

## SQL Access to VistA

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# Overview



- A mature, high performance, hierarchical key-value , language-agnostic NoSQL database whose code base scales up to mission-critical applications like large real-time core-banking and electronic health records, and also scales down to run on platforms like the Raspberry Pi Zero, as well as everything in-between.
- *Rock Solid. Lightning Fast. Secure. Pick any three.*

YottaDB is a registered trademark of YottaDB LLC

- Octo is a SQL database engine that whose tables are stored in global variables
- Octo is a YottaDB application, not a GT.M application
  - Requires functionality in YottaDB and not available in GT.M
  - Runs on SI replication instance from GT.M or YottaDB

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## Demo Part 1 of 2



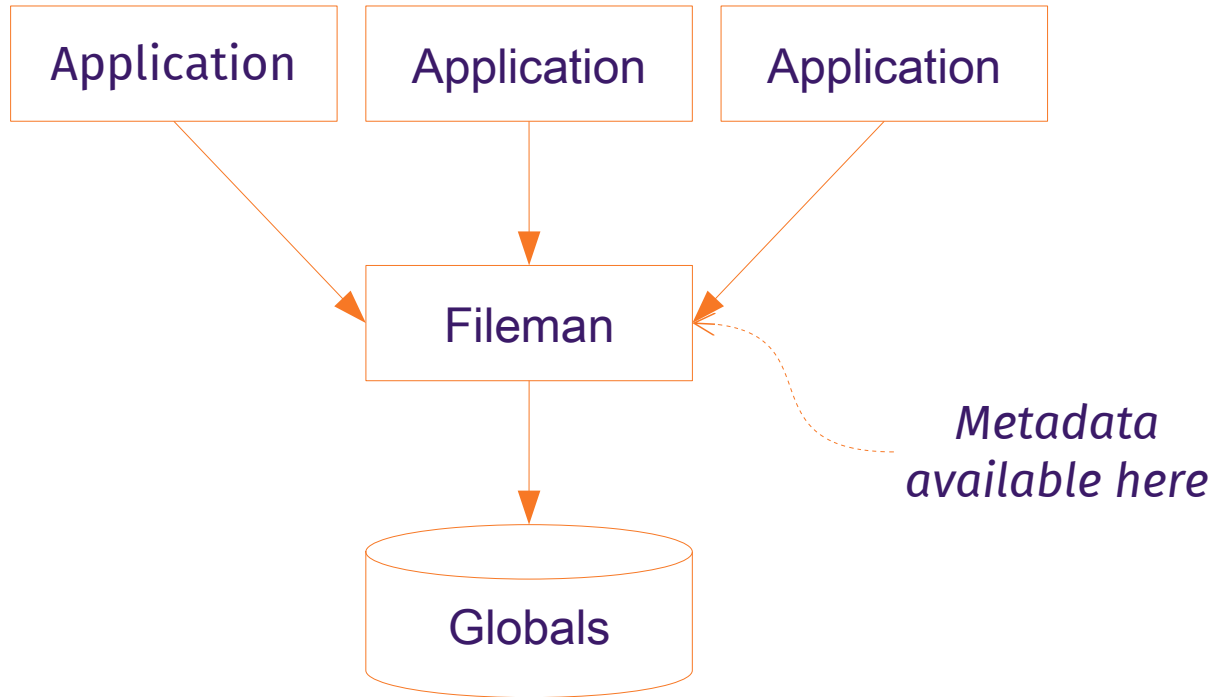
# SQL Access? Why?

- VistA is a great healthcare information system
- Fileman has capable and efficient reporting tools
- But...

