



# USA Staffing<sup>®</sup> Interconnections Implementation Guide

Updated September 2021

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# USA Staffing Interconnections

Interconnections allow two systems to exchange data to facilitate end-to-end processes and provide visibility to key information across systems. Customers may choose to implement **one or more agency-specific interconnections** to connect USA Staffing with their HRIT systems.

## Data APIs

allow you to pull any USA Staffing data on demand from our Hiring Data Warehouse to keep agency tracking and HR Business Intelligence systems in sync.

Data APIs rolling out over the course of 2021 will replace DSS as your agency's method for pulling data in bulk.



## Request Processing Interconnection (RPI)

is a bi-directional web services interconnection with agency personnel processing systems, which send request data to USA Staffing and receive status updates and selectee data in real time.

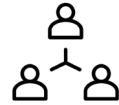
## New Hire Interconnection (NHI)

sends New Hire data, mostly collected via onboarding forms, to systems involved in the onboarding process. As of Q3 FY21, it will also receive statuses and/or results from interconnected systems.



# USA Staffing Interconnections

## Request Processing Interconnection (RPI)



POST/GET



HR sends Request info to populate USA Staffing

USA Staffing sends data back to HR at request milestones

## New Hire Interconnection (NHI)



POST



USA Staffing sends New Hire data to agency system

Agency system sends status updates back to USA Staffing

## DSS → Data APIs



GET



Agency system uses REST API to request data based on configured parameters

USA Staffing sends bulk data to agency system



# USAS Interconnections Roadmap

There are four phases of an interconnection implementation, but they do not happen in an exact order and many of these steps will overlap.

Work with our Interconnections team to understand what your agency's roadmap will look like based on the interconnection(s) you plan to implement and how they line up with your overall USA Staffing roll-out.



**Planning**  
*(2-4 months)*



**Requirements & Development**  
*(2-6 months)*



**Testing**  
*(1-2 months)*



**Production**



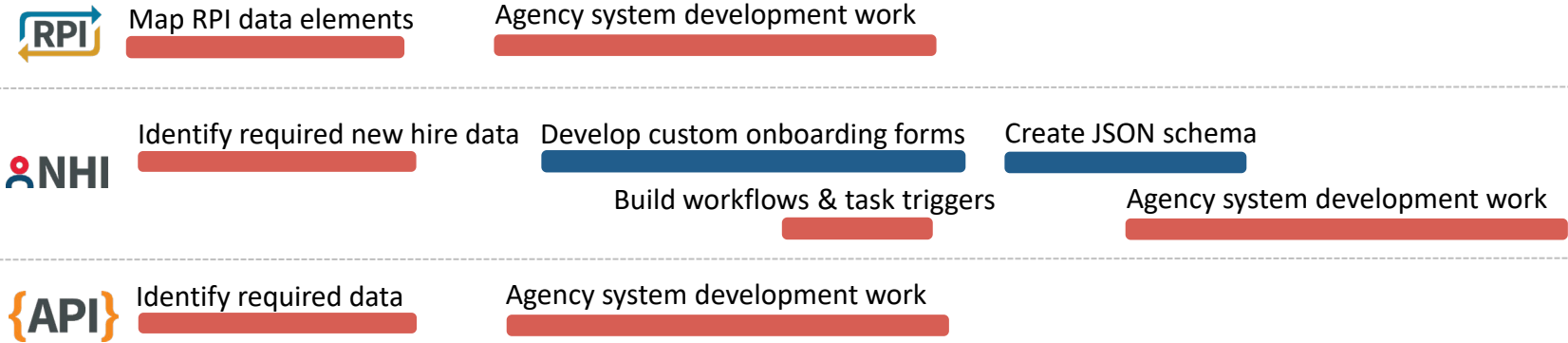
- Agency Responsibility
- OPM Responsibility
- Shared Responsibility

Planning



Requirements & Development

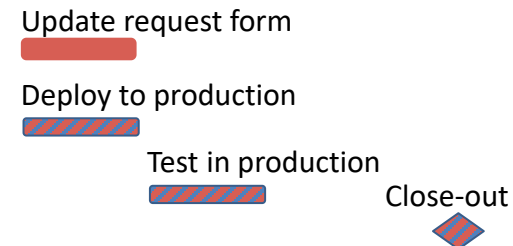
We recommend establishing weekly meetings with the USAS Interconnections Team during this phase.



Testing



Production





# Step 1a: Determine Interconnection Needs



Our team will facilitate a series of conversations to understand what interconnection(s) your agency needs based on the data required by your system(s) and your overall USA Staffing implementation strategy.

