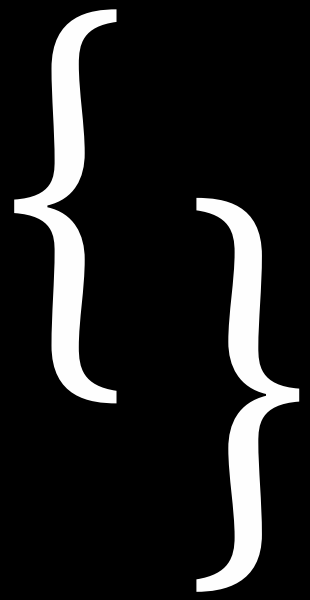
Transparent Check_MK history using **Elasticsearch**

Fabian Binder & Rika Denia, comNET GmbH



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At comNET since 2013

Check_MK since 2015

IT-Services, Reporting, Development, Boxenluder

Rika Denia

At comNET since 2015

Expert for open source technologies

Elasticsearch, Big Data, OTRS, Linux

❶ What is Elasticsearch?

❷ How do we use Elasticsearch?

❸ How do we monitor Elasticsearch?

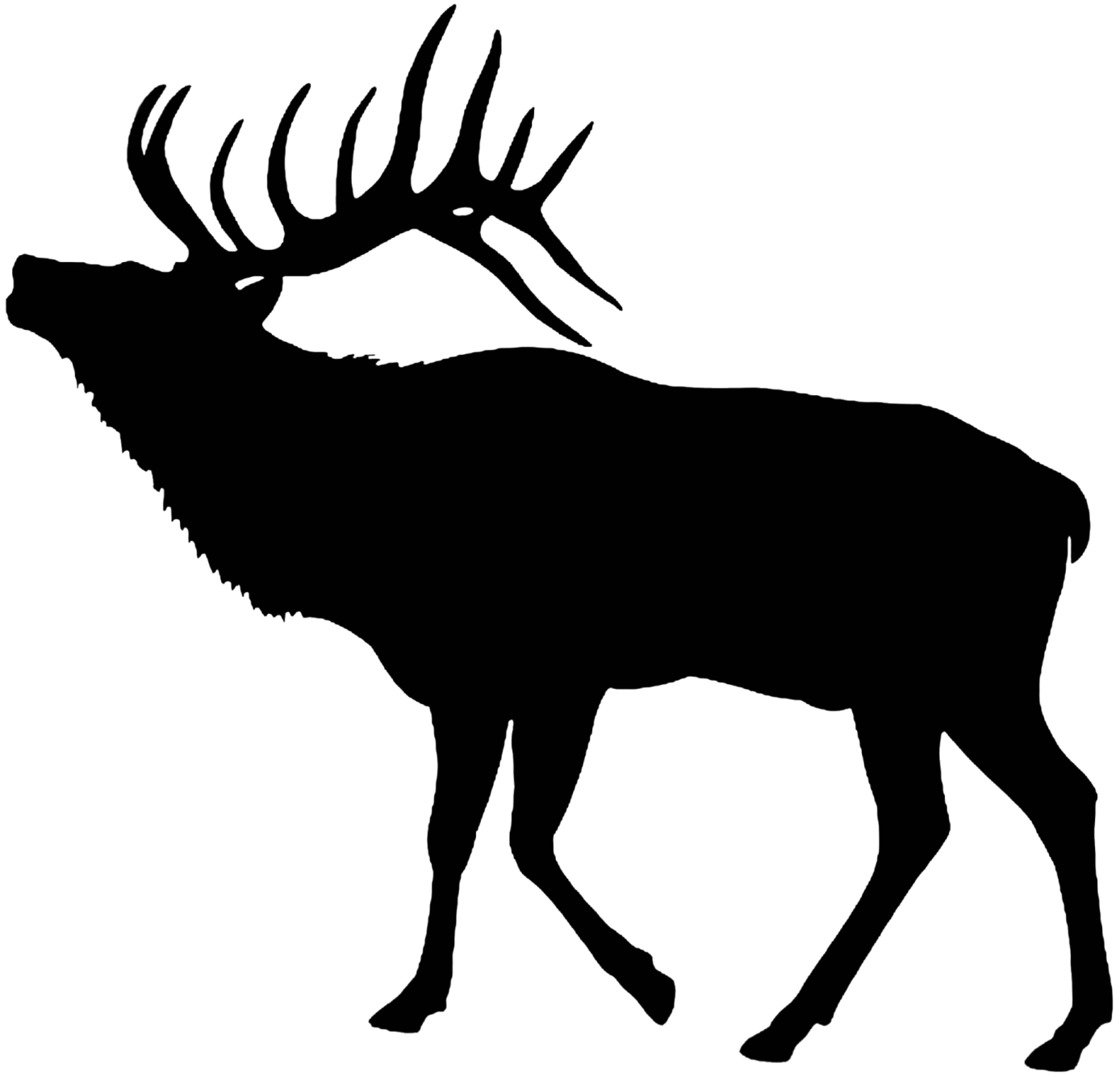
1 What is Elasticsearch?

