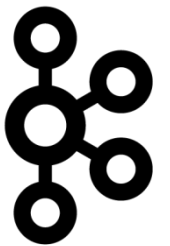
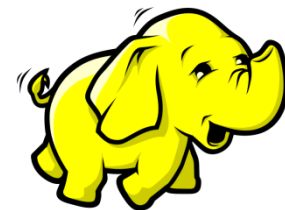


Time-Series Databases

Michael Enudi

Journey through the world of databases and data engineering



Scope

- ☐ Time-Series Data
- ☐ Time-Series Databases
- ☐ InfluxDB
- ☐ Data Model
- ☐ Performing CRUD in InfluxDB
- ☐ TICK Stack I
- ☐ TICK Stack II
- ☐ Time Series Databases: Wrap Up

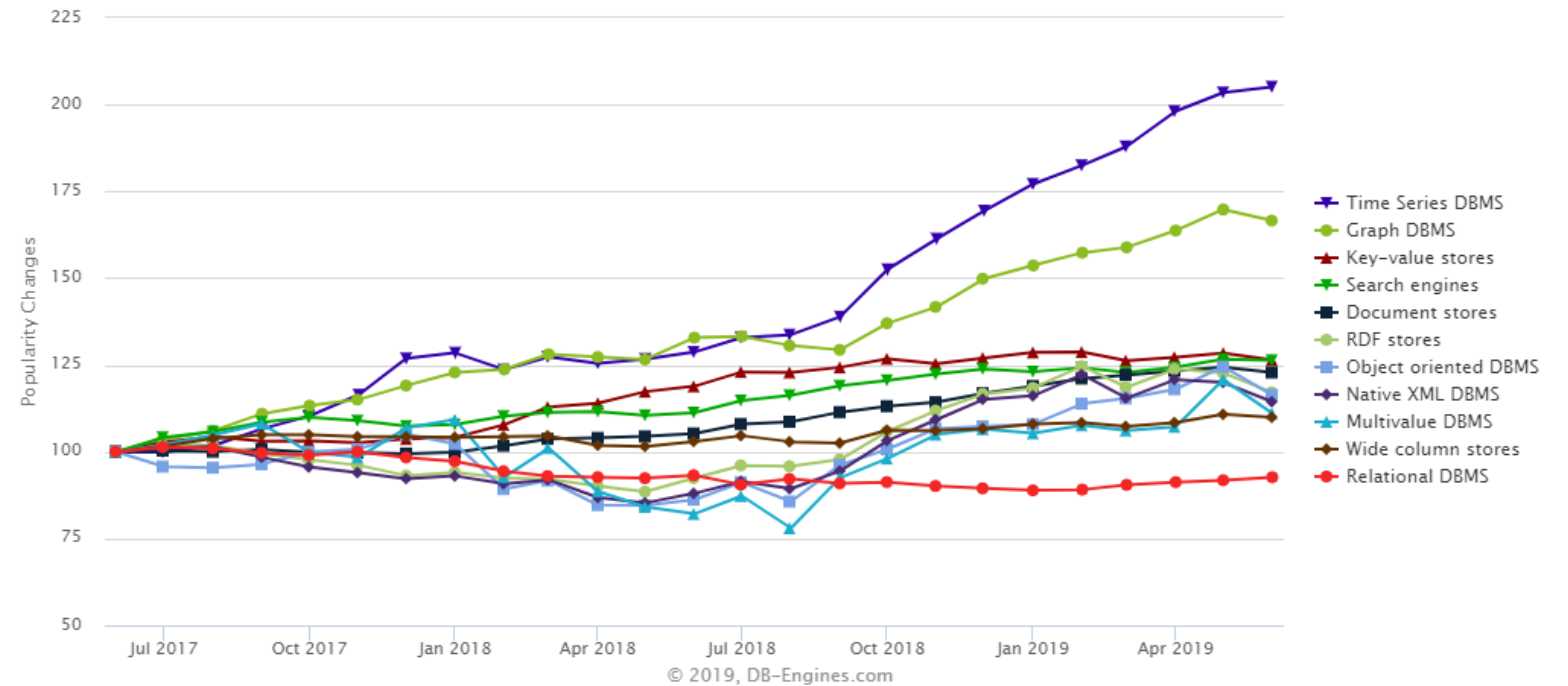


WHAT IS TIME-SERIES DATABASE (TSDB)

- InfluxDB
- OpenTSDB
- kdb+
- Timescale DB
- Graphite
- Prometheus
- AWS Timestream
- ...many more

Database built specifically for time-series data as well as end-to-end time-series data management.

