a **stripe** talk

Making Big Changes at Stripe

Evan Broder @ebroder





Exploding Kittens



This is a card game for people who are into kittens and explosions and laser beams and sometimes goats.

In case you missed it

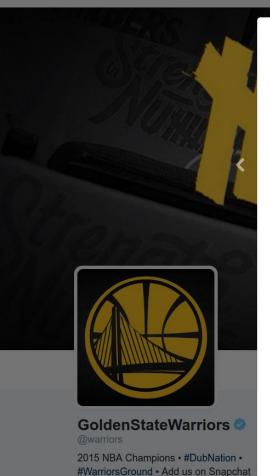
Created by

Elan Lee



219,382 backers pledged \$8,782,571 to help bring this project to life.





» bit.ly/1QLBjmr Oakland, CA



@ShaunLivingston 'The City' Jersey. Purchase here within this tweet!







Powering the new economy

Across every industry, the internet's most sophisticated companies run their business on Stripe.









TaskRabbit, Teespring, Pebble, and other companies create the best checkout experiences for customers around the world.

KICKSTARTER	A	Instacart	shopify	Pinterest
salesforce	3 slack	DigitalOcean	lyR	WolframAlpha
년 heroku	• OpenTable	HARRY'S	INDIEGOGO	🛱 reddit
TED	FOURSQUARE	xero	Humble Bundle	WUFOO
WIRED	theguardian	SurveyMonkey	(2)	B Bigcommerce
Virgin pure	HubSpot	SQUARESPACE	dribbble	TaskRabbit
∅ mongoDB	POSTMATES	Teespring	Optimizely	splunk>
INDOCHINO	wish	U UDACITY	# fitbit	(2) rackspace















Evolving the Stripe API





handles everything you need, start to It's built for developers.

curl https://api.stripe.com/v1 \ -d method=execute charge \ -d 'card[number]=4242424242424242' \ -d 'card[exp month]=10' \ -d 'card[exp year]=2011' \ -d amount=300 \ -d currency=usd \ -d identifier=bob@gmail.com \ -d key=G5m5CTNrfS5uwtpUCniFPuwbiODkHn # try more examples at the JavaScript REPL

STRIPE DEC PAYOUT

\$194,064.96

7 Feb 2011

Simple, JSON-based HTTP API.

Idiomatic open-source bindings. We currently support PHP, Ruby, Python and

Instant setup.

Process your first payment in five minutes. No or become a payments industry expert first.

Clean and sane: no SOAP, XML, or long PDF

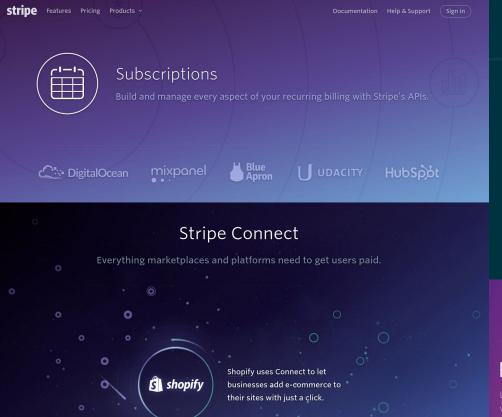
Flexible. We don't impose any branding requirements users to our site.

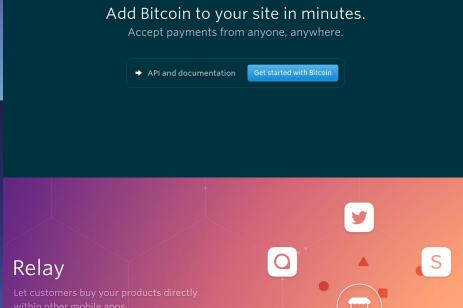
Complete.

You don't need to interact with any other cor gateway. We take care of everything.

Straightforward, competitive pricing.

No contracts, minimums, or monthly fees.



