PROLOGA

SOLUTION BRIEF

REDIS 2.0 COCKPIT FOR SAP S/4HANA

ON SAP BUSINESS TECHNOLOGY PLATFORM

Available on SAP Store

VERSION: 03/2025

REDIS 2.0 COCKPIT
on SAP Business Technology Platform

The Redis 2.0 Cockpit for SAP S/4HANA has been developed to support grid operators in effectively implementing these new regulatory requirements. The solution seamlessly integrates regulatory mandates into existing business processes, enabling end-to-end process control from forecasting to billing. With flexible interfaces to third-party applications, cloud-based SAP Fiori apps for efficient monitoring, and powerful analytics, the Redis 2.0 Cockpit provides a future-proof platform for Redispatch 2.0 implementation.

As renewable energy expansion increases, so do the requirements for grid stability. To avoid grid bottlenecks, efficient redispatch management is required. Since 2021, the Grid Expansion Acceleration Act (NABEG) has also required distribution system operators to implement Redispatch 2.0, which includes smaller power generation units and controllable consumers in grid control. This necessitates close coordination among grid operators.

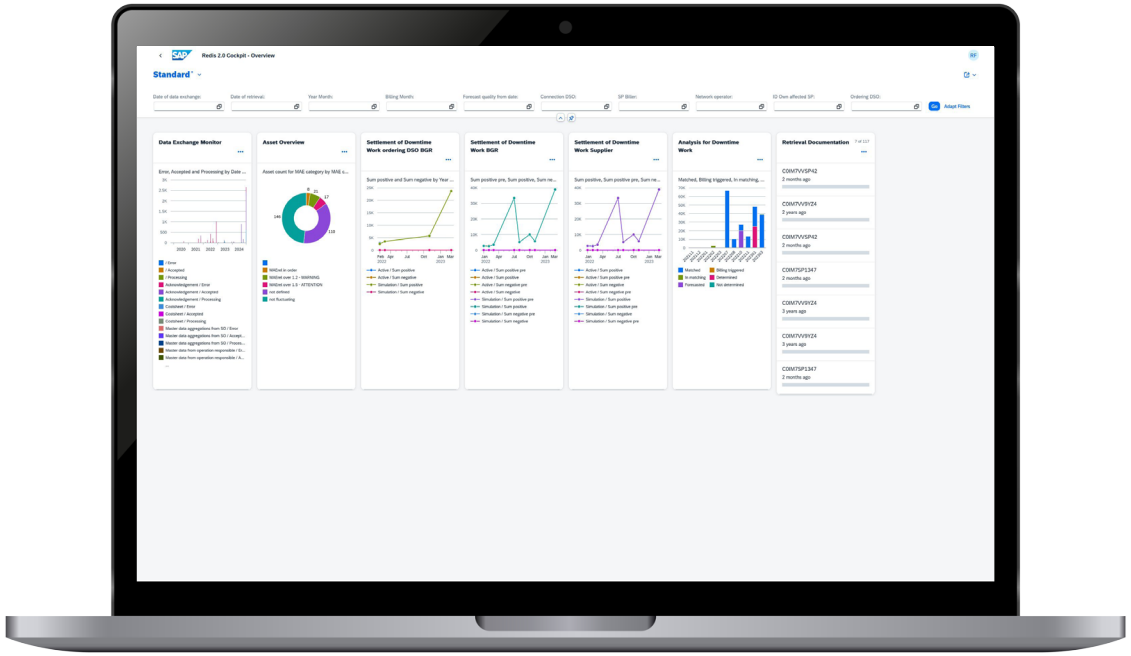

Figure: SLP Allocation Accuracy

CHALLENGES

The shift from reactive measures to coordinated grid control poses technological and operational challenges and demands close cooperation between various market players. With an increasing number of stakeholders, the need for standardized digital processes for efficient market communication rises.

Increased Grid Control Requirements: Grid monitoring and control must now happen in real-time, requiring comprehensive adjustments to control mechanisms.

Complex Market Communication: The integration of decentralized producers and consumers demands precise, error-free coordination between market participants.

Data Aggregation & Validation: Data from multiple sources must be reliably consolidated, analyzed, and integrated into market processes.

High Billing & Balancing Requirements: Accurate calculation and processing of redispatch measures are crucial for financial stability and traceability.

Need for Advanced IT Solutions: A digital, automated platform is required to efficiently implement regulatory requirements and minimize errors.

THE SOLUTION

The energy transition and the increasing share of renewable energy sources are presenting Germany's electricity supply system with new challenges in congestion management. With Redispatch 2.0, distribution system operators are more closely integrated into feed-in management, requiring enhanced collaboration across all grid levels and reliable data collection.

The Redis 2.0 Cockpit for SAP S/4HANA on SAP Business Technology Platform supports the business processes resulting from technical control actions and provides a transparent view of the related operations.

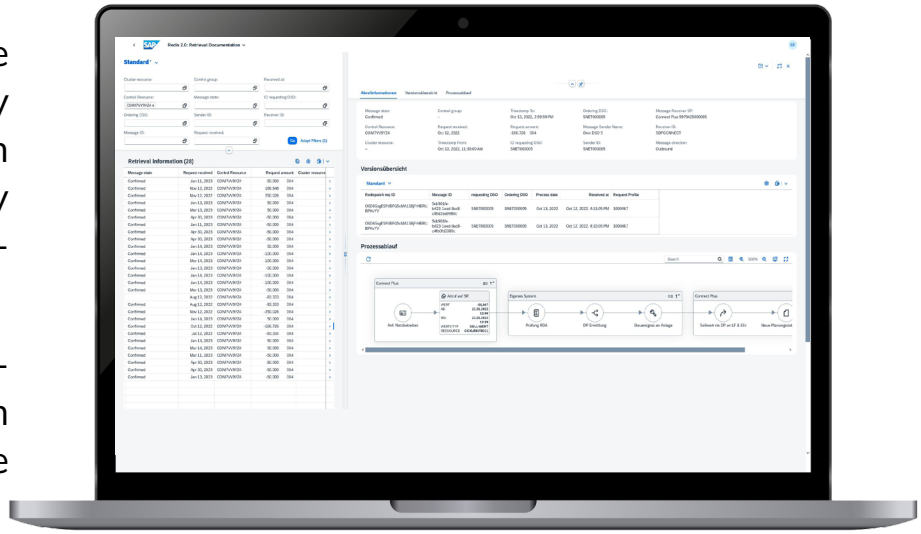

Figure: Grid Account Customer Group Details

1. **End-to-End Integration with SAP S/4HANA Utilities:** The solution extends the existing system landscape with master data structures to include Redispatch 2.0-specific objects and relationships. It enables end-to-end processes from data management and balancing to settlement.

