docker_elk_stack Documentation

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Boris Shkarupelov

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Contents:

Welcome to docker_elk_stack's documentation!

- genindex

- modindex

- search

Docker and webapp with ELK

It is based on the following componnents:

Elasticsearch, search engine which provide full text search & analytics Logstash, an ETL for retrieving data from heterogeneous sources, transforming them and sending them to Elasticsearch Kibana, which provide an UI for exploring data, and create interactive dashboards Redis, an upstream broker which will serve as buffer in case of latency of the system, while avoiding excessive congestion in case of a peak Curator, a tool to manage our index Beats, client-side agent to send the logs/metrics to our stack

List of containers version for each stack component

Elasticsearch (6.4) Logstash (6.4) Kibana (6.4) Redis (latest) Curator (latest)

- Build with docker-compose

build the images docker-compose build

- Run with docker-compose

run stack added -d for daemon mode docker-compose up -d

inspect the logs

> docker-compose logs -f

- Access kibana for view status after successfully set up

http://KIBANA_HOST:5061

- Build and Run the webapp and let to Kibana monitoring

docker build ./webapp -t dockerelkstack_webapp docker run –network dockerelkstack_logging –link redis:redis -p 80:80 -d –name webapp dockerelkstack_webapp

It's possible to automatically restart crashed containers by specifying a restart policy when initiating the container –restart always

docker run –network dockerelkstack_logging –restart always –link redis:redis -p 80:80 -d –name webapp dockerelkstack_webapp

** Joli Admin is a free for personal caching admin template/Dashboard/Web App based on Angular JS Then navigate on the site [AdminUI](http://localhost) port 80 for Access to Joli Admin UI

- Index management with Curator after ELK is UP

docker run –network dockerelkstuck_logging –link elastic:elasticsearch -v "./curator/config":/config –rm bobrik/curator:latest –config /config/config.yml /config/actions.yml

- After few minutes browsing, returning to Kibana

An index is now available

- After creating index, we can now exploring our web app logs (Discover tab)

Create visualizations (Visualize tab) and dashboards (Dashboard tab)

- Documentation Status

- Travis-ci.org

- CI/CD with Codefresh
- Docker Hub and Docker Automated build
- Monitoring Dockers with Netdata, Prometheus, Grafana
- Docker Registry Front-End