Checkmk Conference #10

New in 2.3:

Next-gen database monitoring

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Checkmk GmbH

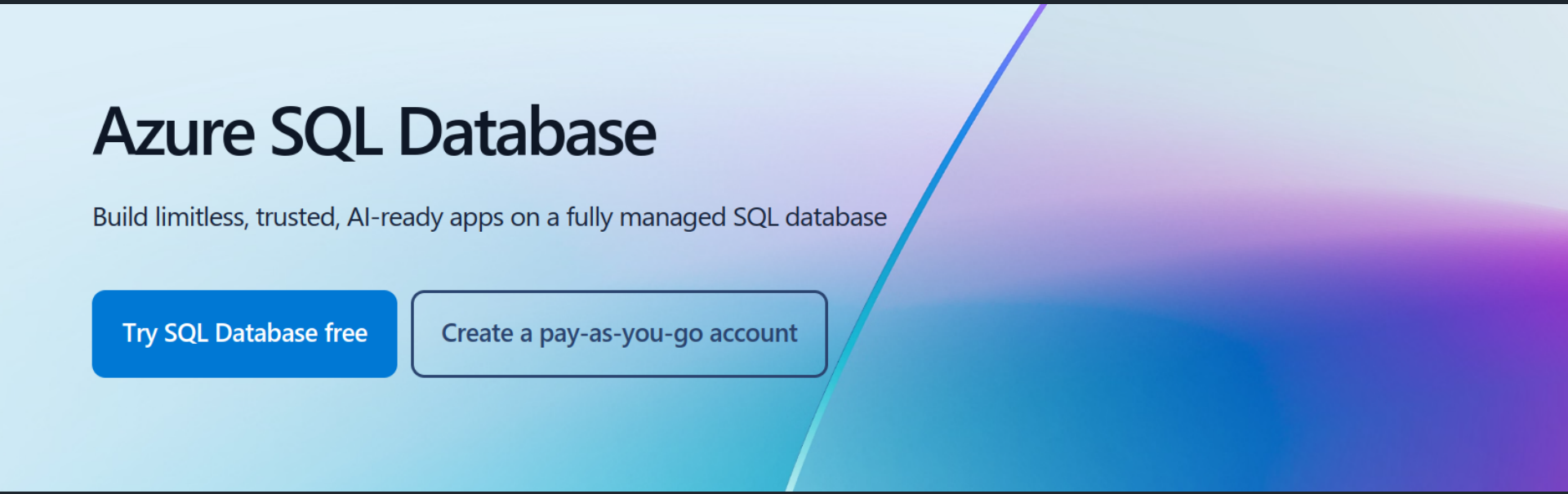
Checkmk knows how to do DB monitoring

We know how to do database monitoring: Oracle monitoring

We want all database plug-ins to have such extensive features

The world is changing

Hybrid infrastructure: Databases moving to the cloud



Why we chose MS SQL

User

... trying to set up the MS SQL plugin and running into performance issues ...

... had to install an old version of Microsoft OLE DB Driver for SQL Server ...

Does anybody still know VBS?
And 1,000 lines of it!

Developer

A lot of room for improvement

Usage

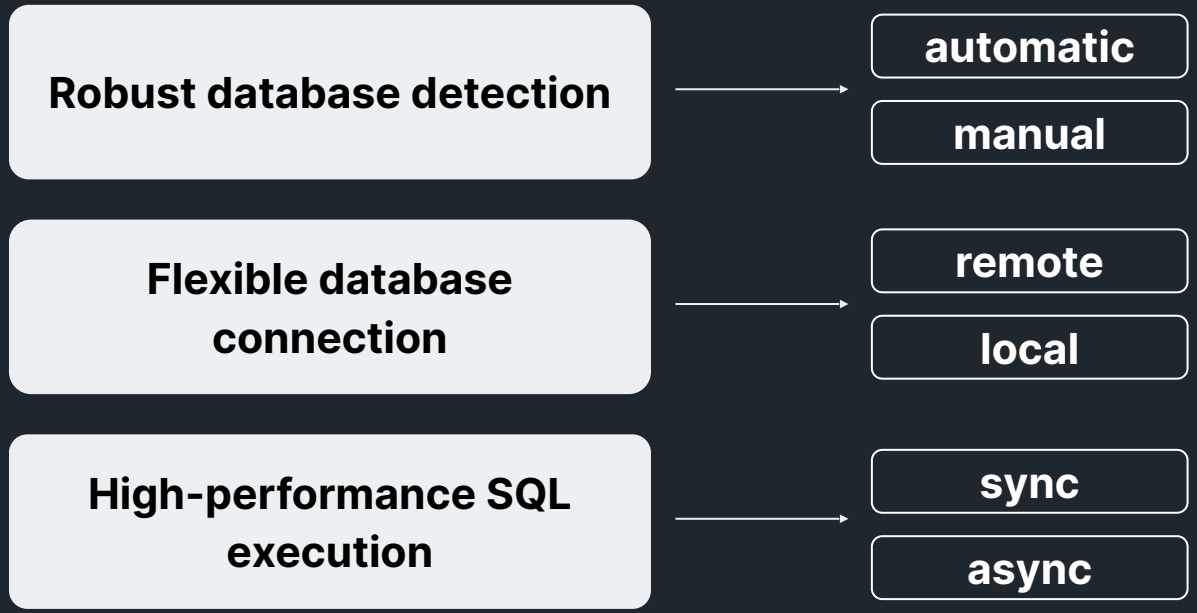
- Little functionality
- Little control of execution
- Serial execution
- Deprecated technology (VBS)

Maintenance

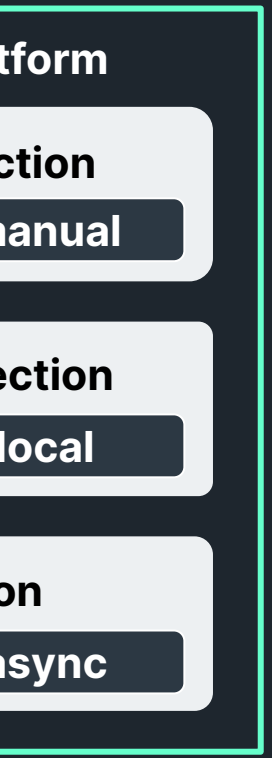
- Hard to debug the execution
- Error prone code architecture
- Fixing bugs is time consuming

