NPF 2026

FORGING BOLD HORIZONS

Addressing Intelligence APIs - That Deliver Every Time

May 4, 2025

Address Landscape

USPS® has an expansive list of partners in the mailing industry to ensure mail and packages have quality addresses. This is primarily driven by two factors:

1. Address standardization (CASS-certification): Complete and accurate address
2. Move Update (NCOA license network): Current address of recipient (name and address)

- First-Class, Marketing, and Periodical mailers are required to perform address hygiene at periodic frequency - Move Update every 95 days, Address Verification every 90 days.

- Despite these efforts, customers continue to experience delays due to Undeliverable As Addressed (UAA) mail and packages. The most recent statistics show 4.4 billion pieces of mail that were forwarded, returned to sender, or wasted in a year. At the same time, USPS costs associated with handling UAA continues to increase. The most recent statistics shows $1.4B in costs for one year.

Forward at 34¢ / pc.	Return at 73¢ / pc.	Waste at 9¢ / pc.
548.2 Million pieces	1.262 Billion pieces	2.561 Billion pieces
$184 Million	**$913.7 Million**	**$227.8 Million**

- Modernization is needed to improve the quality of addresses and reduce UAA.

USPS® API Performance

Integration Options

USPS APIs provide Low Latency, High Performance and Better Redundancy by providing multiple cloud integration options and advanced deployments (blue/green) resulting in no outage for our core APIs.

Open Connect via the internet, available in East and West regions

Direct Connect to USPS APIs within the same cloud service provider region

FY25 YTD Core API Response Time by Integration Type*

Core APIs	Open Connect Avg	Direct Connect Avg
Addresses	16ms	13ms
Prices	31ms	30ms
Service Standards	48ms	18ms
Labels	85ms	39ms

*Measured from request hitting USPS Apigee gateway to time of response transmittal.

As of 9/29/2025

Address Details API Request Elements

firmName	string [0 .. 50] characters Firm/business corresponding to the address.
streetAddress required	string The number of a building along with the name of the road or street on which it is located.
secondaryAddress	string The secondary unit designator, such as apartment(APT) or suite(STE) number, defining the exact location of the address within a building. For more information please see Postal Explorer.
city	string This is the city name of the address.
state required	string = 2 characters ^(AA|AE|AL|AK|AP|AS|AZ|AR|CA|CO|CT|DE|DC|FM|F... Show pattern The two-character state code of the address.
urbanization	string This is the urbanization code relevant only for Puerto Rico addresses.
ZIPCode	string^\d{5}$ This is the 5-digit ZIP code.
ZIPPlus4	string^\d{4}$ This is the 4-digit component of the ZIP + 4® code. Using the correct ZIP + 4® reduces the number of times your mail is handled and can decrease the chance of a misdelivery or error.

