What’s going on with your logs?

Fran Álvarez

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Alfresco Best Solution 2015 and Partner of the Year 2015 (Northern Europe)

Agenda

- Troubleshooting’s troubles
- Centralised logging with Graylog
- Demo

Troubleshooting troubles

Details

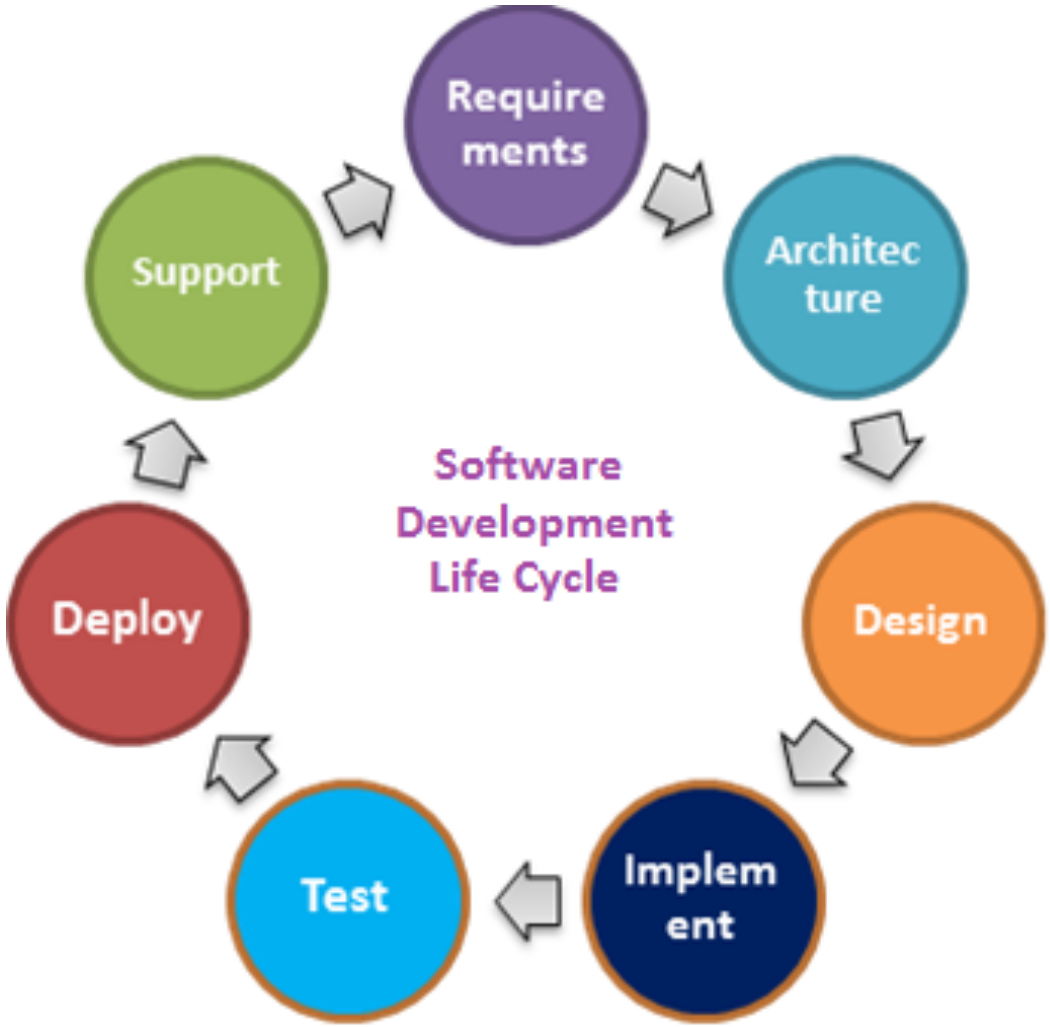
A typical agile SDLC

Requirements

- User stories

- Improvements

- Bugs



