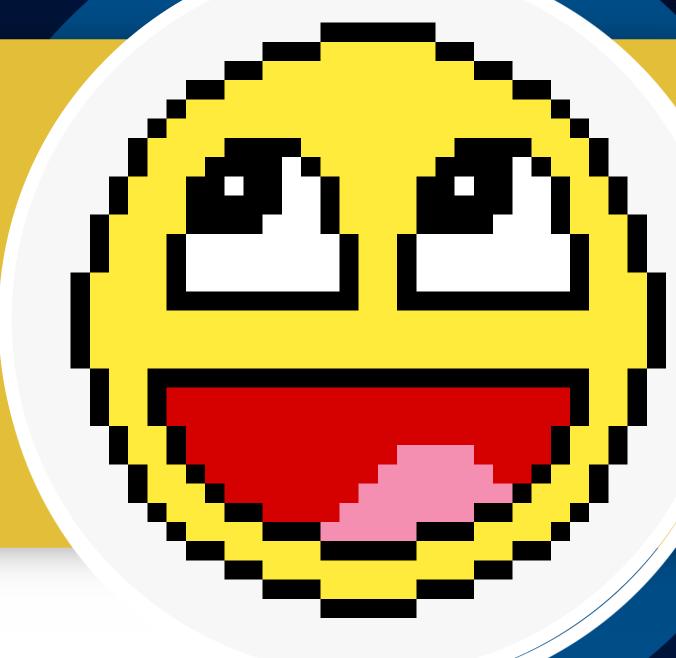
16 APRILE 2021



VIRTUAL EVENT

(MASSIVE) SCALE-OUT SOLUTIONS WITH AZURE SQL TO SUSTAIN ANY WORKLOAD



DAVIDE MAURI

@MAURIDB

### SPONSOR



# managed/designs

il partner tecnologico per chi ha idee ambiziose. Innovazione pratica da 15 anni.



empower every person and every organization on the planet to achieve more.





# Swag and more

- Claim your attendee Learner Badge here:
- 30 Days to learn it: <a href="mailto:aka.ms/global-azure/30D2L">azure/30D2L</a>
- Virtual background and ANOTHER Badge: <u>blog.globalazure.net/Swag</u>





### Davide Mauri

### Azure SQL PM @ Microsoft

What a PM does exactly?

https://www.youtube.com/watch?v=lgfEyE2VxzA

Joined Azure SQL group on mid 2019

Still a developer at heart!

SQL Server / Azure Data MVP for 12 Years

Worked in consulting services for 20 years

Very active in the Community

Conference Speaker

Lots of Blog Posts/Articles: <a href="https://medium.com/@mauridb">https://medium.com/@mauridb</a>

