Data Migration Management for SAP S/4HANA

A Practical Guide

Aleksei Arziaev

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ISBN-13 (pbk): 979-8-8688-0332-1 ISBN-13 (electronic): 979-8-8688-0333-8
https://doi.org/10.1007/979-8-8688-0333-8

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Cover designed by eStudioCalamar

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To my wife, who has walked every step of this journey with me.

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About the Author

Aleksei Arziaev is a senior manager at KPMG AG, where he provides expert consultancy in SAP and financial transformation. Aleksei specializes in SAP FI/CO, SAP EPPM, data migration, and cutover management. He is certified in the SAP Activate methodology and also holds the SAP FI/CO professional certification. Prior to his career in IT and SAP, Aleksei worked for ten years in the field of strategic and operational planning in government organizations. He has a degree in management and a master's degree in development economics.

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Acknowledgments

I express my heartfelt gratitude to my incredible wife, Liliia. Her unwavering support and inspiration have been the driving force behind the words penned on these pages. Through every moment of doubt, she has been my guiding light, providing encouragement and creating an environment conducive to peaceful writing.

I extend deep gratitude to my parents, Mariia and late Georgy, who instilled in me values of purpose, diligence, and organization.

I express my profound gratitude to the Apress team for their invaluable support and feedback. A special acknowledgment to Divya, with whom I embarked on this fascinating journey, and to Sowmya, whose steadfast support guided me throughout.

I am also grateful to my colleagues and clients for providing me with the opportunity to work alongside them, allowing me to accumulate valuable experience that contributed to the writing of this book.

Preface

My dear reader,

Today, I am deeply honored to present to you my first book.

The idea of writing this book did not come about by chance. SAP S/4HANA project teams often encounter problems with incomplete, low-quality, or untimely data migration, which typically leads to client dissatisfaction and sometimes strained relations, as it is not just about the project budget but also about the erosion of the client's trust in the implementation partner.

It is evident that data migration, as a purely technical aspect of the project, should not be causing such issues. SAP S/4HANA system implementation projects involve tasks much more complex than data migration alone. For example, defining the implementation scope or conceptualizing new end-to-end business processes requires a much broader knowledge base, experience, and collaboration. Therefore, data migration management is clearly lacking in this regard.

In this book, I propose a solution to this problem. Building on the SAP Activate methodology, I supplement it with insights from my managerial experience in the public sector, where three key aspects – planning, organization, and control – form the indisputable foundation of the management.

Clear, concise, and detailed task planning, along with alignment among stakeholders on goals, resources, time frames, and locations, is a crucial aspect of management. Organizing the execution of these tasks, including issues of interaction and stakeholder engagement, translates

the developed plan into action. Continuous monitoring of their execution ensures that the process progresses according to the plan until its final stage. What you have before you is an enhanced and standardized approach to data migration management.

It is crucial to recognize that implementing SAP S/4HANA systems is a complex, comprehensive, and multifaceted endeavor, requiring extensive knowledge, immense experience, and unprecedented levels of interaction and collaboration. This naturally prompts ongoing refinement of approaches. Moreover, with the advent of new technologies in SAP S/4HANA systems, we might even anticipate a paradigm shift in their implementation. However, that is a topic for another discussion. For now, I invite you to explore the enhanced and standardized approach to managing data migration.

I will be very grateful for your feedback on the book!

Sincerely yours,
Aleksei Arziaev

CHAPTER 1

Introduction

By the year 2030, enterprises relying on SAP ERP systems to manage their business processes will be mandated to complete the transition to one of the SAP S/4HANA solutions. The limited time frame for this transformation intensifies the demand for consulting services in a market already grappling with a shortage of skilled professionals. This scenario not only impacts the quality of implementations but also extends project timelines, at times leading to project suspensions. Consequently, these dynamics affect project costs, either escalating them or adversely affecting the delicate balance between price and quality.

Considering the substantial investments required for SAP system implementation and operation, unforeseen financial and human costs can dissuade companies from opting for SAP systems. Consulting firms, in turn, bear not only financial burdens but also face reputational costs, diminishing their appeal to potential clients and employees alike.

The successful and timely completion of projects emerges as a pivotal factor for the sustained growth of professional SAP system implementation in the competitive IT market. It is undeniably the key to the success of consulting companies in this financially intensive, technically complex, and personnel-scarce market segment.