First, consider the following questions:

- What kind of data do you need? Do you need more than one interconnection to receive the desired data?
- Does your agency have existing interconnections with USA Staffing?
- Is your USA Staffing roll-out dependent on any interconnection(s) being live in Production? What is your overall timeline?
- What resources do you need internally, and how will they be aligned during this implementation?
- What technical and security limitations does your agency have?
- What roles and responsibilities should be established on your side? We recommend a project manager, HR subject matter expert, and technical lead.

Request Processing Interconnection (RPI)	New Hire Interconnection (NHI)	Data APIs
<a href="#">RPI Functional Overview Video</a>	<a href="#">NHI Functional Overview Video</a>	<a href="#">API Functional Overview Video</a>





# Step 1b: Request Form

OPM requires a Request Form (signed by the agency's Advisory Board Member and USA Staffing's Program Manager) to allow an agency system access through our firewalls by whitelisting the system's IP address(es). This form must be completed before your agency's system can access USA Staffing's Stage environment.

1. Download the [request form here](#).
2. Enter all required info, including system details and IP addresses.
3. If using RPI, provide your endpoint URL.
4. If using NHI, provide payload and endpoint URLs.
5. Specify the USAS environment to be accessed (stage initially, then production prior to implementation).
6. Agency Advisory Board member signs the form electronically.
7. USA Staffing Program Manager signs the form electronically.
8. USA Staffing adds agency system IP addresses and URLs to our whitelist and firewall. This may take 2-3 weeks.
9. You will be notified when your agency system has been cleared to connect to USA Staffing.

## Request Form Checklist

- ✓ Ensure your Advisory Board Member signs the form. (If you don't know your AB member, please contact your USAS Account Manager)
- ✓ Make sure all information is provided! RPI and NHI have unique requirements on pages 6 & 7 of the request form.
- ✓ Confirm your system's IP address is valid by finding out what IP is hitting OPM's firewall [here](#)
- ✓ If updating your system's IP addresses, include **all** valid IPs, not just the new ones

Agencies may begin working in the stage environment after the request form has processed, even if the ISA and MOU have not been finalized. A signed ISA and MOU are required to move an interconnection to the production environment.

Planning

Design

Testing

Production



# Step 1c: Security Documentation

OPM requires security documentation be signed by both agencies before RPI, NHI or APIs can be used in production.

## Memorandum of Understanding (MOU)

- Business agreement between USAS and agency about the information shared between systems
- Signed by USAS Program Manager & agency signatory

## Interconnection Security Agreement (ISA)

- NIST requirement documenting the development, management, operation, and security of interconnecting systems
- Signed by OPM and agency CISSOs

### Steps

1. USA Staffing provides MOU & ISA templates
2. Agency fills in system info & returns draft to USAS
3. USA Staffing's ISSO reviews the draft for completeness & returns for edits if needed
4. Repeat steps 2 and 3 until all parties are satisfied
5. USAS finalizes document & sends to agency for signature
6. Agency acquires signatures on MOU & ISA and returns to USAS interconnections team
7. USAS submits package for OPM signature
8. USA CISSO approves interconnection for use in production





# Step 2a: Gather Requirements

The first step of the design process is to understand **what** data is needed by the agency system and **when** in the hiring process it is needed. Each USAS interconnection serves a unique purpose and provides a different set of data.

Request Processing (RPI)	New Hire (NHI)	Data APIs
<p>Review the “Using the RPI Data Elements” spreadsheet to understand what data USAS requires to create a request. There are many optional fields that can be used based on your system’s needs.</p> <p>Work with our Interconnections Team to crosswalk your agency system’s fields against USAS fields using the <a href="#">RPI Data Elements</a> guide.</p> <p>Decide whether you plan to receive status updates through RPI as <a href="#">hiring</a> and <a href="#">onboarding</a> tasks are completed in USAS.</p>	<p>New Hire data available through NHI is driven by the onboarding forms used by your agency. Review the <a href="#">Onboarding Forms List</a> to identify the forms you plan to collect, and work with your agency’s onboarding team to understand how and when these forms are used.</p> <p>If you require a field not captured on an existing form, we can build a custom form for you. Work with your USAS Account Manager to submit requests for custom forms.</p> <p>NHI triggers are based on workflows built by your USAS Office Administrator. <a href="#">Click here</a> to learn more.</p>	<p>USAS Data is broken into multiple APIs, including: Time to Hire, Request, Onboarding Tasks, Vacancy, Announcement, etc.</p> <p>Use the <a href="#">API Data Dictionary</a> on our <a href="#">Developer Platform</a> to look through our API offerings and determine which APIs your agency would like to implement.</p>
<p>The RPI section of the <a href="#">Resource Center</a> provides many functional &amp; technical specifications, including Data Elements &amp; related errors, Available Status &amp; Task Updates, and Sample XML.</p>	<p>Ask the Interconnections Team for copies of the NHI Data Dictionary and NHI Workbook.</p>	<p>Ask the Interconnections Team if you need a hard copy of the API Data Dictionary</p>





# Step 2b: Development Work

After everyone agrees on the data to be sent/received, USAS and your agency’s development team will build out the interconnection(s). This process and timeline looks different for each interconnection.

