

FedEx Address Validation – User Guide

Webmaster Ramos

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FedEx Address Validation – User Guide

Version: 1.5.2 **Compatibility:** Adobe Commerce and Magento Open Source 2.4.7 – 2.4.9, PHP 8.1 – 8.5 **Vendor:** Webmaster Ramos

1. Overview

FedEx Address Validation checks shipping addresses in real time against the FedEx Address Validation REST API and offers the customer a standardized, deliverable version before the order is placed. Validation runs on three surfaces – the storefront checkout, the customer account address book, and the admin Create Order screen – each enabled independently.

When an address can be improved, a popup presents the FedEx-standardized suggestion next to what the customer entered, and the customer chooses which to use. Every outcome is deterministic:

it comes from FedEx's response combined with the extension's own correction rules. The extension uses your own FedEx developer credentials, stored encrypted, and calls no service other than FedEx.

Key Features

Feature	Description
Real-time FedEx validation	Addresses checked against the FedEx Address Validation REST API
Three surfaces	Checkout, account address book, admin Create Order – each toggled
Suggestion popup	Standardized address shown beside the original; customer chooses
US city correction	Corrects city/ZIP mismatches FedEx accepts, using a bundled ZIP database
EU region-code normalization	Maps province names to FedEx-expected codes
Apartment / suite preservation	Keeps the unit line on the suggestion (across every address line); never silently dropped
Validation timestamp	A <code>valid_date</code> is stamped on saved addresses
Encrypted credentials	FedEx API keys stored in Magento's encrypted config backend

Compatibility

Platform	Versions
Adobe Commerce	2.4.7 – 2.4.9
Magento Open Source	2.4.7 – 2.4.9
PHP	8.1, 8.2, 8.3, 8.4, 8.5
Themes	Luma

This extension transmits the shipping address to FedEx for validation – that is its core function. It requires a FedEx developer account with Address Validation API access; credentials are supplied by you.

2. Installation

Via Composer

```
composer require webmaster-ramos/module-fedex-validation
bin/magento module:enable WebRamos_FedexValidation
bin/magento setup:upgrade
bin/magento setup:di:compile    # production mode only
bin/magento cache:flush
```

Verify

```
bin/magento module:status WebRamos_FedexValidation
```

setup:upgrade adds one customer-address attribute, `valid_date` (the validation timestamp). No native Magento sales tables are modified.

3. Configuration

Open **Stores** → **Configuration** → **Webmaster Ramos** → **FedEx Address Validation**.

The screenshot shows the configuration page for FedEx Address Validation. The settings are as follows:

Setting	Value
Enabled [store view]	Yes
Enabled on Address Book add/update [store view]	Yes
Enabled on Admin Checkout [store view]	Yes
Allow customer entered address [store view]	No
Show Popup for Address Selection for Guest Checkout? [store view]	No
It must be yes for custom one step checkout plugin.	
Auto validate address after change in address field in case of Popup? [store view]	No
Skip / Hide validation if entered address correct? [store view]	No
Show UNKNOWN Classification address as validated address? [store view]	No
Block Missing Apartment address as validated address? [store view]	No
Enable Logs [website]	No

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Figure 1: Configuration – General

3.1 General

Setting	Description	Default
Enabled	Turns checkout validation on or off	No
Enabled on Address Book add/update	Validate in the customer account address form	No
Enabled on Admin Checkout	Validate on the admin Create Order screen	No
Allow customer entered address	Let the customer keep the address they typed	–

Setting	Description	Default
Show Popup for Address Selection for Guest Checkout	Present the suggestion popup to guests	–
Auto validate address after change	Validate automatically when an address field changes (popup mode)	–
Skip / Hide validation if entered address correct	Suppress the popup when the entered address already matches	–
Show UNKNOWN Classification as validated	Treat FedEx UNKNOWN classification as a valid result	–
Block Missing Apartment	Flag addresses FedEx reports as missing a suite/apartment	–
Enable Logs	Write request/response diagnostics to the Magento log	No

3.2 FedEx API Keys

Setting	Description
Client ID	FedEx OAuth client ID (API key)
Secret Key	FedEx OAuth client secret
Account Number	FedEx account number (optional – not required for Address Validation)
Sandbox Mode	Use the FedEx sandbox endpoint instead of production

Account Number [store view]
Optional. Not required for address validation (OAuth uses Client ID + Secret Key).

Client ID [store view]

Secret Key [store view]

Sandbox Mode [store view] ▼

Figure 2: Configuration – FedEx API Keys

The Client ID, Secret Key and Account Number fields use Magento’s encrypted configuration backend: values are stored encrypted in the database and decrypted only when a request to FedEx is made. Obtain credentials from the FedEx Developer Portal (a project with the Address Validation API enabled).