GitHub Repo: <a href="https://github.com/yorek/">https://github.com/yorek/</a>

Twitter: <a href="https://twitter.com/mauridb">https://twitter.com/mauridb</a>

Website: <a href="http://www.davidemauri.it/">http://www.davidemauri.it/</a>

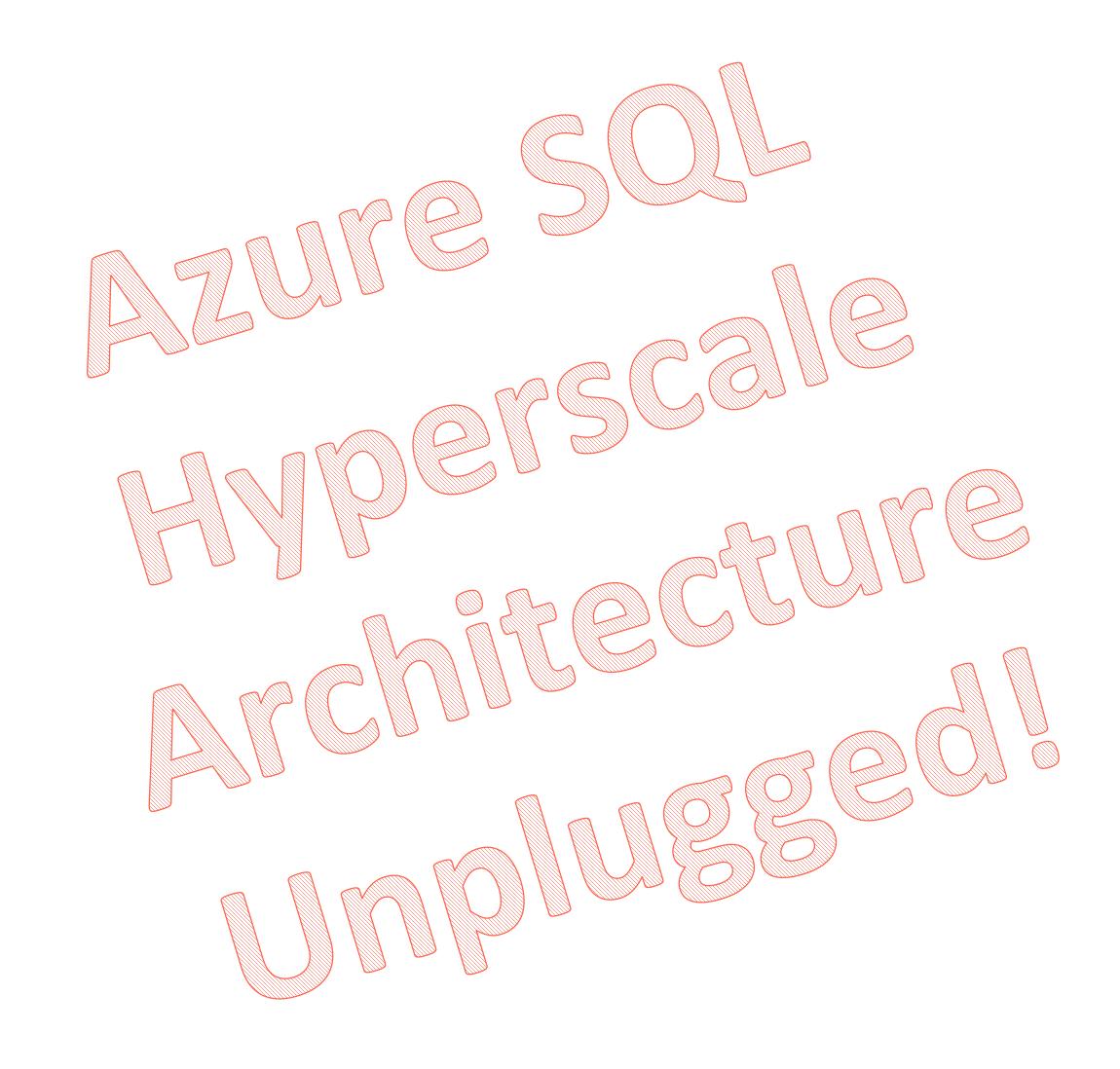






- Azure SQL Hyperscale
- Complete rearchitecture & refactoring of Azure SQL / SQL Server engine
- Well, the query processor and optimizer and language are still the same
  - The storage engine and the write ahead log architecture are REALLY different
  - And modern
  - And distributed
  - And scalable





## AZURE SQL HYPERSCALE



- Multi-Tiered Distributed Cache
- Azure Storage rarely used (just for "seeding")
- Compute and Storage (and Log) completely independent and separated
- Scale-Out is now quite easy
- No data movement involved (if in the same region)
- Secondary Replicas, here you go!





## AZURE SQL HYPERSCALE

#### OK, BUT....



- How much it can really scale?
- Show me some meat!
- Right! What about ingesting 10.000 rows/second
  - A mix of "relational" and JSON data
  - Typical Gaming, IoT, Mobile payload
- Of course, while also performing transactional and analytical queries
  - Without affecting ingestion performances





# AZURE SQL HYPERSCALE

#### SCALE OUT USE CASES



- Massive OLTP Scale Out
  - REST API
  - E-Commerce
  - Mobile Apps
  - Gaming
- Near-Realtime Analytics and HTAP
- Massive Ad-Hoc Reporting & Analytics on Near-Real Time Data

### RESOURCES



Autoscale Hyperscale With Azure Functions

Streaming at Scale with Azure SQL

10K Request per Second: REST API with Azure SQL, Dapper and JSON

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# THANKSI

#GLOBALAZURE