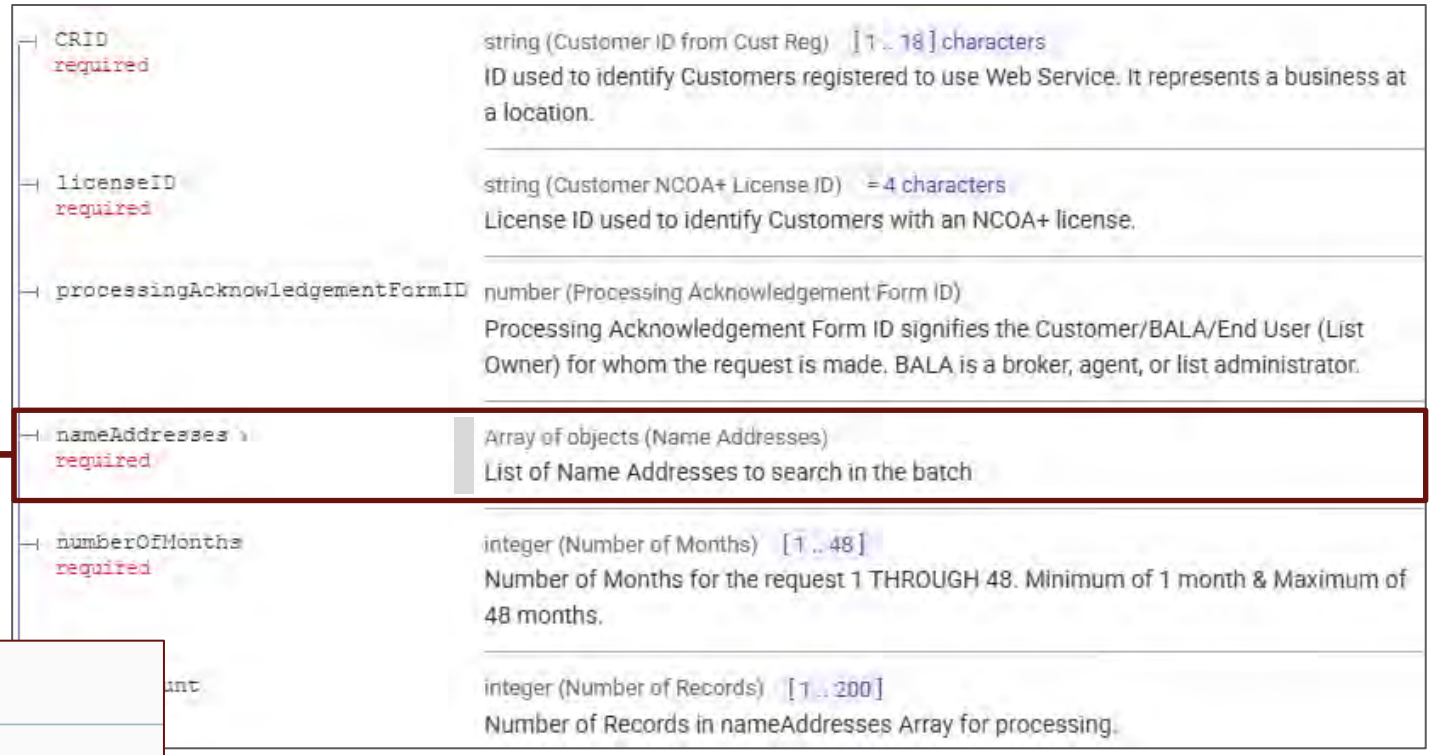
Security of Product

- **Shift from File Transfer (SFTP) to Granular Security focused API**
  Data is Anonymized and privacy is preserved
- **Rate Limiting & Throttling**
  Protecting our APIs from abuse and denial-of-service and ensuring fair usage for all customers.
- **Granular Authentication and Monetization Support**
  OAuth 2.0 and API tokens and MFA
- **Securing Underlying Database**
  Encrypting data in transit using TLS and securing sensitive data at
- **Protection of Secrets in FIPS Approved Storage Solution**
  All Encryption and Hash Keys are stored in FIP certified cloud solution
- **Performance Centric with Authentication and Low Latency**
  API endpoints are protected using tokens, auth flows and WAF using API-Management solution that offers cashing for low latency
- **Scalable and low Operation Expense**
  The API endpoints can be scaled for various use-cases in the future without rearchitecting or re-platforming the solution
- **Reduce Customer overhead with Data drive API instead of ETL**
  Customer Utilize the API to get specific data instead of data set and parsing through files specific customer information???
- **Supports future AI - API Supports future tools including Agentic**
  The API can be used with Agents, GenAI chatbots, and part of AI driven automation workflows
- **Holistic Monitoring –**
  Real-time monitoring for unusual activity with alerts for potential security incidents.