Trend of the last 24 months



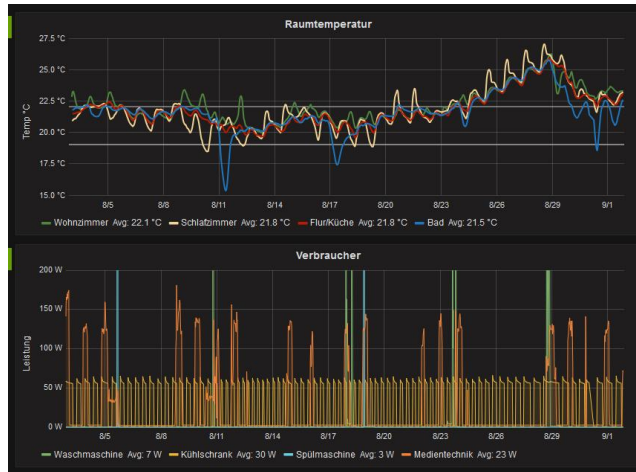
Source: db-engines.com



Real-time visibility into stacks, sensors and systems

InfluxDB is the open source time series database

[Start building](#)

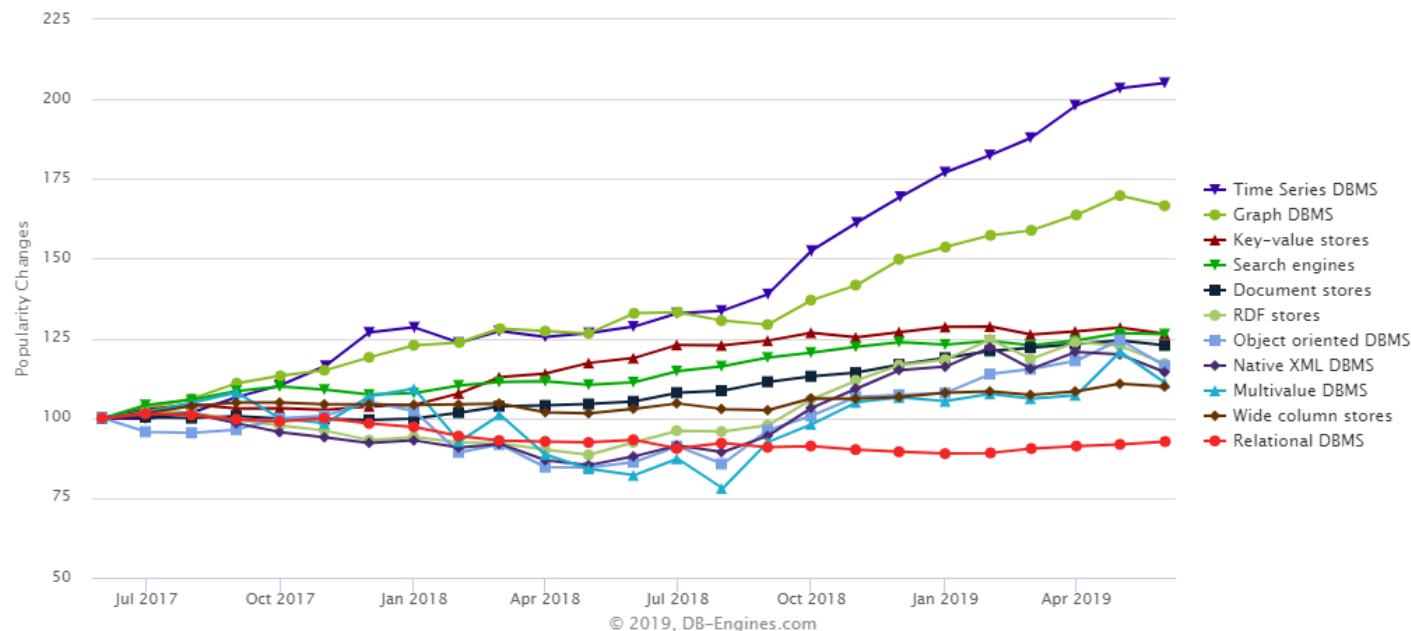


- InfluxDB is an open-source time series database developed by InfluxData
- First released in September 2013
- Current version is 1.7.7
- Written in Go
- Uses a SQL-like language for data manipulation and exploration.
- Schema-less database that does not support foreign keys, joins, transaction.
- Support Client connectivity using HTTP API and language drivers.
- Deployed by InfluxData as part of TICK stack
- Use case for infrastructure and application monitoring, IOT and real-time analytics.
- High profile users include CERN - the European Organization for Nuclear Research, IBM, Cisco, eBay and a host of others

DATA MODEL

- ☐ Database
- ☐ Table / Measurement
- ☐ Retention policy
- ☐ Timestamp
- ☐ Field
- ☐ Field set
- ☐ Tag
- ☐ Tag set
- ☐ Series
- ☐ Point
- ☐ Continuous Query
- ☐ Data Types