http://theintrovertmusings.blogspot.com.es/2015/02/software-process-models.html

Cost of fixing a bug by stages

Production

Understand

Reproduce

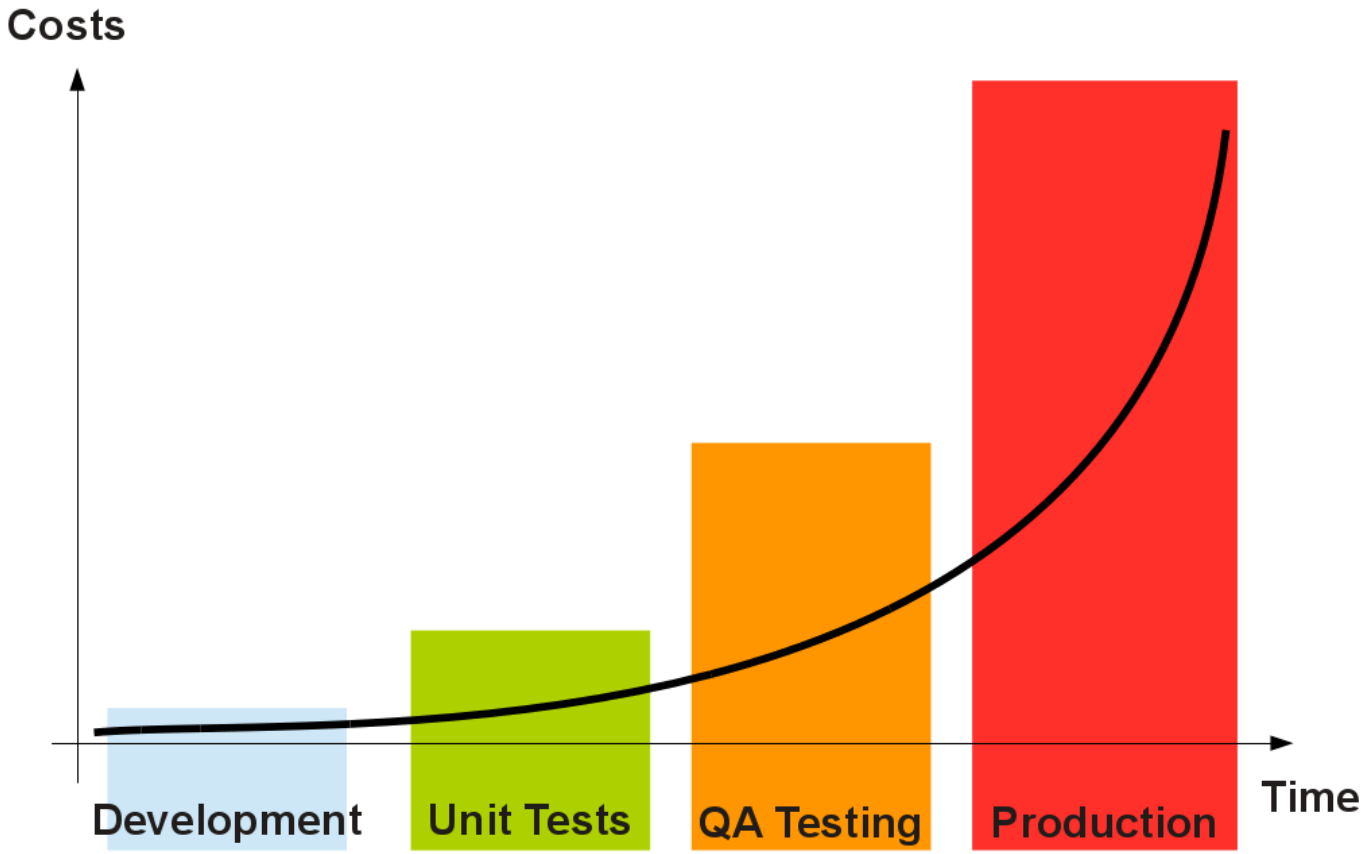
Replicate

Fix

Test