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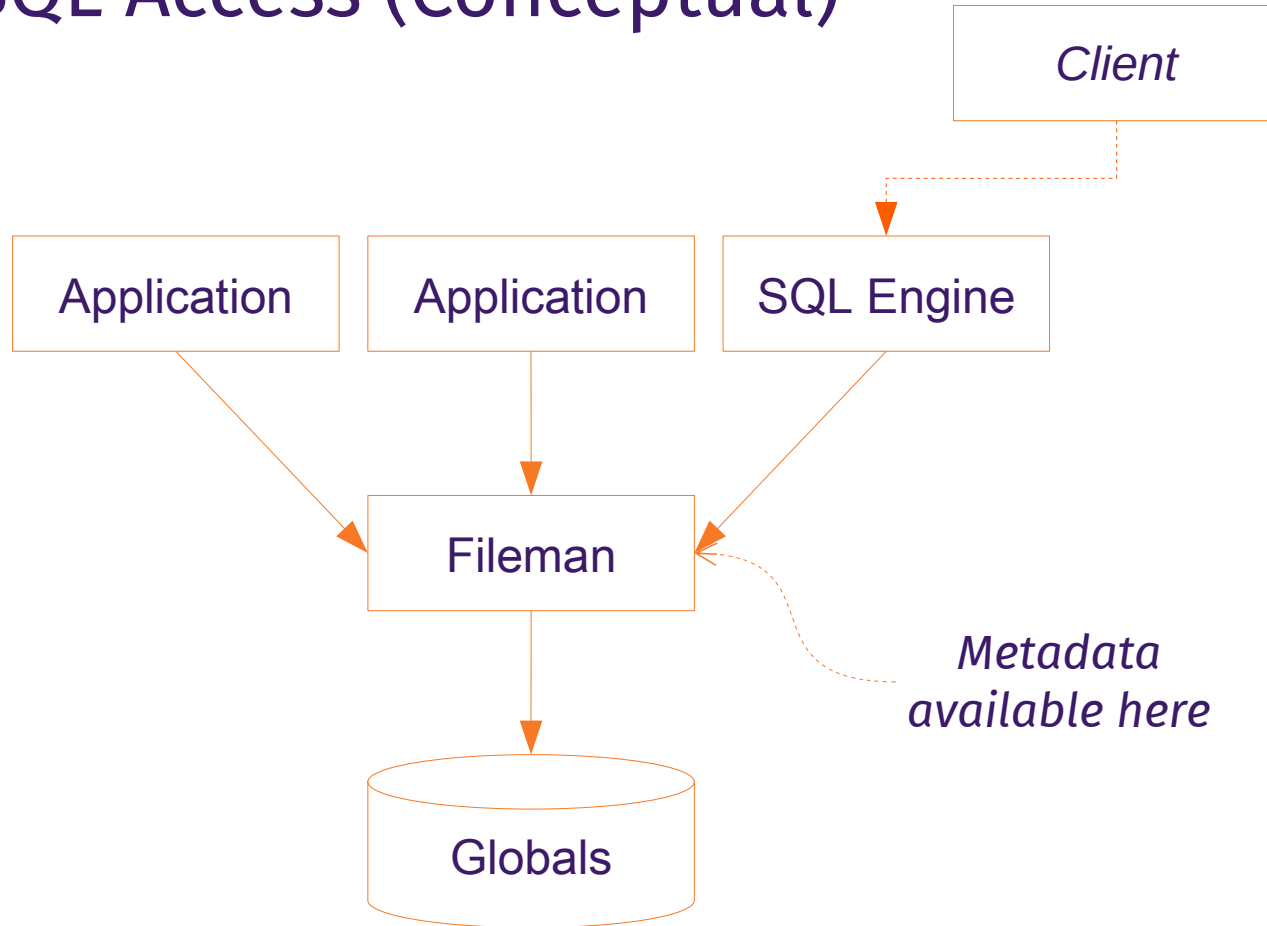
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- But...
  - Knowledge of Fileman and roll/scroll interface
  - Business analysts know SQL and expect GUIs
  - Wealth of existing tools, many FOSS – e.g., see <https://opensource.com/business/16/6/top-business-intelligence-reporting-tools>

