QUARKUS
in Action

Supersonic. Subatomic. Java.

Ken Lee

Sr. Specialist Solutions Architect

01/14/2021

Red Hat

Agenda

Quarkus Overview

Quarkus in Action – Demo(s)

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QUARKUS

Supersonic. Subatomic. Java.

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An Open Source
Stack to write Java apps

Monolith

Cloud Native

Microservices

Serverless

Event-Driven
Architecture

kubernetes

Istio

Knative

Red Hat
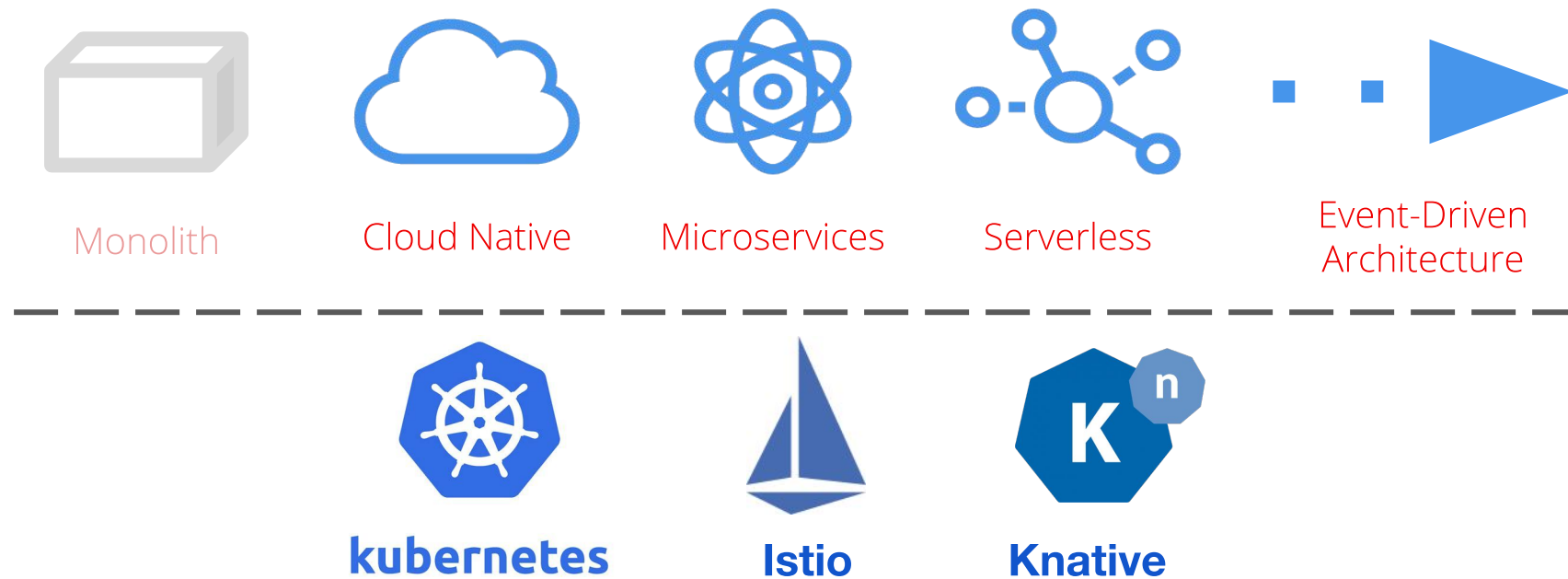
Vibrant Ecosystem of Extensions

Eclipse Vert.x

Hibernate

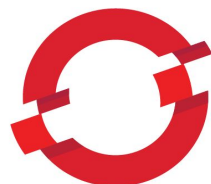RESTEasy

Apache Camel

Eclipse MicroProfile
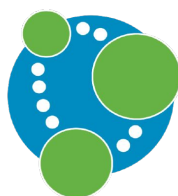
Netty

Kubernetes

OpenShift

Jaeger

Prometheus

Apache Kafka
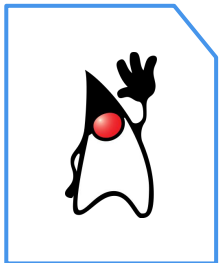
Infinispan

Flyway

Neo4j

MongoDB

MQTT

KeyCloak

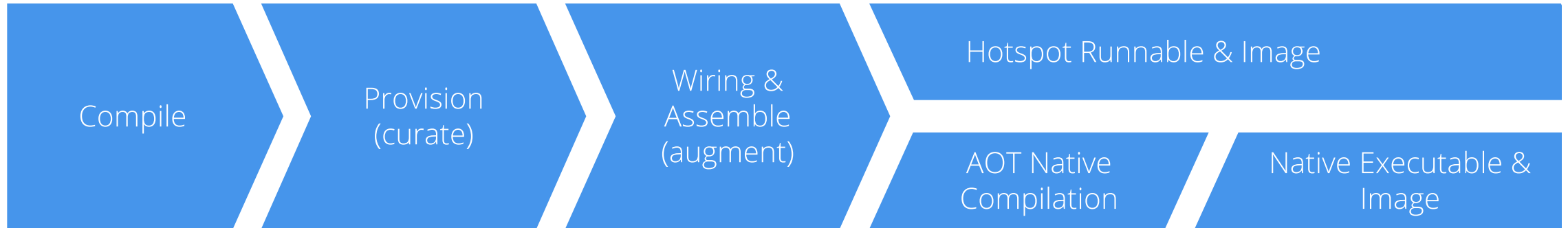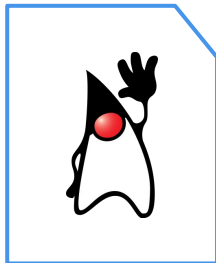Apache Tika

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QUARKUS IN ACTION, NOW?!?

YES, NOW...

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Demo – Quarkus + Fullstack Development

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An ahead-of-time, build-time, runtime