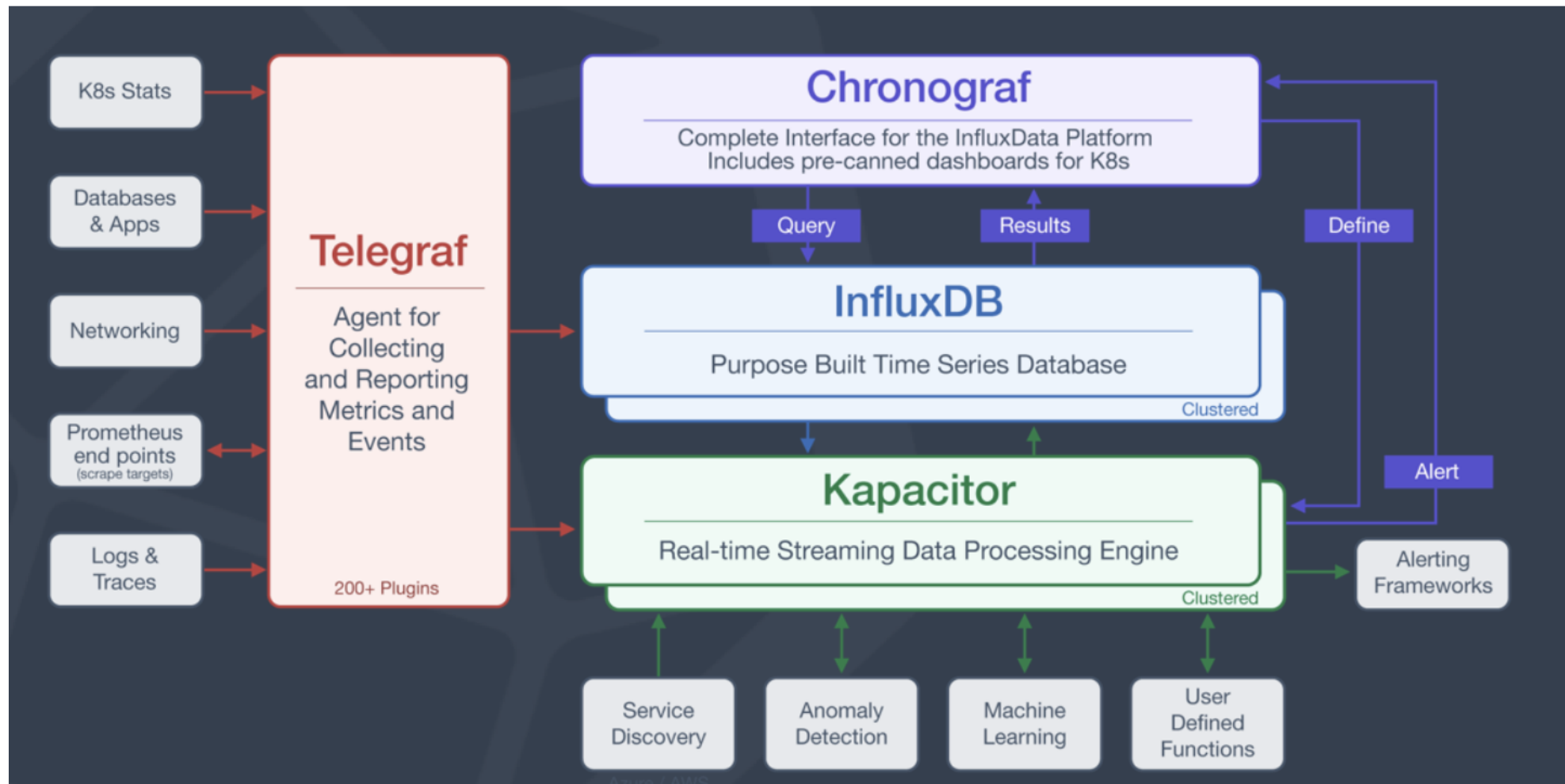
Trend of the last 24 months

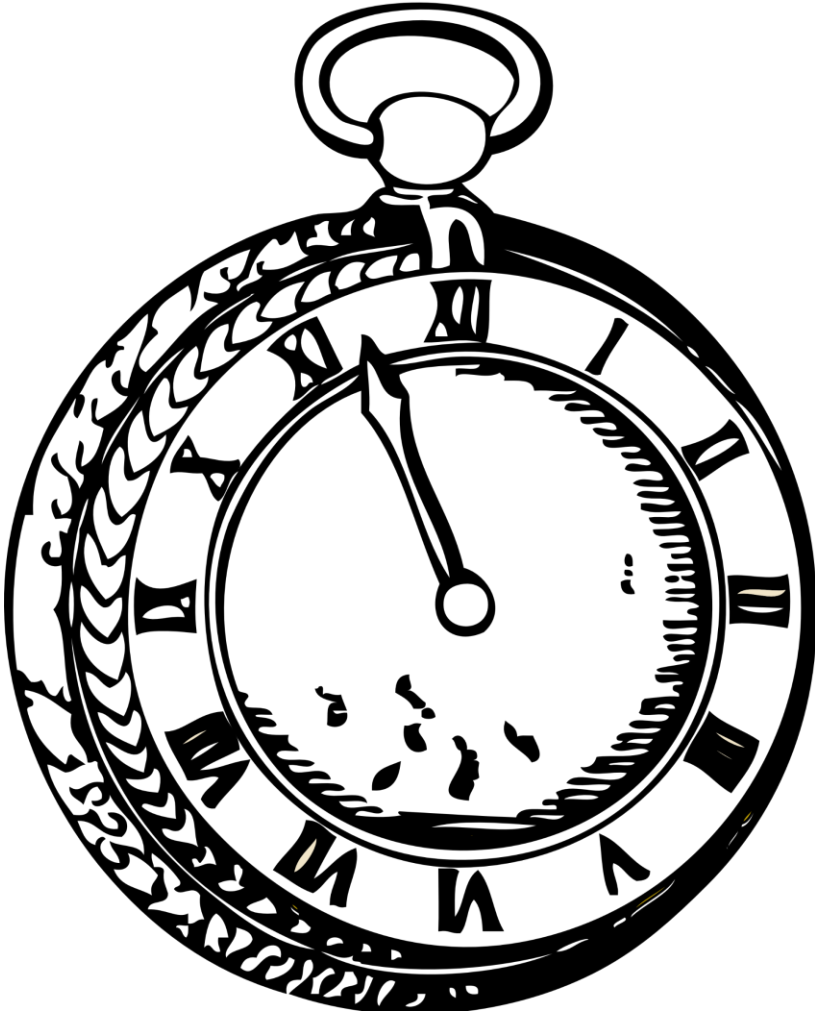


	A	B	C	D	E	F	G
1	Month	Time Series DB	Graph DBMS	Key-Value Stores	Search Engines	Document Store	RDF Store
2	Jul-17	106	101	110	155	120	
3	Aug-17	160	145	103	140	133	
4	Sep-17	163	158	149	163	116	
5	Oct-17	115	113	147	100	147	
6	Nov-17	110	153	146	100	162	
7	Dec-17	172	122	152	153	142	
8	Jan-18	169	116	148	174	128	
