

# Welcome to OpenShift Meetup!

# OKD Introduction

**Alessandro Arrichiello**  
Solution Architect  
Red Hat  
[@alezzandro1986](https://twitter.com/alezzandro1986)

March 6th, 2019 - OpenShift Meetup - Milan

**Natale Vinto**  
Specialized Solution Architect  
Red Hat  
[@natalevinto](https://twitter.com/natalevinto)





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**CLOUD NATIVE**  
COMPUTING FOUNDATION

# AGENDA

1. OCP/OKD Introduction - Alessandro & Natale
2. OpenShift 4 & Operators (English) - Tero
3. Pizza Break
4. KNative 101: Serverless and beyond - Giuseppe
5. Metriche & Prometheus in OpenShift - Andrea

# OPEN SOURCE IS THE SOURCE OF TECHNOLOGICAL INNOVATION

Linux® kernel

KVM

1M+  
projects

Fedora

OpenStack®

GNOME

OpenJDK

Kubernetes

Apache Project

Hyperledger

node.js



ckd  
odl.io

OpenShift Origin

TensorFlow

96M\* REPOSITORIES  
31M\* DEVELOPERS  
2.1M\* BUSINESSES

\*GitHub Oct 2018

OPEN SOURCE  
OPEN COMMUNITIES  
OPEN COLLABORATION

making connections that drive  
**continuous innovation**



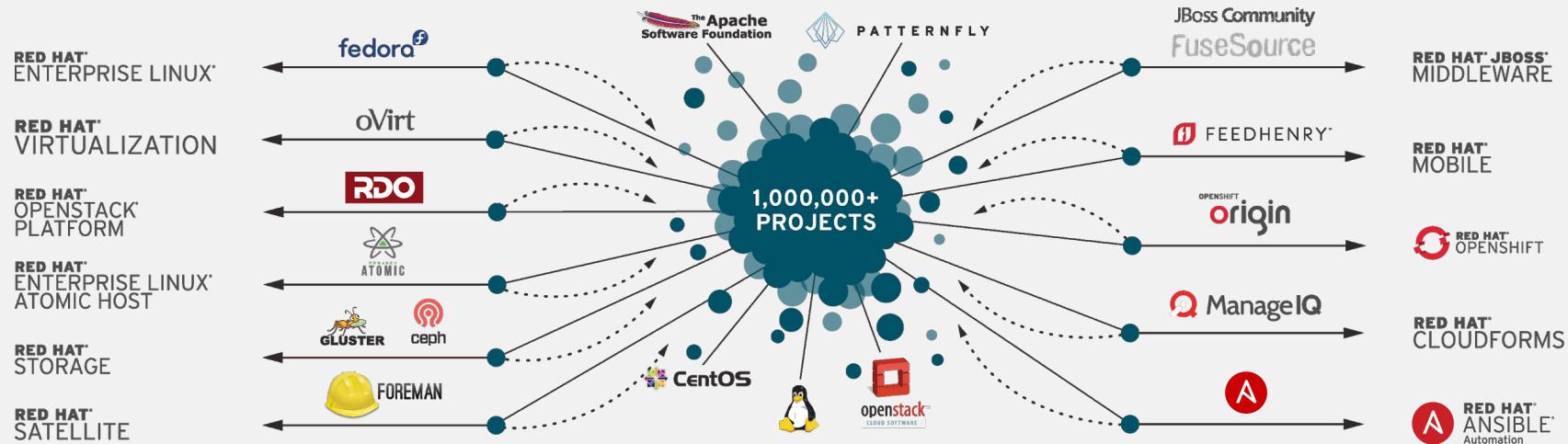
# But before going in deep with..



## What's the Red Hat value?

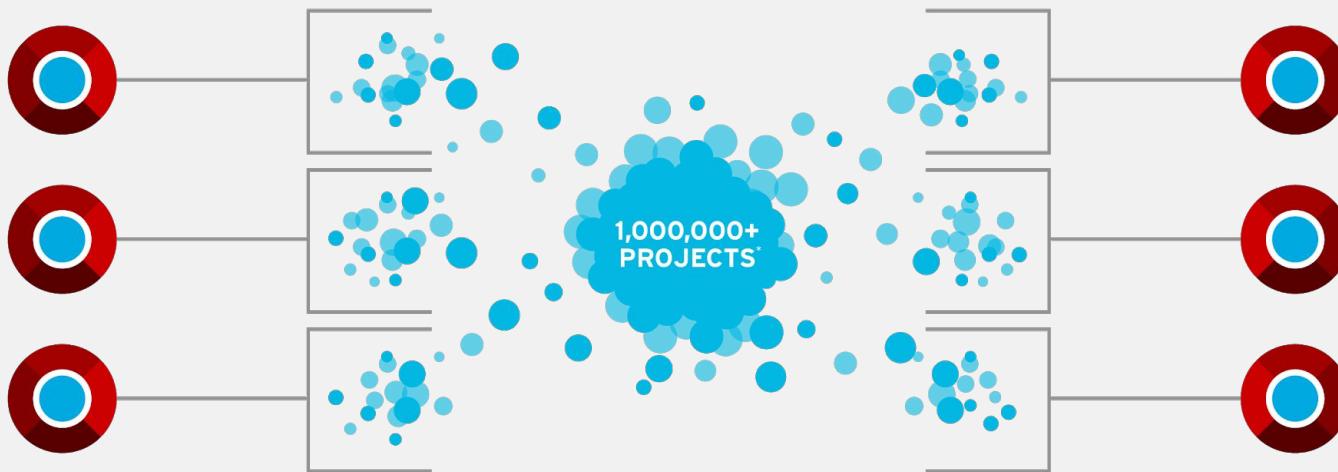
# FROM COMMUNITY TO ENTERPRISE

We are building modern IT solutions



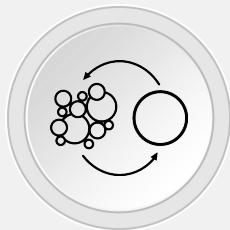
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# PRODUCT DEVELOPMENT MODEL



# A RED HAT SUBSCRIPTION

DELIVERS CONTINUOUS VALUE EVERY DAY



CUSTOMER PORTAL



KNOWLEDGE



SECURITY



CERTIFICATIONS



SUPPORT



LIFE CYCLE



ASSURANCE

# NO Premium features:



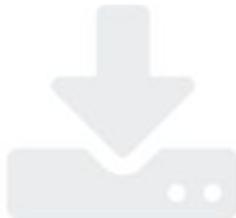
# YOU GET THE WHOLE PACKAGE!





