



AquaQuarantine:  
TorQ

Experts in fast data solutions  
for demanding environments

- Established in 2011
- Headquarters in Belfast, N.Ireland
- Headcount of 160 staff
- 2016 US Subsidiary launched
- 2018 Singapore subsidiary launch
- 2020 Hong Kong subsidiary launch



## What do we do?

Technology  
Consultancy Services



Altair Panopticon  
Professional Services



Remote (24/7) Support  
Centre of Excellence

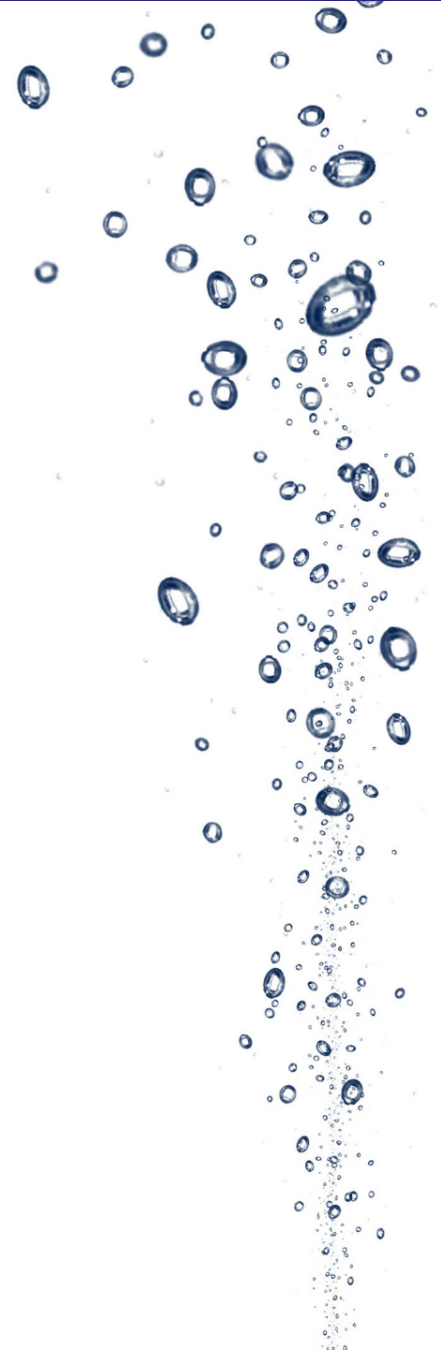


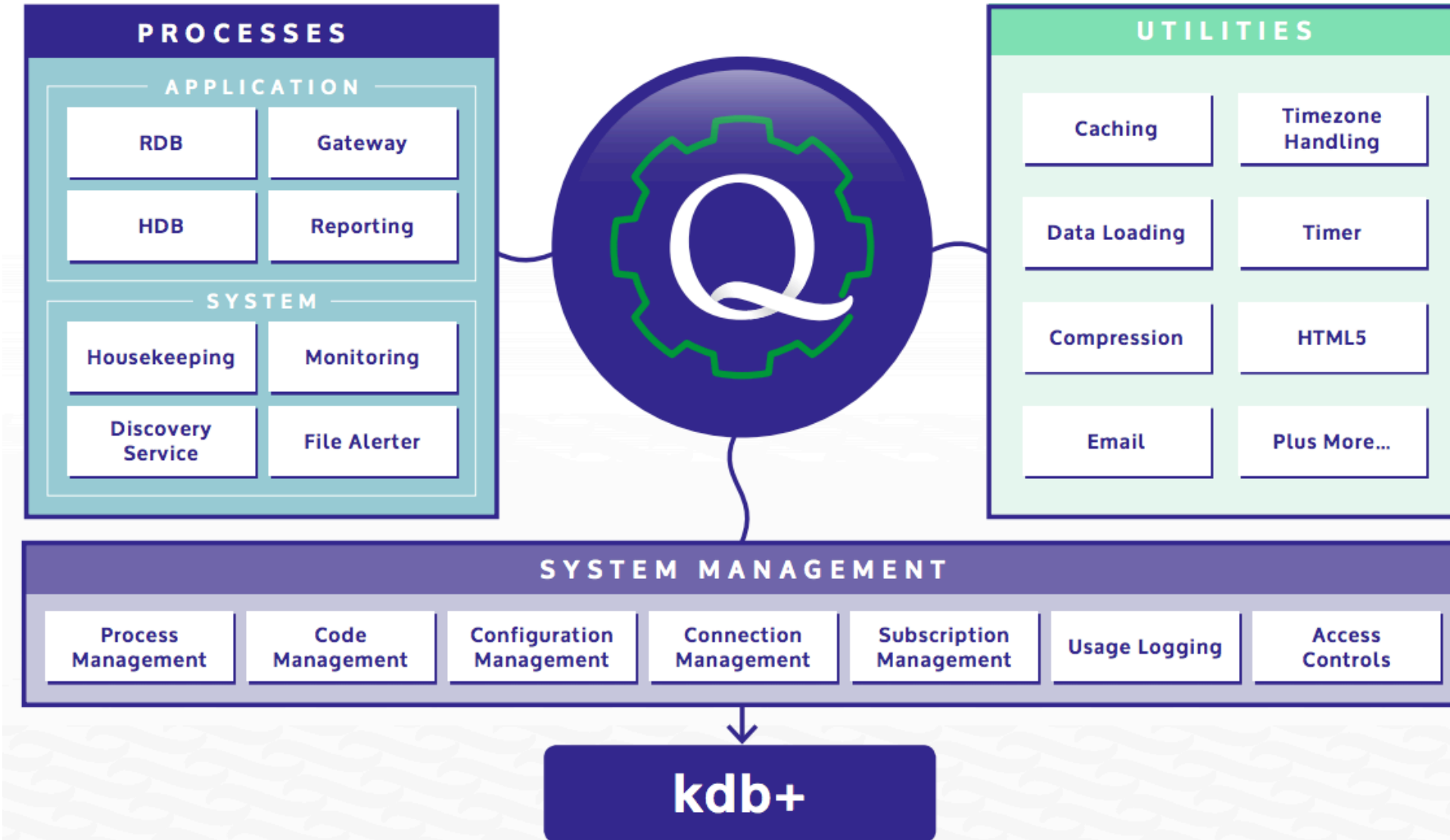


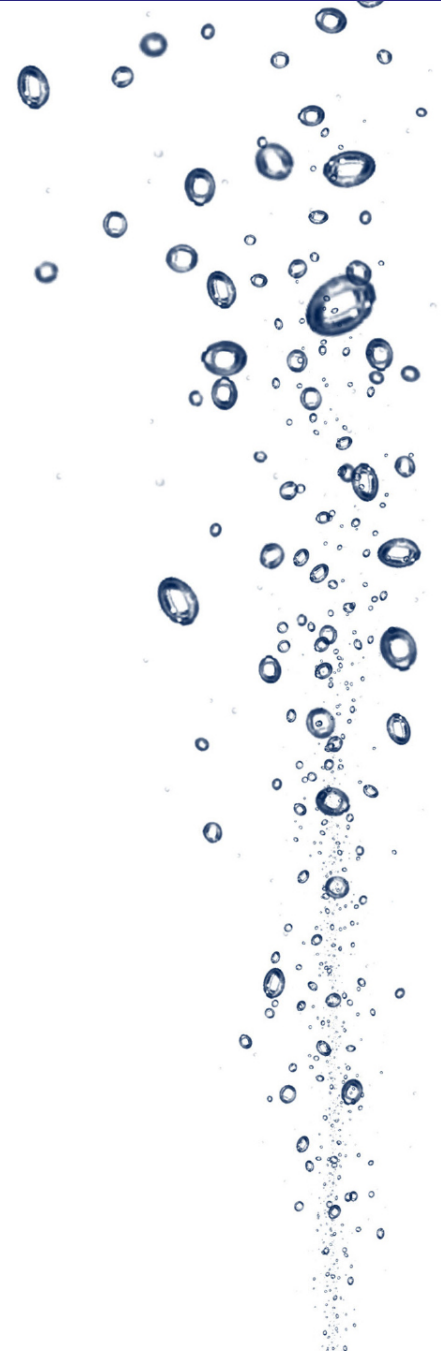
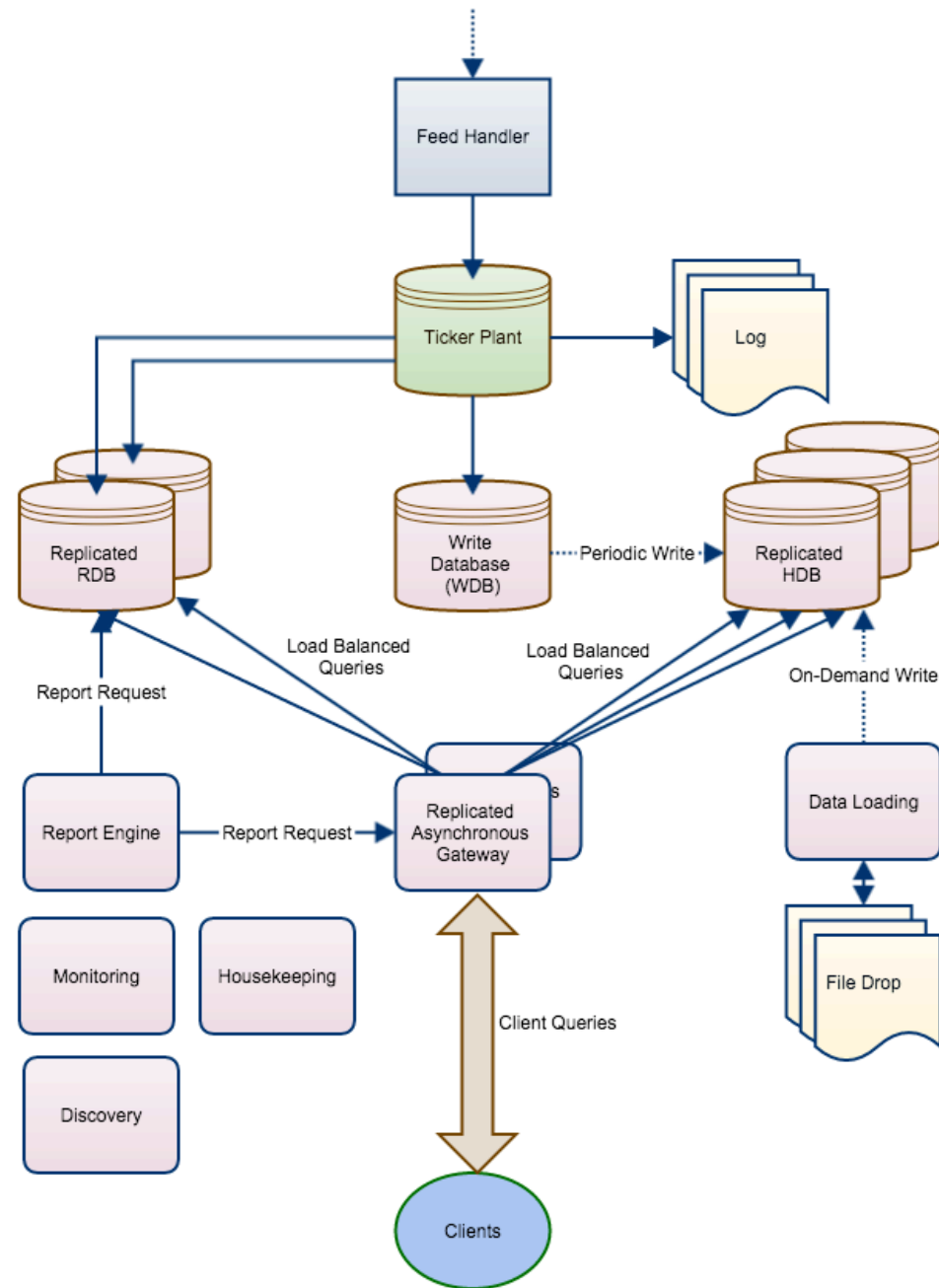
# AquaQ TorQ OpenSource Production kdb+ Framework



