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# **python-sparkpost Documentation**

*Release 1.3.1*

## **Message Systems**

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The super-mega-official Python package for using the SparkPost API.



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## Installation

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Install from PyPI using `pip`:

```
$ pip install sparkpost
```





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## Authorization

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Go to [API & SMTP](#) in the SparkPost app and create an API key. We recommend using the `SPARKPOST_API_KEY` environment variable:

```
from sparkpost import SparkPost
sp = SparkPost() # uses environment variable
```

Alternatively, you can pass the API key to the SparkPost class:

```
from sparkpost import SparkPost
sp = SparkPost('YOUR API KEY')
```



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## Resources

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The following resources are available in python-sparkpost:

### 3.1 Metrics

#### 3.1.1 Retrieve a list of campaigns

```
from sparkpost import SparkPost

sp = SparkPost()

sp.metrics.campaigns.list()
```

#### 3.1.2 Retrieve a list of domains

```
from sparkpost import SparkPost

sp = SparkPost()

sp.metrics.domains.list()
```

#### 3.1.3 Additional documentation

See the [SparkPost Metrics API Reference](#).

### 3.2 Recipient Lists

Let's use the underlying `recipient_lists` API to create a recipient list:

```
from sparkpost import SparkPost

sp = SparkPost()

response = sp.recipient_lists.create(
    id='UNIQUE_TEST_ID',
```

```
name='Test Recipient list',
recipients=[
    {
        'address': {
            'email': 'test1@test.com'
        }
    },
    {
        'address': {
            'email': 'test2@test.com'
        }
    },
    {
        'address': {
            'email': 'test3@test.com'
        }
    }
]
)

print(response)
# outputs {u'total_accepted_recipients': 3, u'id': u'UNIQUE_TEST_ID', u'total_rejected_recipients': 0}
```

### 3.2.1 Retrieve a recipient list

```
from sparkpost import SparkPost

sp = SparkPost()

sp.recipient_lists.get('my-list-id')
```

### 3.2.2 List all recipient lists

```
from sparkpost import SparkPost

sp = SparkPost()

sp.recipient_lists.list()
```

### 3.2.3 API reference

sparkpost.recipient\_lists

### 3.2.4 Further examples

See the python-sparkpost recipient\_lists examples.

### 3.2.5 Additional documentation

See the SparkPost Recipient Lists API Reference.

## 3.3 Suppression List

Let's use the underlying `suppression_list` API to create a suppression entry:

```
from sparkpost import SparkPost

sp = SparkPost()

response = sp.suppression_list.create({
    "email": "test@test.com"
    "transactional": False,
    "non_transactional": True,
    "description": "User requested to not receive any non-transactional emails."
})

print(response)
# outputs {u'message': u'Recipient successfully created'}
```

### 3.3.1 Get a suppression entry

```
from sparkpost import SparkPost

sp = SparkPost()

sp.suppression_list.get('test@test.com')
```

### 3.3.2 List suppression entries

```
from sparkpost import SparkPost

sp = SparkPost()

sp.suppression_list.list()
```

### 3.3.3 API reference

`sparkpost.suppression_list`

### 3.3.4 Further examples

See the `python-sparkpost suppression_list` examples.

### 3.3.5 Additional documentation

See the `SparkPost Suppression List API Reference`.

## 3.4 Templates

Let's use the underlying `templates` API to create a template:

```
from sparkpost import SparkPost

sp = SparkPost()

response = sp.templates.create(
    id='TEST_ID',
    name='Test Template',
    from_email='test@test.com',
    subject='Test email template!',
    html='<b>This is a test email template!</b>'
)

print(response)
# outputs {u'id': u'TEST_ID'}
```

### 3.4.1 Retrieve a template

```
from sparkpost import SparkPost

sp = SparkPost()

sp.templates.get('my-template-id')
```

### 3.4.2 List all templates

```
from sparkpost import SparkPost

sp = SparkPost()

sp.templates.list()
```

### 3.4.3 API reference

`sparkpost.templates`

### 3.4.4 Further examples

See the `python-sparkpost` templates examples.

### 3.4.5 Additional documentation

See the `SparkPost Templates API Reference`.

