates whether the user has chosen to be notified via pop-up in the Bullhorn application when a new email message arrives.		X

CorporateUser field	Type	Description	Not null	Read-only
emailSignature	String	Contents of the user's email signature.		X
enabled	Boolean	Indicates whether the user may log in to the Bullhorn application.	X	X
externalEmail	String	User’s external (non-Bullhorn) email address. Used for forwarding		X
firstName	String	First name of the CorporateUser.		
inboundEmailEnabled	Boolean	Indicates whether the user can receive email through the Bullhorn application.		X
isDayLightSavingsTime	Boolean	Indicates whether it is daylight savings time.		
isDeleted	Boolean	Indicates whether CorporateUser is deleted.		
isLockedOut	Boolean	Indicates whether the CorporateUser is locked out.		
isOutboundFaxEnabled	Boolean	Indicates whether the user has permission to send faxes.		X
jobAssignments	To-many association	JobOrders that have been assigned to this CorporateUser. Included JobOrder fields are: id title		
loginRestrictions	LoginRestrictions	A group of available login restrictions, including time, date, and IP address.		
massMailOptOut	Boolean	Indicates whether the CorporateUser opted out of mass mailings.		
middleName	String (50)	Middle name of the CorporateUser.		
mobile	String (20)	Mobile phone number of the CorporateUser.		
name	String (100)	Name of the CorporateUser.		
namePrefix	String (5)	Name prefix of the CorporateUser.		
nameSuffix	String (5)	Name suffix of the CorporateUser.		
nickName	String (50)	Nickname of the CorporateUser.		

CorporateUser field	Type	Description	Not null	Read-only
occupation	String (50)	Occupation of the CorporateUser.		
pager	String (20)	Pager number of the CorporateUser.		
password	String	CorporateUser's password for logging in to Bullhorn.	X	
phone to phone3	String (20)	Phone number of the CorporateUser.		
smsOptIn	Boolean	Indicates whether the CorporateUser has granted permission to be sent messages via SMS.		
taskAssignments	Task	Tasks that have been assigned to this CorporateUser, including those owned by the user.		
timeZoneOffsetEST	Integer	Indicates the number of hours by which the CorporateUser's time zone differs from Eastern Standard Time. For example, Pacific Standard Time is -3, three hours earlier than Eastern.		
username	String (100)	CorporateUser's username for logging in to Bullhorn.	X	

HousingComplex

Represents a housing complex that a ClientCorporation uses when providing housing for certain types of employees.

HousingComplex field	Type	Description	Not null	Read-only
id	Integer	Id of this entity.	X	X

HousingComplex field	Type	Description	Not null	Read-only
address	Address	HousingComplex address: • address1 • address2 • city • state • zip • countryID: options: value: 1 value: 2 /meta/HousingComplex?fields=address(countryID)		
billingContactID	Integer	The Bullhorn ClientContact ID of the billing contact person for this housing complex.		
comments	String	Free-text comments about this housing complex.		
complexManagerID	Integer	The Bullhorn ClientContact ID of the housing complex manager.		
complexOwnerID	Integer	The Bullhorn ClientContact ID of the housing complex owner.		
contactName	String (100)	Name of the contact person for the housing complex, generally a facilities manager or superintendent.		
customContactID1 to 3	Integer	Configurable fields for identifying additional ClientContacts who have roles related to this housing complex.		
customDate1 to 3	Timestamp	Configurable date fields that can be used to store custom data depending on the needs of a particular deployment.		
customFloat1 to 3	Double	Configurable text fields that can be used to store custom data depending on the needs of a particular deployment.	X	
customInt1 to 3	Integer	Configurable numeric fields that can be used to store custom data depending on the needs of a particular deployment.		
customText1 to 5	String (100)	Configurable text fields that can be used to store custom data depending on the needs of a particular deployment.		

HousingComplex field	Type	Description	Not null	Read-only
customTextBlock1 to 5	String	Configurable text fields that can be used to store custom data depending on the needs of a particular deployment.		
dateAdded	Timestamp	The date on which this record was created in the Bullhorn system.	X	
fax	String (20)	Fax number for the housing complex.		
isDeleted	Boolean	Indicates whether this record has been marked as deleted in the Bullhorn system.	X	
name	String (100)	Name of the housing complex.	X	
owner	Integer	CorporateUser who is the owner of this housing complex.	X	
phone	String (20)	Primary phone number of the housing complex.		
whitelistClientCorporations	To-many association	Set of ClientCorporations to use this housing complex.		

JobOrder

Represents an open job to be filled.

The JobOrder entity supports the massUpdate operations.

JobOrder field	Type	Description	Not null	Read-only
id	Integer	Id of this entity.	X	X

JobOrder field	Type	Description	Not null	Read-only
address	Address1	Address of the hiring company; when the record is created in the Bullhorn application, this data is pulled from the client contact record. • address1 • address2 • city • state • zip • countryID: options: value: 1 value: 2 Use the following REST call to get the list of countryIDs and labels: /meta/JobOrder?fields=address(countryID)		
appointments	To-many association	Ids of Appointments associated with this job.		
approvedPlacements	To-many association	Ids of the approved Placements associated with this job.		
assignedUsers	To-many association	Internal users assigned to this job.		
benefits	String	Text description of benefits offered with this job.		
billRateCategoryID	Integer	Id of the client bill rate category.		
bonusPackage	String	Text description of the bonus package offered with this job.		
branchCode	String (100)	Code representing the corporate branch where the job is located.		
businessSectors	To-many association	Ids of BusinessSectors associated with this job.		
categories	To-many association	Ids of Categories associated with this job.		
certificationList	String	List of Certifications that an applicant should have.		

