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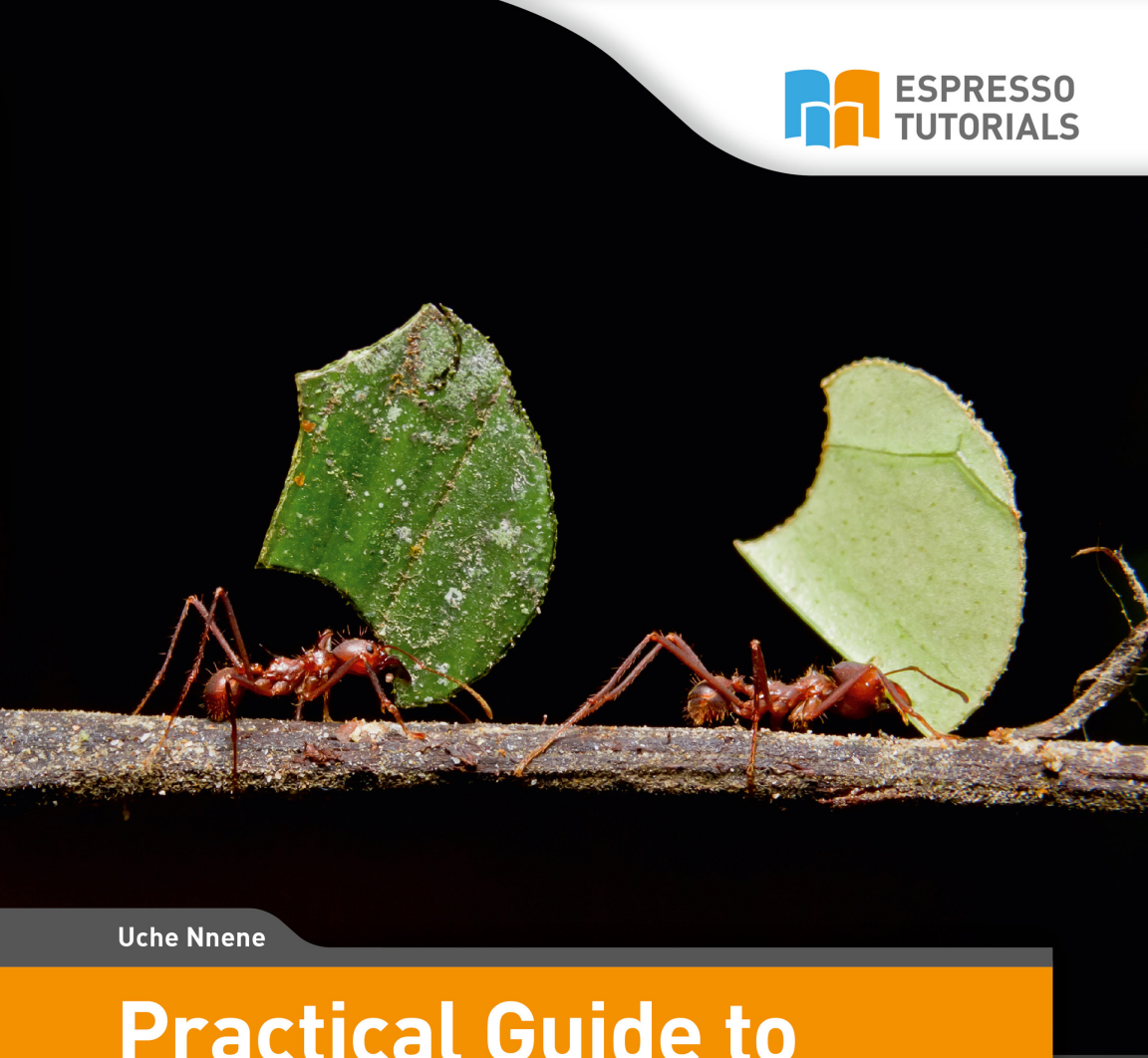

