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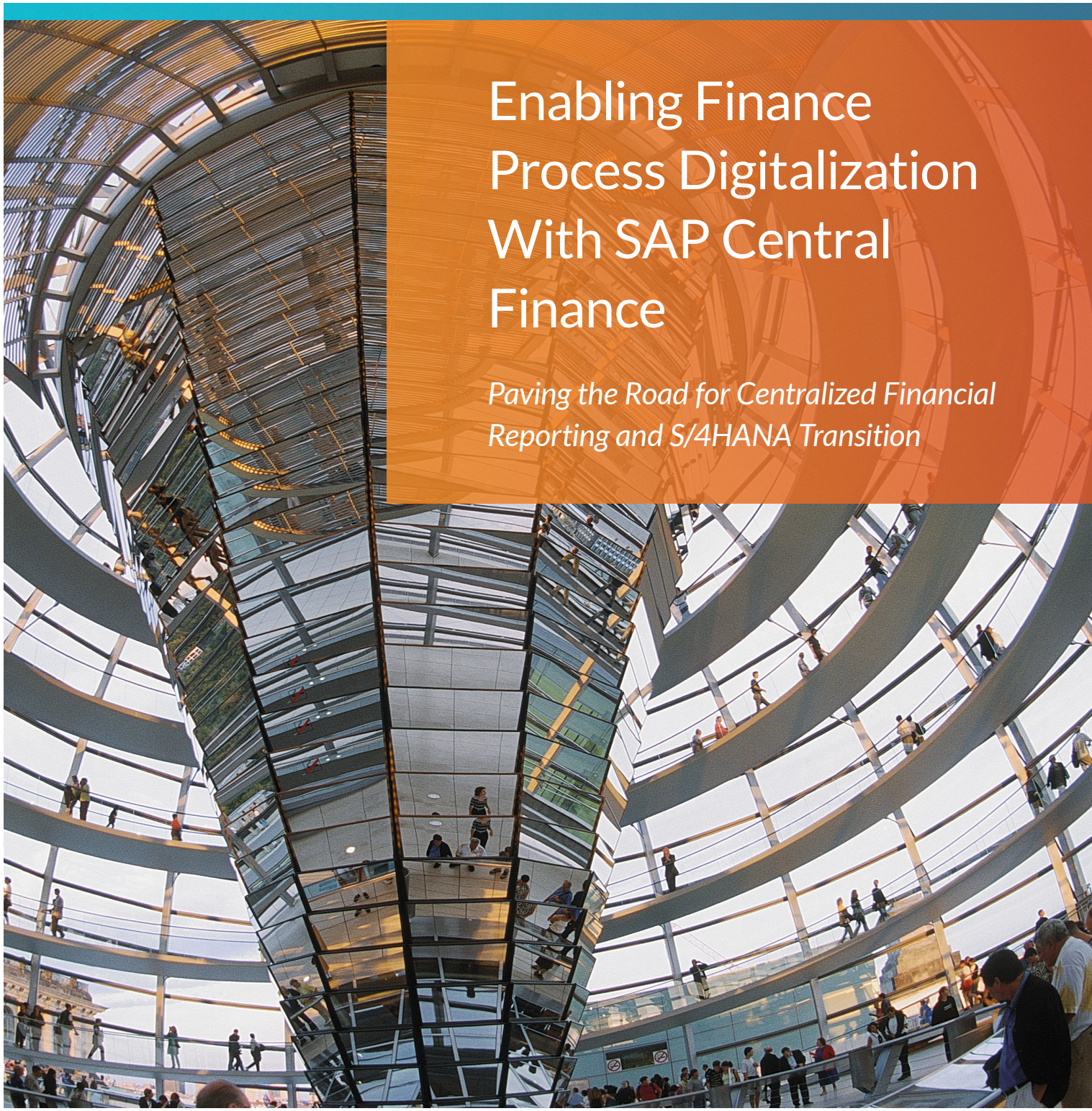


Enabling Finance Process Digitalization With SAP Central Finance

Paving the Road for Centralized Financial Reporting and S/4HANA Transition

Internal Audit, Risk, Business & Technology Consulting

Executive Summary

SAP® S/4HANA innovations hold significant promise for businesses seeking transformation through digital technologies – such as massive data processing in real-time, cloud computing and network power, artificial intelligence, communication bots, machine learning and virtual reality – to maintain a competitive advantage in a digital economy. SAP Central Finance is one such innovation. It is designed to enable highly automated accounting processes and deliver centralized reporting solutions by bringing disparate accounting systems into one centralized hub.