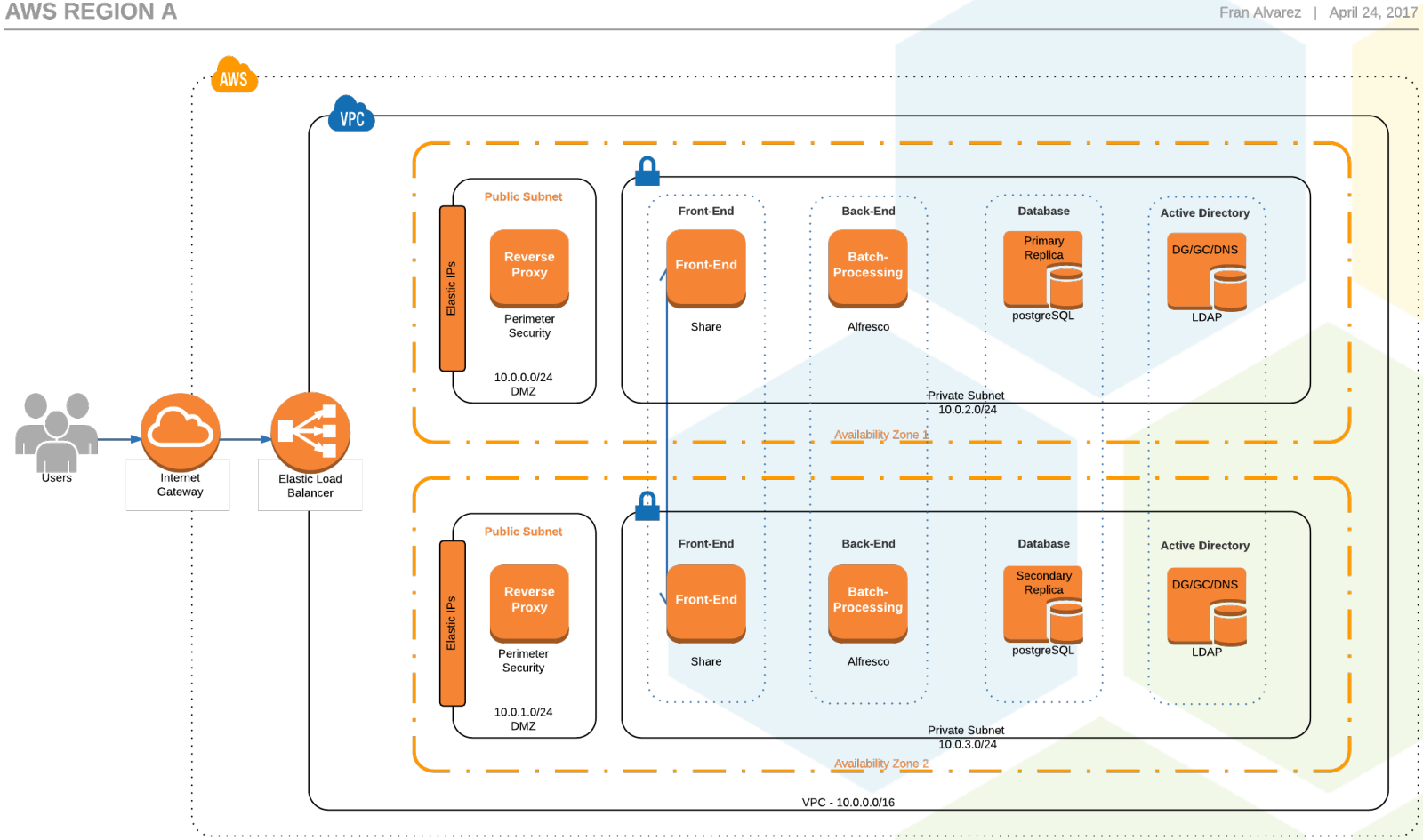
Regression

Deploy

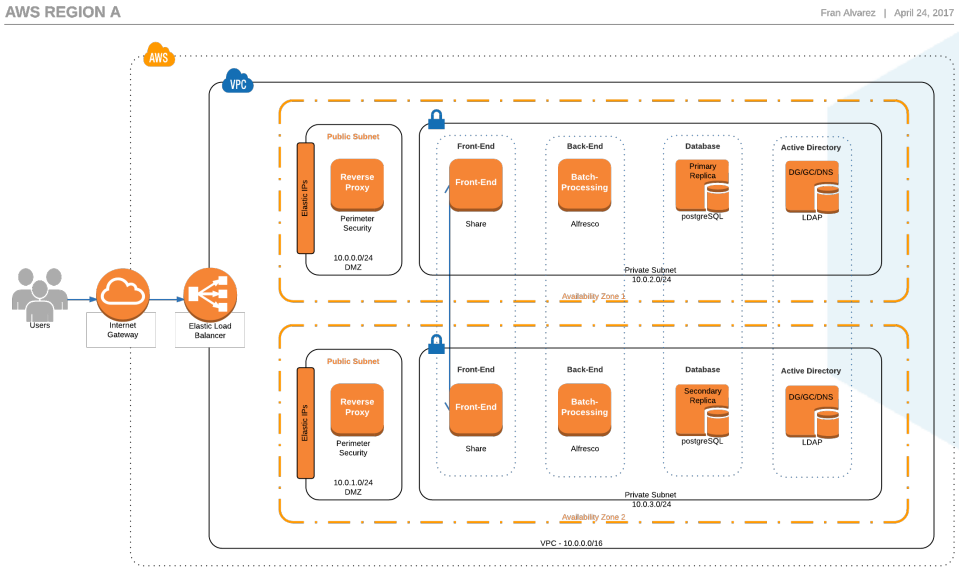


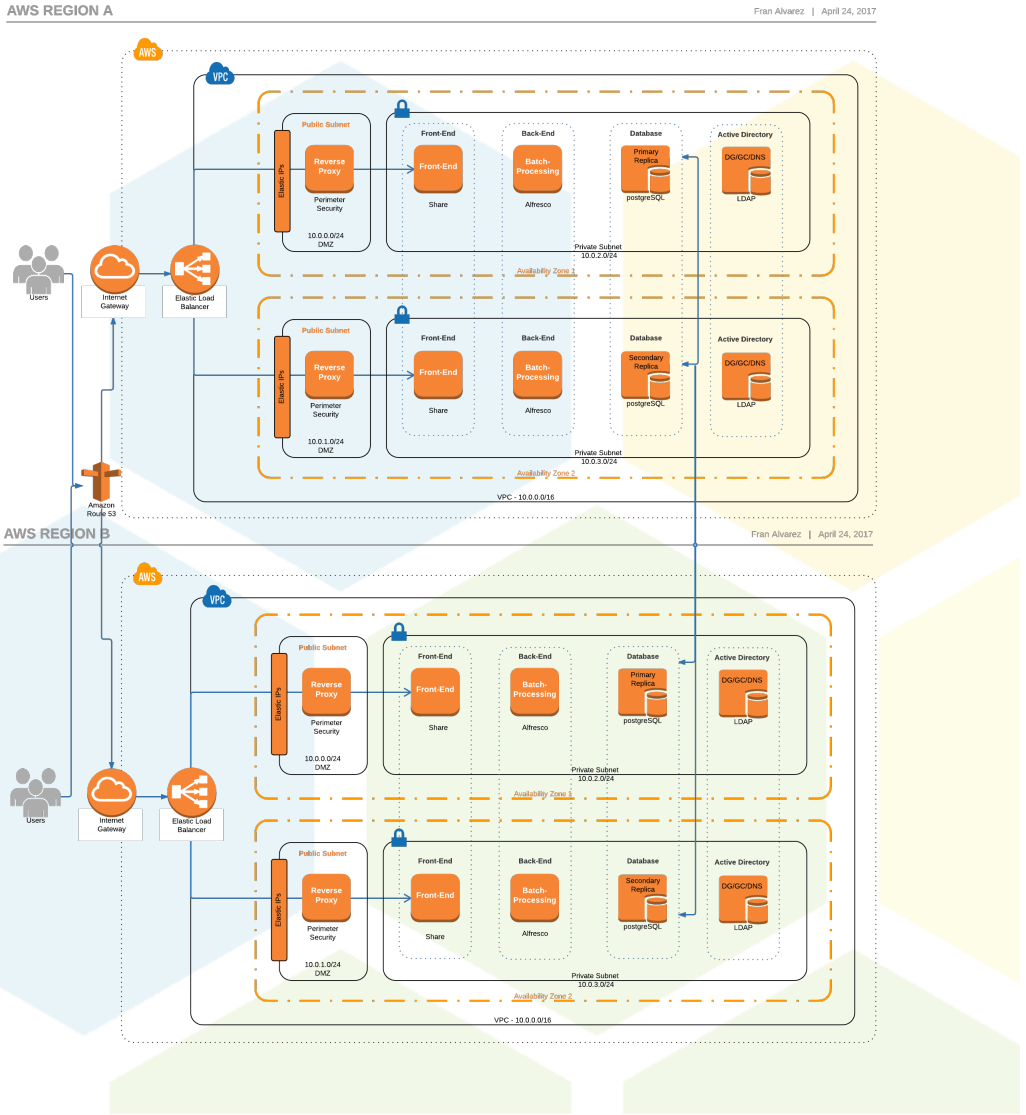
https://blog.pdark.de/2012/07/21/software-development-costs-bugfixing/