A lot of room for improvement

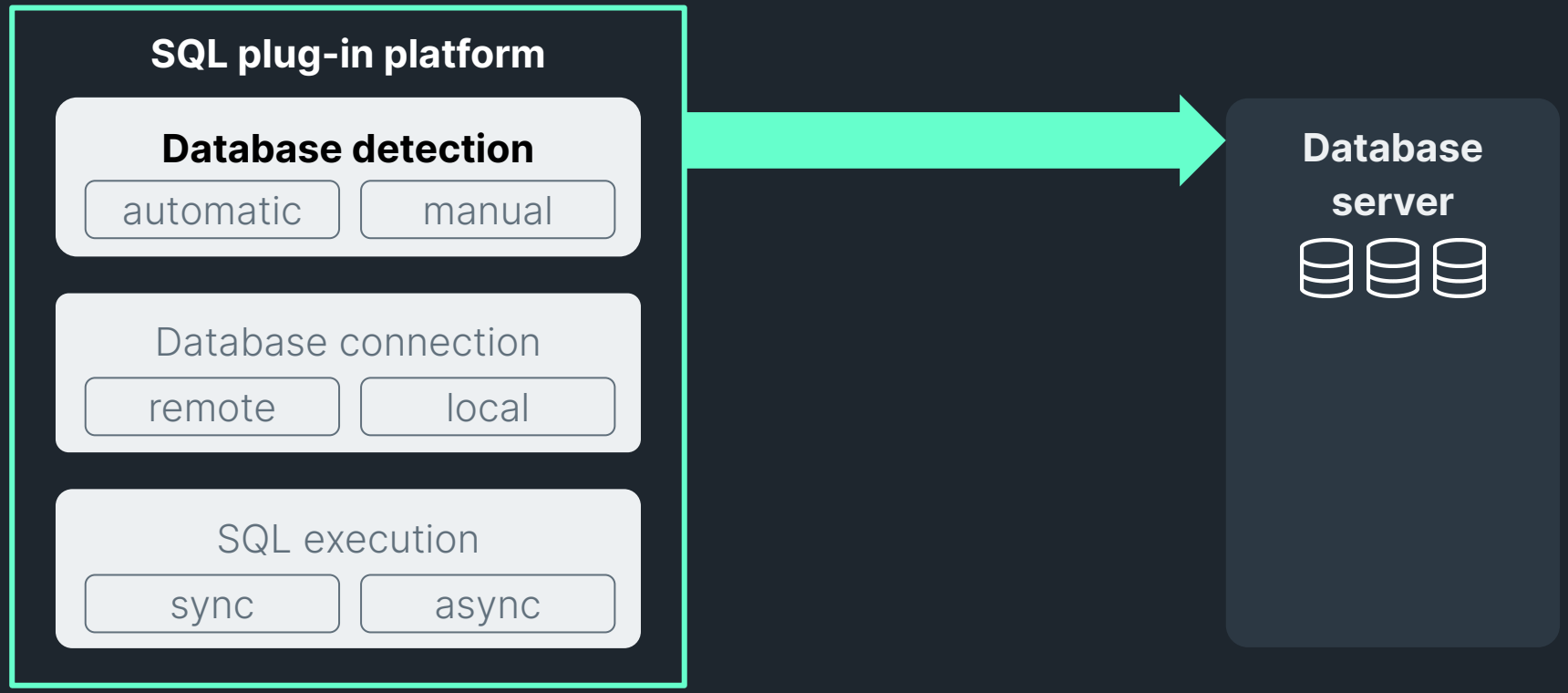
Fundamentals for a good database plug-in



Pillars of our new plug-in architecture



Built to deal with any SQL database



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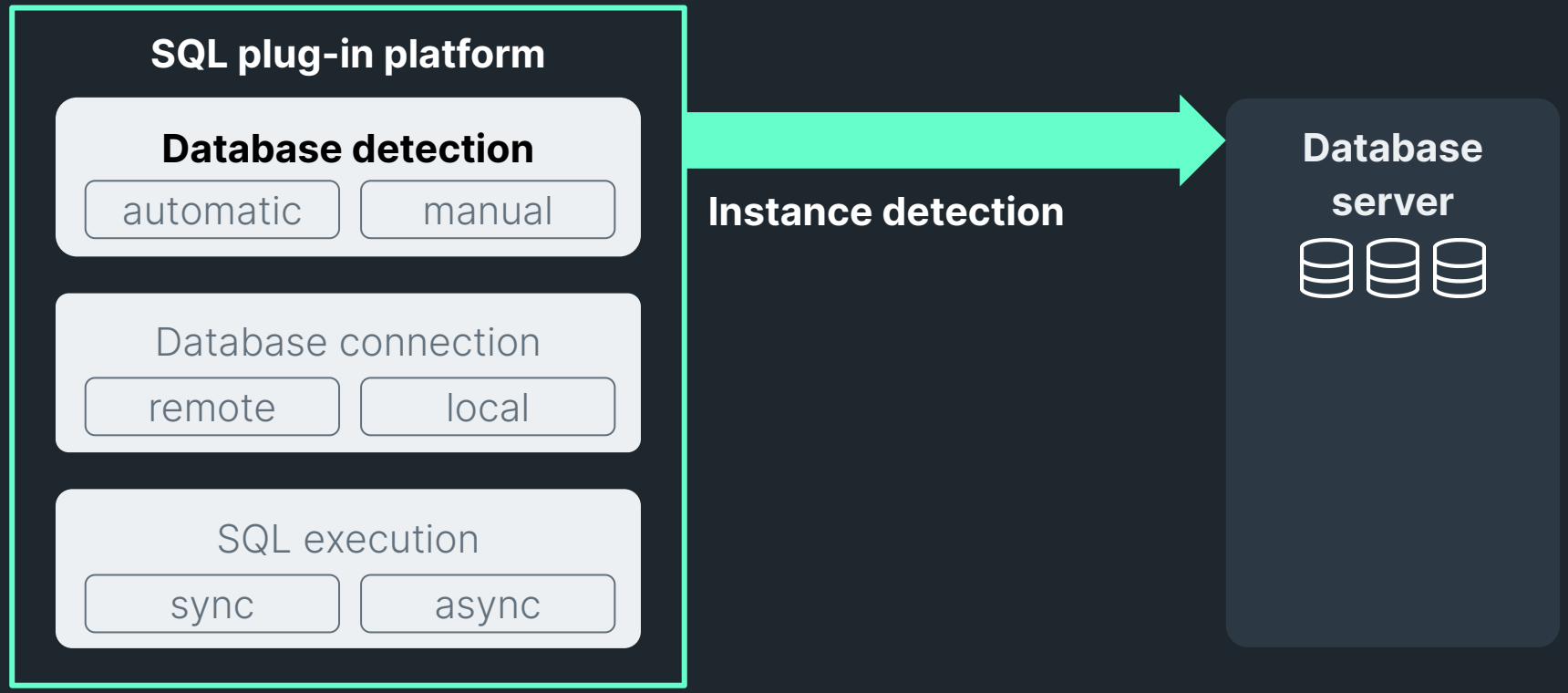