2. **Data Exchange Monitor:** The solution extends the existing master data structures to include Redispatch 2.0-specific objects and relationships. This ensures seamless integration into the current system landscape and enables end-to-end processes from data management to settlement.

3. **SAP Fiori Interface for Intuitive Operation:** The modern user interface provides a clear dashboard for monitoring all relevant redispatch data, allowing for quick decision-making.

4. **Data Exchange Monitor for Inbound and Outbound Communication:** The Redis 2.0 Cockpit for SAP S/4HANA enables the calculation, provision, and balancing of replacement energy volumes. It also supports detailed analysis by supplier, balancing group coordinator, and grid operator, with direct access to related dispatch calls for accurate tracking of financial compensation.

5. **Automated Market Communication:** Standardized interfaces and real-time data processing ensure efficient communication between market participants, fulfilling regulatory requirements.

6. **Settlement Review and Approval of Replacement Energy:** Enables the visualization of settled quantities. The cockpit also supports validation, manual approval, plausibility checks, and efficient management of the billing status.

THE SOLUTION

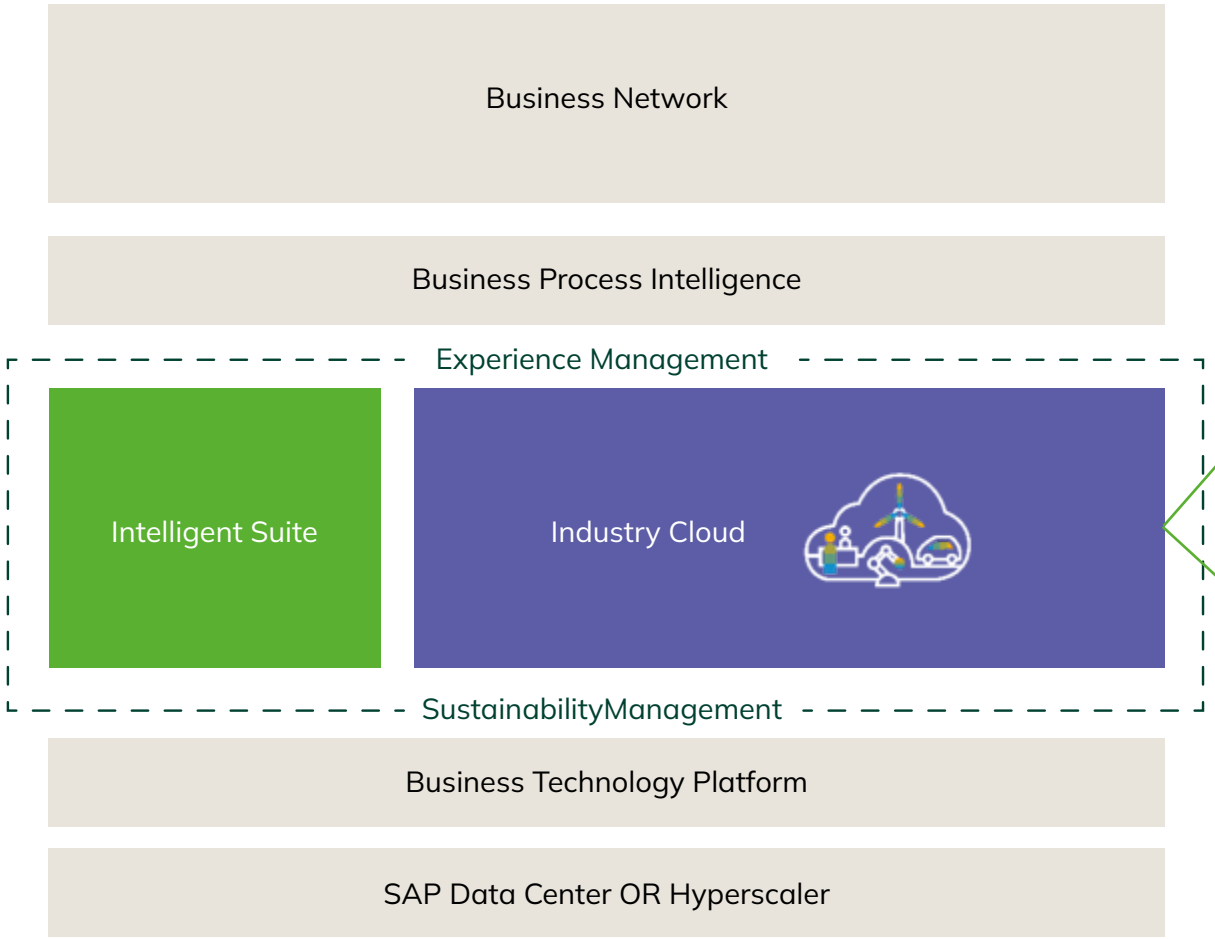

Figure: Redis 2.0 Cockpit as part of the SAP Industry Cloud Portfolio

SAP Solutions

- SAP Market Communication for Utilities
- SAP Subscription Billing
- SAP Cloud for Energy
- etc.

