Let’s talk about the developer experience

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@rubenv
https://rocketeer.be

More complexity!

Operations: good old days

```
yum install    rsync
```

Order in the chaos!

amazon web services

CI/CD

docker

kubernetes

Developers: Monolithic LAMP

Linux

Apache

Most of our cool scripting languages start with P

PostgreSQL

Many services and dependencies

Micro-services

NoSQL databases

Cache tiers (Redis)

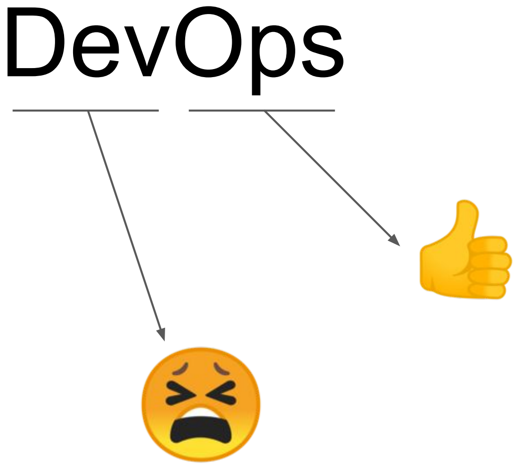
Worker queues

Messaging systems

DevOps

DevOps

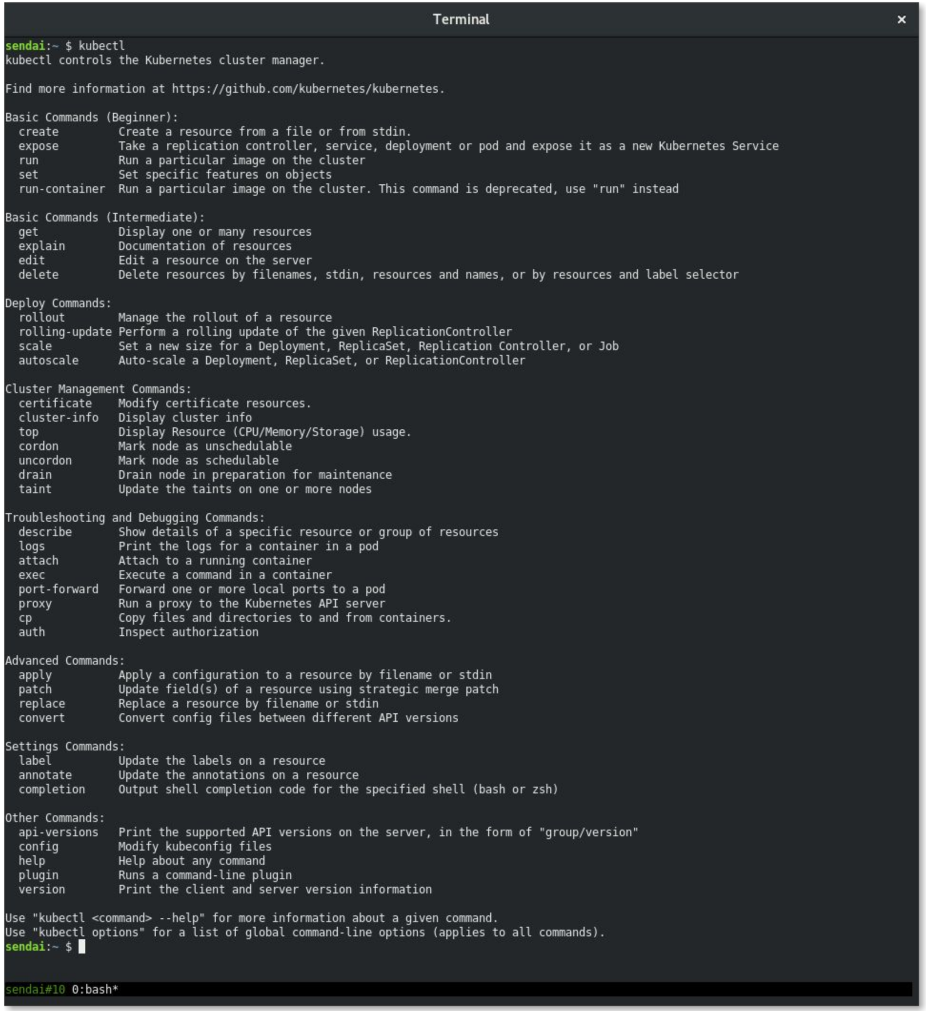
👍



DevOps

Vastly more complex environment

Development env that somewhat resembles production?