Disparate and fragmented accounting systems arise from the coexistence of various SAP releases and non-SAP systems within the same organization — typically, as a result of transformative events, such as acquisitions, mergers, spin-offs or organic growth to adapt to changes in the economic environment. Such multiple systems often lead to labor-intensive and manual reconciliations and reporting, and delays in the financial close process. They also represent a significant obstacle to finance process digitalization, as well as future mergers or acquisitions.

SAP Central Finance provides a non-disruptive solution to resolve this problem by acting as a hub into which new entities can be integrated without imposing fundamental changes to the main accounting system. It further helps in the transition strategy to S/4HANA due to its powerful components designed to harmonize data across various SAP and non-SAP systems, including:

- A solid master data management process at the enterprise level
- Simplified reporting and analytics (single source of truth)
- Fewer reconciliations and an optimized month-end closing process
- A standardized and automated process to integrate new acquisitions and shorten the post-merger transition period

Excluding SAP Central Finance from an organization's SAP® S/4HANA transition strategy must be carefully considered, as it would preclude an opportunity to build a hub for the insertion of new entities into the core accounting system smoothly, efficiently and cost-effectively in the future and could delay or frustrate digitalization efforts. To mitigate this risk, and regardless of their stage of transition to SAP® S/4HANA, all multi-entity organizations should assess and compare carefully the benefits of a centralized financial reporting solution based on SAP Central Finance versus the option of excluding it from the transition strategy. This paper provides an overview of SAP Central Finance, its architecture and key functionality, various deployment scenarios, and other key considerations, including the role of business leaders in its implementation.

Definition of SAP Terms

SAP HANA® (High Performance Analytic Appliance) is an in-memory platform for processing high volumes of data in real time.

SAP® S/4HANA is the business suite designed to run processes in the context of a digital economy.

SAP Central Finance is both a deployment strategy of SAP® S/4HANA and a product to build a centralized financial reporting and information hub that inserts disparate accounting systems into the core accounting system of the organization.

SAP® S/4HANA Finance is a subset of SAP® S/4HANA with a focus on financial and accounting solutions, including financial planning, accounting, financial close, treasury and finance operations.

What Causes Fragmented Accounting Systems?

There is a host of reasons for the existence of different accounting systems within the same organization but the two major ones are:

1. Creation of new entities as part of organic growth or the acquisition of new companies; and
2. Upgrading a part of the existing accounting system to a new technology, essentially creating a system within a system.

In either situation, most organizations are aware of the need to define a central accounting system that provides a coherent, comprehensive and centralized view of financial information and reports.

Awareness aside, reality shows that most organizations fall short in their efforts to define a centralized accounting system using their existing processes and technologies, and as a result suffer from:

- Tedious and inefficient financial period-end close
- Complicated and time-consuming reconciliations
- Manual eliminations of redundant intercompany transactions during the consolidation process
- Error-prone adjustments in spreadsheets
- Lack of an authoritative source of truth with regard to financial information
- Lack of visibility into historical details of intercompany transactions
- Time-consuming multi-currency conversions and accounting

Is SAP Central Finance the Answer?

More and more organizations are turning to SAP Central Finance, part of SAP's most recent platform, SAP® S/4HANA, to solve the issues inherent in disparate and fragmented accounting systems.

In a broad perspective, SAP® S/4HANA is designed with digital technologies in mind, with the purpose of creating highly automated business processes. Applying digital technologies to enterprise processes is also known as business process digitalization, and is a necessity for maintaining competitive advantage in a digital economy. Three key characteristics distinguish a digital solution from a traditional one:

- Mobility combined with constant connection to central resources
- Vast networks of intelligence that are at the same time flexible enough to create personalized information
- Real-time streaming combined with on-demand distribution of various forms of data, including big data, massive structured data used in enterprise finance processes, images, neuronal hierarchies, etc.

