A Scalable Stack for Modular Web Applications

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TASKTOP

In This Session

- **LEARN** what modern server applications need to feature

- **UNDERSTAND** Eclipse Gyrex and selected technologies of this stack

- **EXPLORE** a web application based on Eclipse Gyrex

Modern Server Application

High Traffic

https://www.flickr.com/photos/davidedamico/

Frontends

web, apps & devices

https://www.flickr.com/photos/raffaespo/

Modular

development & deployment

https://www.flickr.com/photos/russellstreet/

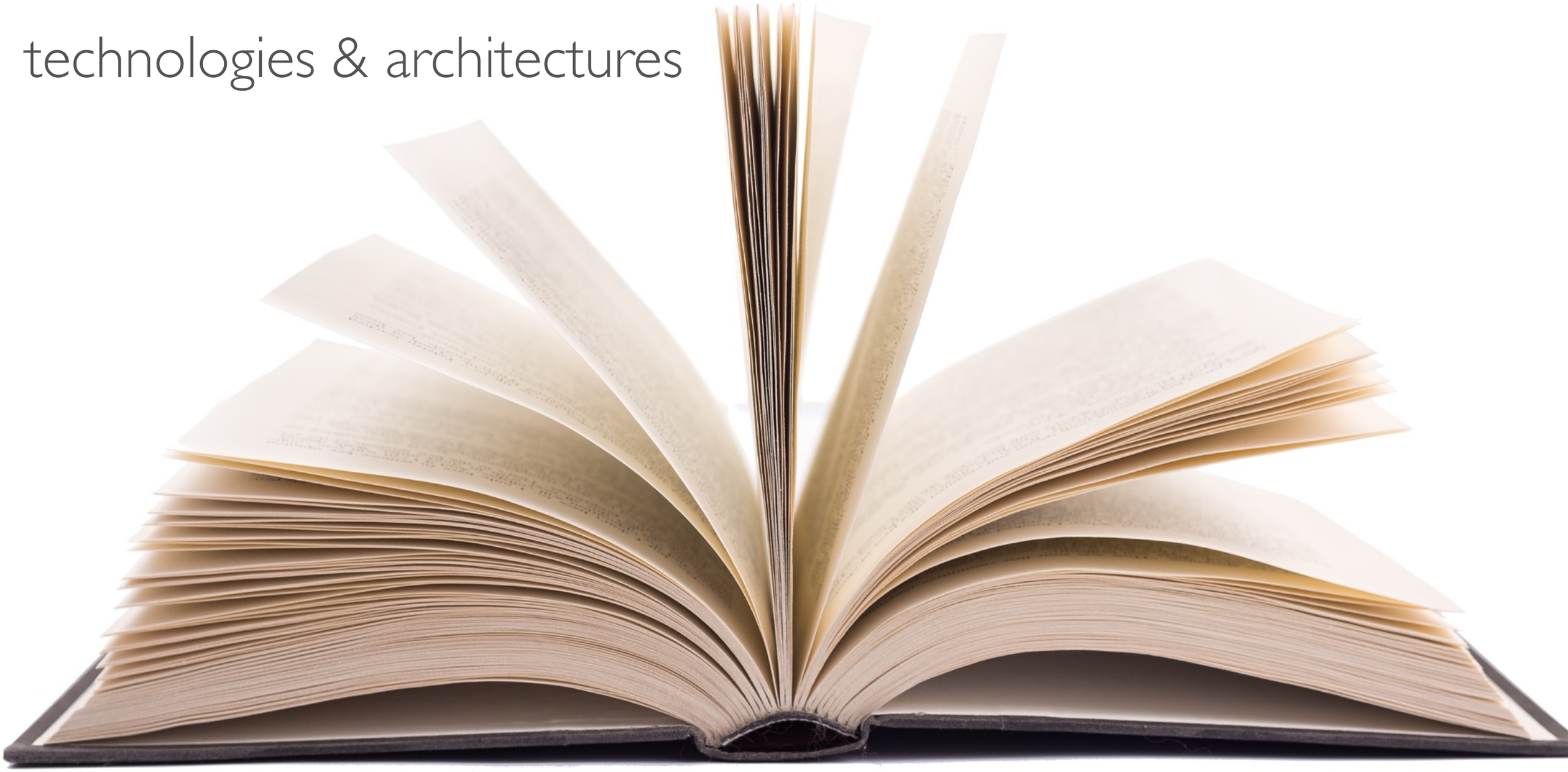
Simple

deployment & operation

https://www.flickr.com/photos/jar0d/

Open

technologies & architectures



https://www.flickr.com/photos/roborodent/

Eclipse Gyrex

A lightweight application stack for building server applications using EclipseRT technologies.