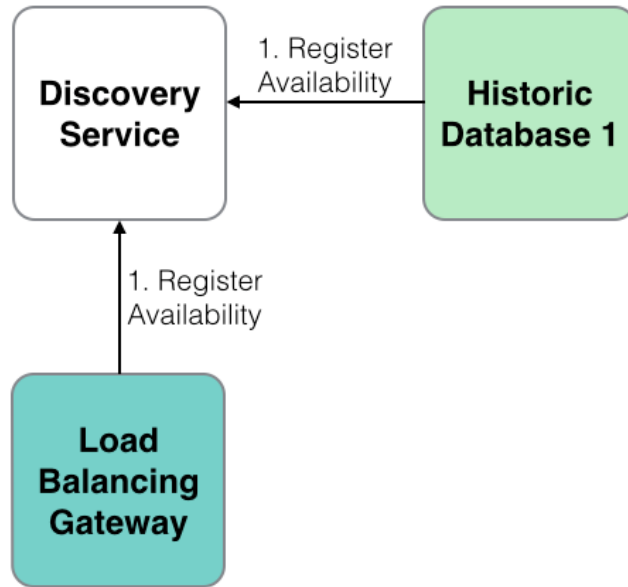
- TorQ is an open source, kdb+ production framework
- Released in 2014
- Up-to-date with kdb+ releases
- Extensive documentation
- Google Group
- Used by 40+ institutions
- TorQ Finance Starter Pack is an example data capture application



