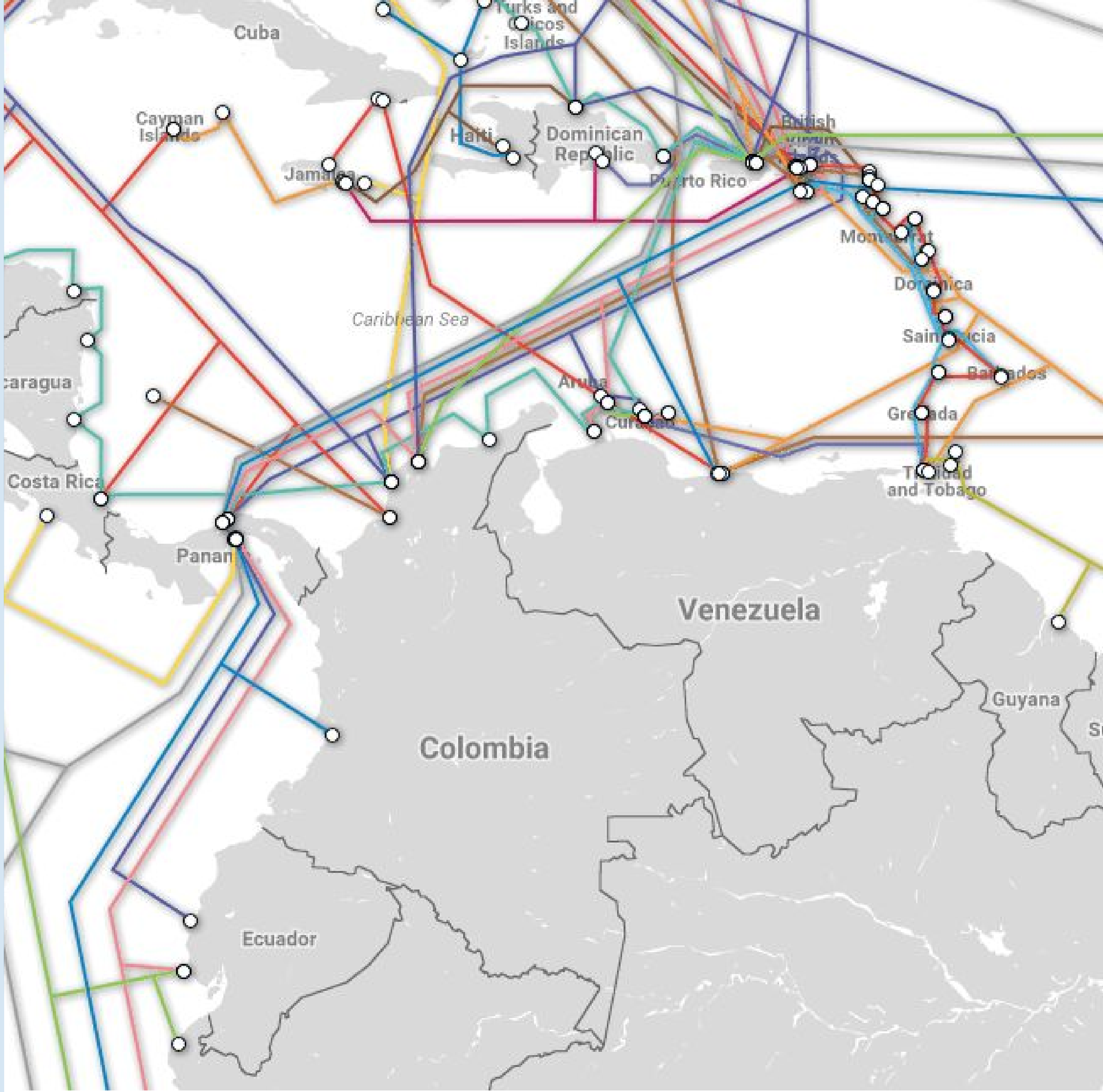
Megaterios

Backend as a Service
with
Android Applications

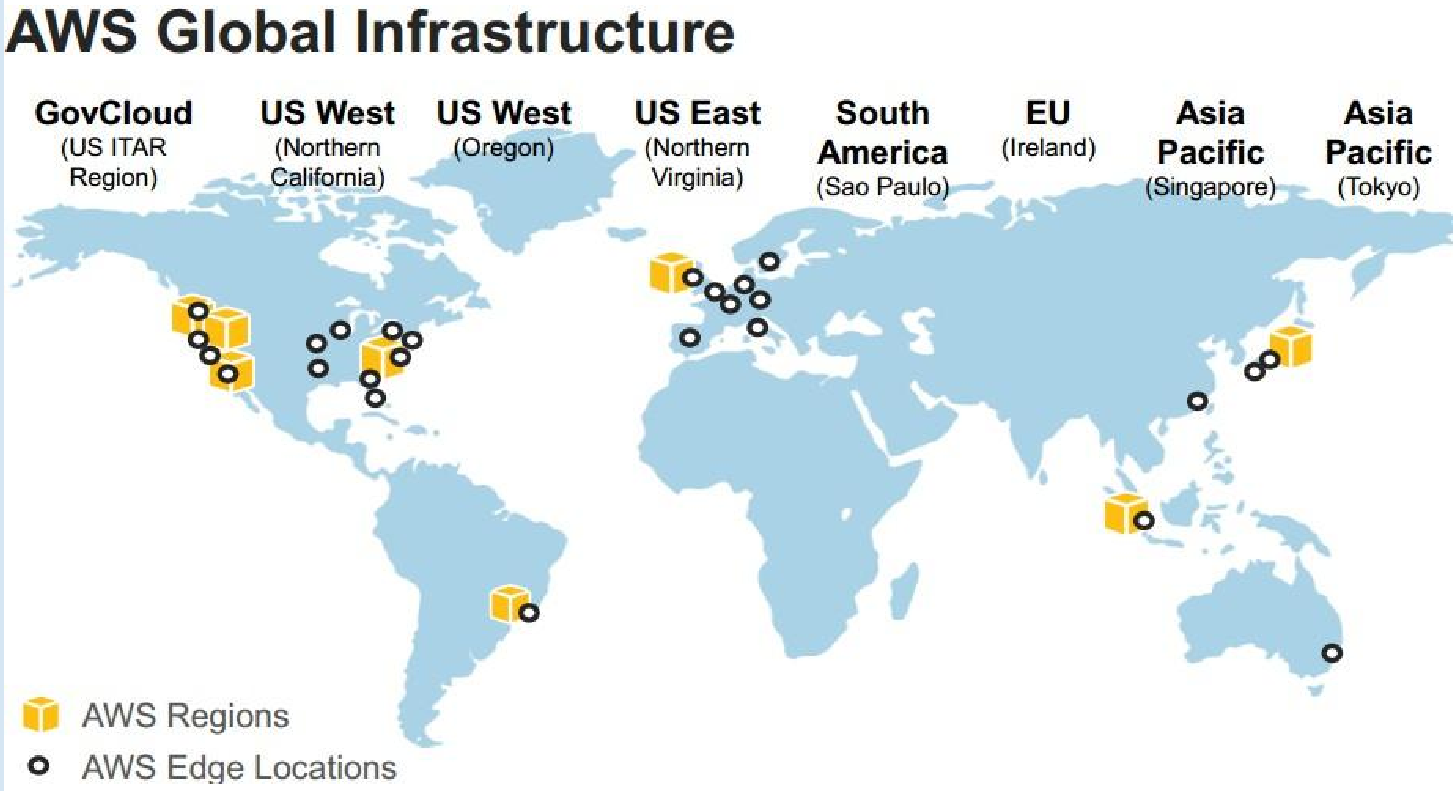
Submarine Cable



http://www.submarinecablemap.com/

Data Centers

- 24/7 h
- Security
- Scaling
- High performance
- Reliable
- PAYC - Pay As You Consume


AWS Global Infrastructure
GovCloud (US ITAR Region)
US West (Northern California)
US West (Oregon)
US East (Northern Virginia)
South America (Sao Paulo)
EU (Ireland)
Asia Pacific (Singapore)
Asia Pacific (Tokyo)
AWS Regions
AWS Edge Locations