A typical architecture



Can be more complex





Support Challenges

More diagnostic logging

‘Debug build’, follow trace Vs follow code

view all logs at the same point-in-time (sequence) for correlation events across those services

Provide/Collect information/insight

Some data/report enquiries might be asked *(how many assets were moved yesterday?)*

Anticipate or Prevent a problem

Reduce the time to narrow the problem

Graylog

Details

Graylog

Application to manage log data from a one central location

- Parse and enrich logs
- Allows to search and filter messages along with their properties
- User friendly charts and dashboards
- Alerts and Triggers
- Community and Enterprise
- Open Source

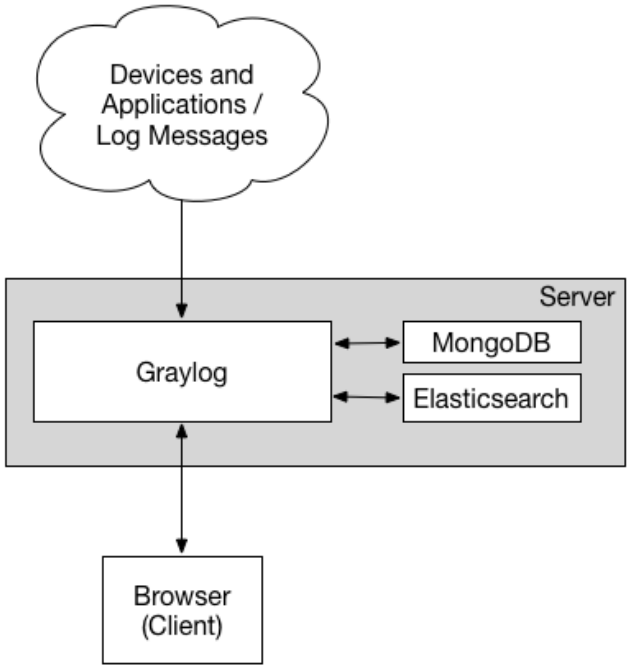
Graylog - Architecture

Graylog Web as browser based UI

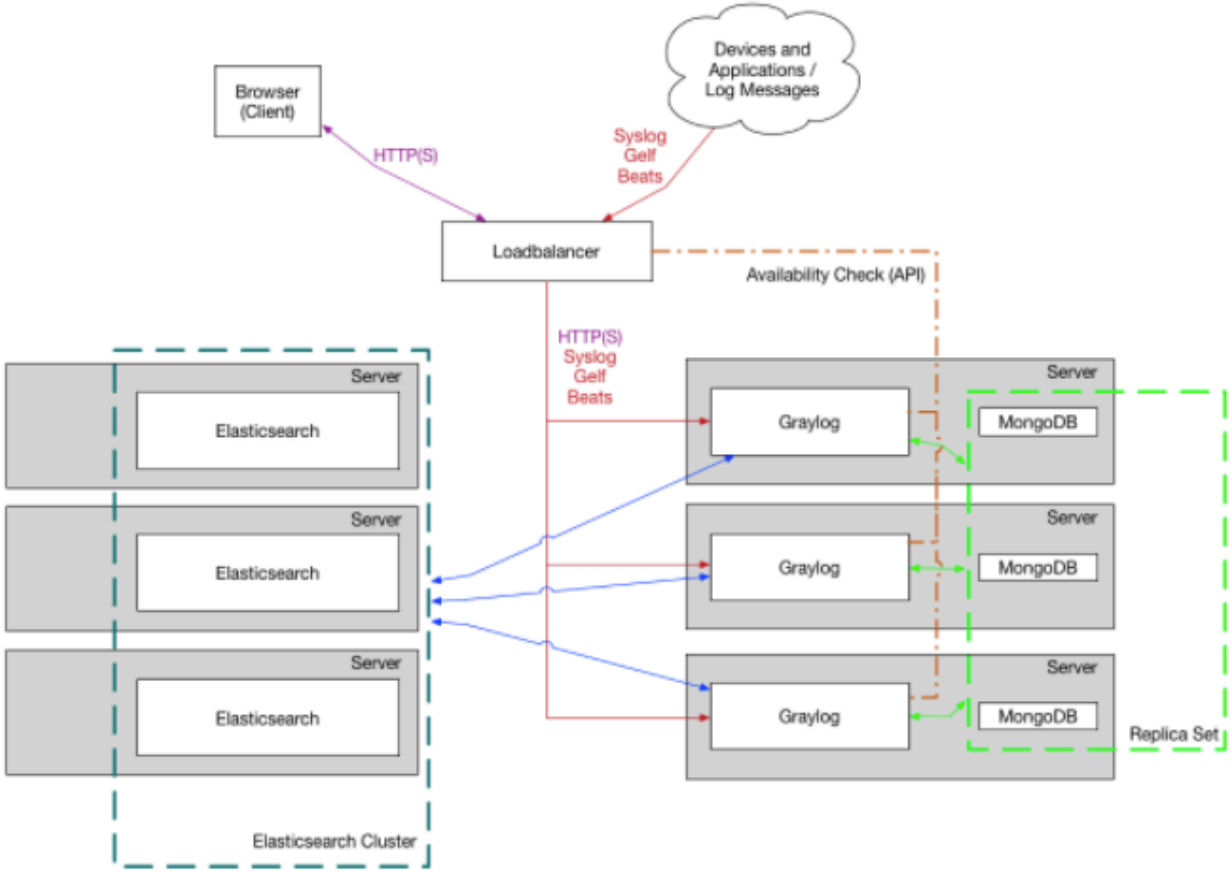
Graylog server: logic and configuration

It also includes mongoDB storing meta info and config

Elastic Search server: Storing log data information to be consumed

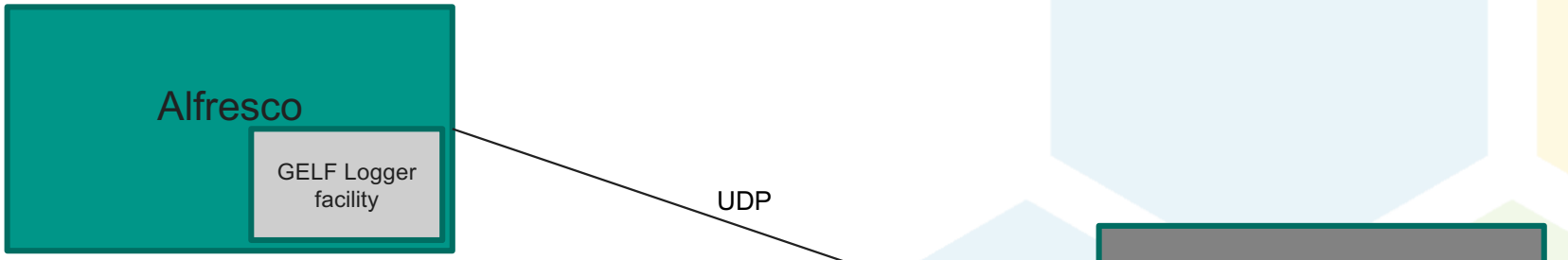


Graylog - Architecture



…and it's very scalable!

