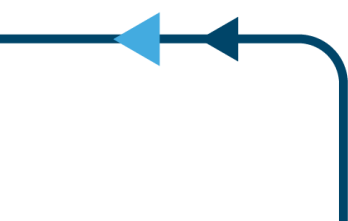




# *Microservices*

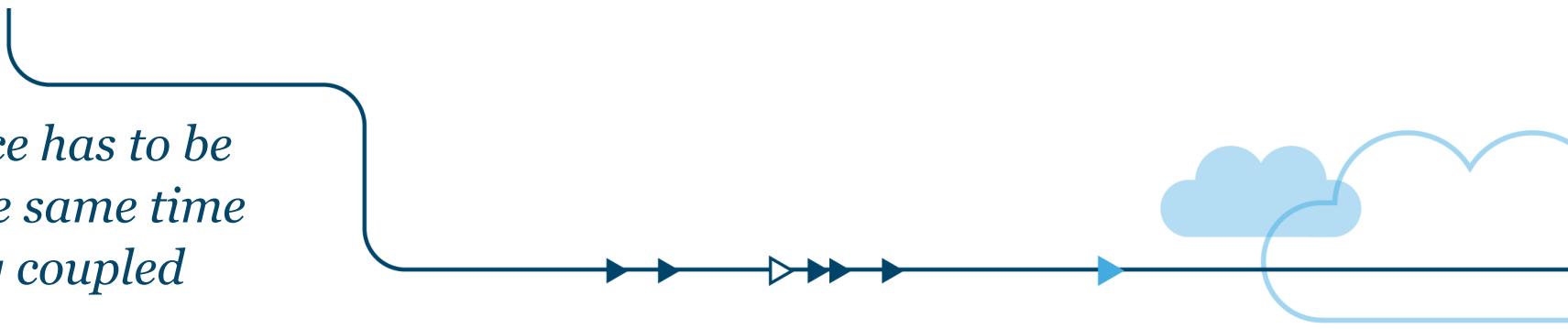
## 해외 사례 소개



Adrian Cockcroft, State of the Art in Microservices

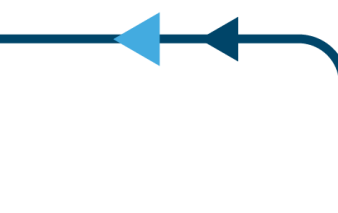
<http://www.slideshare.net/adriancockcroft/dockercon-state-of-the-art-in-microservices> 중

*If every service has to be updated at the same time it's not loosely coupled*



## *A Microservice Definition*

*Loosely coupled service oriented architecture with bounded contexts*



*If you have to know too much about surrounding services you don't have a bounded context. See the Domain Driven Design book by Eric Evans.*

# *State of the Art in Web Scale Microservice Architectures*



AWS Re:Invent : Asgard to Zuul <https://www.youtube.com/watch?v=p7ysHhs5hl0>  
Resiliency at Massive Scale [https://www.youtube.com/watch?v=ZfYJHtVL1\\_w](https://www.youtube.com/watch?v=ZfYJHtVL1_w)  
Microservice Architecture <https://www.youtube.com/watch?v=CriDUYtfrjs>

<http://www.infoq.com/presentations/scale-gilt>



<http://www.slideshare.net/mcculloughsean/itier-breaking-up-the-monolith-philly-ete>



<http://www.infoq.com/presentations/Twitter-Timeline-Scalability>  
<http://www.infoq.com/presentations/twitter-soa>  
<http://www.infoq.com/presentations/Zipkin>



<https://speakerdeck.com/mattheath/scaling-micro-services-in-go-highload-plus-plus-2014>

# Microservice Concerns



Tooling

Configuration

Discovery

Routing

Observability

Datastores

Operational: Orchestration and Deployment Infrastructure

Development: Languages and Container



# NETFLIX | OSS Microservices



Asgard  
Aminator

Tooling

Edda  
Archaius

Configuration

Eureka  
Prana

Discovery

Denominator  
Zuul, Netty  
Ribbon 2.0

Routing

Hystrix  
Pytheus  
SALP

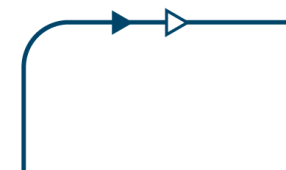
Observability

Ephemeral datastores using Dymomite, Memcached, Astyanax, Staash, Priam, Cassandra