## 3.5 Transmissions

Here at SparkPost, our messages are known as transmissions. Let's use the underlying [transmissions API](#) to send a friendly test message:

```
from sparkpost import SparkPost

sp = SparkPost()

response = sp.transmissions.send(
    recipients=['someone@somedomain.com'],
    html='<p>Hello world</p>',
    from_email='test@sparkpostbox.com',
    subject='Hello from python-sparkpost',
    track_opens=True,
    track_clicks=True
)

print(response)
# outputs {u'total_accepted_recipients': 1, u'id': u'47960765679942446', u'total_rejected_recipients': 0}
```

### 3.5.1 Send a transmission

#### Using inline templates and/or recipients

```
from sparkpost import SparkPost

sp = SparkPost()

sp.transmissions.send(
    recipients=['someone@somedomain.com'],
    text="Hello world",
    html='<p>Hello world</p>',
    from_email='test@sparkpostbox.com',
    subject='Hello from python-sparkpost',
    track_opens=True,
    track_clicks=True
)
```

#### Including cc, bcc

```
from sparkpost import SparkPost

sp = SparkPost()

sp.transmissions.send(
    recipients=['someone@somedomain.com'],
    cc=['carboncopy@somedomain.com'],
    bcc=['blindcarboncopy@somedomain.com'],
    text="Hello world",
    html='<p>Hello world</p>',
    from_email='test@sparkpostbox.com',
    subject='Hello from python-sparkpost',
    track_opens=True,
```

```
    track_clicks=True
)
```

### Sending an attachment

```
from sparkpost import SparkPost

sp = SparkPost()

sp.transmissions.send(
    recipients=['someone@somedomain.com'],
    text="Hello world",
    html='<p>Hello world</p>',
    from_email='test@sparkpostbox.com',
    subject='Hello from python-sparkpost',
    track_opens=True,
    track_clicks=True,
    attachments=[
        {
            "name": "test.txt",
            "type": "text/plain",
            "filename": "/home/sparkpost/a-file.txt"
        }
    ]
)
```

### Using substitution data

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**Note:** Substitution data can be specified at the template, transmission and recipient levels. The order of precedence is as follows: recipient overrides transmission overrides template.

---

```
from sparkpost import SparkPost

sp = SparkPost()

sp.transmissions.send(
    recipients=['someone@somedomain.com'],
    text="Hello {{name}}",
    html='<p>Hello {{name}}</p>',
    from_email='test@sparkpostbox.com',
    subject='Hello from python-sparkpost',
    track_opens=True,
    track_clicks=True,
    substitution_data={
        'name': 'Sparky'
    }
)
```

### Using a stored template



```
from sparkpost import SparkPost

sp = SparkPost()

sp.transmissions.send(
    recipients=['someone@somedomain.com'],
    template='my-template-id'
)
```

### Using a stored recipient list

```
from sparkpost import SparkPost

sp = SparkPost()

sp.transmissions.send(
    recipient_list='my-recipient-list',
    template='my-template-id'
)
```

## 3.5.2 Retrieve a transmission

```
from sparkpost import SparkPost

sp = SparkPost()

sp.transmissions.get('my-transmission-id')
```

## 3.5.3 List all transmissions

```
from sparkpost import SparkPost

sp = SparkPost()

sp.transmissions.list()
```

## 3.5.4 API reference

`sparkpost.transmissions`

## 3.5.5 Further examples

See the `python-sparkpost` transmissions examples.

## 3.5.6 Additional documentation

See the `SparkPost Transmissions API Reference`.



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## API reference

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Auto-generated API reference for python-sparkpost:

### 4.1 API Documentation

A complete API reference to the sparkpost module.

#### 4.1.1 `sparkpost.recipient_lists`

**class** `sparkpost.recipient_lists.RecipientLists` (*base\_uri*, *api\_key*, *transport\_class*=<class 'sparkpost.base.RequestsTransport'>)

RecipientLists class used to create, update, delete, list and get recipient lists. For detailed request and response formats, see the [Recipient Lists API documentation](#).

**create** (*\*\*kwargs*)

Create a recipient list based on the supplied parameters

**Parameters**

- **id** (*str*) – ID used to reference the recipient list
- **name** (*str*) – Editable display name
- **description** (*str*) – Detailed description of the recipient list
- **attributes** (*dict*) – Arbitrary metadata related to the list
- **recipients** (*list*) – Array of recipient dicts

**Returns** a `dict` with the ID, name, and number of accepted and rejected recipients

**Raises** `SparkPostAPIException` if API call fails

**delete** (*list\_id*)

Delete a recipient list by ID

**Parameters** **list\_id** (*str*) – ID of the recipient list you want to delete

**Returns** empty `dict`

**Raises** `SparkPostAPIException` if recipient list is not found or if recipient list is in use

**get** (*list\_id*, *show\_recipients=None*)

Get a recipient list by ID

**Parameters**

- **list\_id** (*str*) – ID of the recipient list you want to retrieve
- **show\_recipients** (*bool*) – If True, returns attributes for all recipients