9	Feb-18	143	172	165	164	142	
10	Mar-18	173	132	107	125	154	
11	Apr-18	116	126	115	143	141	

T.I.C.K

End-to-end, flexible and pluggable platform for collecting, storing, processing, displaying, analysing and reporting time-series data at scale.

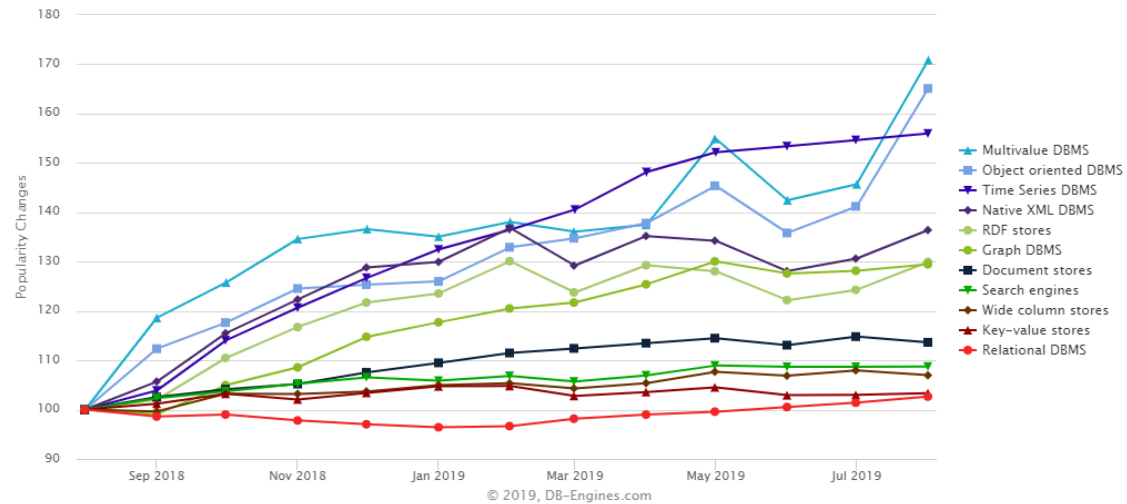




TIME-SERIES DATABASE WRAP-UP

TIME-SERIES DATABASES POPULARITY

Trend of the last 12 months



Trend of the last 24 months