Uche Nnene

Practical Guide to Data Migration with SAP® S/4HANA Migration Cockpit

- Data migration scenarios and tools for moving data to S/4HANA
- Step-by-step guide for using S/4HANA migration cockpit and S/4HANA migration object modeler
- Plan an S/4HANA data migration using SAP Activate methodology
- Evaluate S/4HANA migration tools

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2 Scenarios for transitioning to SAP S/4HANA

In this chapter, I briefly introduce the concept of SAP S/4HANA, discuss how it differs from the classic SAP ERP, and explain why an organization might choose to migrate to SAP S/4HANA. I then explain the various transition scenarios provided by SAP. This chapter then closes with the scenario that we focus on for the rest of the book.

2.1 SAP S/4HANA differentiators

SAP S/4HANA is the next generation business suite built on the *advanced in-memory platform*, *SAP HANA*. The product is built around a digital core and modern design principles with the SAP S/4HANA Fiori user experience and role-based experience in mind.

SAP S/4HANA is an abbreviation of *SAP Business Suite 4 SAP HANA*.

S stands for **SAP Business Suite**, referring to the suite of SAP products on HANA. It represents a simplification of the entire system architecture, the structure of programs, and the complete data model. This simplification is achieved by eliminating indices and aggregate tables, thereby reducing data latency and redundancy. With SAP S/4HANA, data is run **on the fly** in memory.

4 represents the **fourth generation innovation** after SAP R/2 and SAP R/3. SAP S/4HANA is an entirely new product based on a completely new code line. Customers who choose to adopt SAP S/4HANA are not just taking on a simple system upgrade.

HANA points to fact that the entire suite is based on the **SAP HANA technology and platform**. SAP S/4HANA is pretty much a new product line and not simply a successor to the classic SAP ERP business suite (which will still be available until 2025, according to the SAP roadmap). There are some unparalleled changes between SAP S/4HANA and classic SAP ERP:

- SAP S/4HANA is based on the in-memory database SAP HANA. It runs natively on the HANA platform, providing access to advanced

text mining, predictive analytics, enhanced performance, and powerful decision support. In layman's terms, this means that transactions or reports that used to take a long time to run—such as asset depreciation—now run in a fraction of the time as both *online transactional processing (OLTP)* and *online analytical processing (OLAP)* are combined into a single database.

- SAP S/4HANA provides instant insights based on real-time data. Through the power of embedded analytics in SAP S/4HANA, users can gain access to real-time operational reports, thereby enhancing user efficiency and effectiveness.
- Many SAP S/4HANA core applications have been re-designed and simplified. For example, the introduction of the universal journal provides a simple data model that combines and harmonizes the best qualities of accounting components.
- SAP S/4HANA now has enhanced user experience with Fiori user interfaces embedded with exception-driven analytics. The apps provided allow the user to execute transactions (*transactional apps*), gain insight and take action (*analytical apps*), view factsheets and contextual information (*factsheet apps*), and finally, users can analyze and evaluate strategic or operational KPIs (*SAP Smart Business cockpits*).
- SAP S/4HANA also offers different deployment options in line with business strategy and an organization's level of risk and reward from the deployment option. SAP S/4HANA can be delivered as follows: as a public cloud (where application software and hardware is completely managed by SAP, thus allowing less flexibility with regard to software modification but providing greater scalability and deployment agility); as a managed cloud (where application software is managed by SAP within the customer's own cloud tenant and the customer has some flexibility with regard to software modifications); and as on-premise solutions (where software is managed completely by the customer, thus allowing the greatest flexibility with regard to software modifications).