GYREX

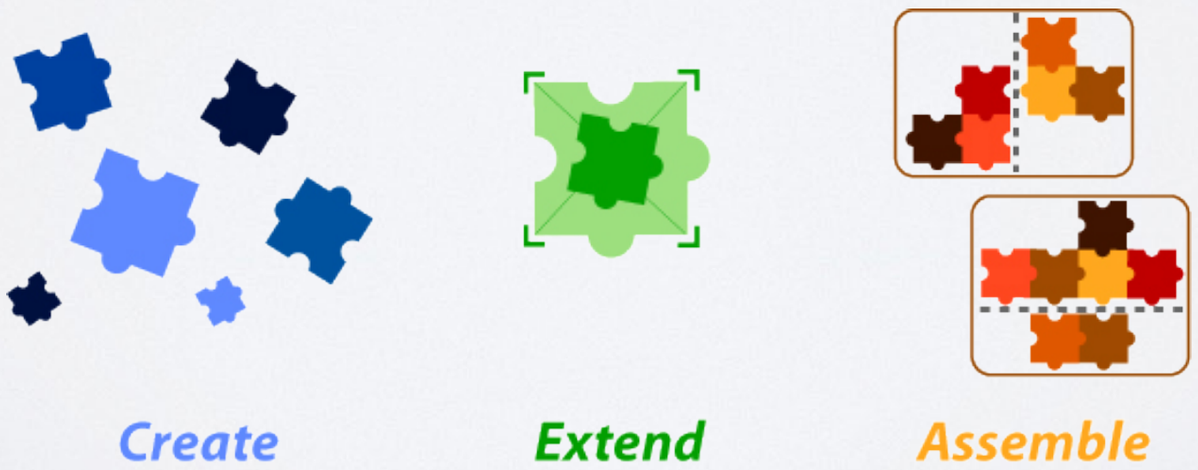
EclipseRT

Run**T**ime

„EclipseRT is the collection of OSGi-based runtimes and frameworks built by the Eclipse open source projects.“

Equinox

- OSGi reference implementation
- Foundation of EclipseRT
- Component Oriented Development and Assembly



Jetty

- Asynchronous HTTP Server and Client
- Standards based Servlet Container
- Web Sockets server
- OSGi, JNDI, JMX, JASPI, AJP support

- Small foot print
- Excellent scalability

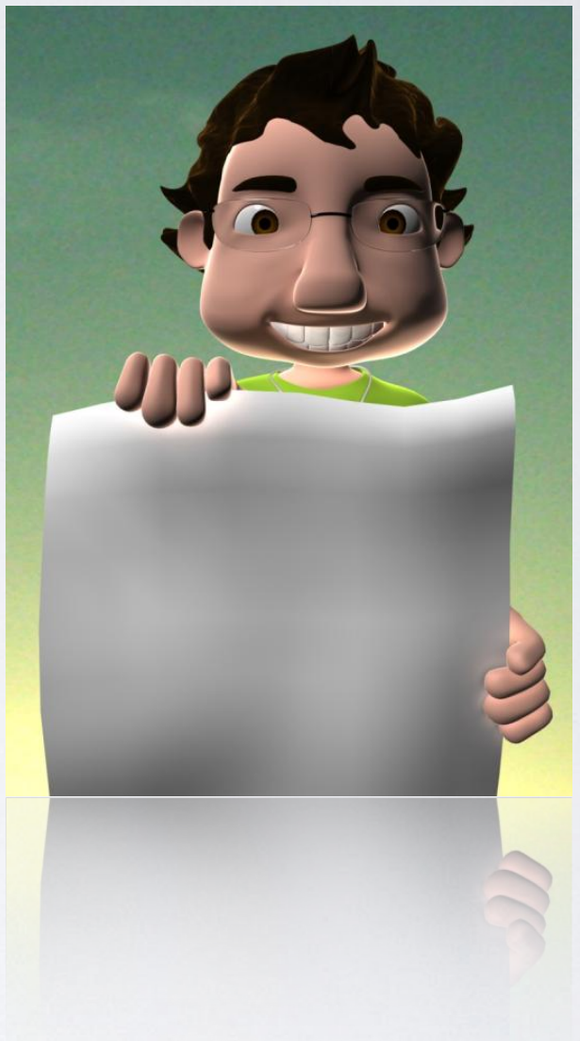
- Runs in
  - Apache Hadoop and many, many more software
  - Google AppEngine