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Data Centers

- Facebook Data Center

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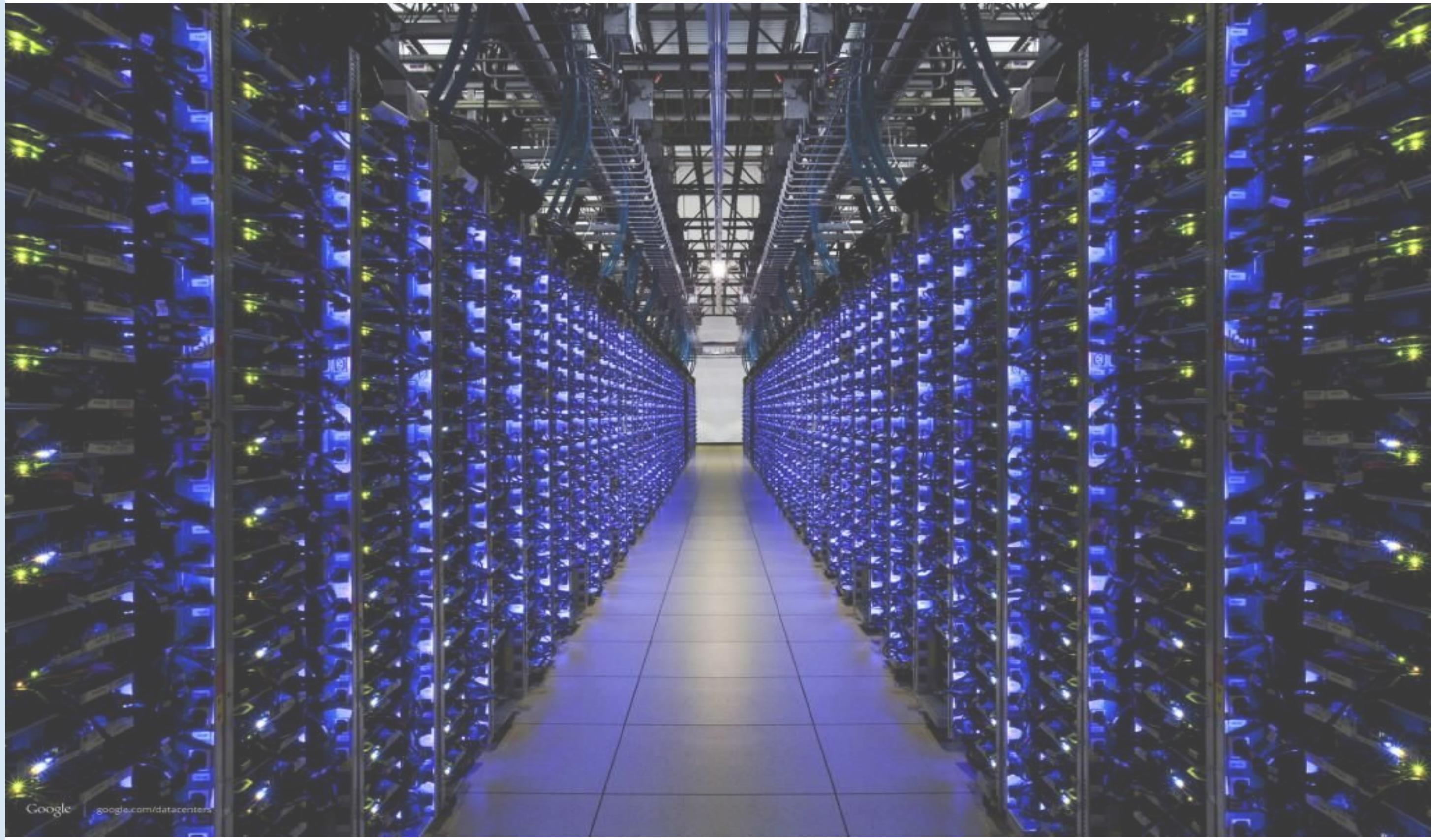
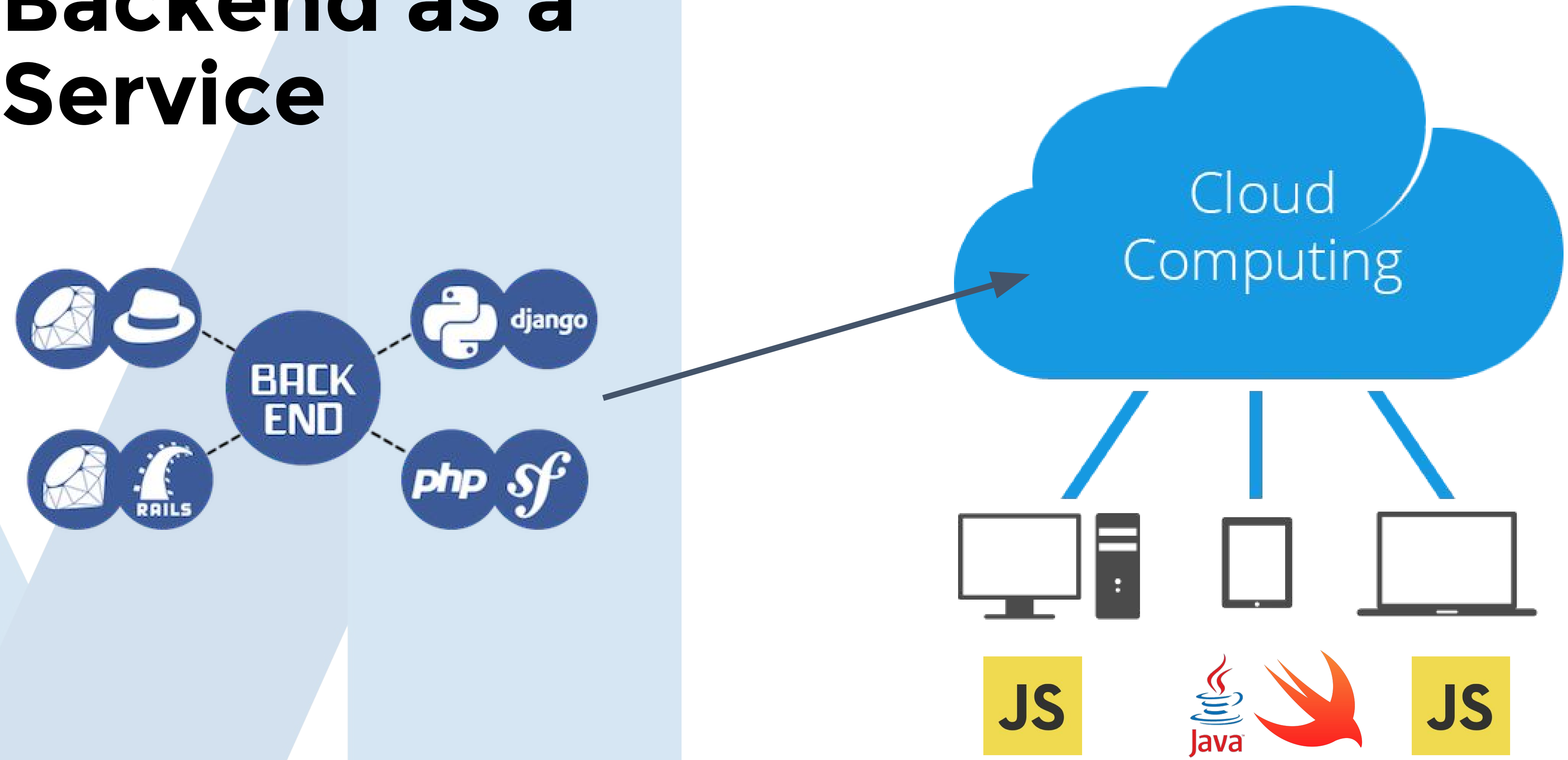
Data Centers