Manual Orchestration with Asgard and deployment on AWS or Eucalyptus

Java, Groovy, Scala, Clojure, Python, Node.js with AMI and Docker Containers

*Focus on global distribution, high scale and availability*



**NETFLIX****OSS**

Netflix Open Source Software Center

Repositories

Powered By NetflixOSS

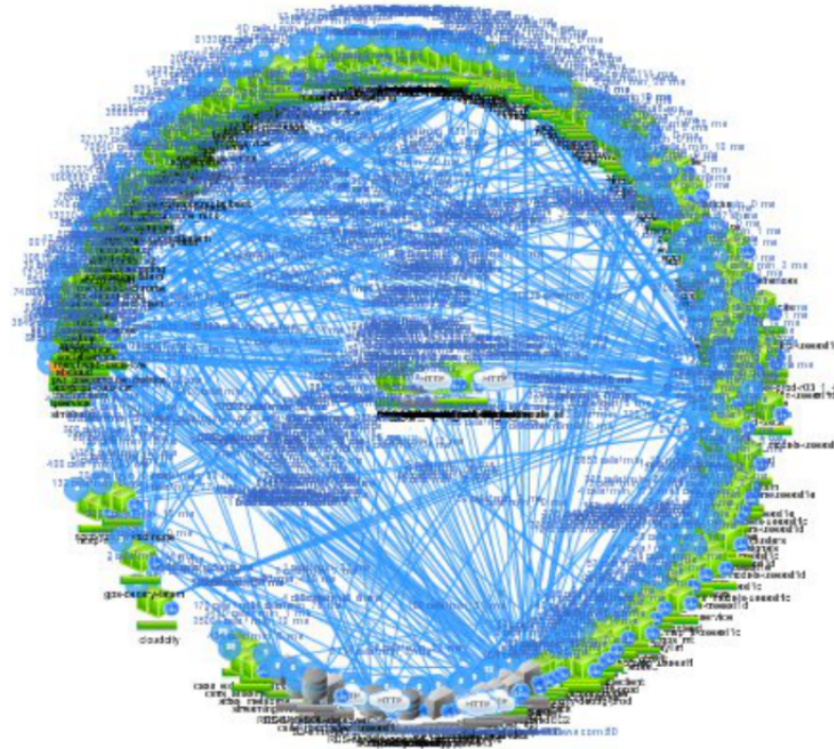
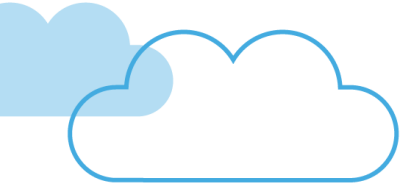
These companies are using and contributing to Netflix OSS Components

Email [netflixoss@netflix.com](mailto:netflixoss@netflix.com) to have your logo here.