SAP Central Finance, as a component of SAP® S/4HANA, enables the automation and digitalization of centralized financial reporting processes and helps support:

- Central entity reporting
- Central process execution
- Real-time financial close
- Real-time integration with consolidation, planning and analytical solutions, such as SAP Integrated Business Planning and Business Objects
- Leveraging SAP reporting tools, such as Fiori, to visualize and analyze the centralized financial data that are sourced from disparate accounting systems
- Simplifying and streamlining general accounting data that can be used by non-SAP financial management solutions

How Does SAP Central Finance Work?

The architectural design of SAP Central Finance is based on data replication at the **application level** rather than the **database layer**, which is used by traditional data transfer technologies. The application-level data replication is executed in real time and at line-item level with embedded data harmonization functions. These functions enable faster reporting, given the elimination of redundant data, and increase the extent and depth of real-time analysis of financial information.

In addition, SAP authorization architecture is applied automatically, providing auditability and security to the SAP Central Finance data and system. This architectural aspect makes the reports coming out of SAP Central Finance reliable and secure even though the data is sourced from non-SAP accounting systems.

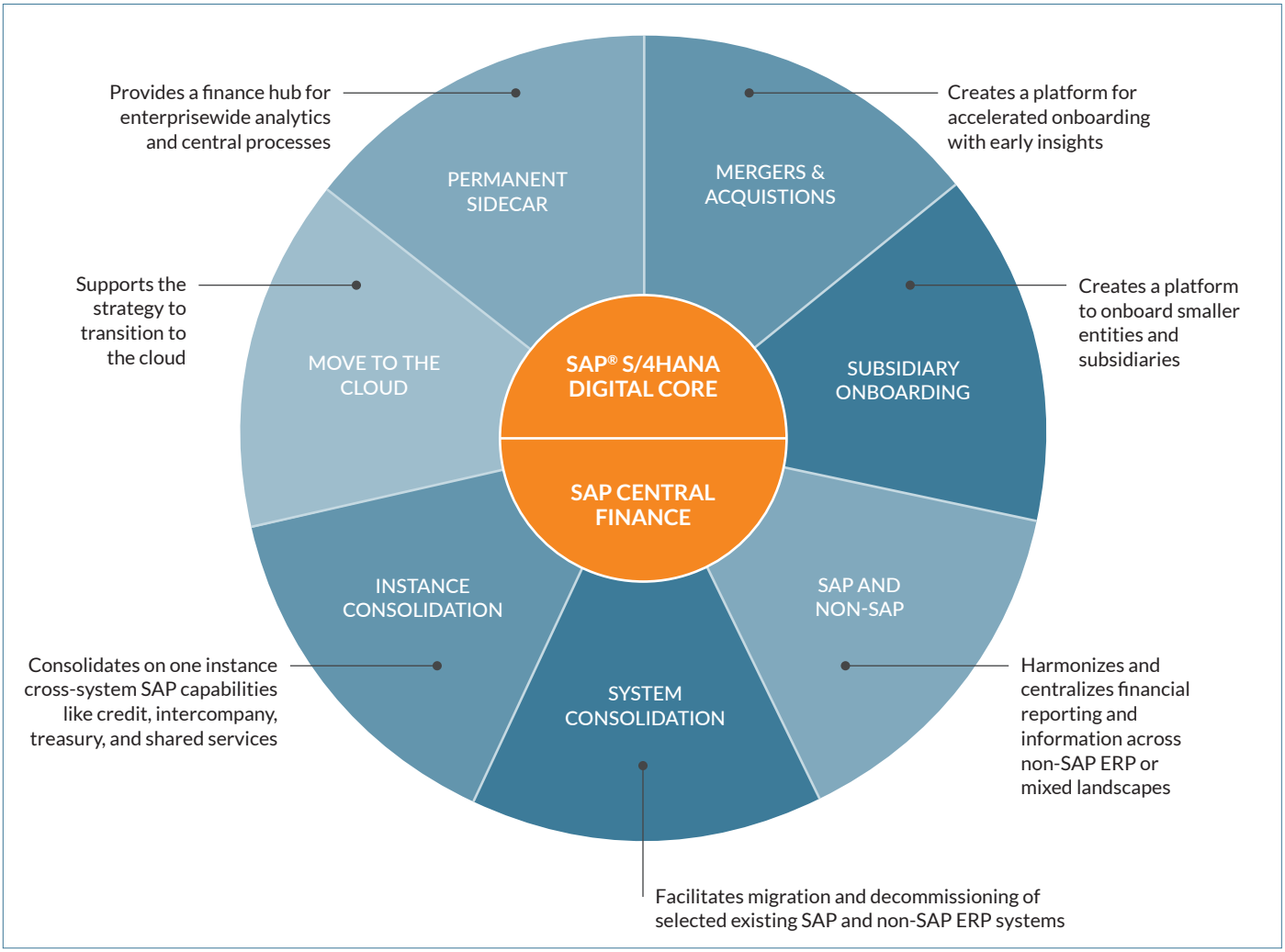
Some organizations use home-grown data warehouses or off-the-shelf systems to centralize financial reporting and information. Such solutions have rigid designs that provide limited functions because of challenges related to custom interfaces of non-SAP sources, replication of data in an environment outside of the core SAP technology, data transfers on an aggregated level, and complicated data validation and reconciliation. SAP Central Finance can replace