**Returns** the requested recipient list if found

**Raises** `SparkPostAPIException` if recipient list is not found

**list()**

Get a list of your recipient lists

**Returns** list of recipient lists

**Raises** `SparkPostAPIException` if API call fails

**update** (*list\_id*, *\*\*kwargs*)

Update a recipient list by ID based on the supplied parameters

**Parameters**

- **list\_id** (*str*) – ID of the recipient list you want to update
- **name** (*str*) – Editable display name
- **description** (*str*) – Detailed description of the recipient list
- **attributes** (*dict*) – Arbitrary metadata related to the list
- **recipients** (*list*) – Array of recipient dicts

**Returns** a dict with the ID, name, and number of accepted and rejected recipients

**Raises** `SparkPostAPIException` if API call fails

## 4.1.2 sparkpost.suppression\_list

```
class sparkpost.suppression_list.SuppressionList (base_uri, api_key, transport_class=<class 'sparkpost.base.RequestsTransport'>)
```

SuppressionList class used to search, get and modify suppression status. For detailed request and response formats, see the [Suppression List API documentation](#).

**create** (*entry*)

Create a suppression list entry.

**Parameters** **status** (*dict/list*) – If dict it is a single entry to create { 'email': 'test@test.com', 'transactional': True, 'non\_transactional': True, 'description': 'Test description' }, if list it is multiple entries to create

**Returns** a dict with a message

**Raises** `SparkPostAPIException` if API call fails

**delete** (*email*)

Delete the suppression status for a specific recipient by email

**Parameters** **email** (*str*) – Email of the recipient whose status you want to remove

**Returns** TODO

**Raises** `SparkPostAPIException` if API call fails

**get** (*email*)

Retrieve a suppression list entry for a specific recipient by email

**Parameters** **email** (*str*) – Email of the recipient whose status you want to check\_status

**Returns** a suppression list entry

**Raises** SparkPostAPIException if API call fails

**list** (*\*\*kwargs*)

List suppression list entries based on the supplied parameters

**Parameters**

- **from\_date** (*datetime*) – DateTime to start listing
- **to\_date** (*datetime*) – DateTime to end listing
- **types** (*list*) – Types of entries to return
- **limit** (*int*) – Maximum number of entries to return

**Returns** a list of entries

**Raises** SparkPostAPIException if API call fails

**update** (*entry*)

Update a suppression list entry.

**Parameters** **status** (*dict/list*) – If dict it is a single entry to update { 'email': 'test@test.com', 'transactional': True, 'non\_transactional': True, 'description': 'Test description' }, if list it is multiple entries to update

**Returns** a dict with a message

**Raises** SparkPostAPIException if API call fails

### 4.1.3 sparkpost.templates

**class** sparkpost.templates.**Templates** (*base\_uri*, *api\_key*, *transport\_class*=<class 'sparkpost.base.RequestsTransport'>)

Templates class used to create, update, delete, list and get templates. For detailed request and response formats, see the [Templates API documentation](#).

**create** (*\*\*kwargs*)

Create a template based on the supplied parameters

**Parameters**

- **id** (*str*) – ID used to reference the template
- **name** (*str*) – Editable display name
- **description** (*str*) – Detailed description of the template
- **published** (*bool*) – Defaults to False. Whether the template is a published or draft version
- **track\_opens** (*bool*) – Defaults to transmission level setting. Used to track opens of transmission
- **track\_clicks** (*bool*) – Defaults to transmission level setting. Used to track clicks of transmission

- **is\_transactional** (*bool*) – Defaults to transmission level setting. Distinguishes between transactional and non-transactional messages for unsubscribe and suppression purposes
- **html** (*str*) – HTML part of template
- **text** (*str*) – Text part of template
- **subject** (*str*) – Subject of template
- **from\_email** (*str*) – Friendly from of template, domain must be a verified sending domain to your account or template create will fail
- **reply\_to** (*str*) – Reply to of template
- **custom\_headers** (*dict*) – Used to set any headers associated with template

**Returns** a `dict` with the ID

**Raises** `SparkPostAPIException` if template uses an unverified sending domain or there's a syntax error in the content

**delete** (*template\_id*)

Delete a template by ID

**Parameters** **template\_id** (*str*) – ID of the template you want to delete

**Returns** `TODO`

**Raises** `SparkPostAPIException` if template is not found or if template is in use

**get** (*template\_id*, *draft=None*)

Get a template by ID

**Parameters**

- **template\_id** (*str*) – ID of the template you want to retrieve
- **draft** (*bool*) – Defaults to `None`. If `True`, returns the most recent draft template. If `False`, returns the most recent published template. If `None`, returns the most recent template version regardless of draft or published.