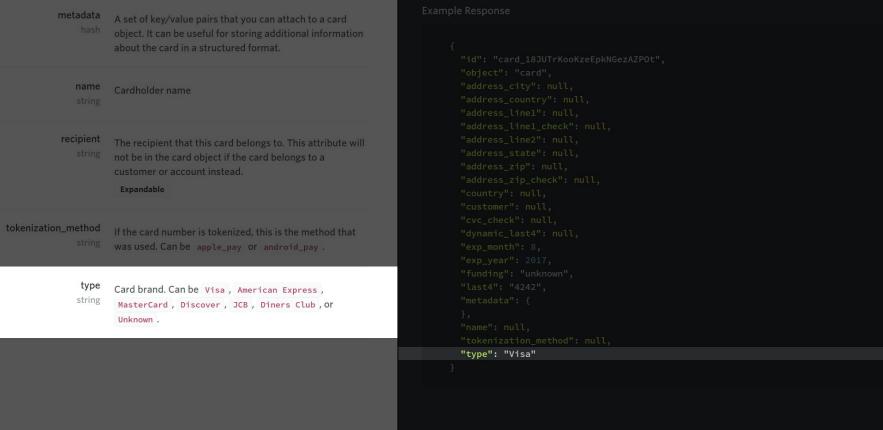


Explore the docs

Custom Forms Mobile Apps Charging Cards Testing Security Fraud Protection Webhooks ACH Guide Bitcoin Guide	What is my API version? Your API version controls the API and webhook behavior you see (e.g. what properties you see in responses, what parameters you're permitted to send in requests, etc.). Your version gets set the first time you make an API request. When we change the API in a backwards-incompatible way, we release a new dated version, but to avoid breaking your code, we don't change your version until you're ready to upgrade. If you make requests on behalf of other users using Connect, we'll use your application's API version, making it easy for you to write code that works for all your users no matter what API versions they're individually running.	
Alipay Guide File Upload Guide	What changes does Stripe consider to be "backwards-compatible"?	
Your Account Your Account Getting Paid Disputes Submitting Evidence Dispute Types Disputes FAQ Reporting Integrations	 Adding new API resources. Adding new optional request parameters to existing API methods. Adding new properties to existing API responses. Changing the order of properties in existing API responses. Changing the length or format of object IDs or other opaque strings. This includes adding or removing fixed prefixes (such as ch_ on charge IDs). You can safely assume object IDs we generate will never exceed 255 characters, but you should be able to handle IDs of up to that length. If for example you're using MySQL, you should store IDs in a VARCHAR(255) COLLATE utf8_bin column (the COLLATE configuration ensures case-sensitivity in lookups). Adding new event types. Your webhook listener should gracefully handle unfamiliar events types. 	
Examples Stripe.js Checkout Recipes API Libraries API Upgrades	How can I upgrade my API? If you're running an older version, you'll want to upgrade to take advantage of the latest and greatest API, whether that means new functionality or streamlining the responses so the API's faster for you. To see what version you're running and upgrade to the latest, visit your dashboard.	
Full API Reference SUBSCRIPTIONS Getting Started Detailed Guide	To test your code under another API version before committing to the change, make use of Stripe's support for versioning. API changelog	



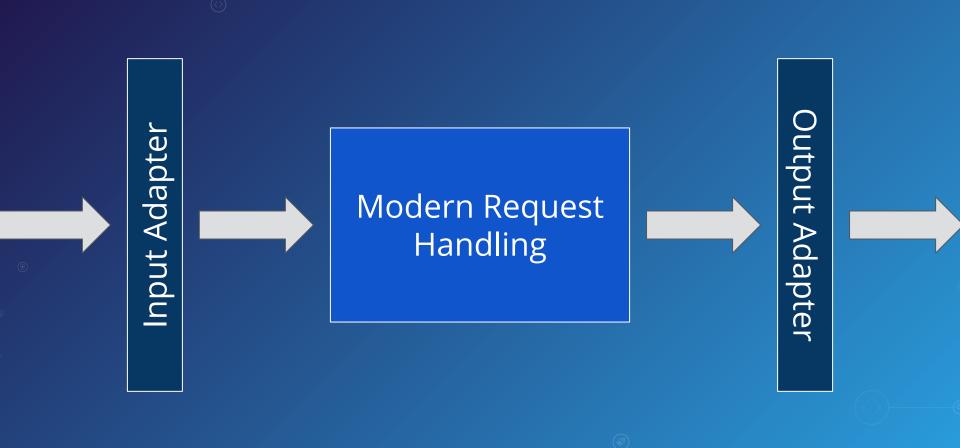
charge refunds.
2014-07-22
Proration line items on invoices now include the associated subscription's plan and quantity.
2014-06-17
 Change refunds property on charge responses from an array to a sublist object, which contains the total_count, has_more, url, and data parameters.
2014-06-13
Rename type to brand on the card object.
2014-05-19
 Replace account property on transfer responses with the bank_account property, which contains the same information and does not appear when the transfer was not made to a bank account.
2014-03-28
 MAJOR Remove count property from list responses, replacing it with the optional property total_count. You can request that total_count be included in your responses by specifying include[]=total_count.
2014-03-13