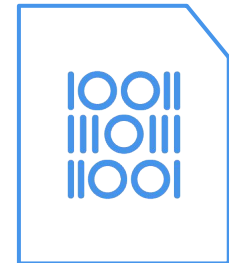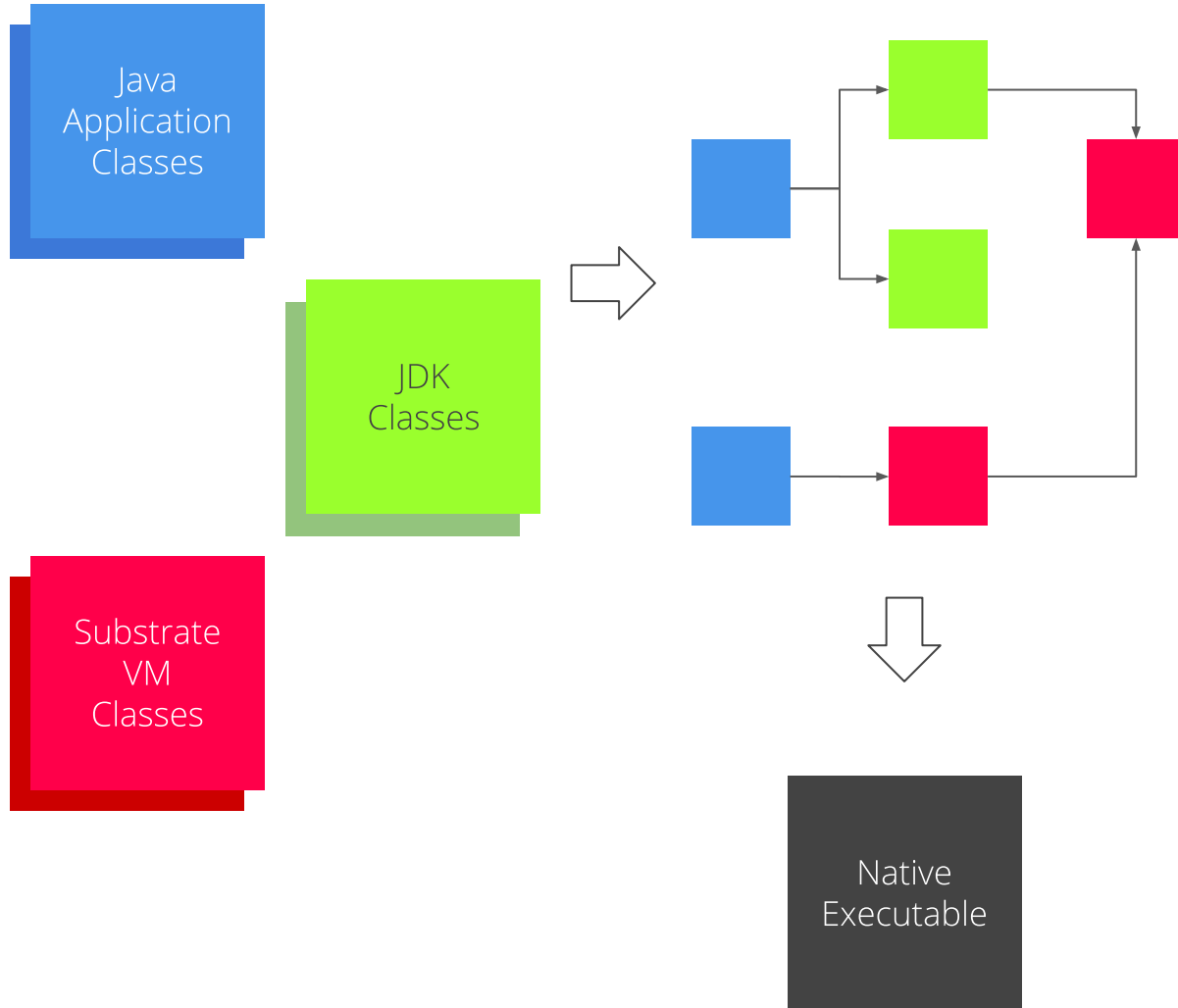| Compile	Provision (curate)	Wiring & Assemble (augment)	Hotspot Runnable & Image	
			AOT Native Compilation	Native Executable & Image

app.jar

frameworks
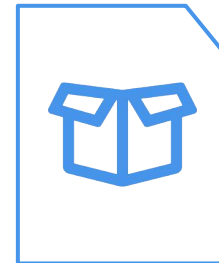
Runnable java app

+

native-app

AOTC - GraalVM - Dead code elimination

Closed-world assumption

Demo – Quarkus + Serverless

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Red Hat Serverless

*Packages and Extends Knative with **Functions** and is installed and managed by an **Operator***

Applications

Events

OpenShift Serverless

SERVING	FUNCTIONS**	EVENTING*

OPENSHIFT

Red Hat Enterprise Linux CoreOS

Physical

Virtual

Private cloud

Public cloud

* Eventing is currently in Technology Preview

** Functions are currently in Developer Preview

Functions

Coming with OpenShift Serverless 1.11

Powerful CLI experience

✓ Local Developer Experience

✓ Based on Buildpacks

✓ Deploy as Knative Service

✓ Project templates

✓ Support for Cloud Events/HTTP

✓ **Runtimes:**


```
                    hershey@hershey:~                    _  □  ⊗

File  Edit  View  Search  Terminal  Help

(base) →  ~ kn func help
Serverless functions

Create, build and deploy functions in serverless containers for multiple runtime
s on Knative

Usage:
  func [command]

Examples:

# Create a node function called "node-sample" and enter the directory
kn func create myfunc && cd myfunc

# Build the container image, push it to a registry and deploy it to the connecte
d Knative cluster
# (replace <registry/user> with something like quay.io/user with an account that
 have you access to)
kn func deploy --registry <registry/user>

# Curl the service with the service URL
curl $(kn service describe myfunc -o url)


Available Commands:
  build       Build a function project as a container image
  completion  Generate completion scripts for bash, fish and zsh
  create      Create a function project
  delete      Undeploy a function
  deploy      Deploy a function
  describe    Show details of a function
  help        Help about any command
  list        List functions
  run         Run the function locally
  version     Show the version

Flags:
  -h, --help      help for func
  -v, --verbose   print verbose logs

Use "func [command] --help" for more information about a command.
```