JobOrder field	Type	Description	Not null	Read-only
certifications	To-many association	Certifications that applicants should have.		
clientBillRate	BigDecimal	Amount to be billed to the client for this job when it is filled.		
clientContact	To-one association	ClientContact associated with this job.	X	
clientCorporation	To-one association	Hiring company.	X	
correlatedCustom-Date1-3	Timestamp	Configurable date fields that can be used to store custom data depending on the needs of a particular deployment.		
correlatedCustom-Float1-3	Double	Configurable numeric fields that can be used to store custom data depending on the needs of a particular deployment.		
correlatedCustomInt1-3	Integer	Configurable numeric fields that can be used to store custom data depending on the needs of a particular deployment.		
correlatedCustomText1-10	String (100)	Configurable text fields that can be used to store custom data depending on the needs of a particular deployment.		
correlatedCustom-TextBlock1-3	String	Configurable text fields that can be used to store custom data depending on the needs of a particular deployment.		
costCenter	String (30)	Name of the cost center associated with this job. This cost center flows to the placement record and drives invoice grouping (placements with the same cost center for the same client will be grouped together)		
customDate1-3	BigDecimal	Configurable date fields that can be used to store custom data depending on the needs of a particular deployment.		
customFloat1-3	Double	Configurable numeric fields that can be used to store custom data depending on the needs of a particular deployment.		

JobOrder field	Type	Description	Not null	Read-only
customInt1-3	Integer	Configurable numeric fields that can be used to store custom data depending on the needs of a particular deployment.		
customText1-20	String (100)	Configurable text fields that can be used to store custom data depending on the needs of a particular deployment.		
customTextBlock1-5	String	Configurable text fields that can be used to store custom data depending on the needs of a particular deployment.		
dateAdded	Timestamp	Date when this record was created in the Bullhorn system.		X
dateClosed	Timestamp	Date when the job was marked as closed.		
dateEnd	Timestamp	Date when the job will end (if applicable).		
dateLastExported	Timestamp	Date when the job was last exported.		
degreeList	String	List of educational degrees required for this job.		
description	String (200000)	Text description of the job.		
durationWeeks	Double	Expected duration the job. For a permanent position, this is null.		
educationDegree	String (50)	Required degree for the job.		
employmentType	String (200)	Type of employment offered: for example, contract, permanent, and so forth. Determines which of the five job types are used.	X	
externalCategoryID	Integer	Category exposed on public job postings to the web.		
externalID	String (30)	Used for migrations or for the job's external/back-office identification number.		
feeArrangement	Double	Fee, expressed as a percentage, that will be paid by the ClientCorporation when the job is filled.		

JobOrder field	Type	Description	Not null	Read-only
hoursOfOperation	String (30)	Hiring company's hours of operation.		
hoursPerWeek	Double	Number of hours per week that the employee will work.		
Interviews	To-many association	Ids of interview Appointments associated with this job.		
isClientEditable	Boolean	Indicates whether a ClientContact can modify the job via the Bullhorn system.		
isDeleted	Boolean	Indicates whether this record is marked as deleted in the Bullhorn system.		
isInterviewRequired	Boolean	Indicates whether applicants are required to Interview for the job.		
isJobcastPublished	Boolean	Indicates whether the job was published through Jobcast.		
isOpen	Boolean	Indicates whether the job is open.		
isPublic	Boolean	Controls whether a job appears on the Bullhorn job board (if in use). Only 3 values allows, -1, 0, 1.		
jobBoardList	String	List of job boards on which this job has been posted.		
notes	To-many association	Ids of Notes associated with this job.		
numOpenings	Integer	Number of openings to be filled for this job.		
onSite	String (20)	Location requirements; for example, on-site, off-site, no preference.		
optionsPackage	String	Text description of the stock options package offered with this job.		
owner	To-one association	CorporateUser who owns this job. The default value is user who creates the JobOrder.	X	
payRate	BigDecimal	Pay rate offered with this job.		

JobOrder field	Type	Description	Not null	Read-only
placements	To-many association	Ids of Placements associated with this job.		
publicDescription	String (200000)	Description of this job for use on public job boards.		
publishedZip	String (18)	Published Zip Code of the job location.		
reasonClosed	String	Text description of the reason this job was closed, if applicable.		
reportTo	String (100)	Name and/or title of the person this job will report to.		
reportToClientContact	To-one association	ClientContact this job reports to. Included ClientContact fields are: id firstName lastName		
responseUser	To-one association	CorporateUser to whom submissions should be sent.		
salary	BigDecimal	Salary offered for this job.		
salaryUnit	String (12)	Salary unit represented by the range (for example, per hour, yearly).		
sendouts	To-many association	Ids of Sendouts associated with this job.		
skillList	String	Comma-separated list of skills the applicants should have.		
skills	To-many association	Ids of Skills associated with this job.		
source	String (100)	Source of the job.		
startDate	Timestamp	Desired start date for the position. The default value is 12 AM on day record is added.	X	
status	String (200)	Current status of the Job Order. Examples: Accepting Candidates, Currently Interviewing, Covered, Offer Out, Placed		

JobOrder field	Type	Description	Not null	Read-only
submissions	To-many association	Ids of JobSubmissions associated with this job.		
tasks	Task	Tasks associated with this job.		
taxRate	Double	Rate (percentage) at which the person hired for this job will be taxed.		
taxStatus	String (20)	Tax Status, for example, 1099, W-2, and so forth.		
tearsheets	To-many association	Ids of Tearsheets with which this JobOrder is associated.		
title	String (100)	Job title.		
travelRequirements	String (50)	Text description of the amount of travel required for this job.		
type	Integer	Job type, for example, Cold, Cool, Medium, Warm, Hot. Stored in DB as Integer with display values configured in field maps.		
willRelocate	Boolean	Indicates whether the hiring company will provide relocation assistance.		
willSponsor	Boolean	Indicates whether the hiring company is willing to sponsor an employee on a work visa.		
yearsRequired	Integer	Number of years of experience required for the job.		

