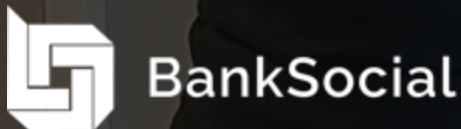


IBM MQ Containerized GCP Deployment for RTP

Kevin Barnard, Chief Technology Architect, BankSocial

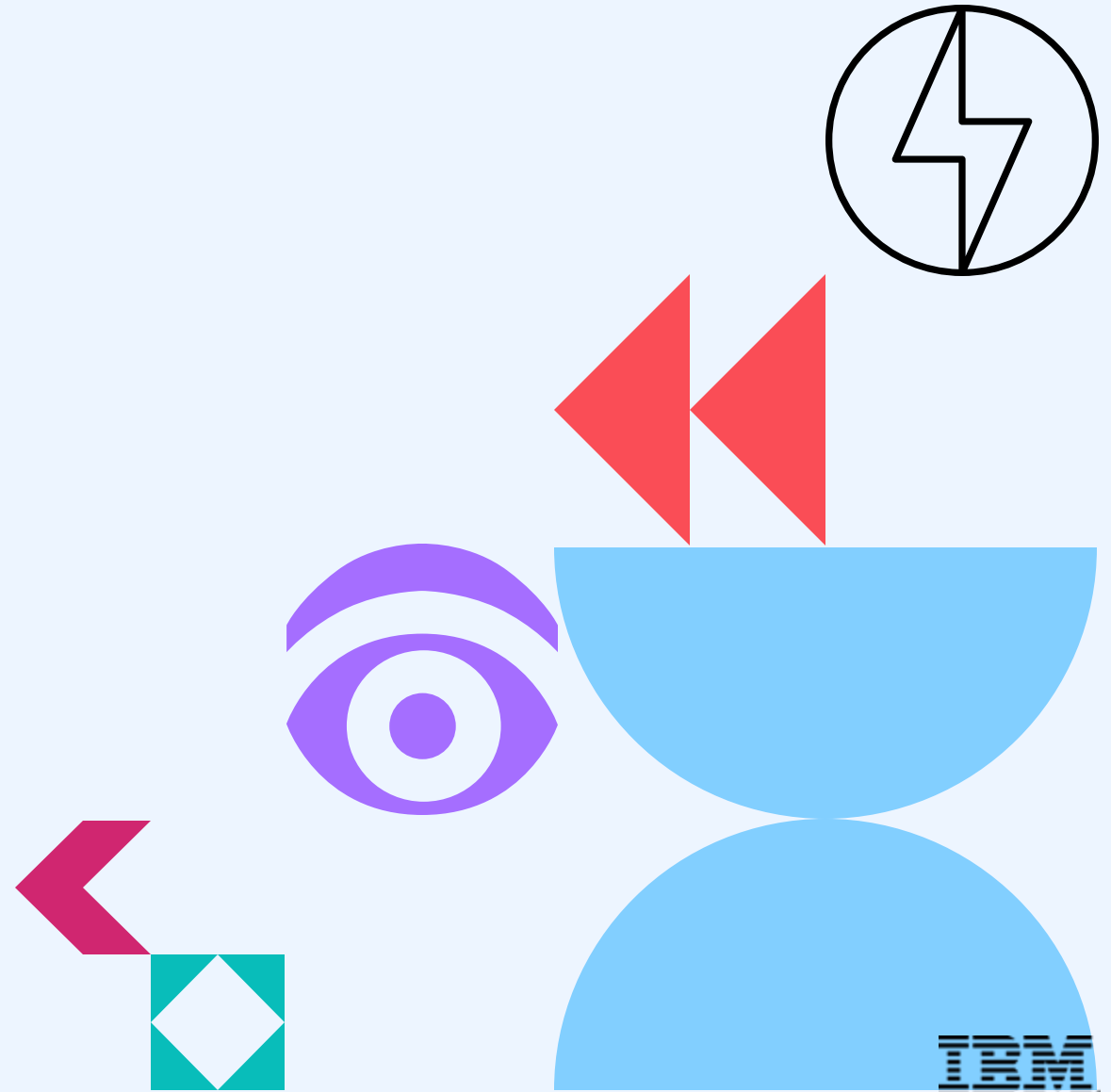
John Carr, Integration Services Practice Manager, TxMQ

