

#BullhornEngage

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## Introducing the Bullhorn Onboarding API

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Bullhorn

# Agenda

- Onboarding REST API
- Document Field Interactions
- Document Webhooks
- Flowback



CANDIDATES			
<input type="checkbox"/>	Candidates	Number	Branch
<input type="checkbox"/>	Clara Candidate	1234	Recruiting
<input type="checkbox"/>	Alfredo Moody	1235	Recruiting
<input type="checkbox"/>	Terrance McBride	1236	Recruiting
<input type="checkbox"/>	Darryl Cunningham	1237	Recruiting
<input type="checkbox"/>	Meredith Tate	1238	Recruiting
<input type="checkbox"/>	Marlon Keller	1239	Recruiting
<input type="checkbox"/>	Joanna Rose	1240	Recruiting
<input type="checkbox"/>	Theodore Schneider	1241	Recruiting
<input type="checkbox"/>	Megan Hill	1242	Recruiting
<input type="checkbox"/>	Cesar Swanson	1243	Recruiting
<input type="checkbox"/>	Lawrence Jager	1240	Recruiting
<input type="checkbox"/>	Timothy Blout	1241	Recruiting
<input type="checkbox"/>	Bartleby Broadsky	1242	Recruiting

# What is Bullhorn Onboarding?

# What is Bullhorn Onboarding?

- Software that allows you to quickly onboard candidates
- Closely Integrated with Bullhorn ATS
- Newly Refreshed Experience using Angular and Novo-Elements
- Complete documents such as I9s, contract confirmation, and more.

Name

3568, BBO

461nRstvHRJbomZ, zZvEum...

6jNJU9x9CY2XsrG, xx2AszXZ...

7EHSE9O6EW4yk6L, bh8aYjw...

9b, regression

9Fos66SLO8UJ8IE, RmS3GaK...

9mdgtT1bh5CYoM2, 7vJrekp...

Association, NoteToMany

Association, NoteToMany

Association, NoteToMany

Association, NoteToMany

Association, NoteToMany

Association, NoteToMany

Association, NoteToMany

Association, NoteToMany

Auto1, Novo

B1z1wgmclAUgwBd, 9tEibH...

BBO-1711, DND

104

Saint Louis BBO

Send Documents to 3568, BBO

Filter Documents...

Employee Multiple PDF 1 - d

Employee Multiple PDF 2 - d

Employee Super Slideout Document - d

External Doc Approval - b

Field Format - a

Life - b

New Document - c

New Document - d

regression 5b - a

regression 5b - ordered - a

Whiskers - a

Selected (4)

READY	NAME
<input checked="" type="checkbox"/>	<div><div>ClearAndRemoveDocumentPacket</div><div>ENGLISH</div></div>
<input checked="" type="checkbox"/>	<div><div>Assignment Multiple PDF 1</div><div>PRIMARY CONTACT</div><div>SECONDARY CONTACT</div></div>
<input checked="" type="checkbox"/>	<div><div>Background</div><div>PRIMARY CONTACT</div><div>SECONDARY CONTACT</div></div>
<input checked="" type="checkbox"/>	<div><div>Field Format</div><div>PRIMARY CONTACT</div><div>SECONDARY CONTACT</div></div>

CANCEL

SEND

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DELETE

SAVE

# New and Improved Document Builder

The screenshot displays the Bullhorn Document Builder interface. At the top, a dark navigation bar includes the Bullhorn logo and a menu with options like HOME, COMPANIES, APPROVERS, USERS, VENDORS, PLACEMENTS, TIMESHEETS, COMMISSIONS, PAYABLES, RECEIVABLES, MESSAGING, REPORTS, ADMIN, and ONBOARDING. A user profile for CHARLES B. NOT SULPE is visible in the top right. Below the navigation bar, the main header reads 'New Document' with navigation controls for 'PREV/NEXT PAGE', 'HIDE GUIDES', 'ACTIONS', and a 'SAVE' button. A left sidebar, titled 'FIELDS', contains a list of document components: 'Add Text Input', 'Add Block Text', 'Add Paragraph', 'Add Signature', 'Add Checkbox', 'Add Date Input', 'Add Radio Button', 'Add Dropdown', 'Add Signature Text', and 'Add Hyperlink'. The main content area shows a form for 'ACME Staffing | BH Recruit', featuring the company logo and a bull icon. The form is titled 'Visa Application Details' and includes a section for 'Personal Details' with input fields for 'First Name', 'Middle Name', 'Last Name', and 'Date of Birth'.