these home-grown data warehouses or off-the-shelf solutions if they are used for centralized reporting and financial information. In cases where such solutions are used for business needs, such as cost allocations, financial planning and similar sophisticated functions that go beyond centralized reporting, SAP Central Finance can help harmonize the data coming from the accounting systems on a line-item level. In this case, SAP Central Finance will be the key source of normalized and consistent financial data to non-ERP (home-grown or off-the-shelf) applications.

Figure 1, below, depicts S/4HANA's core digital platform and the SAP Central Finance architectural components used to enable business transformation, centralization of processes, designing of shared services, and centralized reporting.

SAP Central Finance works in conjunction with the SAP landscape transformation (LT) replication server to collect data written to databases in the source systems and replicate that data in real time by using the central accounting interface. From a leading practice design perspective, it is recommended to use SAP master data

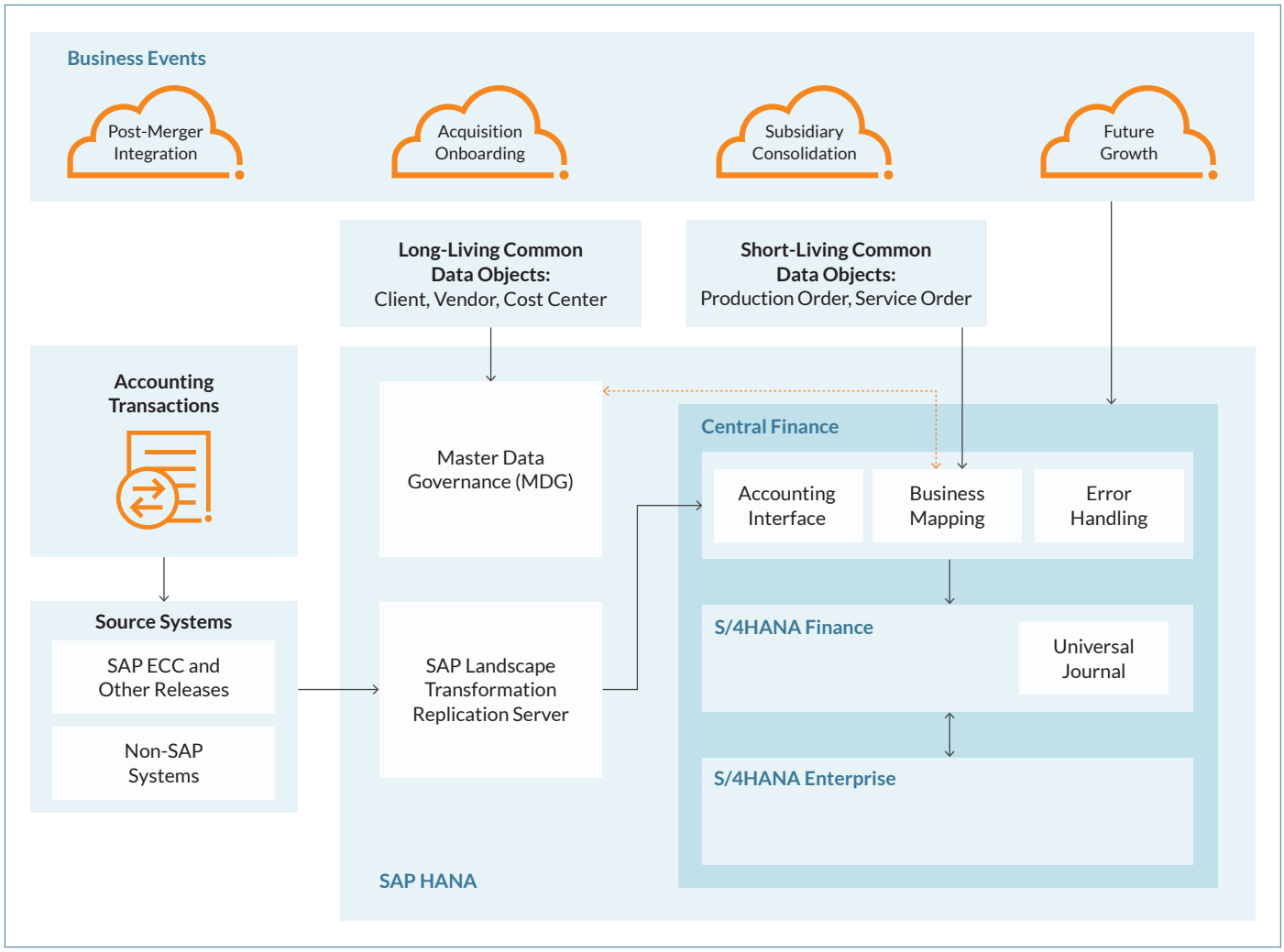
Figure 1. Components of SAP® S/4HANA and SAP Central Finance



