
django-notifyAll Documentation

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A library which can be used for all types of notifications like SMS, Mail, Push.

- Supports Python 3+

Documentation : <https://django-notifyall.readthedocs.io/en/latest/index.html>

Why?

Every application today is dependent on sending out some form of notification - SMS, email or Push. There is no single interface available to manage either the notification type or the notification service provider.

For SMS

- Plivo
- Twilio

both have their own SDK and API

For Push

- Apple Push
- Android Push

both have their own SDK and API (though Firebase could be used as a single interface)

For Email

- The same problem.

CHAPTER 2

What?

This library aims to provide a uniform interface to all the developers to use any notification mechanism, from any service provider.

CHAPTER 3

How?

Work in progress, the basic idea is to follow the lead of [django-allauth](#).

Overview

Requirements

- Python2.7,3.*
- Other requirements are based on the Provider you choose.

Supported Providers

- Gmail
- SendGrid
- Plivo
- Twilio
- Msg91

Done (Suggestion/Feedback most welcome)

- Notification Provider Base Class
- Notification SMS Provider Base Class
- Notification Email Provider Base Class
- Notification Push Provider Base Class
- Notification SMS Service Provider - Plivo
- Notification SMS Service Provider - Twilio
- Notification SMS Service Provider - Msg91

- Notification Email Service Provider - Gmail
- Notification Email Service Provider - SebdGrid

ToDo

- Notification Push Service Provider - ios / APNS
- Notification Push Service Provider - android
- Async Notifications - Celery Integration
- Notifications Reports
- Notification Push Service Provider - OneSignal
- Notification Push Service Provider - AirBop

Note : *Push* Notification Support is not enabled yet but it is in our future ToDo list.

Installation and Usage

Installation

Django

Python package:

```
pip install python-notifyAll
```

Package settings depends on the Provider you Choose. Visit [Provider](#) page for that.

Usage

- import notifier from notifyAll services as :

```
from notifyAll.services import notifier
```

- Then call `notifier.Notifier()`, there are some required params which are as follows:

source

This signifies who wants to send notification.

destination

To whom you want to send notification.

notification_type

This signifies the Notification type available options are sms, email or push.

Note : *push* Notification support is not available yet,

provider

Type of Provider e.g., plivo, twilio, gmail etc, for more info visit [Provider](#) page for that.

context

All other information will come under context, it is of type dict. e.g., notification body, cc, bcc or attachment in case of email.

- Possible keys of context :

body : Body of Notification.

cc : For email provider only.

bcc : For email provider only.

attachment : For email provider only.

html_message : For email provider only. If you want to send message including **HTML** then you need to send your notification body in the above key.

Example Usage :

```

from notifyAll.services import notifier

def notify():
    """
    """
    context = {
        'subject': 'subject'
        'body': 'body'
        'html_message': '<h1>html message</h1>'
    }

    data = {
        'source': 'admin@example.com',
        'destination': 'me@example.com',
        'notification_type': 'email',
        'provider': 'gmail',
        'context': context,
    }

    notification = notifier.Notifier(**data)

    return notification.notify()

```

For more information about usage visit our [Example](#) project.

Providers

Most of the Providers needs you to register on their site and get some kind of token/secret in order to use their services.

I'll try to explain what settings you need in order to user Any below providers.

Email Providers

- Notification Type for all Email Provider is `email`

```
notification_type = 'email'
```

- **Configuration Settings can be passed as function arguments as well as *Environment Variable*. The main AIM is to provide possible flexibility to user to use Any *Provider* with any configuration.**

Note : Any Provider may need some extra settings (if any) those will be mentioned in respective Provider.

> Gmail

- Provider Type for all Gmail Provider is `gmail`

```
provider = 'gmail'
```

- You can use Gmail as your **SMTP** provider and send Emails from Your own *Gmail* account.
- For this you need below settings to configure in your Django Project.
- Sample settings for Gmail Provider are as follows:

As Environment Variable :

- `EMAIL_USERNAE`
- `EMAIL_PASSWORD`

As Function Arguments:

- `EMAIL_USERNAE` as *username*.
- `EMAIL_PASSWORD` as *password*.

Example Usage :

```
from notifyAll.services import notifier

def notify():
    """
    """
    context = {
        'subject': 'subject',
        'body': 'body',
        'html_message': '<h1>html message</h1>'
    }

    data = {
        'source': 'admin@example.com',
        'destination': 'me@example.com',
        'notification_type': 'email',
        'provider': 'gmail',
        'context': context,
    }

    notification = notifier.Notifier(**data)

    return notification.notify(username='myuser@gmail.com', password=
↪ 'mypassword')
```


> SendGrid

- Provider Type for all Sendgrid Provider is `sendgrid`

```
provider = 'sendgrid'
```

- Use *Sendgrid* as your **SMTP** provider
- You need to register to sendgrid for using their services , from their you will get an

SENDGRID_API_KEY :

you sendgrid api_key, it is visible only once, so you need to copy it after creating.

