

#FABCONSQLCON2026

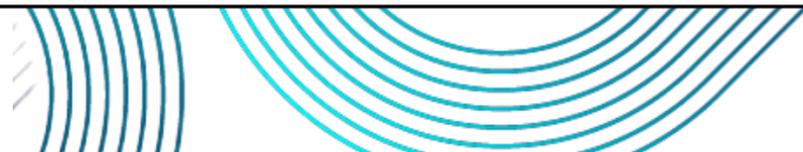
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Microsoft Fabric
COMMUNITY CONFERENCE

SQLCON

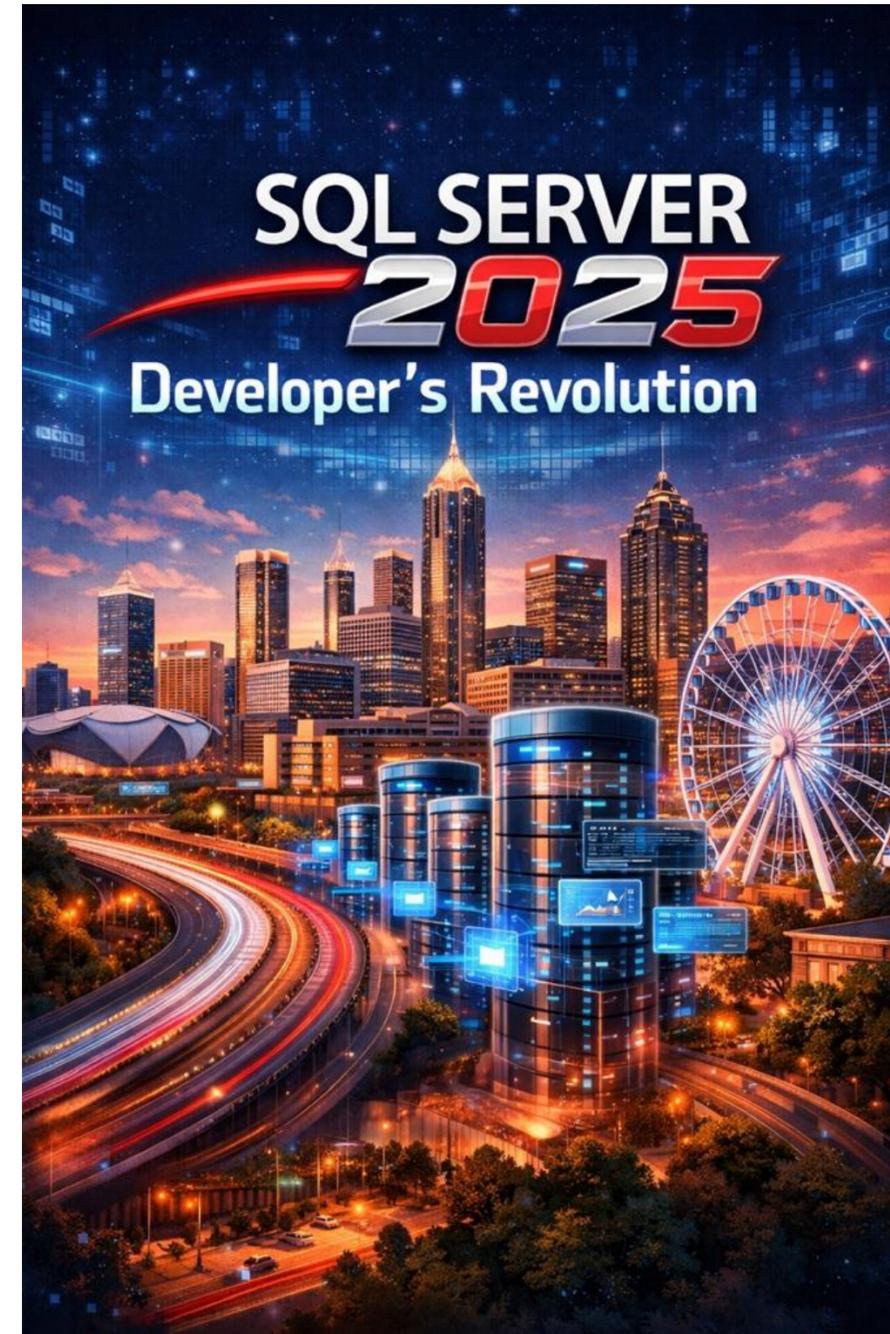
Microsoft SQL
COMMUNITY CONFERENCE

ATLANTA MARCH 16 - 20, 2026



SQL Server 2025: The Developer's Revolution

Javier Villegas / Gonzalo Bissio



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Influence the product roadmap.