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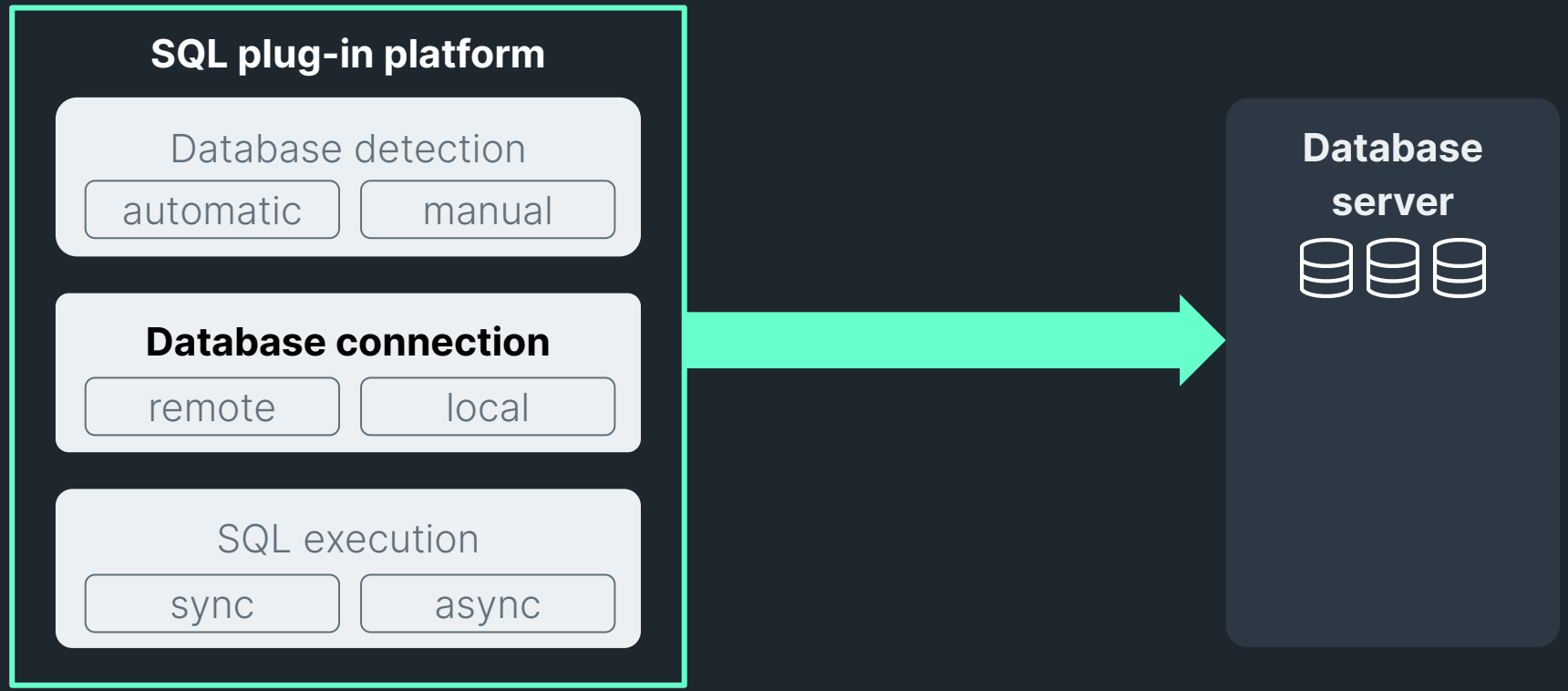

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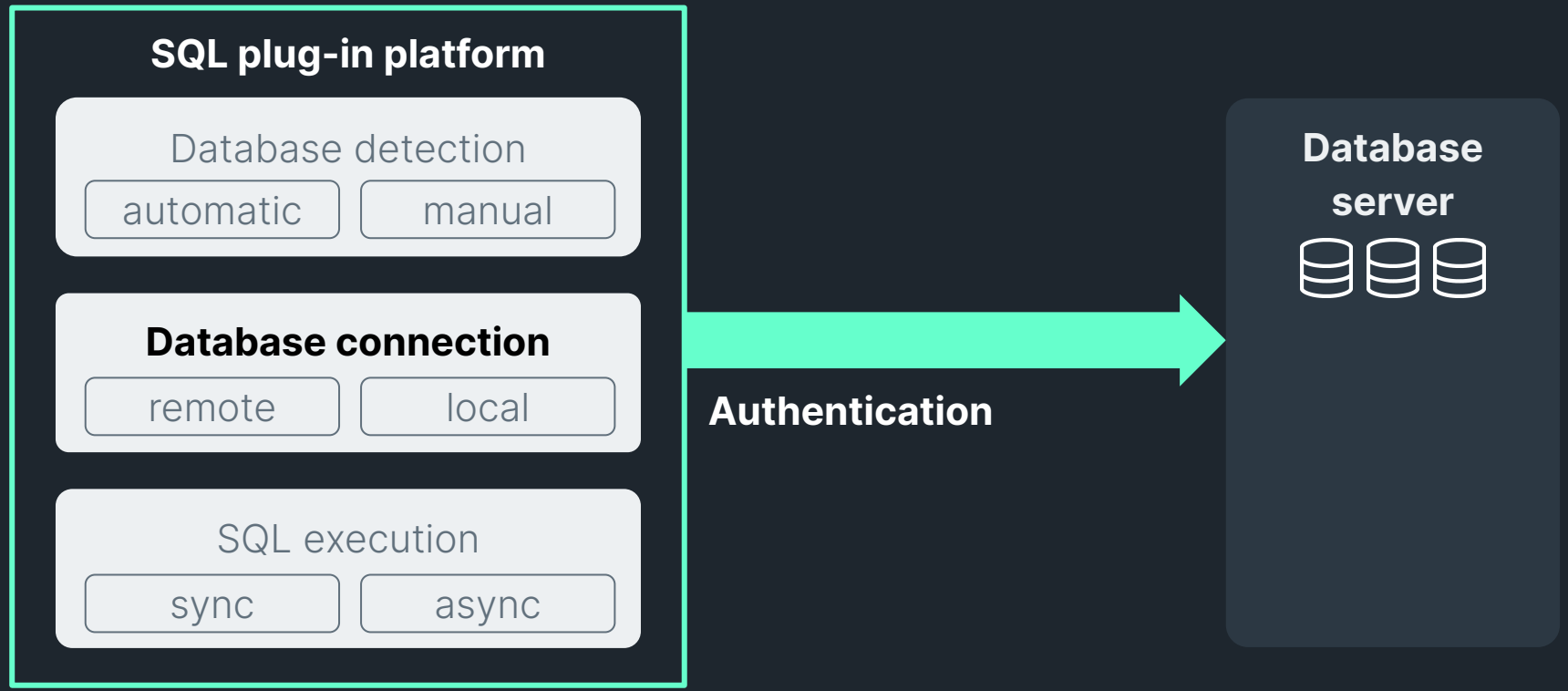