While numerous obstacles may hinder project success, practical experience underscores the critical impact of timeliness, completeness, and quality of migrated data on adhering to project schedules. The integrity and quality of data serve not only as prerequisites for launching

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A. Arziaev, *Data Migration Management for SAP S/4HANA*,
https://doi.org/10.1007/979-8-8688-0333-8_1

the productive system but also for initiating integration tests. Thorough integration testing is imperative for ensuring the correctness and reliability of business processes. Timely data migration thus facilitates adherence to the project plan, significantly enhancing the likelihood of a punctual productive system launch.

In this book, the technical aspects of data migration are not the primary focus, as SAP consistently invests in improving migration tools. Instead, the emphasis lies on management aspects. A comprehensive approach encompassing detailed planning, professional team organization, seamless collaboration with other workstreams, and continuous monitoring of the migration progress proves instrumental in anticipating and addressing potential issues. This approach not only ensures transparency of the data migration process[1] for the client but also fosters confidence in the project team, positively influencing the overall project climate and success.

Data Migration Phases at a Glance

The book serves as a step-by-step practical guide, presented in the form of a detailed methodology for planning, organizing, and controlling a data migration process in small-, medium-, and large-sized SAP S/4HANA implementation projects. The guide draws on our extensive experience in SAP S/4HANA implementation projects, including data migration, and based on data from an actual SAP system implementation in one of Europe's largest logistics companies. Our main takeaway from this experience is that despite having a team of skilled consultants and developers, the absence of realistic planning of the data migration process, well-defined work organization of the data migration workstream,

[1] Data migration process or migration process is understood as the totality of all data migration activities (planning, designing, testing, actual migration, etc.) carried out on a project from its very beginning to its completion.

and continuous monitoring of data migration activities can lead to data migration failure. Naturally, the guide also integrates theoretical enhancements to fill gaps in the presented methodology.

The presented methodology aligns generally with SAP Activate for on-premise solutions and, as such, can complement it specifically in the realm of data migration. Nevertheless, the presented methodology has undergone strategic enhancements. Primarily, the introduction of the "Data Migration Phase" stands out. This novel concept entails delineating specific data migration activities to each phase. Moreover, a series of logically aligned migration phases collectively constitute the entire migration process. This strategic innovation stems from the imperative to articulate coherent and interrelated goals for each distinct migration phase.

It is noteworthy that the widely recognized SAP Activate methodology for on-premise solutions delineates six project phases: Discover, Prepare, Explore, Realize, Deploy, and Run. Importantly, each of these project phases is characterized by its unique set of goals. For example, the goals of the Discover phase are to discover solution capabilities, understand the business value and benefits of the solution for the customer's business, and define an implementation strategy and roadmap in accordance with the understanding of the solution capabilities and the product roadmap. The goal of the Prepare phase, for example, is to provide initial planning and preparation for the project. In this phase, the project starts, plans are finalized, a project team is assigned, and work is underway to get the project off to the best start and so on.[2]

Evidently, the goal of a project phase is a culmination of the goals of all its constituent workstreams. The success of the phase hinges on the timely and effective realization of each workstream's individual goals. Therefore, coordination among these workstreams is crucial, as their objectives

[2] All of these goals can be found in the SAP Activate Roadmap Viewer for the mentioned SAP S/4HANA solution.

collectively contribute to the overarching phase goal. To achieve this, the goals set for each workstream must be both realistic and manageable, ensuring their successful attainment and facilitating effective oversight.

Thus, establishing goals for the data migration workstream serves as a foundational framework for phased planning. This not only delineates points for collaborative engagement with other workstreams and the client but also outlines the control parameters that will govern the entire data migration process.

In the subsequent chapters, we will delve deeper into the nuances of the data migration phases, providing a comprehensive analysis of the specific goals associated with each phase. To set the stage for this detailed exploration, we present an overview of the data migration phases within the context of an SAP S/4HANA implementation project, briefly outlining the key goals of each phase. This introductory overview aims to provide a broad understanding of the entire migration process, setting the foundation for the more detailed discussions to follow.

Data Migration Scoping

At the initial phase of a project, the main goal of data migration is to figure out what data needs to be moved. This migration phase is called "Data Migration Scoping" and corresponds to the "Discovery" phase in SAP Activate. In addition to reviewing the data that needs to be moved, we also review the tools available for migration. The key deliverables we are aiming for in this phase in addition to the data scoping are the formulation of a Data Migration Strategy that defines the data migration framework as well as the data migration tool for our implementation project.

