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DEVELOPERS

Domando a Programação Reativa com Vert.x

Eder Ignatowicz
Senior Software Engineer
@ederign

“Now, every company is a software company”

— Forbes

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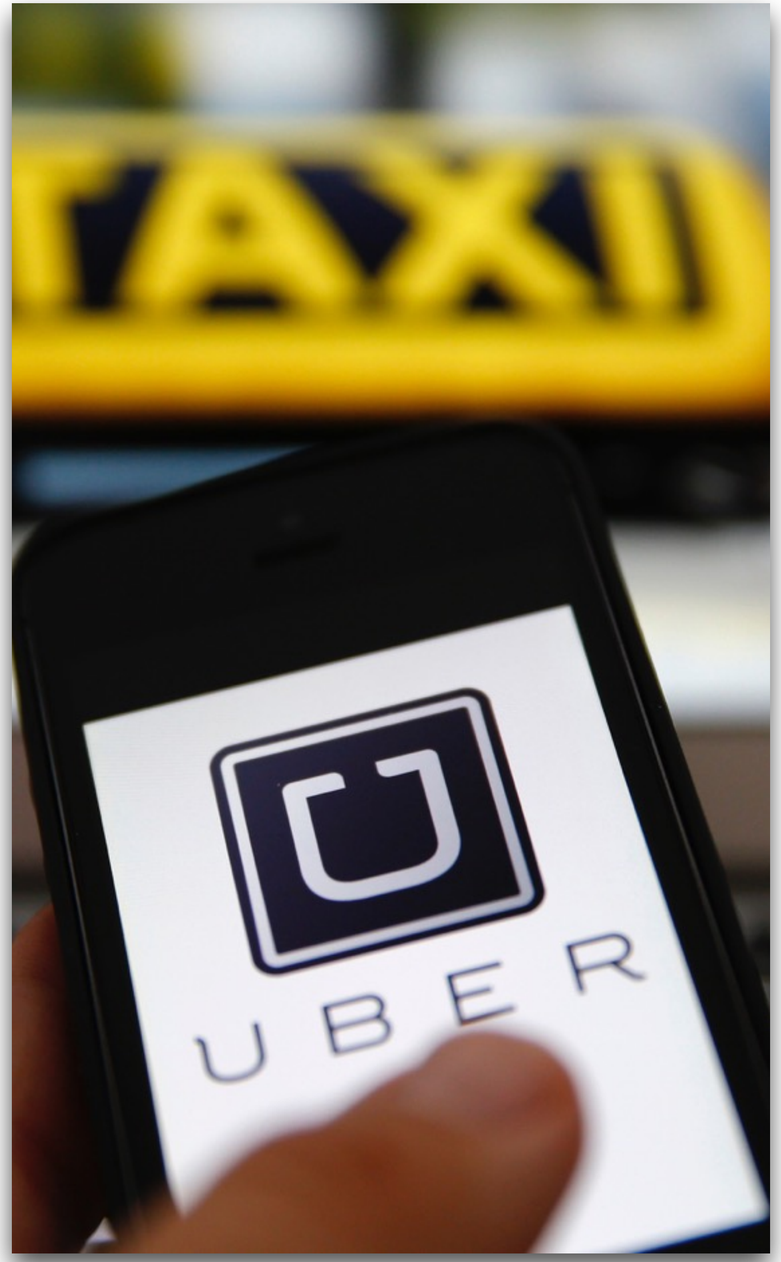
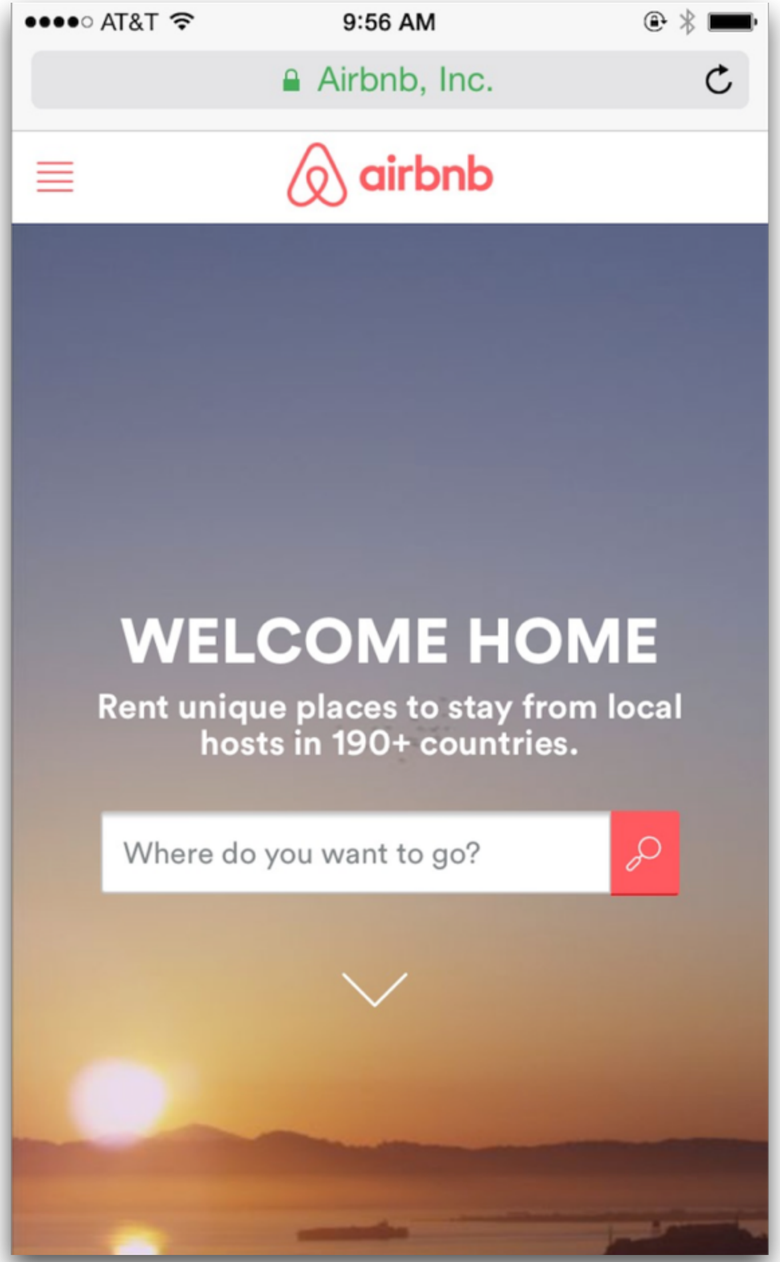