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<https://aka.ms/JoinFabricUserPanel>

Join the SQL User Panel



Influence our SQL roadmap and ensure it meets your real-life needs

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Javier Villegas

- IT Director – DBA and BI Services at MSC
 - Working with the SQL Server for 30 years
- Microsoft MVP - Data Platform
- Microsoft Certified Trainer
- Microsoft Certified: Fabric Analytics Engineer Associate
- Former Azure Data Community Advisory Council
- Technical Speaker



Gonzalo Bissio

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- Microsoft Certified Trainer
- Microsoft Certified: Fabric Analytics Engineer Associate
- Technical Speaker



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Generally Available



SQL Server 2025

The AI-ready enterprise database from ground to cloud

AI built-in

Built for
developers

Mission Critical

aka.ms/sqlserver2025

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#FABCONSQLCON26

The AI-ready enterprise database from ground to cloud



AI built-in



Develop modern data applications



Integrate your data with Fabric



Secure by default



Mission critical engine



Connected with Arc



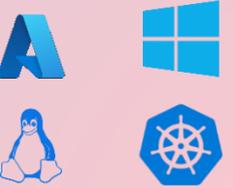
Managed DR



Assisted by Copilots



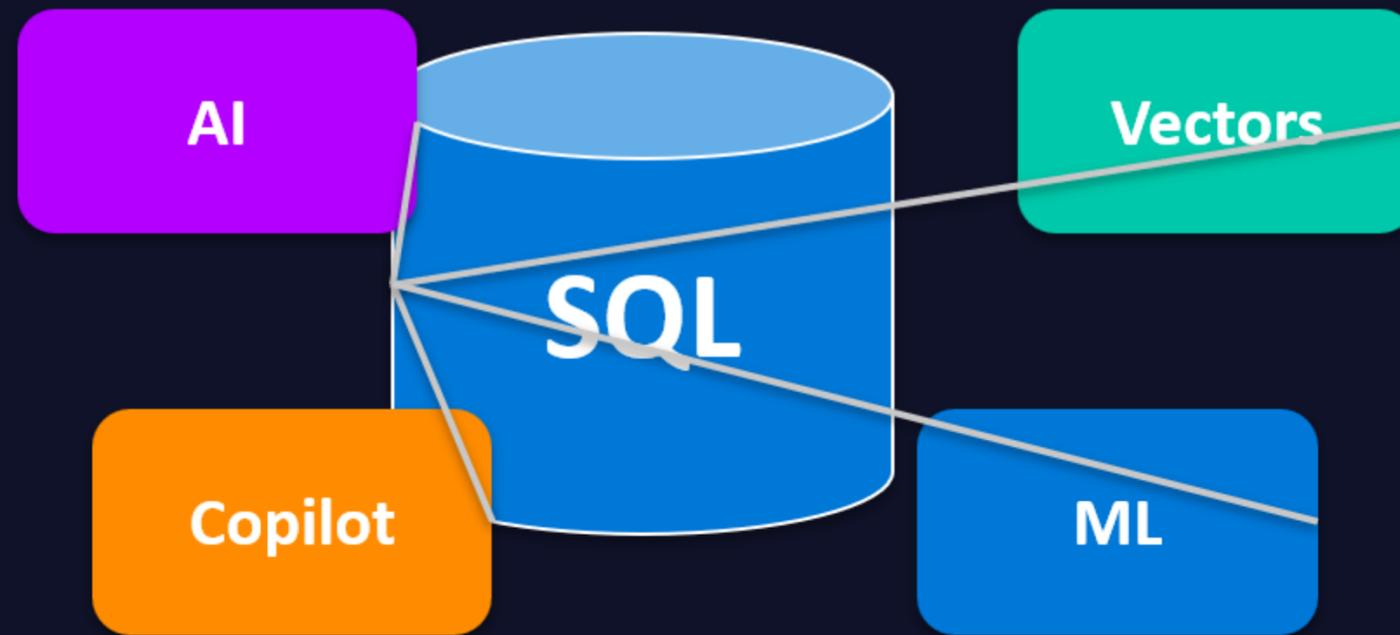
Benchmark¹ leader



Built for all platforms

AI Built-In

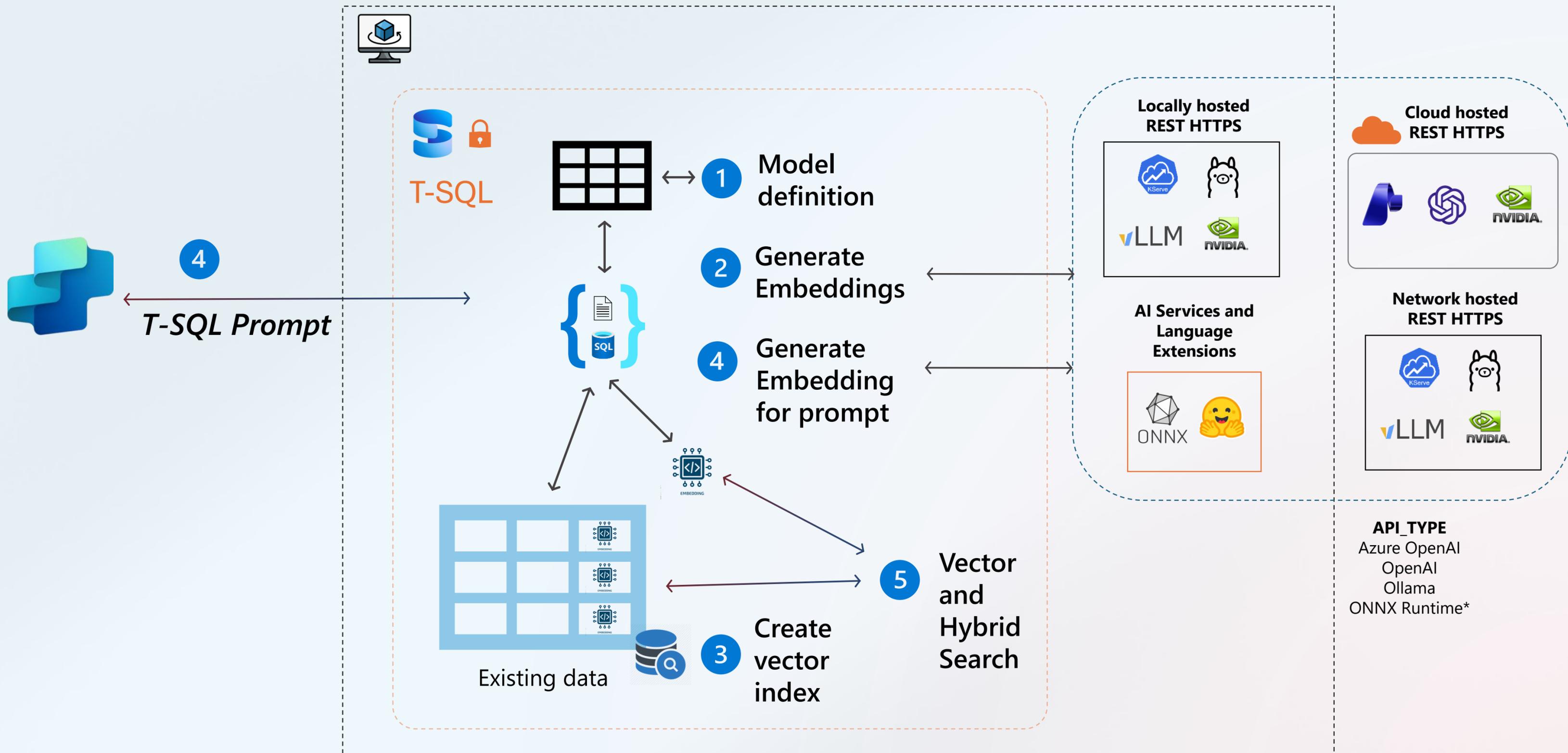
SQL Server 2025



What problems are we trying to solve with AI?