# Onboarding REST API

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# Onboarding API Documentation

<https://api.bbo.bullhornstaffing.com>



**Administrators :**

Show/Hide | List Operations | Expand Operations | Raw

**AssignmentDepartments :**

Show/Hide | List Operations | Expand Operations | Raw

**AssignmentOvertimeRules :**

Show/Hide | List Operations | Expand Operations | Raw

**AssignmentRates :**

Show/Hide | List Operations | Expand Operations | Raw

**Assignments :**

Show/Hide | List Operations | Expand Operations | Raw

**AtsFieldMappingEntities :**

Show/Hide | List Operations | Expand Operations | Raw

**AtsFieldMappingFields :**

Show/Hide | List Operations | Expand Operations | Raw

**Branches :**

Show/Hide | List Operations | Expand Operations | Raw

**DataExportReports :**

Show/Hide | List Operations | Expand Operations | Raw

**DataExportsHelper :** This is a Helper Controller that runs data exports designed by BBO

Show/Hide | List Operations | Expand Operations | Raw

**Departments :**

Show/Hide | List Operations | Expand Operations | Raw



# Onboarding API Documentation

- Uses swagger
- Interactive
- Provides special notes about unique exceptions

# (demo) Onboarding API Verbs



## Employees :

[Show/Hide](#) | [List Operations](#) | [Expand Operations](#) | [Raw](#)

POST	/Employees	Create an Employee.
GET	/Employees	Lists all Employees.
DELETE	/Employees/{id}	Deletes an Employee.
GET	/Employees/{id}	Find Employee by id.
PUT	/Employees/{id}	Update an Employee.

# Onboarding API Status Codes

## Request URL

https://api.bbo.bullhornstaffing.com:443/v1.0/Employees/999999?token=eyJ0eXAiOiJKV1QiLCJhbGciOiJIUzI1NiIsImtpZCI6ImJiby

## Response Body

```
{
  "errors": [
    "Invalid Entity Id: Entity not found."
  ],
  "statusCode": 404
}
```

## Response Code

404

## Response Headers

```
{
  "Pragma": "no-cache",
  "Date": "Mon, 20 May 2019 19:03:51 GMT",
  "Content-Encoding": "gzip",
  "Server": "Apache",
  "Status": "404 Check Document Body For More Details",
  "Vary": "Accept-Encoding",
  "Content-Type": "application/json; charset=UTF-8",
  "Access-Control-Allow-Origin": "*",
  "Cache-Control": "no-store, no-cache, must-revalidate",
  "Connection": "close",
  "Content-Length": "81",
  "Expires": "Thu, 19 Nov 1981 08:52:00 GMT"
}
```

200	Successful API Call
400	Invalid field specified
401	User not authorized
404	Not Found
409	Validation issue
500	Server error

# Onboarding API Entity List

- **Administrators**
- AssignmentDepartments
- AtsFieldMappingEntities
- AtsFieldMappingFields
- **Branches**
- DataExportReports
- Departments
- **Employees**
- EmployeeTypes
- **EobConnectedDocuments**
- **EobConnectedPackets**
- **EobDatas**
- EobDocumentAttachments
- EobDocumentInstanceOnboardingUsers
- EobDocumentInstance
- EobDocuments
- EobEmployeeTracking
- EobFieldCoordinates
- EobFieldInteractions
- EobFields
- EobPacketDocuments
- EobTypeObjectAttachments
- EobUserRoles
- FailedFlowbacks
- Languages
- **Managers**
- OnboardingUsers
- Vendors

# Documents/Packets

- Assigned by creating a connected document/packet
- You can create document translations
- EobFields are used to store the data.

# Employees

- Primary Recipient of most documents
- Connected to assignments, onboarding users, and documents
- Has special login to complete documents

# Onboarding User

- Every entity involved with onboarding has an associated onboarding user
- Documents are assigned to onboarding users, not directly to the employee and assignment

# Special Notes

- Onboarding Related Entities start with “EOB” for Employee Onboarding
- Documents need to be sent in multiple steps
- Changing document status via API is not recommended



# API Entity Filtering and Chaining

The screenshot shows an API testing interface. At the top, a 'fields' input box contains 'userName,EobDocument.title,Assignments.\*'. A tooltip explains that fields can be on the entity, parent entities, or children entities, and lists eligible entities: Assignments.\*, EobDocument.\*, OnboardingUser.\*, User.\*, and Vendor.\*. The 'query' input box contains 'string'. Below this, the 'Request URL' is shown as 'https://api.bbo.bullhornstaffing.com:443/v1.0/Employees/6077?fields=userName%2CEobDocument.title%2CAssignments.\*&token=e'. The 'Response Body' section displays a JSON object representing an employee with nested document and assignment information.

