

## Cloud Architecture Report

### Summary

Provider:	Amazon Web Services
Primary location:	EU-Frankfurt
Primary usage time:	
# of Instances:	0
Requests:	0
Storage Capacity in TB:	0

### Services

- Remote Crawler 1 - Amazon Elastic Container Service
- Remote Crawler 2 - Amazon Elastic Container Service
- Remote Crawler 3 - Amazon Elastic Container Service
- Crawler Manager - AWS Elastic Beanstalk
- CM - VM - Amazon EC2
- CM - Storage - Amazon Simple Storage Service
- Datenstream - Amazon Kinesis
- Speicher - Amazon Simple Storage Service
- Logging - Amazon CloudWatch
- Filter 1 - Amazon Elastic Container Service
- Filter 2 - Amazon Elastic Container Service
- Processing - AWS Lambda
- mails - AWS Lambda
- Suchindex - Amazon Elasticsearch Service
- products - Amazon Elastic Container Service
- users - Amazon Elastic Container Service
- Frontend - AWS Elastic Beanstalk
- Frontend - VM - Amazon EC2
- Frontend - Storage - Amazon Simple Storage Service
- Load Balancer - Elastic Load Balancing
- Caching - Amazon CloudFront

## Remote Crawler 1

### Properties

Name:	Remote Crawler 1
Category:	Compute
Service:	Amazon Elastic Container Service
Type:	Container (Standard)
Container type:	Standard
CPU:	1
RAM in GB:	1
Tasks:	1
Duration in seconds:	300
Transferred data in GB:	1

### Usage

Location:	EU-Frankfurt
Usage type:	-
Usage period:	-
Usage prepay:	None
Operating mode:	-

## Remote Crawler 2

### Properties

Name:	Remote Crawler 2
Category:	Compute
Service:	Amazon Elastic Container Service
Type:	Container (Standard)
Container type:	Standard
CPU:	1
RAM in GB:	1
Tasks:	1
Duration in seconds:	300
Transferred data in GB:	1

### Usage

Location:	EU-Frankfurt
Usage type:	-

Usage period:	-
Usage prepay:	None
Operating mode:	-

### Remote Crawler 3

#### Properties

Name:	Remote Crawler 3
Category:	Compute
Service:	Amazon Elastic Container Service
Type:	Container (Standard)
Container type:	Standard
CPU:	1
RAM in GB:	1
Tasks:	1
Duration in seconds:	300
Transferred data in GB:	1

#### Usage

Location:	EU-Frankfurt
Usage type:	-
Usage period:	-
Usage prepay:	None
Operating mode:	-

### Crawler Manager

#### Properties

Name:	Crawler Manager
Category:	Compute
Service:	AWS Elastic Beanstalk
Type:	App
Operating system:	Linux
CPU:	0
RAM in GB:	0
Storage in GB:	0
Compute instance reference:	CM - VM

Storage instance reference:	CM - Storage
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## Usage

Location:	EU-Frankfurt
Usage type:	-
Usage period:	-
Usage prepay:	None
Operating mode:	-

## CM - VM

### Properties

Name:	CM - VM
Category:	Compute
Service:	Amazon EC2
Type:	VM
Instance type:	General
Instance hours:	730
CPU:	2
RAM in GB:	4
Operating system:	Linux
Transferred data in GB:	0

## Usage

Location:	EU-Frankfurt
Usage type:	-
Usage period:	-
Usage prepay:	None
Operating mode:	-

## CM - Storage

### Properties

Name:	CM - Storage
Category:	Storage
Service:	Amazon Simple Storage Service
Type:	Object-Storage (Standard)
Storage in GB:	50

Read requests:	0
Write requests:	0
Transferred data in GB:	0

#### Usage

Location:	EU-Frankfurt
Usage type:	-
Usage period:	-
Usage prepay:	None
Operating mode:	-

### Datenstream

#### Properties

Name:	Datenstream
Category:	Analytic
Service:	Amazon Kinesis
Type:	Data Stream
Datasets:	100
Dataset size in KB:	35

#### Usage

Location:	EU-Frankfurt
Usage type:	-
Usage period:	-
Usage prepay:	None
Operating mode:	-

### Speicher

#### Properties

Name:	Speicher
Category:	Storage
Service:	Amazon Simple Storage Service
Type:	Object-Storage (Standard)
Storage in GB:	1000
Read requests:	20000
Write requests:	10000
Transferred data in GB:	100