- Google Data Center Street View



Backend as a Service



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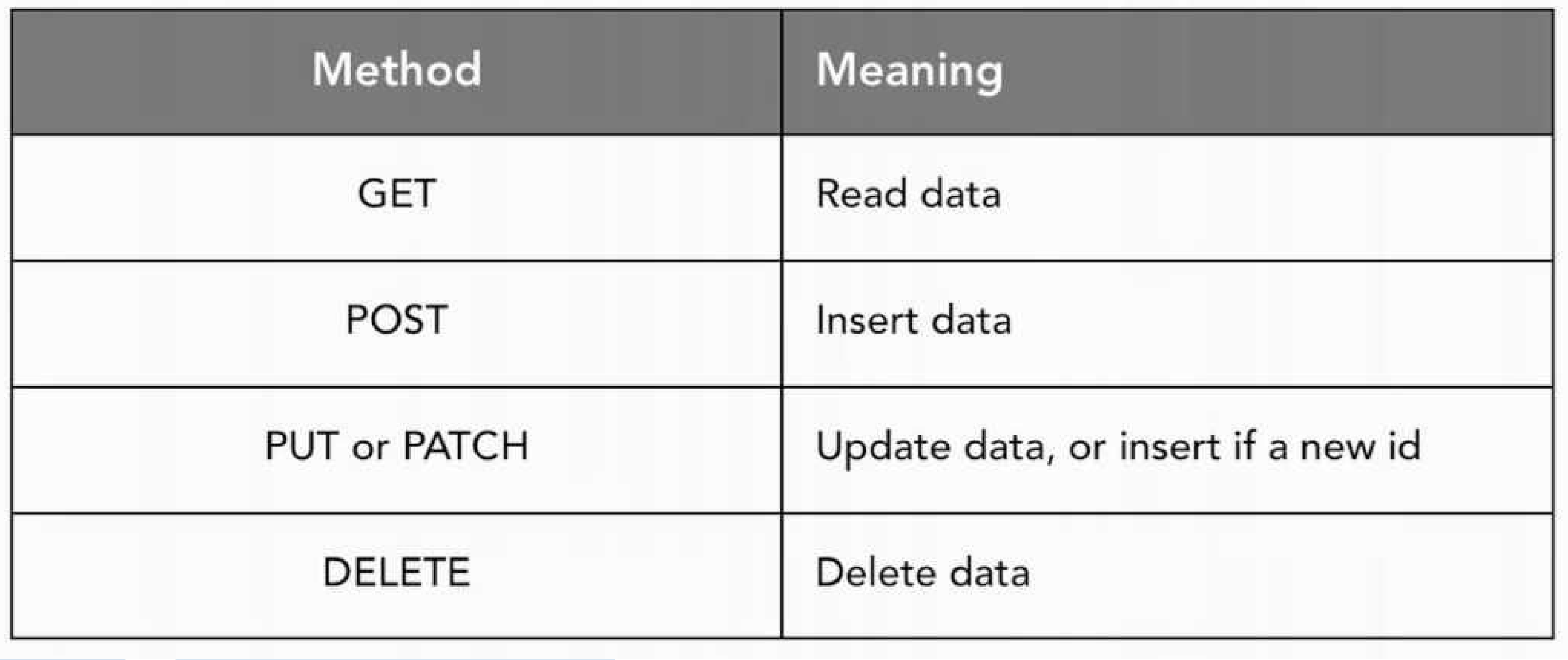
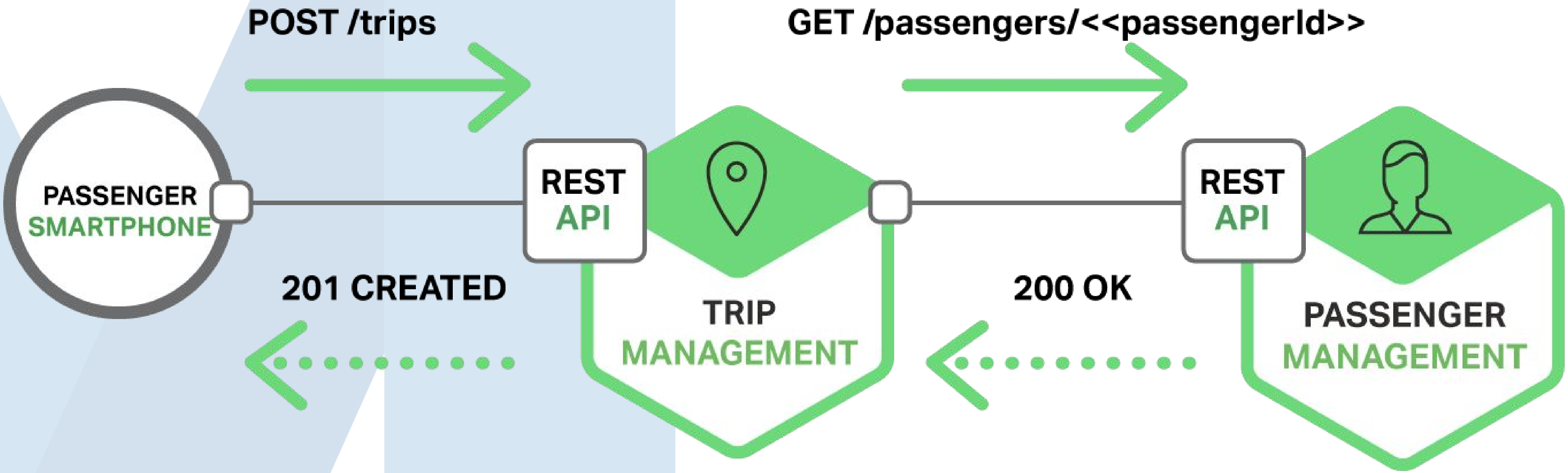
HTTP Methods