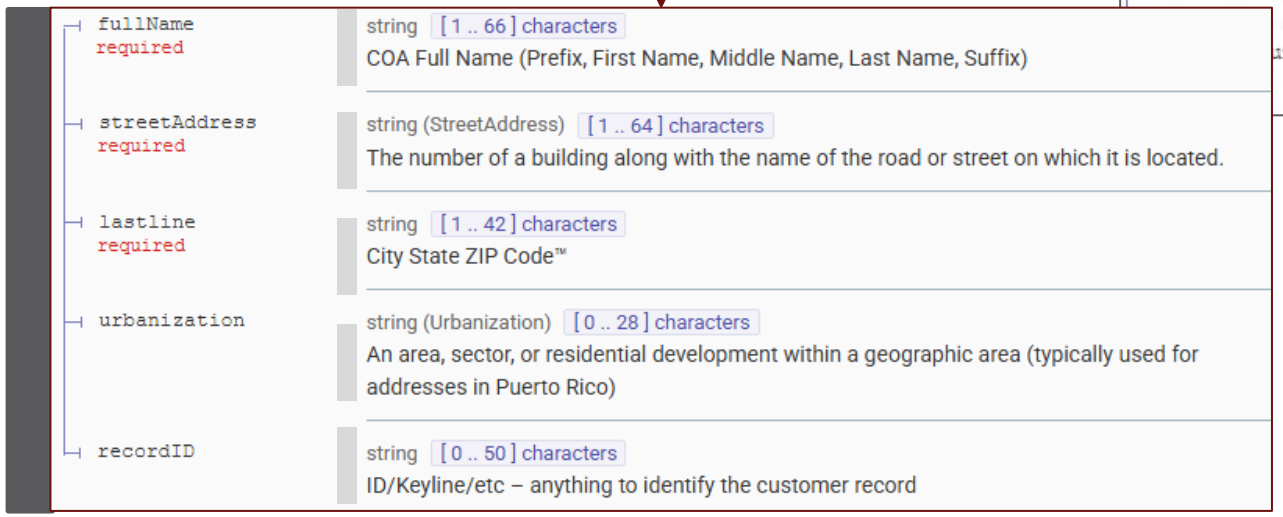
Current System vs API Implementation

Feature	Current System	API Implementation
Minimum Address Requests	Minimum of 100 address requests (NCOA)	No minimum for address requests
Data Delivery Method	Deployment of 17+ GB data files on weekly/monthly schedule	New address information via API web service call
Integration Complexity	Requires licensees to develop software to match new address info	Easier integration with customer software
Data Freshness	Weekly/monthly updates	Near real-time address updates
Usage Statistics Reporting	CSL & PAF Processing (NCOA): - Customer stores statistics when processing customer files - Customer provides FIXED length files monthly - Data is uploaded to mainframe for validation - Data is downloaded for bulk load into Oracle	No monthly PAF or CSL submission required Real-time CSL & PAF Statistics for NCOA: **Auto Captured** Logs are captured in real-time by USPS with API request. (API request data is not be retained)
Auditing	Licensees audited periodically (NCOA)	Automate though AI/ML risk models - Mail volume ratio to API calls - Unusual Patterns of API calls - Repeated iteratives of COA lookups - False Positive hit rate
Security & Management	Data secure during the build process and contains SHA-256 technology when made available to customers.	Enterprise-level API management (Apigee) with security gateway

NCOA API Request Elements



CRID required	string (Customer ID from Cust Reg) [1 .. 18] characters ID used to identify Customers registered to use Web Service. It represents a business at a location.
licenseID required	string (Customer NCOA+ License ID) = 4 characters License ID used to identify Customers with an NCOA+ license.
processingAcknowledgementFormID	number (Processing Acknowledgement Form ID) Processing Acknowledgement Form ID signifies the Customer/BALA/End User (List Owner) for whom the request is made. BALA is a broker, agent, or list administrator.
nameAddresses required	Array of objects (Name Addresses) List of Name Addresses to search in the batch
numberOfMonths required	integer (Number of Months) [1 .. 48] Number of Months for the request 1 THROUGH 48. Minimum of 1 month & Maximum of 48 months.
unt	integer (Number of Records) [1 .. 200] Number of Records in nameAddresses Array for processing.



fullName required	string [1 .. 66] characters COA Full Name (Prefix, First Name, Middle Name, Last Name, Suffix)
streetAddress required	string (StreetAddress) [1 .. 64] characters The number of a building along with the name of the road or street on which it is located.
lastline required	string [1 .. 42] characters City State ZIP Code™
urbanization	string (Urbanization) [0 .. 28] characters An area, sector, or residential development within a geographic area (typically used for addresses in Puerto Rico)
recordID	string [0 .. 50] characters ID/Keyline/etc – anything to identify the customer record