Country

Represents a country.

Country field	Type	Description	Not null	Read-only
id	Integer	Id of this entity.	X	X
code	String	Code associated with this Country.		
name	String	Name of the Country.	X	

Country field	Type	Description	Not null	Read-only
states	To-many association	Ids of States that are associated with this Country.		

CustomAction

Represents a Bullhorn custom action. For more information about custom actions, see: http://developer.bullhorn.com/doc/version_2-0/understanding_custom_components.htm

CustomAction field	Type	Description	Not null	Read-only
id	Integer	Id of this entity.	X	X
actionOrder	Integer			
apiKeyID	Integer	Bullhorn API key id.		
componentURL	String	URL of CustomAction.		
enabled	Boolean	Indicates whether CustomAction is enabled.		
entity	String	Entity to which CustomAction applies.	X	
name	String	Name of CustomAction.		

JobSubmission

Represents a formal submission of a Candidate for a particular job. A job submission occurs after the Candidate has been evaluated, interviewed, and otherwise assessed, and the parties involved have agreed that the Candidate may be suitable. The JobSubmission entity is then created with references to the Candidate and the JobOrder representing the position. If the JobSubmission is approved, a Placement entity is created.

The JobSubmission entity supports the massUpdate operations.

Note: When you set the status field of a JobSubmission to “New Lead”, it becomes a web response, which is an informal job submission. When you update another status, it becomes a formal job submission. When you create a web response, set the dateWebResponse field to the current date. When you update a web response to make it a formal job submission, set the dateAdded field to the current date.

JobSubmission field	Type	Description	Not null	Read-only
id	Integer	Id of this entity.	X	X
appointments	To-many association	Ids of Appointments associated with this JobSubmission.		
billRate	BigDecimal	Bill rate for this JobSubmission.		
candidate	To-one association	Candidate submitted for this job. Included Candidate fields are: id firstName lastName	X	
dateAdded	Timestamp	Date on which this JobSubmission record was created in the Bullhorn system.	X	X
dateWebResponse	Timestamp	When a new web response is added, set the dateWebResponse field to the current timestamp. When a web response is promoted to a submission, update the dateAdded property to the current timestamp.		X
isDeleted	Boolean	Indicates whether this record is marked as deleted in the Bullhorn system.	X	
isHidden	Boolean	Indicates whether web responses are hidden. If you do not plan to promote a web response to a submission, set the isHidden field to true.		
jobOrder	Integer	JobOrder to which this JobSubmission corresponds.	X	
payRate	BigDecimal	Pay rate for this JobSubmission.		
Salary	BigDecimal	Salary for this JobSubmission.		
sendingUser	To-one association	CorporateUser credited with making the submission. The default value is user who created the JobSubmission.	X	

JobSubmission field	Type	Description	Not null	Read-only
source	String (100)	Source of the JobSubmission (for example, web, Integer, and so forth.)		
status	String (30)	Status of the JobSubmission (for example, reviewed, accepted, and so forth.). Allowable values are configured in field maps.	X	

JobSubmissionHistory

Read-only entity that represents the transaction history of a JobSubmission. The GET /query/JobSubmissionHistory call returns a list of JobSubmissionHistory entities for one or more JobSubmission entities. The GET /entity/JobSubmissionHistory/{entityId} call returns a single JobSubmissionHistory entity that represents one JobSubmission change.

JobSubmissionHistory field	Type	Description	Not null	Read-only
id	Integer	Id of this entity.	X	X
comments	String	Value of the JobSubmission comments fields for this transaction.		
dateAdded	Timestamp	Date on which this JobSubmission record was created in the Bullhorn system.	X	X
jobSubmission	To-one association	JobSubmission associated with this JobSubmissionHistory.	X	X
sendingUser	To-one association	CorporateUser credited with making the JobSubmission. The default value is user who created the JobSubmission.	X	X
status	String (30)	Status of the JobSubmission (for example, reviewed, accepted, and so forth.). Allowable values are configured in field maps.	X	X
transactionID	String (36)	Unique transaction id for this JobSubmissionHistory.		

Note

Represents a note (comment) associated with a Candidate, ClientContact, CorporateUser, or JobOrder. Notes can be accessed via the "Notes" tab on the person's record in the Bullhorn application.
After you create a Note, you must create a NoteEntity that references the Note and the Candidate, ClientContact, CorporateUser, or JobOrder associated with the Note.

