5 Minutes to Enterprise JavaScript

With Red Hat OpenShift Application Runtimes

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Wednesday, May 9 2018

NODE.JS
Is a Thing at Red Hat

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So What Do You Mean?

- RHOAR - Red Hat OpenShift Application Runtime for Node.js 8.x LTS
- Supported Node.js RPMs and Runtime containers for Node.js 8.x LTS
- Community Node.js RPMs and Runtime containers for Node.js 9.x and 10.x
- Node.js tools and utilities for containerized deployment
- Node.js Core Committers
- Node.js Technical Steering Committee

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OK... But Why Node.js?

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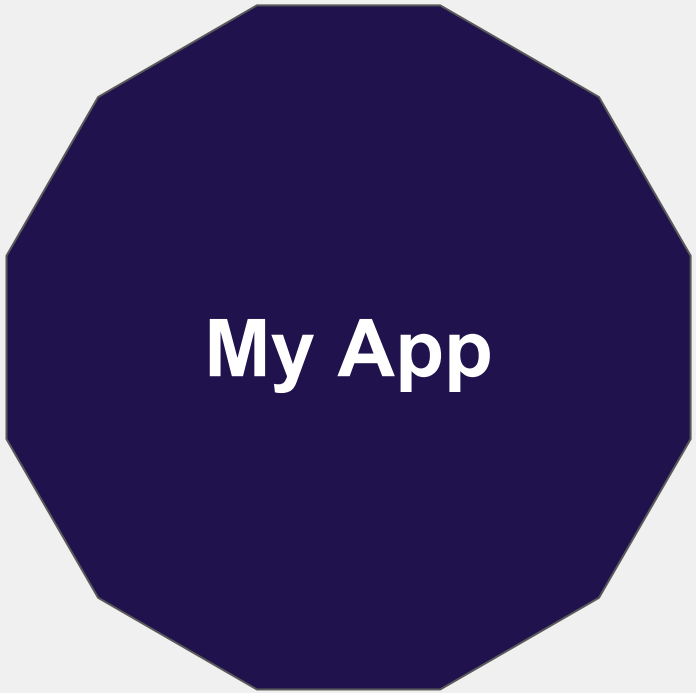
In the Beginning, there was the Monolith



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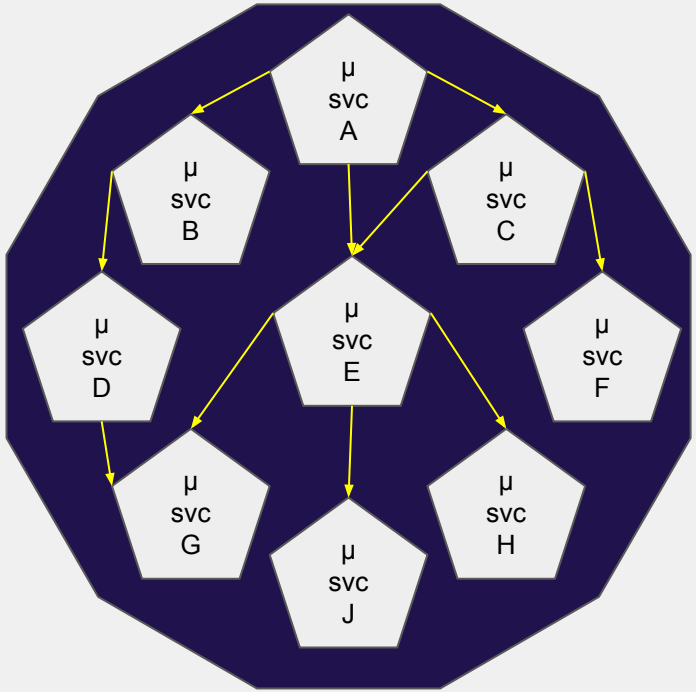
The Monolith Begat Microservices