PROLOGA Solution:

Redis 2.0 Cockpit

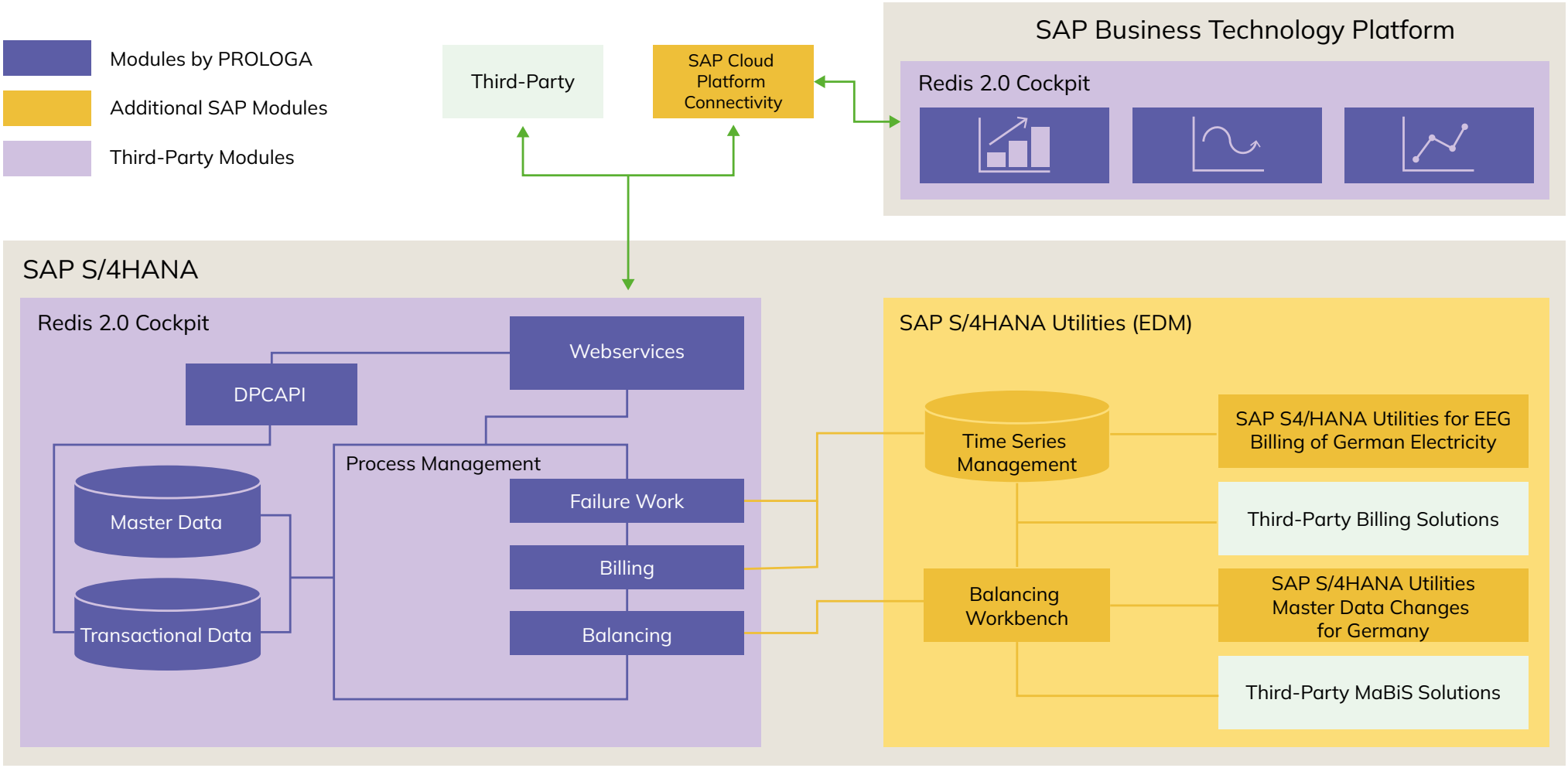

Figure: Schematic Representation of a Redispatch-Enabled System Landscape

BENEFITS

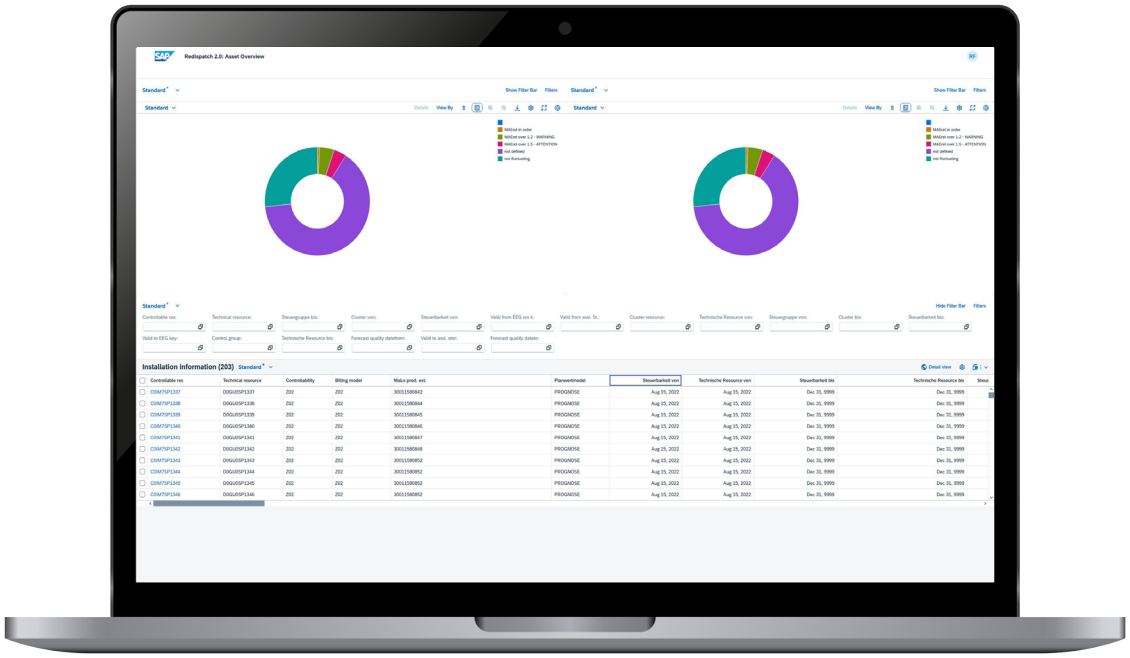

Figure: Data Exchange Monitor

- **No Duplication of Master Data** Through full integration into SAP S/4HANA Utilities, the existing master data structure is enhanced with Redispatch 2.0-specific data—without duplicating data sets.
- **Calculation of Replacement Energy** Provides calculation functionality to determine resource-specific replacement energy volumes.
- **Preparation of the Balancing Process** Identifies balancing-relevant data to allocate replacement energy volumes accordingly.
- **Support for Settlement** Simplifies the review of reimbursable replacement energy and enables approval of the calculated quantities.
- **Increased Transparency and Traceability** Consistent data sources and seamless process integration ensure complete documentation and monitoring.
- **Improved Regulatory Compliance** The solution helps grid operators meet legal requirements and reduces the risk of non-compliance.

