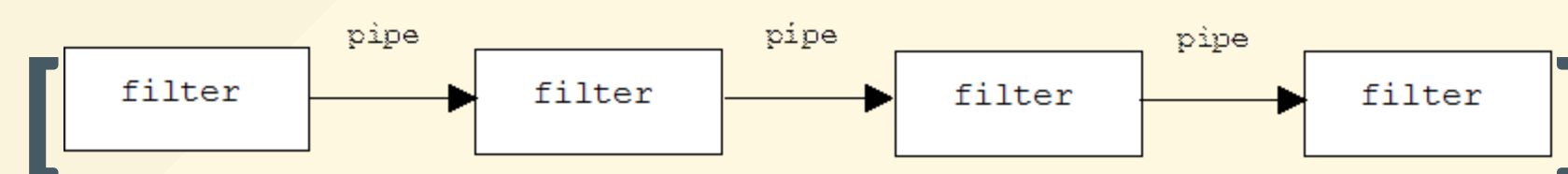


Getting the word out in realTime

Building a message processing pipeline using
Gevent, Redis and NginxPushStreamModule in
Python



Created by [Rahul Gaur \(@aregee\)](#)

Why do **realTime**?

- getting new data to user asap.
- for increased engagement.
- reaching users even when they are not on your website
- realtime heatmaps and analysis of activity or engagement on post

“ The **actor** model in computer science is a mathematical model of **concurrent computation** that treats **actors** as the universal primitives of concurrent computation.

-- [Actor Model \(computer science\) - Wikipedia, the free encyclopedia](#)

”

Actors

- The actor model is a higher level concurrency model popularized by the language Erlang.
- The idea is that you have a collection of independent Actors which have an inbox from which they receive messages from other Actors.
- The main loop inside the Actor iterates through its messages and takes action according to its desired behavior.

How to implement an **Actor** using Gevent !

Gevent does not have a primitive Actor type, but we can define one very simply using a Queue inside of a subclassed Greenlet.. 😊

```
import gevent
from gevent.queue import Queue

class Actor(gevent.Greenlet):
    def __init__(self):
        self.inbox = Queue()
        Greenlet.__init__(self)
    def receive(self, message):
        """
        Define in your subclass.
        """
        raise NotImplemented()

    def _run(self):
        self.running = True

        while self.running:
            message = self.inbox.get()
            self.receive(message)
```

```
import gevent
from gevent.queue import Queue
from gevent import Greenlet

class Pinger(Actor):
    def receive(self, message):
        print(message)
        pong.inbox.put('ping')
        gevent.sleep(0)

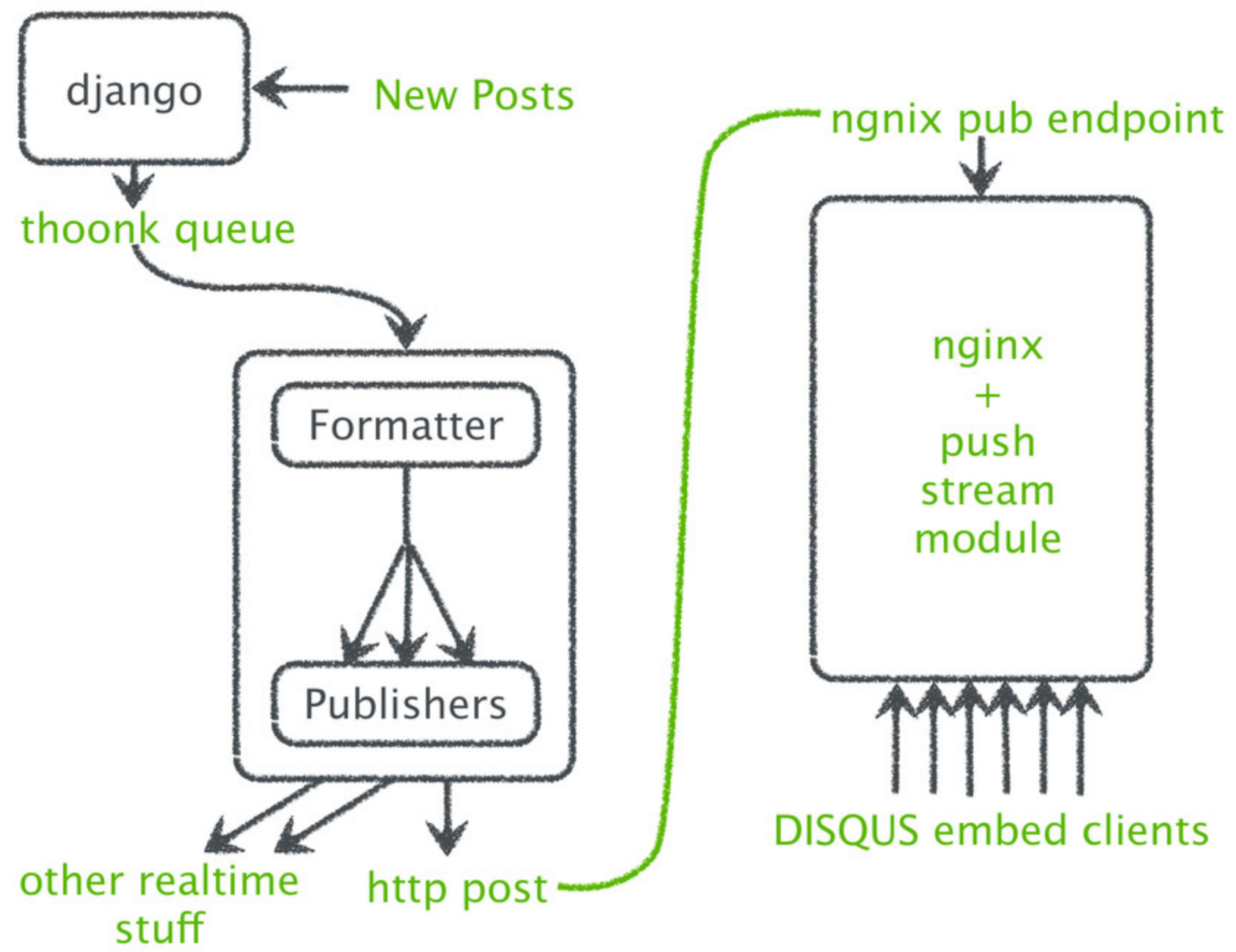
class Ponger(Actor):
    def receive(self, message):
        print(message)
        ping.inbox.put('pong')
        gevent.sleep(0)

ping = Pinger()
pong = Ponger()

ping.start()
pong.start()
```

Architecture overview!!

october-now



Sunday, 17 March, 13



```
<!-- template: gaia -->
```

directive

That's all!

logo placeholder

<https://github.com/aregee>