- ✓ **Smarter searching** on your existing text data
- ✓ Bring in other documents/text for **centralized vector searching**
- ✓ Provide **building blocks** - Intelligent assistants, RAG, AI Agents
- ✓ Take advantage of AI in a **secure and scalable** fashion
- ✓ **Overcome complexity** by using the familiar T-SQL language

SQL Server 2025 Vector Architecture





Built for developers

Develop modern data applications



Data API Builder
REST or GraphQL

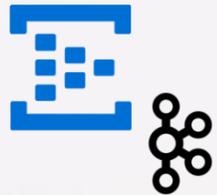


JSON
JSON type, index,
and updated T-SQL
functions

Change Event Streaming*
Consume log change
events

T-SQL
RegEx and other
T-SQL functions

REST API
Connect your data
to **any** REST interface
with HTTPS



{ REST }



gpt-oss

There's more...

-  GitHub Copilot for MSSQL
-  Microsoft Python Driver for SQL Server

* Enabled by PREVIEW_FEATURES

JSON



< SQL Server 2025

varchar/nvarchar column

Any index that supports varchar/nvarchar

Various functions for JSON



SQL Server 2025

json data type – binary storage up to **2GB**

.modify operator

json index

+ JSON_OBJECTAGG and JSON_ARRAYAGG

+ JSON_CONTAINS

+ JSON_QUERY WITH ARRAY WRAPPER

Save space with compressed storage

Less I/O and page reads

{ REST }

REST in the engine?

Off by default

Securely avoid roundtrips to send data to a REST endpoint

What is the REST protocol for your endpoint? curl.exe is your friend...so is Copilot

```
EXECUTE @returnValue = sp_invoke_external_rest_endpoint
```

```
[ @url = ] N'url'
```

HTTPS local or remote

```
[ , [ @payload = ] N'request_payload'
```

This is the crucial piece

```
[ , [ @headers = ] N'http_headers_as_json_array'
```

```
[ , [ @method = ] 'GET' | 'POST' | 'PUT' | 'PATCH' | 'DELETE' | 'HEAD'
```

```
[ , [ @timeout = ] seconds ]
```

```
[ , [ @credential = ] credential ]
```

API key, SAS token, managed identity

```
[ , @response OUTPUT ]
```

NVARCHAR but often JSON

```
[ , [ @retry_count = ] # of retries if there are errors ]
```

HTTP_EXTERNAL_CONNECTION wait

Some T-SQL Love



RegEx
functions

PRODUCT()