Graylog – Alfresco integration



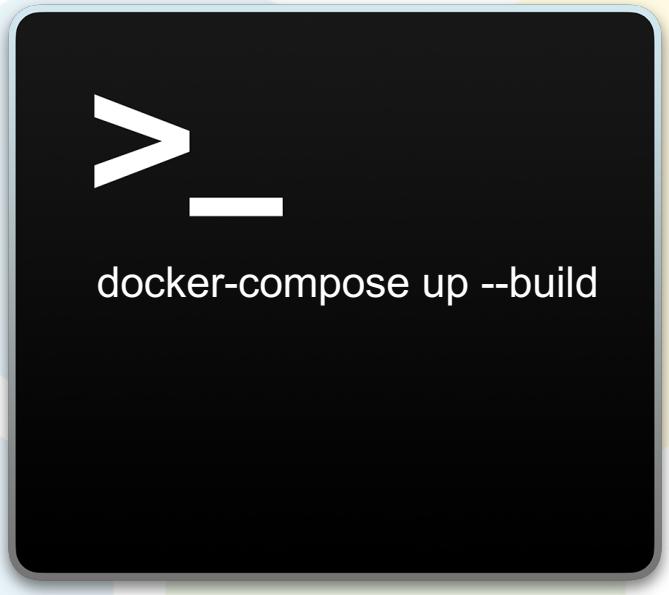
Graylog – Alfresco integration

What we need

- GrayLog
- Alfresco
- A Graylog log appender library
- Some configurations in log4j properties file

GrayLog

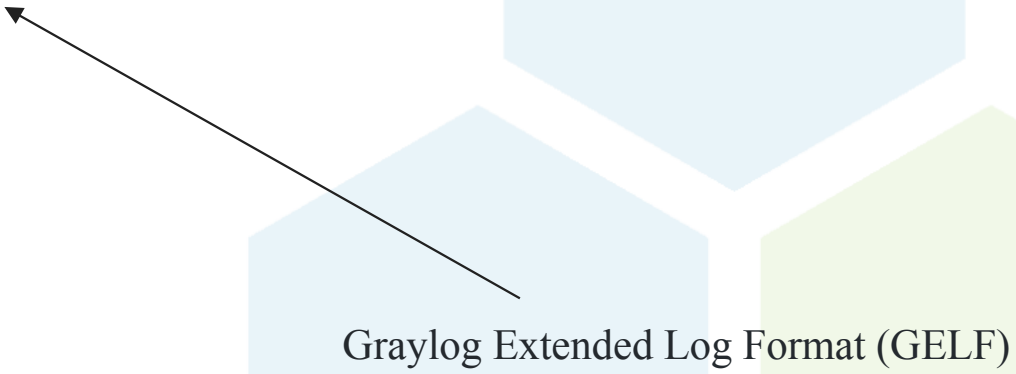
```yaml
version: '2'
services:
  mongo:
    image: "mongo:3"
  elasticsearch:
    image: "elasticsearch:2.3"
    command: "elasticsearch -Des.cluster.name='graylog'"
  graylog:
    image: graylog2/server:2.0.3-2
    environment:
      GRAYLOG_PASSWORD_SECRET: putyourpasswordhere
      GRAYLOG_ROOT_PASSWORD_SHA2: 00AABB.....
      GRAYLOG_REST_TRANSPORT_URI: http://127.0.0.1:12900
    depends_on:
      - mongo
      - elasticsearch
    ports:
      - "9999:9000"
      - "12900:12900"
      - "12201/udp:12201/udp"
      - "1514/udp:1514/udp"
```



Alfresco

GrayLog log appender library

```
<dependency>
<groupId>org.graylog2</groupId>
<artifactId>gelfj</artifactId>
<version>1.1.14</version>
</dependency>
```



GrayLog log appender library

A GELF payload:

```
{
  "version": "1.1",
  "host": "example.org",
  "short_message": "A short message that helps you identify what is going on",
  "full_message": "Backtrace here\n\nmore stuff",
  "timestamp": 1385053862.3072,
  "level": 1,
  "_user_id": 9001,
  "_some_info": "foo",
  "_some_env_var": "bar"
}
```