The Origin Community Distribution of Kubernetes  
that powers **Red Hat OpenShift**.

Built around a core of OCI container packaging and Kubernetes container cluster management, OKD is also augmented by application lifecycle management functionality and DevOps tooling. OKD provides a complete open source container application platform.

[DOWNLOADS](#)[USERS](#)[WHAT IS OKD?](#)[CONTRIBUTE](#)[OPENSHIFT COMMONS](#)[DOCUMENTATION](#)[★ Star](#)

Try Out The Latest **OKD** Release

```
$ oc cluster up
```

[GET STARTED](#)[DOWNLOAD OC](#)

Secure | <https://github.com/openshift/origin>

Logo Maker | Use... RHT Blog Tracker... [EARLY DRAFT] Re... GitHub Octoverse... Developer Experience... OpenShift Partner... Logo Maker | Use...

# OKD: The Origin Community Distribution of Kubernetes

go report A+ godoc reference build passing Jenkins irc freenode: #openshift-dev license Apache-2.0

OKD is the Origin community distribution of [Kubernetes](#) optimized for continuous application development and multi-tenant deployment. OKD adds developer and operations-centric tools on top of Kubernetes to enable rapid application development, easy deployment and scaling, and long-term lifecycle maintenance for small and large teams. *OKD* is also referred to as *Origin* in github and in the documentation.

```
-- Installing router ... OK
-- Importing image streams ... OK
-- Importing templates ... OK
-- Login to server ... OK
-- Creating initial project "myproject" ... OK
-- Server Information ...
  OpenShift server started.
  The server is accessible via web console at:
  https://10.1.2.2:8443

  You are logged in as:
    User: developer
    Password: developer

  To login as administrator:
    oc login -u system:admin

  oc new-project example
  Now using project "example" on server "https://10.1.2.2:8443".

  You can add applications to this project with the 'new-app' command. For example, try:
    oc new-app centos/ruby-22-centos7~https://github.com/openshift/ruby-ex.git

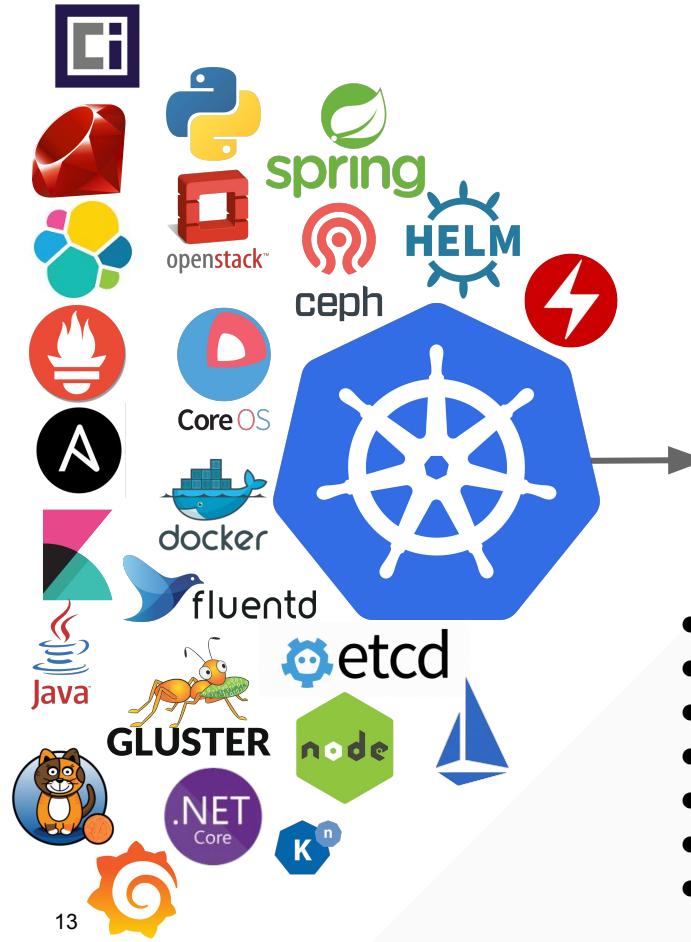
  to build a new example application in Ruby.
  oc new-app -L | g
```

Features



<https://github.com/openshift/origin>

# Delivering OpenShift

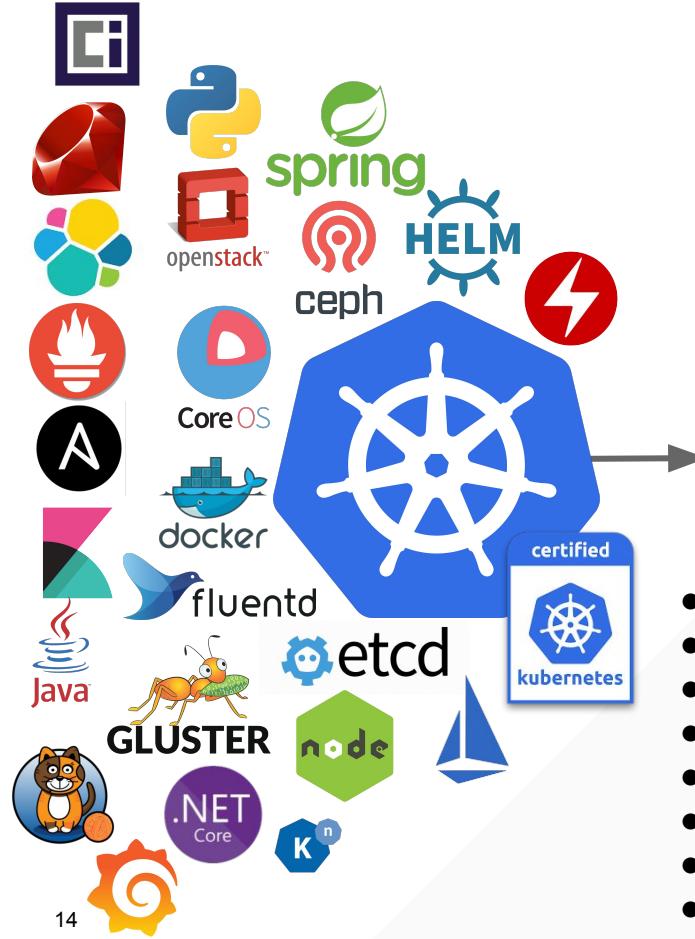


# okd

- Community Kubernetes Distribution
- 100+ Integrations
- 40+ Community Operators
- Align time with OSS trunk
- Integrate OSS projects
- Partner integration platform
- No-cost validations for innovation

