



**FMADIO**

10G 40G 100G PACKET CAPTURE

PCAP Processing  
Breaking Vendor Lock-in

Aaron Foo, FMADIO

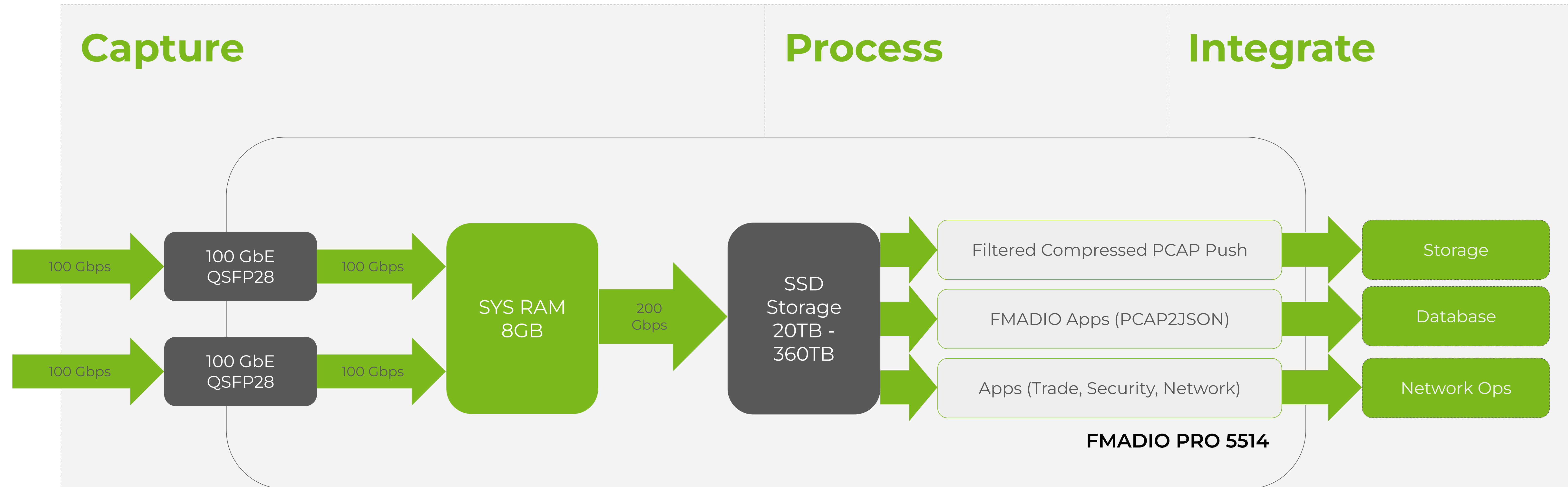
# FMADIO 4th Gen Packet Capture

Full line rate 200G Packet capture, 297.6Mpps in a compact 1U form factor with PCIe Gen x12 NVMe high speed SSDs and x2 QSFP28 interfaces.

- 20Gbps to 200Gbps Sustained Packet Capture
- Capture ports: **10G, 25G, 40G, 100G**
- 2x QSFP28 Ports
- SR4 / LR4 / CX4 + FEC support
- 45TB ~ 360 TB RAID5 Storage
- Up to **384 CPU**
- Up to **1.5TB RAM**
- SED Disk Encryption by default



# Capture, Process, Integrate

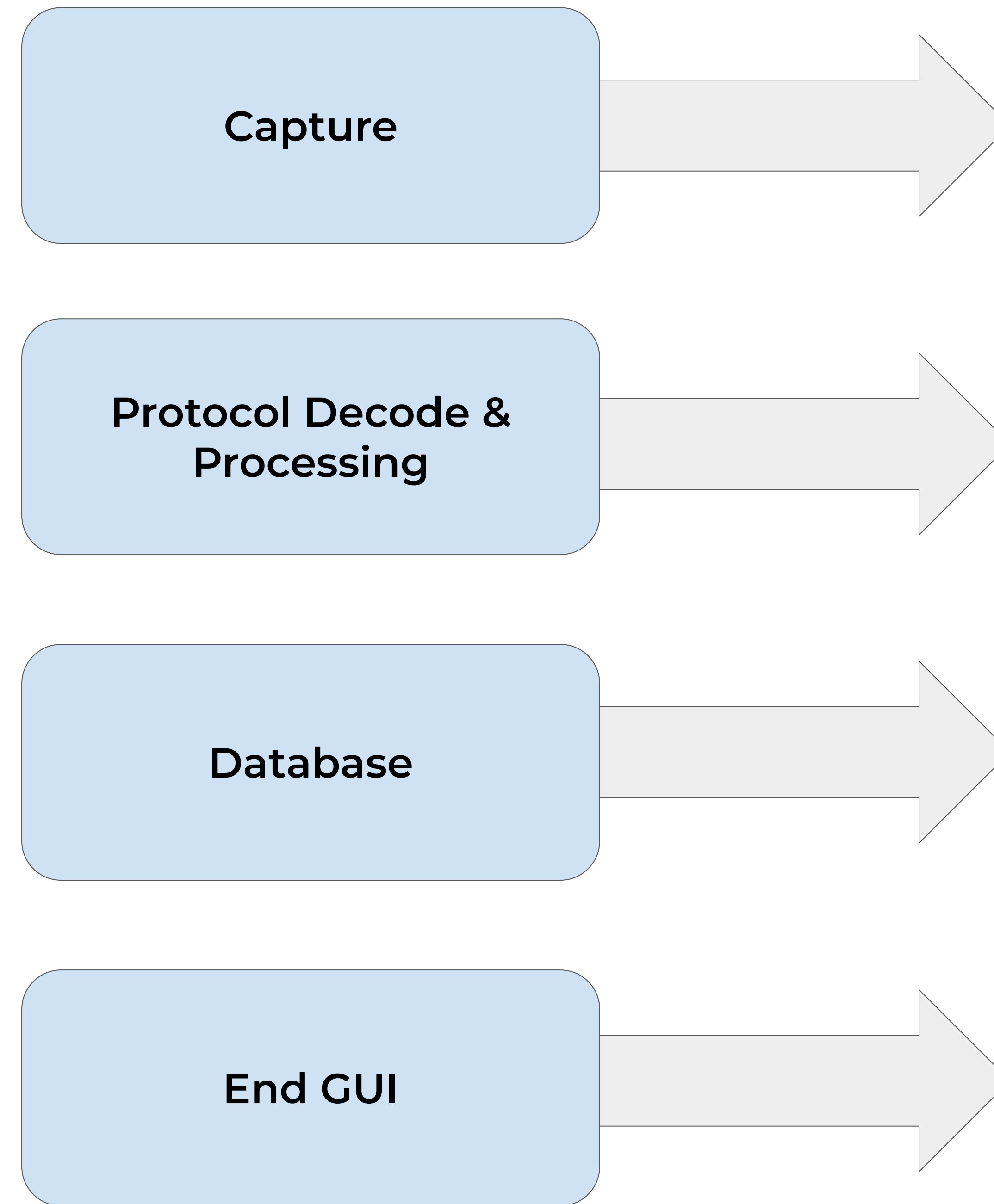


- 200Gbps sustained to disk
- 297Mpps @ 64B-9218B packet size
- RAID, cache and file management
- Timestamp decoding