2.2 Options for transitioning to SAP S/4HANA

There are three different scenarios for transitioning to SAP S/4HANA, as shown in Figure 2.1:

1. System conversion

2. New implementation
3. Landscape transformation

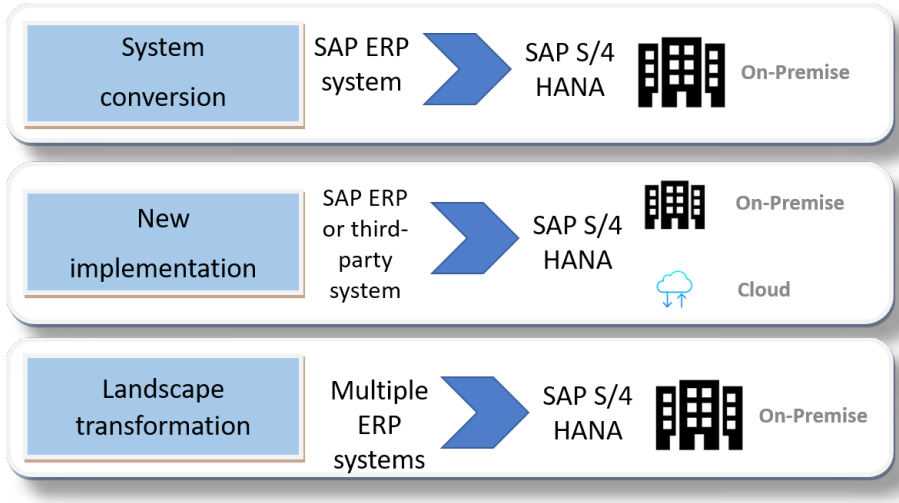

Figure 2.1: Options for transitioning to SAP S/4HANA

2.2.1 System conversion

A *system conversion* scenario for transitioning to SAP S/4HANA can be viewed from a concept perspective at least as similar to an upgrade but it is **NOT** an upgrade (see Figure 2.3). A system conversion can be viewed as a complete technical conversion of an existing SAP Business Suite ERP system to SAP S/4HANA. With this approach, you **convert** your current ECC system to the new SAP S/4HANA system. This approach can be adopted only on-premise and could be done either in an organization's own data center or as part of an *Infrastructure as a Service (IaaS)* model.

An S/4HANA system conversion requires no (real) data migration (i. e., no physical extraction or transformation is required). Instead, a technical data migration that migrates elements such as the material ledger and transaction data to the *universal journal* as part of the post-S/4HANA conversion step is performed, as shown in Figure 2.2. For those not conversant with the terminology, the universal journal is a ledger of all accounting entries of business transactions in Finance (FI) and Controlling (CO) and it represents the single source of truth in SAP S/4HANA.