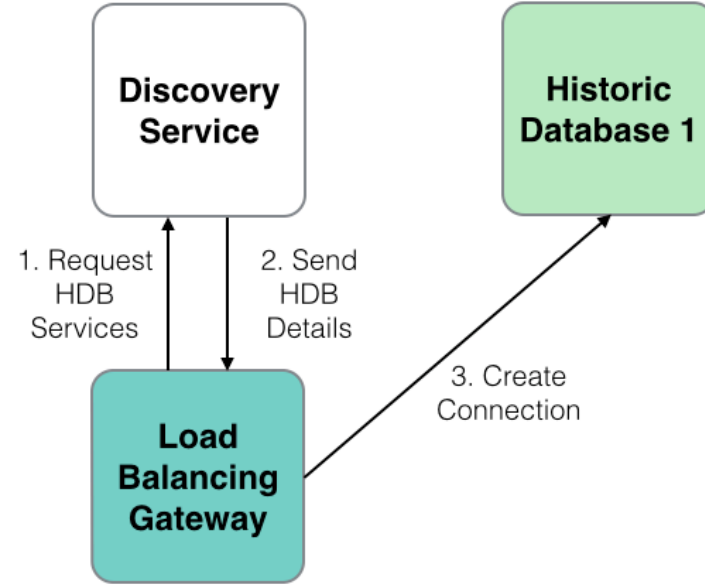




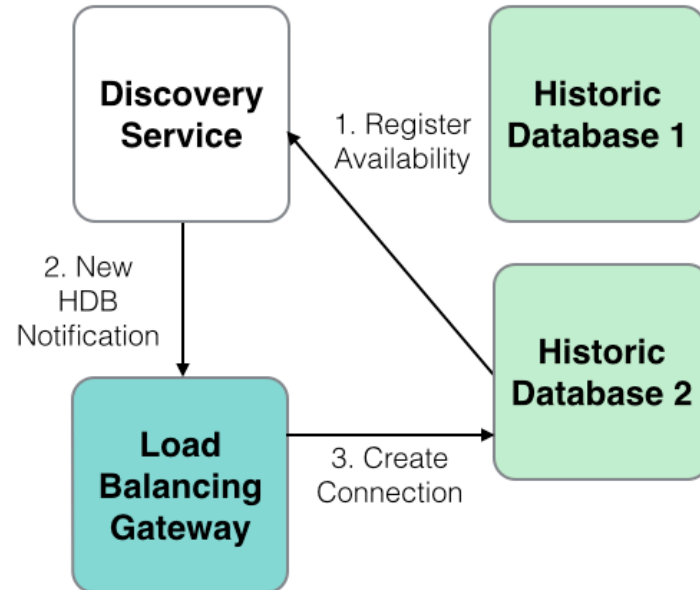
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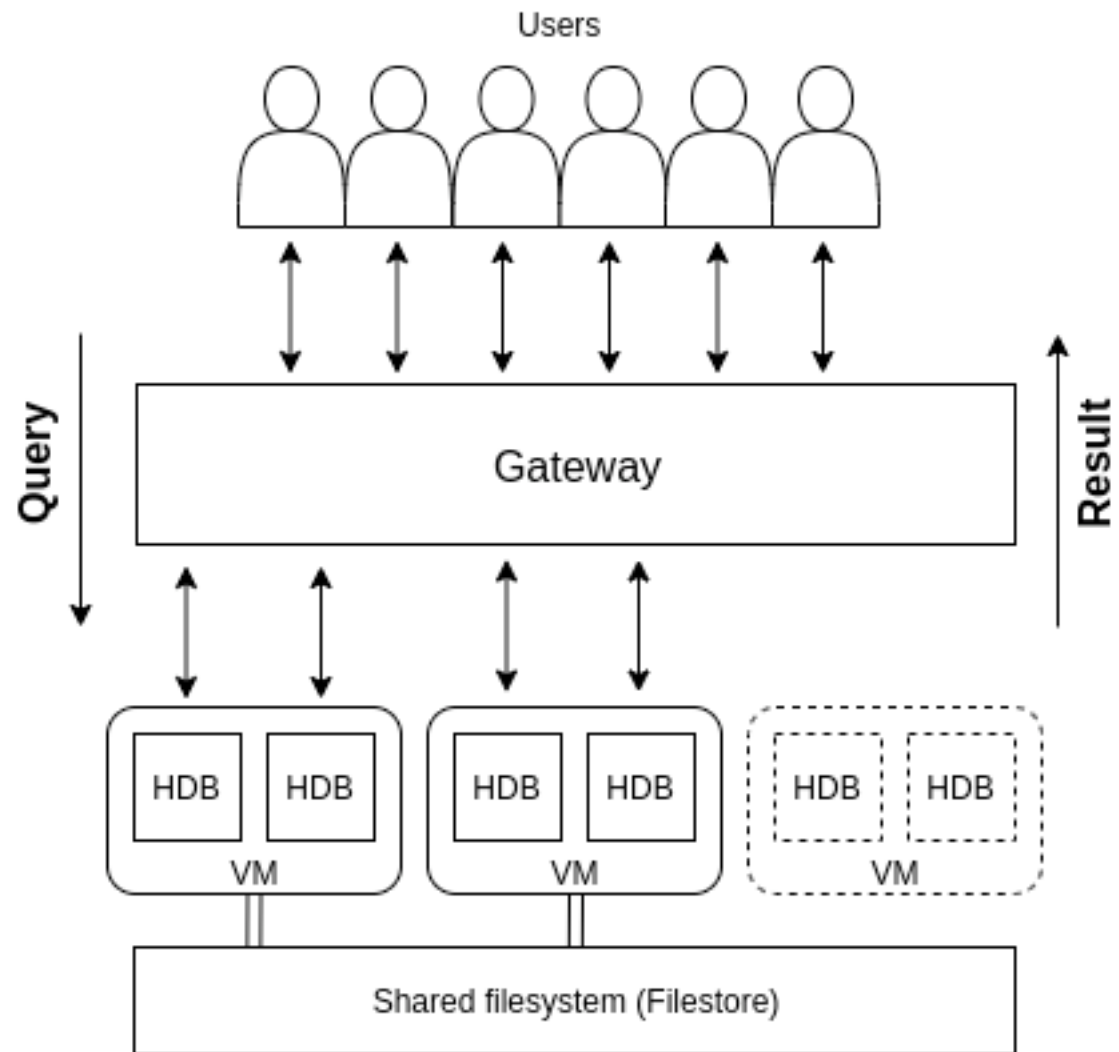