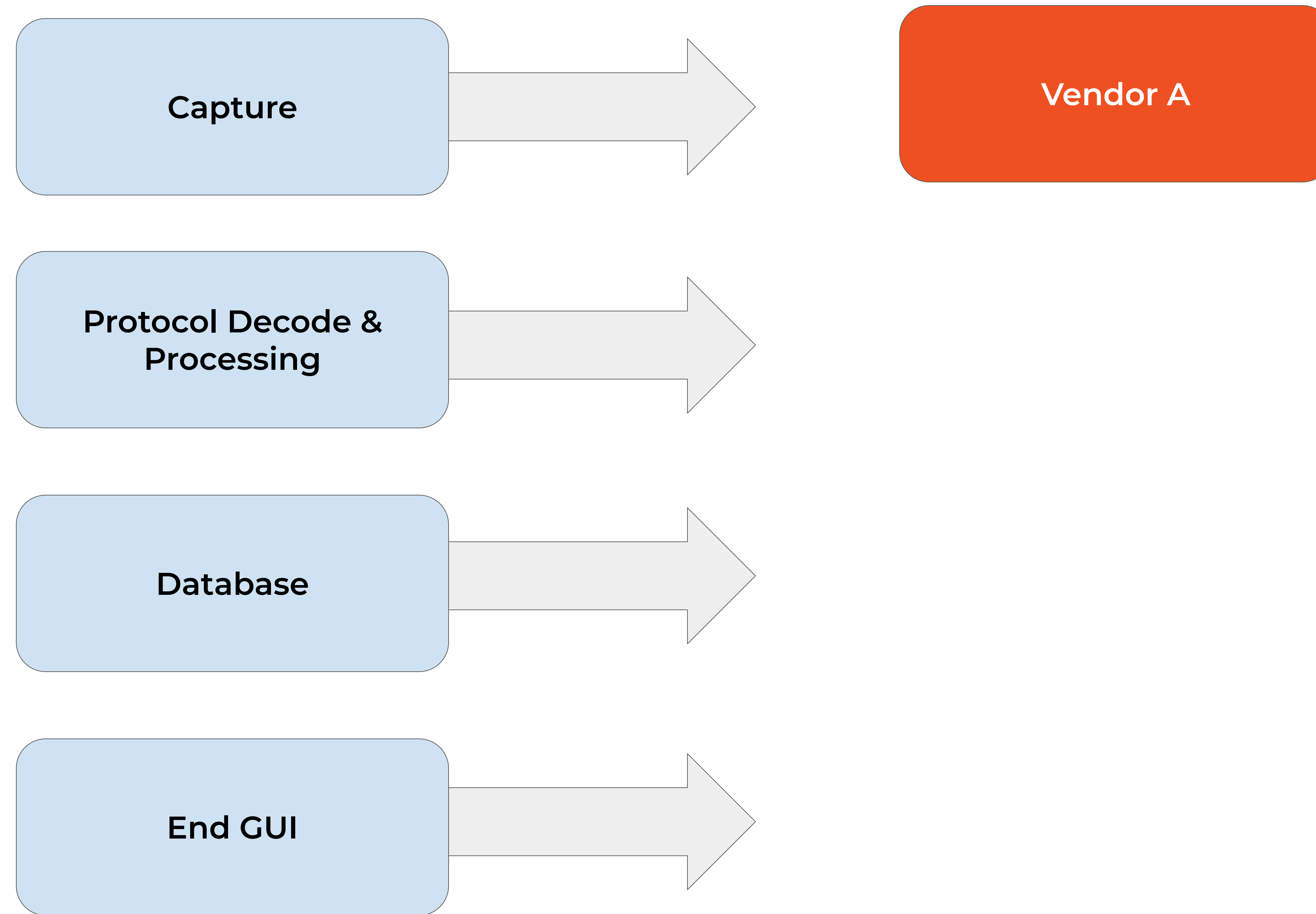
- PCAP Push realtime
- PCAP Push end of day
- PCAP split, filter slice
- PCAP Search

- Syslog
- S3
- Clickhouse
- Grafana
- Kafka
- 3rd party apps
- Custom container apps