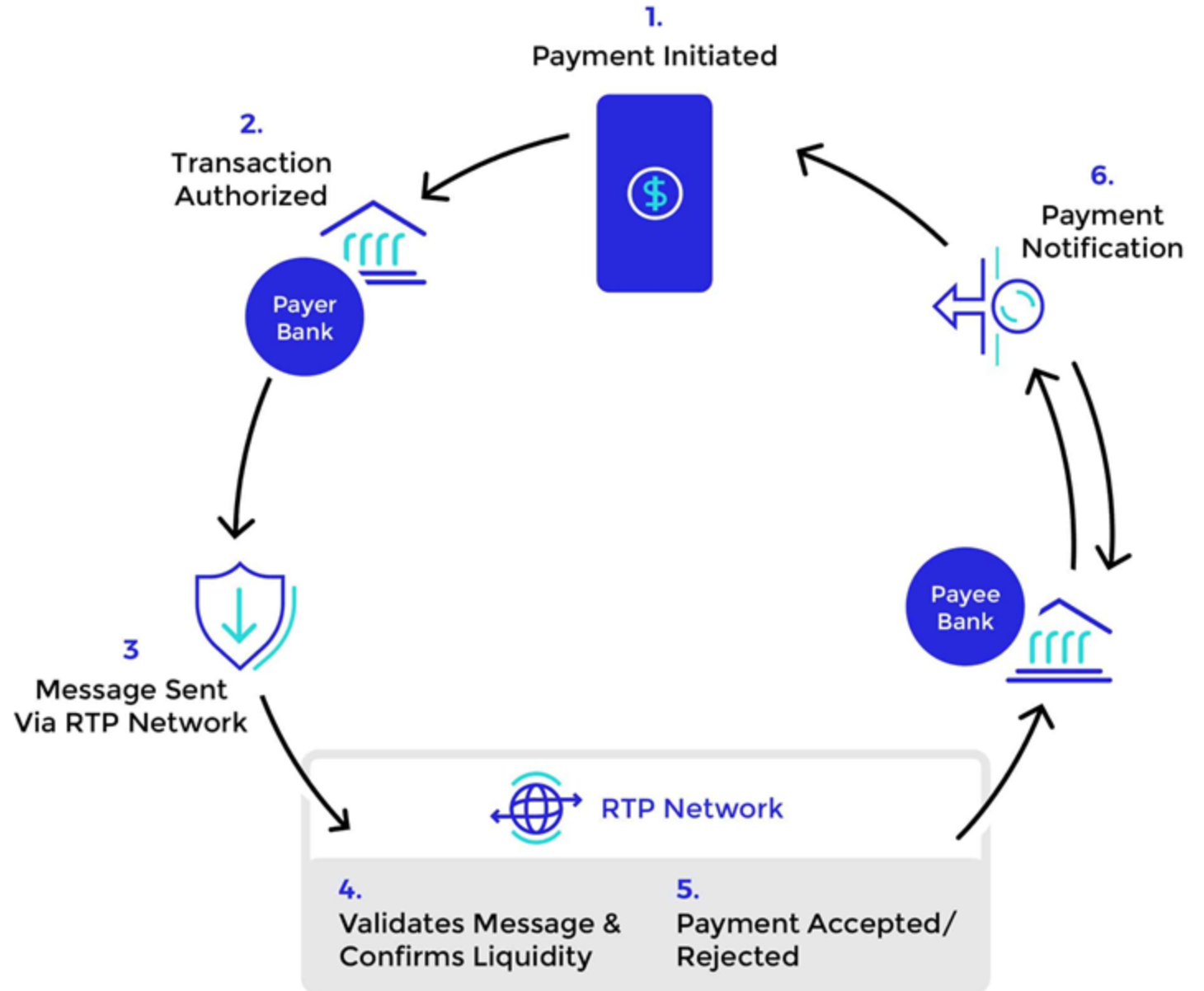
Miles Roty, VP of Services & Support, TxMQ



Agenda

- 01 Business Overview
- 02 MQ in Containers-Kubernetes
- 03 Container Build
- 04 Infrastructure as Code
- 05 Helm Specifics & Challenges







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#IBMTechXchange

IBM MQ Container Image:

Github: [ibm-messaging/mq-container](https://github.com/ibm-messaging/mq-container)