Data store & search engine
- NoSQL
- Document-based
- RESTful access

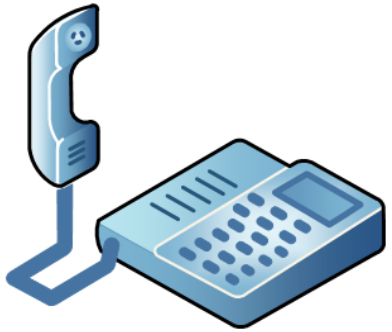
Data collection
- Syslog, SNMP, RMQ, XMPP, …
- Flexible matching and filtering

Frontend
- Web based analysis tool
- The main frontend
- Very powerful, still easy to use

1 What is Elasticsearch?



❷ How do we use Elasticsearch?



Hi! Users report that some applications are slow! Can you get me a **top 10 list** of the hosts that had the **highest CPU utilization** recently?

(Hint: Yes we can!)

❶ What is Elasticsearch?

Filebeat

Log-Dateien

Metricbeat

Metriken

Packetbeat

Netzwerkdaten

Winlogbeat

Windows-Ereignisanzeige

Auditbeat

Audit Data

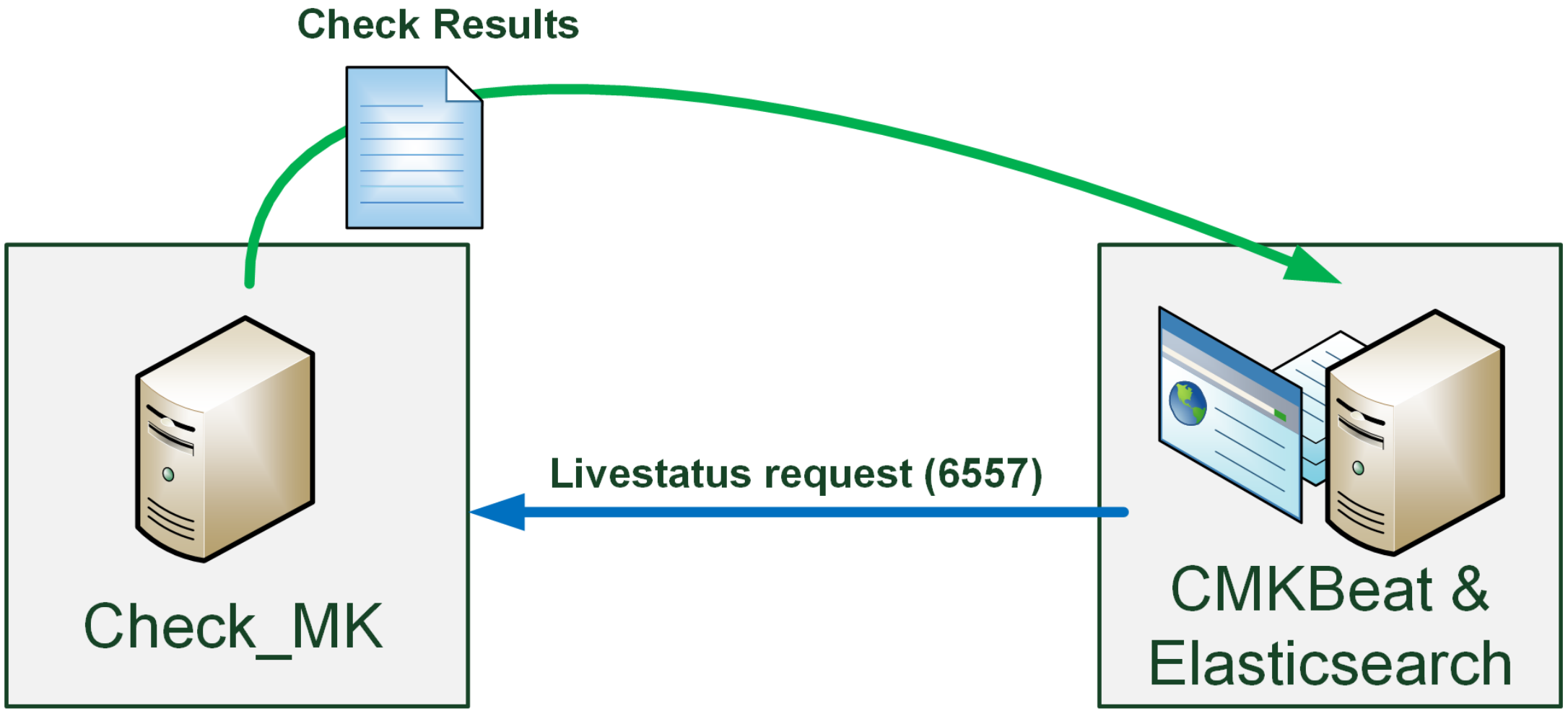
Heartbeat

Uptime Monitoring

The solution: CMKBeat

❷ CMKBeat

- https://github.com/comnetgmbh/cmkbeat
- Written in GO
- Retrieves information via livestatus queries
- Forwards results to Elasticsearch