Create a card

When you create a new credit card, you must specify a customer or recipient to

```
def render_card(stripe_user, card)
  data = \{\}
  if stripe_user.gating(:show_card_brand_as_type)
    data[:type] = card.brand
  else
    data[:brand] = card.brand
  end
  \lceil \dots \rceil
  return data
end
```

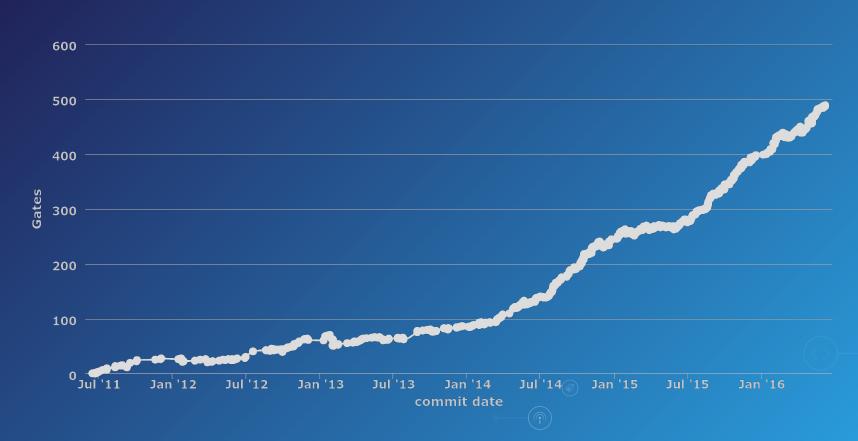


```
def render_card(card)
  data = {}
  [...]
  data[:brand] = card.brand
```

```
def convert_card_description(stripe_user, data)
  [...]
  if stripe_user.gating(:show_card_brand_as_type)
    data[:type] = data[:brand]
  end
```

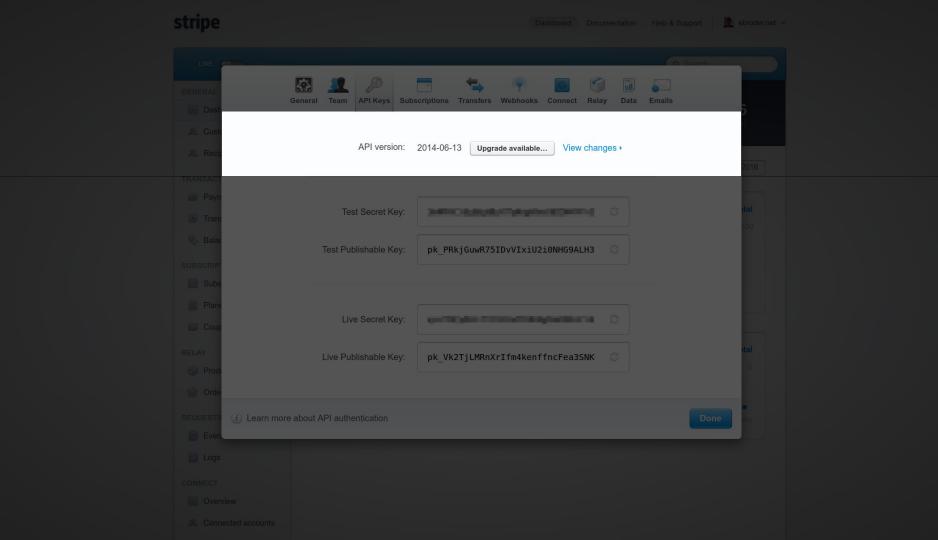


Gating at Stripe



stripe ~\$ curl http://169.254.169.254/2014-11-05/meta-data/instance-id i-0511b27a

stripe ~\$ curl http://169.254.169.254/2014-11-05/meta-data/instance-id i-0511b27a