REDIS 2.0 COCKPIT
on SAP Business Technology Platform

The Redis 2.0 Cockpit for SAP S/4HANA enables fully integrated and automated management of Redispatch 2.0 processes. Grid operators benefit from a standardized, transparent, and scalable solution that helps them efficiently meet regulatory requirements and optimize operations.

By providing a central platform for forecasting, control, and billing of redispatch measures, the solution significantly reduces administrative effort and ensures transparent market communication. With state-of-the-art SAP technologies and seamless integration into existing IT landscapes, the Redis 2.0 Cockpit is a future-proof solution for grid operators.

Learn more about the solution and schedule a personal demo with our experts:

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W: www.prologa.com

SAP Store - Redis 2.0 Cockpit on SAP BTP

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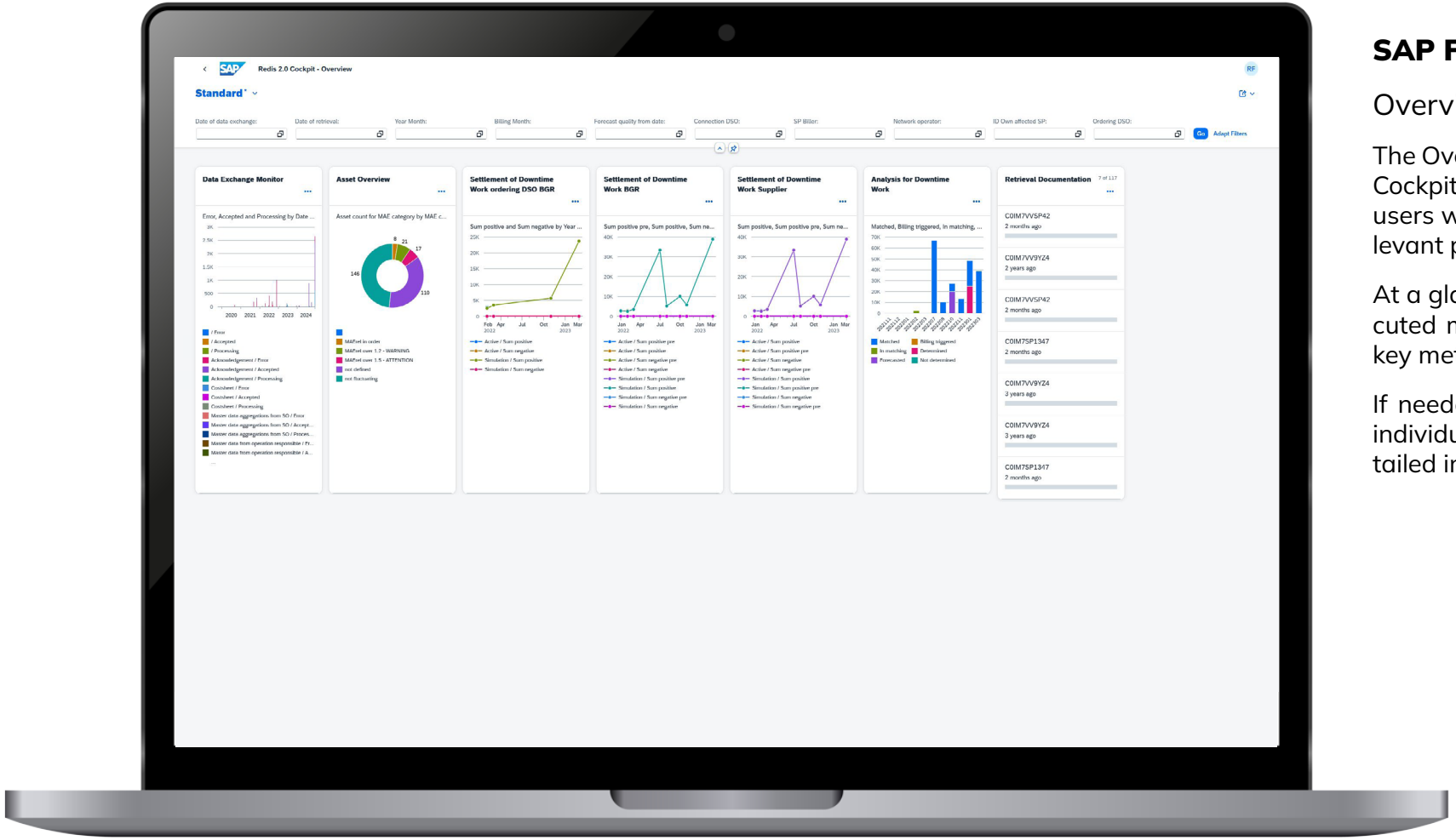


SAP Fiori-Applications

Overview Page

The Overview Page of the Redis 2.0 Cockpit for SAP S/4HANA provides users with an initial overview of relevant processes and key figures.

At a glance, users can identify executed measures or view important key metrics.