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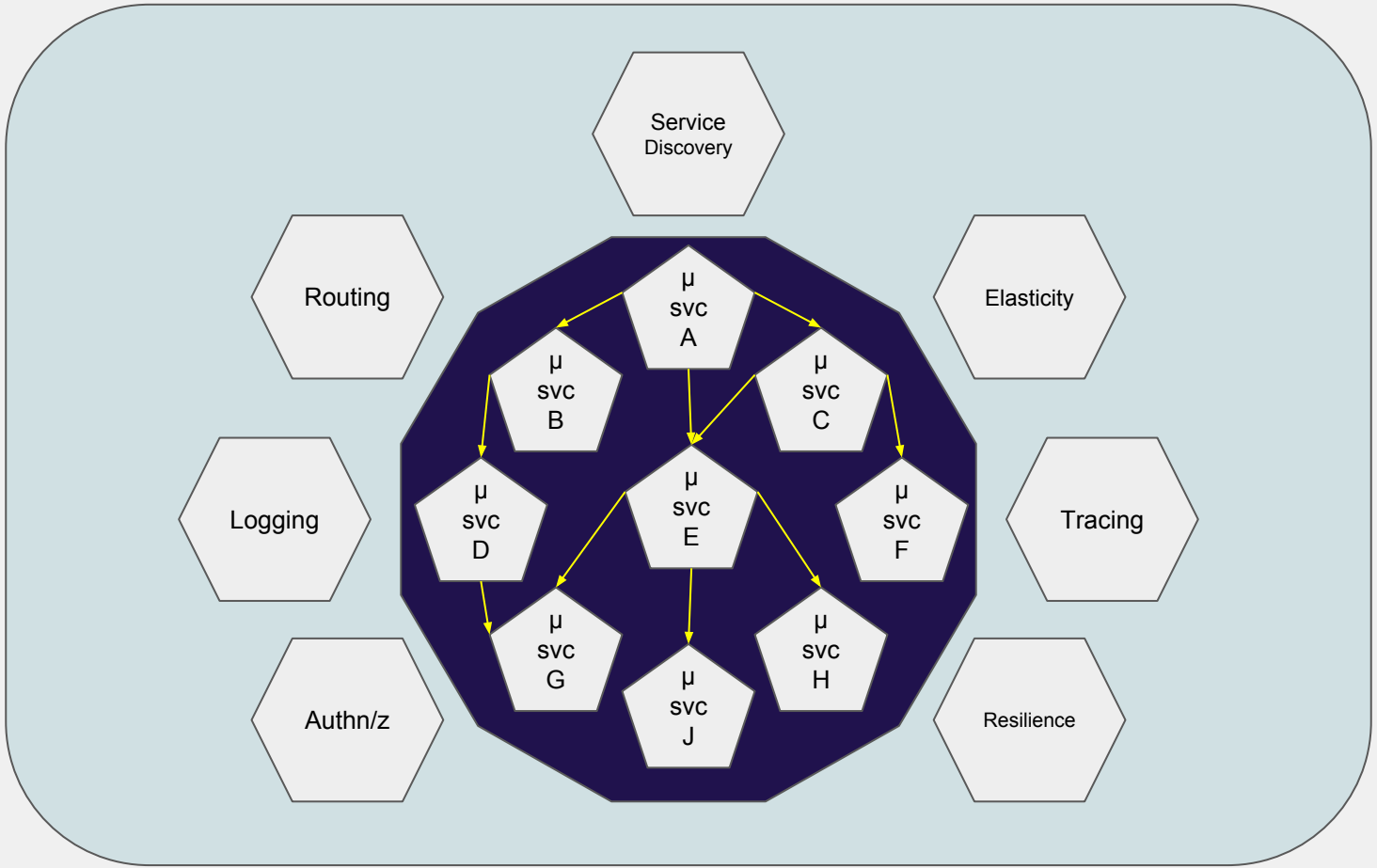
Small, discrete services that do one thing well - usually as REST over HTTP

This is what Node.js does well

But wait
My application is very complex!