WordPress plugir of numerous plug Content Pro and I

Hutchinson, K

(Joined May 20



Pippinsplugins @pippinsplugins



Follow

Know why I love @Stripe? They update their API practically every day but code from 2 years ago still works

FAVORITES























Plugify @plugifyplugins · 21 Aug 2014

@pippinsplugins If we could have babies with @Stripe, we would.

000



1:30 PM - 21 Aug 2014













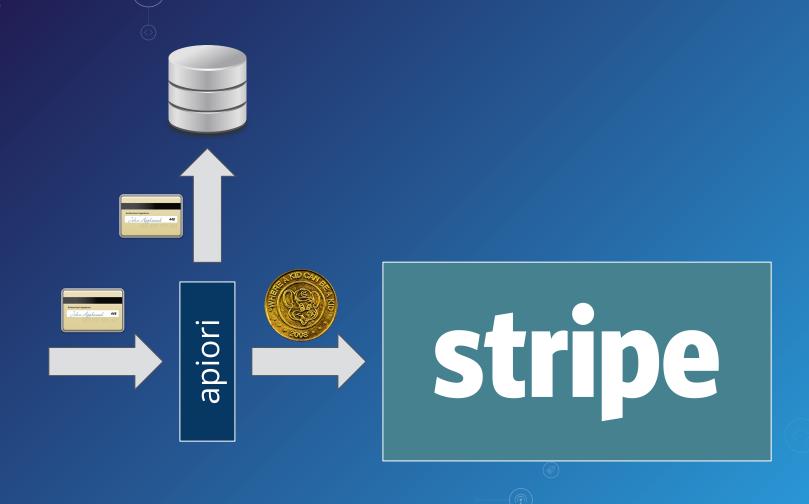
PCI and Go

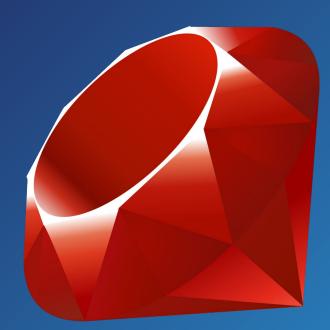






a·pi·o·ri /ˈäpēˌôrē/









```
POST /v1/charges HTTP/1.1
Accept: */*; q=0.5, application/xml
Accept-Encoding: gzip, deflate
User-Agent: Stripe/v1 RubyBindings/1.43.0
Authorization: Bearer sk_test_BQokikJOvBiI2HlWgH4olfQ2
Content-Type: application/x-www-form-urlencoded
Content-Length: 159
Host: api.stripe.com
```

```
amount=400&currency=usd&source[number]=4242424242424242428source
[exp_month]=6&source[exp_year]=2017&source[cvc]
=314&description=Charge%20for%20test%40example.com
```

source[number]=4242424242424242

[source]number=4242424242424242 source[number]=4242424242424242

[source][number]=4242424242424242 [source]number=4242424242424242 source[number]=424242424242424242

GET /v1/plans/10USD%2FMONTH HTTP/1.1

By performing this decoding, net.URL has implicitly taken a stance on the semantics of URLs that exceeds what the RFC allows