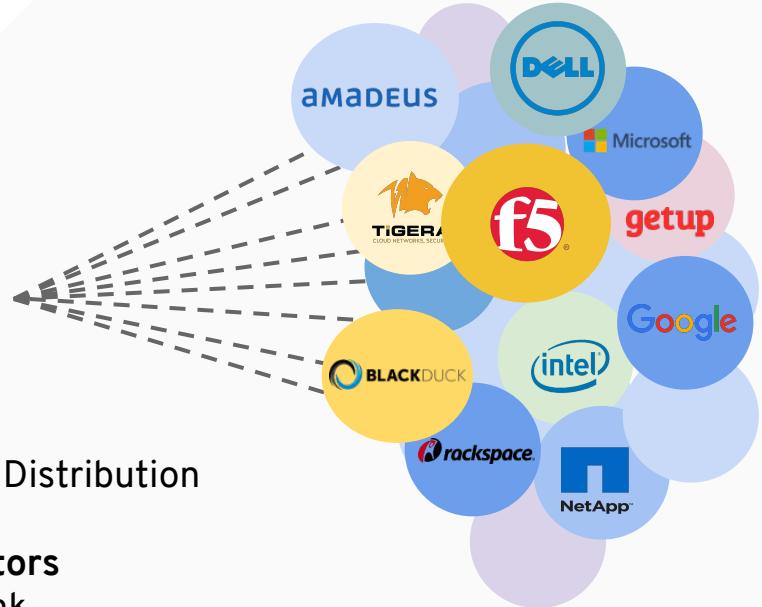


# Who is OpenShift?



# okd

- Community Kubernetes Distribution
- 100+ Integrations
- **40+ Community Operators**
- Align time with OSS trunk
- Integrate OSS projects
- Partner integration platform
- No-cost validations for innovation
- **OpenShift Commons**



**THE FUTURE IS ALL  
ABOUT  
CROSS-COMMUNITY  
COLLABORATION**

Release  
Stein

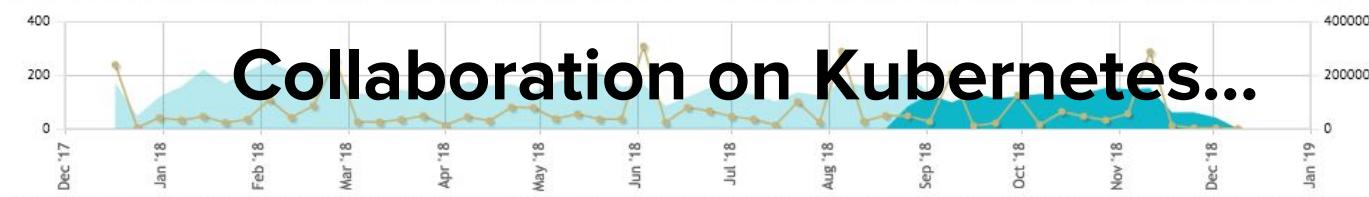
Project Type  
Kubernetes

Module  
kubernetes

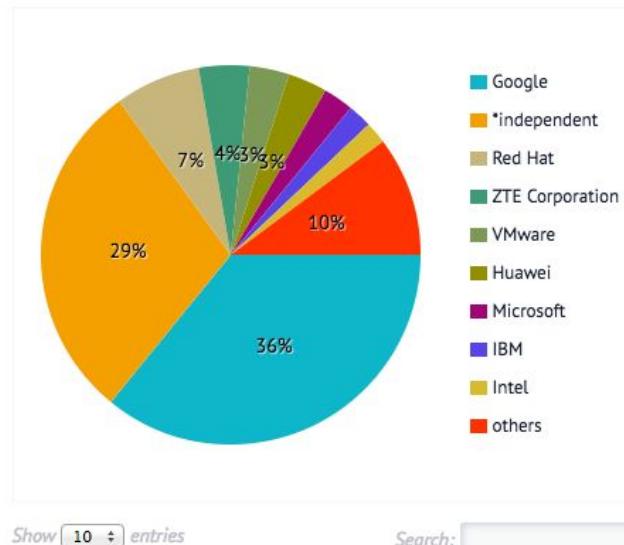
Company  
Any company

Contributor  
Any contributor

Metric  
Commits



## Contribution by companies



## Kubernetes

Repo: <git://github.com/kubernetes/kubernetes.git>

### Activity Log

 **Satyadeep Musuvathy (Google)**

07 Dec 2018 23:30:47 UTC in **kubernetes**

Commit "Include BGPConfiguration"

Needed for calico 2.x to 3.x upgrade.

+15 - 0

 **Antoine Pelisse (\*independent)**

07 Dec 2018 17:46:09 UTC in **kubernetes**

Commit "apply: fix detection of non-dry-run enabled servers"

Apply only checks that the server supports dry-run in the create path, not the update path, which is pretty bad.

+7 - 6

 **Maciej Szulik (Red Hat)**

07 Dec 2018 13:33:04 UTC in **kubernetes**

Commit "Add failed and successful history limits to cronjob describe"

# KUBERNETES SIGs & WGs- ENGINEERING LEADERSHIP

21 of 43  
GROUPS

RED HAT LEAD or CO-LEAD

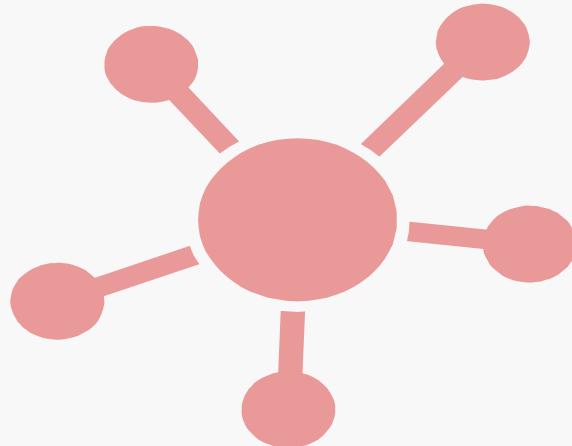
API MACHINERY	APPS	ARCHITECTURE	AUTH	AUTO SCALING	AWS
AZURE	BIG DATA	CLI	CLOUD PROVIDER	CLUSTER LIFECYCLE	CLUSTER OPS
CONTRIBUTOR EXPERIENCE	DOCS	GCP	IBM CLOUD	INSTRUMENTATION	MULTICLUSTER
NODE	OPENSTACK	PRODUCT MANAGEMENT	RELEASE	SCALABILITY	SCHEDULING
SERVICE CATALOG	STORAGE	TESTING	UI	VMware	WINDOWS
APP DEF	APPLY	COMPONENT STANDARD	CONTAINER IDENTITY	IoT EDGE	K8S INFRASTRUCTURE
KUBEADM ADOPTION	MACHINE LEARNING	MULTI TENANCY	POLICY	RESOURCE MANAGEMENT	SECURITY AUDIT*