Application complexity shifts from application code to the runtime platform


Service Discovery
Routing
Elasticity
Logging
Tracing
Authn/z
Resilience
μ svc A
μ svc B
μ svc C
μ svc D
μ svc E
μ svc F
μ svc G
μ svc H
μ svc J

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Application logic should be simple

Demo: set up minishift

```
$ minishift profile set 'summit-demo'
$ minishift config set cpus 2
$ minishift config set vm-driver virtualbox
$ minishift config set memory 4GB
$ minishift start
$ eval (minishift oc-env) # fish shell!
$ oc new-project summit-demo
```


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Demo: create and deploy an application

```
$ mkdir myapp; and cd myapp
$ npm install -g express-generator
$ express .
$ code-insiders package.json # fish shell!
$ npx nodeshift --strictSSL=false --expose
```


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Yeah and… now what?

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Didn’t you say “Enterprise”?

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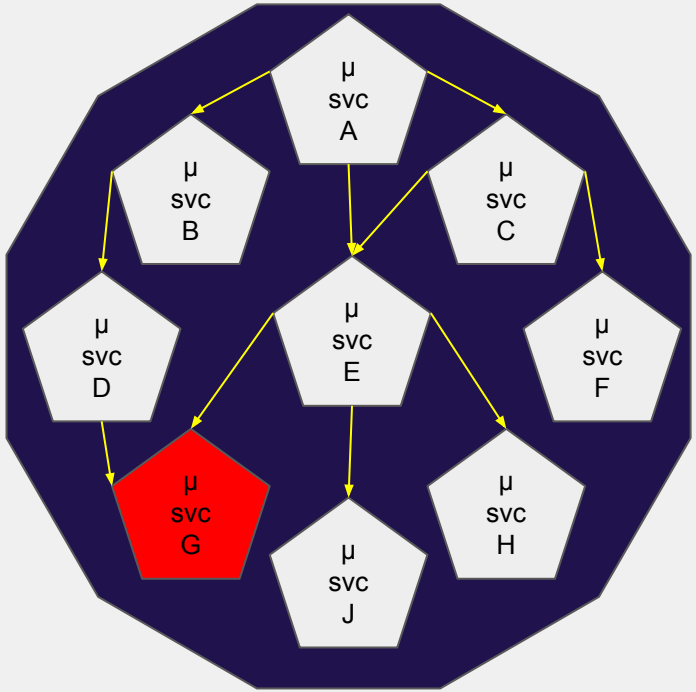
μ-Services are not a panacea



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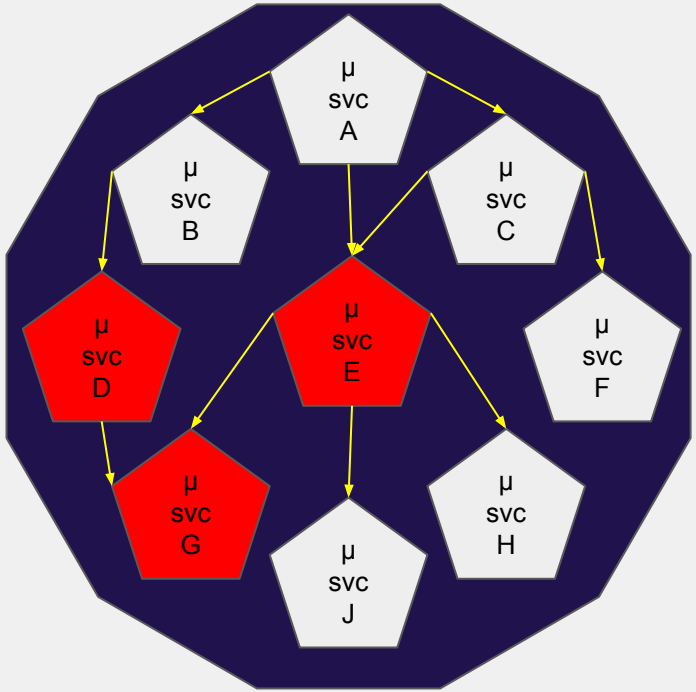
Some services will fail