BASE64
functions

Fuzzy string match
functions

CURRENT_DATE
returns DATE

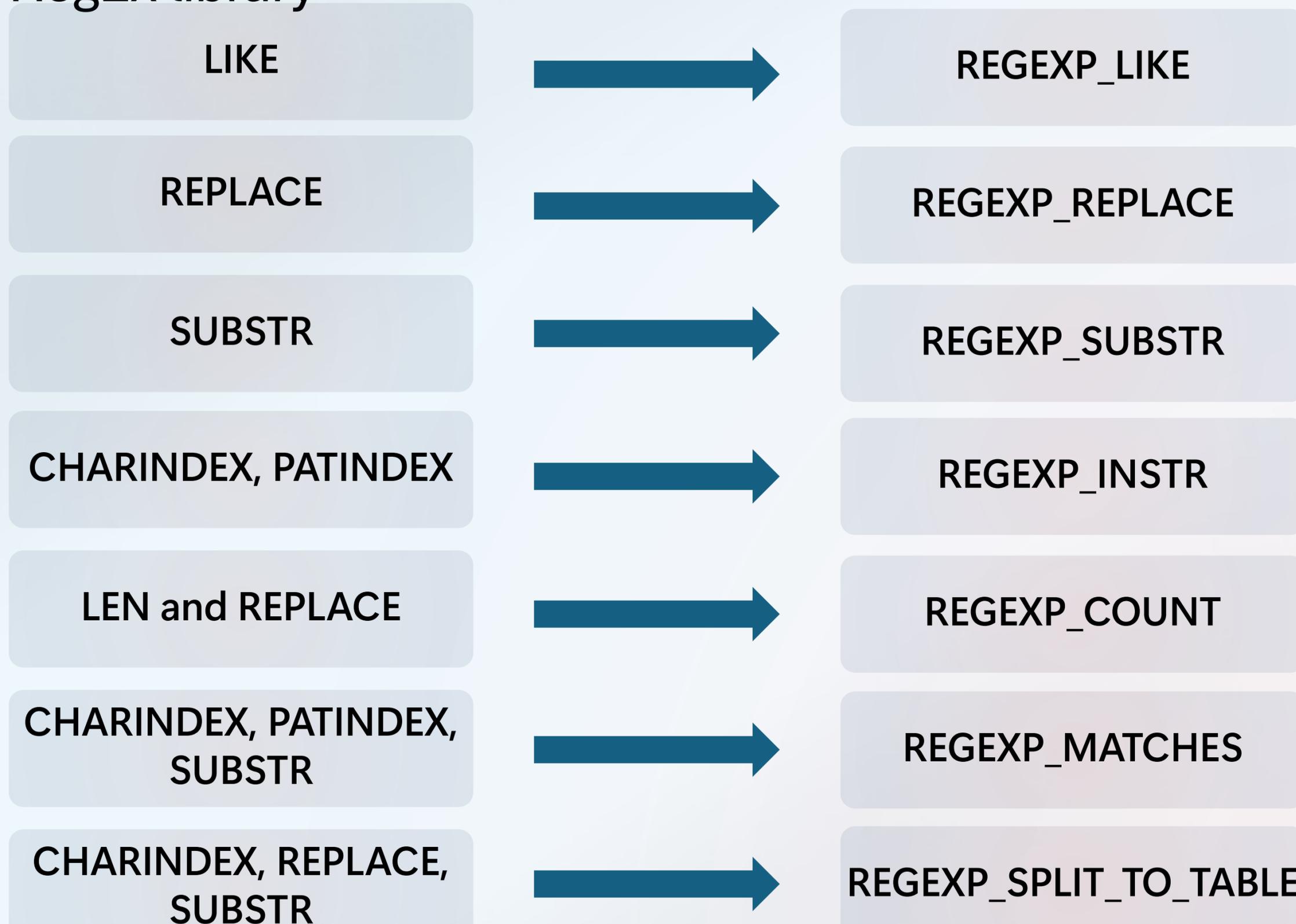
SUBSTRING()
optional length

UNISTR()

