Synapse Tuning Engagement With Performance and Learning Utility for Synapse (PLUS)

Business challenge

Azure® Synapse brings together enterprise data warehousing and big data analytics to provide a unified experience through which data can be ingested, prepared, managed and delivered for use with Business Intelligence (BI) and machine learning.

But while Azure Synapse SQL is based on Microsoft® SQL Server® and uses the familiar T-SQL language, Synapse SQL has fundamental differences in how data is stored and queries are executed. Making the shift without a complete understanding of how to optimize performance can lead to reduced efficiency and an increase in hourly costs.

Our solution

Insight's Performance and Learning Utility for Synapse (PLUS) offers an accelerated path to powerful insights with Synapse.

PLUS enables organizations to quickly and effectively analyze their Synapse database, collecting and tracking historical attributes related to primary tables, procedures and definitions. Based on the data collected, recommendations are generated in the form of a script, with details on current state and reasoning for the proposed change. This empowers database administrators to evaluate, implement or ignore recommendations — and also allows changes to be tracked and saved when a recommendation is applied.

Key features of PLUS include:

- Ongoing data tracking of table size, row count, skew indicators and delta row compression
- Data collection and change tracking of distribution type, storage type, columns, stored procedures and view definitions
- Recommendations for table type, storage type, hash column, CI column, CCI order by column, etc.
- Query history for requests and errors, configurable by time, users, procedures or objects queried

Duration
4 weeks

Benefits
- PLUS is easy to use for anyone **with basic SQL skills**.
- Get the guidance to make expert decisions and **learn Synapse best practices**.
- Leverage automation to identify **opportunities for database optimization**.
- Easily track, configure and **execute recommended changes**.
- Improve query performance and **reduce hourly usage costs**.

Related offers
Azure Synapse Fast Start

Get started.

To learn about pricing and how to begin, contact **alliances@insight.com**.

Microsoft

Combined with our automated testing framework, our solution empowers your team to keep Synapse SQL running at peak efficiency while scaling down compute to take advantage of lower hourly usage rates.

Preparing for transformation

To ensure you receive the greatest value from this Accelerator you'll need:

- A current workload in the Azure Synapse® database (or)
- An interest in migrating to Azure Synapse from another platform, including Netezza, Oracle or Teradata

Our process

We tailor our solutions to your unique business needs. Our experts can work closely with database administrators or architects to provide training as needed or deliver database optimization services directly to those that may not have a data team on staff. We'll work with you to determine the right approach for your organization.

1. Installation of Azure Synapse Utility	Our team will implement the utility onto one Synapse database, providing scripts for client installation on other databases.
2. End-to-end tuning of one Synapse database or schema*	We'll use the utility to: • Identify queries to be added to testing framework. • Execute tests to establish a baseline. • Create and apply recommendations in Dev. • Test for performance improvements. • Finalize recommendations. • Advise and help plan release of recommendations to production. • Schedule ongoing jobs to continue collecting data related to performance tuning. *PLUS can review and make recommendations on all table objects in your database, but for the purpose of this engagement and to ensure thorough tuning, Insight architects will work with a subset of 100–200 tables and 30–50 queries for testing.
3. Code review and best practices	Depending on organizational needs, our team will provide additional instruction around coding in the Azure Synapse environment.

About Insight

At Insight, we define, architect, implement and manage Insight Intelligent Technology Solutions™ that help your organization run smarter. We'll work with you to maximize your technology investments, empower your workforce to work smarter, optimize your business and create meaningful experiences.

Insight. | Digital Innovation