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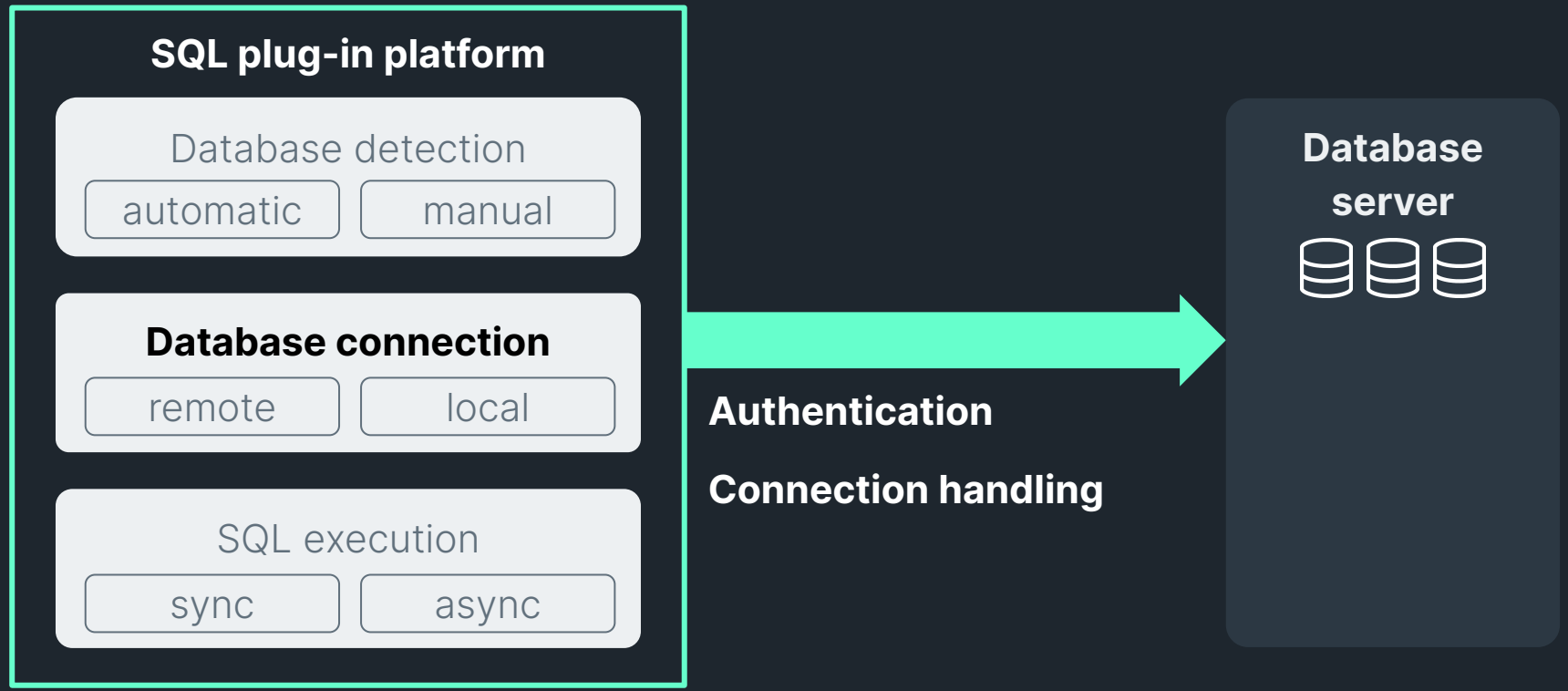

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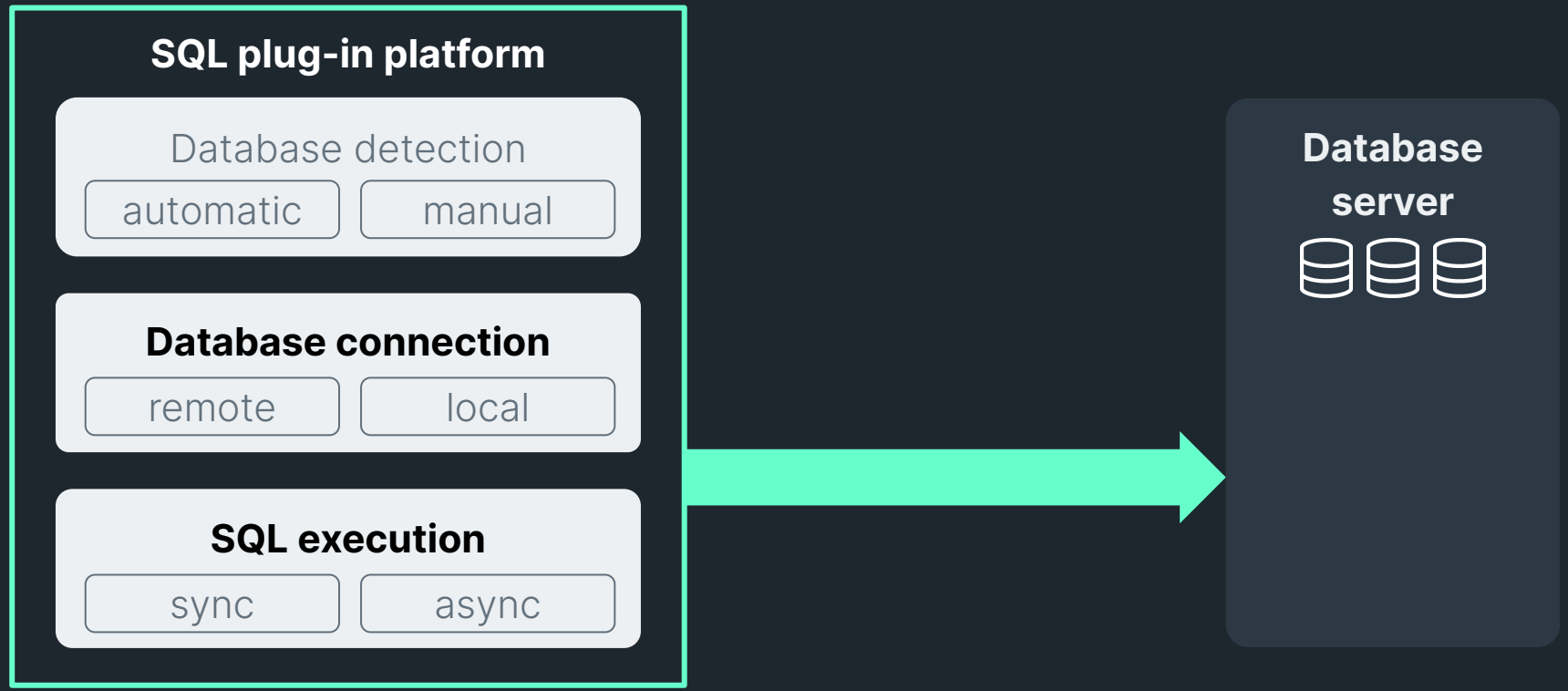