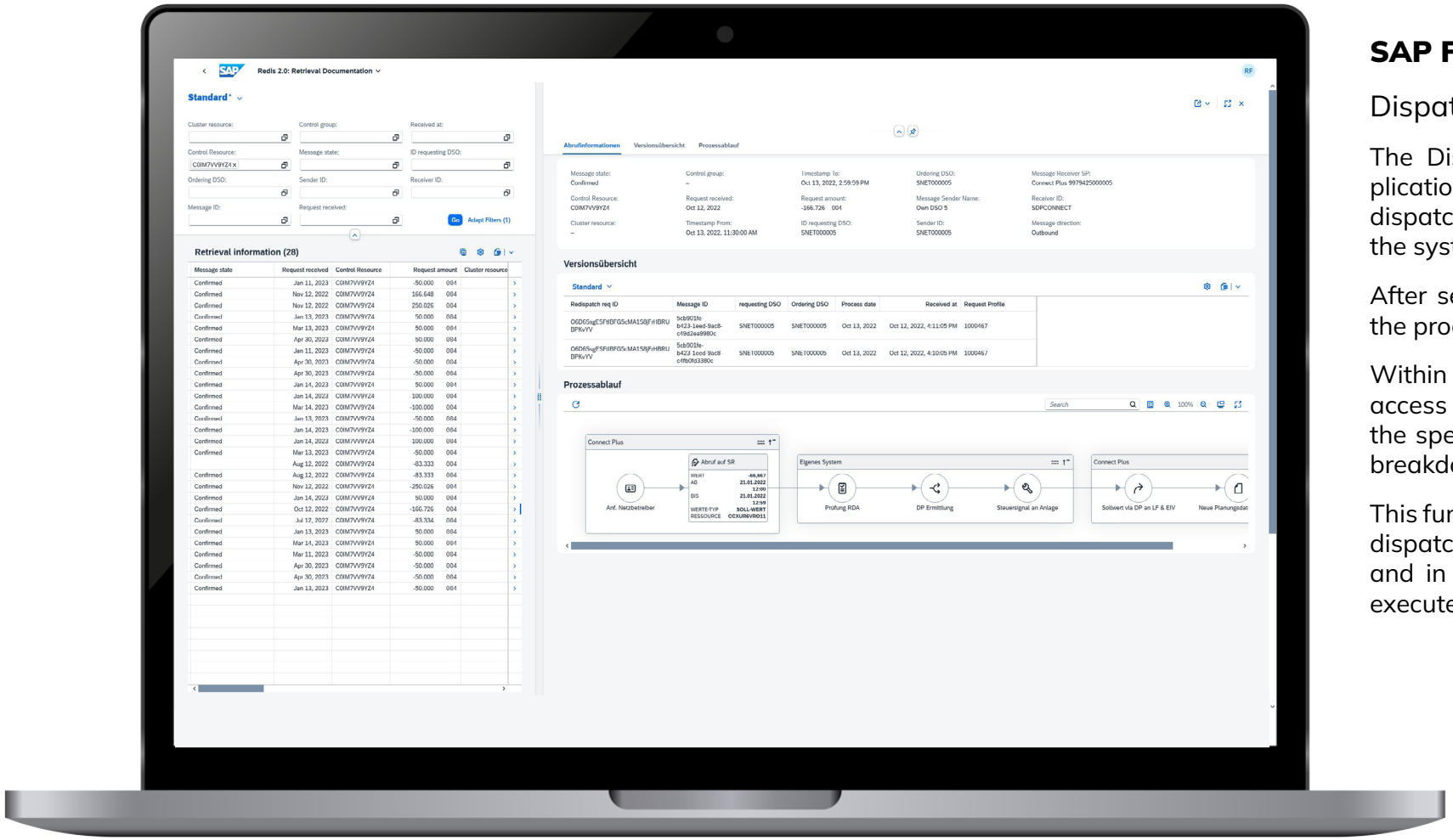
If needed, users can navigate into individual tiles to access more detailed information.

SAP Fiori-Applications

Data Exchange Monitor

The Data Exchange Monitor allows users to monitor Redispatch data exchange messages, supported by SAP UI5 Smart Elements.

The application is divided into three sections, where data exchange processes are grouped by reception, transmission, and process status according to standard procedures.