||
string concat
operator

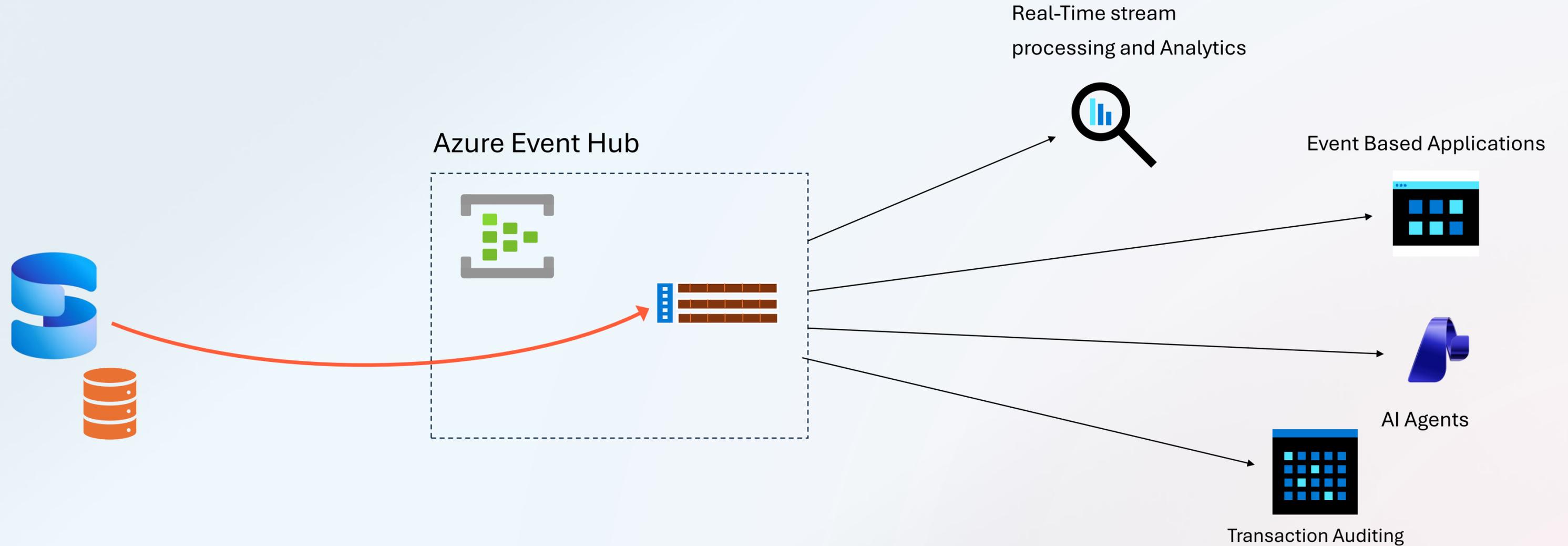
DATEADD()
supports bigint

The T-SQL RegEx library



Change Event Streaming (CES)

CES enables you to stream your data changes in **near real-time** from **SQL data** directly into **Azure Event Hubs**.



Capturing changes with SQL Server

	Change Tracking (CT)	Change Data Capture (CDC)	Change Event Streaming (CES)
Capture Source	As part of committed transactions (sync)	Committed transactions from transaction log (async). Requires SQL Server Agent	Committed transactions from transaction log (async)
Capture Destination	System table (minimum)	System table (extra logging required)	Event stream (“IOless”)
Data Captured	Row identifier (DDL allowed)	Row identifier and data	Row identifier and data (DDL allowed)
Capture Method	Query system tables and user tables. Multiple destinations	Query system tables. Multiple destinations	Process event stream (“IOless”). Single destination
Availability	Immediate (pull-based)	Near real-time (pull-based)	Near real-time (push-based)
SQL effects	Transaction commit	Transaction log truncation .	Transaction log truncation
Typical Use Cases	Cache invalidation and sync	Data warehousing and auditing	Event-driven architectures – microservices integration, real-time analytics, cache sync, AI Agents

MSSQL extension for VS Code



Generally Available



GitHub Copilot Ask and Agent mode

Chat, inline suggestions, and slash commands

Product Updates panel (new features, changes, resources)