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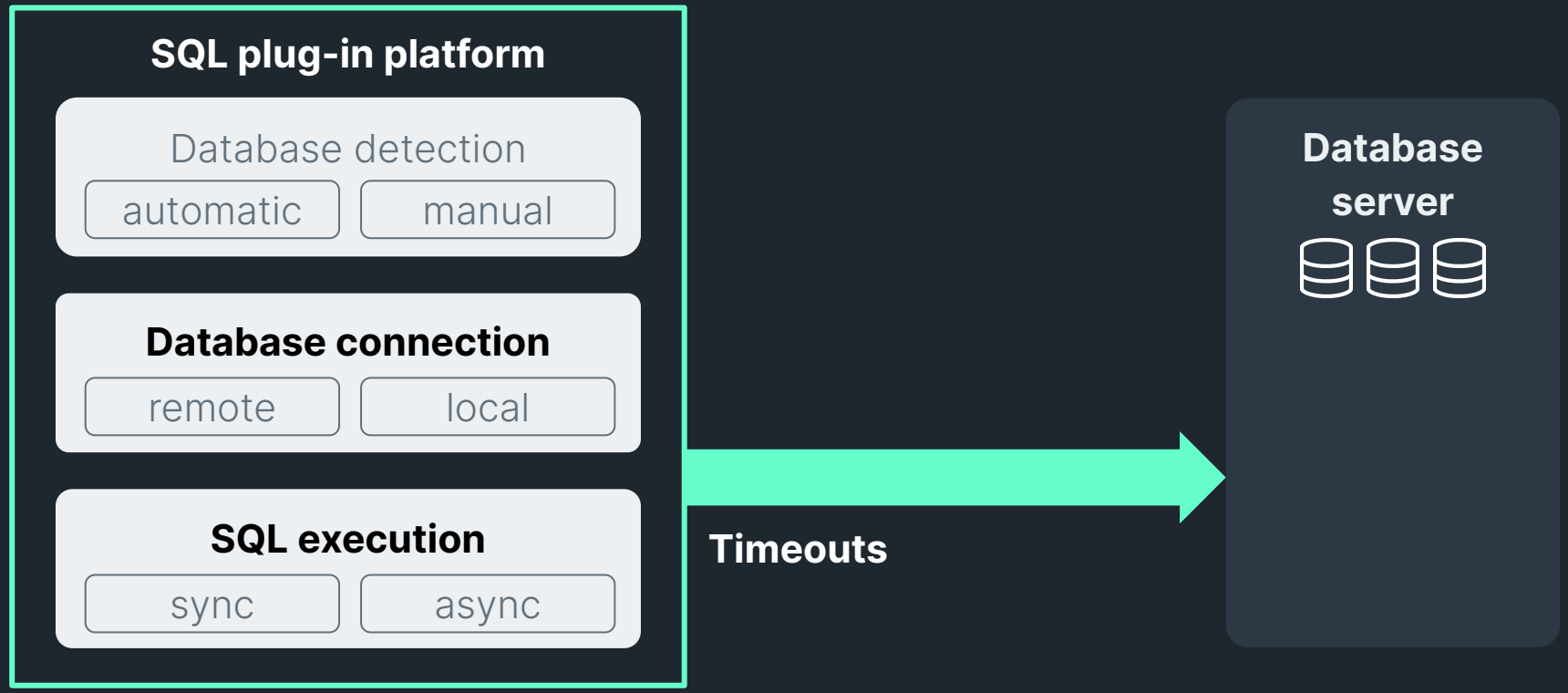

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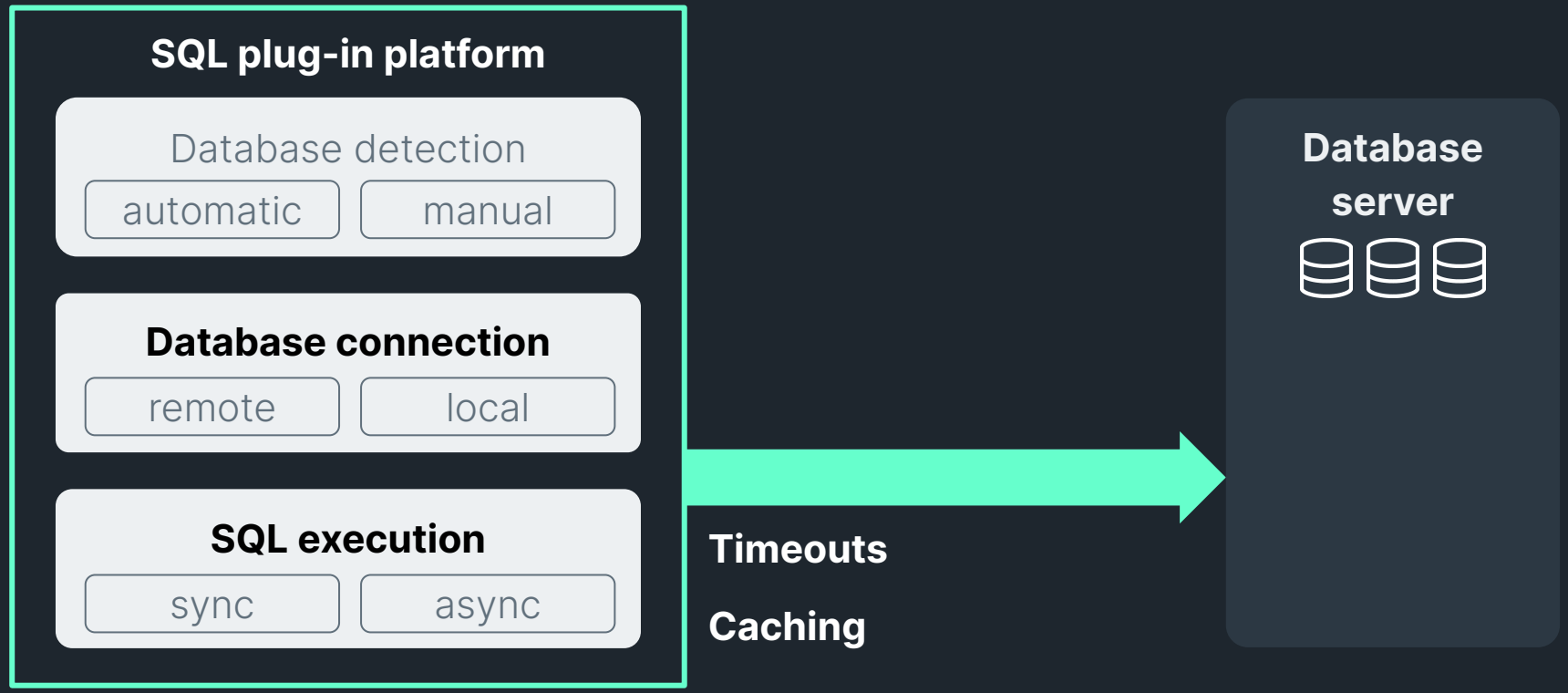
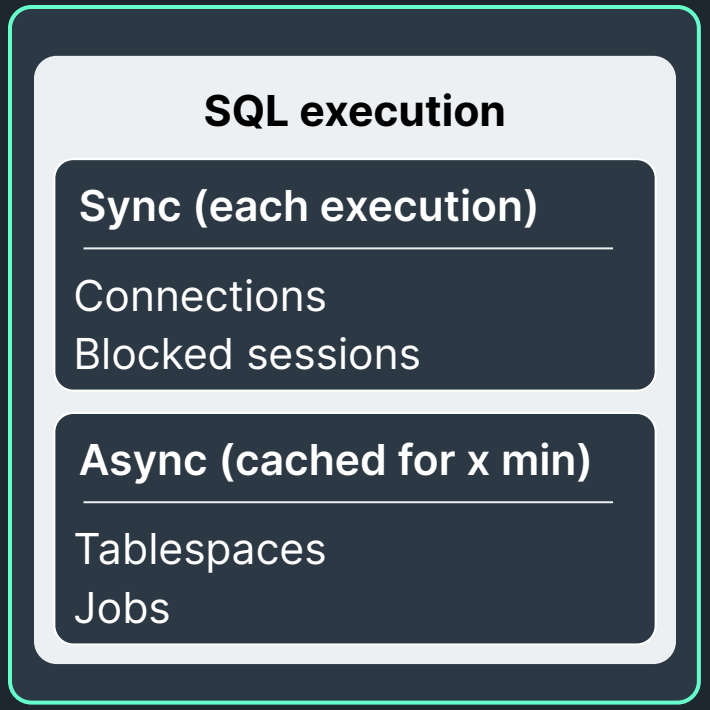
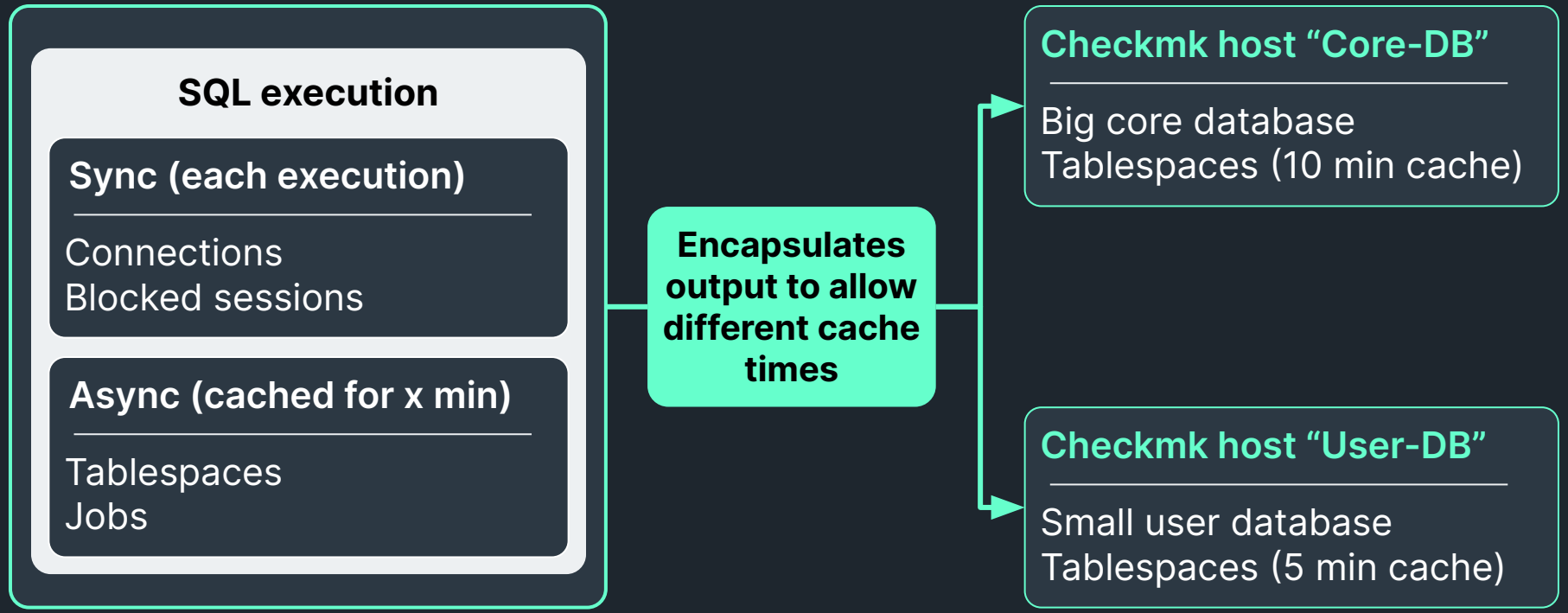