Note field	Type	Description	Not null	Read-only
id	Integer	Id of this Note.	X	
action	String (30)	Action type associated with Note. The list of values is configured in the private label attribute called commentActionList.		
bHTimestamp	byte[]	Timestamp for this Note.		
commentingPerson	To-one association	Person who created the Note. The default value is user who creates the Note.	X	
candidates	To-many association	Candidates associated with this Note. Included fields are: id firstName lastName		
clientContacts	To-many association	ClientContacts associated with this Note. Included fields are: id firstName lastName		
comments	String	Text of this Note.	X	
corporateUsers	To-many association	CorporateUsers associated with this Note.		
dateAdded	Timestamp	Date on which this record was created in the Bullhorn system.	X	
Entities	To-many association	Ids of NoteEntities associated with this Note.		

Note field	Type	Description	Not null	Read-only
isDeleted	Boolean	Indicates whether this record has been marked as deleted in the Bullhorn system.	X	
jobOrder	To-one association	Primary JobOrder associated with this Note. Included fields are: id title		
jobOrders	To-many association	JobOrders associated with this Note. Included fields are: id title		
minutesSpent	Integer	Number of minutes spent on actions associated with this note, if applicable.		
personReference	To-one association	Person with whom this Note is associated. Included fields are: id _subtype	X	
placements	To-many association	Ids of Placements associated with this Note.		

NoteEntity

Represents the Candidate, ClientContact, CorporateUser, JobOrder, or Placement associated with a Note.
After you create a Note, you must create a NoteEntity that references the Note and the name and id of the entity associated with the Note. For Candidates ClientContacts, and CorporateUsers, specify “User” as the targetEntityName value. For JobOrders and Placements, specify the actual entity name as the targetEntityName value.

NoteEntity field	Type	Description	Not null	Read-only
id	Integer	Id of this entity.	X	
note	To-one association	Note associated with this NoteEntity.		
targetEntityID	Integer	Id of target entity to which the associated Note applies.	X	

NoteEntity field	Type	Description	Not null	Read-only
targetEntityName	String	Name of target entity type. For Candidates ClientContacts, and CorporateUsers, specify “User” as the targetEntityName value. For JobOrders and Placements, specify the actual entity” as the targetEntityName value.	X	

Placement

Represents a successfully filled job; for example, a placement of a Candidate in a job.

Each Placement record corresponds to a single JobOrder and a single Candidate, although a JobOrder may have multiple Placements associated with it (for example, if a company hires several people for the same position).

The Placement entity supports the massUpdate operations.

Placement field	Type	Description	Not null	Read-only
id	Integer	Id of this entity.	X	X
appointments	To-many association	Appointments associated with this Placement.		
approvingClientContact	To-one association	ClientContact who can approve the timecard, if used. Included fields are: id firstName lastName		
backupApproving-ClientContact	To-one association	Another ClientContact who can approve the timecard, if used. Included fields are: id firstName lastName		
billingClientContact	To-one association	ClientContact in charge of processing bills for this Placement.		
billingFrequency	String (20)	Frequency with which the client company will be billed for this position, initially copied from the associated ClientCorporation record but can be modified on the Placement record.		
bonusPackage	String	Text description of the bonus package for this placement.		

Placement field	Type	Description	Not null	Read-only
candidate	To-one association	Candidate who was placed. Cannot be changed after this record is created. Included fields are: id firstName lastName	X	
changeRequests	To-many association	**Not supported in this release.** Change requests for this Placement.		
clientBillRate	Double	Hourly rate at which the client company will be billed for work done during regular business hours.		
clientOvertimeRate	Double	Hourly rate at which the client company will be billed for overtime.		
comments	String	Text field for entering any comments about the Placement.		
commissions	To-many association	Ids of PlacementCommissions associated with this Placement.		
correlatedCustomDate1-3	Timestamp	Configurable date fields that can be used to store custom data depending on the needs of a particular deployment.		
correlatedCustomFloat1-3	Double	Configurable numeric fields that can be used to store custom data depending on the needs of a particular deployment.		
correlatedCustomInt1-3	Integer	Configurable numeric fields that can be used to store custom data depending on the needs of a particular deployment.		
correlatedCustomText1-10	String (100)	Configurable text fields that can be used to store custom data depending on the needs of a particular deployment.		
correlatedCustom-TextBlock1-3	String	Configurable text fields that can be used to store custom data depending on the needs of a particular deployment.		

Placement field	Type	Description	Not null	Read-only
costCenter	String (100)	Text field for Client Cost Center. Drives invoice grouping (placements with the same cost center for the same client will be grouped together).		
customBillRate1-10	BigDecimal	Configurable numeric fields that can be used to store custom data depending on the needs of a particular deployment.		
customDate1-3	Timestamp	Configurable date fields that can be used to store custom data depending on the needs of a particular deployment.		
customFloat1-3	Double	Configurable numeric fields that can be used to store custom data depending on the needs of a particular deployment.		
customInt1-3	Integer	Configurable numeric fields that can be used to store custom data depending on the needs of a particular deployment.		
customPayRate1-10	BigDecimal	Configurable numeric fields that can be used to store custom data depending on the needs of a particular deployment.		
customText1-40	String (100)	Configurable text fields that can be used to store custom data depending on the needs of a particular deployment.		
customTextBlock1-5	String	Configurable text fields that can be used to store custom data depending on the needs of a particular deployment.		
dateAdded	Timestamp (5)	Indicates when this Placement was created in the Bullhorn system.	X	
dateBegin	Timestamp	Date when the Candidate will begin work.	X	
dateClientEffective	Timestamp	Date when a pending change to the client bill rate will take effect.		