IBM MQ in Container Single Resilient on HA (K8S) compute nodes

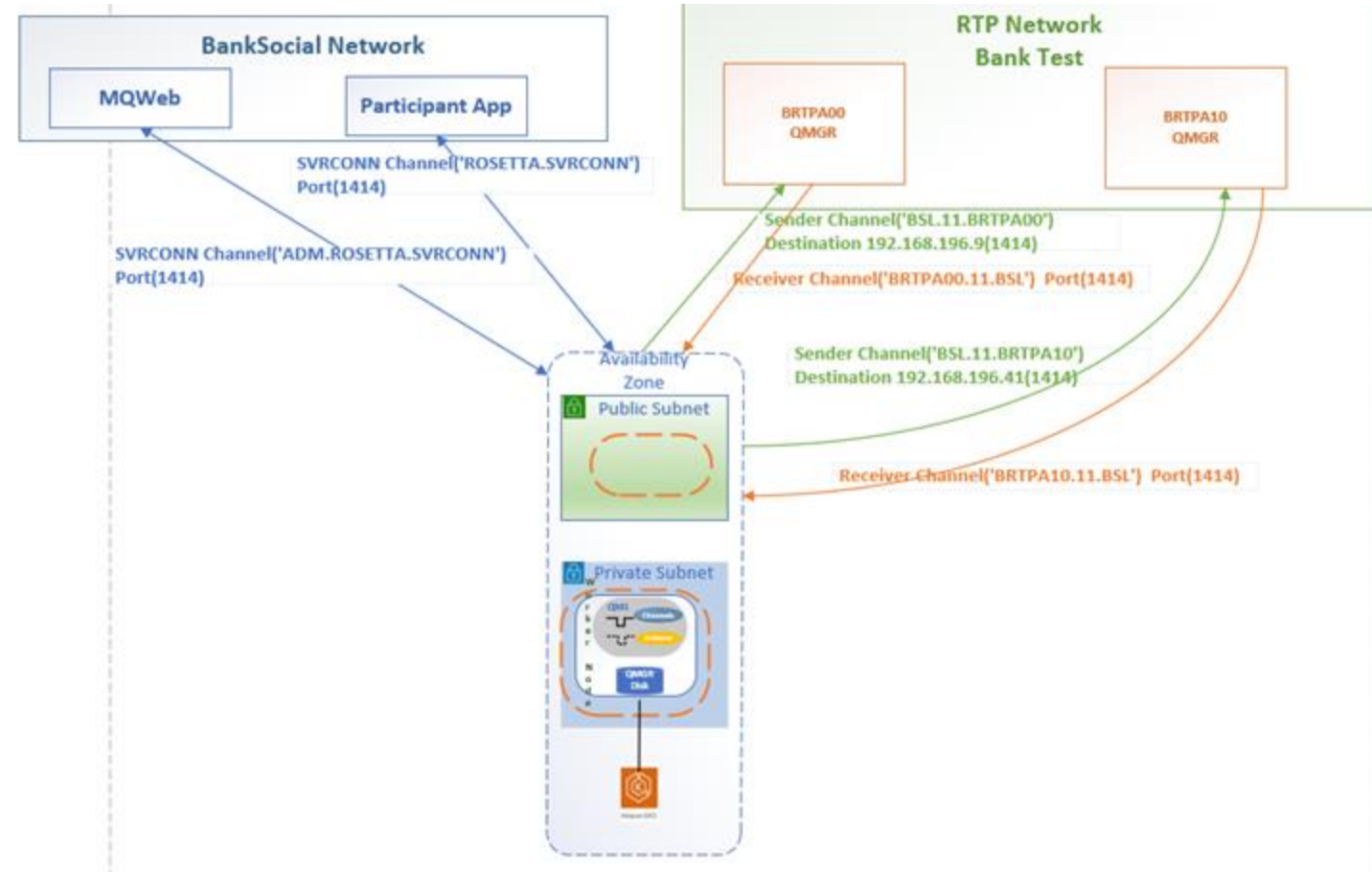


Single Resilient QManager

Multi-Instance QManager



Google Kubernetes Engine



IBM MQ Container Image:

Build the image to a local repo so it is ready for be consumed repeatedly. Repeatedly is key for Continuous Deployment.

Did I mention you are going to pull this image many times?

```
git clone ${git_ops[@]} https://github.com/ibm-messaging/mq-container.git ibm-mq-builder
fi

pushd ibm-mq-builder

export MQ_VERSION

if [ $dev -eq 1 ]
then
    make build-devserver
    docker tag "ibm-mqadvanced-server-dev:${MQ_VERSION}-amd64" $CONTAINER_REGISTRY/ibm-mqadvanced-server-
else
```


IBM MQ Container Image:

Infrastructure as Code all the things. You are going to have to repeat this a few times.