TAXI
UBER


AT&T
9:56 AM
Airbnb, Inc.
airbnb
WELCOME HOME
Rent unique places to stay from local hosts in 190+ countries.
Where do you want to go?

Reactive Systems

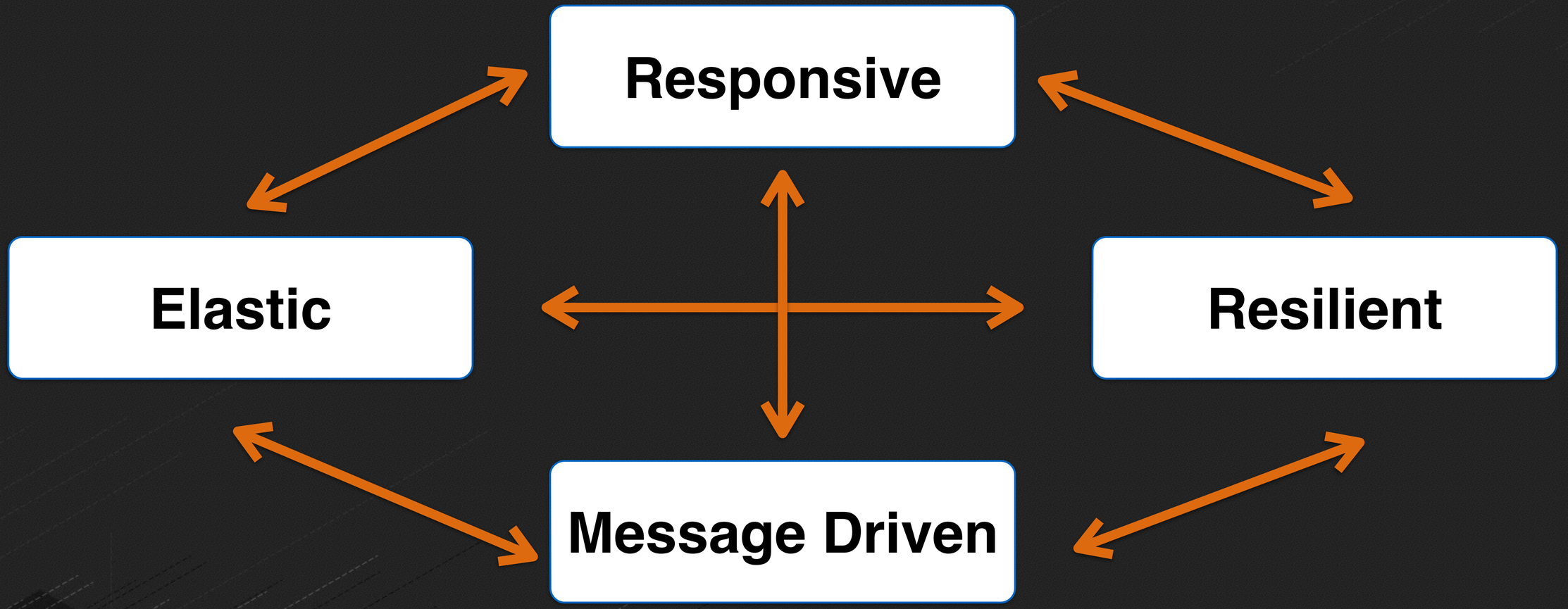
Responsive

Resilient

Elastic

Message Driven

Reactive Systems



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Vert.x

Application Platform

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Runs on JVM

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Asynchronous APIs

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Polyglot

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Simple

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Why?

APIs

Hello World

Verticles

```
public class HelloWorldVerticle extends AbstractVerticle {
    …

    @Override
    public void start( Future<Void> fut ) {

        vertx.setPeriodic( 1000, l -> {
            vertx.eventBus()
                    .publish( "hello-bus",
                              new JsonObject(
                                      Json.encodePrettily(
                    new Message( "HelloWorld Message: " + new Date() ))));} );


        vertx.eventBus()
                .consumer( "hello-bus",
                           m -> {
                               JsonObject json = ( JsonObject ) m.body();
                               logger.info( "Receiving "
                                            + json.getString( "id" )
                                            + " : "
                                            + json.getString( "name" ) );} );
    }
}
```