Placement field	Type	Description	Not null	Read-only
dateEffective	Timestamp	Date when a pending change to the Candidate's pay rate will take effect.		
dateEnd	Timestamp	Date when the job will end. For a permanent placement, this is null.		
daysGuaranteed	Integer	Number of days the Candidate is guaranteed for this job. If the Candidate leaves the job before working this many days, the ClientCompany may not have to pay its fee; see daysProRated. Used for Permanent placements.	X	
daysProRated	Integer	Indicates how many days the Candidate must work before the Client Corporation will be expected to pay a pro-rated portion of the fee. Used for Permanent placements. For example, if daysGuaranteed = 90 and daysProRated = 30, then if the Candidate works 29 days no fee is due, but if the Candidate works 30-89 days the Client Corporation must pay a percentage of the fee, and if the Candidate works 90 days or more, the full fee is due.	X	
durationWeeks	Double	Duration of the job in weeks. You can use this property in addition to dateEnd.	X	
employeeType	String (30)	Type of employee: for example W2, 1099, Employee, Contractor, and so forth.		
employmentType	String (30)	Employment Type, initially copied from the associated JobOrder but can be modified on the Placement record.	X	
fee	Double	Fee (expressed as a decimal) that the company will receive for this placement.	X	
hoursOfOperation	String (100)	Hours during which the employee will work.		
hoursPerDay	Double	Number of hours per day that the employee will work.	X	

Placement field	Type	Description	Not null	Read-only
housingAmenities	To-many association	**Not supported in this release.** Amenities available as part of the housing arrangement for this Placement, if applicable.		
housingManagerID	Integer	Id of the corporate user serving as manager of the housing arrangements, if applicable.		
housingStatus	String	Status of the Placement Housing, if applicable.		
invoiceGroupID	Integer	**Not supported in this release.** Id of the InvoiceGroup object associated with this Placement.		
invoiceGroupName	String (100)	Name of the invoice group associated with this Placement.		
invoiceID	Integer	**Not supported in this release.** Id of the Invoice object associated with this Placement. This field is used for Permanent placements since only a single invoice is needed.		
invoiceItems	To-many association	**Not supported in this release.** Invoice Items associated with this Placement.		
jobOrder	To-one association	JobOrder associated with this Placement. Cannot be changed after this record is created.	X	
jobSubmission	To-one association	JobSubmission associated with this Placement.		
notes	Note	**Not supported in this release.** Notes associated with this Placement.		
optionsPackage	String	Text description of the stock options package associated with this Placement.		

Placement field	Type	Description	Not null	Read-only
otExemption	Boolean	Indicates whether the employee is eligible for hours over 40 to automatically be classified as Overtime. Boolean: 0 = Eligible, 1 = Exempt.		
otherHourlyFee	Double	Additional hourly fees, if any.		
otherHourlyFeeComments	String	Free text field for comments on additional hourly fees.		
overtimeRate	Double	Hourly rate at which the employee will be paid for overtime work.		
payRate	BigDecimal	Rate at which the employee will be paid during regular business hours. This may or may not be used depending on the job type.	X	
recruitingManager-PercentGrossMargin	Double	Percentage of the total gross margin that the recruiting manager will receive.	X	
referralFee	BigDecimal	Referral fee associated with this Placement, if any. Only used with external Candidate source.	X	
referralFeeType	String	Configurable list of fee types associated with the referralFee. Only used with external Candidate source.	X	
reportedMargin	Double	Hourly margin in dollars, calculated using burden and other costs.		
reportTo	String (100)	Name/title of the person to whom this position will report.		
salary	BigDecimal	Salary that the employee will receive. This may be either a yearly or hourly salary. See salaryUnit. The default value is 0.	X	
salaryUnit	String (20)	Indicates whether the salary is per year or per hour.	X	
salesManager-PercentGrossMargin	Double	Percentage of the total gross margin that the sales manager will receive.	X	

Placement field	Type	Description	Not null	Read-only
shiftID	Integer	**Not supported in this release.** Id of the Shift object associated with this Placement, if applicable.		
statementClientContact	To-one association	ClientContact who should receive statements associated with this Placement. Included fields are: id firstName lastName		
status	String (30)	Status of the Placement: For example: Approved, Completed, Terminated, and so forth. The default value is “Placed”.	X	
surveys	Survey	**Not supported in this release.** Surveys associated with this Placement.		
tasks	Task	**Not supported in this release.** Tasks associated with this Placement.		
taxRate	Double	Percentage at which this Placement will be taxed.		
taxState	String	Name of the US State that is the tax state for this Placement.		
terminationReason	String	If the Placement has a status of "Terminated," this field indicates the reason for termination.		
timeUnits	TimeUnit	TimeUnit associated with this Placement.		
timeCard	TimeCard	**Not supported in this release.** Timecards associated with this Placement.		
timecardExpenses	TimecardExpense	**Not supported in this release.** Expenses incurred in relation to this Placement, for which the employee wishes to be reimbursed.		

Placement field	Type	Description	Not null	Read-only
timecardTimes	TimecardTime	**Not supported in this release.** Timecard entries associated with this Placement.		
workersCompensation-RateID	Integer (100)	**Not supported in this release.** Id of the WorkersCompensationRate associated with this Placement.		
workWeekStart	Integer	Day of the week on which the work week begins for this Placement. 1 = Sunday, 2 = Monday, and so forth.		
venderClientCorporation	To-one association	Umbrella company associated with this Placement. Included ClientCorporation fields are: id name		

PlacementChangeRequest

Represents a change request that is submitted for a particular Placement. Placements cannot be directly modified; a user must submit a PlacementChangeRequest for approval.

