

Infrastructure at your Service.

Elking your PostgreSQL Database Infrastructure



Infrastructure at your Service.

About me

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Agenda

1. Playground Infrastructure

2. Elastic Search Stack

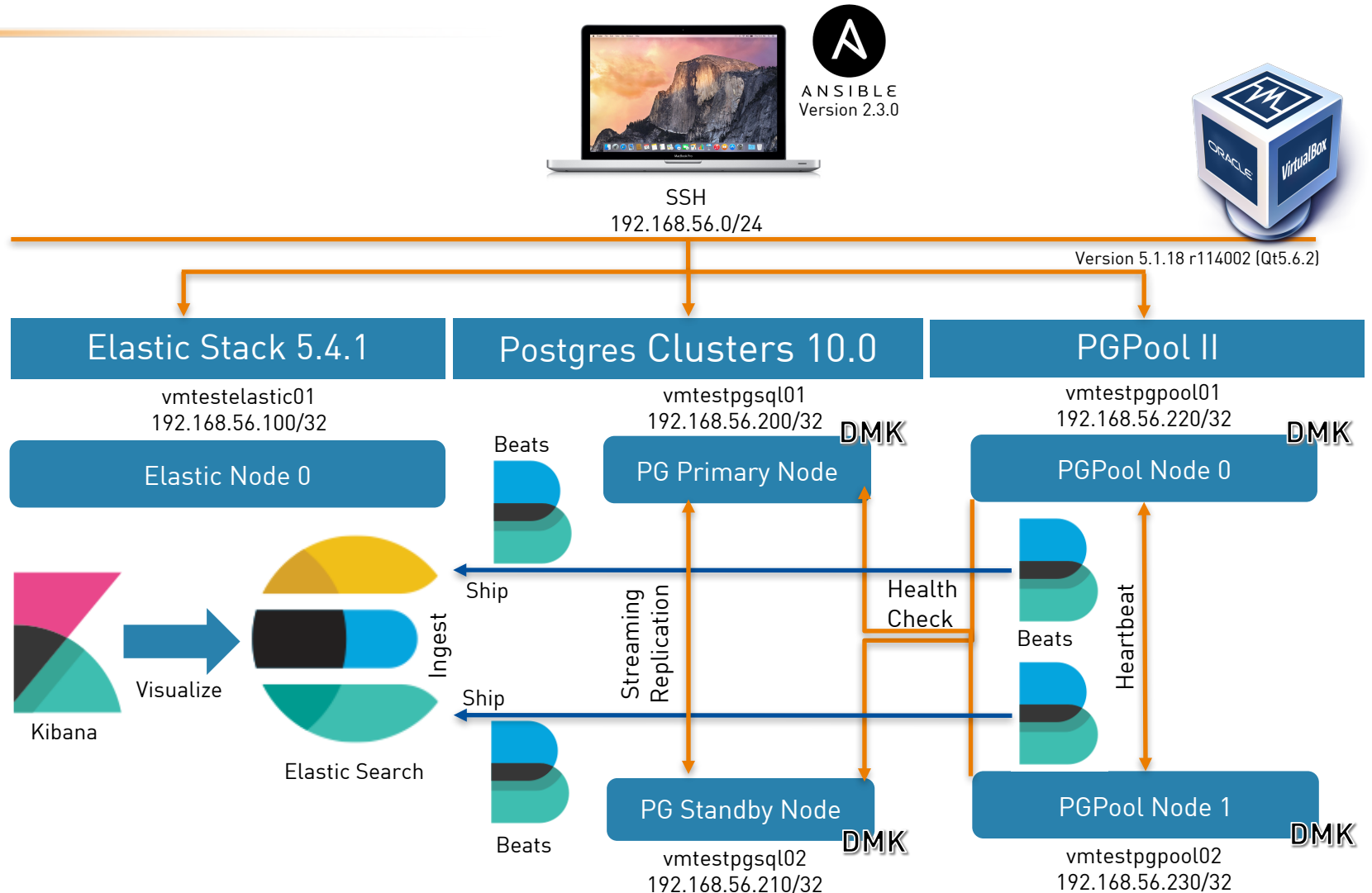
3. PostgreSQL Monitoring

4. Conclusion

Playground Infrastructure