**Returns** the requested template if found

**Raises** `SparkPostAPIException` if template is not found

**list** ()

Get a list of your templates

**Returns** list of templates

**Raises** `SparkPostAPIException` if API call fails

**preview** (*template\_id*, *substitution\_data*, *draft=None*)

Get a preview of your template by ID with the provided `substitution_data`

**Parameters**

- **template\_id** (*str*) – ID of the template you want to retrieve
- **substitution\_data** (*dict*) – data to be substituted in the template content
- **draft** (*bool*) – Defaults to `None`. If `True`, previews the most recent draft template. If `False`, previews the most recent published template. If `None`, previews the most recent template version regardless of draft or published.

**Returns** the requested template if found with content expanded using substitution data provided

**Raises** `SparkPostAPIException` if API call fails

**update** (*template\_id*, *\*\*kwargs*)

Update a template by ID based on the supplied parameters

**Parameters**

- **template\_id** (*str*) – ID of the template you want to retrieve
- **name** (*str*) – Editable display name
- **description** (*str*) – Detailed description of the template
- **published** (*bool*) – Defaults to False. Whether the template is a published or draft version
- **track\_opens** (*bool*) – Defaults to transmission level setting. Used to track opens of transmission
- **track\_clicks** (*bool*) – Defaults to transmission level setting. Used to track clicks of transmission
- **is\_transactional** (*bool*) – Defaults to transmission level setting. Distinguishes between transactional and non-transactional messages for unsubscribe and suppression purposes
- **html** (*str*) – HTML part of template
- **text** (*str*) – Text part of template
- **subject** (*str*) – Subject of template
- **from\_email** (*str*) – Friendly from of template, domain must be a verified sending domain to your account or template create will fail
- **reply\_to** (*str*) – Reply to of template
- **custom\_headers** (*dict*) – Used to set any headers associated with template

**Returns** `TODO`

**Raises** `SparkPostAPIException` if template is not found

#### 4.1.4 `sparkpost.transmissions`

**class** `sparkpost.transmissions.Transmissions` (*base\_uri*, *api\_key*, *transport\_class=<class 'sparkpost.base.RequestsTransport'>*)

Transmission class used to send, list and get transmissions. For detailed request and response formats, see the [Transmissions API documentation](#).

**delete** (*transmission\_id*)

Delete a transmission by ID

**Parameters** **transmission\_id** (*str*) – ID of the transmission you want to delete

**Returns** `{}` if transmission is deleted

**Raises** `SparkPostAPIException` if transmission is not found or Canceled

**get** (*transmission\_id*)

Get a transmission by ID

**Parameters** **transmission\_id** (*str*) – ID of the transmission you want to retrieve

**Returns** the requested transmission if found

**Raises** `SparkPostAPIException` if transmission is not found

**list()**

Get a list of your transmissions

**Returns** list of transmissions

**Raises** `SparkPostAPIException` if API call fails

**send(\*\*kwargs)**

Send a transmission based on the supplied parameters

**Parameters**

- **recipients** (*list/dict*) – If list it is an list of email addresses, if dict `{'address': {'name': 'Name', 'email': 'me'}}`
- **recipient\_list** (*str*) – ID of recipient list, if set recipients above will be ignored
- **cc** – List of email addresses to send carbon copy to
- **bcc** – List of email addresses to send blind carbon copy to
- **template** (*str*) – ID of template. If set HTML or text will not be used
- **use\_draft\_template** (*bool*) – Default to False. Set to true if you want to send a template that is a draft
- **html** (*str*) – HTML part of transmission
- **text** (*str*) – Text part of transmission
- **subject** (*str*) – Subject of transmission
- **from\_email** (*str*) – Email that the transmission comes from. The domain must be a verified sending domain to your account or the transmission will fail. You can pass a from email or both from name and from email - `testing@example.com` or `Test Email <testing@example.com>` will both work.
- **reply\_to** (*str*) – Reply to of transmission
- **description** (*str*) – Description of transmission
- **campaign** (*str*) – Campaign of transmission
- **metadata** (*dict*) – Any data you want to send along with transmission, used in Web-Hooks
- **substitution\_data** (*dict*) – Corresponds to substitutions in html/text content. See [substitutions reference](#).
- **attachments** – List of dicts. For example:

```
dict(  
    type='application/pdf',  
    name='document.pdf',  
    data='base64 encoded string'  
)
```