PlacementChangeRequest field	Type	Description	Not null	Read-only
id	Integer	Id of this entity.	X	X
approvingUser	To-one association	Id of user who approved the change.		X
billingClientContact	To-one association	ClientContact in charge of processing bills for this Placement. Included ClientContact fields are: id firstName lastName		X
billingFrequency	String (20)	Frequency with which the client company will be billed for this position, initially copied from the associated ClientCorporation but can be modified on the Placement.		X
bonusPackage	String	Text description of the bonus package for this Placement.		X
clientBillRate	Double	Hourly rate at which the client company will be billed for work done during regular business hours.		X

PlacementChangeRequest field	Type	Description	Not null	Read-only
clientOvertimeRate	Double	Hourly rate at which the client company will be billed for overtime.		X
comments	String	Free text field for any comments on this record.		X
correlatedCustomDate1-3	Timestamp	Configurable date fields that can be used to store custom data depending on the needs of a particular deployment.		X
correlatedCustomFloat1-3	Double	Configurable numeric fields that can be used to store custom data depending on the needs of a particular deployment.		X
correlatedCustomInt1-3	Integer	Configurable numeric fields that can be used to store custom data depending on the needs of a particular deployment.		X
correlatedCustomText1-10	String (100)	Configurable text fields that can be used to store custom data depending on the needs of a particular deployment.		X
correlatedCustomTextBlock1-3	String	Configurable text fields that can be used to store custom data depending on the needs of a particular deployment.		X
costCenter	String	Text field for Client Cost Center. Drives invoice grouping (placements with the same cost center for the same client will be grouped together).		X
customBillRate1-10	BigDecimal	Configurable numeric fields that can be used to store custom data depending on the needs of a particular deployment.		X
customDate1-3	Timestamp	Configurable date fields that can be used to store custom data depending on the needs of a particular deployment.		X
customFloat1-3	Double	Configurable numeric fields that can be used to store custom data depending on the needs of a particular deployment.		X
customInt1-3	Integer	Configurable numeric fields that can be used to store custom data depending on the needs of a particular deployment.		X
customPayRate1-10	BigDecimal	Configurable numeric fields that can be used to store custom data depending on the needs of a particular deployment.		X

PlacementChangeRequest field	Type	Description	Not null	Read-only
customText1-40	String (100)	Configurable text fields that can be used to store custom data depending on the needs of a particular deployment.		X
customTextBlock1-5	String	Configurable text fields that can be used to store custom data depending on the needs of a particular deployment.		X
dateAdded	Timestamp	Date on which this entity was created.	X	X
dateApproved	Timestamp	Date on which this change was approved.		X
dateBegin	Timestamp	Date on which Candidate will begin work.	X	X
dateClientEffective	Timestamp	Date on which a pending change to the ClientCorporation bill rate will take effect.		X
dateEffective	Timestamp	Date on which a pending change to the Candidate's pay rate will take effect.		X
dateEnd	Timestamp	Date on which the job will end. For a permanent placement, this will be null.		X
daysGuaranteed	Integer	Number of days Candidate is guaranteed for this job. If Candidate leaves the job before working this many days, the ClientCorporation may not have to pay its fee; see daysProRated. Used for Permanent placements.	X	X
daysProRated	Integer	Indicates how many days the Candidate must work before the ClientCorporation will be expected to pay a pro-rated portion of the fee. Used for Permanent placements. For example, if daysGuaranteed = 90 and daysProRated = 30, then if the Candidate works 29 days no fee is due, but if the Candidate works 30-89 days the ClientCorporation must pay a percentage of the fee, and if the Candidate works 90 days or more, the full fee is due.	X	X
durationWeeks	Double	Duration of the job in weeks. This field can be used in addition to dateEnd.	X	X
employeeType	String (30)	Type of employee: for example W2, 1099, Employee, Contractor, and so forth.		X
employmentType	String (30)	Employment type, initially copied from the associated JobOrder but can be modified on the Placement.	X	X
fee	Double	Fee (expressed as a decimal) that the company will receive for this placement.	X	X

PlacementChangeRequest field	Type	Description	Not null	Read-only
hoursOfOperation	String (100)	Hours during which the employee will work.		X
hoursPerDay	Double	Number of hours per day that the employee will work.	X	X
housingManagerID	Integer	Id of CorporateUser serving as manager of the housing arrangements, if applicable.		X
housingStatus	String (30)	Status of the Placement Housing, if applicable.		X
optionsPackage	String	Text description of the stock options package associated with this Placement.		X
otExemption	Integer	Indicates whether the employee is eligible for hours over 40 to automatically be classified as Overtime. Boolean 0 = Eligible, 1 = Exempt.		X
otherHourlyFee	Double	Additional hourly fees, if any.		X
otherHourlyFeeComments	String	Free text field for comments on additional hourly fees.		X
overtimeRate	Double	Hourly rate at which the employee will be paid for overtime work.		X
payRate	BigDecimal	Rate at which the employee will be paid during regular business hours. This may or may not be used depending on the job type.	X	X
placement	To-one association	Placement to which this change request applies.	X	X
recruitingManager-PercentGrossMargin	Double	Percentage of total gross margin that the recruiting manager will receive.	X	X
referralFee	decimal	Referral fee associated with this Placement, if any. Only used with external Candidate source.		X
referralFeeType	String	Configurable list of fee types associated with referralFee. Only used with external Candidate source.		X
reportTo	String	Name/title of the person to whom this position will report.		X
requestCustomDate1-3	Timestamp	Configurable date fields.		X
requestCustomFloat1-3	Double	Configurable numeric fields.		X