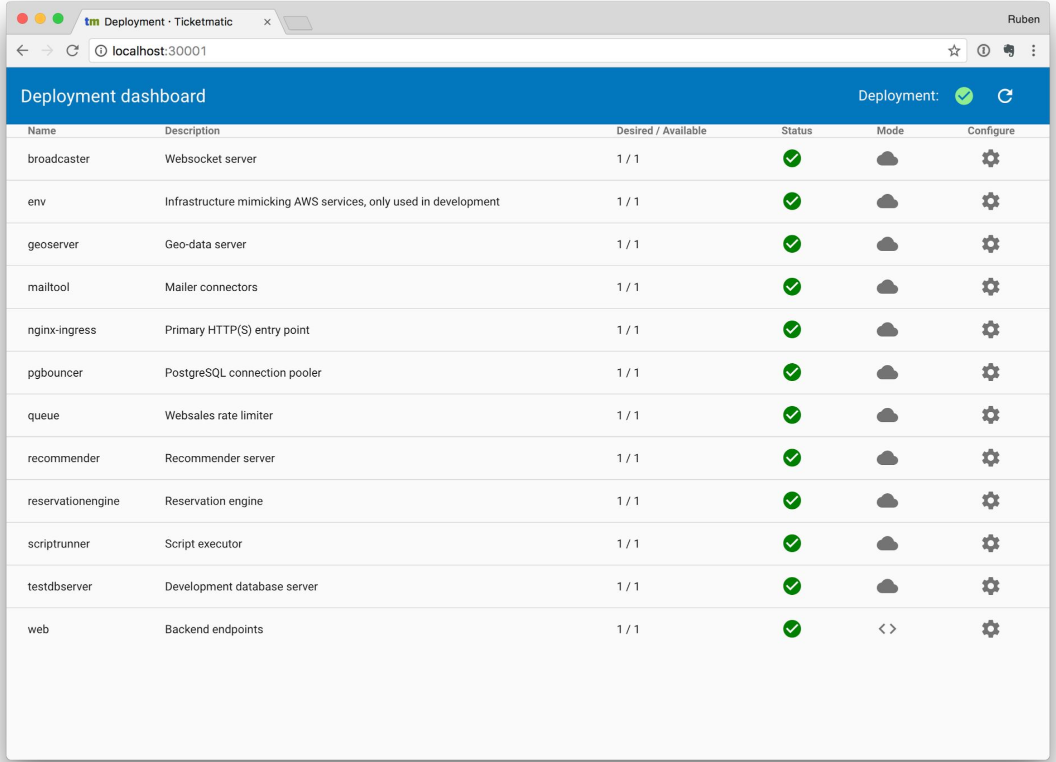
```
sendai:~ $ kubectl
kubectl controls the Kubernetes cluster manager.

Find more information at https://github.com/kubernetes/kubernetes.

Basic Commands (Beginner):
  create         Create a resource from a file or from stdin.
  expose         Take a replication controller, service, deployment or pod and expose it as a new Kubernetes Service
  run            Run a particular image on the cluster
  set            Set specific features on objects
  run-container  Run a particular image on the cluster. This command is deprecated, use "run" instead

Basic Commands (Intermediate):
  get            Display one or many resources
  explain        Documentation of resources
  edit           Edit a resource on the server
  delete         Delete resources by filenames, stdin, resources and names, or by resources and label selector

Deploy Commands:
  rollout        Manage the rollout of a resource
  rolling-update Perform a rolling update of the given ReplicationController
  scale          Set a new size for a Deployment, ReplicaSet, Replication Controller, or Job
  autoscale      Auto-scale a Deployment, ReplicaSet, or ReplicationController

Cluster Management Commands:
  certificate    Modify certificate resources.
  cluster-info   Display cluster info
  top            Display Resource (CPU/Memory/Storage) usage.
  cordon         Mark node as unschedulable
  uncordon       Mark node as schedulable
  drain          Drain node in preparation for maintenance
  taint          Update the taints on one or more nodes

Troubleshooting and Debugging Commands:
  describe       Show details of a specific resource or group of resources
  logs           Print the logs for a container in a pod
  attach         Attach to a running container
  exec           Execute a command in a container
  port-forward   Forward one or more local ports to a pod
  proxy          Run a proxy to the Kubernetes API server
  cp             Copy files and directories to and from containers.
  auth           Inspect authorization

Advanced Commands:
  apply          Apply a configuration to a resource by filename or stdin
  patch          Update field(s) of a resource using strategic merge patch
  replace        Replace a resource by filename or stdin
  convert        Convert config files between different API versions

Settings Commands:
  label          Update the labels on a resource
  annotate       Update the annotations on a resource
  completion     Output shell completion code for the specified shell (bash or zsh)

Other Commands:
  api-versions   Print the supported API versions on the server, in the form of "group/version"
  config         Modify kubeconfig files
  help           Help about any command
  plugin         Runs a command-line plugin
  version        Print the client and server version information

Use "kubectl <command> --help" for more information about a given command.
Use "kubectl options" for a list of global command-line options (applies to all commands).
sendai:~ $ 


sendai#10 0:bash*
```