Request Processing (RPI)	New Hire (NHI)	Data APIs
<ol style="list-style-type: none"> <li>1. USAS opens firewall so agency can send requests.</li> <li>2. Agency builds interconnection XML based on USAS standard specifications and data elements identified as necessary during system crosswalk.</li> </ol>	<ol style="list-style-type: none"> <li>1. (If needed) USAS builds custom onboarding forms</li> <li>2. USAS creates and shares JSON schema in JavaScript</li> <li>3. Agency developers review JSON and build interconnection</li> </ol>	<ol style="list-style-type: none"> <li>1. Authenticate using your agency specific API Key</li> <li>2. Determine which API endpoints your agency wants to use</li> <li>3. Define optional parameters</li> <li>4. Execute request and return JSON</li> </ol>
<p>The RPI section of the <a href="#">Resource Center</a> provides many functional &amp; technical specifications, including Data Elements &amp; related errors, Available Status &amp; Task Updates, and Sample XML. <a href="#">RPI Technical Overview Video</a></p>	<p><a href="#">Sample JSON</a> <a href="#">NHI Technical Overview Video</a></p>	<p><a href="#">API User Guide</a> <a href="#">API Technical Overview Video</a> <a href="#">API Documentation Pages</a></p>





# Step 2c: Workflows/Data Transmission

Interconnections function properly as a result of identifying series of triggers or events that lets the system know when it needs to send or receive data. Therefore, the next step in the process is to identify system triggers that will be used for the interconnection. Use the information below to help identify these events for the different interconnections.

Request Processing (RPI)	New Hire (NHI)	USA Staffing Data APIs
RPI receives data via requests by the customer in USAS and USAS will return a status and/or task update based on the workflow.  The documents below describe the status and task updates you will receive based on when certain milestone update or system events occur."	NHI uses task triggers to identify system/user actions that initiate data transmission from USAS. Triggers must be HR or NH-owned tasks.  The video below describes how to set up your workflows.	Customers can request API data through a variety of tools, such as Postman and Fiddler.  Use the API User Guide and <a href="#">API Documentation Pages</a> on our Developer Platform to set up your requests.
<a href="#">RPI Request and Task Status Updates</a>	<a href="#">NHI Workflows Video</a>	<a href="#">API User Guide</a> <a href="#">API Technical Overview Video</a>





# Step 3a: Authentication

The agency technical team should watch the technical overview video to understand how to authenticate their system with USA Staffing. The process and technology are different for each interconnection, and our team is happy to answer any questions. Authenticating to the USAS stage environment is an important first step in the development process. Authentication to production will happen after the MOU and ISA have been signed.

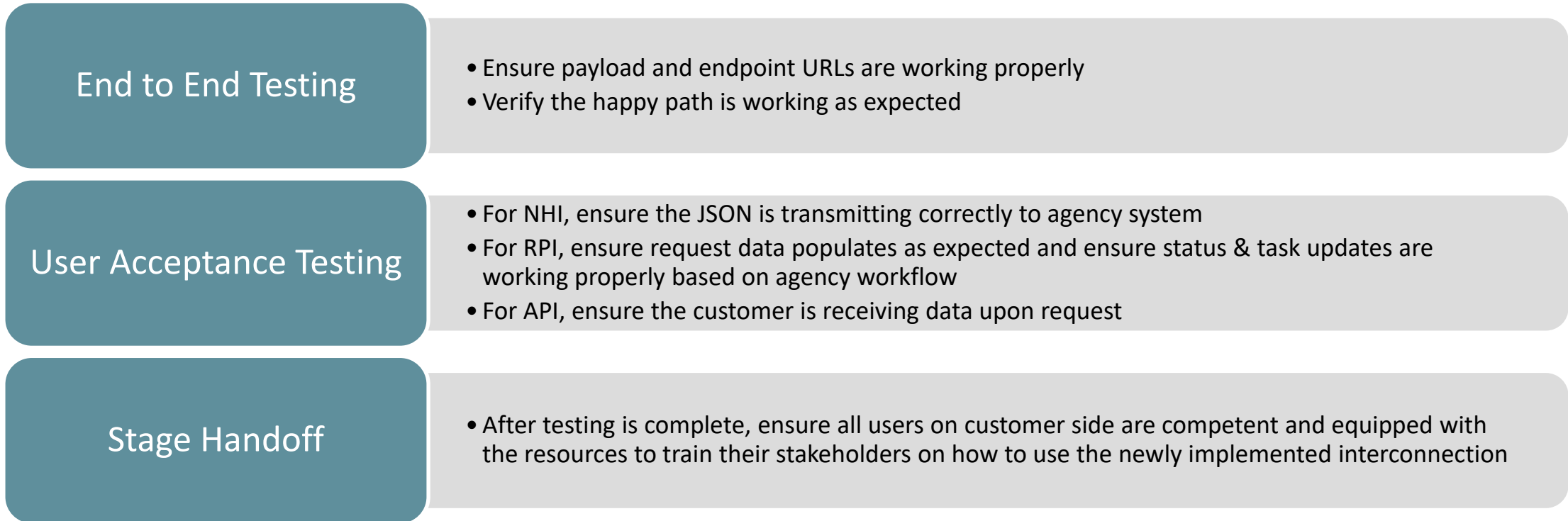
Request Processing (RPI)	New Hire (NHI)	Data APIs
<ol style="list-style-type: none"> <li>Whitelist IP Addresses</li> <li>Authentication Token</li> <li>Requestor and Office</li> </ol>	<ol style="list-style-type: none"> <li>Whitelist IP Addresses</li> <li>Username and Password</li> <li>Authentication Token (JWT)</li> </ol>	<ol style="list-style-type: none"> <li>Whitelist IP Addresses</li> <li>User to Office Match</li> <li>API Key</li> </ol>
<a href="#">RPI Technical Overview Video</a> <a href="#">SOAP Authentication</a>	<a href="#">NHI Technical Overview Video</a> <a href="#">JWT Authentication</a>	<a href="#">API User Guide</a> <a href="#">API Technical Overview Video</a> <a href="#">API Documentation Pages</a>