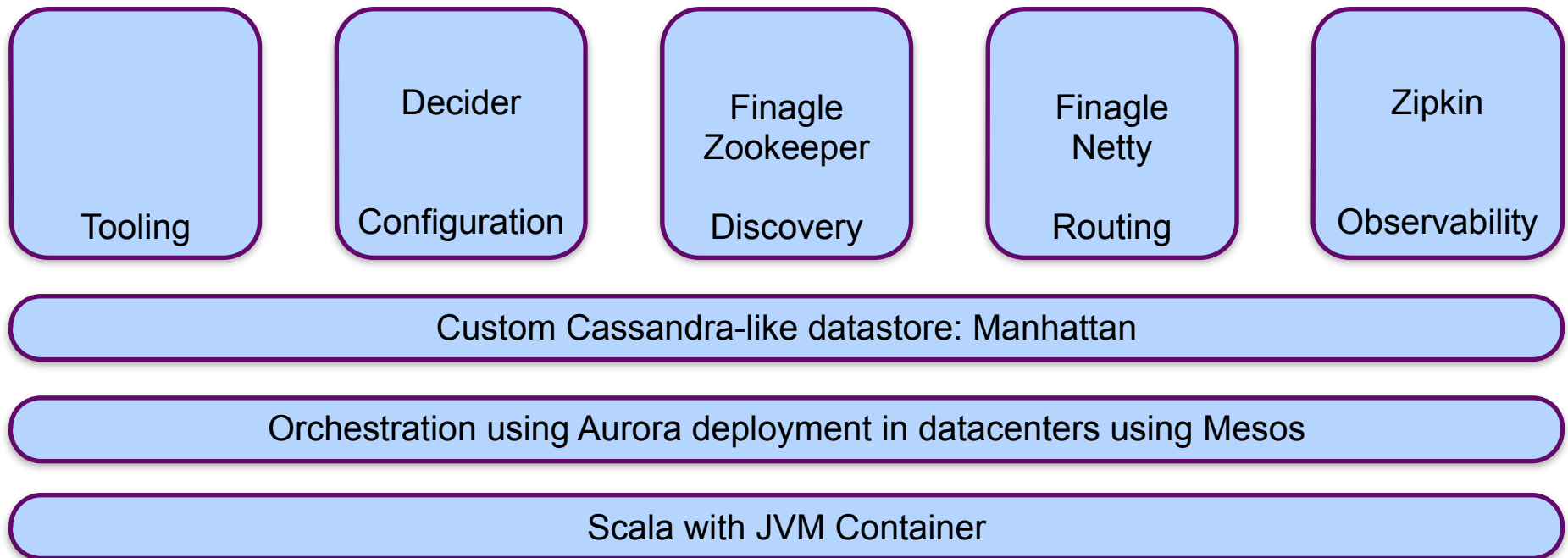
**RAPID7****BONOBOS** **KNEWTON** **waze** **nirmata****IBM**vennetics  **KIXEYE****yammer** **FullContact** **flipkart**.com**coursera****yelp**  **Hotels.com****MORTAR****AnsWerS****YAHOO!****EUCALYPTUS** **UserEvents**

bazaarvoice:

**OpenSCG™**



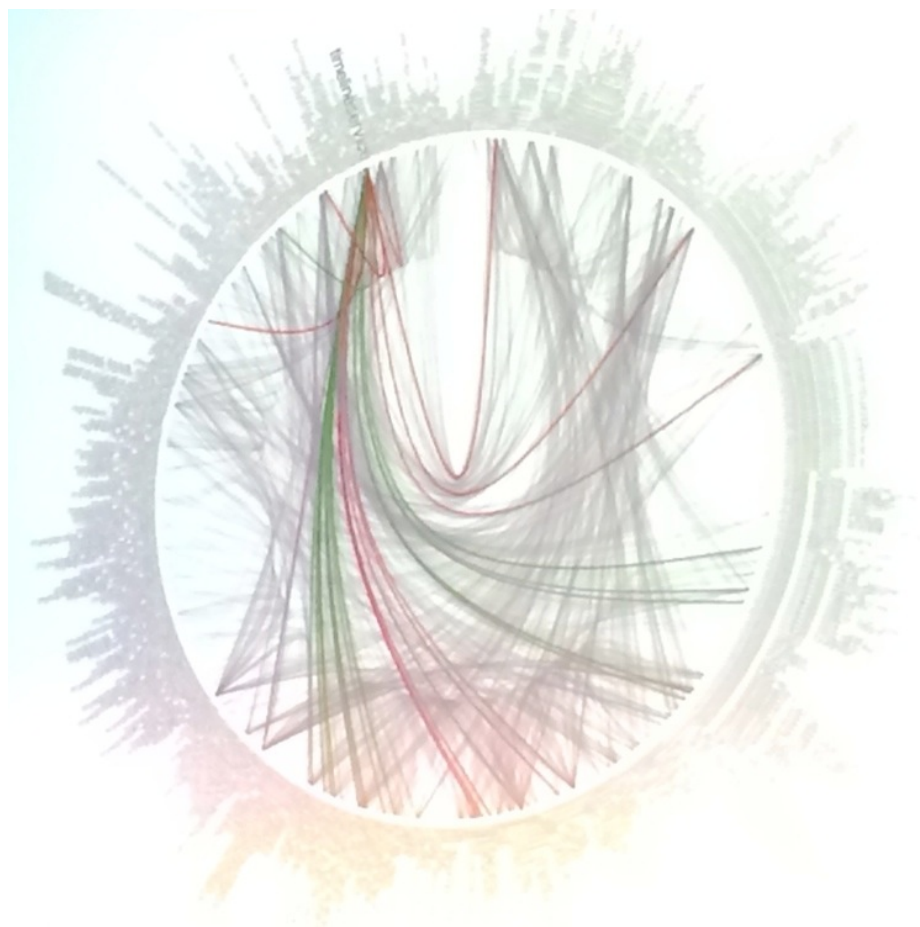
# Twitter Microservices



*Focus on efficient datacenter deployment at scale*







# Gilt Microservices

GILT



Ion Cannon  
SBT  
Rake

Tooling

Decider

Configuration

Finagle  
Zookeeper

Discovery

Akka  
Finagle  
Netty

Routing

Zipkin

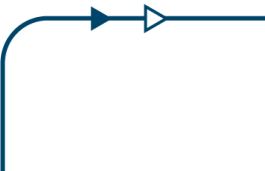
Observability

Datastores per Microservice using MongoDB, Postgres, Voldemort

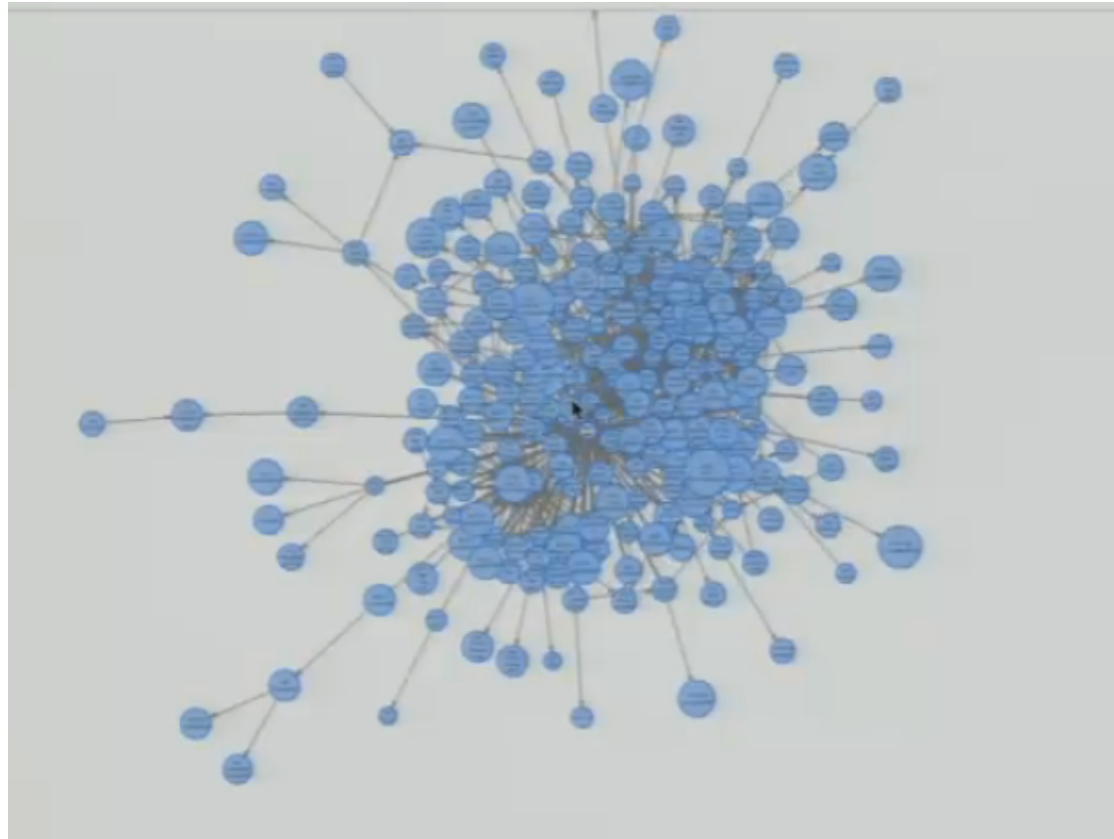
Deployment on AWS

Scala and Ruby with Docker Containers

*Focus on fast development with Scala and Docker*



**GILT**



# Hailo Microservices



Hubot  
Janky  
Jenkins