Adoption?

Everybody needs to be on board

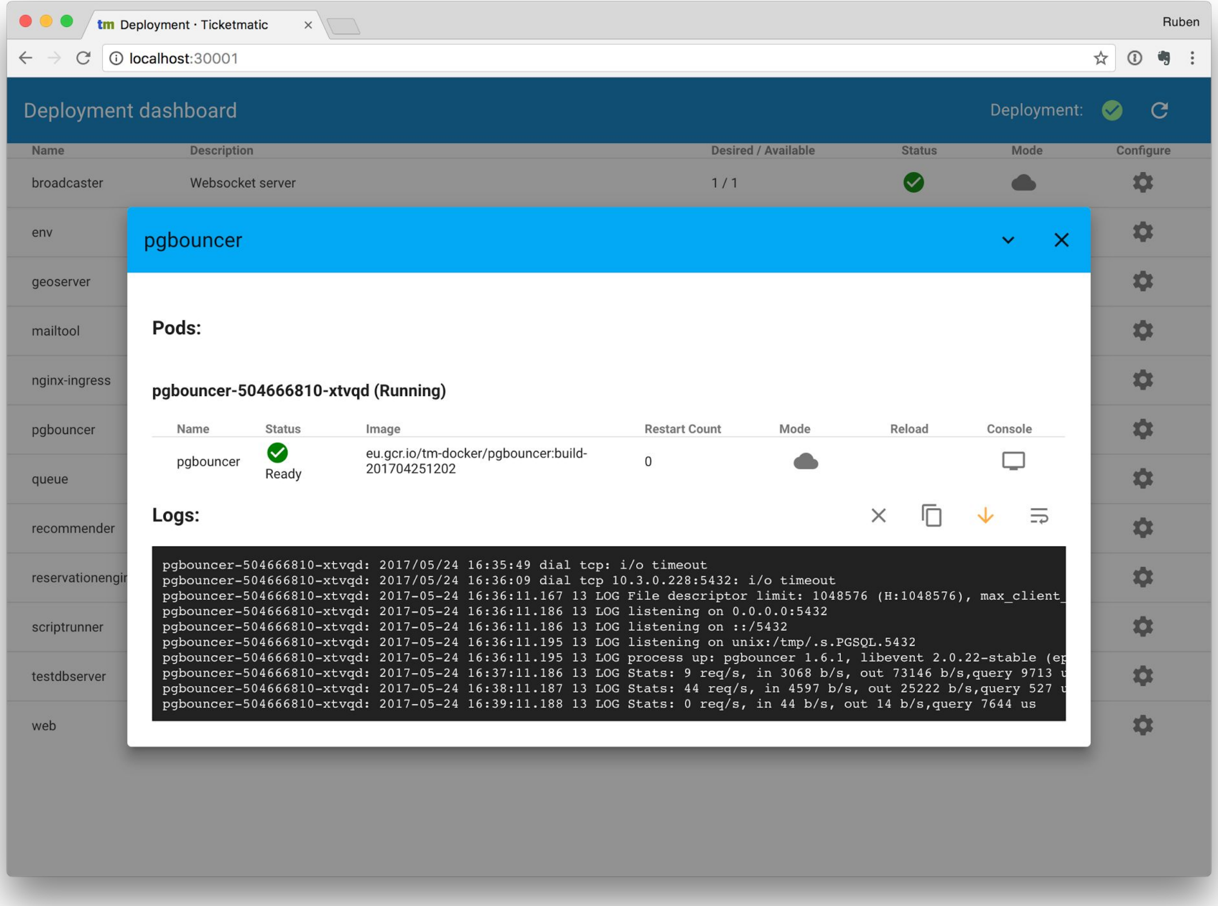
Streamline the developer experience!