Data Migration Planning and Preparation

After scoping the data migration, we move on to planning the migration activities. This migration phase, called the "Data Migration Planning

and Preparation," is crucial in setting up the data migration process. It is the most important part of the data migration process because it defines how the migration will happen. The key deliverables here are to develop a detailed Data Migration Concept and to create a data migration workstream. In SAP Activate, this phase aligns with the broader "Prepare" phase.

Data Migration Design

In the third phase, called "Data Migration Design," the focus is on crafting and initial testing of the developed migration projects and programs.[3] This phase aligns with the "Explore" phase in SAP Activate. Alongside the migration programs and projects, the key deliverables include the design of comprehensive Data Migration Test Plans. This phase stands out as the most demanding in terms of resources and time, constituting a critical juncture in the overall data migration process. Furthermore, during this phase, the conclusive selection of migration paths and approaches takes place. Any subsequent alterations are to be carried out exclusively through a formalized change request process.

Data Migration Validation

In the subsequent phase, called "Data Migration Validation," the migration projects and programs undergo thorough validation through a series of successive migration tests, coupled with client verification of the migrated data. These data migration tests serve various purposes, with the overarching goal of guaranteeing a smooth and uninterrupted actual data migration. The conclusive step in this phase is the cutover test, a part of which involves data migration. The key deliverables of this

[3] Migration projects and programs mean SAP standard and, accordingly, custom migration programs for transferring data from a legacy system to SAP S/4HANA.

phase encompass the development of Data Migration Test Plans and the documentation of their results. Furthermore, as the concluding deliverable of this phase, the actual Data Migration Plan can be developed. This phase aligns with the "Realize" phase in SAP Activate, marking a pivotal point in ensuring the efficiency and reliability of the data migration process.

Data Migration

Following the completion of testing, the actual data migration occurs. The execution of the data migration adheres to a meticulously devised cutover plan, encompassing data migration activities. The key deliverable of the "Data Migration" phase is the client's formal acceptance of the migrated data. This phase harmonizes with the "Deploy" phase in SAP Activate.

Post Data Migration

The final "Post Data Migration" phase is crucial for ensuring the successful completion and future utility of the data migration process. The primary task in this phase is to finalize and securely store the data migration documentation on both the client's and the implementation partner's platforms. This documentation not only facilitates the creation of detailed data migration reports but also serves as a valuable reference for future projects.

Additionally, this phase may involve the transfer of historical data if deemed necessary. It integrates smoothly with the "Run" phase of the SAP Activate methodology, providing a coherent completion of the data migration process. It is important to note that this phase does not impact the actual data migration, allowing for its consideration in the planning phase without requiring extensive detail.

Furthermore, both the implementation partner and the client have the opportunity to tailor this phase with additional activities that align with

their specific objectives, enhancing the overall effectiveness and relevance of the data migration process.

As we see, the naming of the data migration phases is designed to reflect their respective goals, ensuring a clear and logical progression through the migration process. This alignment not only aids the project team in efficiently navigating each phase but also allows the client to easily follow and comprehend the sequence, appreciating the inherent connections and transitions between the different phases of the migration journey.

Establishing Timelines

The next important strategic enhancement in the presented methodology is that the timelines for specific migration phases may not always align with those of the corresponding project phases (refer to Figure 1-1). This discrepancy arises because data migration serves as a supporting workstream within the SAP Activate methodology, primarily aimed at facilitating the smooth functioning of various process area (scrum) teams, such as Design and Configuration or Testing. This objective should be reflected in the specific tasks and deadlines allocated to the data migration workstream.

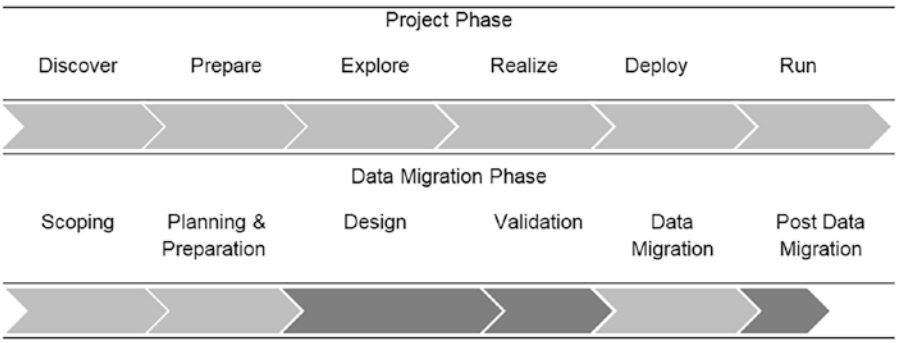

Figure 1-1. *Timelines of Project Phases and Data Migration Phases*