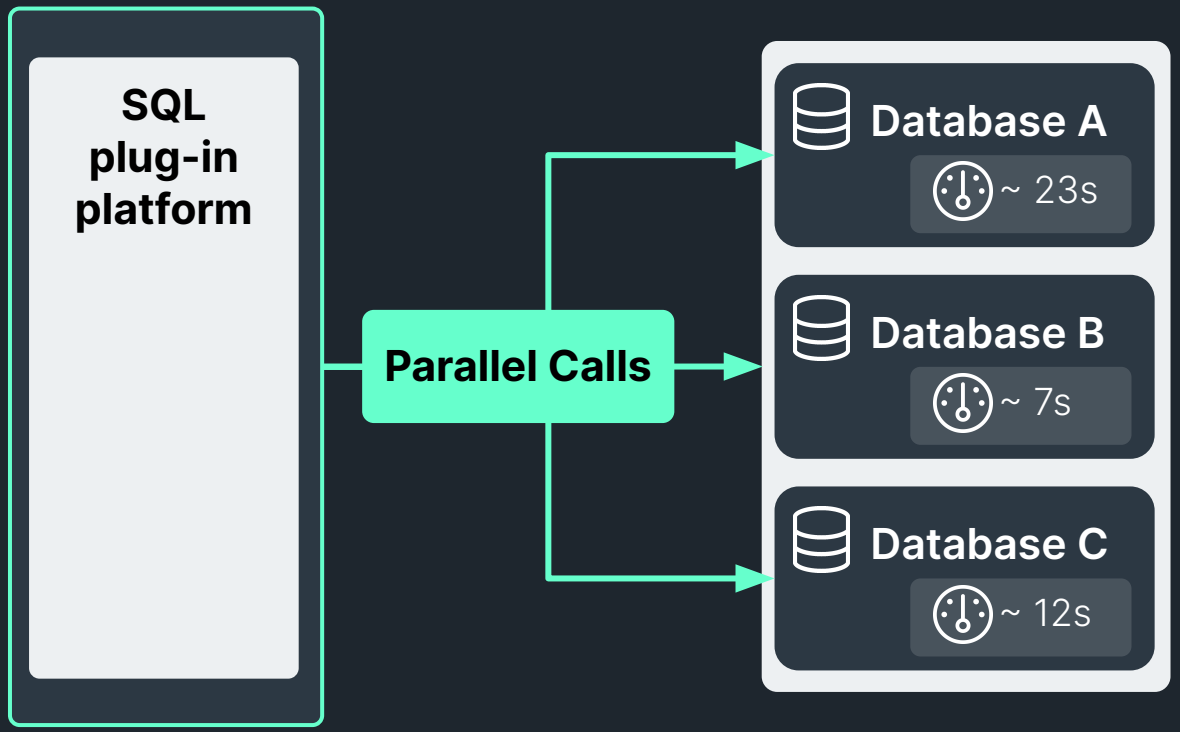
Differentiated handling based on data validity