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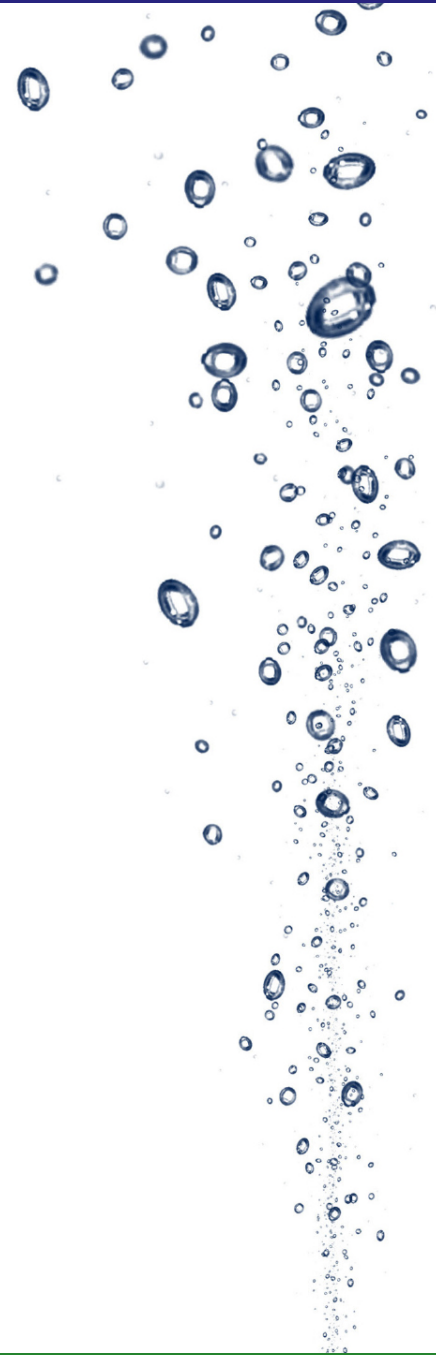
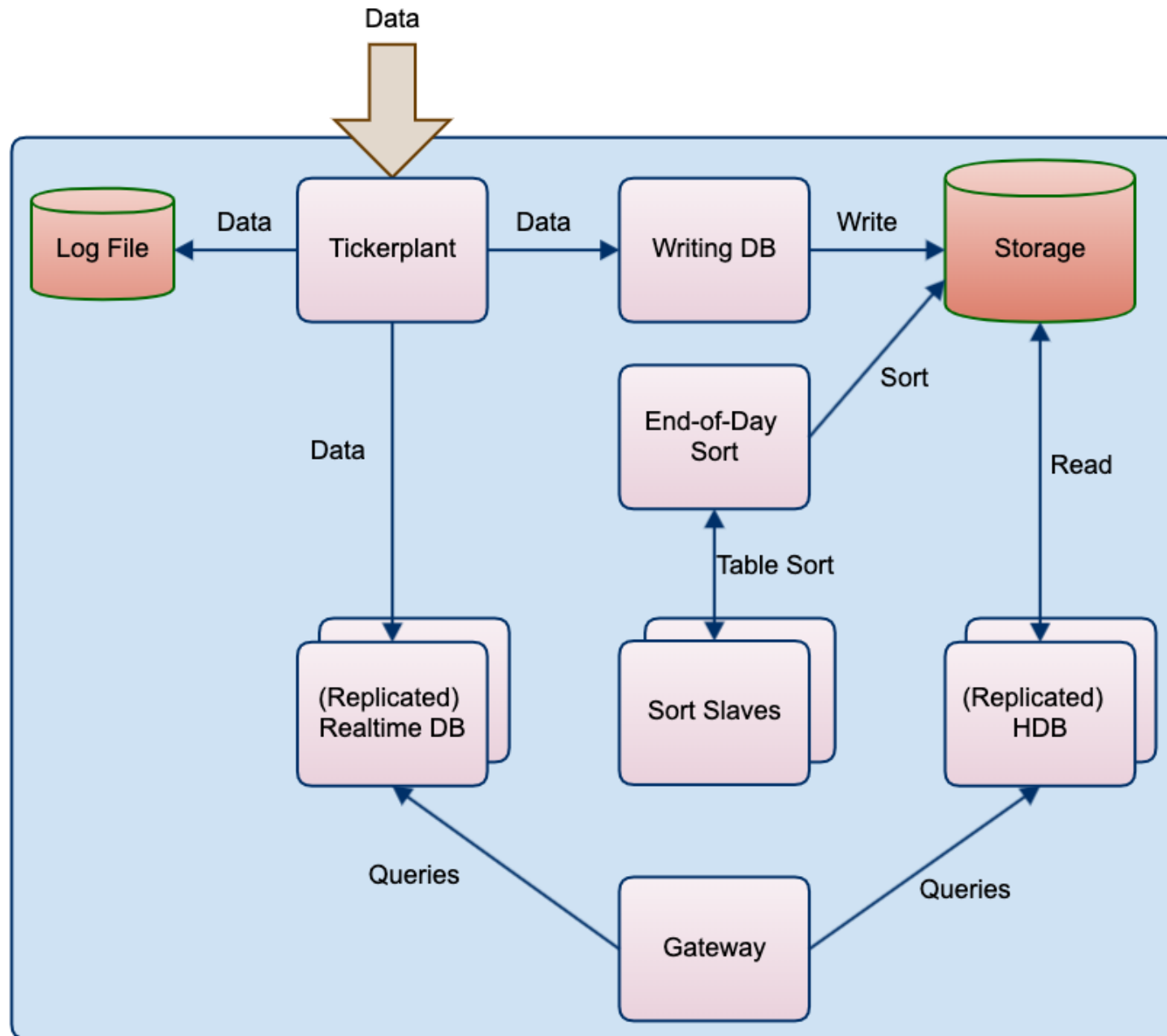