Accept: */*

```
evan@tracey:gopiori (master)$ cat frontend/zoo/funny_path2/input
GET /v1/plans/10USD%2fmonth HTTP/1.1
Authorization: Basic c2tfdGVzdF9CUW9raWtKT3ZCaUkySGxXZ0g0b2xmUTI6
User-Agent: curl/7.33.0
Host: localhost:15000
```

```
evan@tracey:gopiori (master)$ cat frontend/zoo/funny path2/input
GET /v1/plans/10USD%2Fmonth HTTP/1.1
Host: localhost:15000
User-Agent: curl/7.33.0
Accept: */*
Authorization: Basic c2tfdGVzdF9CUW9raWtKT3ZCaUkySGxXZ0q0b2xmUTI6
X-Apiori-Api-Key: sk_test_BQokikJOvBiI2HlWgH4olfQ2
X-Apiori-Api-Key-Provenance: basic
X-Apiori-Info: {"forward.original request method":"GET", [...]}
Accept-Encoding: gzip
```

```
evan@tracey:~/stripe/apiori/gopiori (master)$ ls frontend/zoo/
applepay
                                                     malformed pk token
                            emv
bad cscrypto
                                                     malformed request1
                            funny path1
bad headers
                            funny_path2
                                                     malformed_request2
capture charge
                            funny path3
                                                     malformed request3
                                                     malformed_swipe
card_present
                            funny_path4
card token declines
                            funny path5
                                                     no content type
card_with_spaces_or_dashes
                            funny_path6
                                                     not_luhn_valid
cscrypto badgcm
                            funny path7
                                                     tokenize bb
cscrypto_badjson
                            funny path8
                                                     tokenize cors
cscrypto bankaccount
                            malformed content type
                                                     tokenize jsonp
                                                     top level cvc
cscrypto_card
                            malformed emv
duplicate_content_type
                            malformed pan
```