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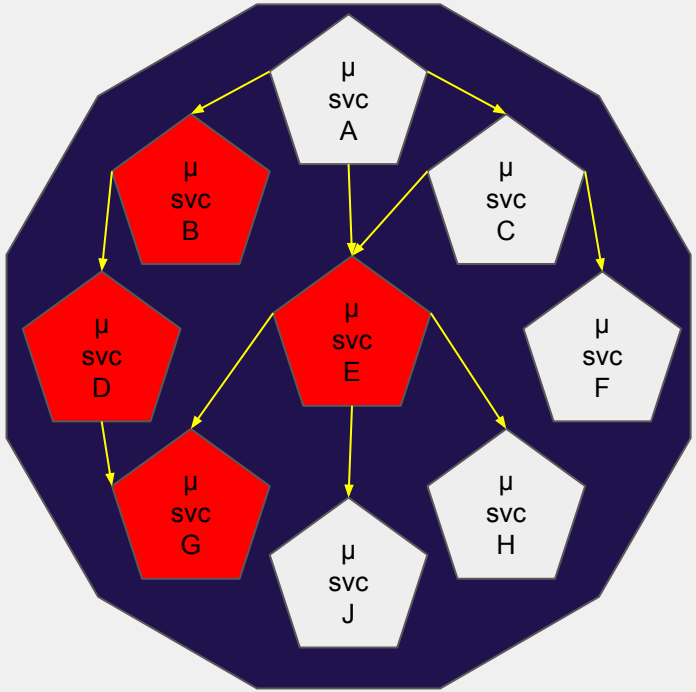
Causing more services to fail



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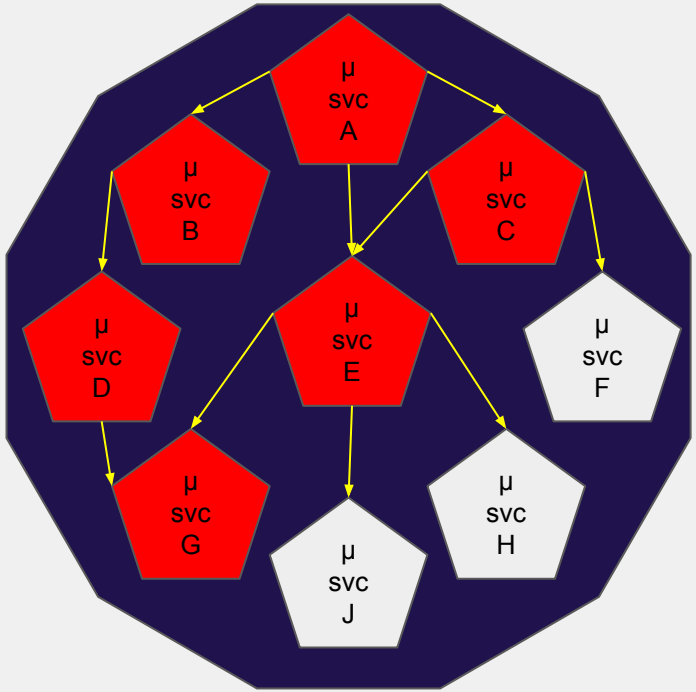
eval(cascading failures) > dead application



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Let’s get enterprisey
With RHOAR circuit breakers

