

TIPS GUI enhancement and Enhanced Information Database (EIDB)

TIPS-CG

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- The aim of the **TIPS-0026** and **TIPS-0027** was the introduction, for the first time, of a back-office-related functionality (in the specific case, an advanced query function).
- None of the two TIPS components, i.e. the **Operational Database** and the **Information Database**, is suitable to cover the user requirements expressed in these change requests.
- The 4CB detailed assessment (presented to the TSWG in May 2020) proposed a **technology enhancement** of the Information Database to address the advanced query function and any other potential back-office-related functionality that may be requested in the future.
- Taking into consideration the above reasoning, it was agreed to implement the **TIPS-0027 in reduced scope** as an interim solution.
- **TIPS-0048** and **TIPS-0051** extend further the advanced query function by providing respectively:
 - Additional **requirements for advanced queries** that are not covered by TIPS-0026/TIPS-0027
 - **New data aggregation** and data exploitation tool for NCB users

- By means of this technology enhancement, the **Information Database** would:
 - continuously receive, in **quasi-real-time** mode, all data changes coming from the Operational Database (without hampering the performance of the latter);
 - implement the same principles of **redundancy** and **distribution** already adopted in the design of the Operational Database, thereby providing the same level of availability and allowing any maintenance activity without any service interruption;
 - allow **standard SQL access** to data.
- The baseline for this technology enhancement has been identified with the **TIPS Resilience and Continuity Enhancement (RACE)** initiative, as its procurement includes already the product suitable (e.g. CockroachDB) to extend the TIPS GUI database redundancy and performance capability.
- Furthermore, for cost reasons, it was deemed inefficient to implement the full processing capacity of the new product already starting from the deployment of the TIPS RACE, since it would have implied both development and running costs not strictly required in the absence of the EIDB.

- Therefore, the following dependencies have been identified:
 - **TIPS-0042 (RACE)** implementation shall be a pre-requisite for the deployment of **TIPS-0026**, **TIPS-0027 (full scope)**, **TIPS-0048** and **TIPS-0051**, as it makes available the building blocks for the technology enhancement required.
 - **TIPS-0051** is a pre-requisite for the implementation of **TIPS-0026**, **TIPS-0027 (full scope)**, and **TIPS-0048**, mainly for two reasons:
 - ❖ it implements the migration of the existing Information Database to the **Enhanced Information Database** (e.g. by providing new data aggregations such as external reason codes);
 - ❖ it complements the procurement started with TIPS RACE by adding the additional distributed processing capacity needed for the EIDB.

Thank you for the attention!