# Steps 3b-d: Stage Testing

After the interconnection is built, deployed to stage, and authentication is working, the next step in the process is to test the interconnection and data transmission. Our team will communicate the specifics of each testing phase when your agency is ready for testing.





# Step 4: Production

After stage testing is completed, the agency will then push out the interconnection to production. Here is the process for doing so:

1. USAS whitelists customer IPs in the production environment
  - Agency will have to fill out a new [request form](#) with your Production IP Addresses
  - *Please note that IPs cannot be whitelisted to production until the ISA and MOU have been signed*
2. Interconnection code is built/released to production
  - Whatever changes you made in stage must be replicated in production
3. USAS sends production authentication token (API key for APIs)
4. Rounds of testing are performed again to ensure the data is transmitting

After the implementation is complete, it is important that the customer provides proper maintenance to the interconnection and troubleshoots any issues that arise. The USAS team will provide a debrief meeting at the end of this process to ensure the customer is equipped with the necessary guidance and tools to keep their interconnections working.

Also, please use the [FAQ Page](#) on our Developer Platform as a resource when troubleshooting issues before reaching out to your account manager or submitting a ticket. If you still have issues, then our team is more than happy to assist.





# USA Staffing Interconnections Resource Center

The [Interconnections Resource Center](#) contains helpful information about our interconnection offerings, including orientation videos, technical specifications, and sample data. Please start your interconnections journey here!

**Navigation**

- ▶ Home

**Security And Privacy**

- ▶ Privacy Policy
- ▶ Terms And Conditions Of Use

## Interconnections

**Interconnection Resources**

- Interconnections Fact Sheet *(April 2021)*
- Introduction to USA Staffing Interconnection Offerings
- Interconnection Request Form *(March 2021)*
- This form must be completed, signed and submitted to your USA Staffing Account Manager
- Interconnections Implementation Guide *(May 2021)*
- Interconnections Frequently Asked Questions **Coming Soon**

**{API}** Application Programming Interface (API)

- Data APIs User Guide *(August 2021)*
- Video: Introduction to APIs Functional Overview *(August 2021)*
- Video: Introduction to APIs Technical Overview *(August 2021)*

**NHI** New Hire Interconnection (NHI)

- Video: Introduction to NHI Functional Overview *(April 2021)*
- Video: Introduction to NHI Technical Overview *(April 2021)*
- Video: How to Build NHI Workflows *(April 2021)*
- NHI Commonly Used Fields **Coming Soon**
- NHI Testing Setup *(Feb 2018)*
- NHI Authentication and Data Sample *(February 2018)*
- Sample JSON and Output *(April 2021)*

**RPI** Request Processing Interconnection (RPI)

- Video: Introduction to RPI Functional Overview *(April 2021)*
- Video: Introduction to RPI Technical Overview *(April 2021)*
- Request Processing Data Elements in USA Staffing *(March 2021)*
- RPI Request and Task Status Updates sent by USA Staffing *(April 2021)*

**Technical Specifications**

- RPI Authentication *(June 2016)*
- Process Position Opening XML – Minimum Required Fields **Coming Soon**
- Process Position Opening XML – Additional Fields **Coming Soon**

3/15/2022

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# Let's keep talking

**For additional information, please contact your account manager or the interconnections teams.**