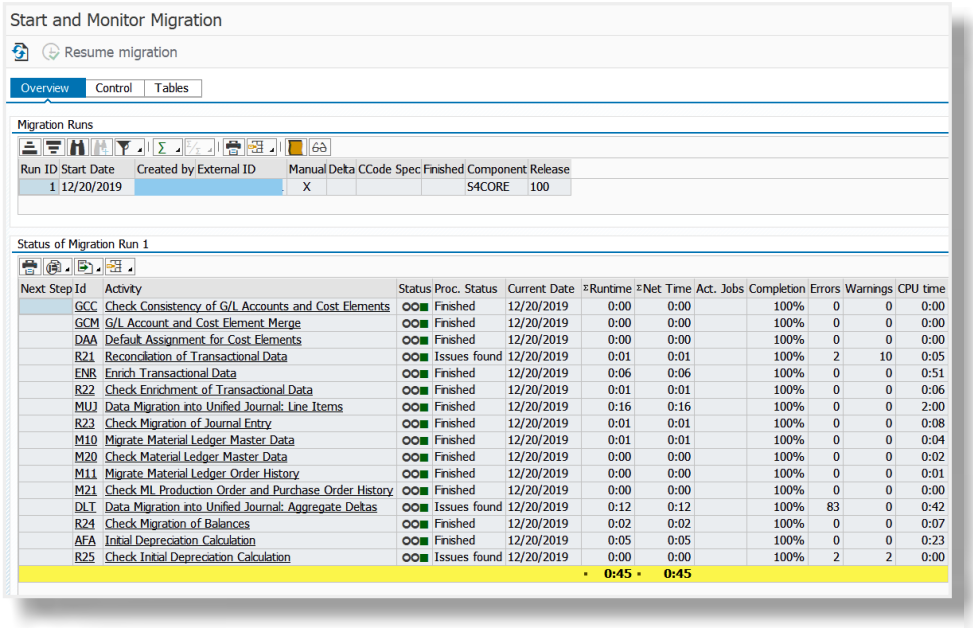

Figure 2.2: Migration as part of an S/4HANA conversion

Figure 2.3 provides a diagrammatic representation of the process for converting an existing SAP ECC system, with the steps typically involving:

- Database migration from a non-HANA database (AnyDB) platform from SAP ERP 6.0 and above, and from an SAP HANA database to an SAP S/4HANA database
- Conversion of the data model from ERP core (SAP Business Suite ERP 6.0) to SAP S/4HANA core, or from SAP S/4HANA Finance (formerly known as Simple Finance) to SAP S/4HANA
- Conversion of old application code and tables to new applications and structures; this also includes adapting the customer's custom code so that it is compliant with the new data structures
- Creation of *compatibility views* (known as *Core Data Services (CDS) views*) to make the old reports and interfaces still function as normal
- Configuration adaptation in the areas of master data, the Financials, Logistics, Human Resources, Portfolio and Project Management, Procurement, Sales and Distribution modules, as well as industry-specific functions (for example, in New Asset Accounting, additional currencies, parallel valuation, material ledgers, etc.) based on the SAP *simplification list* (see Section 2.3 for further information on the simplification list)

- No forced migration from Classic GUI to Fiori except where transactions are no longer supported in GUI (refer to the simplification list)

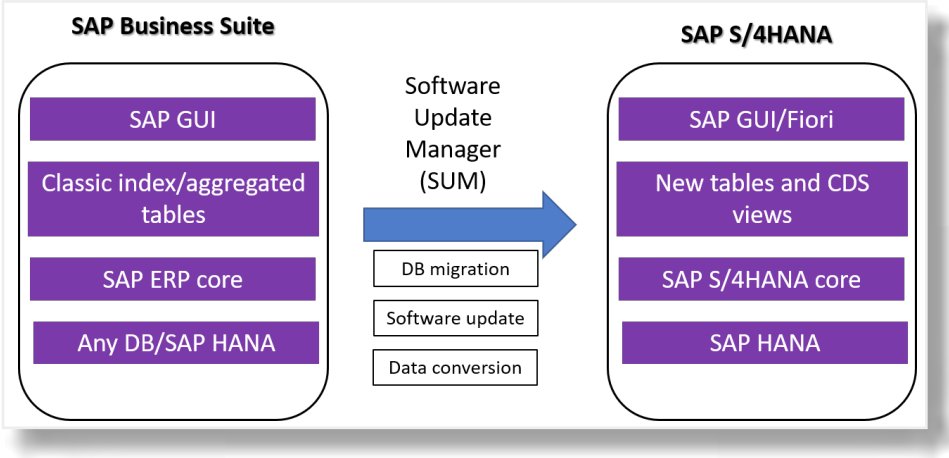

Figure 2.3: System conversion

Why choose this option?

Choose this option if your organization's strategic goal is to:

- Bring existing processes to the new platform
- Perform a complete technical conversion of the existing SAP ERP system to SAP S/4HANA
- Keep investment in custom code and technical debt
- Mitigate the risk and investment involved in a big-bang conversion project
- Retain recent investment in SAP Business Suite, with no business need to transform existing processes
- Adopt innovation at the organization's own pace
- Adopt SAP Fiori for SAP S/4HANA to enhance user experience, mobility, and flexibility at the organization's own pace

You should also choose this option if your organization has no strategic vision for migrating its SAP system to the cloud.

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