NCOA[Link]® vs API CSL Requirements

USPS® will automate CSL generation based on API transactions

NCOA[Link] CSL Data sent monthly

NCOA[Link]® CSL Detail Record Layout

Record From	Position To	Field Name & Description	Length	COBOL	FSP Detail	LSP Detail	EUM Detail	MPE Detail
1	18	PAF ID	18	PIC X(18)	Yes	Yes	Yes	Yes
		1-4 Licensee Platform ID (USPS assigned)			Yes	Yes	Yes	Yes
		5-10 List Owner NAICS Code			Yes	Yes	Yes	Yes
		11-12 Frequency of processing			Yes	Yes	Yes	Yes
		13-18 List ID (Licensee assigned)			Yes	Yes	Filler	Yes
19	28	PROCESSING CATEGORY** See Chart on page 19	10	PIC X(10)	Yes	Yes	Yes	Yes
		EMP TRAIN						
		INT DB TST						
		MKTG TEST						
		NORMAL						
		STAGE I						
		STAGE II						
		SYS TEST						
29	29	ADDITIONAL NOTES - The literal "A" in this field denotes that customer provided written request for longer processing period.	1	PIC X(1)	Yes	Yes	Filler	Yes
30	30	PRE-PROCESSES PERFORMED*	1	PIC X(1)	Yes	Yes	Filler	Filler
31	31	CONCURRENT PROCESSES*	1	PIC X(1)	Yes	Yes	Filler	Filler
32	32	POST-PROCESSES PERFORMED*	1	PIC X(1)	Yes	Yes	Filler	Filler
		N = None						
		Y = Yes but with no data modifications						
		D = Yes, data modifications from sources other than postal data						
		P = Yes, data modifications from postal data only (LACS[Link])						
		B = Yes, data modifications from postal and other sources						
33	33	STANDARD OUTPUT RETURNED	1	PIC X(1)	Yes	Yes	Filler	Yes
		Full and Limited Service Provider Licensees						
		Y = All NCOA[Link] required output returned to client						
		N = Post-processes modified return information (ie: updates applied to list)						
		B = Post-processes modified information; separate file containing all required output also returned						
		End User Mailer Licensees – Filler						
		Mail Processing Equipment Licensees						
		Y = All NCOALink required output returned to client including COA Data (new addresses provided) i.e. Processing Via Returned Mailpiece – COA Data Sprayed on mailpiece						
		Z = All NCOALink required output returned to client excluding COA Data (new addresses not provided) i.e. FLATS Mode – No COA Data Sprayed on the mailpiece; mailpieces are outsorted						
		X = Nothing is returned to the customer i.e. Normal processing, active mode all mailpieces are deposited in the mailstream with no change of address information going back to the customer.						

*These field should be filler for Mail Processing Equipment, unless data other than POSTAL data is used.

NCOA+ API Specification

Request Object	Req?	Description	Example Element
CRID	✔	ID used to identify Customers registered to use Web Service. It represents a business at a location.	"12345678"
License ID	✔	License ID used to identify Customers with an NCOA+ license.	"TAAA"
PAF FormID	✔	Processing Acknowledgement Form ID signifies the Customer/BALA/End User (List Owner) for whom the request is made. BALA is a broker, agent, or list administrator.	1
Name Addresses	✔	List of Name Addresses to search in the batch.	Array of Addresses
Full Name	✔	COA Full Name (Prefix, First Name, Middle Name, Last Name, Suffix)	"SAMPLE CORP"
Street Address	✔	The number of a building along with the name of the road or street on which it is located.	"123 MAIN ST"
Last Line	✔	City State ZIP Code™	"WASHINGTON DC 20260"
Urbanization	✘	An area, sector, or residential development within a geographic area (typically used for addresses in Puerto Rico)	""
Recorded	✘	ID/Keyline/etc – anything to identify the customer record	"1"
Number Of Months	✔	Number of Months for the request 1 THROUGH 48. Minimum of 1 month & Maximum of 48 months.	48
Record Count	✘	Number of Records in name Addresses Array for processing.	1

Geocoding API

Enhanced Addresses 3.0 | devportal

USPS establishes geo-coordinates to deliver mail and packages and verify accurate delivery location.

Lat/longs Available

Addresses:	171,125,697	
Mailbox Coordinates:	170,813,209	99.82%
Door Coordinates:	169,677,637	99.15%

Delivery Method	Coverage	Coordinates Included
Apigee	Nationwide, ~170M coordinate pairs	Front door and mailbox MDD scan locations

GEOCODING

An input address is translated into geolocational latitude and longitude coordinates (front door, mailbox, or both).