Method	Meaning
GET	Read data
POST	Insert data
PUT or PATCH	Update data, or insert if a new id
DELETE	Delete data

REST



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JSON

- JSON Object

  {name: Yeison, age: 22, status: on}

- JSON Array

  [{name: Yeison, age: 22, status: on},
  {name: Camilo, age: 24, status: off},
  {name: Maria, age: 25, status: on}]

  [people: [{name: Yeison, age: 22, status: on}, {name: Camilo, age: 24, status: off}, {name: Maria, age: 25, status: on}],
  company: Megaterios]

Serialization

Python, Ruby, Java, Php Objects

- object = Person(name=Yeison, age=22, status=on)

- list = [object_one, object_two, object_three]

- JSON Object

{name: Yeison, age: 22, status: on}

- JSON Array

[{name: Yeison, age: 22, status: on},
{name: Camilo, age: 24, status: off},
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[people: [{name: Yeison, age: 22, status: on}, {name: Camilo, age: 24, status: off}, {name: Maria, age: 25, status: on}],
company: Megaterios]

Deserialization

Python, Ruby, Java, Php Objects

- object = Person(name=Yeison, age=22, status=on)

- list = [object_one, object_two, object_three]

- JSON Object

  {name: Yeison, age: 22, status: on}

- JSON Array

  [{name: Yeison, age: 22, status: on},
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  [people: [{name: Yeison, age: 22, status: on}, {name: Camilo, age: 24, status: off}, {name: Maria, age: 25, status: on}],
  company: Megaterios]

Let’s make an App:
People App

Technologies

Let’s build the backend

Python 3.5

- Descargar y Ejecutar Python 3.5
  https://www.python.org/ftp/python/3.5/python-3.4.4.msi
- Editar la variable del sistema (C:\Python35)
- Abre el cmd y prueba que ya reconoce el comando python.
- Descargar PIP y guardarlo localmente: https://bootstrap.pypa.io/get-pip.py
- Ejecutar:
  python get-pip.py
- Editar las variables del sistema y añade una nueva en Path (C:\Python35\Scripts)

Virtual Environment

- Install: pip3 install virtualenv
- Create: virtualenv [environment_name]
- On: [environment_name]\Scripts\activate.bat
- Off: [environment_name]\Scripts\deactivate.bat

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Libraries

- pip3 install django==1.8
- pip3 install djangorestframework==3.4.3

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Creating Django App

```
python3 manage.py startapp people
```

Django Settings

```
INSTALLED_APPS = [
    'django.contrib.admin',
    'django.contrib.auth',
    'django.contrib.contenttypes',
    'django.contrib.sessions',
    'django.contrib.messages',
    'django.contrib.staticfiles',
    'rest_framework',
    'people',
]
```

MySql Database

```
mysql -h localhost -u root -p
CREATE DATABASE people
DEFAULT CHARACTER SET utf8
DEFAULT COLLATE utf8_general_ci;
quit;
```

Django Settings

```
DATABASES = {
    'default': {
        'ENGINE': 'django.db.backends.mysql',
        'NAME': 'people',
        'HOST': 'localhost',
        'PORT': '3306',
        'USER': 'root',
        'PASSWORD': '13278413'
    }
}
```

Django Settings

```
REST_FRAMEWORK = {
    'DEFAULT_PERMISSION_CLASSES': (
        'rest_framework.permissions.AllowAny',
)
}
```

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Model

Person

- name
- last_name
- description
- photo
- skill_one
- skill_two
- skill_three

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Model

Person

- name
- last_name
- description
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- skill_one
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- skill_three

```
class Person(models.Model):
    name = models.CharField(max_length=255)
    last_name = models.CharField(max_length=255)
    description = models.TextField()
    photo = models.URLField(max_length=500)
    skill_one = models.CharField(max_length=255)
    skill_two = models.CharField(max_length=255)
    skill_three = models.CharField(max_length=255)


    def __str__(self):
        return '{}'.format(self.nombre)
```

Admin

```
admin.site.register(Person)
```

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Serializer

Person

- name
- last_name
- description
- photo
- skill_one
- skill_two
- skill_three

```
class PersonSerializer(ModelSerializer):
    class Meta:
        model = Person
        ordering = ('-name')
        fields = ('id', 'name', 'description', 'photo',
                       'skill_one', 'skill_two',
                       'skill_three')
```