Check Results
Livestatus request (6557)
Check_MK
CMKBeat &
Elasticsearch

❷ CMKBeat Configuration

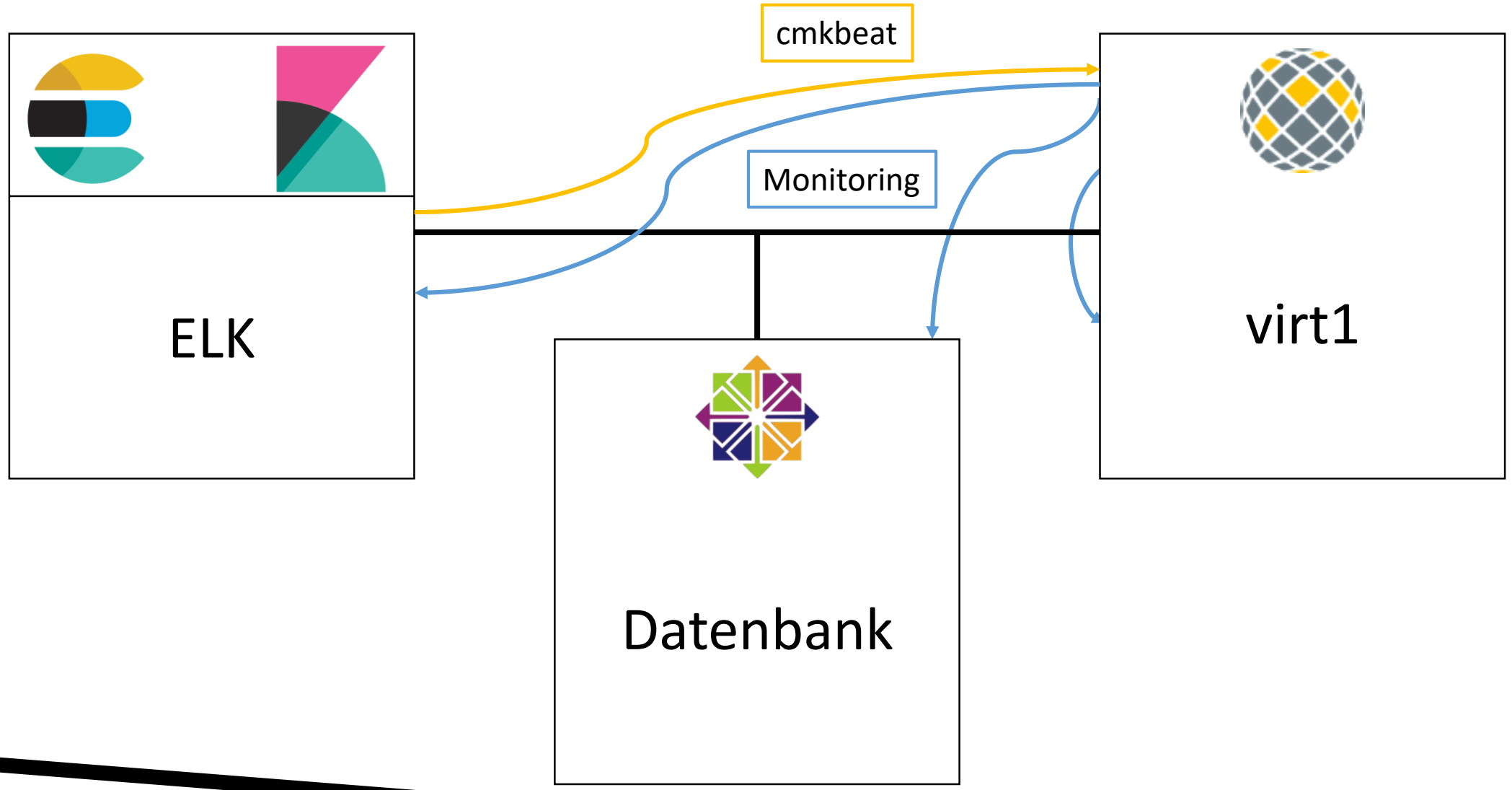
- Configuration via yml File

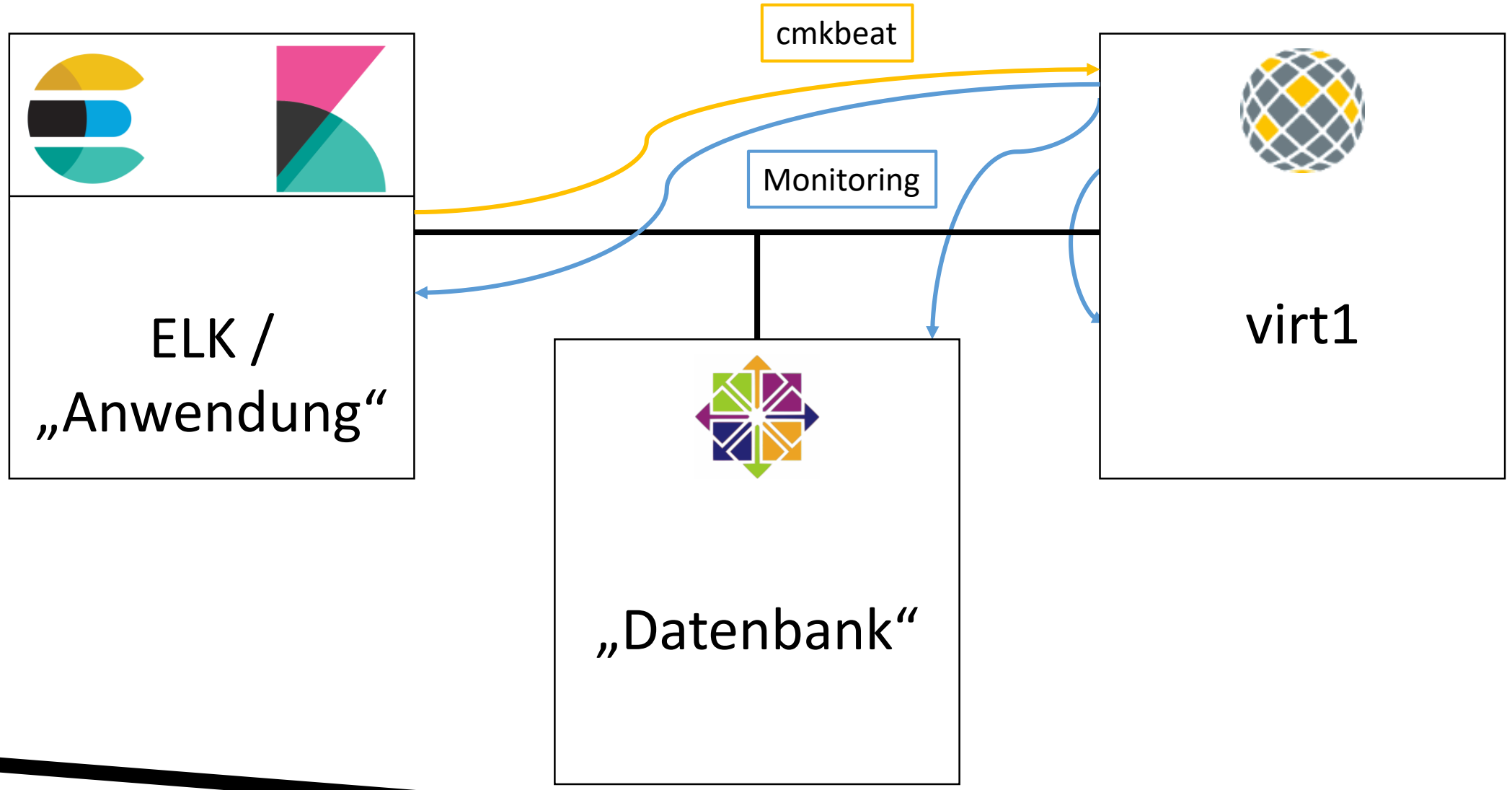
```
cmkbeat:
  # How often to query livestatus for data. The default is 30s.
  period: 30s

  # The host and port where livestatus is listening.
  cmkHost: "10.0.0.10:6557"

  # Which livestatus table to query
  query: "services"
```

❷ Running CMKBeat

```
cmkbeat start running.
------Config-------
Host: 10.0.0.10:6557
Query: services
Columns: [host_name display_name state plugin_output …]
Filter: []
Metrics: true
--------------
73 events submitted in 20.451469ms.
```

Demo!


cmkbeat
Monitoring
ELK
virt1
Datenbank


cmkbeat
Monitoring
ELK /
„Anwendung“
„Datenbank“
virt1

❸ Monitoring Elasticsearch

- https://github.com/comnetgmbh/check_elasticsearch
- Collect Elasticsearch stats via REST API
- Availability of shards and clusters
- Performance (latency / timeouts)
- Size and growth of indices


Check_MK
Check via REST API
Elasticsearch

Live demo!

Questions?