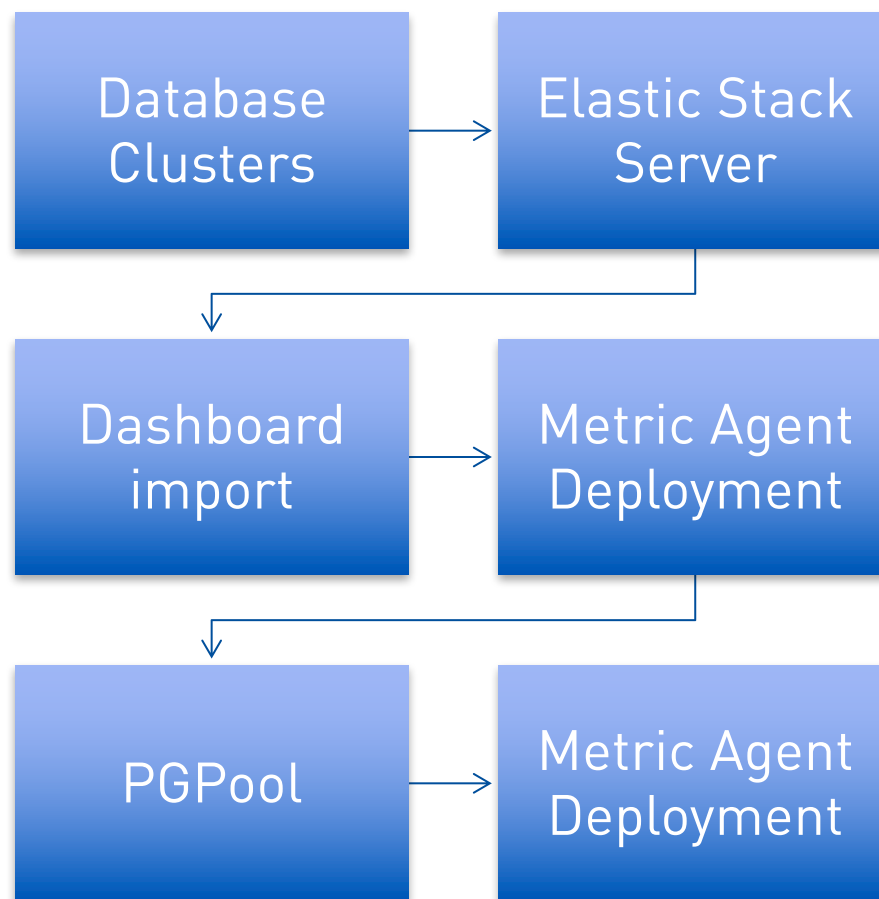
- > Big Picture
- > Use case and deployment process

Playground Infrastructure Big Picture



Playground Infrastructure

Use case and deployment process



Elastic Search Stack

- > What does ELK mean ?
- > What's a Beat ?
- > Is all the stack Open Source ?
- > How much costs the cloud offering ?



Elastic Search Stack

What does ELK means ?