3.3 Street Merge Setting

Setting	Description
Auto Merge Street 1 and Street 2 Address / Street 2 Min Length	Merge a short second street line back into the first Length threshold below which line 2 is treated as a fragment
Address / Street 2 Placeholder	Placeholder text for the secondary street line

Street Merge Setting



Auto Merge Street 1 and Street 2
[store view]

Address / Street 2 Min Length
[store view]

If street 2 length less than setting street2 will merge will street1

Address / Street 2 Placeholder
[store view]

Apt # OR Suite #

Figure 3: Configuration – Street Merge

Preserving the apartment / suite line the customer entered is automatic and always on – when FedEx returns a standardized address without that line, the extension restores it. (In earlier versions this was a separate “Append Address / Street 2” toggle, now removed.)

4. Storefront Behaviour (Checkout)

With checkout validation enabled, the address entered in the shipping step is sent to FedEx. If FedEx returns a standardized version that differs from what the customer typed, a popup presents both, and the customer chooses which to use. Depending on configuration, the customer may keep the original address.

Country *
United States

State/Province *
California

City *
mountain view

Zip/Postal Code *
94043

Phone Number *
5551234567 ?

Address Verification - Please Select:

Choose original address:
1600 Amphitheatre Pkwy, Mountain View California 94043, United States

Choose suggested address:
☐ 1600 Amphitheatre Pkwy, Mountain View California 94043-1351, United States

Shipping Methods

☒ \$5.00 Fixed Flat Rate
 ☐ \$15.00 Table Rate Best Way

Next

Figure 4: Checkout suggestion popup

US City Correction

FedEx confirms that a ZIP and state exist, but does not verify that the city spelling matches the ZIP. An address such as “New York, NY 30301” passes FedEx even though 30301 is an Atlanta ZIP. The extension cross-checks the city against its bundled US ZIP database and corrects the spelling when they disagree.

Address Validation

Choose original address:
☐ 191 Peachtree St Ne, New York Georgia 30303, United States

Choose suggested address:
☐ 191 Peachtree St Ne, Atlanta Georgia 30303-1740, United States

* Apartment/Suite # missing. Please cancel and enter a valid address with Apartment/Suite #.

Cancel Confirm

Figure 5: Checkout – city corrected for the ZIP

5. Customer Account Address Book

When account validation is enabled, saving an address in **My Account** → **Address Book** runs the same validation and presents the suggestion popup before the address is stored. The saved address is stamped with a validation date.

Address Validation ×

Choose original address:

☐ 191 Peachtree St Ne, New York Georgia 30303, United States

Choose suggested address:

☐ 191 Peachtree St Ne, Atlanta Georgia 30303-1740, United States

* Apartment/Suite # missing, Please cancel and enter a valid address with Apartment/Suite #.

Cancel

Confirm

Figure 6: Account address validation

6. Admin Create Order

When admin validation is enabled, the billing / shipping address on **Sales → Orders → Create New Order** is validated, and the same suggestion popup shown at checkout (see section 4) is presented to the administrator before the order is placed.

Each address validated on any surface is stamped with a validation timestamp (`valid_date`) that the module stores on the address record.

7. How Validation Works

1. The address is normalized – EU/international province names are mapped to the region codes FedEx expects. Short secondary street lines may be merged per the Street Merge settings; the apartment/suite line the customer entered is always preserved on the suggestion.
2. The extension authenticates to FedEx (OAuth client-credentials) and posts the address to the Address Validation REST API.
3. The FedEx response is parsed into zero or more standardized suggestions.
4. For US addresses, the returned city is cross-checked against the bundled ZIP database and corrected if it does not match the ZIP.
5. The result is returned to the storefront/admin, which renders the suggestion popup.

Unsupported destination countries are skipped (the original address is accepted). Transient FedEx errors are surfaced as a soft failure that keeps the original address rather than blocking the order.

8. Multi-Store Notes

The enable flags and options are scope-aware and can be set at default, website, or store-view scope, so different store views can enable or disable validation independently. Credentials are typically set once at the default scope.

9. Troubleshooting

Symptom	Resolution
No popup at checkout	Confirm the module is enabled, credentials are set, and the cache is flushed (<code>bin/magento cache:flush</code>).
Validation never succeeds	Verify the FedEx Client ID and Secret are correct and that Sandbox Mode matches the credential type (sandbox vs production). Enable Logs and check <code>var/log/system.log</code> .
Credentials look wrong after import	The credential fields are encrypted. Set them through the admin or <code>bin/magento config:set</code> ; a raw database value will not decrypt.
Address always accepted as-is	The destination country may not be supported by FedEx Address Validation, or “Allow customer entered address” is on.

Logs (when Enable Logs is on): `var/log/system.log` and `var/log/exception.log`.

10. Uninstallation

```
bin/magento module:disable WebRamos_FedexValidation
bin/magento setup:upgrade
```

To remove the module entirely:

```
bin/magento module:uninstall WebRamos_FedexValidation
```

11. Support

- **Email:** contact@webmaster-ramos.com
- **Website:** <https://webmaster-ramos.com>
- **Changelog:** see `CHANGELOG.md` inside the package