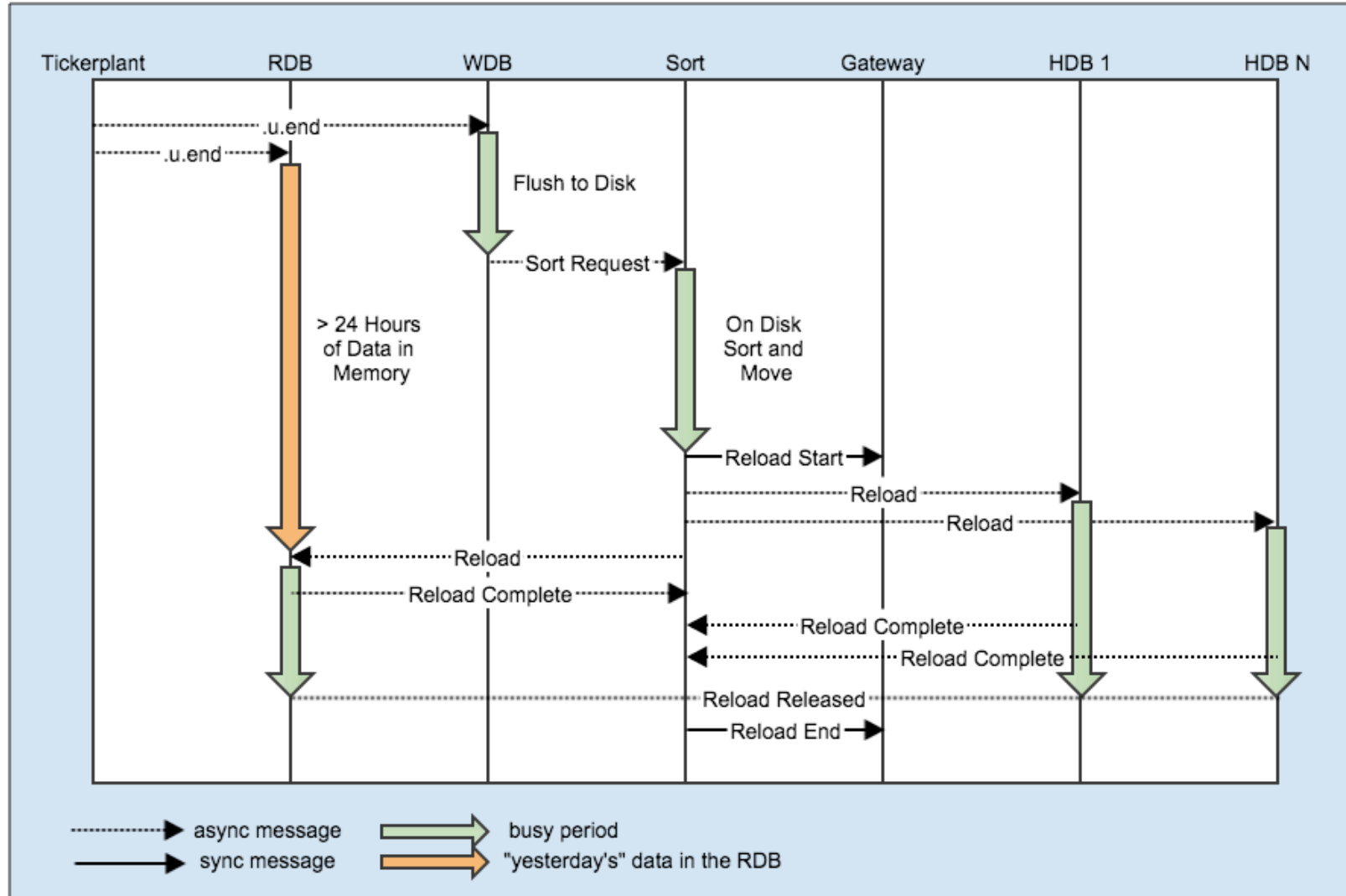




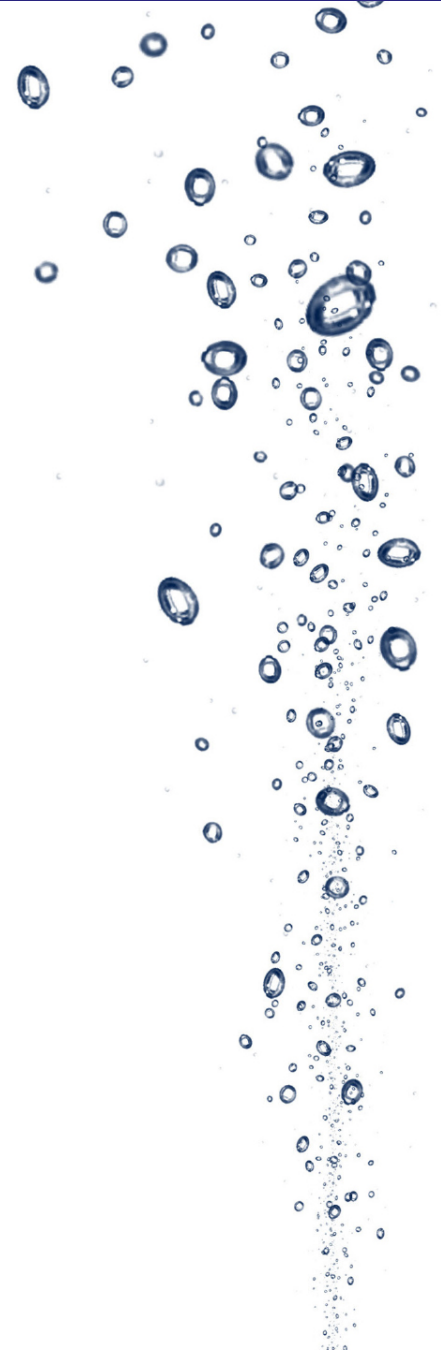
<https://www.aquaq.co.uk/q/torq-and-scaling-google-cloud/>



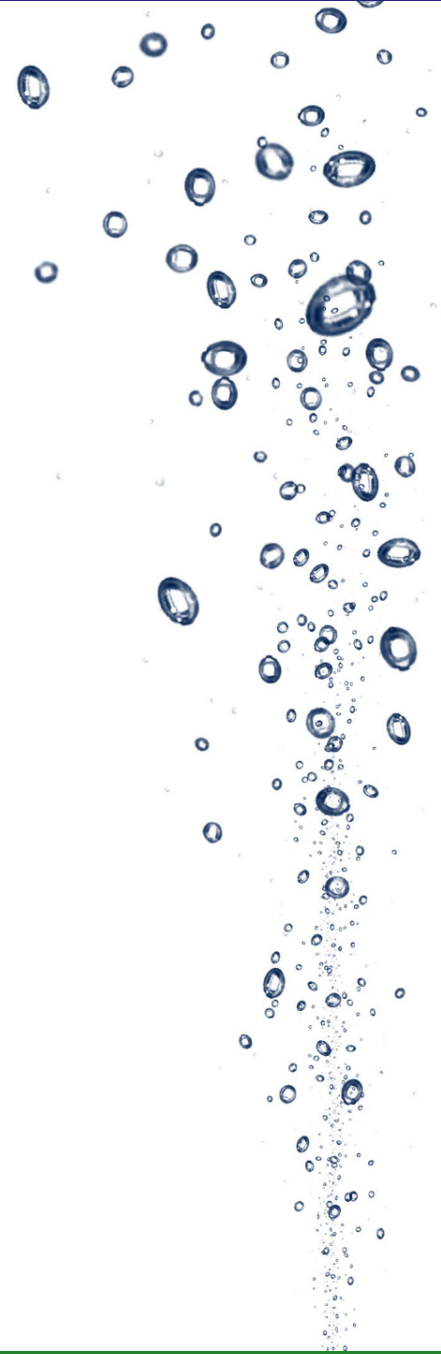




- Monitoring Integration with:
  - Monit
  - Datadog
  - Geneos
  - ELK
  - Supervisor
  - Splunk
  - .. No limitation ...
- Process and Application Monitoring