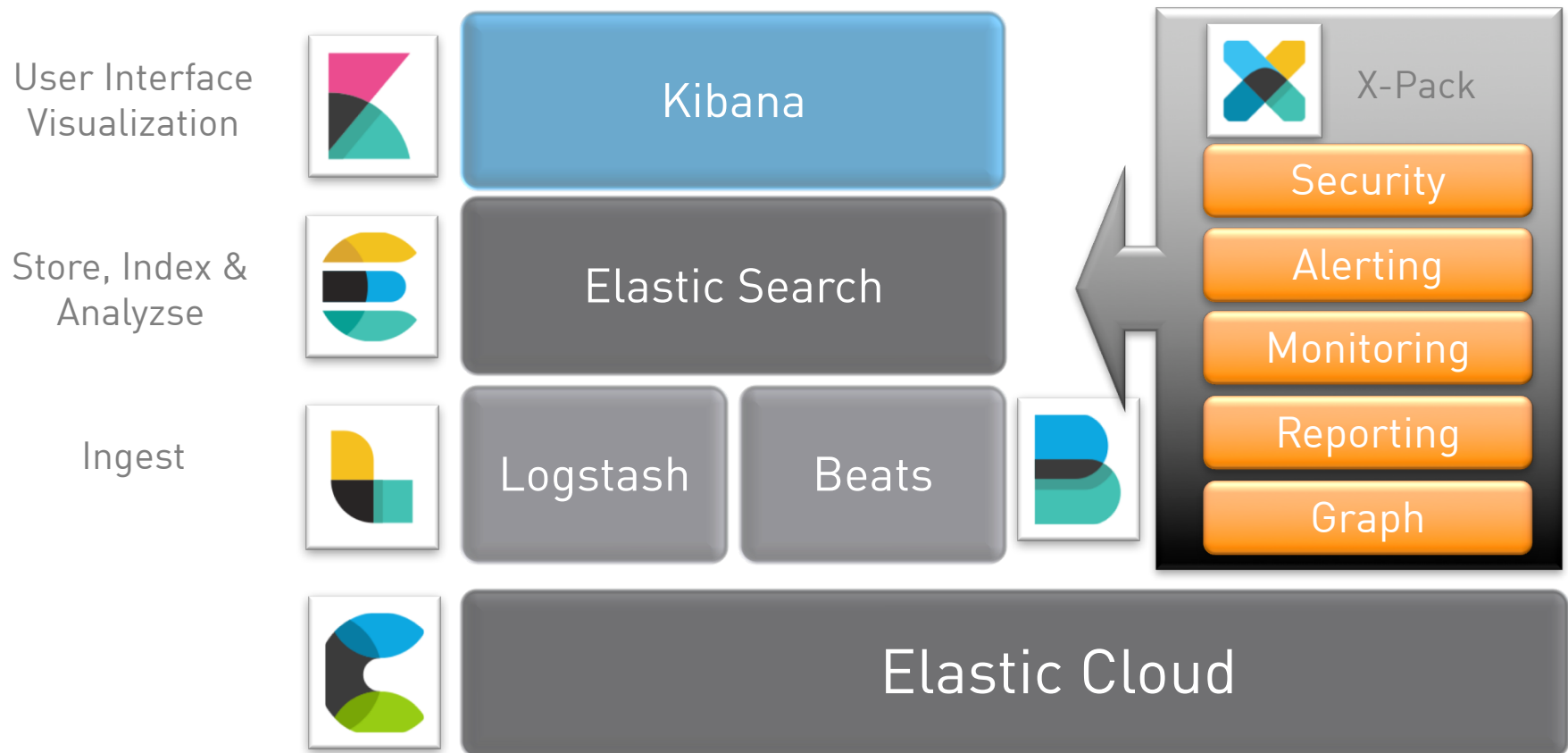
- > ELK is a complete monitoring platform - Elastic Search Stack
- > At the beginning Elastic Stack was commonly known as ELK
- > **E** - Elastic Search
 - > Store, Search and Analyze
- > **L** - Logstash
 - > Collect, Enrich and Transport
- > **K** - Kibana
 - > Explore, Visualize and Share



Elastic Search Stack

What does ELK means ?