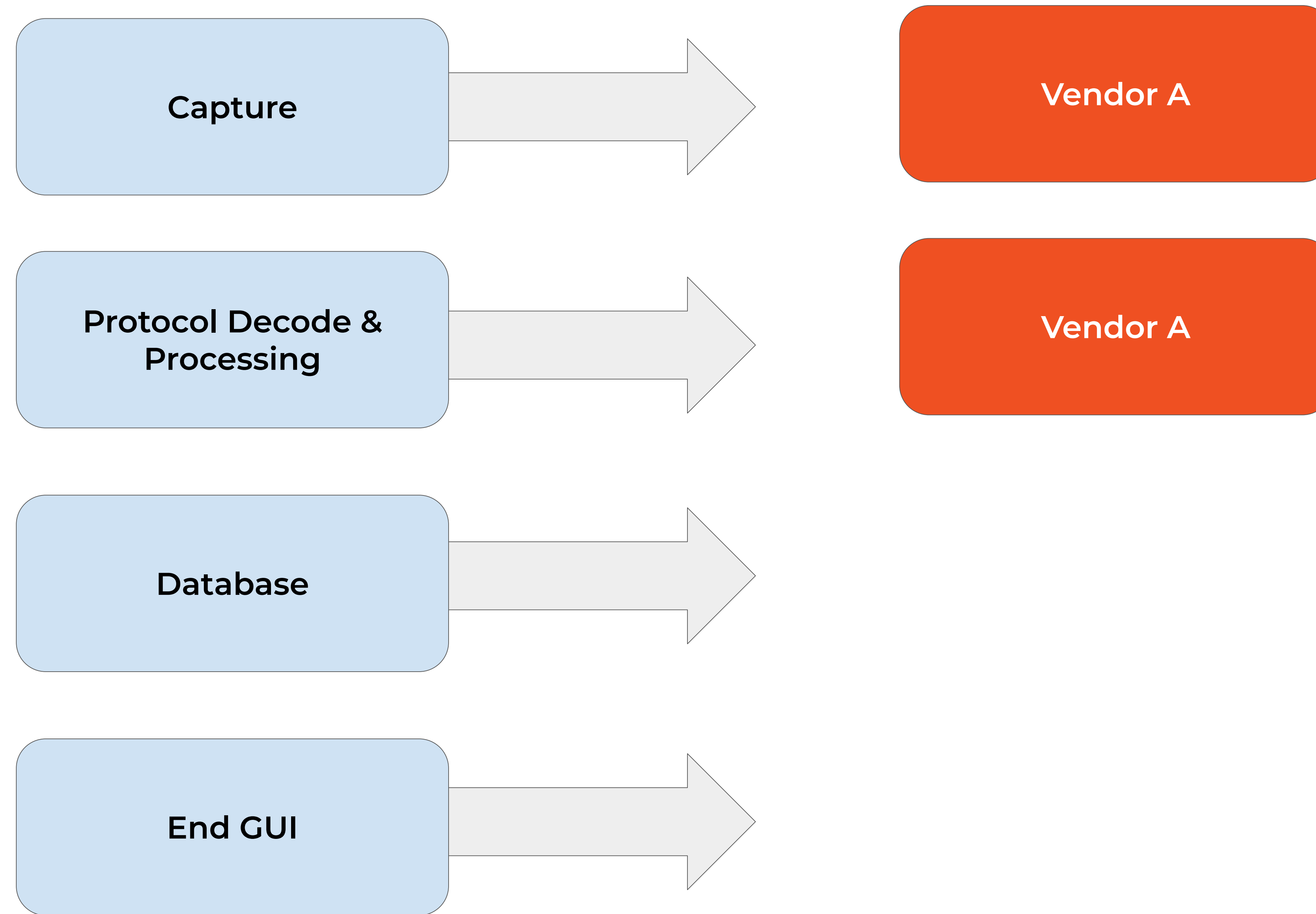
# The traditional method



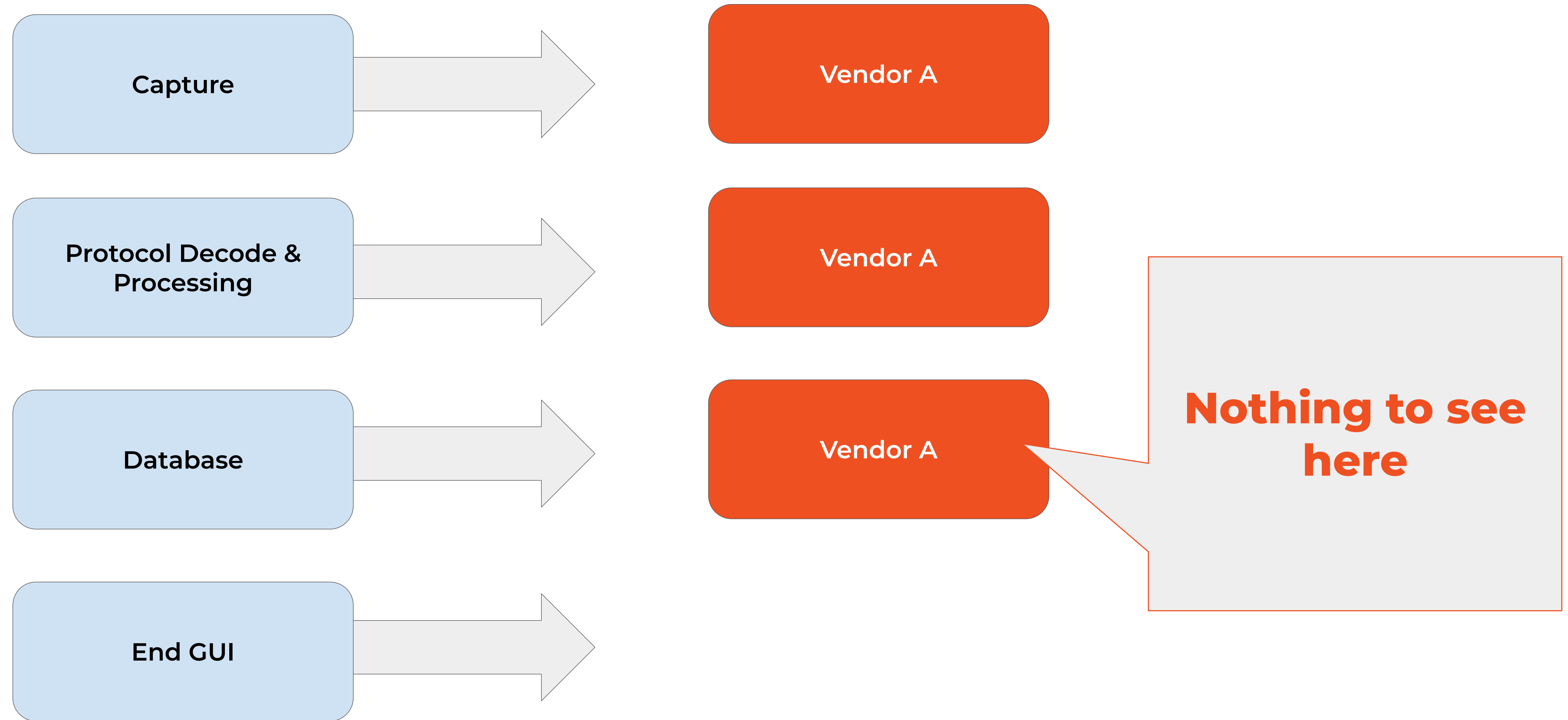
# Vendor A does Capture



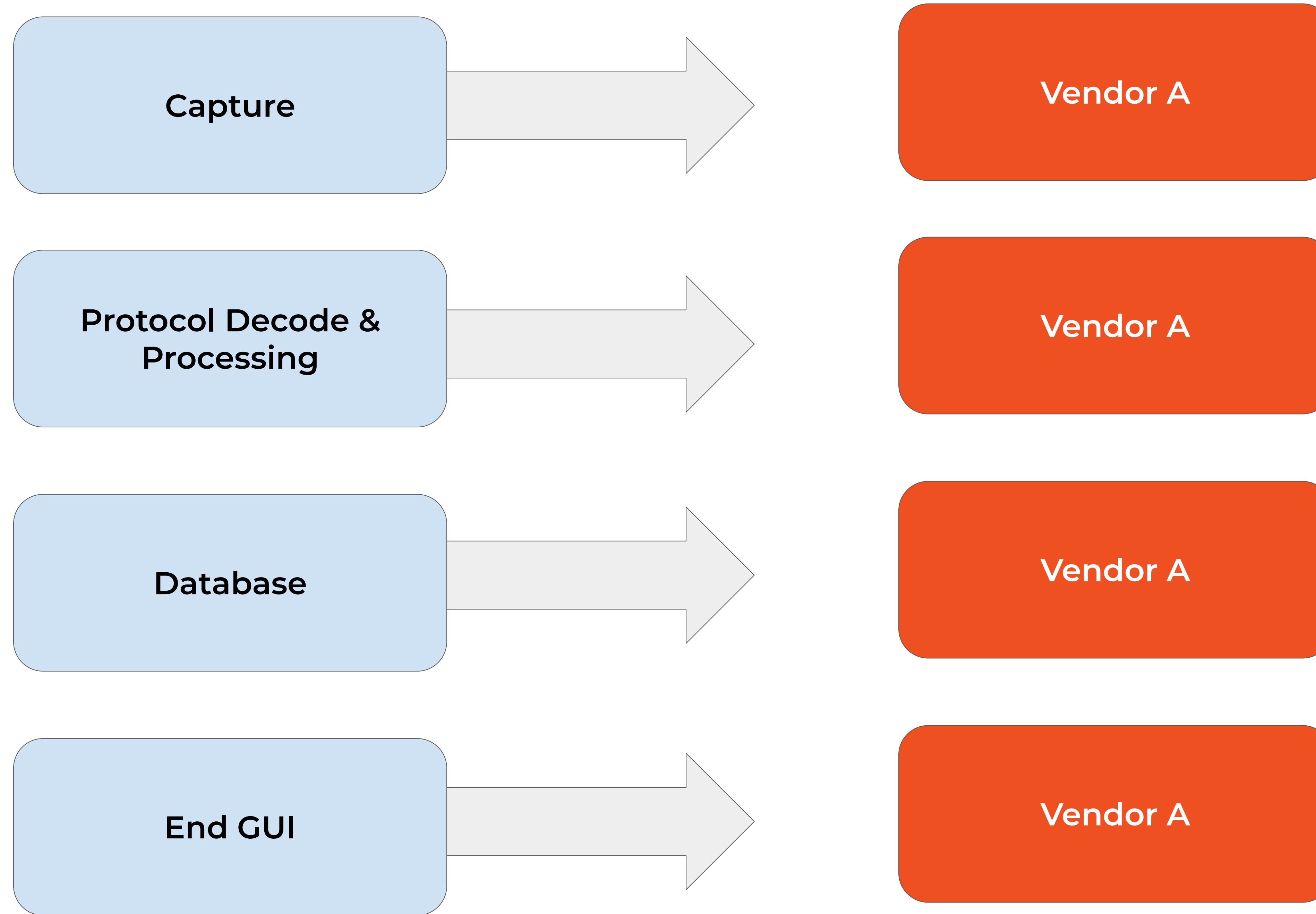
# Vendor A decodes the data



# Database backend is