

Database and SQL optimisation



DBmarlin + IBM Turbonomic

A winning combination that provides multiple ways to optimise database performance and resource usage

1x FREE Premium Licence

for every Turbonomic customer
Includes ongoing support from the DBmarlin team

Database optimisation can be achieved in multiple ways. Sometimes the database might be undersized, either because the underlying database host has insufficient resources, or because the database parameters are suboptimal. On the other hand, the database might have been allocated the right amount of resources but runs slowly due to poorly optimised SQL queries or schema design. The combination of IBM Turbonomic and DBmarlin lets you tackle both of these scenarios.

Some of the ways to tune your databases

Host & instance tuning:

- Does the database host have enough CPU and memory?
- Can the storage system support the I/O throughput?
- Has the database been configured to use the right amount of memory, CPU or connections?

Schema and SQL statement tuning:

- Which SQL statements are consuming the most resources?
- Can indexes be added to improve data access times?
- Can data be sharded or partitioned?
- Can SQL statements be rewritten to use a better execution plan?



“ The combination of IBM Turbonomic and DBmarlin provides customers with multiple ways to optimise database performance ”

Russell Luke - Founder & CEO at Application Performance Ltd

When looking at database performance it is important to take a holistic view as there are multiple ways you can tackle database performance issues.

Sometimes the correct answer will be to scale up the database host or tune instance parameters to allocate more resources in order to handle the desired workload.

Other times, it might be possible to get the performance you need with fewer resources by taking the time to optimise your SQL queries and tuning the database schema.



DB marlin

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Mick McGuinness
Product Manager - DBmarlin

IBM Turbonomic

IBM Turbonomic is a performance and cost optimisation platform, designed to assure application performance by making resource management decisions based on artificial intelligence. It helps in optimising the performance, compliance, and cost efficiency of applications in real time.

Turbonomic can be applied to database servers where it can make automatic decisions to scale up the host to add memory or CPU or configure the database parameters to allocate more cache memory.

Using DBmarlin in conjunction with Turbonomic allows you to see the performance impact of any actions that Turbonomic applies. DBmarlin can show a change marker on the timeline for any Turbonomic actions and its comparison reports can be used to see how the performance was improved.

Conversely you might start in DBmarlin and use it to identify your top resource-consuming SQL statements and tune them. The database instance now no longer requires as much CPU and memory so Turbonomic can take an action to scale down the database host to free up resources and save cost.

DBmarlin

DBmarlin is a database observability solution that provides deep database performance visibility across a wide range of databases. It also has a bidirectional integration with IBM Instana for full-stack observability.

DBmarlin is able to track changes inside and outside of the database plus report on their performance impact. Its comparison reports can highlight any differences in performance resulting from a change.

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