**WE WANT TO HEAR YOUR VOICE!  
JOIN US AT OPENSHIFT COMMONS**

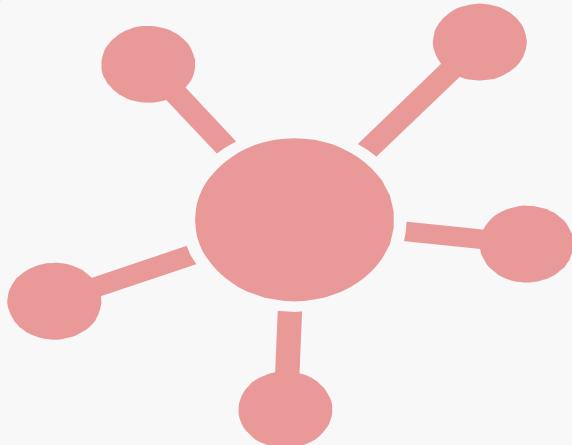
# So What is OpenShift Commons?

New Community Model + Communications Channel



# Commons as a Community Collaboration Model

New Community Model



Promote Peer-to-Peer Interactions



The video player displays a presentation slide with the following text:

Building Data Streaming Platforms  
Using OpenShift and Kafka

Openshift @ Amadeus

Pierre Dor *Senior Architect*  
Nenad Bogojević *Senior Expert*  
Olivier Richard *Senior Manager*

At the bottom, there is a control bar with the Red Hat OpenShift logo, playback controls (rewind, forward, volume), and a timestamp of 0:00 / 19:40.

OpenShift Commons Gathering at Red Hat Summit 2018 Amadeus Kafka on OpenShift Case Study

**What: Community-driven content generation ++**

## OpenShift Commons Gathering at Red Hat Summit

OpenShift - 1 / 28



OpenShift Commons Gathering at  
Red Hat Summit 2018 Amadeus  
OpenShift  
19:41



OpenShift Commons Gathering Red  
Hat Summit 2018 Community  
OpenShift  
11:00



OpenShift Commons Gathering at  
Red Hat Summit 2018 UPS Case  
OpenShift  
20:54



OpenShift Commons Gathering at  
Red Hat Summit 2018 Quay at Cisco  
OpenShift  
21:24



OpenShift Commons Gathering at  
Red Hat Summit 2018 Syngenta  
OpenShift  
17:53



OpenShift Commons Gathering at  
Red Hat Summit 2018 BMO Case  
OpenShift  
19:22

Red Hat Enterprise Linux

**START PLAYING:  
NOW.**

# MINISHIFT IS WAITING YOU

[Welcome to Minishift!](#)

[Getting started](#)

[Documentation](#)

[Community](#)

## Welcome to Minishift!

Minishift is a tool that helps you run OpenShift locally by running a single-node OpenShift cluster inside a VM. You can try out OpenShift or develop with it, day-to-day, on your local host.

Minishift uses [libmachine](#) for provisioning VMs, and [OpenShift Origin](#) for running the cluster. The code base is forked from the [Minikube](#) project.

<https://github.com/minishift/minishift>



DON'T TRUST US:  
LOOK.

# STARTING MINISHIFT

WHAT'S INSIDE THE BOX?

OH, DON'T TELL ME:  
ARE YOU LAZY?

# learn.openshift.com

Foundations of  
OpenShift

START COURSE

Building  
Applications On  
OpenShift

START COURSE

Subsystems,  
Components, and  
Internals

START COURSE

OpenShift  
Playgrounds

START COURSE

Service Mesh  
workshop with Istio

START COURSE

Serverless scenarios  
with OpenShift  
Cloud Functions

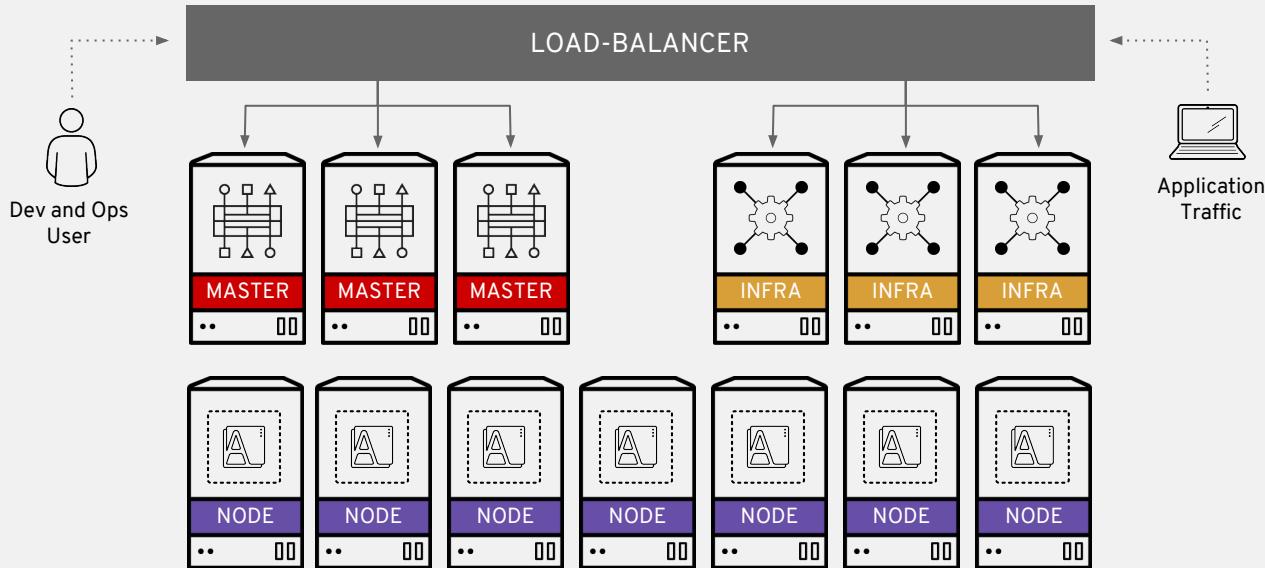
START COURSE

Interactive Learning Scenarios provide you with a pre-configured OpenShift instance, accessible from your browser without any downloads or configuration.