fields: `userName,EobDocument.title,Assignments.*`

Can be fields on this entity, parent entities, or children entities. Specify entities other than this one with type.field. Eligible entities are:  
Assignments.\*  
EobDocument.\*  
OnboardingUser.\*  
User.\*  
Vendor.\*  
Optional.

query: `string`

Response Messages  
[Try it out!](#) [Hide Response](#)

Request URL  
`https://api.bbo.bullhornstaffing.com:443/v1.0/Employees/6077?fields=userName%2CEobDocument.title%2CAssignments.*&token=e`

Response Body

```
{
  "Employee": {
    "EobDocument": {
      "title": "I9 Eff. 2017.07.17"
    },
    "Assignments": [],
    "userName": "Smith, Joesph"
  },
  "statusCode": 200
}
```

- Available entities outlined in blue
- Chaining works on GET and POST calls
- Example of linking to the Document and Assignment entities

# API Helper Endpoints



- EobUserDocumentsHelper
- ExpiredAttachmentsRemiderHelper
- IncompleteDocumentsReminderHelper
- RefreshBullhornCandidatesHelper
- RefreshBullhornPlacementsHelper
- SearchHelper
- DataExportHelper

# Refresh Bullhorn Helpers

*RefreshBullhornPlacementsHelper/RefreshBullhornCandidatesHelper*

- Imports placement as assignment
- Imports candidates as employees
- Returns any validation errors preventing the import
- Useful to force an import after meeting custom criteria

# Search Helper

*SearchHelper*

- Used for major entities
- Can be used to create custom lists outside of Onboarding
- Columns and filters are saved and reflected in the app

# Data Export Helper

*DataExportHelper*

- Downloads results returned from a data export report
- Can be used to sync data from Onboarding to external database
- Data Exports are built from custom SQL

# Document Field Interactions

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# What are field interactions?

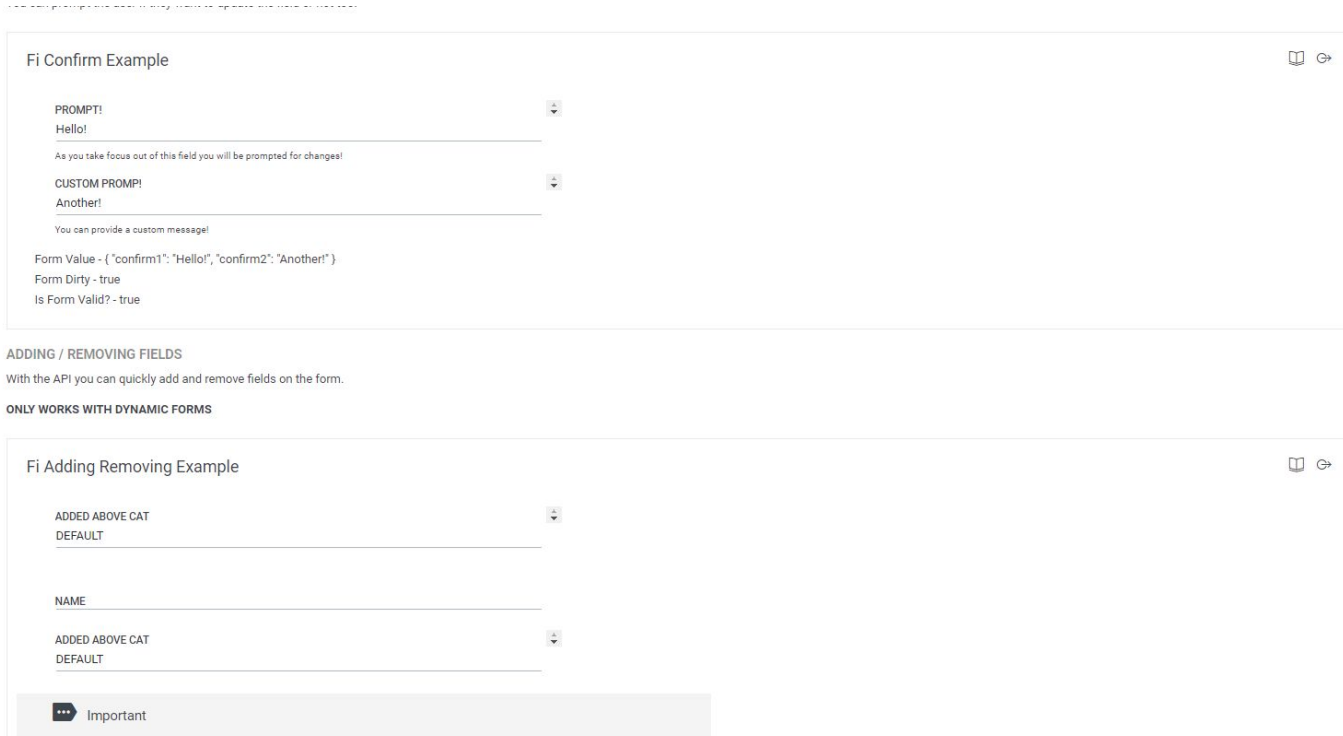
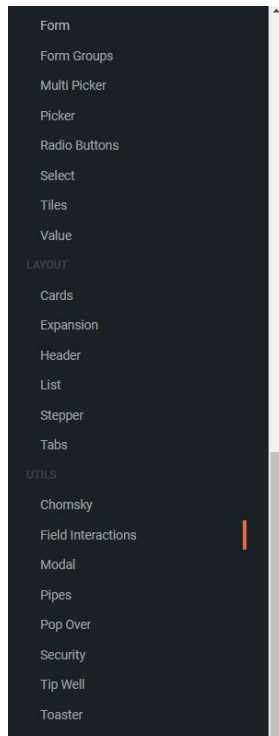
- Allows you to modify the fields on the document
- Uses javascript
- Dynamically allows you to guide employees through the document based on contextual data