# Vista Layers Simplified

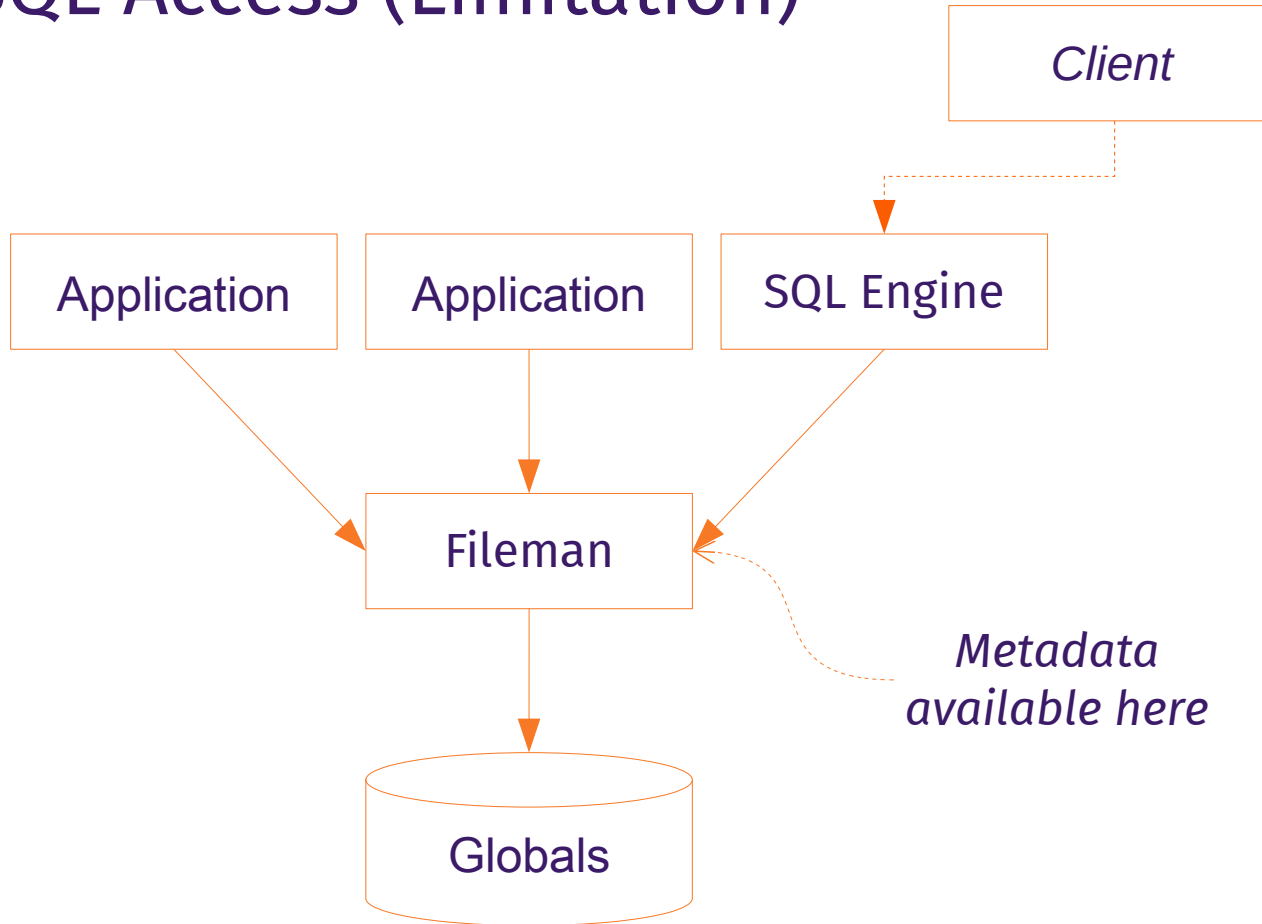




# SQL Access (Conceptual)



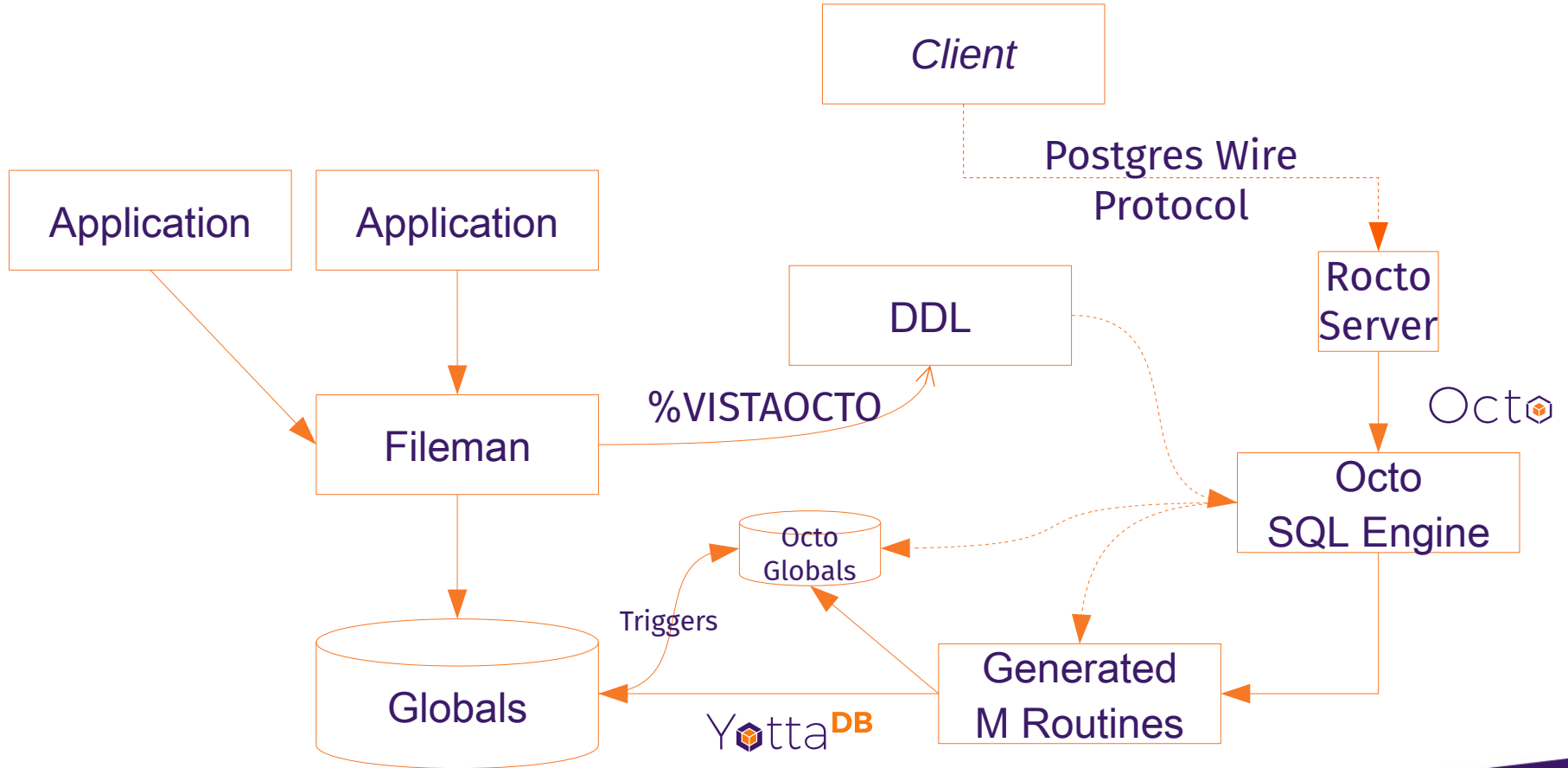
# SQL Access (Limitation)



