

Chapter 16

Case Study: Distributed Delivery of an SAP Solution at a US Life Science Company

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Abstract The client is the US branch of a global pharmaceutical company. As a result of organic and inorganic growth over the years, the business system landscape became fragmented and inefficient. In order to position the company for future growth, the client needed to integrate and standardize their business processes and systems.

The client embarked upon a fifteen month SAP implementation project, leveraging Capgemini's Distributed Delivery Framework (DDF) model. The DDF model comprises an onshore project team and an offshore team that has extensive responsibilities for both development and configuration activities. This article provides an overview of the approach taken to integrate the offshore team, focusing on the processes used to support the distributed configuration activities.

16.1 ERP implementation

16.1.1 Meeting the challenges of a global company

The client is part of a global pharmaceutical company involved in the manufacturing, marketing, and import/export of pharmaceutical products. This is a truly global company with operations in several countries across Europe, North America, and Asia.

The US branch of the company serves the North American marketplace and includes both headquarters and manufacturing operations. The company recognized the strategic advantage that an integrated SAP platform could bring for its North America operations. The company was also aware of the many challenges which stood in the way of their goal of continued growth and efficient operations:

- Many financial and operational processes were highly manual
- Compliance requirements demanded solid integration
- An integrated solution was required to manage the increasingly complex organization

- The company needed a better platform to improve collaboration between the growing number of business units to take advantage of future opportunities
- The legacy applications were becoming outdated

One of the client’s main objectives for the project was to establish a scalable, flexible platform which would address these challenges and allow them to quickly integrate planned acquisitions and support future business expansion.

16.1.2 The project

The project was kicked off at the North American headquarters, and was completed fifteen months after project start. The SAP ECC 5.0 implementation included finance, procurement, customer order management, human resources (including manager and employee self-service functionality), warehouse management, and business warehouse (data warehousing). Challenges within the organization brought on by competing business priorities forced the project team to bring innovation, industrialization and enhanced client intimacy to bear. The deployment was accomplished in three waves: human resources in the initial wave was implemented 10 months after the project start, procurement was implemented one month later and all remaining functionality was implemented in the following month. An extension of the SAP functionality to Canada and Latin American distribution was completed in month 15 of the project. The table in Figure 16.1 demonstrates the scope of SAP functionality implemented in more detail.

The project activities were structured based on Capgemini’s SAP Methodology DeliverSAP, which follows a standardized phased implementation approach illustrated in Figure 16.2.

FI	General Ledger	HR	Personnel Development
FI	Accounts Payable	LES	Warehouse Management (FG)
FI	Accounts Receivable	LES	Materials (FG) Distribution
FI	Asset Accounting	LES	Sales Order Management
FI	Special Ledger	LES	Shipping
FI	Banking	LES	Transportation
CO	Profit Center Accounting	LES	Billing
CO	Overhead Cost Accounting	MM	Purchasing
CO	Profitability Analysis	MM	Inventory Management (FG)
CO	Project Systems (Project Acctg. portion)	MM	Invoice Verification
HR	Personnel Administration	CA	CATS (Project Time Tracking for cost allocation)
HR	Employee Self Service	CA	EDI
HR	Management Self Service	BW	Business Warehouse

Fig. 16.1 Functional scope

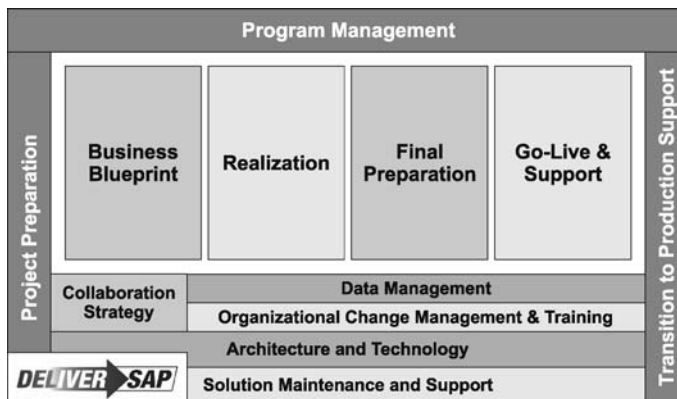


Fig. 16.2 Project phase overview

The design approach for the project was focused on evaluating the business requirements from each of the impacted functional areas against the standard SAP functionality and leading practices, “Design by Acceptation”. This evaluation was done through a series of “Rapid Design Workshops” utilizing the input and approach described in Figure 16.3.