Tooling

Configuration

go-platform  
Discovery

go-platform  
RabbitMQ  
Routing

Request trace  
Observability

Datastore based on Cassandra

Deployment on AWS

Go using Docker

*Focus on fast development at scale using Go*





# Node.js Microservices

**Groupon**

*Several different approaches*

**@WalmartLabs**

*Mostly small simple microservices*



<http://senecajs.org/>

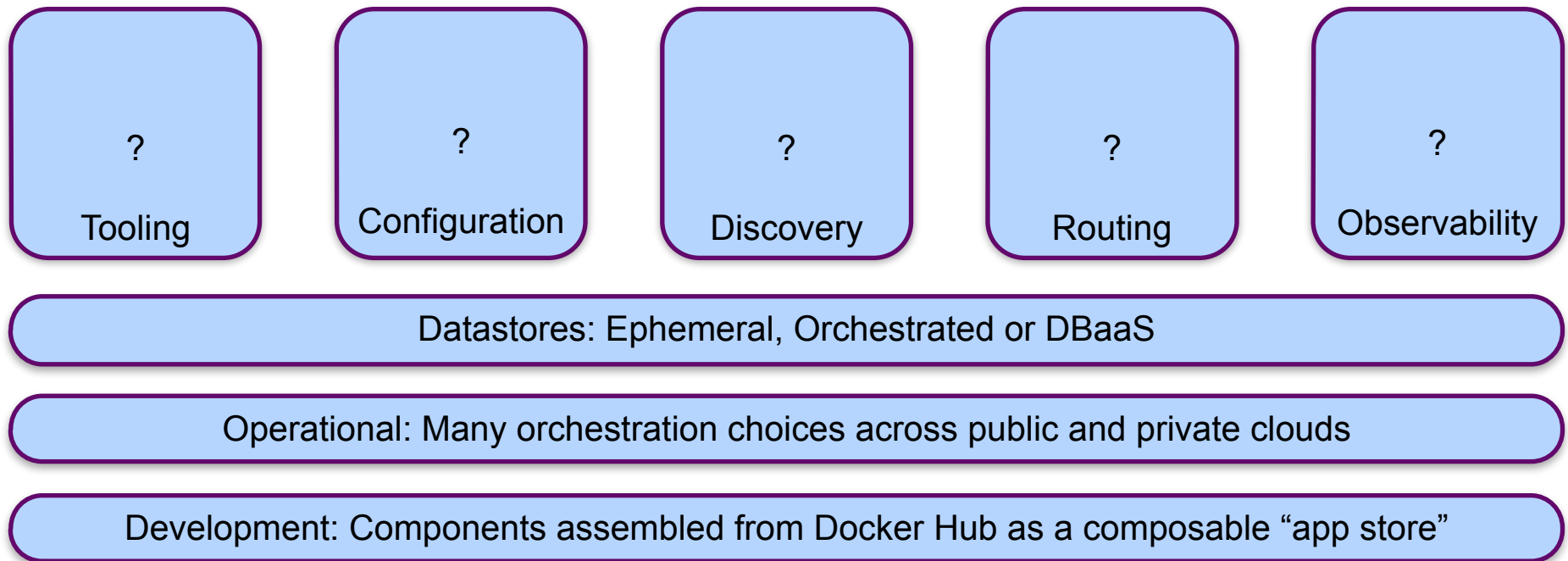
*Focus on easy interface with presentation code in javascript*



<http://aws.amazon.com/lambda/>

*AWS Lambda - preview only*

# Next Generation Applications



*Fill in the gaps, rapidly evolving ecosystem choices*