# LAST SLIDE IS COMING

# OPENSHIFT HA ARCHITECTURE



# THANK YOU



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[youtube.com/user/RedHatVideos](https://youtube.com/user/RedHatVideos)

<https://www.meetup.com/OpenShift-and-Cloud-Native-Milano>



# THANK YOU



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<https://www.meetup.com/OpenShift-and-Cloud-Native-Milano>



# THANK YOU



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[linkedin.com/company/red-hat](https://linkedin.com/company/red-hat)



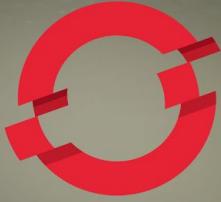
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<https://www.meetup.com/OpenShift-and-Cloud-Native-Milano>





**RED HAT®  
OPENSHIFT**

# Backup slides

**OpenShiftCo... **

Diane Mueller 

 Jump to...

**All Unreads**

 All Threads

Channels 

- # austinkubeon
- # bigdata\_sig
- # david-cain
- # dotnet\_sig
- # edu\_sig
- # event**
- # event-logistics-team
- # general**
- # gov\_sig
- # imagebuilder\_sig
- # london-meetup
- # londongathering2018
- # machinelearning\_sig
- # mobile\_sig
- # networking\_sig
- # openshift-copenhagen
- # openstack\_sig
- # operations\_sig**
- # random
- # security\_sig
- # storage\_sig

**#general**

☆ | 8 950 | 4 | 5/31 9am Pacific > OpenShift Commons Briefing: OpenShift Service Mesh on M Monday, May 28th

Yesterday

 **Randy Morgan** 7:39 AM  
When I ran the upgrade from 3.7 to 3.9 the only way I could get the upgrade to run successfully was to set would really like to enable the service catalog, but I don't know if there is a way to do this without re-running enable the service catalog?

 **Paul Burstein** 8:18 AM  
joined #general.

 **Steven Barre** 9:25 AM  
[@Randy](#) </usr/share/ansible/openshift-ansible/playbooks/openshift-service-catalog>  
[https://docs.openshift.com/container-platform/3.9/upgrading/manual\\_upgrades.html#manual-upgrading-s](https://docs.openshift.com/container-platform/3.9/upgrading/manual_upgrades.html#manual-upgrading-s)

 **Ganesh Mangal** 9:26 AM  
joined #general along with shinji morimoto.

 **Randy Morgan** 10:23 AM  
Thanks Steven

 **Richard Nunez** 11:30 AM  
joined #general along with Danny Hemminga.

 **Alex Knol** 11:34 AM  
Question: are the Imagestreams deprecated in favour of the service catalog?

 **Marc Boorshtein** 12:23 PM  
[@E\\_Lexy](#) different functions. Imagestream tracks ages, catalog is for templates/service broker templates

 **Gary Harris** 12:50 PM  
joined #general along with 10 others.

 **Larry Brigman** 10:57 PM  
[@dmueller](#) is the next gathering at KubeCon NA? If that is the plan, it looks like someone needs to send in

 Message #general

## Upcoming Events

< 2017		< APR		MAY 2018		JUN >		2019 >		Month ▾	
Mon	Tue	Wed	Thu	Fri	Sat	Sun					
	OpenShift Commons Hands-On Workshop – Copenhagen	1	2	3	4	5					
		OpenShift @ KubeConEU – Copenhagen									
7	OpenShift Commons Gathering – San Francisco	8	9	10	11	12					
	OpenShift @ Red Hat Summit										
14		15	Project Atomic Upstream, Upstream, Downstream and CoreOS Acquisition with Jeff Ligon and Sanja Bonic (Red Hat) 9:00 am	16	OpenShift v3.0 OpenStack with Ramon Acedo Rodriguez (Red Hat) 9:00 am	17		18	19	20	OpenShift Commons Hands-On Workshop – OpenStack Summit/ Vancouver
21	OpenShift @ OpenStack Summit	22	Operator Framework Deep Dive with Rob Szumski (Red Hat) 9:00 am	23	Load Balancing Applications with the OpenShift NGINX Router – Michael Pleshakov and Damian Curry (Nginx) 9:00 am	24		25	26	27	
28		29		30	OpenShift Service Mesh on Multi-Cloud Environments with Paul Pindell (F5 Networks) & Dave Cain (Red Hat) 9:00 am	31					