## Usage

Location:	EU-Frankfurt
Usage type:	-
Usage period:	-
Usage prepay:	None
Operating mode:	-

## Logging

### Properties

Name:	Logging
Category:	Administration
Service:	Amazon CloudWatch
Type:	Monitoring (System)
Metrics:	500
Requests:	10000
Data to collect in GB:	1
Data to save in GB:	1
Events in Mio.:	10
Logging:	false

## Usage

Location:	EU-Frankfurt
Usage type:	-
Usage period:	-
Usage prepay:	None
Operating mode:	-

## Filter 1

### Properties

Name:	Filter 1
Category:	Compute
Service:	Amazon Elastic Container Service
Type:	Container (Standard)
Container type:	Standard
CPU:	1
RAM in GB:	1

Tasks:	1
Duration in seconds:	300
Transferred data in GB:	1

## Usage

Location:	EU-Frankfurt
Usage type:	-
Usage period:	-
Usage prepay:	None
Operating mode:	-

## Filter 2

### Properties

Name:	Filter 2
Category:	Compute
Service:	Amazon Elastic Container Service
Type:	Container (Standard)
Container type:	Standard
CPU:	1
RAM in GB:	1
Tasks:	1
Duration in seconds:	300
Transferred data in GB:	1

## Usage

Location:	EU-Frankfurt
Usage type:	-
Usage period:	-
Usage prepay:	None
Operating mode:	-

## Processing

### Properties

Name:	Processing
Category:	Compute
Service:	AWS Lambda
Type:	Code

Invocations in Mio.:	3
Duration in seconds:	1
Storage in MB:	512

#### Usage

Location:	EU-Frankfurt
Usage type:	-
Usage period:	-
Usage prepay:	None
Operating mode:	-

#### mails

#### Properties

Name:	mails
Category:	Compute
Service:	AWS Lambda
Type:	Code
Invocations in Mio.:	3
Duration in seconds:	1
Storage in MB:	512

#### Usage

Location:	EU-Frankfurt
Usage type:	-
Usage period:	-
Usage prepay:	None
Operating mode:	-

#### Suchindex

#### Properties

Name:	Suchindex
Category:	Analytic
Service:	Amazon Elasticsearch Service
Type:	Search Engine
Instance type:	General
CPU:	1
RAM in GB:	2



Hours:	730
Processed data in GB:	5
Transferred data in GB:	5

#### Usage

Location:	EU-Frankfurt
Usage type:	-
Usage period:	-
Usage prepay:	None
Operating mode:	-

#### products

##### Properties

Name:	products
Category:	Compute
Service:	Amazon Elastic Container Service
Type:	Container (Standard)
Container type:	Standard
CPU:	1
RAM in GB:	1
Tasks:	1
Duration in seconds:	300
Transferred data in GB:	1

#### Usage

Location:	EU-Frankfurt
Usage type:	-
Usage period:	-
Usage prepay:	None
Operating mode:	-

#### users

##### Properties

Name:	users
Category:	Compute
Service:	Amazon Elastic Container Service
Type:	Container (Standard)

Container type:	Standard
CPU:	1
RAM in GB:	1
Tasks:	1
Duration in seconds:	300
Transferred data in GB:	1

## Usage

Location:	EU-Frankfurt
Usage type:	-
Usage period:	-
Usage prepay:	None
Operating mode:	-

## Frontend

### Properties

Name:	Frontend
Category:	Compute
Service:	AWS Elastic Beanstalk
Type:	App
Operating system:	Linux
CPU:	0
RAM in GB:	0
Storage in GB:	0
Compute instance reference:	Frontend - VM
Storage instance reference:	Frontend - Storage

## Usage

Location:	EU-Frankfurt
Usage type:	-
Usage period:	-
Usage prepay:	None
Operating mode:	-

## Frontend - VM

## Properties

Name:	Frontend - VM
Category:	Compute
Service:	Amazon EC2
Type:	VM
Instance type:	General
Instance hours:	730
CPU:	2
RAM in GB:	4
Operating system:	Linux
Transferred data in GB:	0

## Usage

Location:	EU-Frankfurt
Usage type:	-
Usage period:	-
Usage prepay:	None
Operating mode:	-

## Frontend - Storage

### Properties

Name:	Frontend - Storage
Category:	Storage
Service:	Amazon Simple Storage Service
Type:	Object-Storage (Standard)
Storage in GB:	50
Read requests:	0
Write requests:	0
Transferred data in GB:	0

## Usage

Location:	EU-Frankfurt
Usage type:	-
Usage period:	-
Usage prepay:	None
Operating mode:	-