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RHOAR Demo

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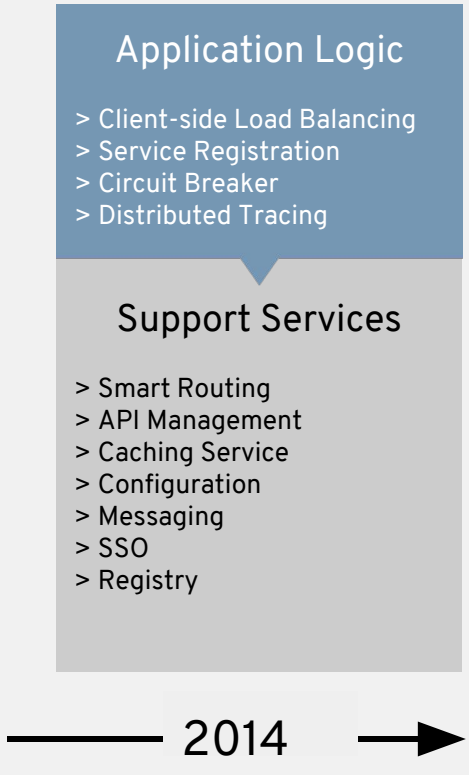
MICROSERVICES 2014 - Current



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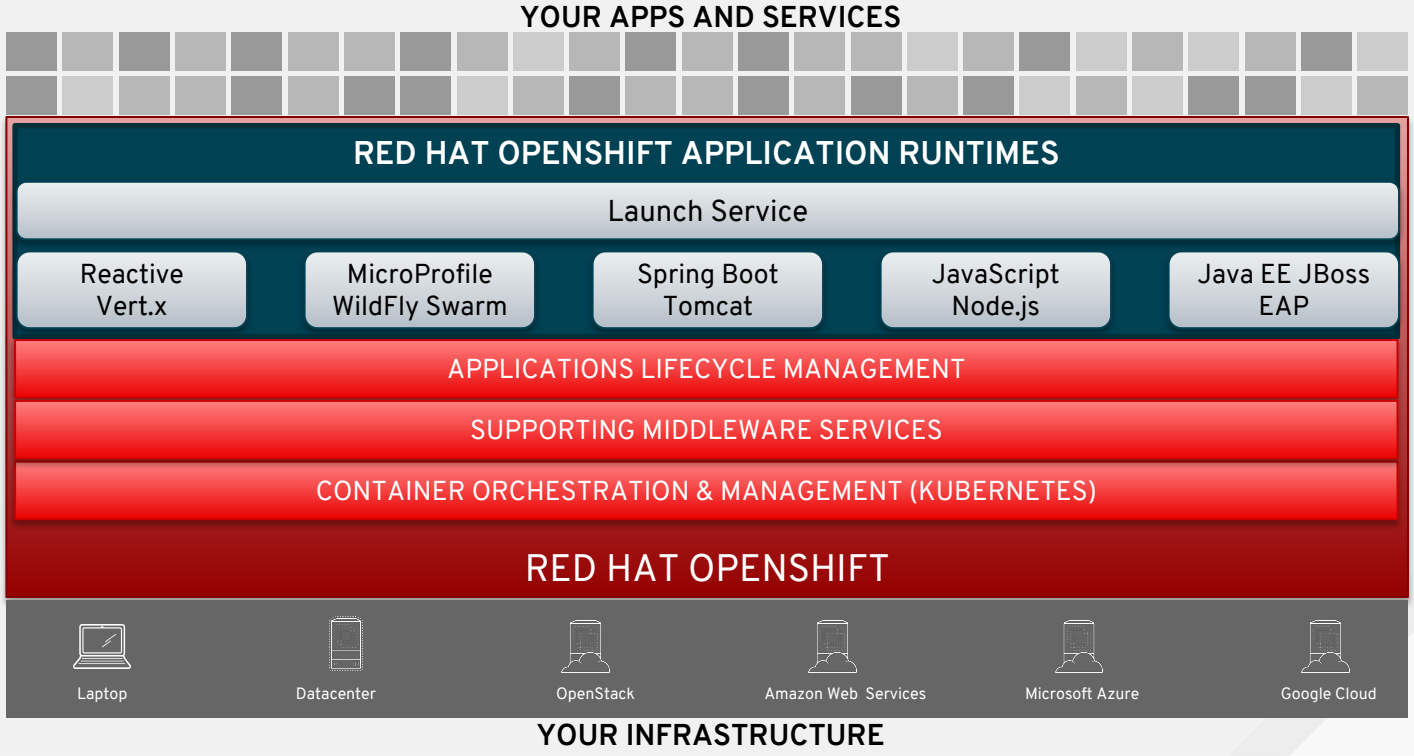