hidden

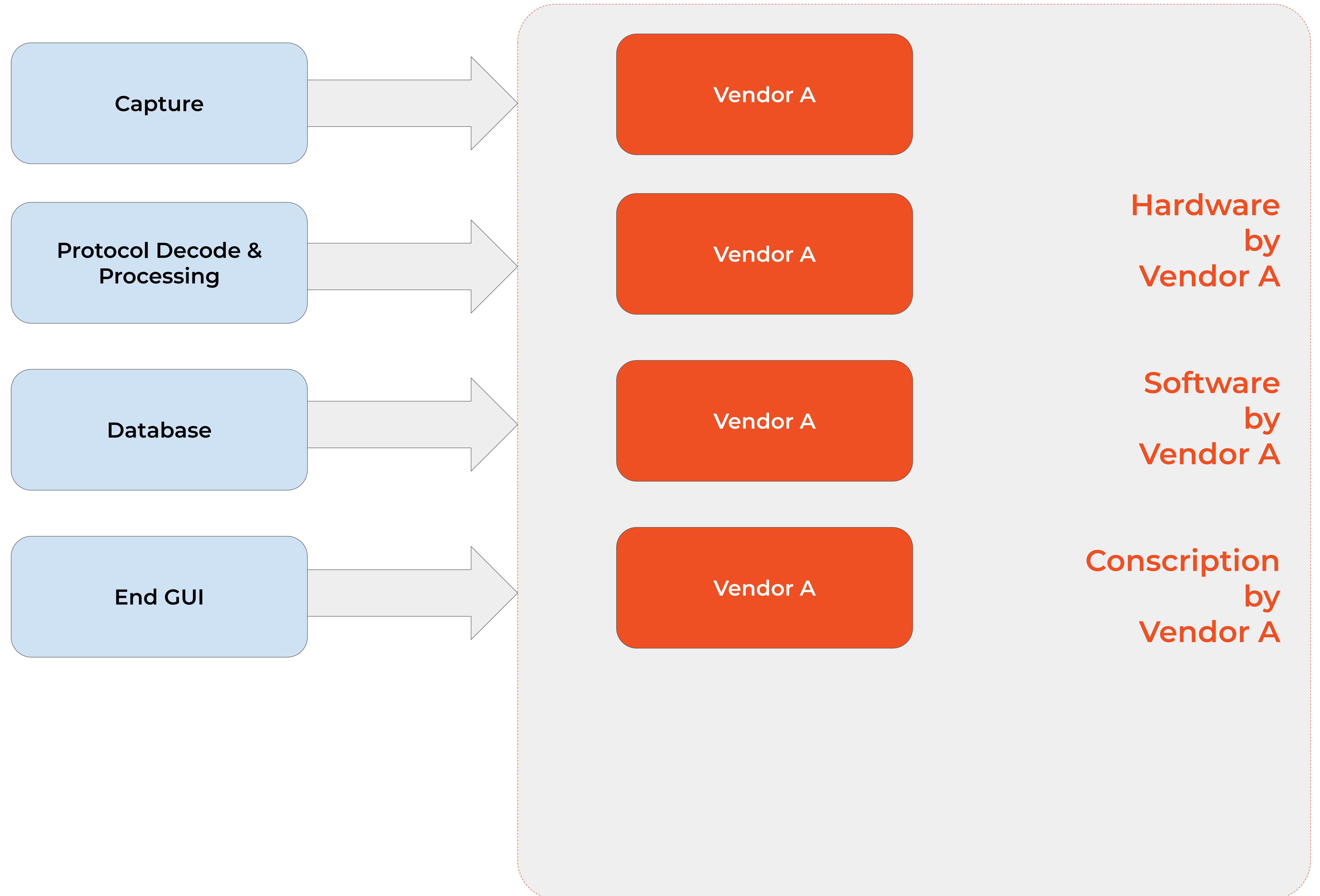


# Vendor A also does the GUI





# And it runs on Vendor A Hardware



# Why put all the eggs in one basket?

→ PCAPs are PCAPs



# Consider a different approach

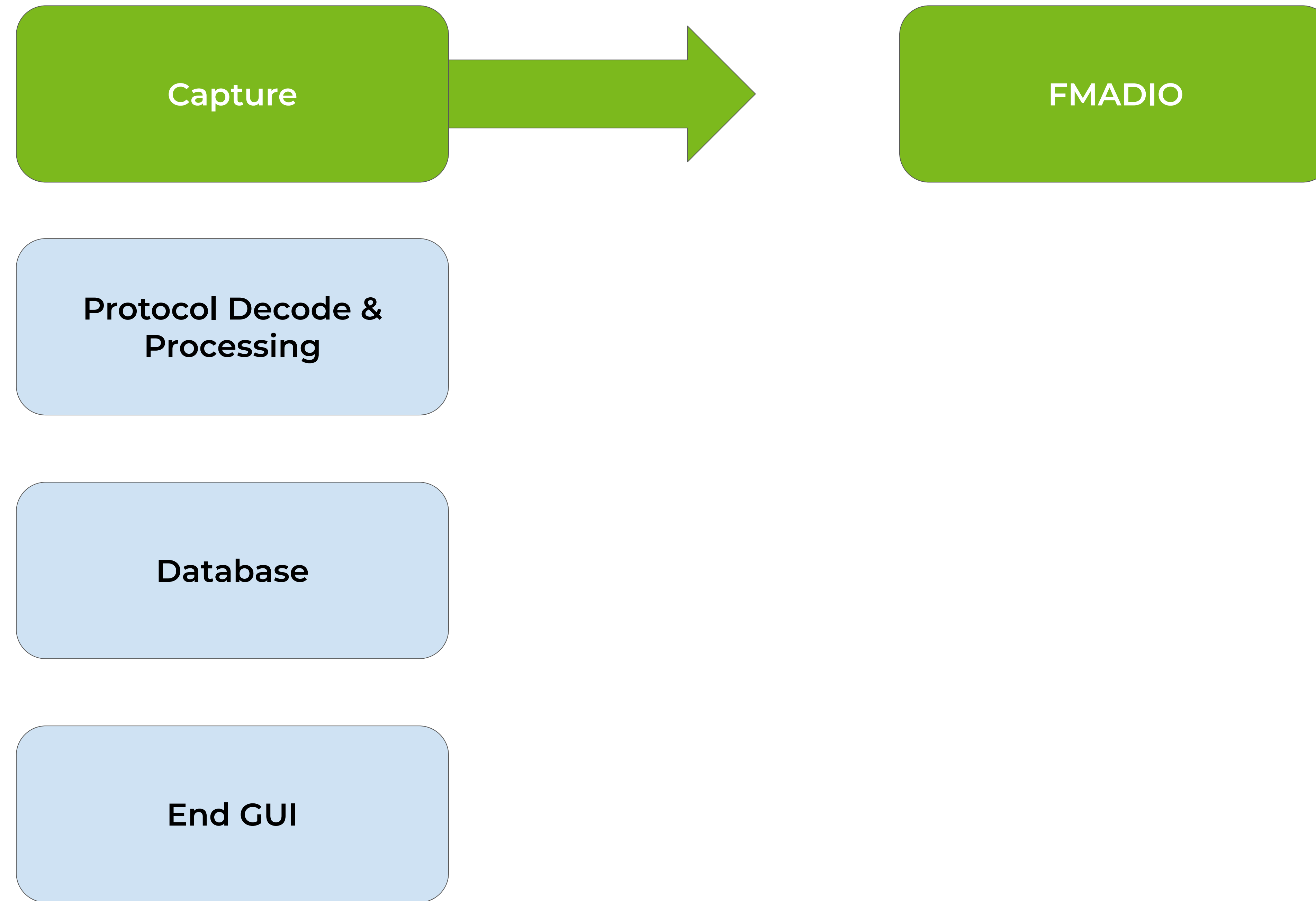