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Threading Model
Event Loops

Event Loops vs Blocking APIs

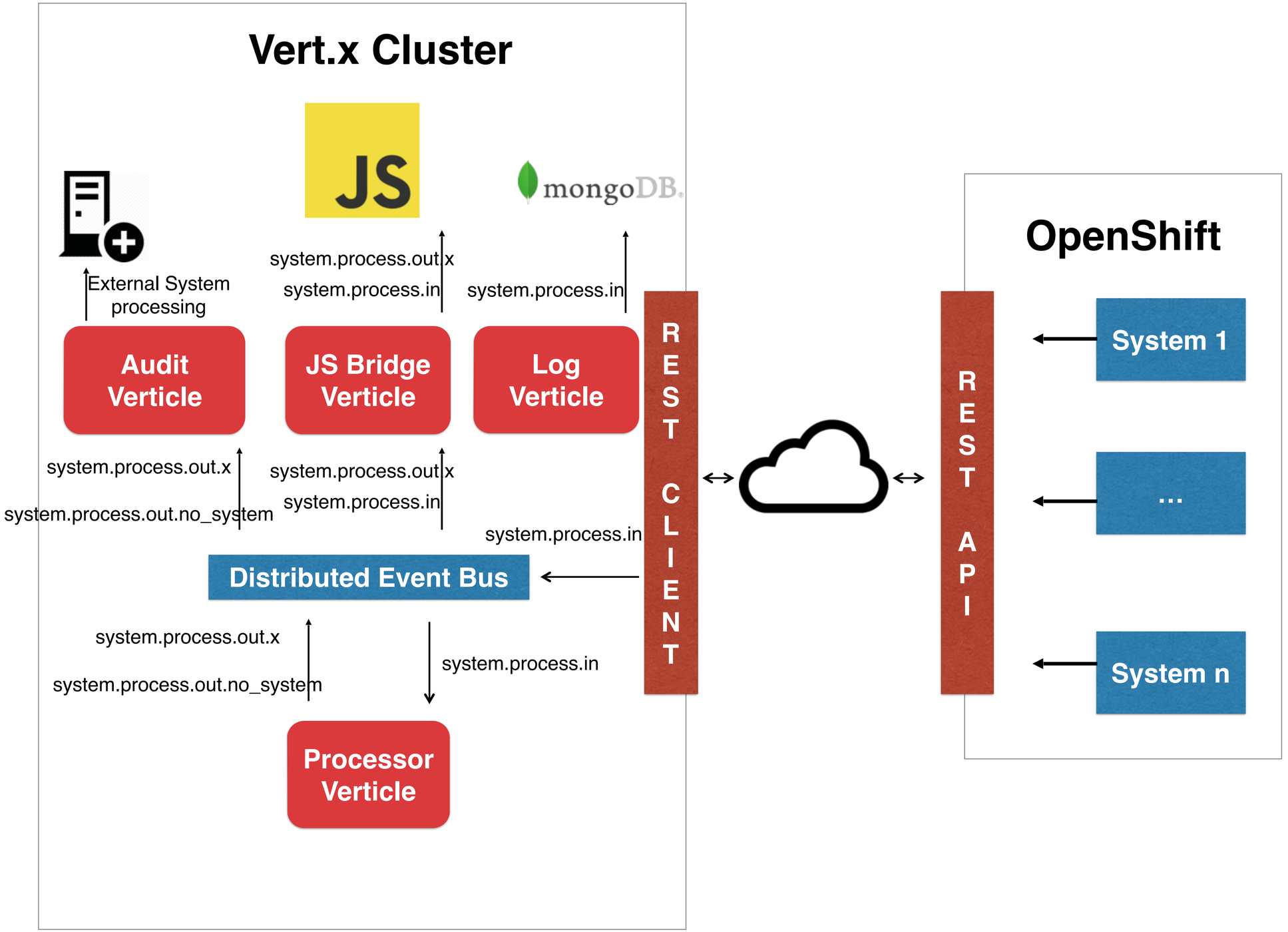
Hybrid Threading Model

Scaling