Gyrex

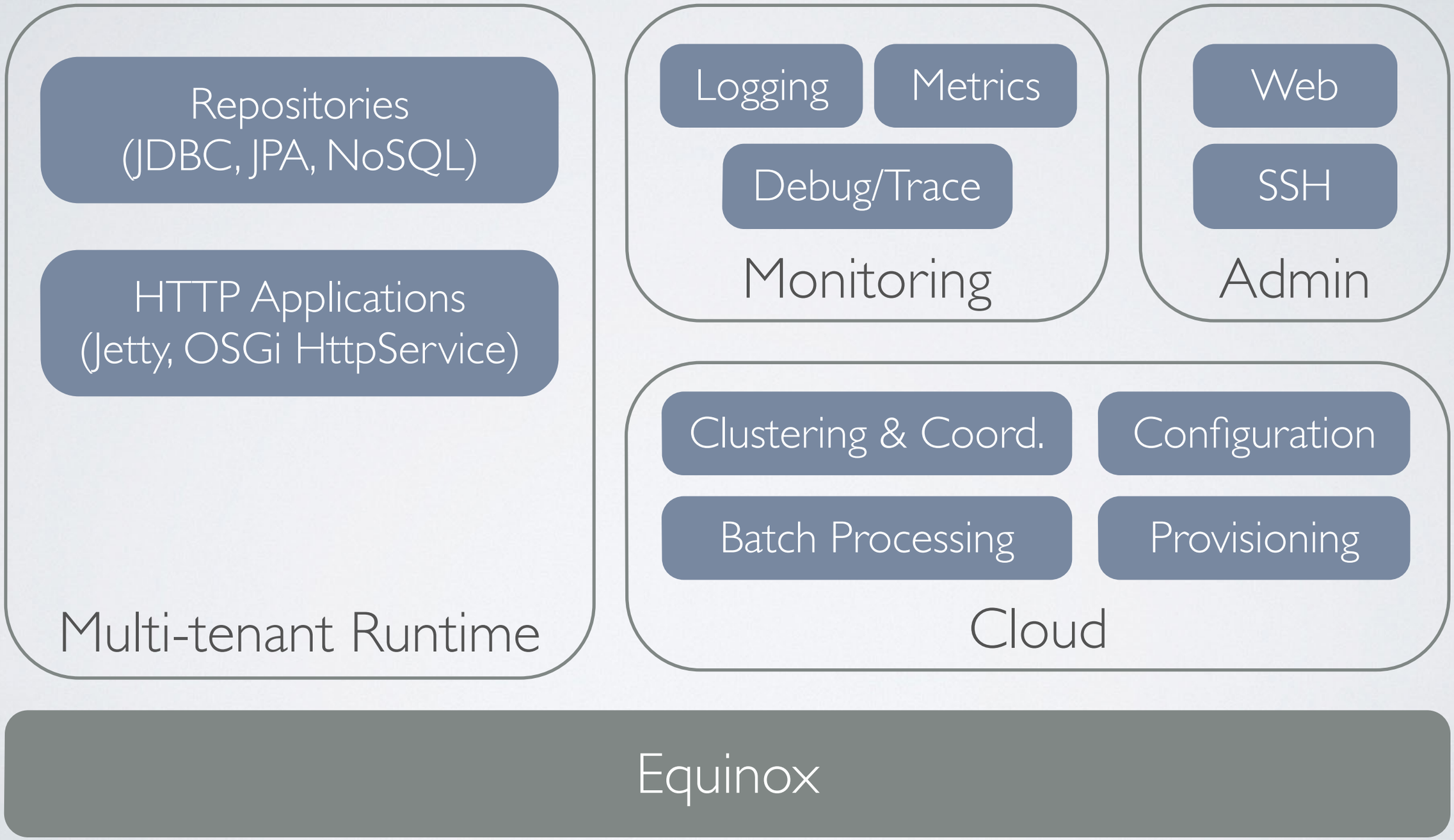
- Clustering
- Web-based administration
- Multi-tenancy
- Operational enhancements