Public Preview



View and Edit data

Data-tier Application (DACPAC/BACPAC) export/import

SQL Database Projects – Publish Dialog

Drivers

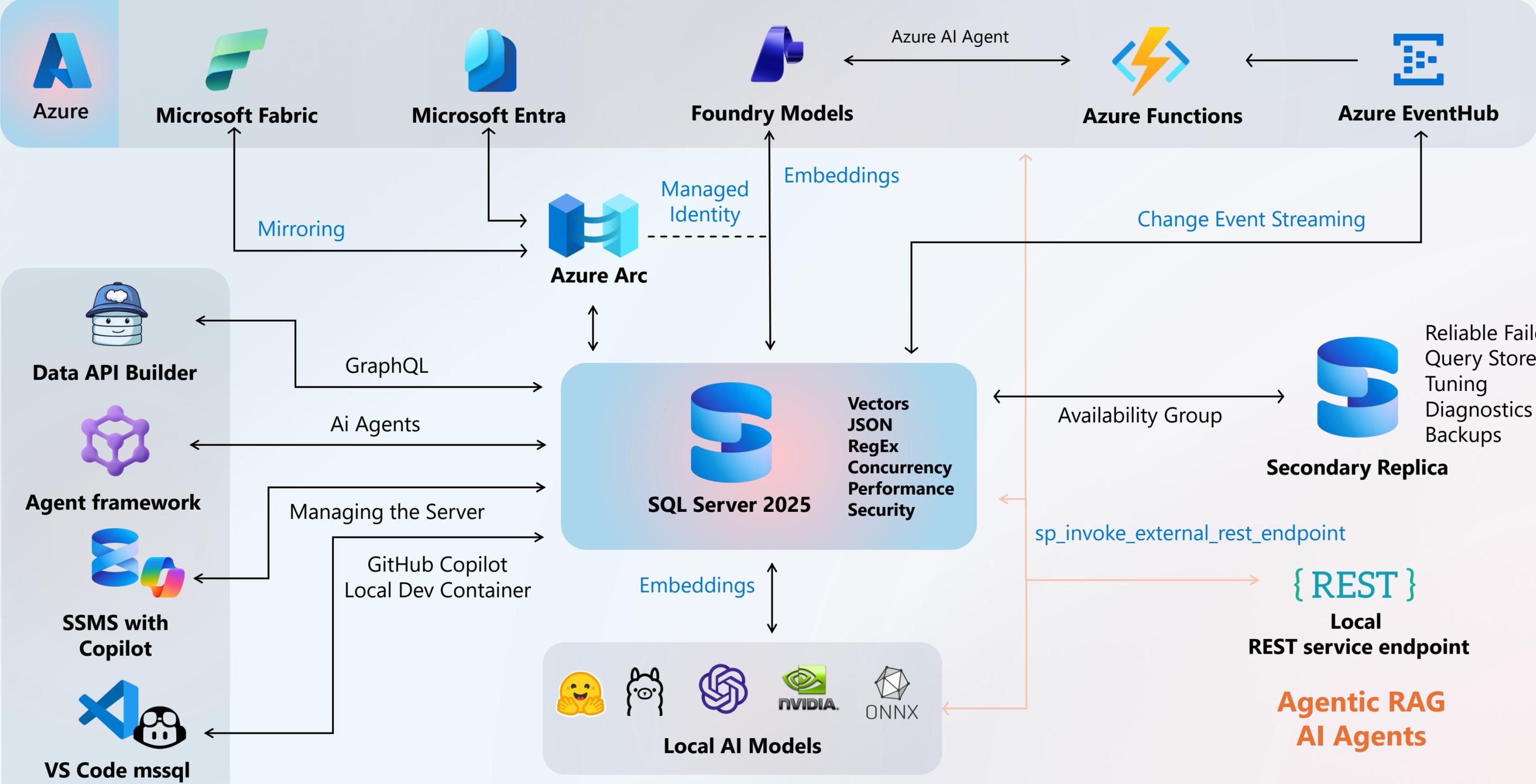
Generally Available

Python Driver: `mssql-python`

Latest versions of `Microsoft.Data.SqlClient` (MDS) and `JDBC` all support the new vector and JSON data types

Support for vector in `ODBC` coming soon

The SQL Server 2025 Platform Architecture



SSMS 22

aka.ms/ssms



Generally Available



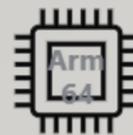
SQL Server 2025 support



Fabric integration



GitHub Copilot (Preview)



Windows ARM64 support



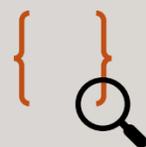
Migration Assistant



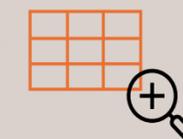
Query Hint Recommendation tool



New themes including dark



JSON viewer



Zoom results grid

SQL Server 2025 editions

The AI-ready enterprise database from ground to cloud

No pricing or licensing changes



Express

Free, entry-level database for small AI, web and mobile apps

Feature highlights

- 50 GB maximum relational databases size **NEW**
- Up to 4 cores of CPU
- Up to 1410 MBs of memory
- Built-in vector search and semantic search **NEW**
- Native JSON type support **NEW**
- External REST endpoint invocation **NEW**
- Change event streaming **NEW**
- Microsoft Entra ID authentication **NEW**
- Mirroring in Fabric **NEW**



Standard

Full featured database with extensive scale for mid-tier applications

Feature highlights

+ Express features

- Up to 32 cores of CPU **NEW**
- Up to 256 GB of memory **NEW**
- Optimized locking **NEW**
- Resource Governor **NEW**
- ZSTD Backup Compression Algorithm **NEW**
- Basic Availability Groups
- Azure SQL Managed Instance link
- Accelerated Database Recovery
- Backups to S3-compatible object storage
- 524 PB maximum relational databases size



Enterprise

Highest performance and scaling for business-critical workloads

Feature highlights

+ Express and Standard features

- Highest core count supported
- Highest memory supported
- Built-in Intelligent Query Processing
- Online and Resumable Index Operations
- Availability Groups: including distributed and contained
- Query Store for readable secondaries
- Persisted Statistics for Secondary Replicas (Query store)

Developer

Free to use for dev/test in non-production environments



Standard Developer **NEW**



Enterprise Developer

How was the session?



Complete Session Surveys in
Whova for your chance to WIN
PRIZES!