- > It evolved to be a full Monitoring Stack

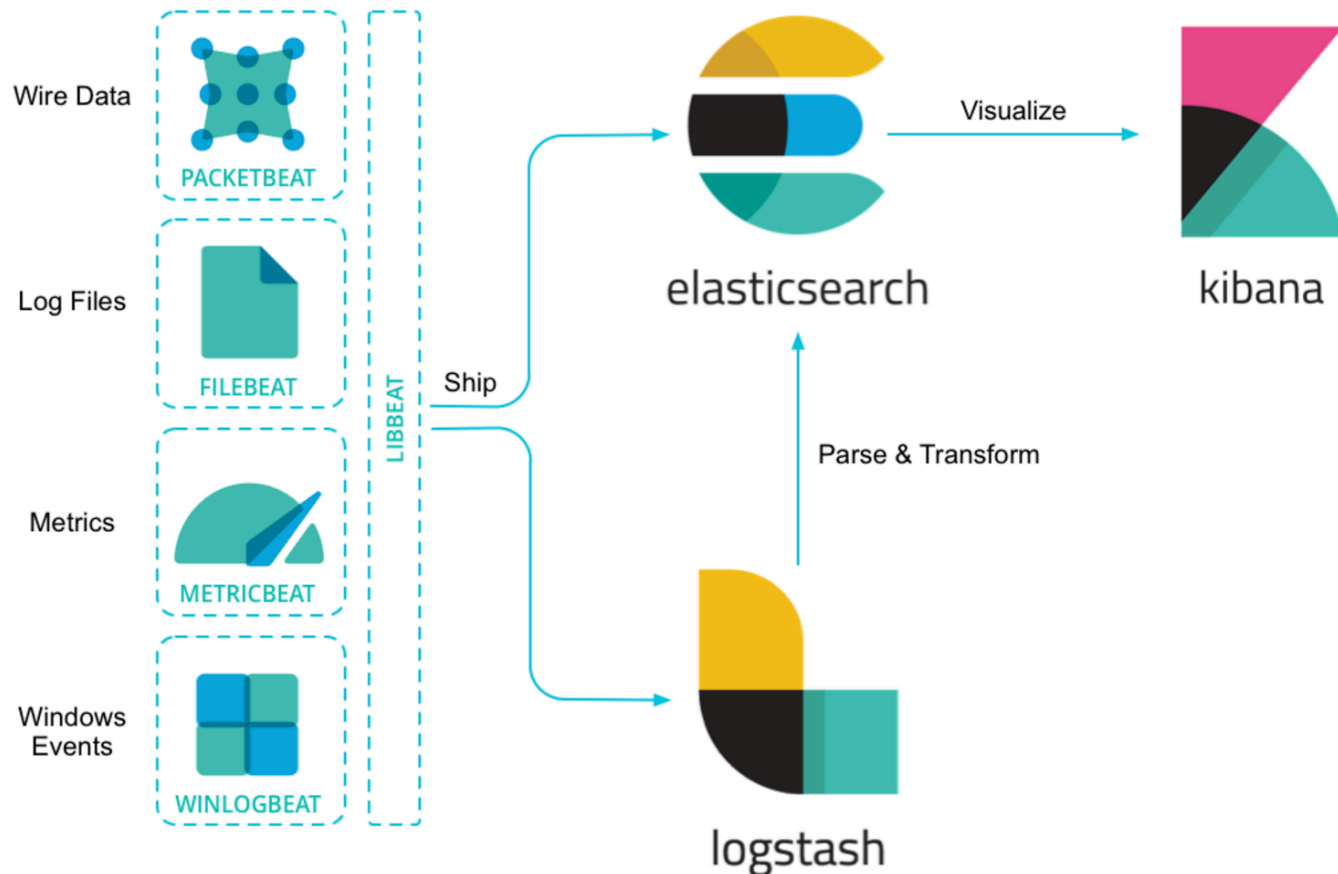


Elastic Search Stack

What's a Beat ?



- > Lightweight Data Shippers to ingest data into Elastic



Elastic Search Stack

Is all the stack open source ?



Elastic Search Stack

Is all the stack open source ?