Distributed Event Bus

Extended to the browser

Demo


Vert.x Cluster
JS
mongoDB.
External System processing
system.process.out.x
system.process.in
system.process.in
Audit Verticle
JS Bridge Verticle
Log Verticle
system.process.out.x
system.process.out.no_system
system.process.out.x
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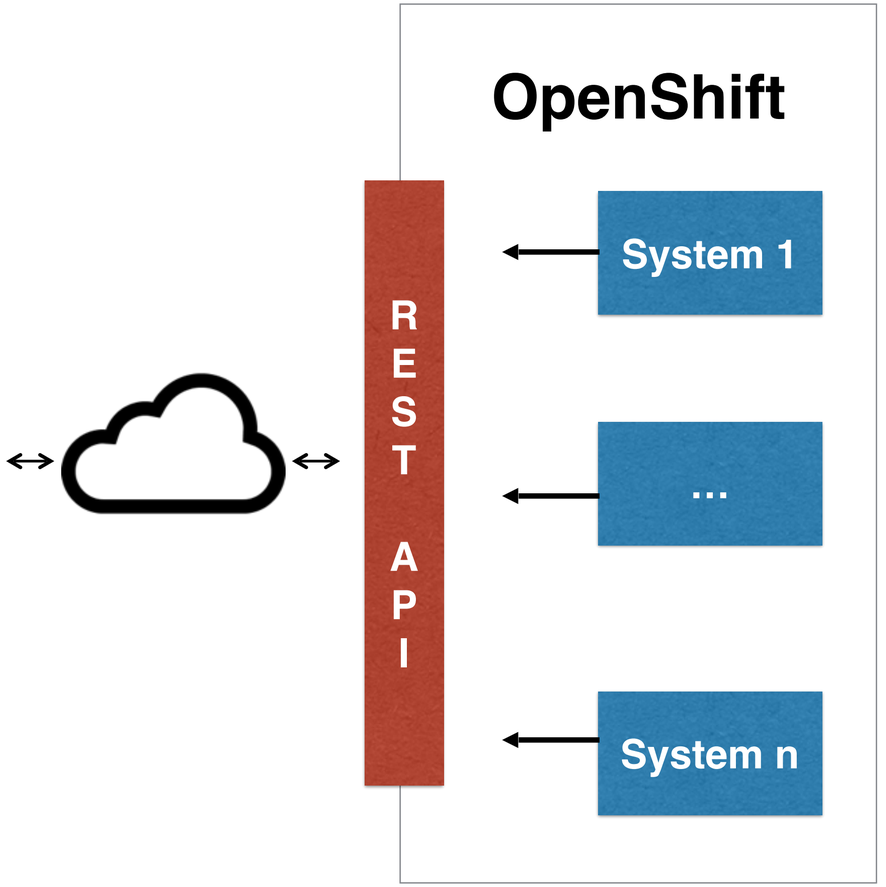
Processor Verticle