Capture

Protocol Decode &  
Processing

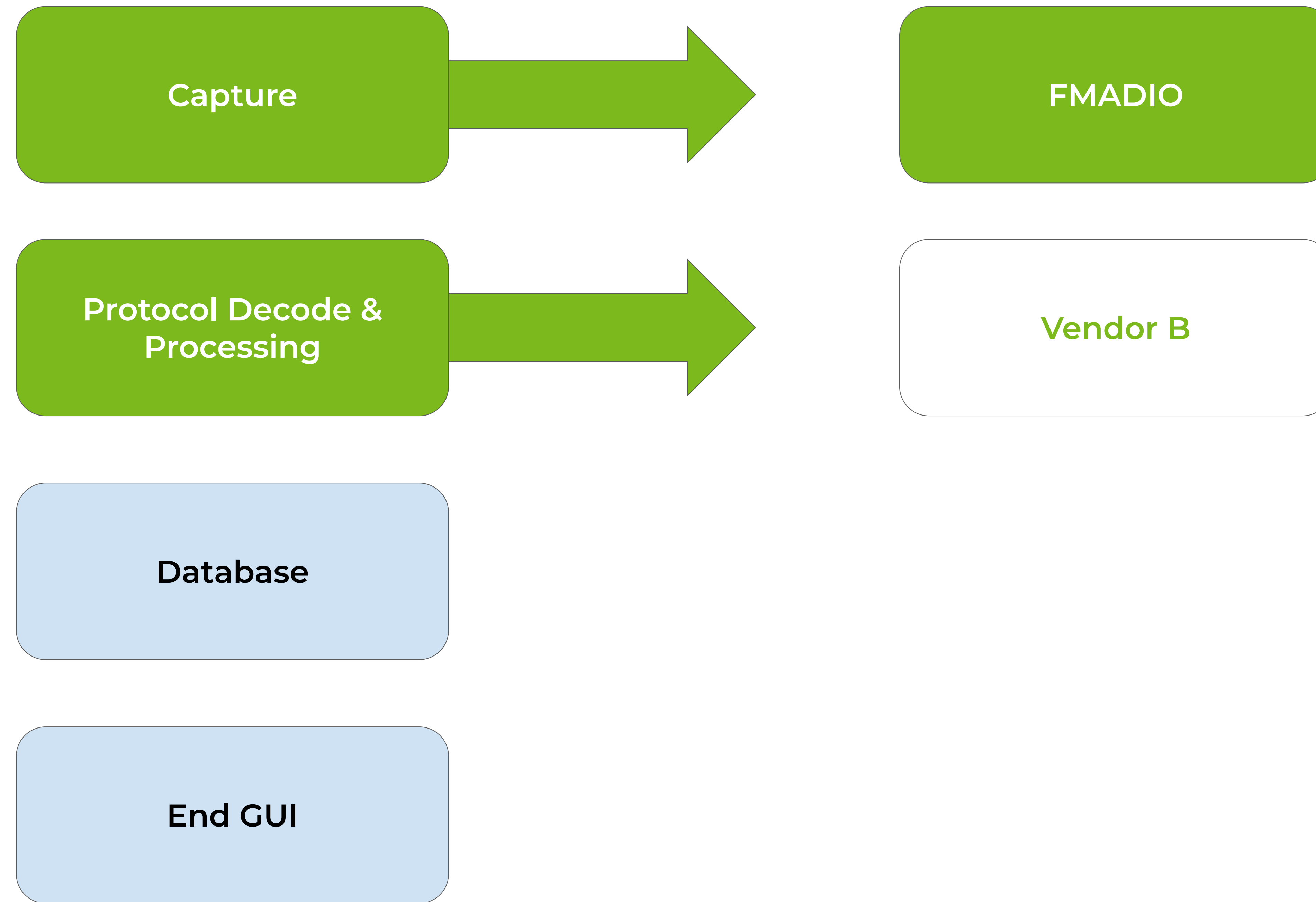
Database

End GUI

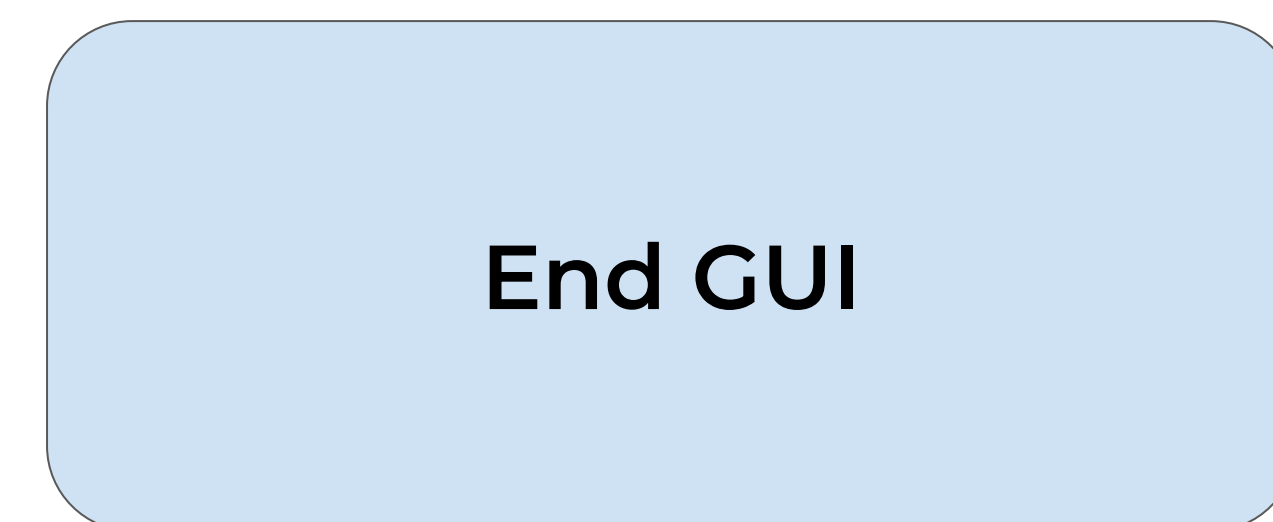
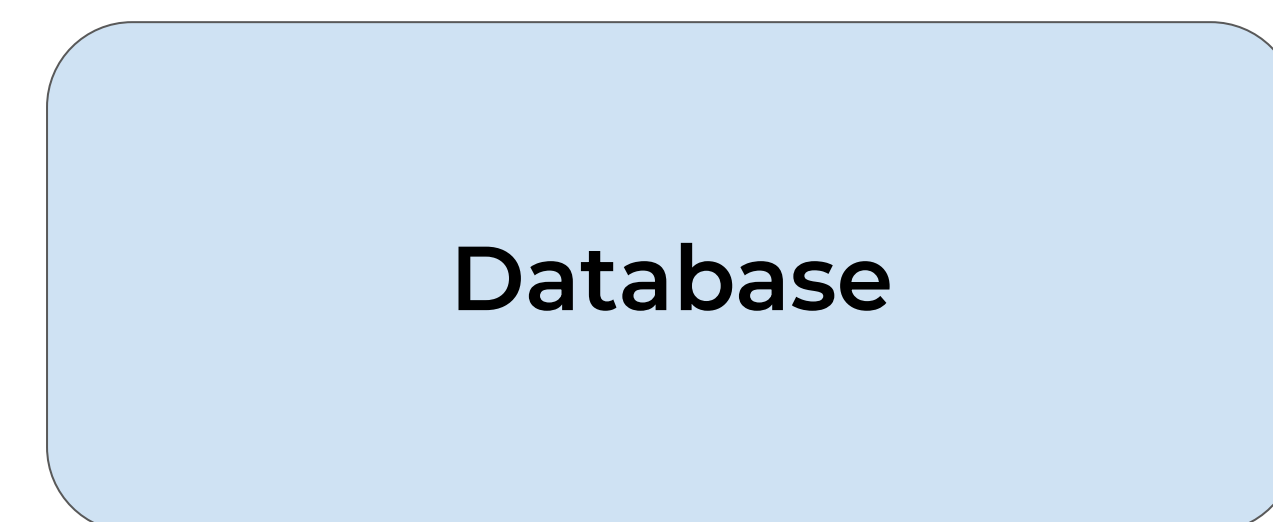
# FMADIO as PCAP generation