Replace *data* with *filename* if you want the library to perform the base64 conversion. For example:



```
dict(
    type='application/pdf',
    name='document.pdf',
    filename='/full/path/to/document.pdf'
)
```

- **inline\_images** – List of dicts. For example:

```
dict(
    type='image/png',
    name='imageCID',
    data='base64 encoded string'
)
```

Replace *data* with *filename* if you want the library to perform the base64 conversion. For example:

```
dict(
    type='image/png',
    name='imageCID',
    filename='/full/path/to/image.png'
)
```

- **start\_time** (*str*) – Delay generation of messages until this datetime. Format YYYY-MM-DDTHH:MM:SS+-HH:MM. Example: '2015-02-11T08:00:00-04:00'.
- **track\_opens** (*bool*) – Defaults to True. Used to track opens of transmission
- **track\_clicks** (*bool*) – Defaults to True. Used to track clicks of transmission
- **use\_sandbox** (*bool*) – Flag must be set to use sandbox domain instead of verified sending domain. Limited to a lifetime of 50 transmissions with this domain
- **transactional** (*bool*) – Whether message is transactional or non-transactional for unsubscribe and suppression purposes
- **skip\_suppression** (*bool*) – Whether or not to ignore customer suppression rules, for this transmission only. Only applicable if your configuration supports this parameter. (SparkPost Elite only)
- **ip\_pool** (*str*) – The name of a dedicated IP pool associated with your account
- **inline\_css** (*bool*) – Whether or not to perform CSS inlining
- **custom\_headers** (*dict*) – Used to set any headers associated with transmission

**Returns** a `dict` with the ID and number of accepted and rejected recipients

**Raises** `SparkPostAPIException` if transmission cannot be sent



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## Using in Django

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Configure Django to use SparkPost email backend

### 5.1 Django Email Backend

The SparkPost python library comes with an email backend for Django.

#### 5.1.1 Configure Django

To configure Django to use SparkPost, put the following configuration in *settings.py* file.

```
SPARKPOST_API_KEY = 'API_KEY'  
EMAIL_BACKEND = 'sparkpost.django.email_backend.SparkPostEmailBackend'
```

Replace *API\_KEY* with an actual API key.

You can also use *SPARKPOST\_OPTIONS* to set options that will apply to every transmission. For example:

```
SPARKPOST_OPTIONS = {  
    'track_opens': False,  
    'track_clicks': False,  
    'transactional': True,  
}
```

#### 5.1.2 Sending an email

Django is now configured to use the SparkPost email backend. You can now send mail using Django's *send\_mail* method:

```
from django.core.mail import send_mail  
  
send_mail(  
    subject='Hello from SparkPost',  
    message='Woo hoo! Sent from Django!',  
    from_email='from@yourdomain.com',  
    recipient_list=['to@example.com'],  
    html_message='<p>Hello Rock stars!</p>',  
)
```

You can also use *EmailMessage* or *EmailMultiAlternatives* class directly. That will give you access to more specific fields like *template*:

```
email = EmailMessage(
    to=[
        {
            "address": "to@example.com",
            "substitution_data": {
                "key": "value"
            }
        }
    ],
    from_email='test@from.com'
)
email.template = 'template-id'
email.send()
```

Or cc, bcc, reply to, or attachments fields:

```
from django.core.mail import EmailMultiAlternatives

email = EmailMultiAlternatives(
    subject='hello from sparkpost',
    body='Woo hoo! Sent from Django!',
    from_email='from@yourdomain.com',
    to=['to@example.com'],
    cc=['ccone@example.com'],
    bcc=['bccone@example.com'],
    reply_to=['replyone@example.com']
)

email.attach_alternative('<p>Woo hoo! Sent from Django!</p>', 'text/html')
email.attach('image.png', img_data, 'image/png')
email.send()
```

### 5.1.3 Supported version

SparkPost will support all versions of Django that are within extended support period. Refer to [Django Supported Versions](#).

### 5.1.4 Additional documentation

See our [Using SparkPost with Django](#) in support article.

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## Additional documentation

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The underlying SparkPost API is documented at the official [SparkPost API Reference](#).



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## Contribute

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1. Check for open issues or open a fresh issue to start a discussion around a feature idea or a bug.
2. Fork [the repository](#) on GitHub and make your changes in a branch on your fork
3. Write a test which shows that the bug was fixed or that the feature works as expected.
4. Send a pull request. Make sure to add yourself to [AUTHORS](#).





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