REST CLIENT
REST API
OpenShift
System 1
...
System n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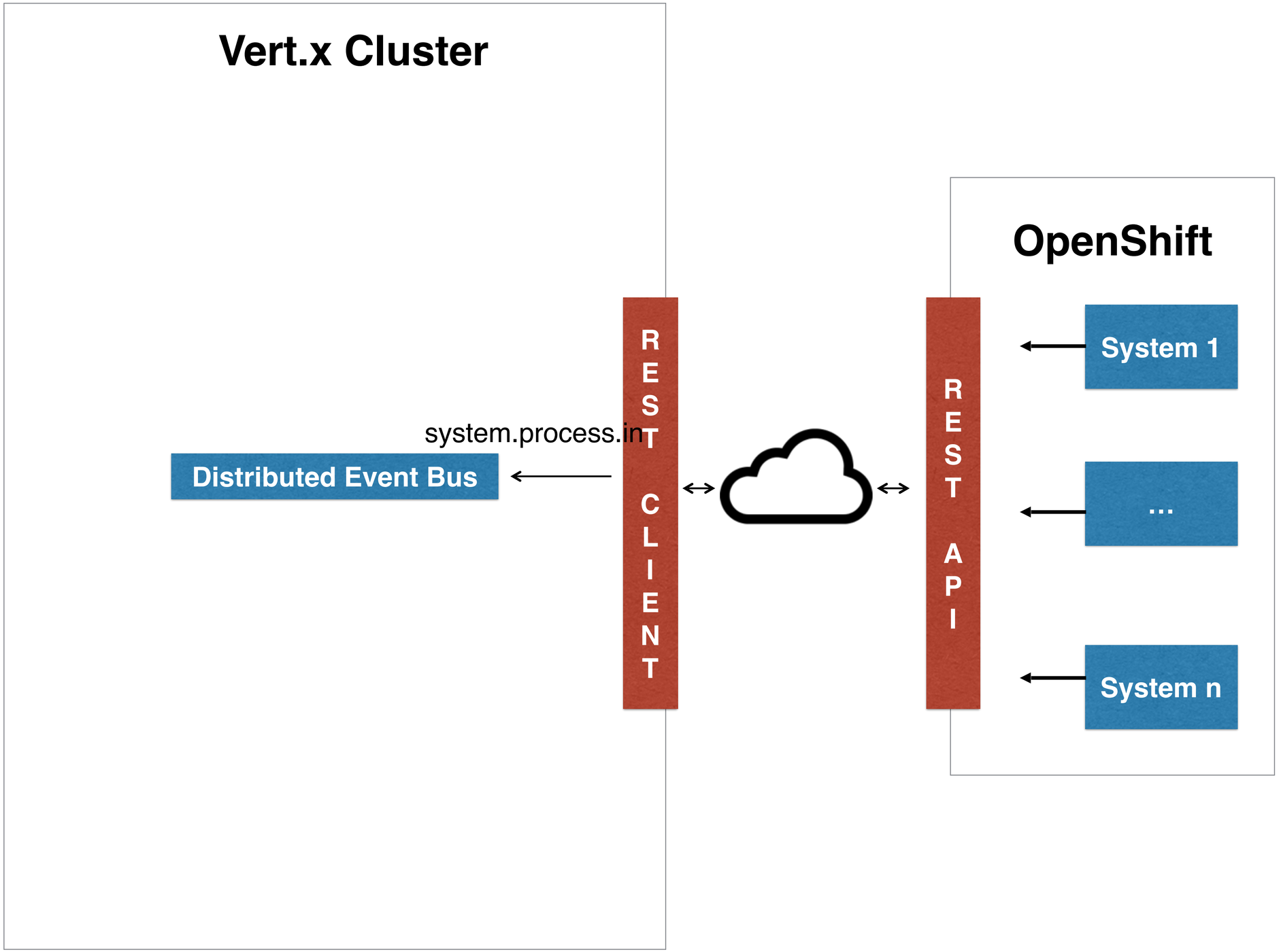
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