# Vendor B converts PCAPs to data



# Vendor B converts PCAPs to data



 DIY roll your own

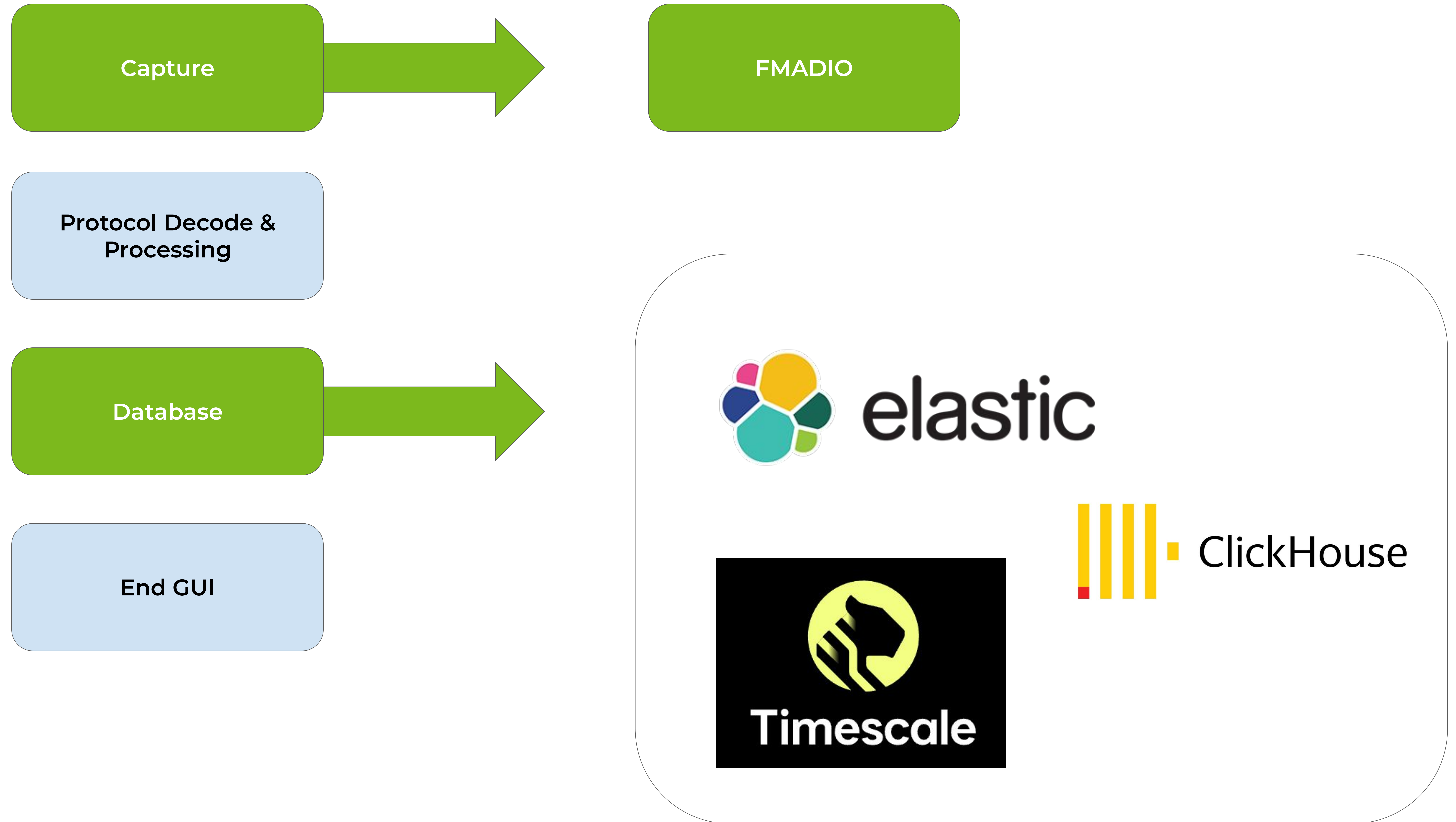
 Open Markets Initiative  
(298 protocols wireshark decoders )

 Instrumentix  
(fullstack solution)

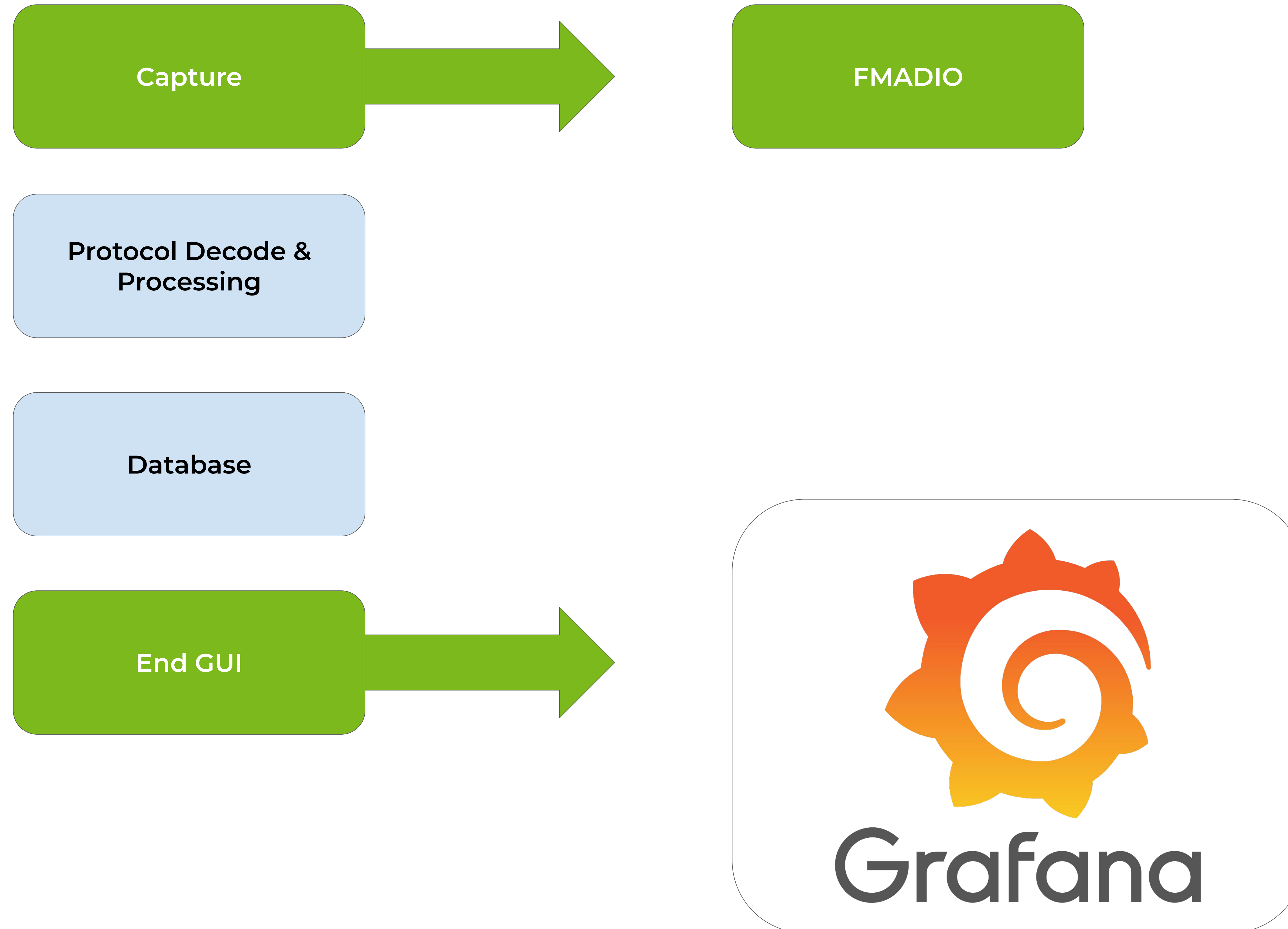
 **LSEG Real-Time**  
Ultra Direct

Real-Time Ultra  
(every market globally)