## **How: Gatherings, Briefings, SIGs, Slack and story-telling**

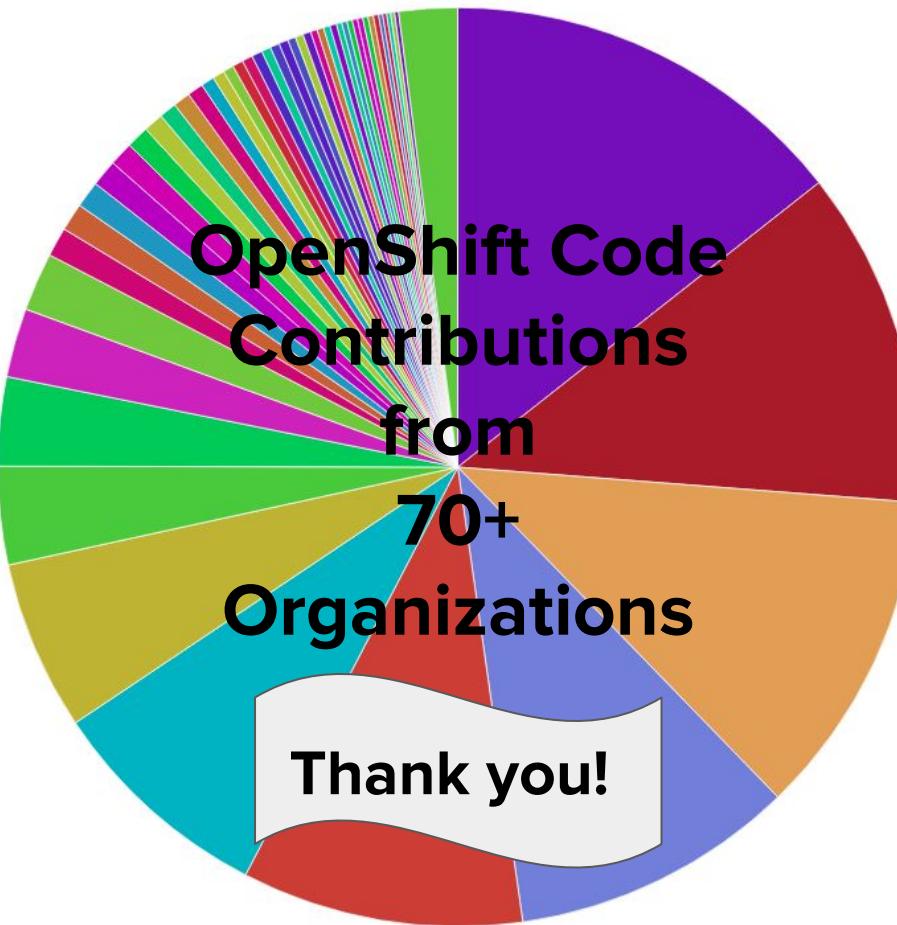


# COMMONS PARTICIPATION DRIVING CONTRIBUTION

The image is a composite of two parts. On the left, there is a screenshot of a Firefox browser window titled "Kubernetes Bitergia Analytics". The URL in the address bar is [https://demokubernetes.biterg.io/app/kibana/#/\\_search](https://demokubernetes.biterg.io/app/kibana/#/_search). The page displays a search interface with a dropdown menu showing "git.openshift.kubernetes" and a "Metrics" section containing "Node Size", "Aggregation", and "Unique Count" options. On the right, a person's hands are visible holding up a white rectangular card with the words "SIDE EFFECTS" printed in large, bold, red capital letters.



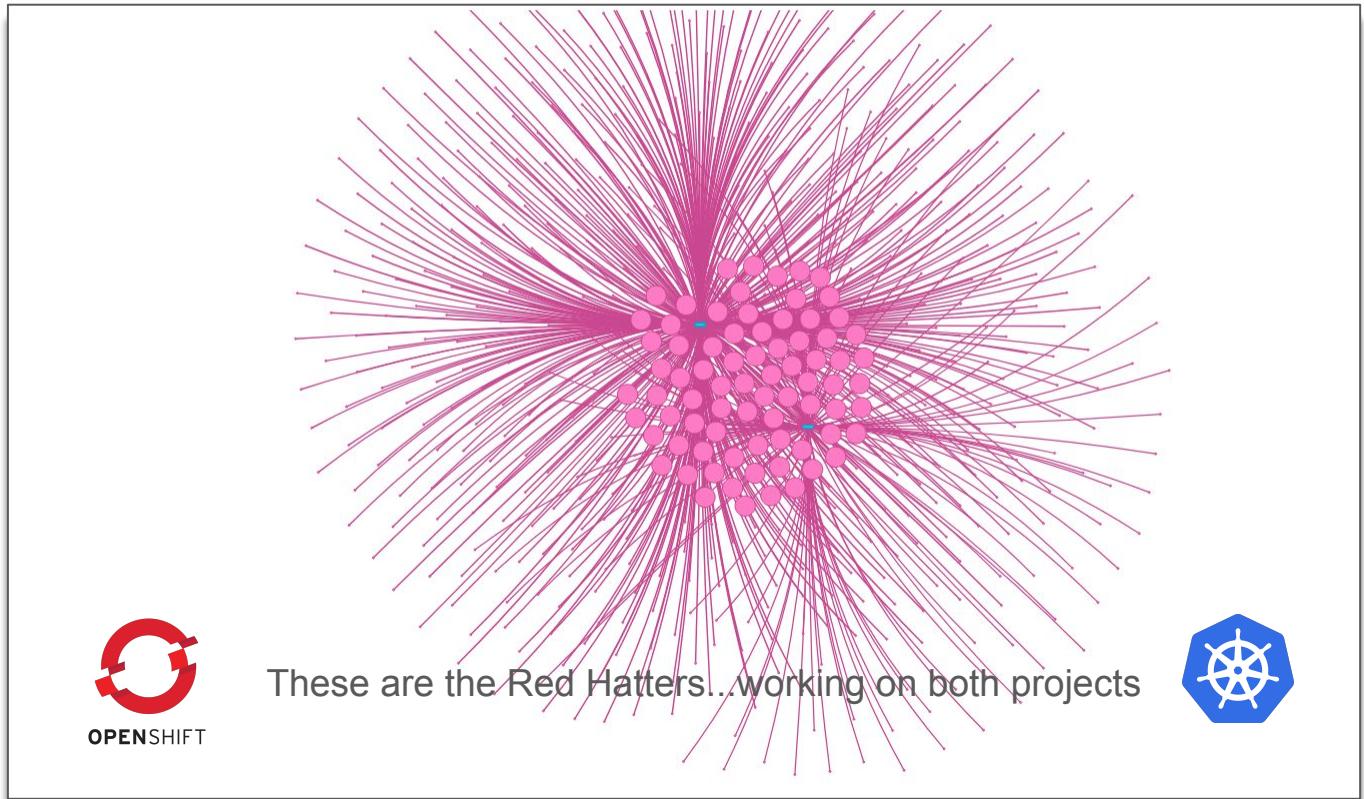
- OpenShift
- Overview
- Git
- Github PRs
- Github Issues
- Bugzilla
- Mailing Lists
- IRC
- StackOverflow
- Data Status
- About