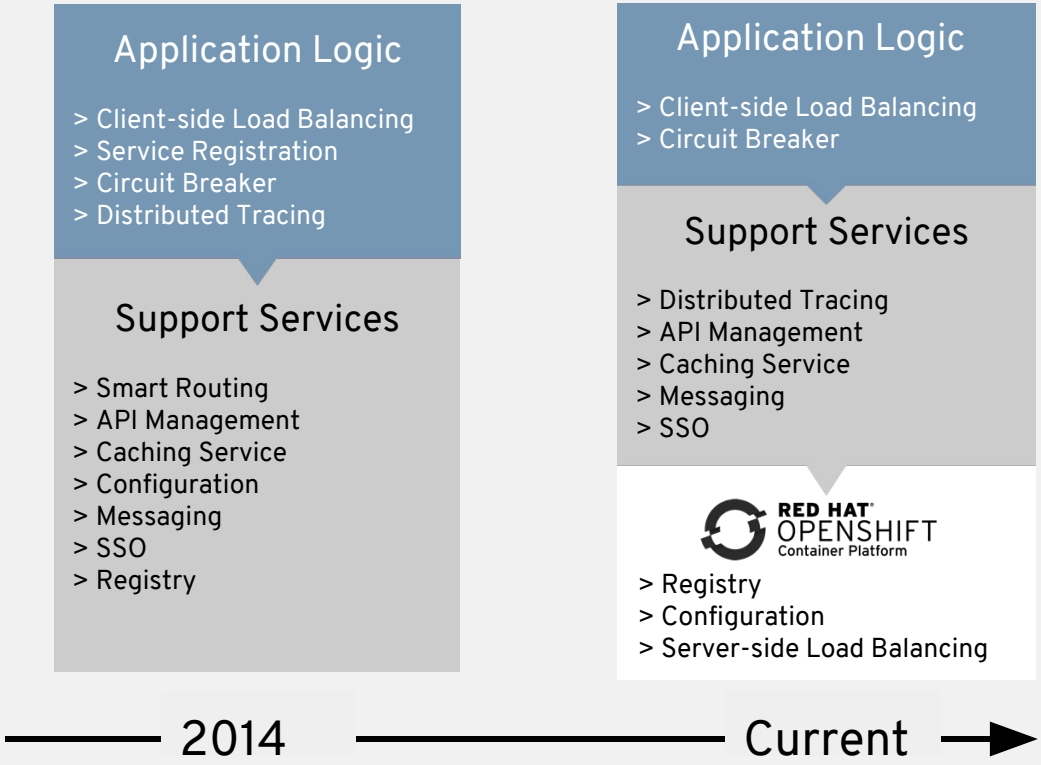
RED HAT OPENSHIFT APPLICATION RUNTIMES

Providing curated set of integrated runtimes and frameworks *that standardizes Cloud Native App Dev*

- ✓ Simplified development
- ✓ Strategic flexibility
- ✓ DevOps automation



MICROSERVICES (Current)