This will save you time when don't remember what you did 3 months ago.

```
gcloud container clusters create $CLUSTER_NAME --project $GCP_PROJECT \
  --release-channel regular \
  --network=$CLUSTER_NETWORK \
  --subnetwork=$CLUSTER_SUBNETWORK \
  --zone $CLUSTER_ZONE \
  --enable-l4-ilb-subsetting \
  --num-nodes=3 \
  --machine-type=e2-medium \
  --tags=ibmmq-server \
  --cluster-ipv4-cidr=$CLUSTER_IPV4_CIDR
```

Helm charts.

Extend out and don't recreate where you don't have to.

Ignoring a default chart allows us to customize only our load balancer.

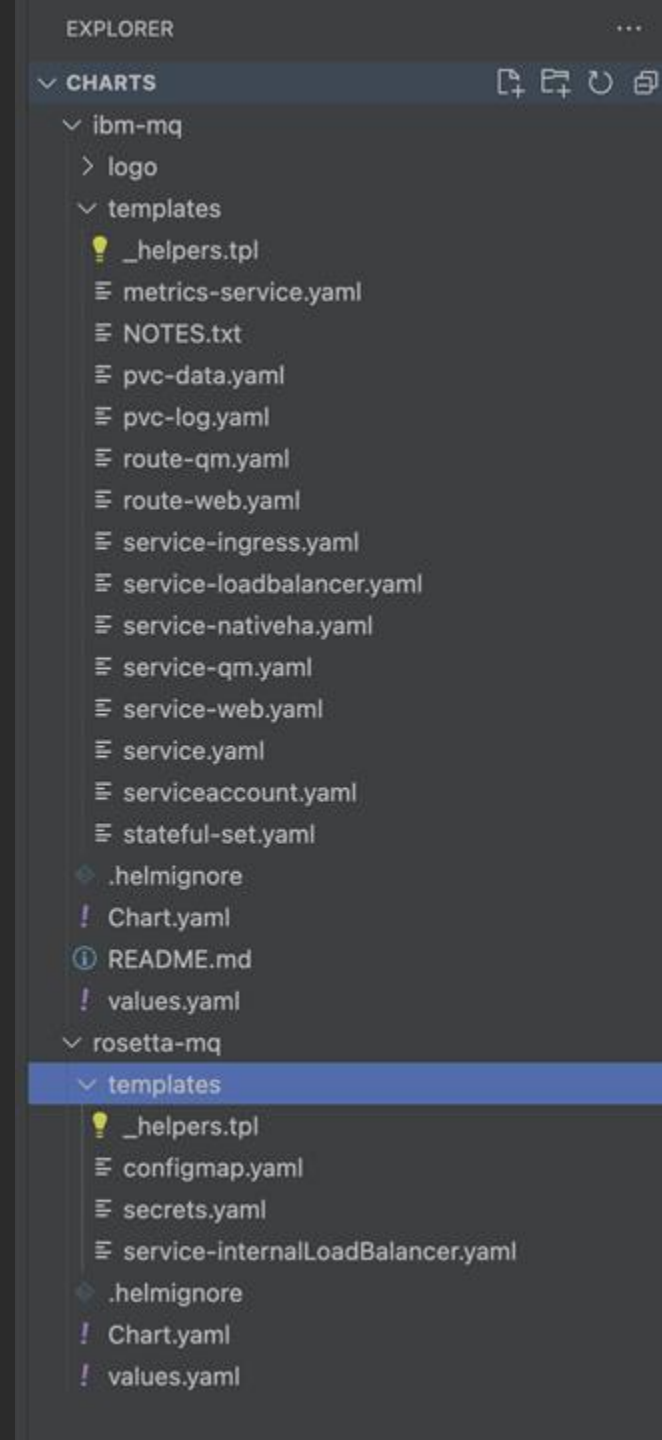
```
total 24
drwxr-xr-x  6 kevinbarnard  staff   192B Sep 17 13:12 .
drwxr-xr-x  4 kevinbarnard  staff   128B Sep 20 07:51 ..
-rw-r--r--  1 kevinbarnard  staff    61B Sep 17 13:12 .helmignore
-rw-r--r--  1 kevinbarnard  staff   256B Sep 17 13:12 Chart.yaml
drwxr-xr-x  6 kevinbarnard  staff   192B Sep 17 13:12 templates
-rw-r--r--  1 kevinbarnard  staff   159B Sep 17 13:12 values.yaml
```

```
cat .helmignore
charts/ibm-mq/templates/service-loadbalancer.yaml%
```


Helm charts.

As you can see the IBM chart has many things that we are dependant on. Extend for example secrets and configmap

Use a single chart to be in multiple namespaces environment. Isolation of namespace.



THANK YOU!



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