Differentiated handling based on data validity



Parallel fetching of multiple databases



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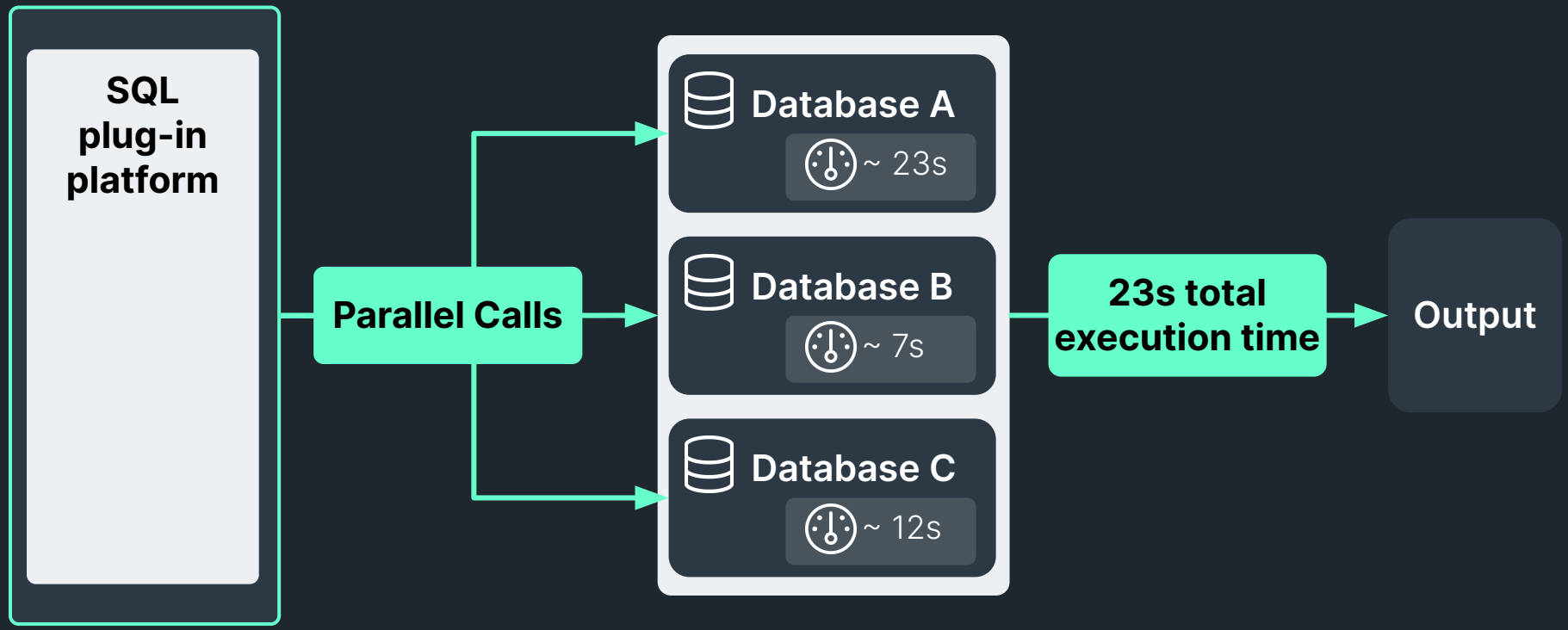
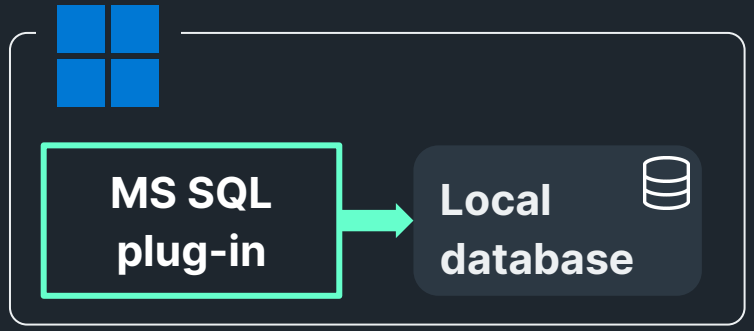
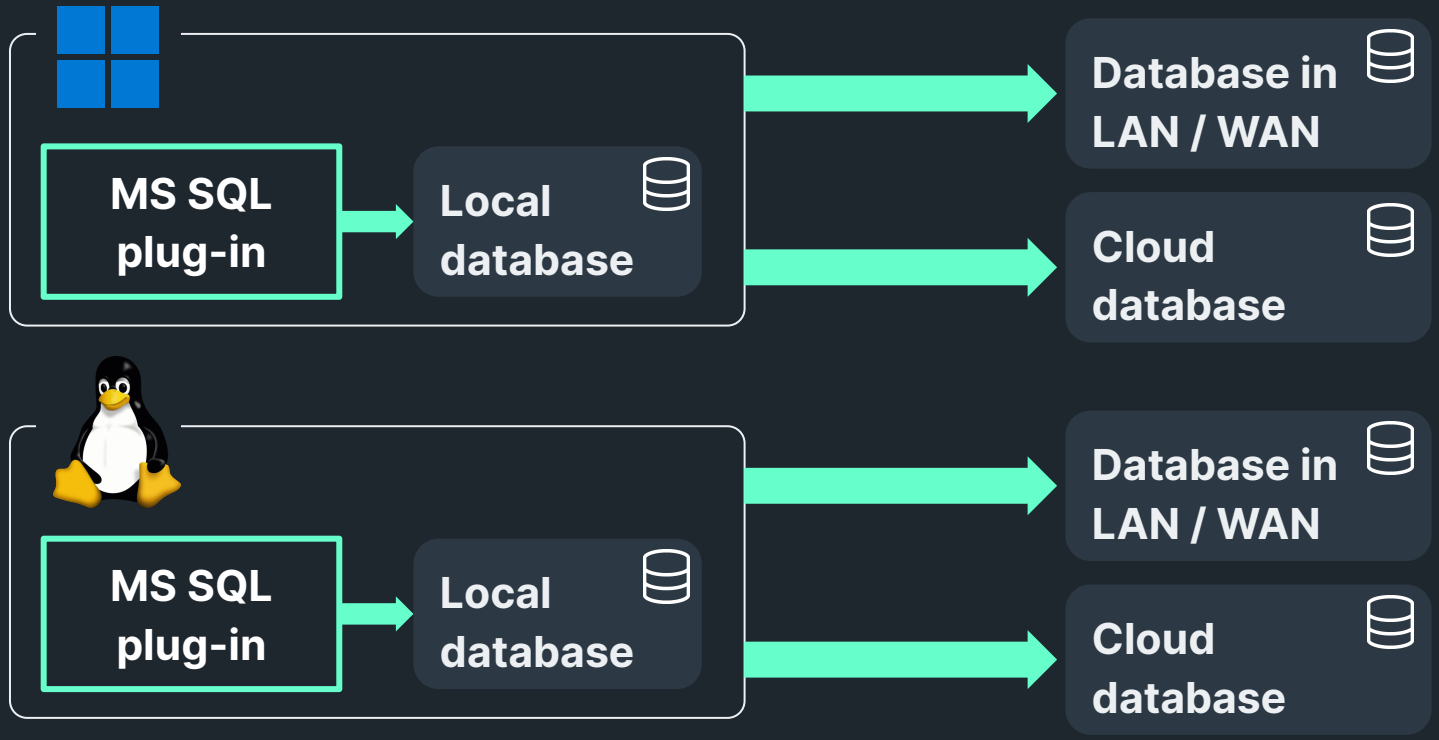


No matter where your database is ...