PlacementChangeRequest field	Type	Description	Not null	Read-only
requestCustomInt1-3	Integer	Configurable numeric fields.		X
requestCustomText1-20	String (30)	Configurable text fields.		X
requestCustomTextBlock1-5	String	Configurable text fields.		X
requestingUser	To-one association	CorporateUser who initiated this change request.	X	X
requestStatus	String (40)	Status of change request.	X	X
requestType	String (50)	Configurable. Type of request.	X	X
salary	decimal	Salary that employee will receive. This may be either a yearly or hourly salary. See salaryUnit.	X	X
salaryUnit	String	Indicates whether the salary is per year or per hour.	X	X
salesManager-PercentGrossMargin	Double	Percentage of the total gross margin that the sales manager will receive.	X	X
statementClientContact	To-one association	ClientContact who should receive statements associated with this Placement. Included ClientContact fields are: id firstName lastName		X
status	String (100)	Status of Placement: for example, Approved, Completed, Terminated, and so forth.	X	X
terminationReason	String (100)	Status of Placement: for example, Approved, Completed, Terminated, and so forth.		X
vendorClientCorporation	To-one association	Vendor ClientCorporation associated with change request. Included ClientCorporation fields are: id name		X
workersCompRateID	Integer	**Not supported in this release.** Id of the WorkersCompensationRate object associated with this Placement.		X
workWeekStart	Integer	Day of the week on which the work week begins for this Placement. 1 = Sunday, 2 = Monday, and so forth.		X

PlacementCommission

Represents a commission payment that is paid upon successful placement of a Candidate in a job. Each PlacementCommission instance is associated with exactly one Placement instance; a Placement may have multiple PlacementCommissions associated with it.

PlacementCommission field	Type	Description	Not null	Read-only
id	Integer	Id of this entity.	X	
comments	String	Free-text comments on this commission.		
commissionPercentage	Double	The commission amount, expressed as a percentage: for example, 0.05 = 5%. Saved as decimal.	X	
dateAdded	Timestamp	The date on which this record was created in the Bullhorn system.	X	
externalRecipient	String (100)	If the person who should receive the commission does not have a Bullhorn id, this field indicates that person's name.		
flatPayout	Double	The commission expressed as a flat sum.	X	
grossMarginPercentage	Double	The percentage of the total gross margin for the Placement that the commission recipient will receive.	X	
hourlyPayout	Double	The commission expressed as an hourly rate (e.g., $1.00 for each hour worked by the employee).	X	
placement	To-one association	Placement to which this commission pertains.	X	
role	String (50)	The commission recipient's role for the Placement (Sales, Recruiting, and so forth).		
status	String (30)	Status of this commission.		
user	To-one association	User who will receive the commission, if applicable.		

Sendout

Represents a sendout, which occurs when a Candidate's information is sent to a ClientCorporation to be evaluated for a particular job.

Sendout field	Type	Description	Not null	Read-only
id	Integer	Id of this entity.	X	
candidate	To-one association	Candidate being sent out. Included Candidate fields are: id firstName lastName	X	
clientContact	To-one association	ClientContact receiving the Sendout. Included ClientContact fields are: id firstName lastName		
clientCorporation	To-one association	Hiring company.		
dateAdded	Timestamp	The date on which this entity was created in the Bullhorn system.	X	
email	String (100)	Email address to which the Sendout is sent.		
isRead	Boolean	Indicates whether the email has been opened.	X	
jobOrder	To-one association	JobOrder for which the Candidate is being considered. Included JobOrder fields are: id title		
user	To-one association	CorporateUser who initiated this Sendout. The default value is user who creates the Sendout.	X	

Skill

Represents a skill that a Candidate may have. The Skill entity can be used in a Candidate entity to indicate that the Candidate has that skill, or in a JobOrder entity to indicate that applicants for that job should have that skill.

Skill field	Type	Description	Not null	Read-Only
id	Integer	Id of this entity.	X	X
enabled	Boolean	Indicates whether Skill is enabled.		
Categories	To-many association	**Not supported in this release.** Categories with which this Skill is associated.		
description	String	**Not supported in this release.** Text description of this Skill.		X
name	String (100)	Name of this Skill.	X	X

Specialty

Represents a specialty that can be associated with a JobOrder or held by a Candidate. Specialties are associated with a parent Category.

Specialty field	Type	Description	Not null	Read-only
id	Integer	Id of this entity.	X	X
dateAdded	Timestamp	Date on which this record was created in the Bullhorn system.	X	X
enabled	Boolean	Indicates whether category is available for use in the Bullhorn application.	X	X
name	String (100)	Name of Specialty.	X	X
parentCategory	Integer	Category that is parent of this Specialty.		X

State

Represents a state or province within a nation.

State field	Type	Description	Not null	Read-only
id	Integer	Id of this entity.	X	
code	String	Postal abbreviation of the state.		
country	To-one association	Nation that contains this state.	X	
name	String	Name of the state.	X	

Task

Represents a task that a user has created in the Bullhorn system using the Tasks feature.

The Task entity supports the massUpdate operations.