SAP Fiori-Applications

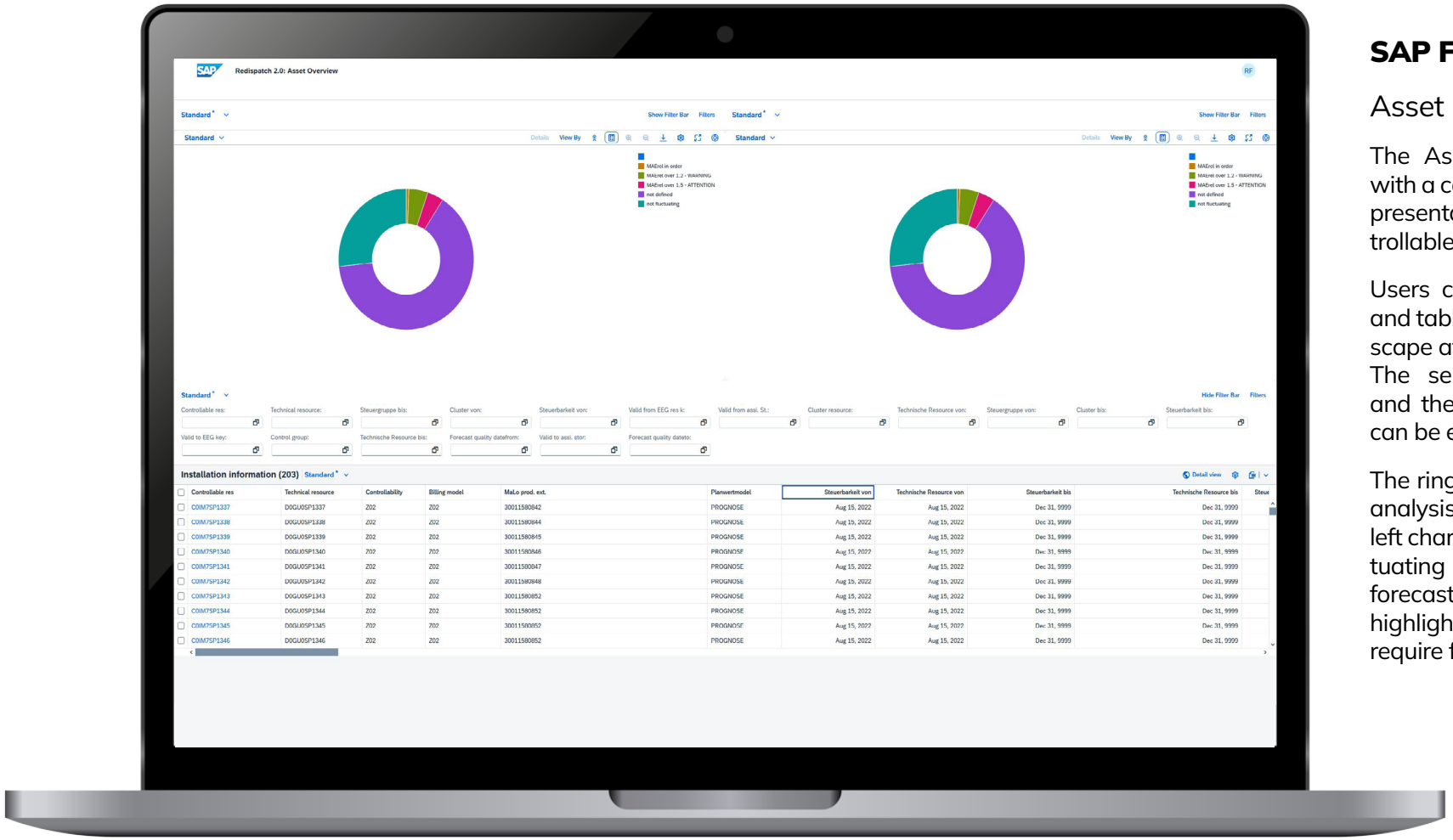
Dispatch Documentation

The Dispatch Documentation application allows users to analyze dispatch requests executed within the system landscape.

After selecting a dispatch request, the process view is displayed.

Within the process view, users can access general information about the specific request and a detailed breakdown of the process flow.

This functionality helps in analyzing dispatch requests more thoroughly and in identifying the exact steps executed within the process.



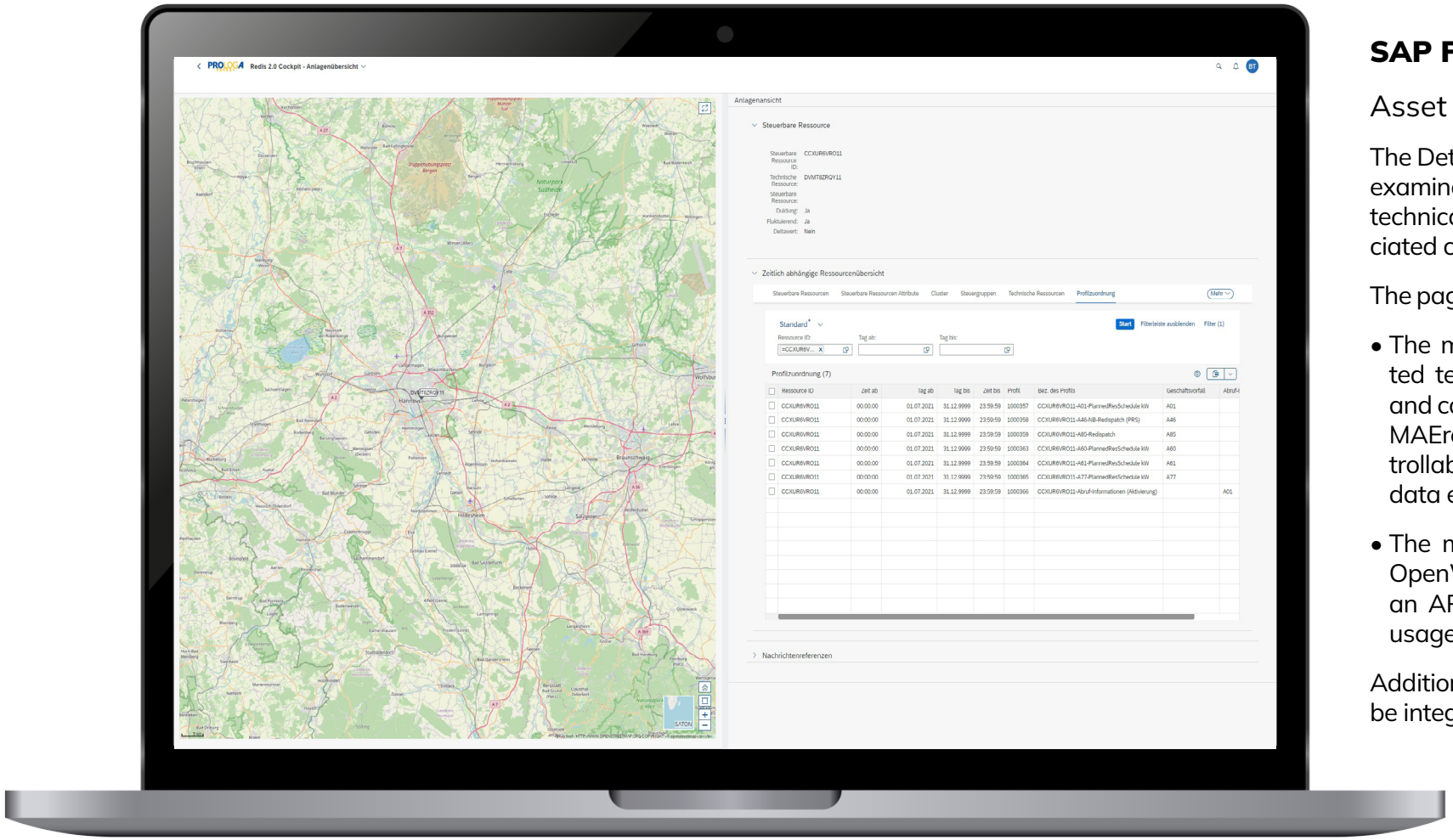
SAP Fiori-Applications

Asset Landscape

The Asset Overview provides users with a categorized and color-coded representation of the technical and controllable resources within the system.

Users can leverage analytical charts and tables to analyze the system landscape at a customizable level of detail. The selected controllable resources and their associated technical assets can be examined in detail.

The ring charts can be customized for analysis purposes. In the example, the left chart displays the ratio of non-fluctuating assets and assets with high forecast accuracy, while the right chart highlights the remaining assets that require further analysis.