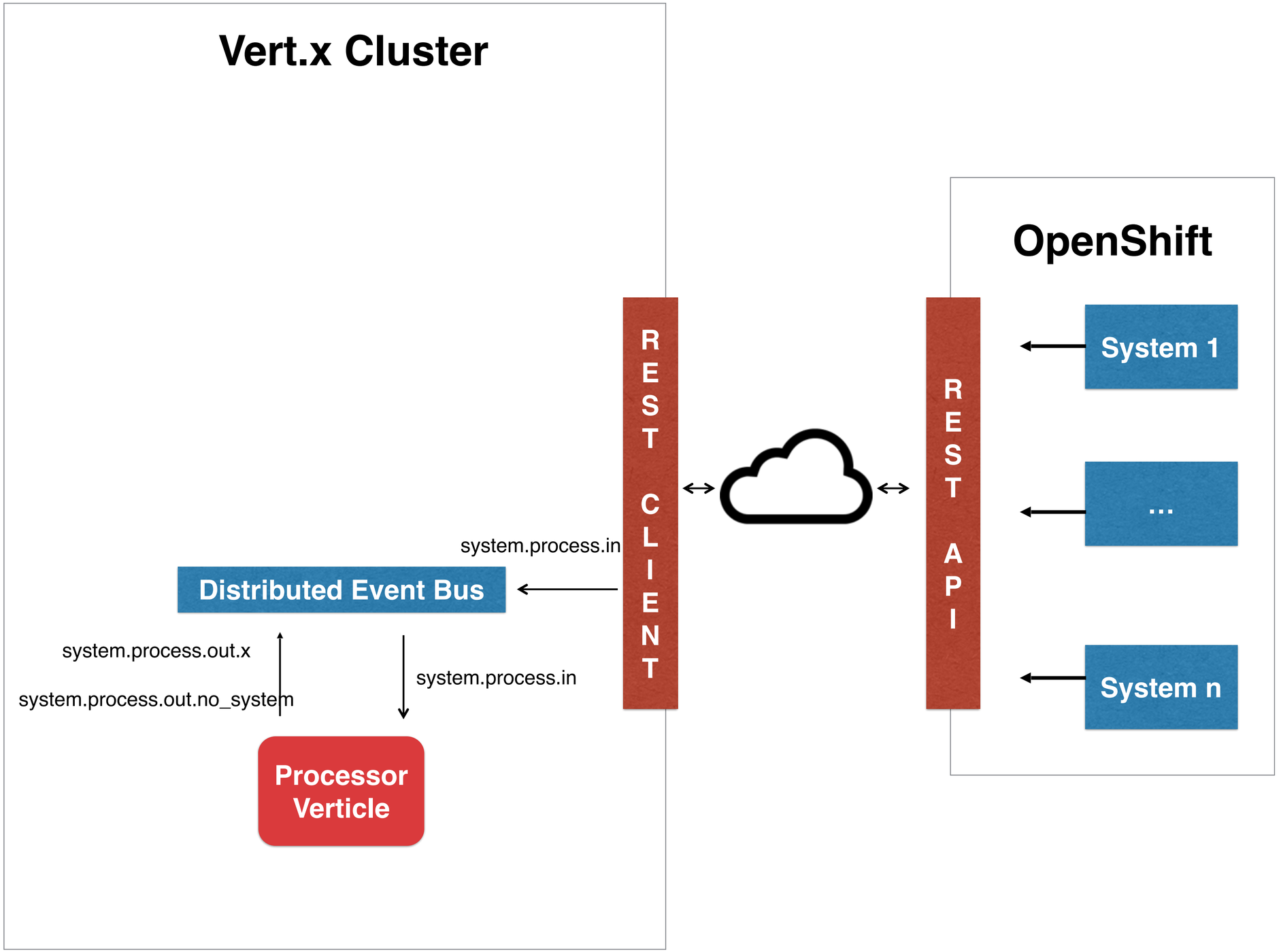
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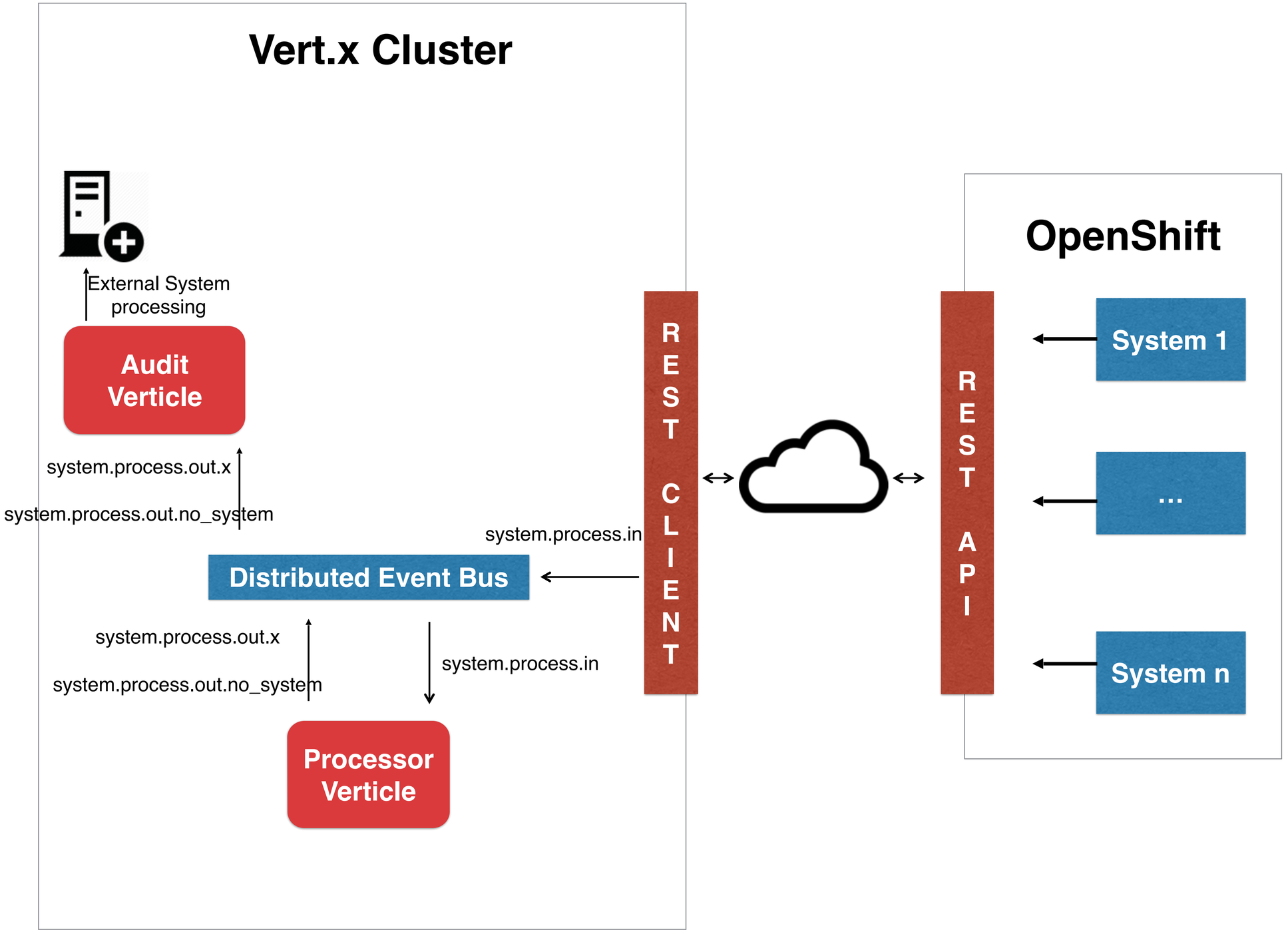
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