Task field	Type	Description	Not null	Read-only
id	Integer	Id of this entity.	X	X
candidate	To-one association	Candidate associated with this task, if any.		
childTaskOwners	To-many association	Users assigned to childTasks.		
childTasks	To-many association	Assignments. You populate this field by creating Tasks where Task.parentTask is this Task.		
clientContact	To-one association	ClientContact associated with this task, if any.		
dateAdded	Timestamp	The date on which this record was created.	X	

Task field	Type	Description	Not null	Read-only
dateBegin	Timestamp	The date when the task is due to begin. The default value is current time rounded up to next 15 minutes, or dateEnd if it is provided.	X	
dateCompleted	Timestamp	The date when the task was completed, if applicable. The default value is current time rounded up to next 15 minutes, or dateBegin if it is provided.		
dateEnd	Timestamp	The date when the task was scheduled to end. Used for recurring tasks.	X	
dateLastModified	Timestamp	The date when this record was last modified.		
description	String	Free-text description of the task. The default value is “”.	X	
isCompleted	Boolean	Indicates whether the task has been completed.	X	
isDeleted	Boolean	Indicates whether this record has been marked as deleted.	X	
isPrivate	Boolean	Indicates whether this is a private task. A private task is not visible to users other than the user who created the task.	X	
jobOrder	To-one association	JobOrder associated with this task, if any. Included JobOrder fields are: id title		
notificationMinutes	Integer	Indicates how many minutes in advance the user has chosen to be reminded of this task.	X	
owner	To-one association	User who created the task. The default value is user who creates the Task.	X	

Task field	Type	Description	Not null	Read-only
parentTask	To-one association	Task that is parent of this one, if any. Used when the task is assigned to someone other than the owner. The childTask is a copy of the parentTask managed by the assignee.		
placement	To-one association	Placement associated with this Task.		
priority	Integer	Priority level of a task.Value is 1, 2, or 3, where 1 is Low, 2 is Normal, and 3 is High.		
recurrenceDayBits	Integer	Indicates which days are part of the recurrence pattern, if the task is a recurring one. The value of this field is the sum of the days included in the series: Sun = 2, Mon = 4, Tue = 8, Wed = 16, Thur = 32, Fri = 64, Sat = 128. For example, a meeting that occurs on Monday and Friday would have a recurrenceDayBits value of 68 (4+64).		
recurrenceFrequency	Integer	Frequency with which the task recurs: for example, a recurrenceFrequency of 2 for a weekly meeting would imply the meeting occurs every 2 weeks. Null for a one-time task.		
recurrenceStyle	String (10)	A=absolute, R=relative: e.g., an absolute would be the third week of every month, whereas a relative would be every third week.		
recurrenceType	String (1)	Type of recurrence. D=daily, W=weekly, M=monthly, A=annually.		
subject	String (100)	Subject header for the task.	X	
taskUUID	String (35)	Secondary unique identifier for this entity. Used to identify the record when it is synchronized to external systems. Format is 8-4-4-16 where all characters are A-Z or 0-9.		
timeZoneID	String (50)	Id of time zone.		

Task field	Type	Description	Not null	Read-only
type	String (30)	Type of task. For example, Follow-Up, Email, Personal, and so forth.	X	

Tearsheet

Represents a tearsheet.

The Tearsheet entity supports the massUpdate operations.

Tearsheet field	Type	Description	Not null	Read-only
id	Integer	Id of this entity.	X	
candidates	To-many association	Candidates with which this Tearsheet is associated. This field includes the following Candidate fields: id firstName lastName		
clientContacts	To-many association	ClientContacts with which this Tearsheet is associated. This field includes the following ClientContact fields: id firstName lastName		
dateAdded	Timestamp	The date on which this record was created in the Bullhorn system.	X	
description	String	Free-text description.		
isDeleted	Boolean	Indicates whether this record is marked as deleted in the Bullhorn system.	X	
isPrivate	Boolean	Indicates whether this is a private Tearsheet. A private Tearsheet is not visible to users other than the user who created the tearsheet.		

Tearsheet field	Type	Description	Not null	Read-only
jobOrders	To-many association	JobOrders with which this Tearsheet is associated. This field includes the following JobOrder fields: id title		
name	String	Name of this Tearsheet.	X	
owner	To-one association	CorporateUser who is the primary owner of this Tearsheet. The default value is user who created the tearsheet.		
recipients	To-many association	Ids of TearsheetRecipients with which this Tearsheet is associated.		

TearsheetRecipient

Represents a tearsheet recipient.

TearsheetRecipient field	Type	Description	Not null	Read-only
id	Integer	Id of this entity.	X	
candidateRestrictionBits	Integer	Candidate restriction bits.	X	
dateAdded	Timestamp	The date on which this record was created in the Bullhorn system.	X	
description	String	Free-text description.		
isDeleted	Boolean	Indicates whether this record is marked as deleted in the Bullhorn system.	X	
isSent	Boolean	Indicates whether		

TearsheetRecipient field	Type	Description	Not null	Read-only
jobOrder	To-one association	JobOrder with which this TearsheetRecipient is associated. This field includes the following JobOrder fields: id title		
person	To-one association	Person with whom this TearsheetRecipient is associated.		
tearsheet	To-one association	Tearsheet with which this TearsheetRecipient is associated.		

TimeUnit

Represents a time unit.

State field	Type	Description	Not null	Read-only
id	Integer	Id of this entity.	X	
name	String	Name of this TimeUnit.	X	
timeMarker	Integer	Time marker, such as AM or PM.	X	
weekDay	Integer	Day of the week.	X	