- Sample settings for SendGrid Provider are as follows:

As Environment Variable :

- `SENDGRID_API_KEY`

As Function Arguments:

- `SENDGRID_API_KEY` as `sendgrid_api_key`.
- Usage is same as shown in *Gmail* provider example

SMS Providers

- Notification Type for all SMS Provider is `sms`

```
notification_type = 'sms'
```

- **Configuration settings can be passed as function arguments as well as in *Environment Variable*. The main AIM is to provide possible flexibility to user to use Any *Provider* with any configuration.**

> Plivo

Requirement

- you need to install python `plivo` package to use this provider.

```
pip install plivo
```

- Provider Type for all Plivo Provider is `plivo`

```
provider = 'plivo'
```

- When you register at *Plivo* it will give you two keys which you need to configure in your Project.

As Environment Variable :

PLIVO_AUTH_ID

PLIVO_AUTH_TOKEN

As Function Arguments:

- *PLIVO_AUTH_ID* as *auth_id*
- *PLIVO_AUTH_TOKEN* as *auth_token*

Example Usage :

```
from notifyAll.services import notifier

def notify():
    """
    """
    data = {
        'source': '<source>',
        'destination': '<destination>',
        'notification_type': 'sms',
        'provider': 'plivo',
        'context': {
            'body': 'test message'
        },
    }

    notification = notifier.Notifier(**data)

    return notification.notify(auth_id='<plivo_auth_id>', auth_token='<plivo_
↵auth_token>')
```

> Twilio

Requirement

- you need to install python *twilio* package to use this provider.

```
pip install twilio
```

- Provider Type for all Twilio Provider is *twilio*

```
provider = 'twilio'
```

- When you register at *Twilio* it will give you two keys which you need to configure in your Project.

As Environment Variable :

TWILIO_ACCOUNT_SID

TWILIO_AUTH_TOKEN

As Function Arguments:

- *TWILIO_ACCOUNT_SID* as *account_sid*
- *TWILIO_AUTH_TOKEN* as *auth_token*
- Usage is same as shown in *Plivo* provider example

> Msg91

Requirement

- you need to install python `requests` package to use this provider.

```
pip install requests
```

- Provider Type for all Twilio Provider is `msg91`

```
provider = 'msg91'
```

- When you register at *Msg91* it will give you one key which you need to configure in your Project.

As Django settings :

MSG91_AUTHKEY

Optional Settings

MSG91_PROMOTIONAL_ROUTE

- Default value is `1`

MSG91_TRANSACTIONAL_ROUTE

- Default value is `4`

As Function Arguments:

- `MSG91_AUTHKEY` as `auth_key`
- Usage is same as shown in *Plivo* provider example

Note : Povidars Settings can be managed in two ways using *environment variables* or as *function arguments*. See respective Providers docs for more info

Add providers

If you want to contribute to this repo and wish to add more providers just follow below instructions:

- All providers (provider apps) comes under this folder `notifyAll/providers`.
- Naming convention of provider app and class is as follows :
 - Class `id` and provider `app_name` must be same
 e.g., For *Gmail* provider , `id` & `app_name` both are same i.e., *gmail*
- If your provider require some settings from user then add them to `notifyAll/settings.py`
- Also update `Provider` documentation for your provider (Update respective doc only means email,sms have their own documentation).
- Update service configuration file to add your provider in `ALLOWED_SERVICES` at `notifyAll/settings.py` so that your provider can be enabled for outer world.

Example

Example project can be find out [here](#)

- Its a Django project.Follow below instructions to set up this project.
- Download above example project (if you set up virtual; env then that will good.)
- Go inside example directory from terminal.
- Install all requirements using below command :

```
pip install -r requirements.txt
```

- Add settings for provider you want to test in your settings.py , For What settings you need to put in settings.py read [Provider](#) page.
- run local server as

```
python manage.py runserver
```

- Access server in browser using `http://localhost:8000` . you will see a page with forms for every notification, Fill any one form and click on send, you will see a success message on successful notification send or an error message (if any)

Note : If you face any issue raise an issue on our [github](#) repo

Want to contribute ?

If anyone wish to contribute in improving this library then he is most welcome, due credit will be given to every individual,

How you can Contribute ?

- You can add more providers (follow [these](#) instructions)
- Improve/Add Functionality to existing Providers.
- Any Suggestion to improve performance of this library.

license

django-notifyAll

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CHAPTER 5

Indices and tables

- `genindex`
- `modindex`
- `search`