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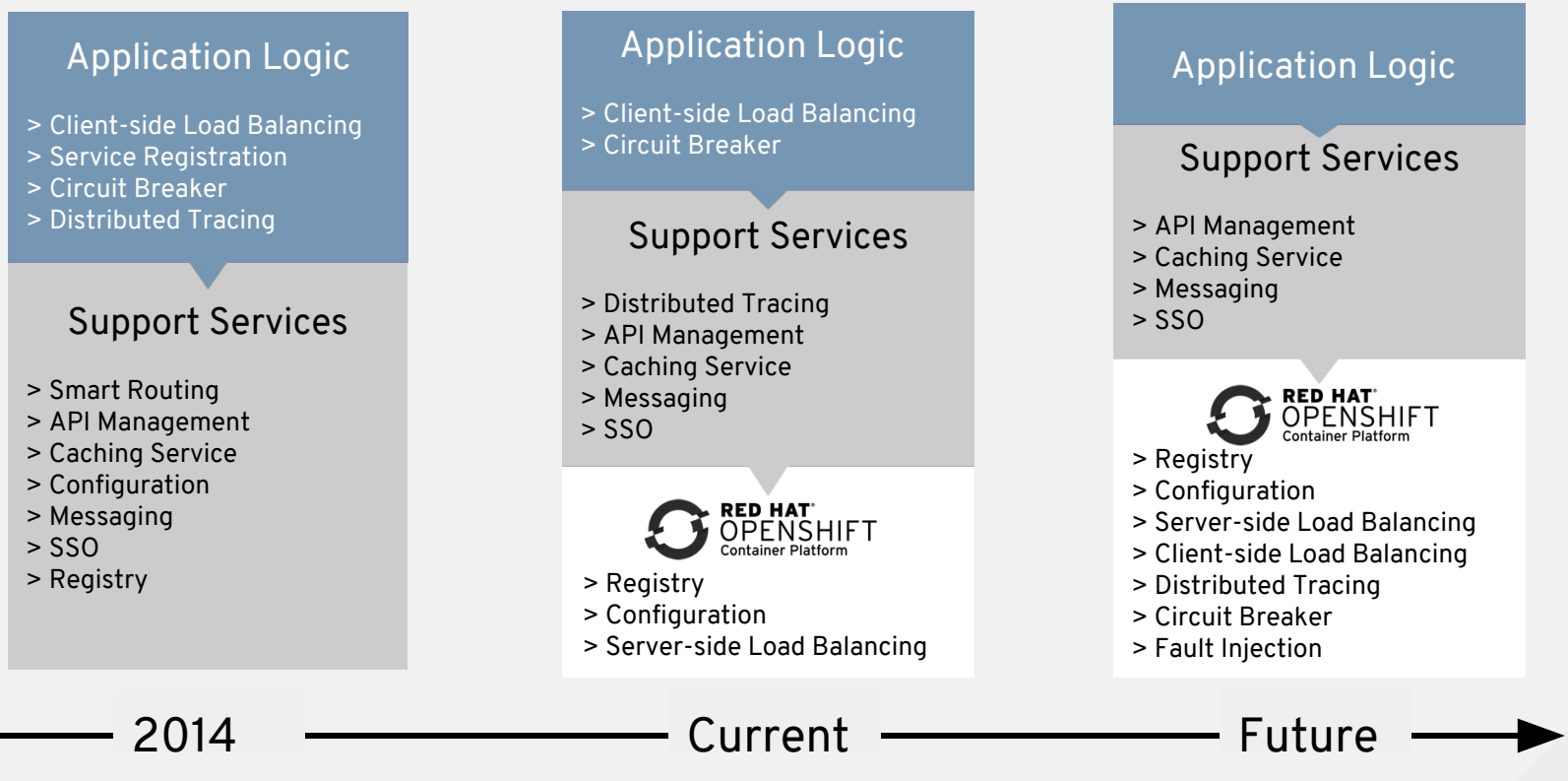
EVOLUTION OF MICROSERVICES (2014 - FUTURE)



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https://developers.redhat.com/launch
https://github.com/bucharest-gold/node-rpm
https://github.com/bucharest-gold/centos7-s2i-nodejs

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