governance (MDG) in conjunction with SAP Central Finance to define common data structures for master data (also known as long-living data), such as company code, plant and cost center. SAP MDG is not an embedded component of SAP Central Finance. It is available as a separate application in the HANA platform. Regarding short-living data (also known as transaction data), such as production order, internal order and service order, it is recommended to define the common data objects by using the business mapping component of SAP Central Finance, which provides corresponding embedded cost objects. After the execution of data mapping rules, SAP Central Finance uses an error-handling mechanism to log the details of any exceptions. Using an interactive application, finance staff can then choose to correct the exceptions and repost or reprocess the items. For example, they can correct the mapping that causes the exception. In the final stage, SAP Central Finance creates a universal journal entry that corresponds to one or more documents in the source accounting systems.

Figure 2, below, depicts the common data objects in the context of SAP Central Finance architecture and its ecosystem.

Figure 2. The SAP Central Finance Ecosystem



What Are the Key Design Principles of SAP Central Finance?

The main design principle of SAP Central Finance is defining a common data structure[1] that unifies the data coming from different accounting systems. The design of the common data structure determines how SAP Central Finance replicates and organizes the accounting transactions for centralized reporting. A well-designed common data structure is foundational for downstream data analysis and information. By designing the right common data structure, SAP Central Finance can enable flexible analytical reporting in key areas, such as financial planning and analysis, cost center analysis, profit center analysis, and finance-related operations. On the other hand, the failure to create a good design of common data structures will render SAP Central Finance ineffective and add another inefficient system to the landscape of already disparate and fragmented accounting systems.

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How Do Companies Deploy SAP Central Finance?

As a component of SAP® S/4HANA, SAP Central Finance represents both a deployment approach and a product. It is a deployment approach because it uses a particular architectural design that replicates the accounting transactions in a centralized environment based on SAP® S/4HANA technology. Consequently, it has a direct impact on the deployment strategy of SAP® S/4HANA Finance. It is a **product** because it provides specific components (applications) for data transfer, master data governance, data mapping, exception management and error handling. It is important to note that SAP Central Finance, as a product, is not a typical ETL (extract, transform, load) tool that is used for data transfer. The main difference between SAP Central Finance and a general ETL tool is that SAP Central Finance provides pre-built SAP objects, such as cost

[1] A common data structure is a conceptual model of SAP data objects, such as accounts, organizational hierarchy, cost center, profit center, production order, plant, etc.

objects, documents and organizational structures. This is a powerful concept because it automatically transforms non-SAP data and any release of SAP data into S/4HANA objects in a centralized accounting system that benefits from all the functions and innovations provided by the digital technology.