SAP Fiori-Applications

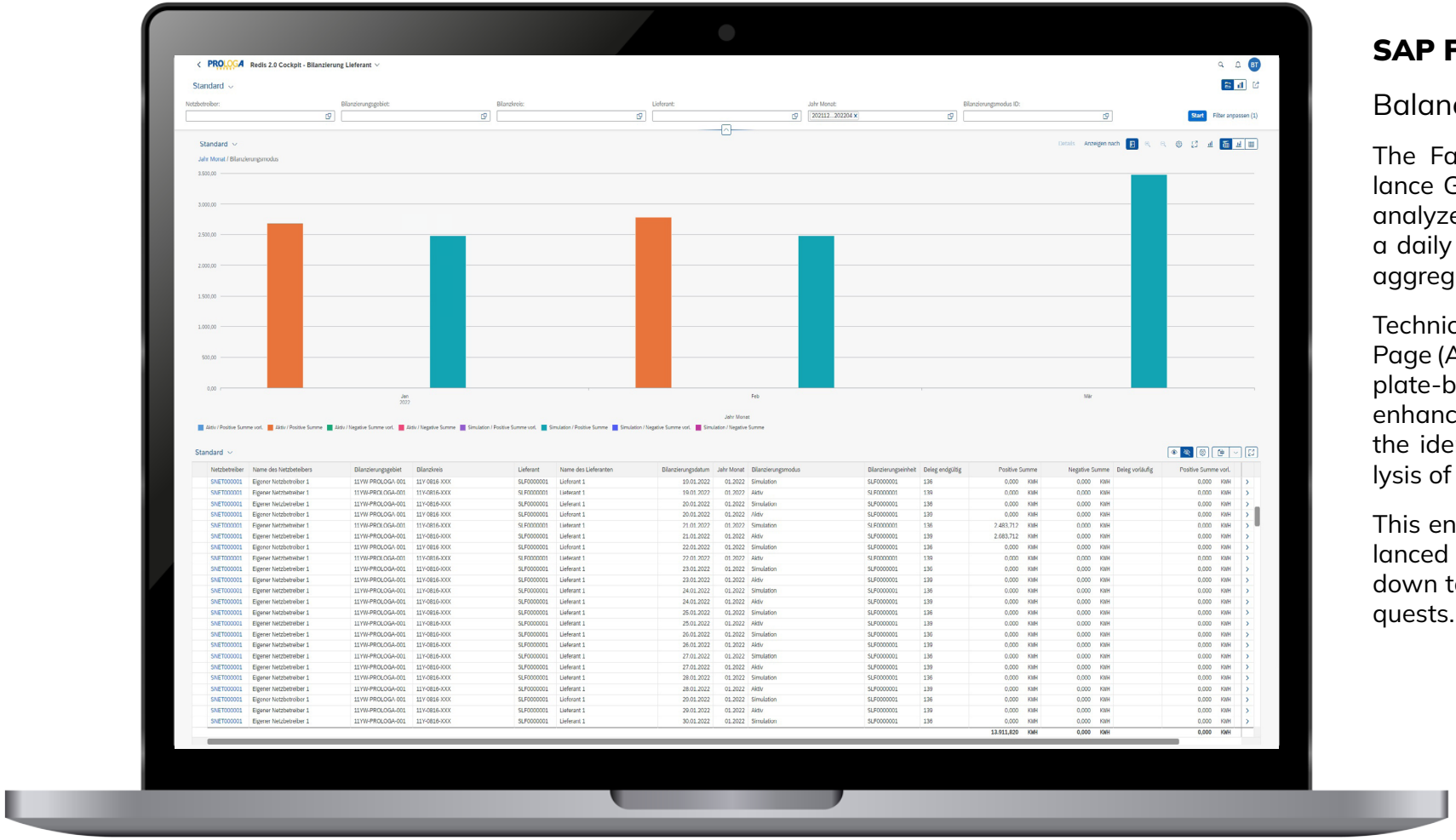
Asset Landscape

The Detail View page allows users to examine detailed information about technical resources and their associated controllable resources.

The page is divided into two sections:

- The map view displays the selected technical resources on a map and color-codes them based on the MAErel value, the associated controllable resource, and the selected data entry.
- The map visualization utilizes the OpenWeatherMap API, requiring an API key from the end user for usage.

Additional map service providers can be integrated upon request.