View

ModelViewSet methods:

- list -> (GET)
- retrieve -> (GET)
- create -> (POST)
- update -> (PUT)
- partial_update -> (PATCH)
- destroy -> (DELETE)

```
class PersonViewSet(ModelViewSet):
    serializer_class = PersonSerializer
    queryset = Person.objects.all()
```

Router and Urls

```
from rest_framework.routers import DefaultRouter
from people.views import PersonViewSet

routes = DefaultRouter()
routes.register(r'people', PersonViewSet)

urlpatterns = [
    url(r'^admin/', admin.site.urls),
    url(r'', include(routes.urls))
]
```

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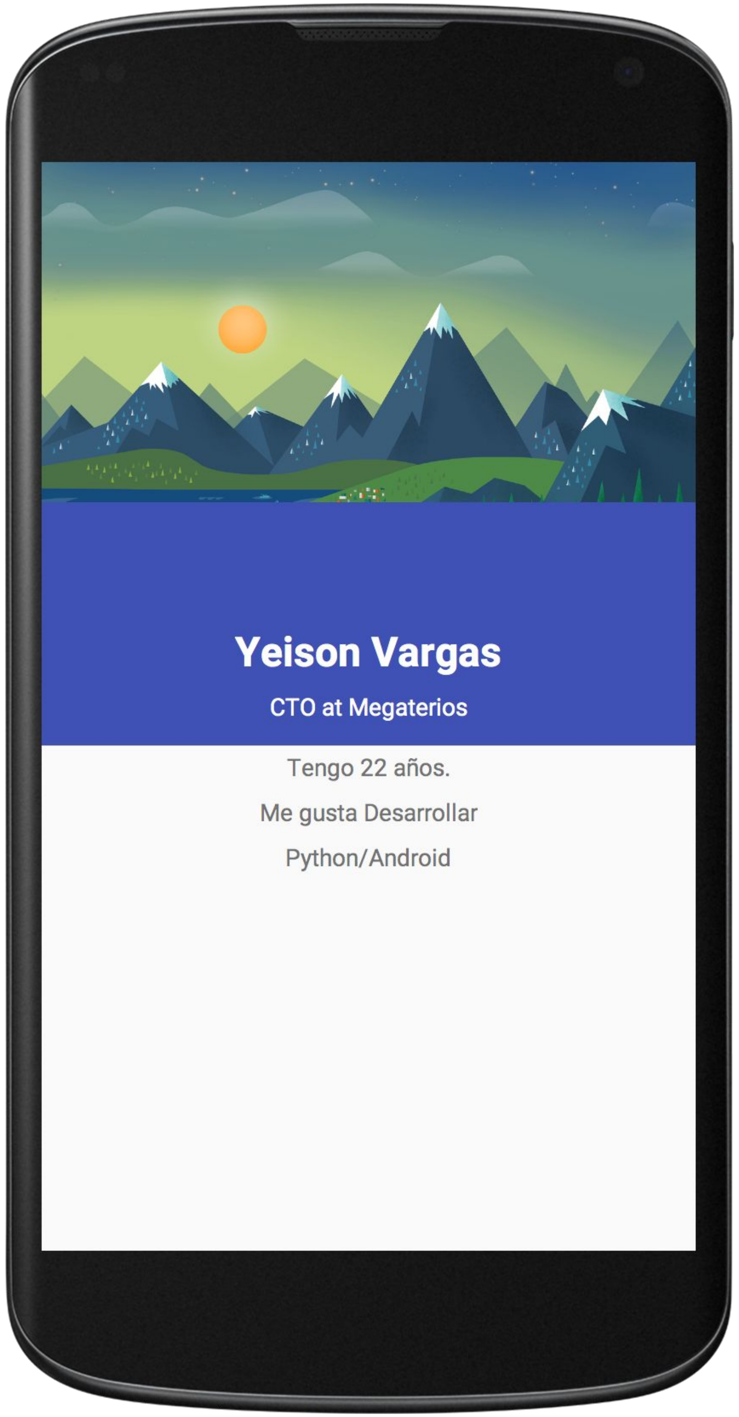
Let’s build the Android App

Design



Yeison Vargas

CTO at Megaterios

Tengo 22 años.

Me gusta Desarrollar

Python/Android

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