With these features in mind, an SAP Central Finance deployment strategy should be designed to:

- Digitally connect different accounting systems, SAP and non-SAP, to SAP® S/4HANA core finance applications
- Convert the components of a disparate accounting system landscape to a centralized financial system, i.e., SAP® S/4HANA
- Create a financial reporting system that centralizes different accounting systems
- Enable an efficient, streamlined and repetitive model to onboard disconnected or new entities onto a centralized structure and process
- Create a foundation today for future centralization of financial reporting, information and processes
- Automatically reconcile accounting transactions in the centralized system to the various disparate accounting source systems
- Consolidate on the same instance of SAP® S/4HANA the execution of processes related to credit control, intercompany, treasury and shared services that are managed in any releases of SAP

The success of the SAP Central Finance deployment strategy depends to a large extent on the efficiency of business processes and the solutions the organization designs to support these business processes. Management has the critical responsibility to redesign the business processes prior to or as part of the solution design cycle to avoid creating solutions that support inefficient processes. The solution designs provide a conceptual representation of business processes and show the articulation of business requirements. The technical team can then easily use these designs to set up the SAP Central Finance configuration. In the absence of a solution design approach, the focus of the implementation will be the technical configuration of the system rather than the automation of business processes. It is the responsibility of the business to make sure the efficient process models exist and solution designs are created to automate these business processes. Only then can the system integrator align the configuration of SAP Central Finance to these processes and related solution designs.

Consider Future Processes

Management should consider carefully the need for financial process redesign and related solution designs as part of the company's SAP Central Finance or SAP® S/4HANA transition strategies. It is important to review future-state business processes and company objectives and embed these requirements in the SAP Central Finance and SAP® S/4HANA strategy and approach.

What Is the Role of the Business in the Deployment Process?

Beyond the considerations above, it is essential for management to grasp that the SAP Central Finance initiative is not limited to IT, and that the business process owners must understand their central role in the overall success of the deployment. The SAP® S/4HANA and SAP Central Finance deployment must be designed from the outset to support the business. Organizations cannot expect system integrators to develop these designs alone. Integrators are technical experts — not business process experts. This is why the business should be responsible for defining the vision and operational expectations for the future state of each business process that SAP Central Finance will impact.

The quality of technical design of SAP Central Finance plays a crucial role in creating a centralized financial reporting solution to enable digital business processes. However, a good technical design does not, by itself, realize the full value of SAP Central Finance. How successful the SAP Central Finance technical design is depends on how well the solution designs articulate the future redesigned business processes to achieve the efficiency and automation inherent in digital technologies. Consequently, as organizations deploy SAP Central Finance to create a centralized financial reporting hub and automate related processes, it is becoming increasingly critical not just for IT, but also for the business units themselves, to understand their critical role in the overall success of the transition strategy. The deployment of SAP® S/4HANA or SAP Central Finance is, ultimately, a business project with business objectives. In other words, the role that the business plays in SAP Central Finance deployment is as critical as that played by IT and system integrators. Management should understand that role, the choices to be made in how they prepare to execute it and the implications of choosing to delegate or deprioritize certain aspects of the role.

If the business fails to fully embrace its role in the SAP Central Finance deployment, it could face potentially significant and costly risks. Interminable deployment delays and budget overruns, business disruption post-go-live and insufficient user adoption are just a few common examples. Even when the project is supported by a strong system integrator, it is critical for management to assume responsibility for key activities before, during and after the deployment. The eight areas below are the responsibility of the business[2]:

- Program management and governance
- Business process readiness and solution design
- Organizational change enablement
- User acceptance testing (UAT)
- Data conversion
- Data governance
- Business intelligence and reporting
- Access management and financial compliance

[2] For a detailed discussion, see Protiviti's white paper, "Understanding the Responsibilities of the Business During an ERP System Implementation," available at www.protiviti.com/US-en/insights/understanding-responsibilities-business-during-erp-system-implementation.

What Are the Most Common SAP Central Finance Deployment Scenarios?