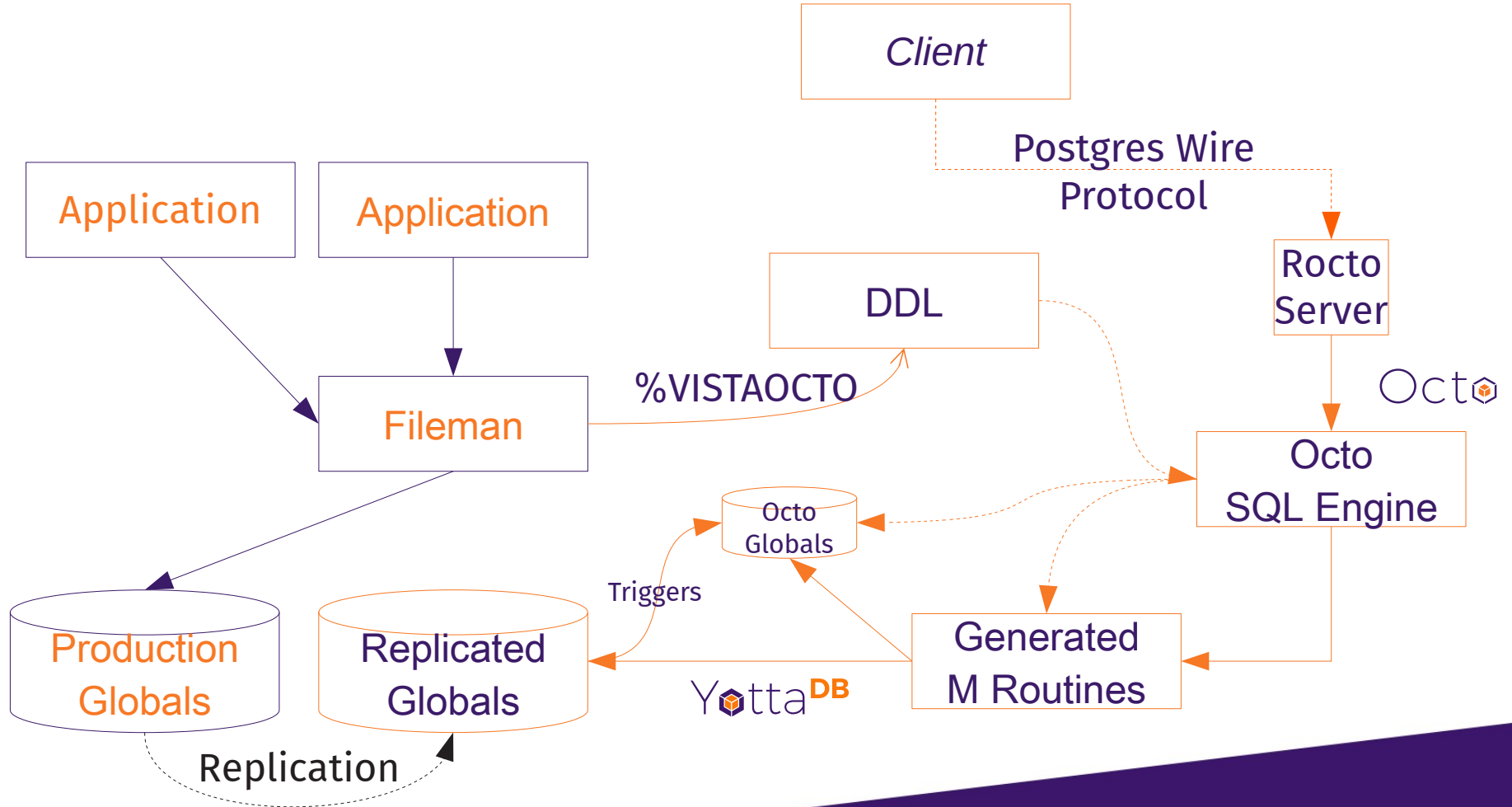
Performance bottleneck from reading metadata for every query!

*Metadata available here*

# Octo Architecture



# Octo Production Configuration



## Demo Part 2 of 2



# Octo Status & Road Map

- <https://gitlab.com/YottaDB/DBMS/YDBOcto>
- Initial production release on September 2020
- Continuously released
  - Every commit gets extensive regression testing using the Continuous Integration pipelines
  - You can drop in a new version anytime

# Octo Recently Implemented Functionality

- INSERT INTO, DELETE FROM, UPDATE implemented
- CREATE TABLE much more flexible on specifying globals or omitting them
- IF EXISTS/IF NOT EXISTS implemented on various CREATE/DROP grammar
- ydbinstall.sh now can install Octo
- Octo readline history support
- Excel support
- Lots of bug fixes and making Octo easier to use

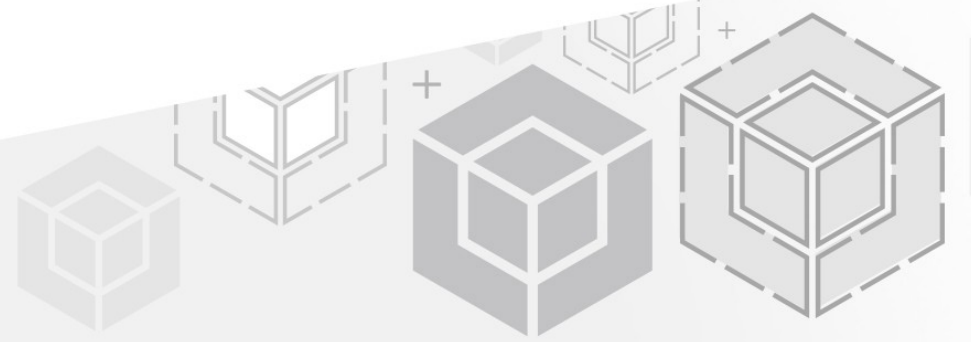
## Future Plans

- Full read/write support
- Compatibility with PostgreSQL and MariaDB grammar



## Try for yourself (port 1338)

```
docker run -d -p 2222:22 -p 8001:8001 -p 9430:9430 -p  
1338:1338 -p 8089:8089 -name=vehu samindcon/vehu
```



YottaDB

*Thank You!*

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