## Load Balancer

### Properties

Name:	Load Balancer
Category:	Compute
Service:	Elastic Load Balancing
Type:	Load Balancer
Units:	1
Transferred data in GB:	10

### Usage

Location:	EU-Frankfurt
Usage type:	-
Usage period:	-
Usage prepay:	None
Operating mode:	-

## Caching

### Properties

Name:	Caching
Category:	Network
Service:	Amazon CloudFront
Type:	CDN
Transferred data in GB:	100
Transferred data in TB into internet:	2
Http-requests:	1000000

### Usage

Location:	EU-Frankfurt
Usage type:	-
Usage period:	-
Usage prepay:	None
Operating mode:	-

## Cost Calculation

### Service costs

Remote Crawler 1	0.22 USD	$300 * 0.04656 \text{ USD} + 300 * 0.00511 \text{ USD} + 1 * 0.09 \text{ USD}$
Remote Crawler 2	0.22 USD	$300 * 0.04656 \text{ USD} + 300 * 0.00511 \text{ USD} + 1 * 0.09 \text{ USD}$
Remote Crawler 3	0.22 USD	$300 * 0.04656 \text{ USD} + 300 * 0.00511 \text{ USD} + 1 * 0.09 \text{ USD}$
Crawler Manager	0.00 USD	
CM - VM	35.04 USD	$730 * 0.048 \text{ USD} + 0 * 0.0 \text{ USD}$
CM - Storage	1.23 USD	$50 * 0.0245 \text{ USD} + 0.0 * 4.3\text{E-}4 \text{ USD} + 0.0 * 0.0054 \text{ USD} + 0 * 0.0 \text{ USD}$
Datenstream	61.76 USD	$4 * 730 \text{ hours} * 0.018 \text{ USD} + 2 * 100 * 2628000 \text{ seconds} / 1000000.0 * 0.0175 \text{ USD}$
Speicher	33.56 USD	$1000 * 0.0245 \text{ USD} + 20.0 * 4.3\text{E-}4 \text{ USD} + 10.0 * 0.0054 \text{ USD} + 100 * 0.09 \text{ USD}$
Logging	279.87 USD	$500 * 0.3 \text{ USD} + 10000 * 0.01 \text{ USD} + 10 * 1.0 \text{ USD} + 1 * 30 * 0.63 \text{ USD} + 1 * 30 * 0.0324 \text{ USD}$
Filter 1	0.22 USD	$300 * 0.04656 \text{ USD} + 300 * 0.00511 \text{ USD} + 1 * 0.09 \text{ USD}$
Filter 2	0.22 USD	$300 * 0.04656 \text{ USD} + 300 * 0.00511 \text{ USD} + 1 * 0.09 \text{ USD}$
Processing	25.60 USD	$3 * 0.2 \text{ USD} + 1500000.0 * 1.6667\text{E-}5 \text{ USD}$
mails	25.60 USD	$3 * 0.2 \text{ USD} + 1500000.0 * 1.6667\text{E-}5 \text{ USD}$
Suchindex	31.21 USD	$730 * 0.042 \text{ USD} + 5 * 0.02 \text{ USD} + 5 * 0.09 \text{ USD}$
products	0.22 USD	$300 * 0.04656 \text{ USD} + 300 * 0.00511 \text{ USD} + 1 * 0.09 \text{ USD}$
users	0.22 USD	$300 * 0.04656 \text{ USD} + 300 * 0.00511 \text{ USD} + 1 * 0.09 \text{ USD}$
Frontend	0.00 USD	

Frontend - VM	35.04 USD	$730 * 0.048 \text{ USD} + 0 * 0.0 \text{ USD}$
Frontend - Storage	1.23 USD	$50 * 0.0245 \text{ USD} + 0.0 * 4.3\text{E-}4 \text{ USD} + 0.0 * 0.0054 \text{ USD} + 0 * 0.0 \text{ USD}$
Load Balancer	21.98 USD	$1 * 0.03 \text{ USD} * 730 \text{ hours} + 1 * 10 * 0.008 \text{ USD}$
Caching	172.75 USD	$100 * 0.02 \text{ USD} + 2 * 1000.0 * 0.085 \text{ USD} + 1000000/10000.0 * 0.0075 \text{ USD}$

Total costs

Per Hour:	1.00 USD
Per Day:	24.21 USD
Per Month:	726.41 USD

### Cost Scaling

### Cost Optimization

### Cost Comparison