stripe 20,000 15,000 **6** 10,000 5,000 go ruby 20,000 15,000 10,000

t_frontend

5,000



The Oregon Trail











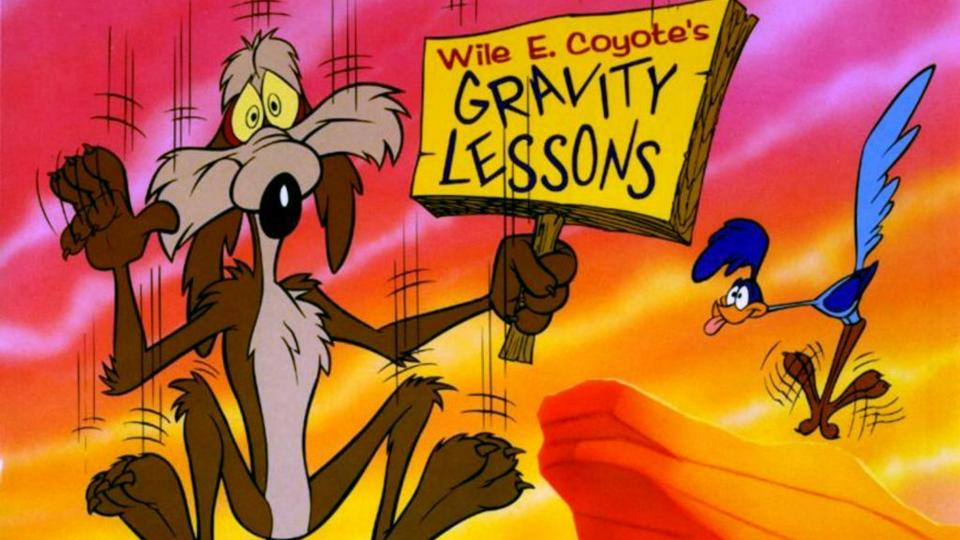


TECHNICAL DIFFICULTIES



PLEASE STAND BY

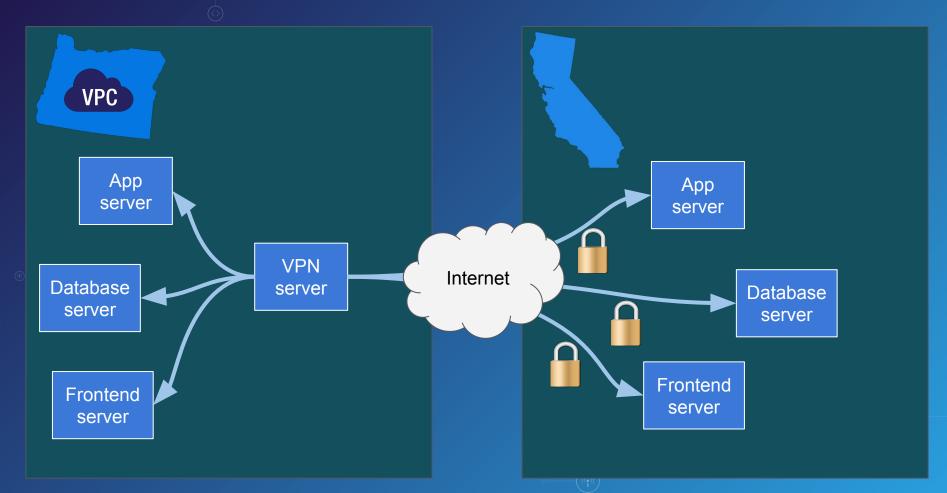








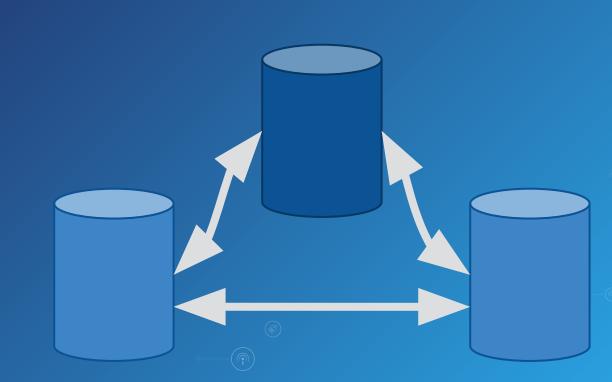






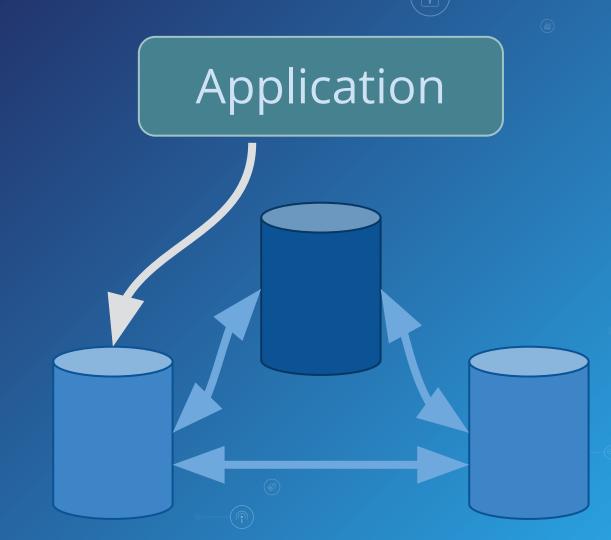
Primary

Secondaries



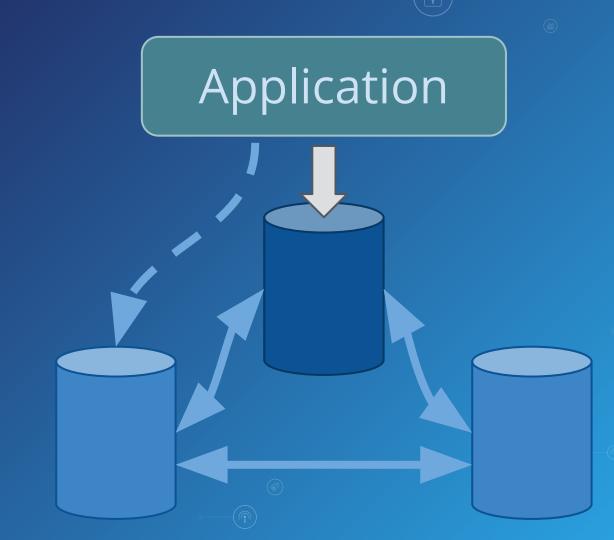
Primary