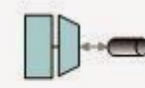Red Hat

Demo – Quarkus + Enterprise Integration

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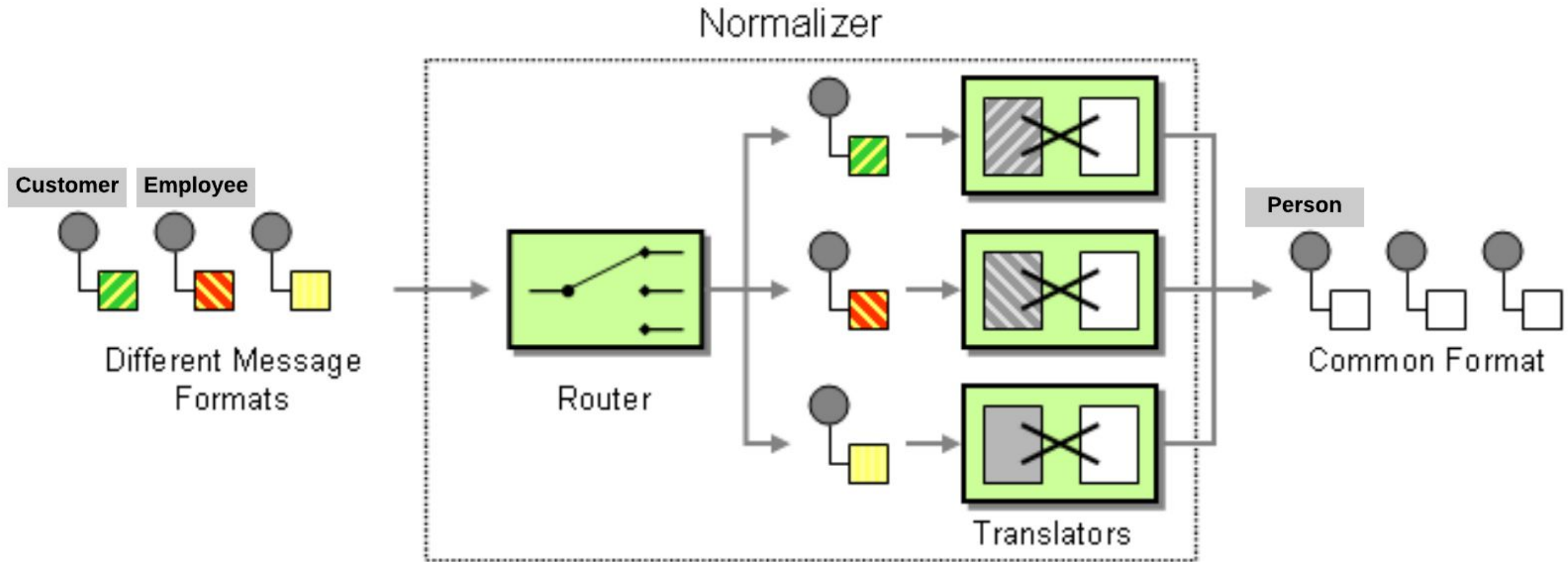
Enterprise Integration
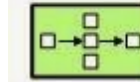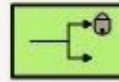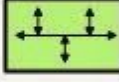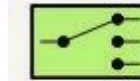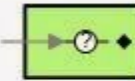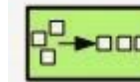
Example: Normalizer

Thank you

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