INPUT

Address	*475 L'Enfant Plaza SW*
City	*Washington*
State	*DC*
ZIP	*20260*

OUTPUT
Front Door Coordinates
(38.8836710..., -77.0264510...)

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Our modern API platform will introduce the following enhancements and benefits for Address Standardization and NCOA processing.

1. **Will the APIs allow single records to be processed or have the batch handling requirement?**

   A: Our Addressing and National Change of Address (NCOA) API will operate on a single transaction. USPS will consider an option to allow users to submit multiple requests in one transaction.

2. **Does the NCOA+ API require 100 unique record minimum? If not, will this requirement be removed as a requirement in the current NCOALink product?**

   A: The requirement to use NCOA solely for mailing purposes remains in effect for the NCOA+ API. Under the current file-based distribution model, USPS enforces this requirement in part through the 100-record rule. In the API environment, however, processing occurs within USPS's view, allowing submissions to be linked directly to the end customer. This visibility helps ensure that API requests are used exclusively to generate mail and/or packages so the 100-record minimum is no longer required.

3. **What are the throughput expectations for the APIs?**

   A: Our API platform is designed for scalability and high throughput. Applications are containerized and deployed as multiple instances across several cloud regions, enabling elastic scaling to meet varying demand. To support our customers' service-level agreements (SLA), we leverage parallel API processing and dynamic resource allocation, ensuring we can efficiently handle high volumes of requests and meet the throughput needs of all customers.

4. **What are the latency expectations of the APIs?**

   A: Our Addressing APIs currently have latencies on average of 16ms for open connect. This is measured from USPS point of presence from Apigee Cloud region and back.

   We are currently gathering latency data on the NCOA API; however, we are committed to meeting industry latency requirements.

   Our core APIs (addressing, standards, labels, and prices) average performance is 117ms or less.

5. **Will USPS entertain using other cloud instances?**

   A: USPS APIs is currently available in AWS East and West regions. USPS will work closely with the industry to determine the optimal environment to meet industry requirements.

6. **What is the USPS transition plan to the new APIs?**

   A: Our transition strategy will focus on industry readiness by offering both current product fulfillment and modern API services in parallel.

7. **How will the licensing structure be set up for the API tools?**

   A: Currently AMSAPI vendors, NCOAlink and DPV/DSF2 Licensees will be provided API services as part of their current license fee.

8. **What is the expected up-time of the API services?**

   A: We have designed the services to be fully redundant in order to support a goal of 99.99% uptime for all of our API services. Our Addressing uptime currently meets 99.99% availability.

Q&A
Modernization of Address & NCOA Processing with APIs
UNITED STATES POSTAL SERVICE CIO Organization

9. **Will the API platform provide reports currently required through MoveUpdate and CASS requirements?**

   A: Utilizing our Addressing and NCOA APIs will ensure compliance with USPS MoveUpdate and CASS requirements for mailing postage discounts without any additional reporting obligations from customers. Licensees will not be required to perform CASS or NCOA certification. The software will not provide postage statements or other documentation.

10. **How will USPS address Security Protocols to protect customers' sensitive data?**

    A: Detailed information on data security mechanisms, storage location, duration, access protocols will be provided to ensure the confidentiality and integrity of data transmitted via the API. A tech sheet (Addressing API - Vendors) is available that provides detailed information on API, Cloud Platform and underlying data security.

11. **Will USPS only offer API services directly to the consumer?**

    A: No, USPS does not provide NCOA services to consumers.

12. **What helpdesk support will be provided to ensure 24/7 coverage?**

    A: USPS has a robust incident management system to identify and remediate issues timely. This ensures issues are addressed quickly. USPS will also provide 24/7 support in the event issues arise and are not identified through normal monitoring processes. Licensees will be provided with an 800 number with a PIN code to get direct access to our incident management group to engage the right technical resources immediately.

13. **Will USPS provide technology support to assist with onboarding licensees?**

    A: USPS is dedicated to ensuring a successful transition to the API tools. We will set up a series of technical sessions and will assist with individual needs as needed.