# OpenShift & Kubernetes Cross Community Collaboration & Contribution Analysis

## Using Bitergia Analytics

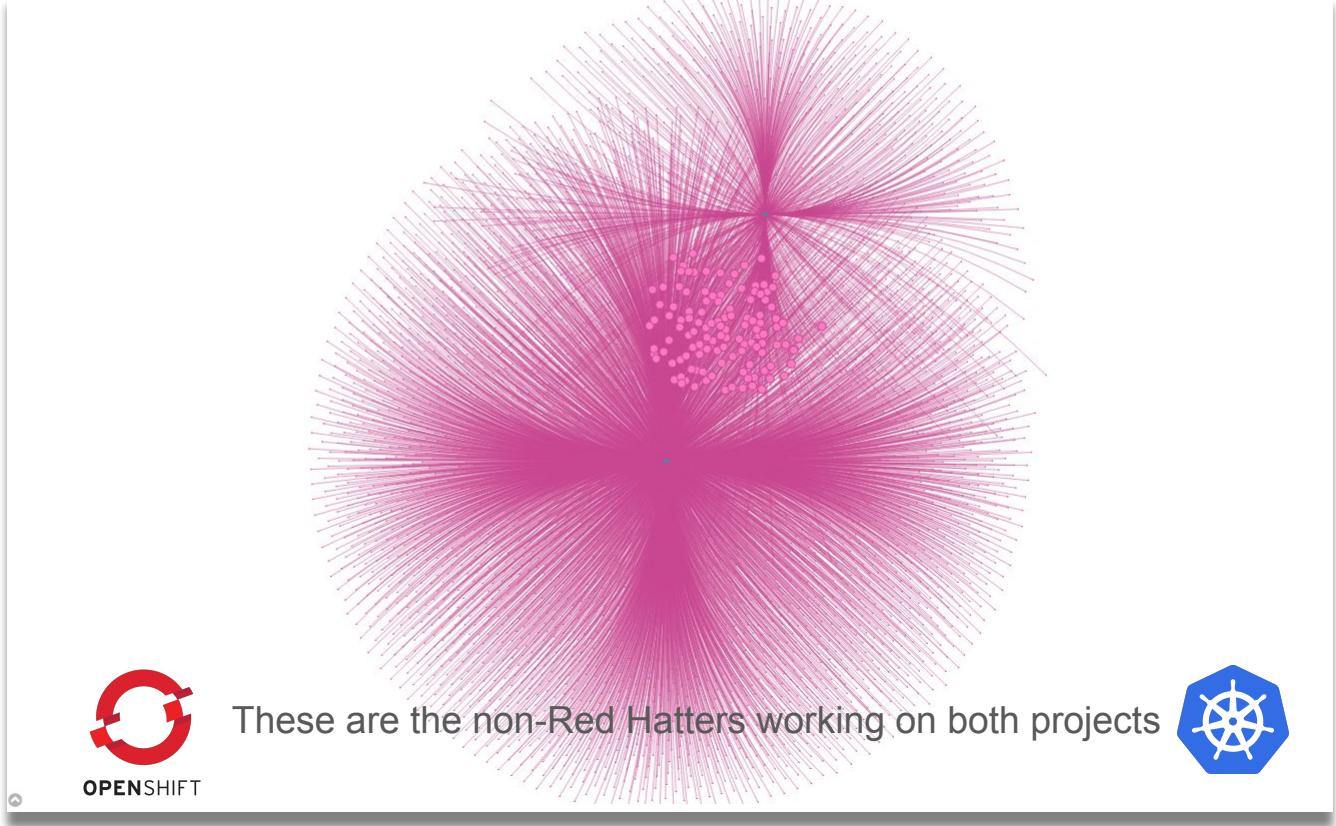
A screenshot of the Bitergia Analytics web interface. The left sidebar has sections for Activities, Firefox Web Browser, and Bitergia Analytics. Under Bitergia Analytics, there are links for Discover, Visualize, Dashboard, Timeline, Dev Tools, and Management. The main area shows a search bar with the query "git\_openshift,kubernetes". Below the search bar are sections for Metrics (Node Size, Unique Count), Aggregation (Unique Count), Field (project), and Custom Label. At the bottom are buttons for Add metrics and Advanced.



# OpenShift & Kubernetes Cross Community Collaboration & Contribution Analysis

## Using Bitergia Analytics

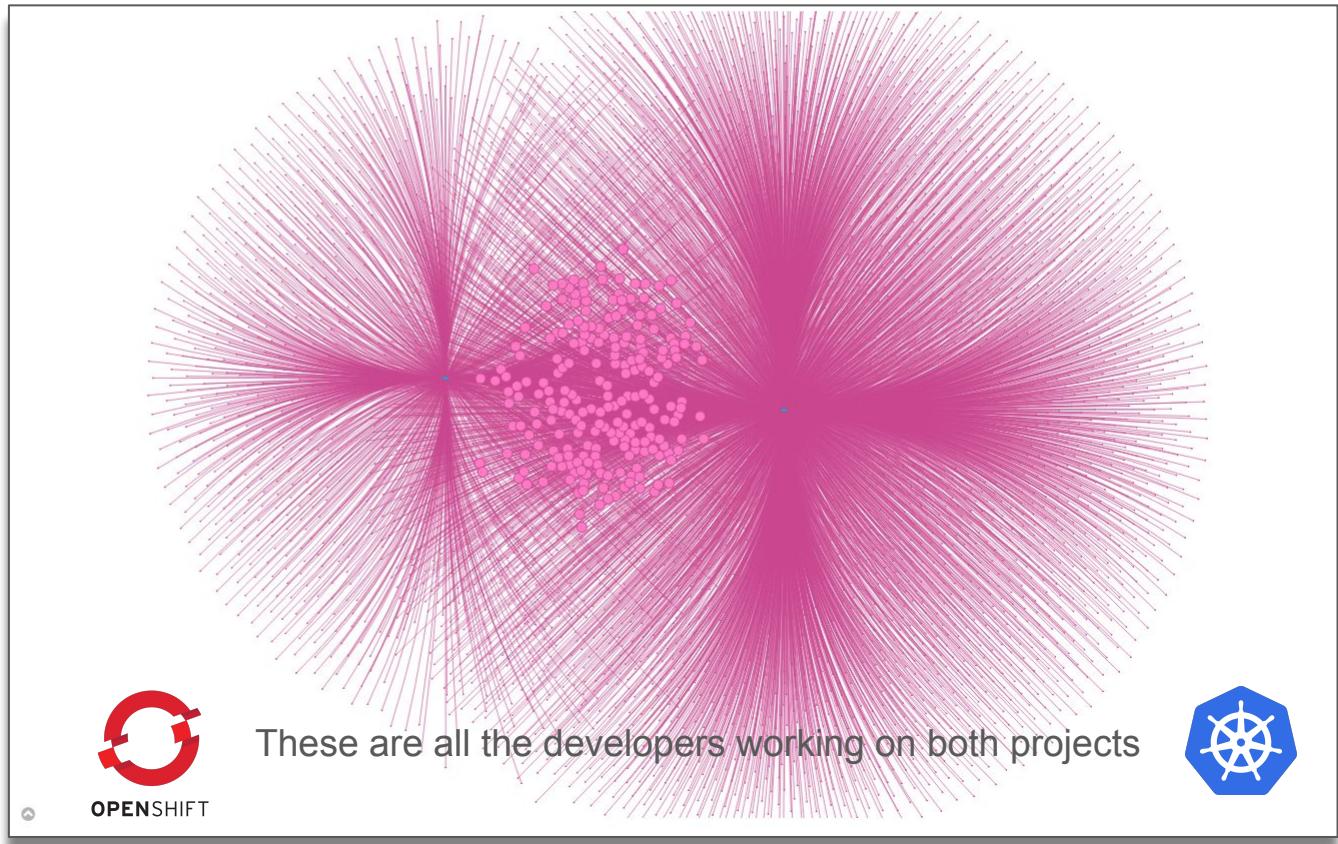
A screenshot of the Bitergia Analytics web application. The interface includes a top navigation bar with tabs like Activities, Firefox Web Browser, and a search bar. Below this is a main dashboard with sections for Kubernetes (Discover, Visualize, Dashboard, Timeline, Dev Tools, Management), a sidebar with an owl icon labeled 'Bitergia analytics', and a central search and filter panel. The search bar contains the query 'git\_openshift, kubernetes'. The filter panel shows 'Metrics' set to 'Node Size' and 'Aggregation' set to 'Unique Count', with 'Field' set to 'project'. A button 'Add metrics' is visible at the bottom right of the filter panel.