devmatic



Name	Description	Desired / Available	Status	Mode	Configure
broadcaster	Websocket server	1 / 1	✓	☁	⚙
env	Infrastructure mimicking AWS services, only used in development	1 / 1	✓	☁	⚙
geoserver	Geo-data server	1 / 1	✓	☁	⚙
mailtool	Mailer connectors	1 / 1	✓	☁	⚙
nginx-ingress	Primary HTTP(S) entry point	1 / 1	✓	☁	⚙
pgbouncer	PostgreSQL connection pooler	1 / 1	✓	☁	⚙
queue	Websales rate limiter	1 / 1	✓	☁	⚙
recommender	Recommender server	1 / 1	✓	☁	⚙
reservationengine	Reservation engine	1 / 1	✓	☁	⚙
scriptrunner	Script executor	1 / 1	✓	☁	⚙
testdbserver	Development database server	1 / 1	✓	☁	⚙
web	Backend endpoints	1 / 1	✓	<>	⚙

Logs



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pgbouncer

Pods:

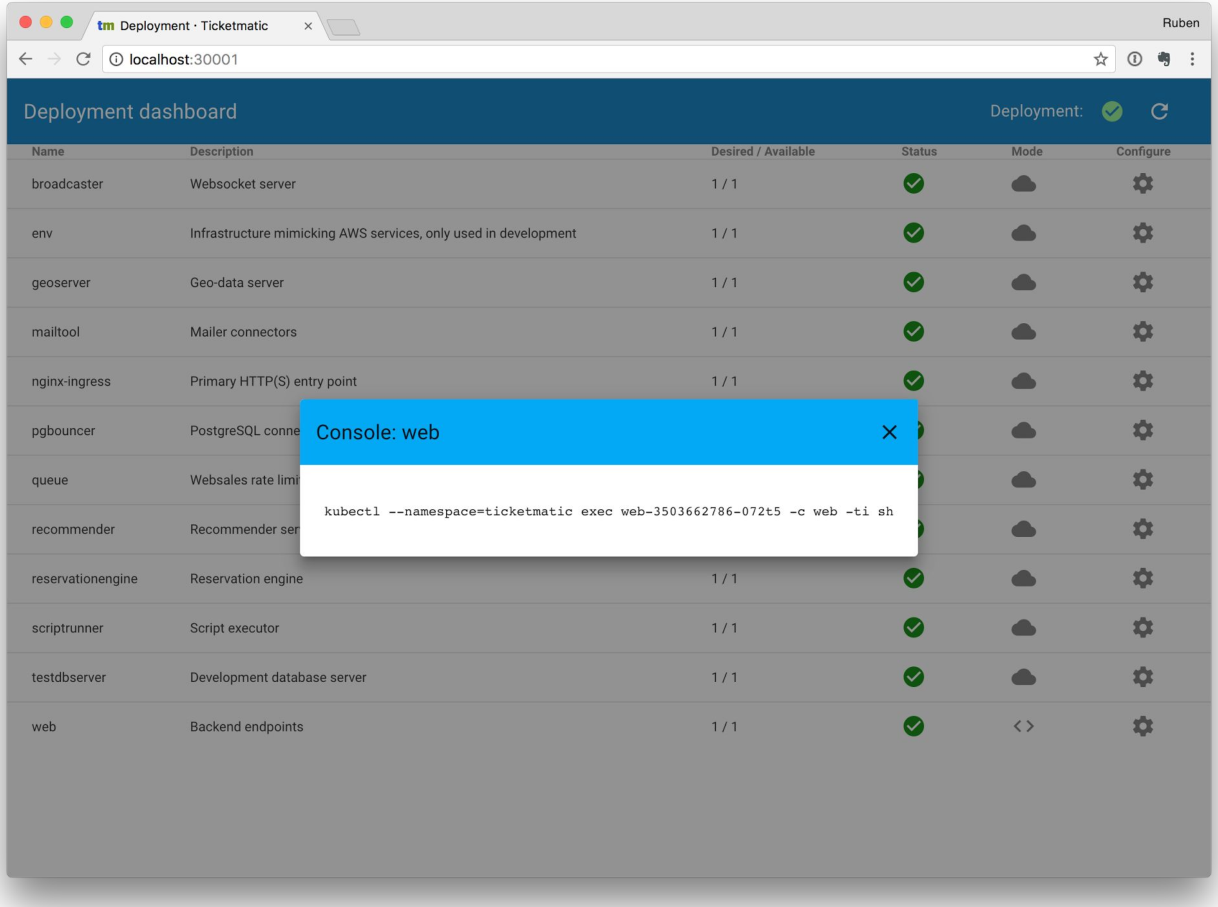
pgbouncer-504666810-xtvqd (Running)