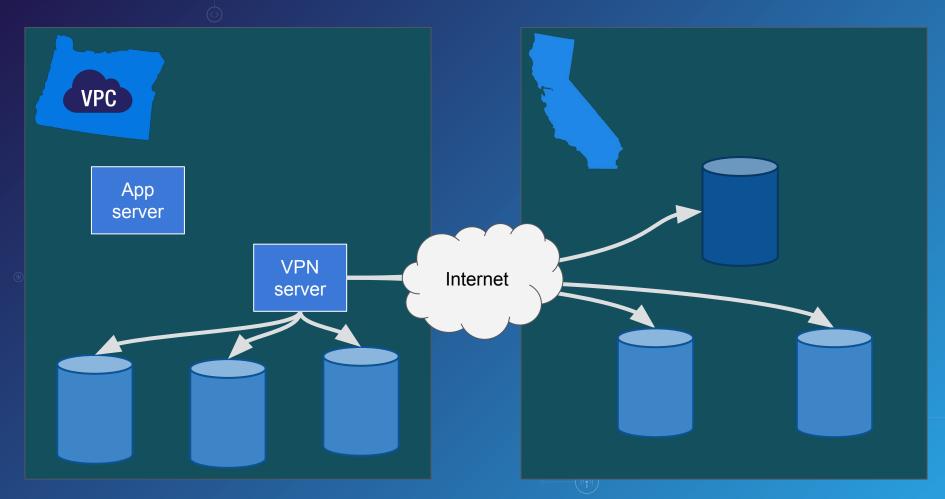
Secondaries

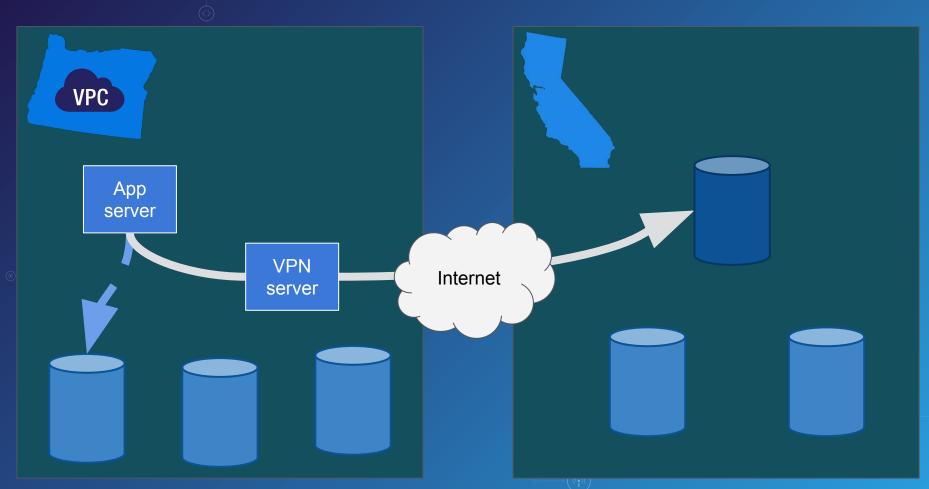


Primary

Secondaries





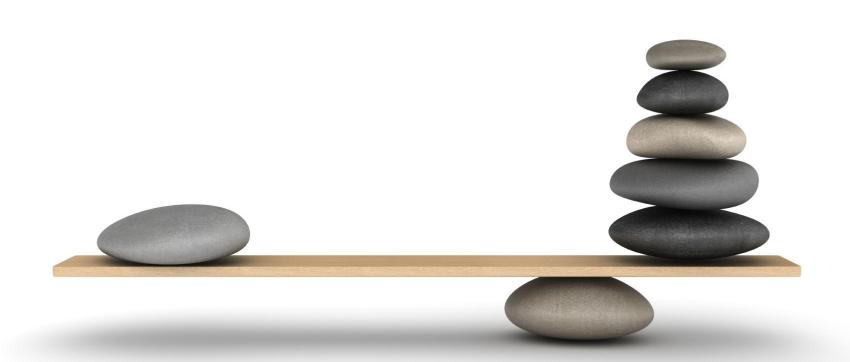


stripe **VPC** Load Balancer App server VPN Internet server App server App App server server













References

- Move Fast, Don't Break Your API: http: //goo.gl/7a0C3P
- Migrating from AWS to AWS with Neti: http://goo.gl/k33v76

Questions?