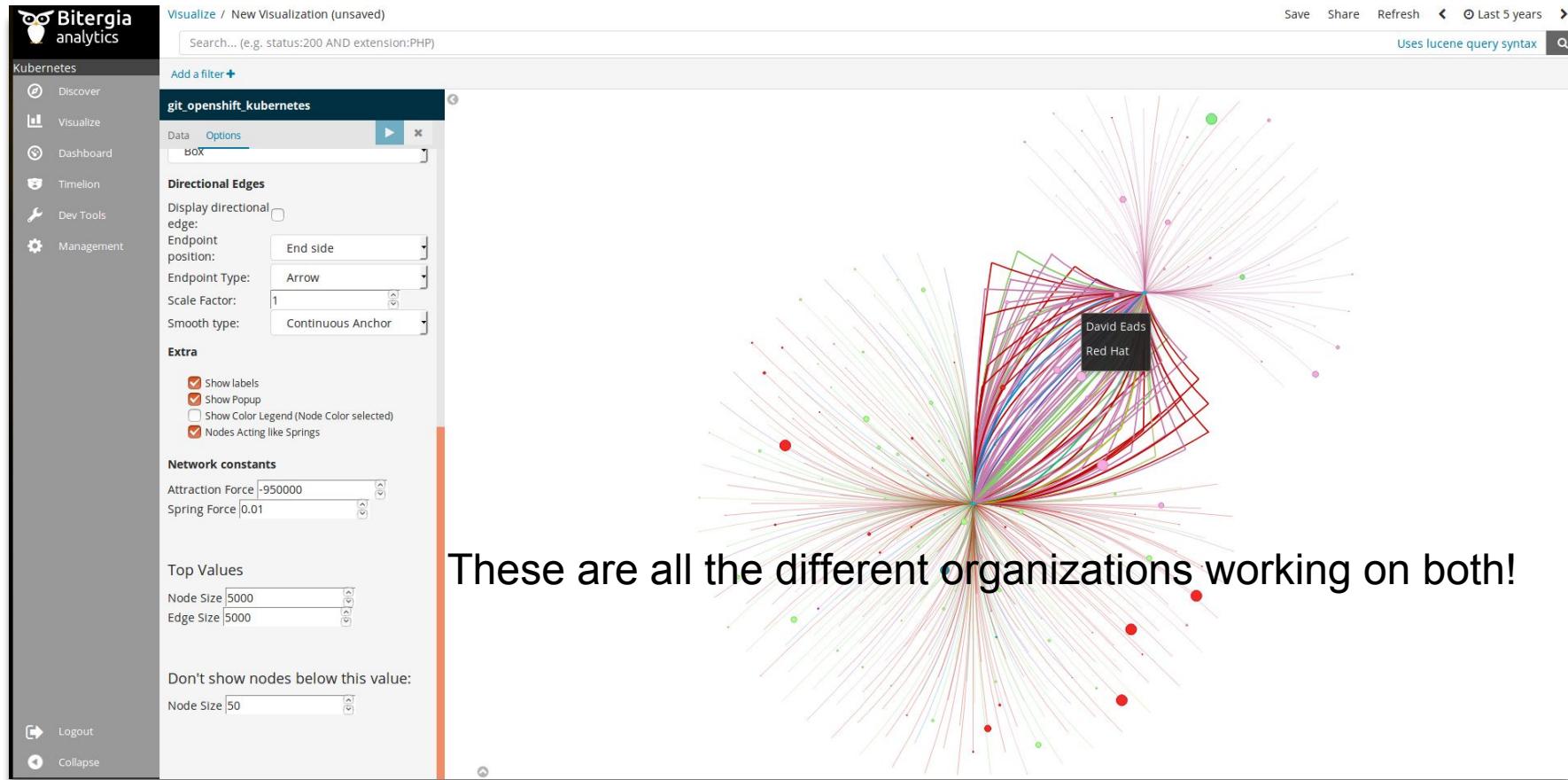
# OpenShift & Kubernetes Cross Community Collaboration & Contribution Analysis

## Using Bitergia Analytics

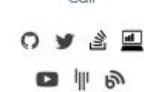
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# OpenShift & Kubernetes Cross Community Collaboration & Contribution Analysis



# The Future is all about Collaboration - Across Streams

 OpenTracing Distributed Tracing API 	 Fluentd Logging 	 gRPC Remote Procedure Call 	 containererd Container Runtime 	 rkt Container Runtime 	 CNI Networking API 	 OPERATOR FRAMEWORK Operator Framework Red Hat ★1.013 MCap: \$31.4B
 Jaeger Distributed Tracing 	 Notary Security 	 TUF Software Update Spec 	 Vitess Storage 	 CoreDNS Service Discovery 	 NATS Messaging 	 Kubernetes Orchestration 
 Linkerd Service Mesh 	 Helm Package Management 	 Rook Storage 	 Harbor Registry 	 Prometheus Monitoring 	 Envoy Service Proxy 	 redhat.

# The Future is all about Collaboration - With Peers





## OpenShift Commons

Commons builds connections and collaboration across OpenShift communities, projects and stakeholders. In doing so we'll enable the success of customers, users, partners, and contributors as we deepen our knowledge and experiences together.

Our goals go beyond code contributions. Commons is a place for companies using OpenShift to accelerate its success and adoption. To do this we'll act as resources for each other, share best practices and provide a forum for peer-to-peer communication.

### Join Now

\* First name

\* Last name

\* Work email

\* Company

SUBMIT

[Privacy Statement](#)