# Noteable Field Interaction API methods

- `setRequired(bool)`
- `show()/hide()`
- `setProperty()`
- `addStaticOption()`



# Fully Documented with Novo-Elements



# Document Field Interaction Events

Change:	The <b>onchange event</b> occurs when the value of a field has been changed.
Focus:	The <b>focus event</b> occurs when a field gets <b>focus</b> (when selected by a mouse click or by "tab-navigating" to it).
Blur:	The <b>onblur event</b> occurs when a field loses focus.
Init:	The <b>init event</b> occurs when a field is initialized on the document

```
var onboardingField = document.getElementById("onboardingFieldId");

onboardingField.addEventListener('onchange', function() {
  <!-- your field interaction code here !-->
});
```

# Field Interaction Management

Document Field Interactions

SELECT DOCUMENT TYPE

I9 Eff. 2017.07.17 (EVerify) ▼

ADD NEW FIELD INTERACTION

Enabled?☒

Name

Field interaction name

Field

Available fields for the selected docum... ▼

Event Type

change ▼

Invoke on init?☐

Sort Order

0

Script

Save

Cancel

Available Fields

API Documentation

Show

10 ▼

 entries

Search:

ID	Name	Type	Required
-1001398	Additional Information	stringBox	false
-1001397	Preparer Translator Zip	string	false
-1001396	Preparer Translator State	string	false
-1001395	Preparer Translator City	string	false
-1001394	Preparer Translator First Name	string	false
-1001393	Preparer Translator Date Signed	date	false
-1001392	Preparer Translator Street Address	string	false
-1001391	Preparer Translator Last Name	string	false
-1001390	Preparer Translator Signature	signature	false

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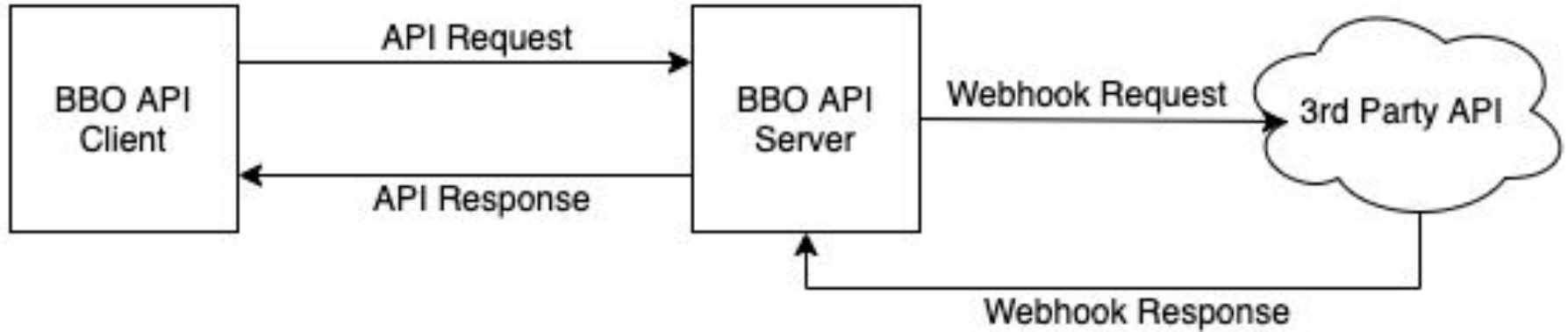