Name	Status	Image	Restart Count	Mode	Reload	Console
pgbouncer	✓ Ready	eu.gcr.io/tm-docker/pgbouncer:build-201704251202	0			

Logs:

```
pgbouncer-504666810-xtvqd: 2017/05/24 16:35:49 dial tcp: i/o timeout
pgbouncer-504666810-xtvqd: 2017/05/24 16:36:09 dial tcp 10.3.0.228:5432: i/o timeout
pgbouncer-504666810-xtvqd: 2017-05-24 16:36:11.167 13 LOG File descriptor limit: 1048576 (H:1048576), max_client_
pgbouncer-504666810-xtvqd: 2017-05-24 16:36:11.186 13 LOG listening on 0.0.0.0:5432
pgbouncer-504666810-xtvqd: 2017-05-24 16:36:11.186 13 LOG listening on ::/5432
pgbouncer-504666810-xtvqd: 2017-05-24 16:36:11.195 13 LOG listening on unix:/tmp/.s.PGSQL.5432
pgbouncer-504666810-xtvqd: 2017-05-24 16:36:11.195 13 LOG process up: pgbouncer 1.6.1, libevent 2.0.22-stable (ep
pgbouncer-504666810-xtvqd: 2017-05-24 16:37:11.186 13 LOG Stats: 9 req/s, in 3068 b/s, out 73146 b/s,query 9713 u
pgbouncer-504666810-xtvqd: 2017-05-24 16:38:11.187 13 LOG Stats: 44 req/s, in 4597 b/s, out 25222 b/s,query 527 u
pgbouncer-504666810-xtvqd: 2017-05-24 16:39:11.188 13 LOG Stats: 0 req/s, in 44 b/s, out 14 b/s,query 7644 us
```

Shell



Deployment dashboard

Deployment: ✓

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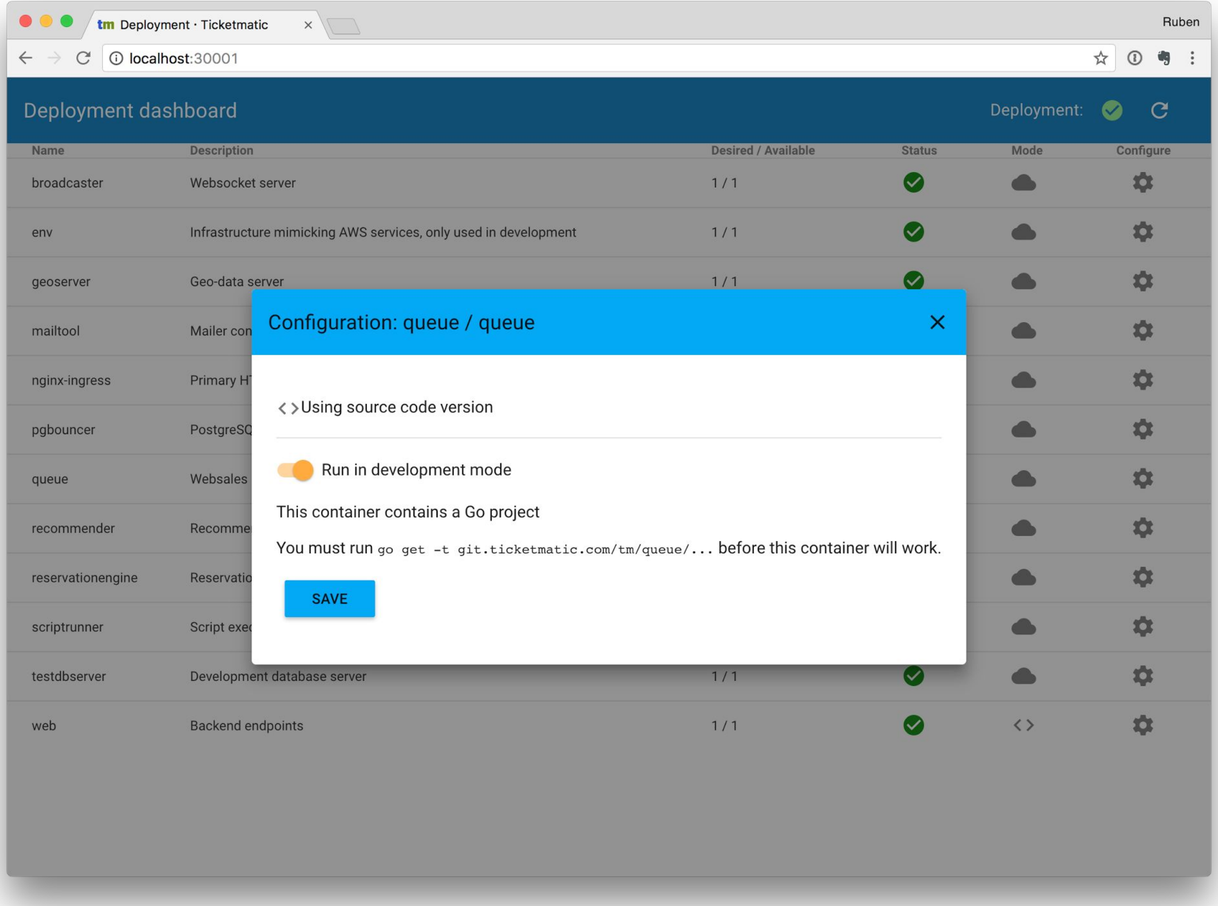
web	Backend endpoints	1 / 1	✓	<>	⚙