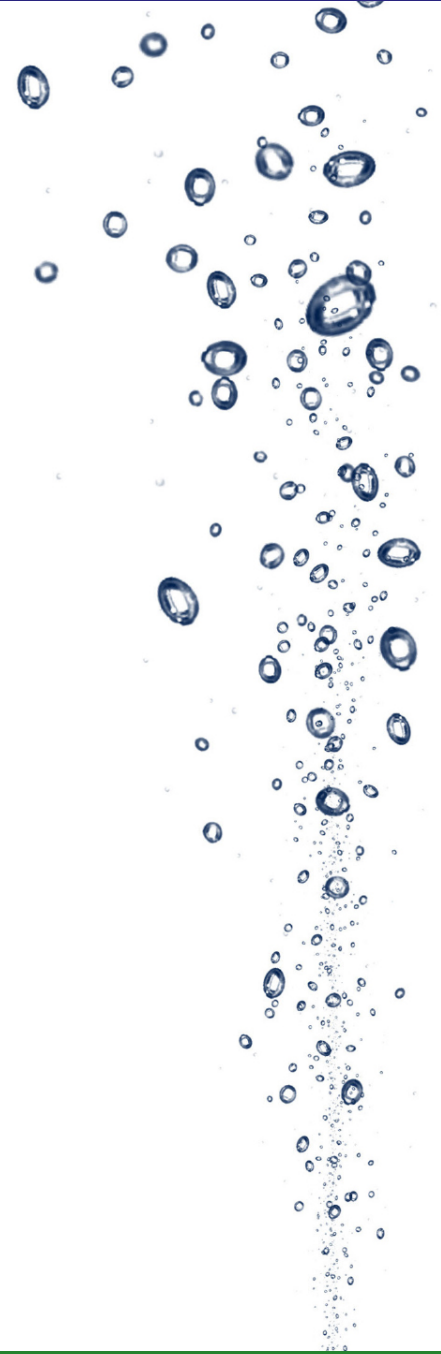


# Demo

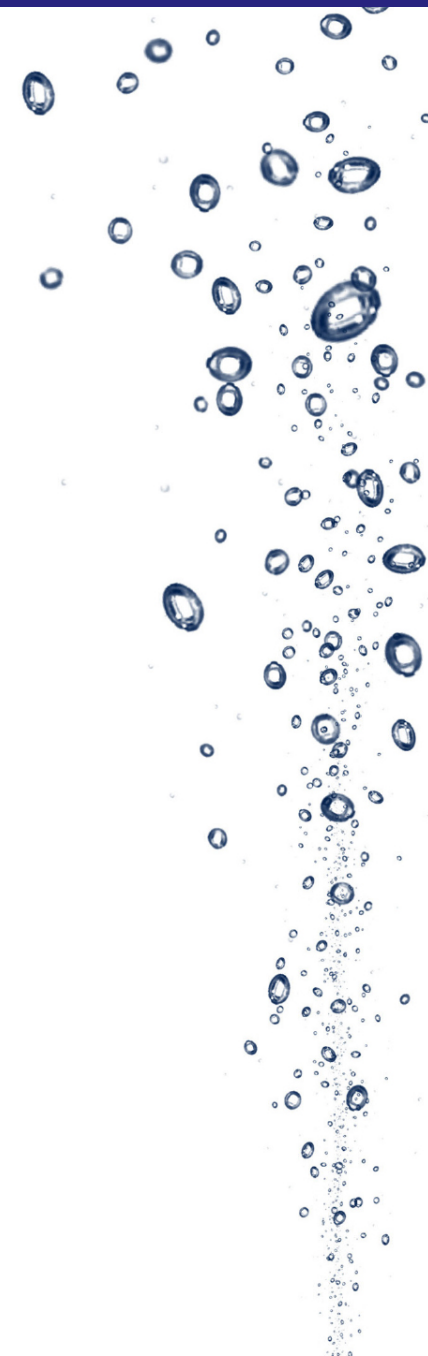




- TorQ-Finance-Starter-Pack
- TorQ-CME
- TorQ-Betfair
- TorQ-Bikes
- TorQ-Crypto (coming soon)

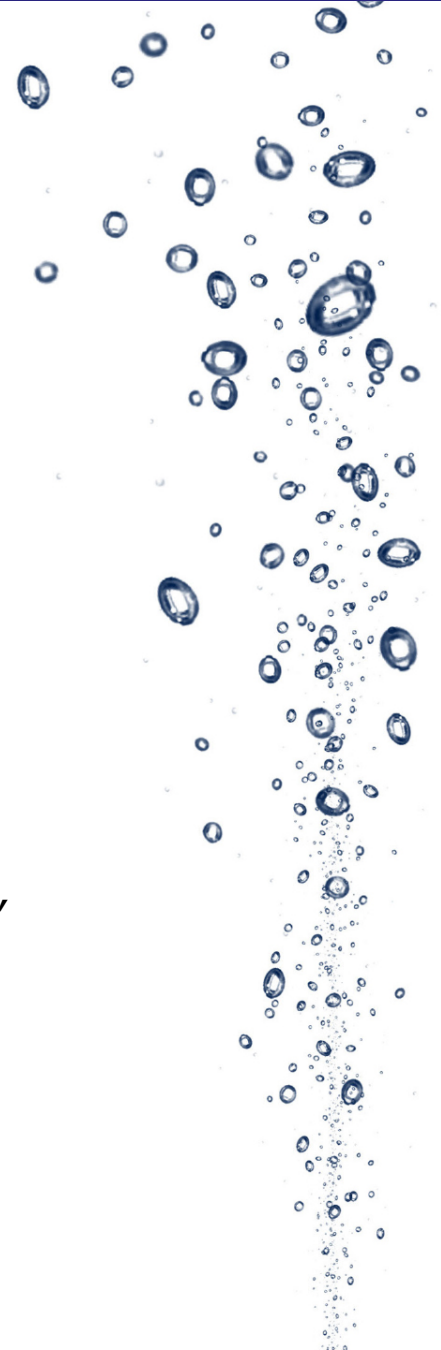


- Data Quality System
- More granular and configurable tickerplant logging
  - Split by time period / table / customisable
  - Leads to easier management
- Intra-day on-disk component
  - Linked in with gateway
- Always open to suggestions!