# Demo

# Onboarding Webhooks

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# Onboarding API Webhook Workflow



# Onboarding Document Webhooks

Search:

## *Document Webhooks*

Document.Webhooks.Status Change Enabled

Yes ▼

Document.Webhooks.Status Change URL

Document.Webhooks.Pre Status Change Enabled

Yes ▼

Document.Webhooks.Pre Status Change URL



# Document Pre-status Change Webhook

- Fires before document status change
- Cancel the status change
- Data Validation
- Custom Error Messages



# Document Post Status Change Webhook

- Fires after document status change
- Good For:
  - Updating external systems
  - Determining if Onboarding is completed
  - Pre-populating additional documents

# Onboarding Webhook Data

```
{
  "id": 22124,
  "onboardingUserId": 34305,
  "documentId": 2387,
  "status": "Submitted",
  "oldStatus": "In Progress",
  "data": {
    "1003234": {
      "fieldId": 1003234,
      "fieldName": "First Name",
      "data": "Keith"
    },
    "1003235": {
      "fieldId": 1003235,
      "fieldName": "Last Name",
      "data": "Goff"
    }
  },
  "employeeIntegrationId": 8734
}
```

- Example Data Set
- Field values in Data Property
- IDs provide access to other information

# Employee Intake Form

Edit Employee Intake



Actions



First Name:

Last Name:


Date Of Birth:

Age:

# Pre-status Webhook Example

Edit Employee Intake ✕

< Actions >



Acme Staffing

Error ✕

Oops! Your age seems to be incorrect. If you were born 05/24/1992 you should be 27 not 26.

OK

First Name:

Last Name:

Date Of Birth:

Age:

# Onboarding Flowback

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COMPANIES

APPROVERS

EMPLOYEES

ASSIGNMENTS

TIMESHEETS

PAYABLES

RECEIVABLES

MESSAGING

REPORTS

ADMIN

ONBOARDING

E-VERIFY

PACKETS

DOCUMENTS

FLOWBACK

100

250

500

Displaying 1

CLEAR

ADD FLOWBACK RULE

Field

ACTIONS

Date available

ACTIONS

Email address

ACTIONS

occupation

ACTIONS

Phone

Flowback

Candidate - Date Available

Candidate - Email Address

Candidate - Title

Candidate - Cell/Mobile

Flow From Document

DOCUMENT

Intake Form for Flowback

FIELD

Phone

Flow To ATS field

FLOWBACK TARGET

Candidate - Cell/Mobile

CANCEL

SAVE FLOWBACK RULE

# Field flowback Errors

▲ Error Log for Country 1, Country flowback to Candidate - Address.c... ✕

10 25 50 100 Displaying 1 - 4 of 4 < PREVIOUS NEXT >

Flowback ⚙ ▼	Record ⚙ ▼	Status ⚙ ▼
02/25/2019, 15:43	Country, Flowback	▲ Could not find Address.countryID when lookup up with Canada
02/25/2019, 15:43	Country, Flowback	▲ Could not find Address.countryID when lookup up with Canada
02/25/2019, 15:43	Country, Flowback	▲ Could not find Address.countryID when lookup up with Canada
02/25/2019, 15:43	Country, Flowback	▲ Could not find Address.countryID when lookup up with Canada

BACK DISMISS ALL ERRORS ✓ RETRY ALL ERRORS ✓

- Flowback errors are logged and viewable from the flowback rules list
- Have the option to resend and failed flowback rules

# Recap

- Flowback allows you to access your data in the ATS for Searching and reporting
- Document Webhooks allow additional validation and actions to be taken when a documents status is updated
- Document Field Interactions allow your forms to be smarter and more dynamic
- The Onboarding API enables you to access your Onboarding information outside of the system



Questions?

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# Flowback Capabilities

- Allows you to access completed Onboarding Document Data in the ATS
- Easy to use interface for sending both documents and data back.
- Can send whole document back as PDF or update fields in the ATS with data from the document.