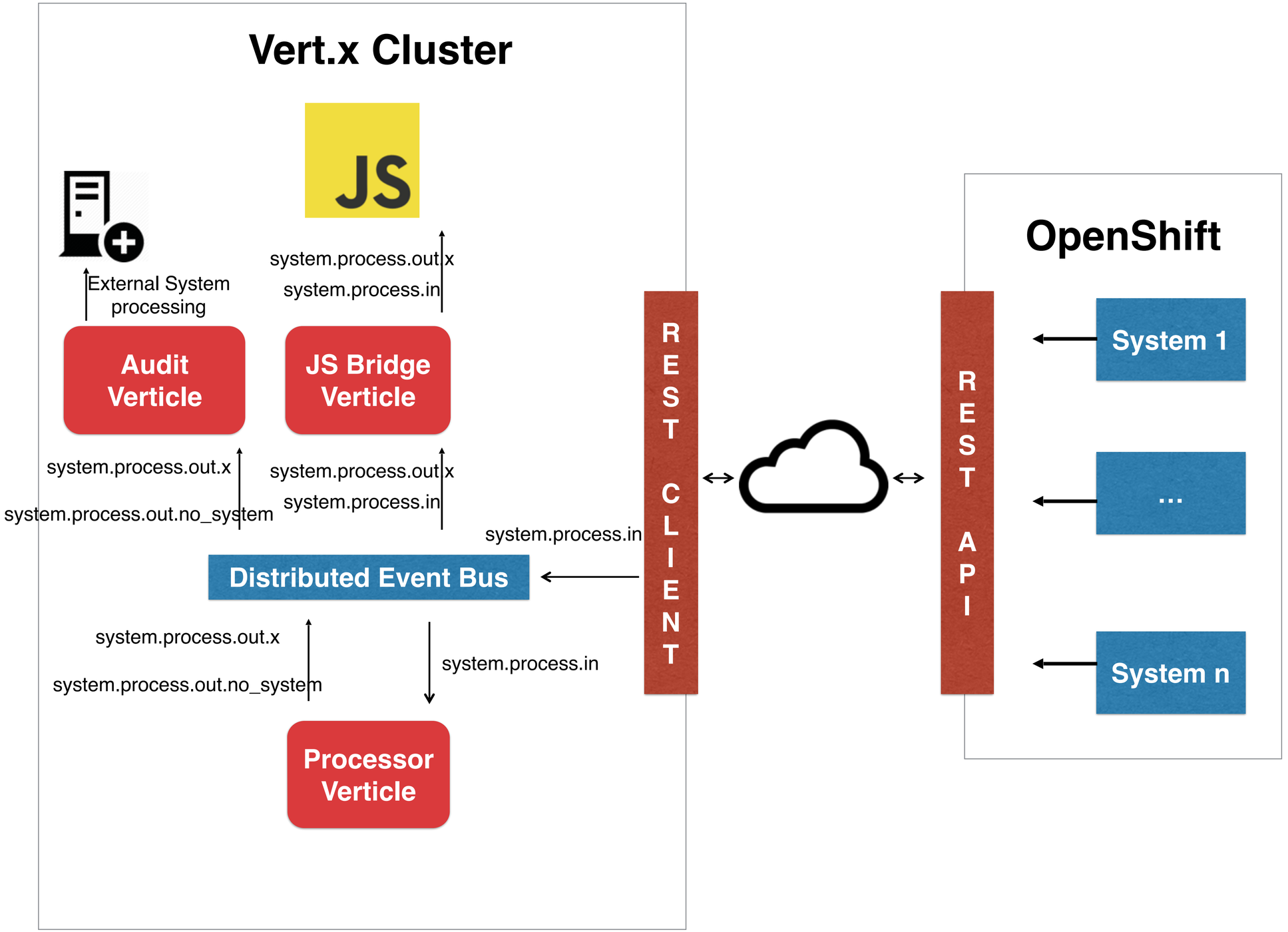
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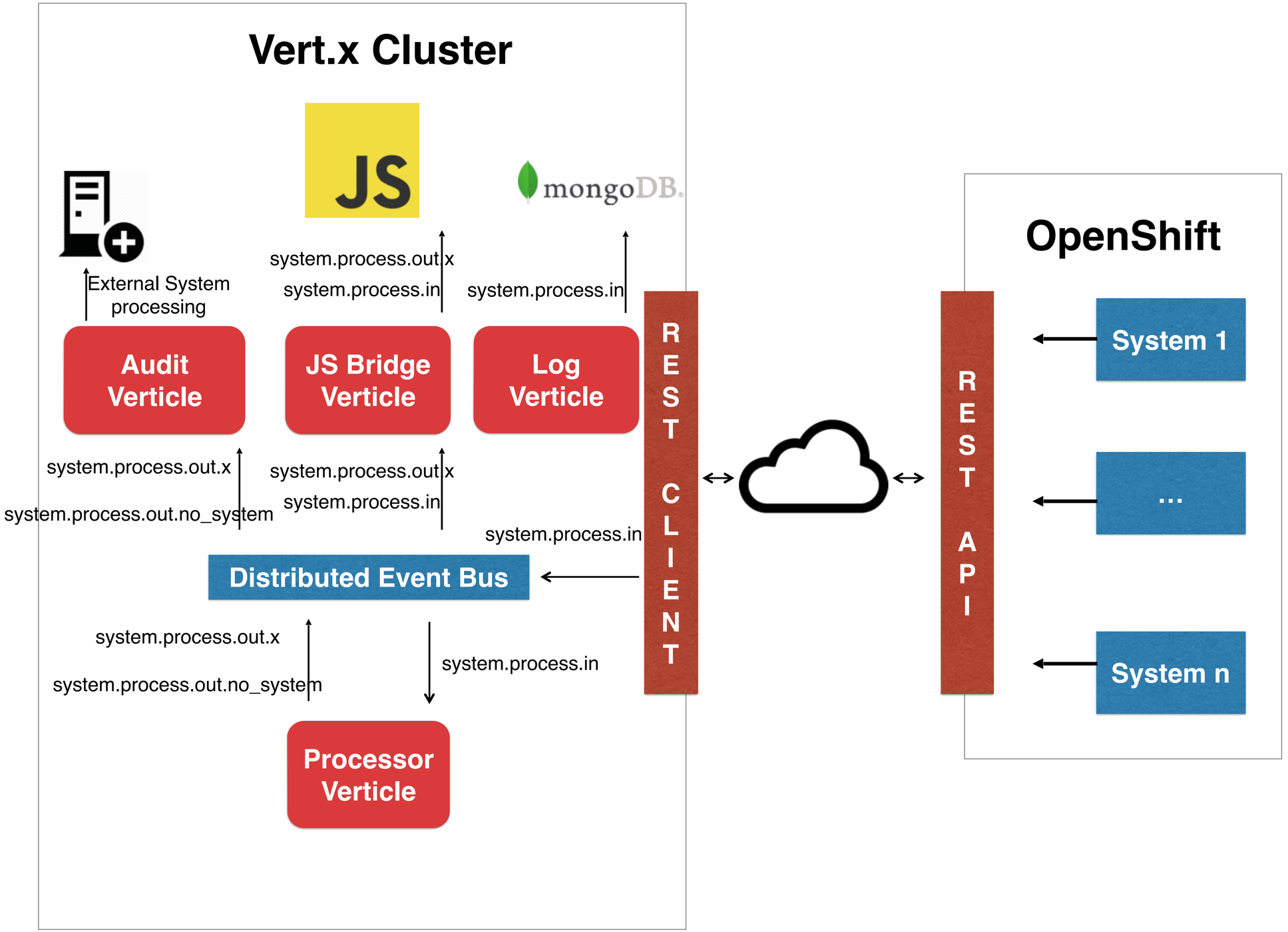
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