14. **What changes will be made to name and address matching in the APIs?**

    A: In the default configuration of the USPS API, USPS will comply with current CASS address matching requirements. In addition, we will provide an advanced option to correct for spelling, missing components, nicknames/alias beyond CASS rules.

15. **Will USPS be modifying the Processing Acknowledge Form (PAF)?**

    A: PAFs will not be required for the API solution. Due to offline processing of lists, PAFs will continue to be required for processing outside the APIs. The requirement to use NCOA solely for mailing purposes remains in effect for the NCOA+ API. Under the current file-based distribution model, USPS enforces this requirement in part through the requirement for mailing list owners to sign a PAF. In the API environment, however, processing occurs within USPS's view, allowing submissions to be linked directly to the end customer. This visibility helps ensure that API requests are used exclusively to generate mail and/or packages.

16. **How will USPS address addressing software deployed on mainframe platforms?**

    A USPS realizes that mainframe platforms will be a challenge. Existing products will remain in place.

Q&A

Modernization of Address & NCOA Processing with APIs

UNITED STATES POSTAL SERVICE
CIO Organization

17. **Can USPS provide an example of how current products are misused?**

    A: USPS has continued to receive reports of misuse of NCOA for non-mailing and other compliance issues. This includes using products for prohibited uses and failure to comply with PAF and CSL requirements. These instances are individually handled, and proprietary to USPS, thereby. details cannot be shared.

18. **How long does USPS intend to retain data?**

    A: When a Change of Address (COA) match is identified, USPS will retain the licensee and list owner information along with the COA key for up to four years. For troubleshooting, API responses are maintained in logs for two weeks for issue remediation. The original input name will not be stored beyond the timeframe of the API call.

19. **Can USPS provide delta/update transaction to the licensees?**

    A: Under the legacy process, the USPS will provide a weekly or monthly full file product updates (depending on license agreement) along with daily deletes. In the API environment, the USPS will provide a daily refreshed full file.

20. **Would USPS entertain future enhancements in the APIs?**

    A: The USPS will make change to the APIs as future enhancements are determined.

How to Get Started

Existing NCOA$^{Link®}$ licensees will be granted access to the Address API under an Operational Test License agreement. To get started onboarding to the NCOA^{Link} API, follow the steps below:

- Contact NCSC at NCOALink@usps.gov for instructions and API documentation.
- Navigate to the Customer Onboarding Portal (COP) and create a USPS® Business Account.
- Setup payment in EPS
- Once EPS Account added, select the 'My Apps' icon on the top right of the Customer Onboarding Portal (COP) to obtain security credentials (consumer key and secret). Follow the instructions on the Getting Started tab to create an App. For convenience, copied here:
  Click the Developer Apps above and then Add App and complete the following steps to create an App:
  - Click "Add app" button
  - Edit "App Name" for your App, if desired
  - Enter "Callback URL" (optional)
  - Enter "Description" (optional)
  - Select the APIs Available (required)
  - Click "Add App" Button
- Select 'Manage' on the newly created app and press 'Refresh Claims'. This will authorize the app to access protected information resources for your payment accounts, permits, CRIDs, MIDs, and subscriptions, which will be required by several USPS APIs.
- Copy the consumer key and consumer secret for use.
- Generate your OAuth Token, OAuth specifications, by passing the consumer key and consumer secret obtained as the client id and client secret, respectively. All USPS APIs require an OAuth Token to be conveyed in the Authorization header, using the Bearer Token scheme. Reference the USPS GitHub page for a repository that contains example Postman requests and Curl commands.
- To test, please use your production credentials and send requests to the Testing Environment for Mailers (TEM) by changing the base URL of the endpoints from "apis.usps.com" to "apis-tem.usps.com".

API Documentation

- FAQs: Modernization of Address & NCOA Processing with APIs - Q & A | PostalPro
- NCOA+ API Specification: NCOA API Specifications | PostalPro
- Addressing API Specification: Addressing API Specifications | PostalPro
- Tech Sheets
  - Addressing Vendors: Addressing API - Vendors | PostalPro
  - Addressing End Users: Addressing API - End Users - Tech Sheet | PostalPro
  - NCOA+ API: National Change of Address - API | PostalPro

Questions