# Database usual suspects

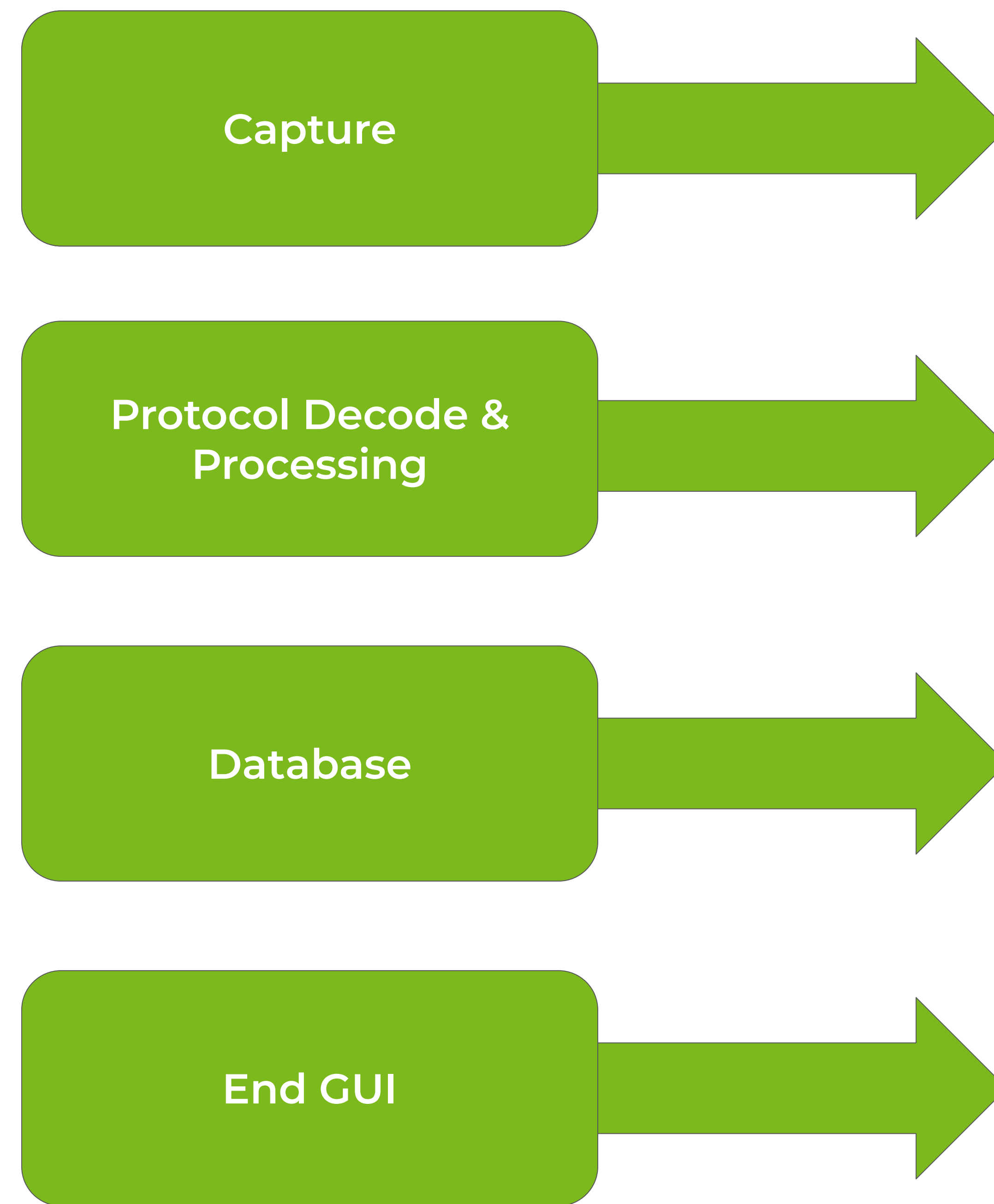


# It's hard to beat Grafana for a UI





# This can run on FMADIO Hardware



FMADIO

Vendor B

Elastic  
Clickhouse  
Timescale

Grafana

Hardware  
by  
FMADIO

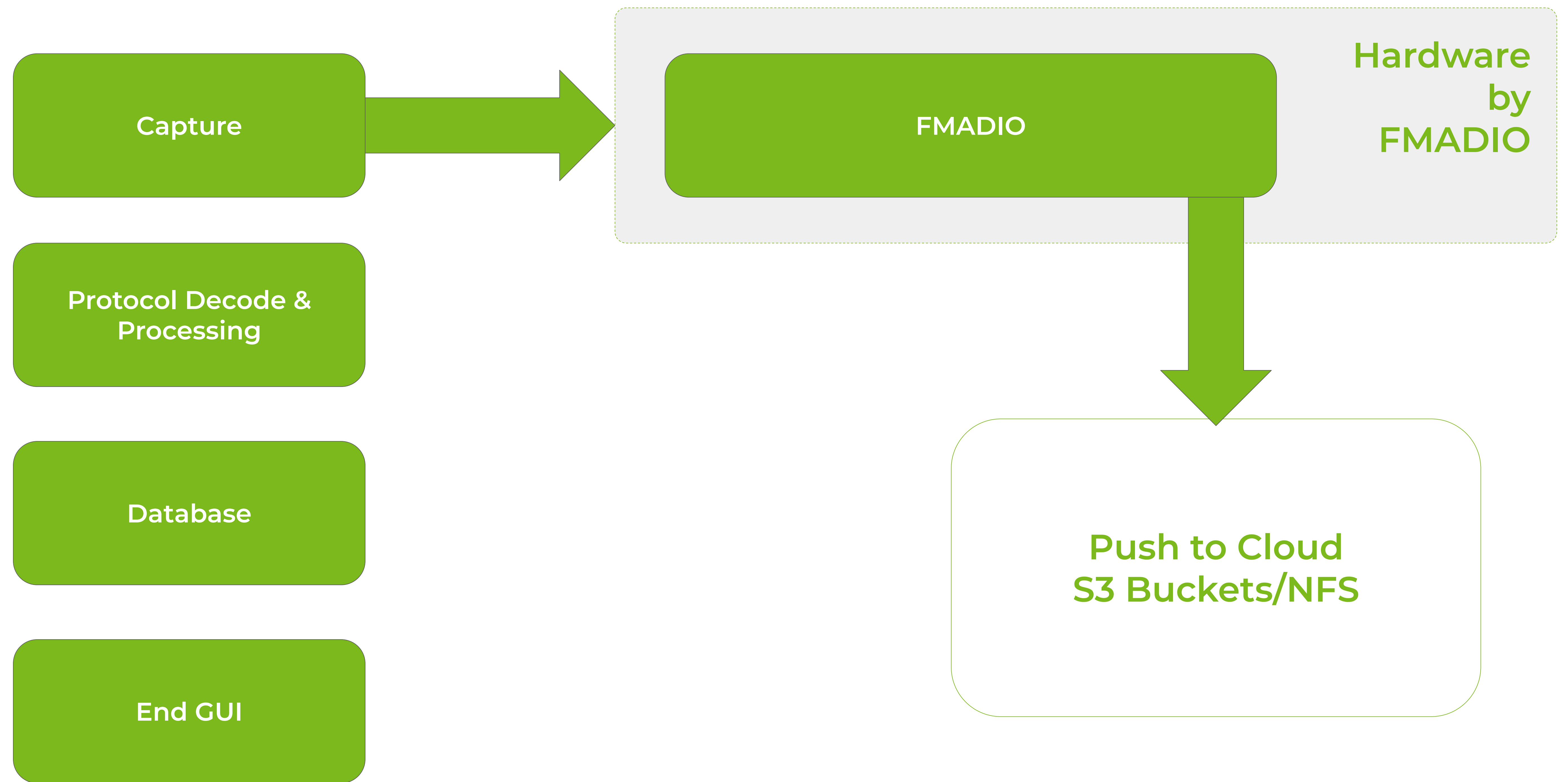
OMI

Instrumentix  
the evolution of flow monitoring

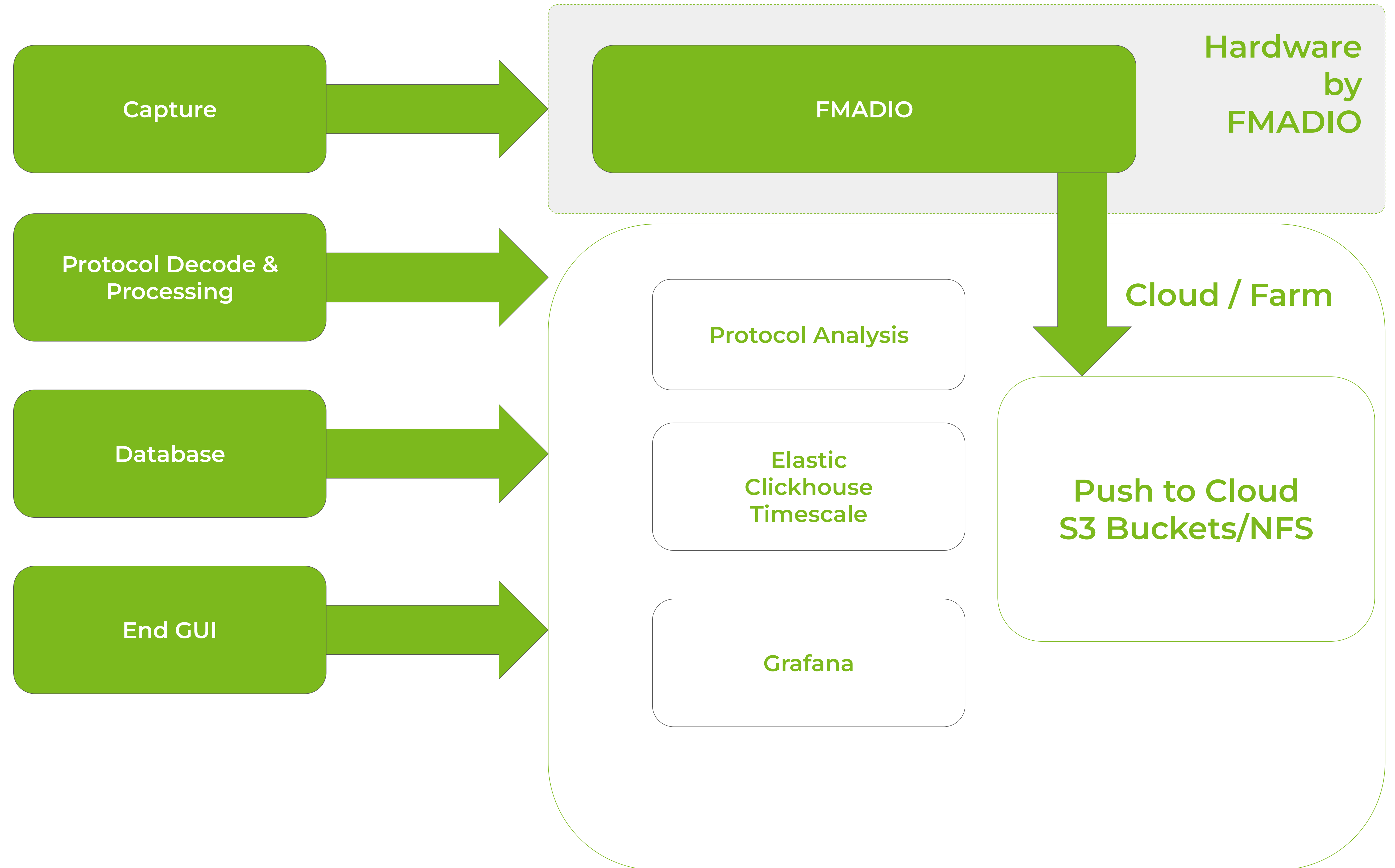
LSEG Real-Time  
Ultra Direct



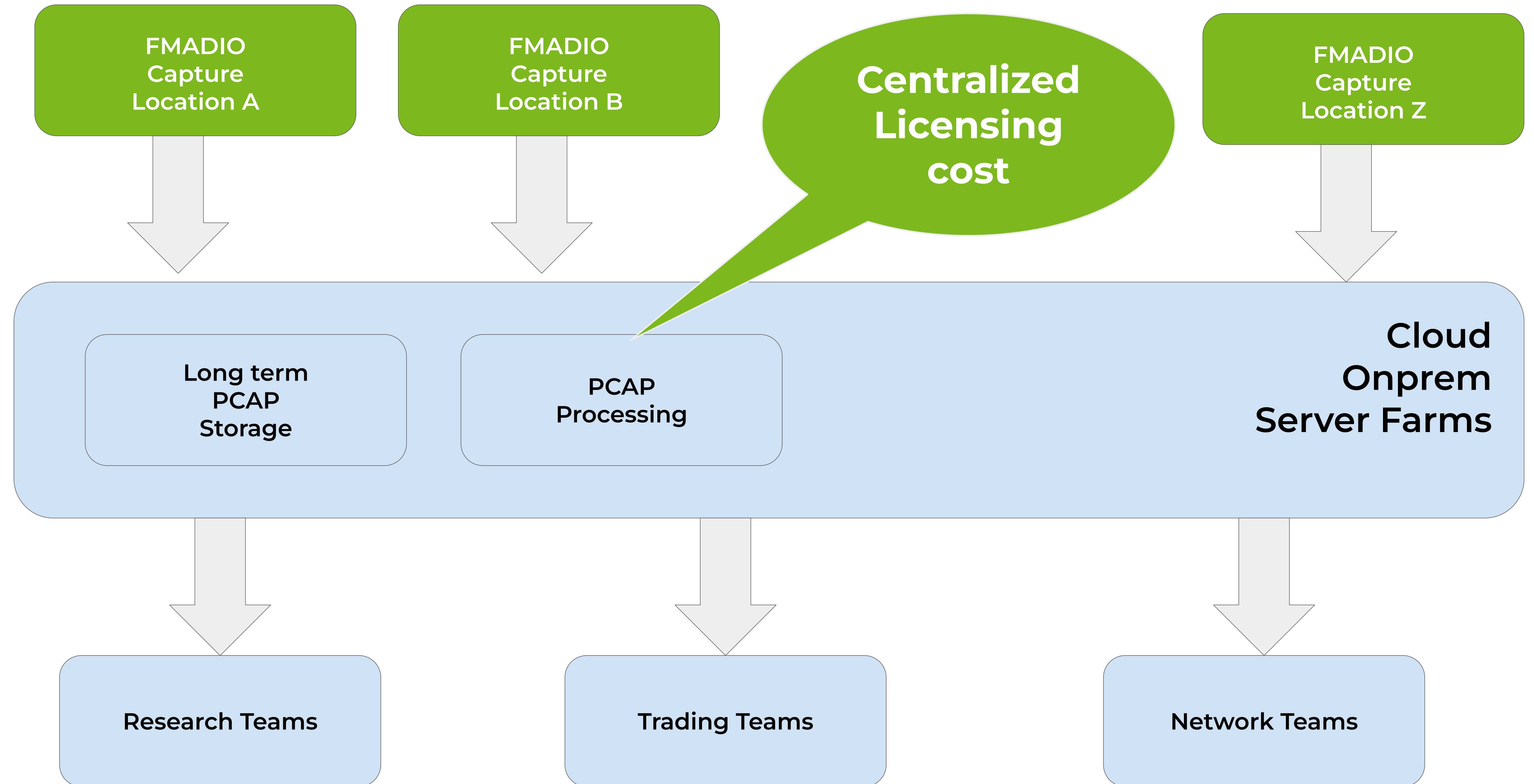
# or.... FMADIO Generates PCAPs



# Hybrid Colo Cloud Environment



# Then you can really decouple it



# The FMADIO advantage

## What we do...

- Provide hardware and software to **simplify** the capture process.
- Provide APIs and samples to **access** to PCAPs as you want them in the format you want them.
- Allow for a write-once, read-many scenario **integrate** with many different applications.
- Eliminate vendor lock in by **decoupling** capture, process and integrate.

## ... what we don't do!

- Make it **difficult** to access your data in a standardized PCAP format.
- Only allow processing of data with **proprietary** tooling.
- Create vendor lock in with a **closed ecosystem**.





Break the Vendor Lock-in

[www.fmad.io](http://www.fmad.io)

**Check FMADIO on your card to find out more!**

# Push PCAP (Backup)