Whether organizations are in the process of defining their transition strategy to SAP® S/4HANA or have started the deployment process, they should consider the following SAP Central Finance deployment scenarios, depending on their specific circumstances:

1. **Scenario 1 — Short-term value realization:** The enterprise wants to benefit quickly from centralized financial reporting and analytics, based on SAP® S/4HANA innovations, with short time to value realization and at relatively low cost. Currently, this is a popular scenario for many organizations as they define their long-term strategies for a full transition to SAP® S/4HANA. This is a practical approach because it helps the organization determine the business processes and data structures that need to be redesigned as part of the long-term transition strategy to SAP® S/4HANA.
2. **Scenario 2 — One-step system consolidation:** The organization has defined its future strategy for the enterprise business systems landscape — it has consolidated its ERP systems to a final number and is not planning to consolidate any further at the present time. SAP Central Finance, in this case, is deployed to create a centralized financial reporting system that provides a coherent and consistent view of the consolidated ERP systems and the remaining disconnected ERP systems. SAP Central Finance can, if needed, facilitate potential further consolidation of ERP systems in the future.
3. **Scenario 3 — Multi-stage system consolidation:** The organization has a relatively short deadline to consolidate and decommission its existing systems. The full transition in this scenario is carried out in two stages. In the first stage, all source systems are connected to SAP Central Finance. This is a non-disruptive approach that allows the existing systems to continue to operate as before during the transition process. In the second stage, the existing systems are migrated onto the SAP® S/4HANA platform. After the completion of the migration to SAP® S/4HANA, the existing systems are decommissioned.
4. **Scenario 4 — Future financial information hub:** The organization has adopted a deployment strategy for SAP® S/4HANA in a homogeneous environment that provides centralized financial reporting and information and does not need the SAP Central Finance applications. In this scenario, even though SAP Central Finance is not turned on to replicate the accounting transactions and it is not used for central reporting, it is deployed as a platform for the future in case of mergers, acquisitions or other similar events.

Are There Other Benefits of SAP Central Finance?

Beyond centralized financial reporting, SAP Central Finance serves as the catalyst that helps to optimize centralized business processes in the areas of client analysis, credit management, dispute management, collections, clearing of open items and settlement of outstanding transactions. When the business processes are optimized, they will be ready to benefit from the highest level of automation provided by SAP Central Finance functions. However, the optimization of processes can't be achieved without going through a process redesign and solution design exercise, which involves the harmonization of master data and the improvement, standardization and integration of financial processes in relation to the setting of a centralized accounting platform.

Other major benefits of SAP Central Finance result from the key innovations provided by SAP® S/4HANA that can be applied to disparate finance processes, such as:

- Real-time analytics functionality, providing instant insights into complex and multi-dimensional aspects of financial information
- High granularity at line-item level, creating an authoritative single source of truth
- Real-time process execution, making closing "on the fly" possible
- Planning, forecasting and simulation, providing integrated and predictive views of financial information
- Intuitive user experience, offering user-friendly access to the deepest levels of available financial information

In addition to the SAP® S/4HANA key innovations, SAP Central Finance includes several standard reports and views to support the central management of business processes in single- and multi-entity organizations, as outlined below:

Basic Reports	
General accounting	Trial balance, financial statement, general ledger account line items, general ledger account balances
Financial analysis (plan vs. actual)	Cost center, internal orders, market segments, profit and loss, projects
Cost management	Spend, unusual items
Advanced Reports	
Clearing-based	Global cash management, cash flow analysis, accounts payable and accounts receivable, future payables, aging analysis, Dunning Level Distribution, days beyond terms, future receivables, overdue receivables, total receivables, days payable outstanding, vendor payment analysis (open payments), vendor payment analysis (manual and automatic payments)

Conclusion

The real value realization of SAP Central Finance is achieved when it is deployed to digitalize the finance processes and enable future growth. No two SAP Central Finance projects are exactly the same. How the implementation will be organized will depend on several factors, including the desired deployment strategy, the company's prior experience with SAP® S/4HANA, partner methodologies and much more. However, all of the concepts presented in this white paper apply in one form or another.

For most companies, centralized financial reporting and information, enabled by SAP Central Finance, can bring remarkable efficiencies, open up opportunities for transformative growth in a digital economy, and provide a significant return on investment. It is important to remember that the business, not the integrator or IT, is ultimately responsible for achieving that outcome.

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