Gyrex Features

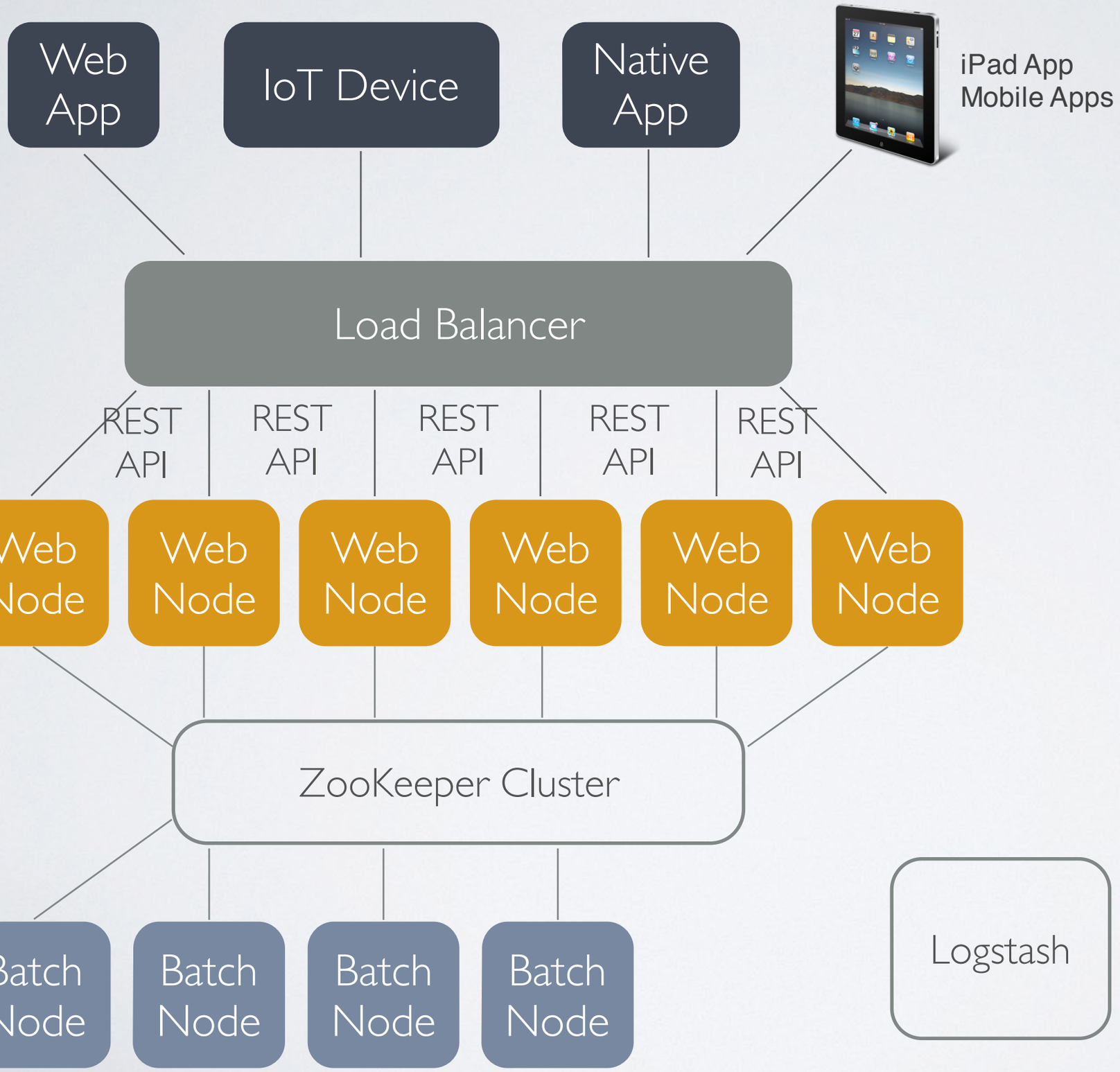
- lightweight application stack
- fast 100% OSGi runtime
- central cluster configuration through Apache ZooKeeper
- cluster aware job scheduling
- automated deployment through p2
- support for cluster node roles, e.g. "job worker node" and "api node"



Gyrex Components



Sample Production Deployment



Example Application

https://github.com/eclipseguru/gyrex-timezones-example

Q & A

- Gyrex Newsgroup / Forum at
  http://www.eclipse.org/forums/

- Information hub at
  http://www.eclipse.org/gyrex/

- Session feedback / questions
  @guw

„Thank you!“

–Gunnar Wagenknecht