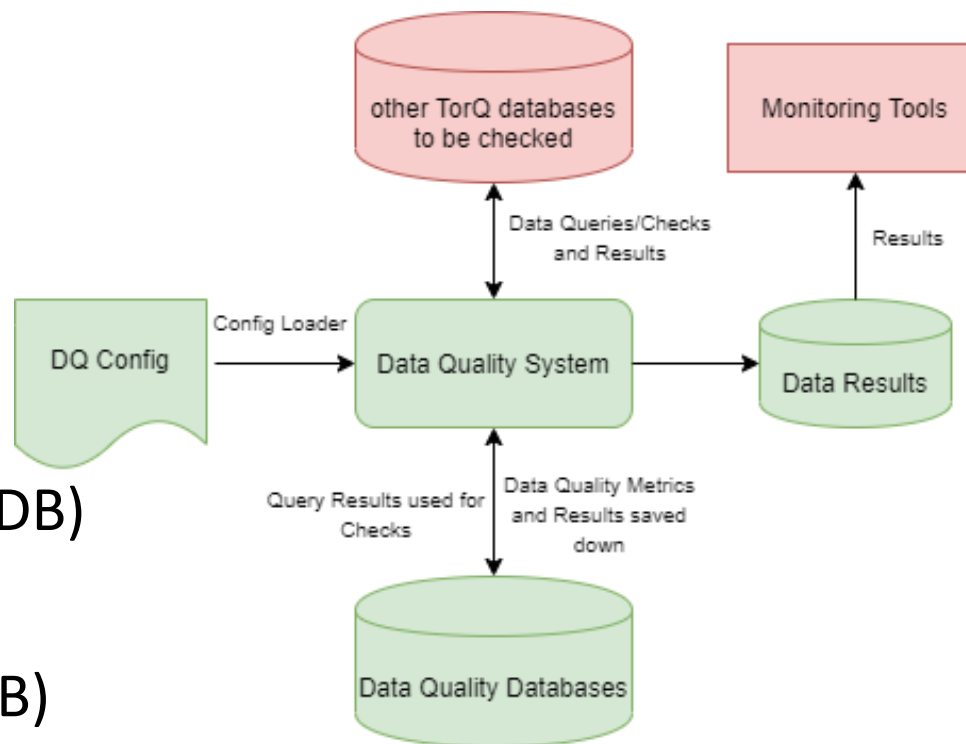
## Data Quality System (DQS)

- Run periodic data quality checks against your system
- Run daily stats against databases to enable checks leveraging multi-day data
- Pre-defined library of customisable checks include breach condition
- Ability to add own check functions
- Results provide:
  - descriptive result e.g. "attribute of time, sym matched expectation"
  - boolean pass/fail of check
  - check status (`complete|`failed) in case check could not actually be run
- Can run and check against non-TorQ databases



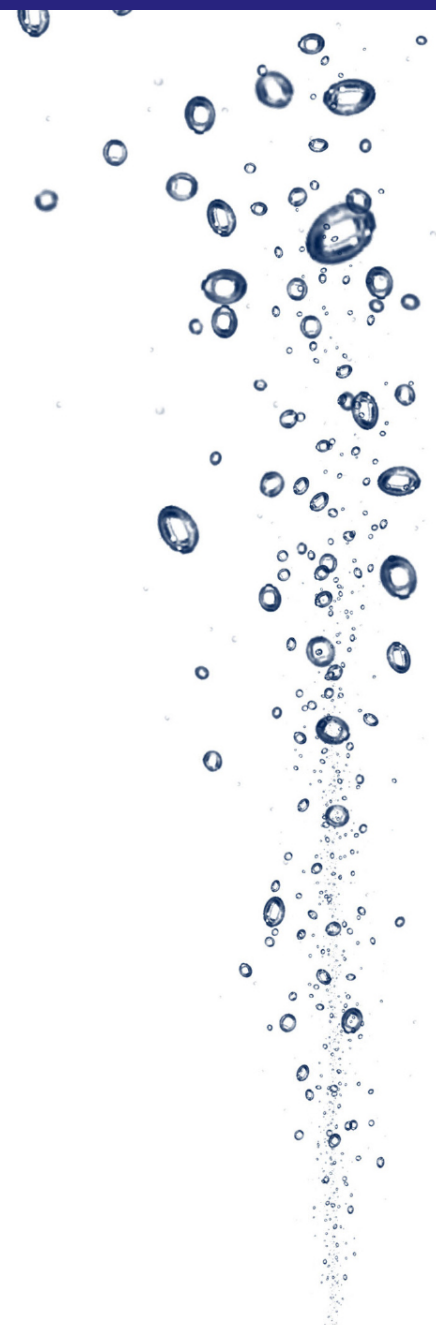
## 4 new processes in the DQS

- **Data Quality Checker (DQC)**  
Run checks against the system
- **Data Quality Engine (DQE)**  
Run daily stats against system
- **Data Quality Checker Database (DQCDB)**  
HDB for data quality checks
- **Data Quality Engine Database (DQEDB)**  
HDB for data engine stats





<http://aquaanalytics.github.io/TorQ>



Thanks!

Q+A

7<sup>th</sup> May: Gateway Design Principles

14<sup>th</sup> May: Grafana and kdb+

21<sup>st</sup> May: kdb+ 4.0

28<sup>th</sup> May: kdb+ in Containers