No matter where your database is ...

… monitor from anywhere



New plug-in architecture enabled by …

Powerful config: YAML

Debugging options

Reliable code: Rust

New plug-in architecture enabled by ...

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Reliable code: Rust

Configurable via bakery

```
main: # mandatory, defines ma
  options: # optional
    max_connections: 6 # optional, default: absent, 6
    max_queries: 16 # optional, for the future use
  authentication: # mandatory
    username: "foo" # mandatory
    password: "bar" # optional
    type: "sql_server" # optional, default: "integrated", values: sql_server,
    access_token: "baz" # optional, no default
  connection: # optional
    hostname: "localhost" # optional, default: "localhost", empty string: "lo
    failoverpartner: "localhost2" # optional, no default
    port: 1433 # optional, default: 1433
    socket: 'C:\path\to\file' # optional, no default
    trust_server_certificate: yes # optional, default: yes value is ignored i
    tls: # optional
      ca: 'C:\path\to\file' # mandatory
      client_certificate: 'C:\path\to\file' # mandatory
    timeout: 5 # optional, default: 5. Important: you may have longer timeout
  sections: # optional
  - instance:  # special section
  - databases:
  - counters:
```

New plug-in architecture enabled by …

Powerful config: YAML

Debugging options

Reliable code: Rust

- Standardized logging
- Analysis capabilities for users

  … and for Checkmk support
- Deep insights into compiled plug-in

New plug-in architecture enabled by ...

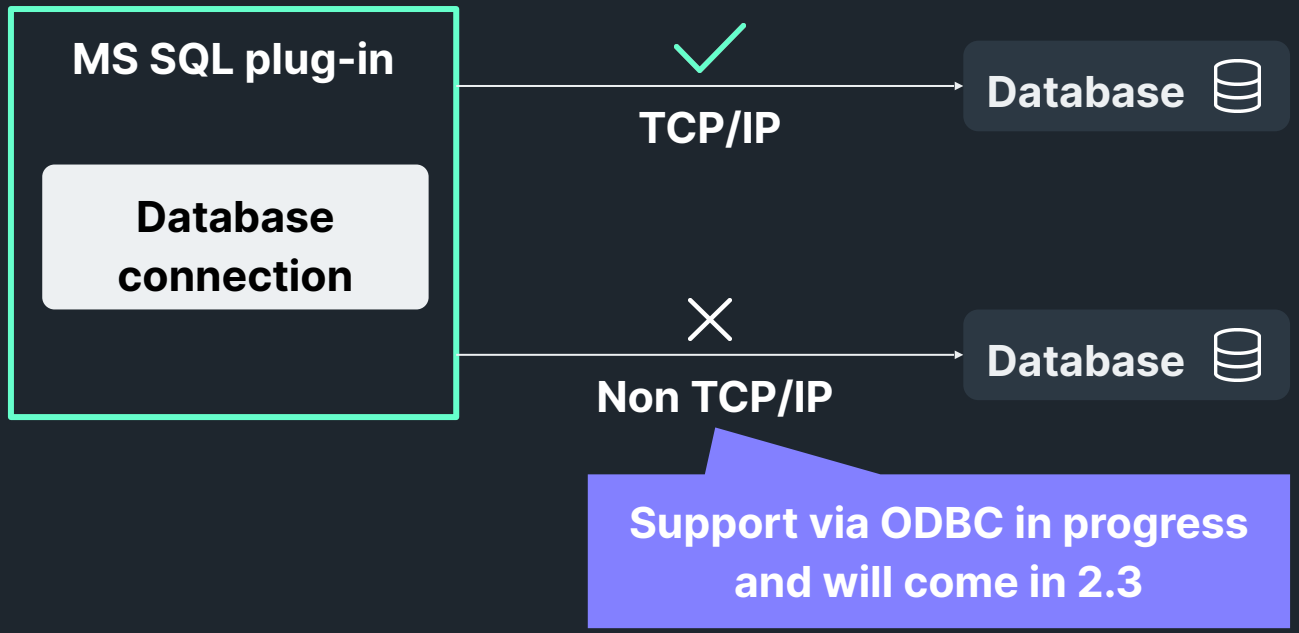
Powerful config: YAML

Debugging options

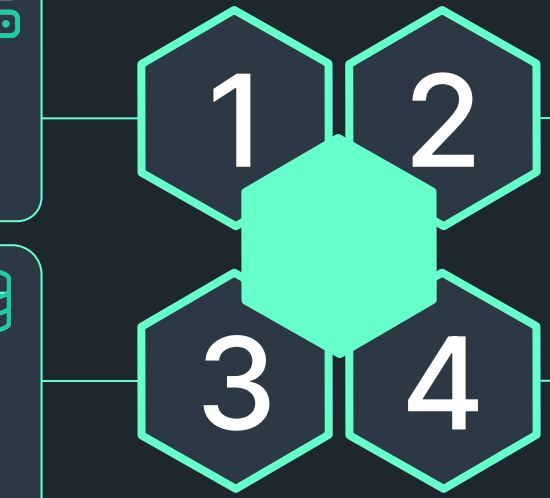
Reliable code: Rust

- Fast execution (close to C++)
- Cross platform compilation
- No further dependencies

Current limitations



What's next



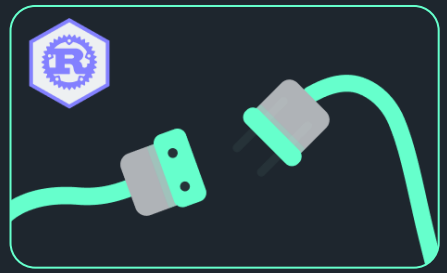
Add support for Databases that are not available through TCP/IP

Enhance the autodiscovery of instances (already in progress and partially implemented)

Try to reduce the bakery (and yaml) config effort for very simple setups (SQL Express)

Listening to our users to discover uncovered use cases (that have not been covered at all until now)

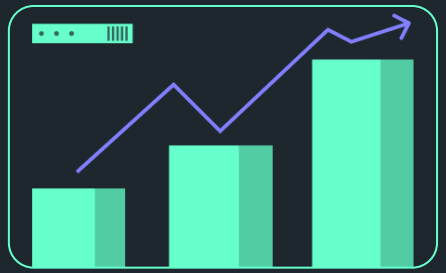
Summary



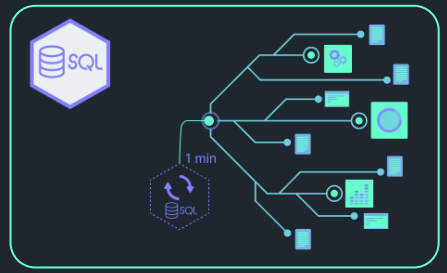
Coded in Rust

Cross-platform

Cloud databases



Enhanced config



Sync & async

Parallel connections

Extension planned

Custom SQLs

slido

Audience Q&A Session

ⓘ Click Present with Slido or install our Chrome extension to show live Q&A while presenting.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