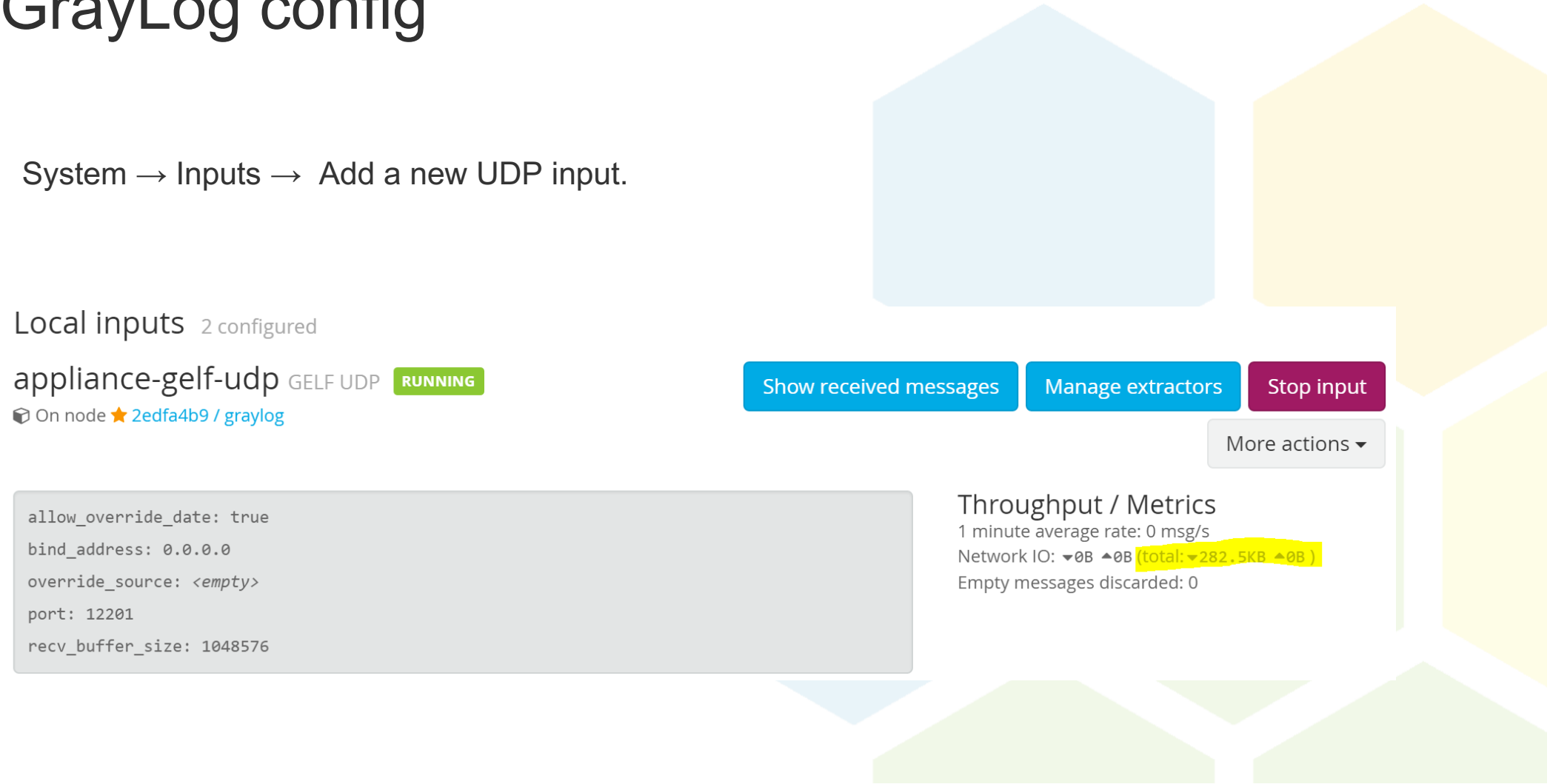
custom-log4j.properties

```
log4j.rootLogger=INFO, graylog2

log4j.appender.graylog2=org.graylog2.log.GelfAppender
log4j.appender.graylog2.graylogHost=localhost
log4j.appender.graylog2.graylogPort=12201
log4j.appender.graylog2.facility=gelf-java
log4j.appender.graylog2.layout=org.apache.log4j.PatternLayout
log4j.appender.graylog2.extractStacktrace=true
log4j.appender.graylog2.addExtendedInformation=true
log4j.appender.graylog2.additionalFields={'environment': 'localdev', 'application': 'YOUR-APPLICATION-NAME'}
```

GrayLog config

System → Inputs → Add a new UDP input.



Demo

Details

GrayLog Vs ELK

- ELK = Elastic Search + Logstash + Kibana
- They both solve a similar problem with similar technologies
- GrayLog solves a specific problem whereas ELK is more generic
- GrayLog interface easier and simpler than Kibana

It’s your choice actually ☺

GrayLog

- Simple, scalable, user friendly tool for centralized logging
- Search, reports, alerts
- Suitable for new architectural trends

- It’s part of your architecture, don’t let it become a bottleneck!

Fran Alvarez
Ixxus

fran.alvarez@ixxus.com