> Components support over subscriptions

		Open Source	Basic	Gold	Platinum
Elastic Search	Elasticsearch	✓	✓	✓	✓
	Kibana	✓	✓	✓	✓
	Beats	✓	✓	✓	✓
	Logstash	✓	✓	✓	✓
X-Pack	Monitoring		✓	✓	✓
	Multiclustert			✓	✓
	Configurable Data retention			✓	✓
X-Security	Authentication + Encryption			✓	✓
	Role-Based access ctrl			✓	✓
	Audit			✓	✓
	Encryption at rest support				✓

Elastic Search Stack

Is all the stack open source ?

> Components support over subscriptions

		Open Source	Basic	Gold	Platinum
X-Pack	Alerting via Watcher			✓	✓
	Reporting				✓
	Graph Analytics & Visualization				✓
	Dev Tools – Search Profiler				✓
Support	Support Coverage			BH	24x7
	Response Times			Crit. 4h L2: 1d L3: 2d	Crit. 1h L2: 4h L3: 1d
	Unlimited # of Incidents			✓	✓

> Details : <https://www.elastic.co/subscriptions>

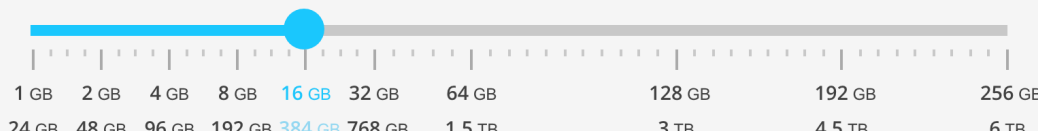
Elastic Search Stack

How much cost the cloud offering ?

> Elastic Cloud Offering – Host Elastic Search and Kibana

Cluster Size

Choose a cluster size. Cluster size can be changed later without ● Memory ● Storage (SSD) downtime.



1 GB 2 GB 4 GB 8 GB **16 GB** 32 GB 64 GB 128 GB 192 GB 256 GB
24 GB 48 GB 96 GB 192 GB **384 GB** 768 GB 1.5 TB 3 TB 4.5 TB 6 TB

Need a larger cluster? [Contact us.](#)

Region

Choose a data center near you.

US West (N. California) US West (Oregon) **US East (N. Virginia)** Europe (Ireland) Asia Pacific (Singapore) Asia Pacific (Tokyo)

South America East Asia Pacific (Sydney)

High Availability (HA)

Protect your cluster with replication and automatic failover.

Summary

Reserved memory	16 GB
Reserved storage	384 GB
High availability	Yes
Data centers	2
\$0.9919/hour	
\$725/month	
\$616.25/month with 15% annual discount. Contact us.	

Cluster configuration

Total no. of data nodes: 2 (32 GB)
No. of primary nodes: 1 (16 GB)
No. of replica nodes: 1 (16 GB)
Tiebreaker node: 1
Data centers: 2

PostgreSQL Monitoring



> Postgres Cluster Settings

PostgreSQL Monitoring

Postgres Cluster Settings

- > What's need to be done on the Postgres Clusters
 - > Filebeat log harvesting
 - > The elastic stack process owner needs access to the Postgres log files
 - > log_file_mode in pg_settings parameters

```
postgres=# select name, setting, unit from pg_settings where name  
like '%log_file%' or name like '%log_dir%';
```

name	setting	unit
log_directory	/app/postgres/admin/dbixchange01/pg_log	
log_file_mode	0776	
log_filename	postgresql-%a.log	

(3 rows)

> This correspond to
file mode 666

PostgreSQL Monitoring

Postgres Cluster Settings

- > What's need to be done on the Postgres Clusters
 - > Metric Beat postgresql
 - > A dedicated user for DB connection
 - > Allowed access to the database
- > Elastic servers need to be accessible by the deployed beat agents
 - > Firewall
 - > Network

Conclusion

Pro & contra

- > Easy to deploy
- > Ingest lots of data of any log type
- > Already have predefined metric such as



- > Most of the required features needs subscription



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Any questions? Please do ask

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We look forward to working with you!