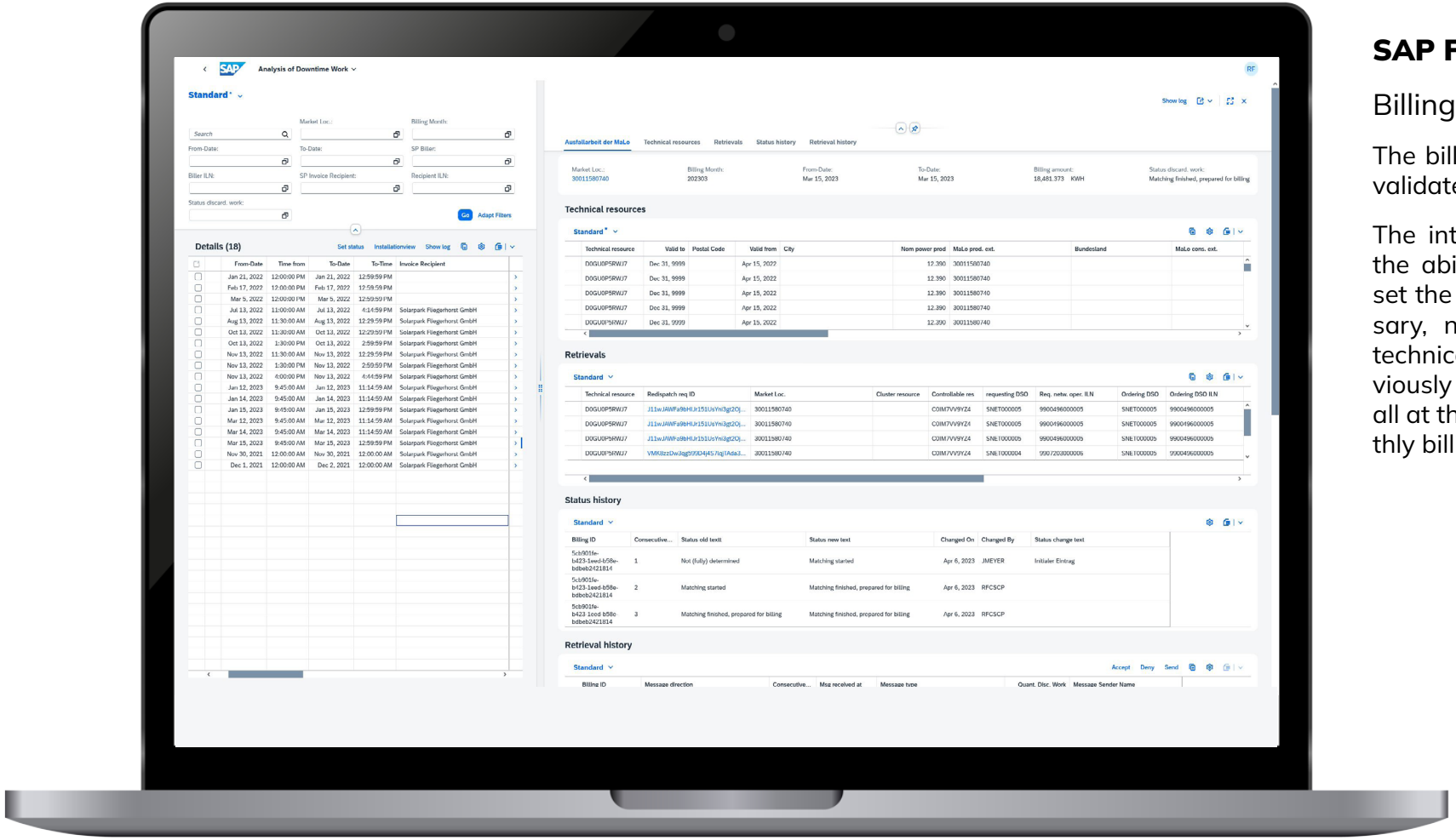
SAP Fiori-Applications

Balancing of Failure Work

The Failure Work Balancing (Balance Group View) allows users to analyze balanced failure work on a daily basis at the balance group aggregation level.

Technically, this is an Analytical List Page (ALP)—an SAP standard template-based app, which has been enhanced with a detailed view for the identification and further analysis of specific dispatch instances.

This enables users to trace the balanced failure work for a supplier down to the individual dispatch requests.

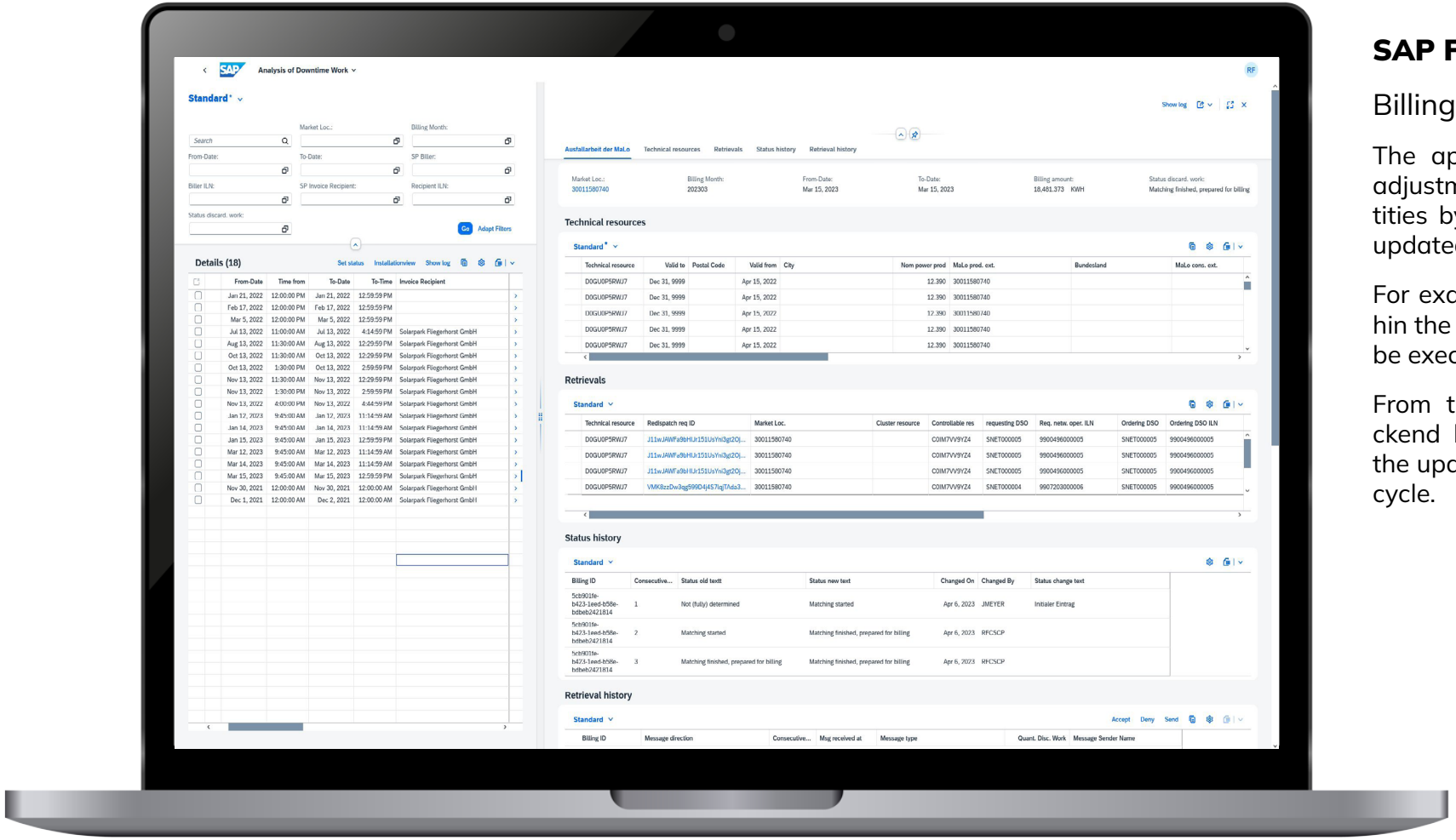


SAP Fiori-Applications

Billing of Failure Work

The billing of failure work must be validated before compensation.

The interface provides users with the ability to review related data, set the billing status, and, if necessary, navigate to the associated technical resources within the previously displayed asset overview—all at the market location and monthly billing level.



SAP Fiori-Applications

Billing of Failure Work

The application supports manual adjustments for failure work quantities by allowing the status to be updated to the next higher level.

For example, a status change within the billing approval process can be executed.

From this point onward, the backend billing system will consider the updated data in the next billing cycle.

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