Console: web

```
kubectl --namespace=ticketmatic exec web-3503662786-072t5 -c web -ti sh
```

Source mode



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Configuration: queue / queue

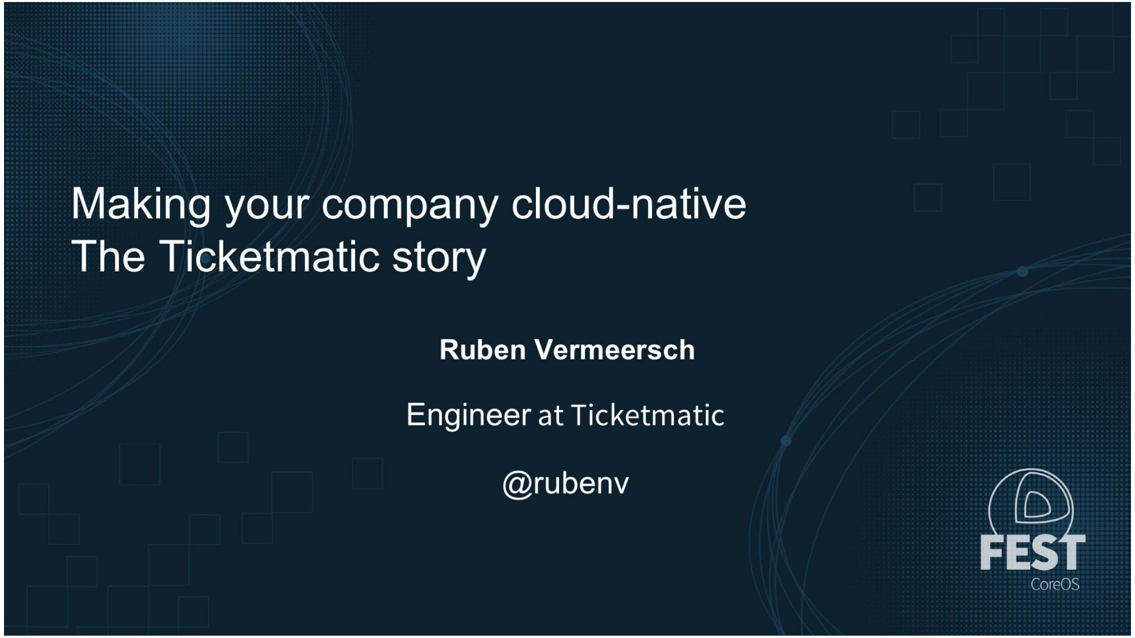
< > Using source code version

● Run in development mode

This container contains a Go project

You must run `go get -t git.ticketmatic.com/tm/queue/...` before this container will work.

Talk at CoreOS conference (San Francisco, 2017)



Making your company cloud-native
The Ticketmatic story

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FEST
CoreOS

https://rocketeer.be/articles/coreos-fest-2017/

Let’s talk!

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