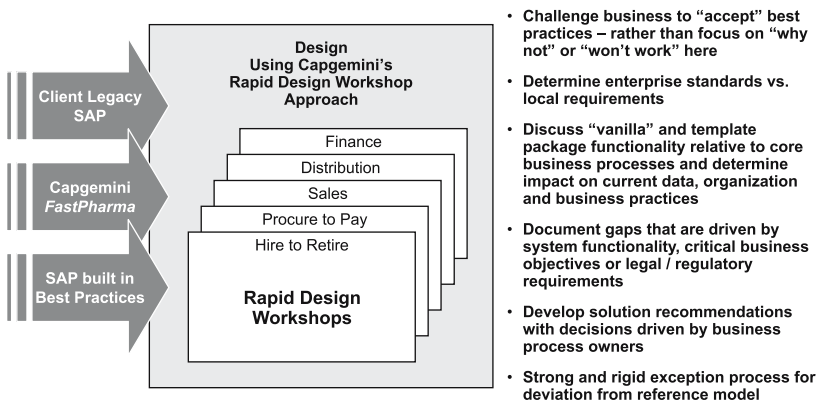


Fig. 16.3 Rapid design workshop input and approach

16.1.3 Offshoring considerations

What activities were performed offshore

Not all implementation activities lend themselves to distributed delivery; therefore, the level of offshore work will vary by work stream and project phase. For this

project, two primary areas were defined to best leverage the offshore resources, and comprise the highest proportion of the work performed offshore:

- Business process enablement (configuration)
- ABAP development (coding)

The combination of periodic onshore activities, spread across the different phases of the project, and the work done offshore, was deemed to be the most effective use of the offshore team.

Considerations for offshore configuration

Cost reduction is generally perceived as the most common driver for offshore project work. While it is true that offshoring offers significant opportunities for cost savings, there are other important reasons why this project elected to do much of the project work offshore. There are, for example, an increasing number of highly skilled resources in the development centers with SAP functional and technical skills. The fact that they work in large, established development centers means there is a broad talent pool readily available to meet changing project demands, be it for increased manpower or different skills. This supports a fast ramp-up or ramp-down of the team, as required. It also offers the team access to a great depth of experience within the same development center in both technical and functional areas.

Performing SAP configuration offshore is one of the newer and less well established service offerings. However, it is being done successfully and offers several advantages, thus making it an attractive alternative to the traditional project structure. The approaches to and processes for performing configuration offshore are continuously refined and further developed, leading to better guidelines for implementing successful projects. Plus, an increasing number of project leaders and SAP analysts, both onshore and offshore, are becoming experienced with remote configuration. This project leveraged these improvements by piloting a newly enhanced Capgemini framework for the distributed delivery of SAP projects.

16.1.4 Innovative approach to business alignment

One of the innovative aspects of the project was the use of Capgemini's Accelerated Solutions Environment (ASE). The ASE is a work area designed to stimulate creativity that is combined with a unique methodology to provide a highly collaborative working environment to generate rapid results.

The team designed three ASE sessions to expedite the blueprint process and facilitate cross-functional input and buy-in to the new process models. The first session focused on executive alignment, and involved all key executives and decision makers from the functional areas impacted by the project scope. This group worked together to provide a mutually agreed and solid starting point for the project team:

- Validated project goals, objectives, scope and measures for success
- Confirmed executive alignment on the project approach, milestones and timing
- Defined roles and responsibilities required to make the initiative a success
- Developed a risk mitigation strategy for the project and across the enterprise
- Developed the business communication plan going forward

The second session was a business process design ASE focused on defining the core enterprise-wide business processes, and making decisions on key business and data issues needed by the team to develop the Blueprint. The third session was the blueprint confirmation ASE where individuals from across the business were brought together to confirm that the blueprint was complete and that the project team was prepared to move to the realization (build) phase of the project.

16.2 Building a distributed project organization

16.2.1 Project organization

The onsite project team was centrally located at the company's North American headquarters, while the offshore team was situated at the Capgemini development centre in Mumbai, India. The project team was organized by five core functional business areas (finance, sales, distribution, procurement and HR), with cross-functional support teams for system validation, data management, data warehouse, change management & training, SAP Basis administration, security, development, legacy applications and interfaces. The organization chart in Figure 16.4 illustrates

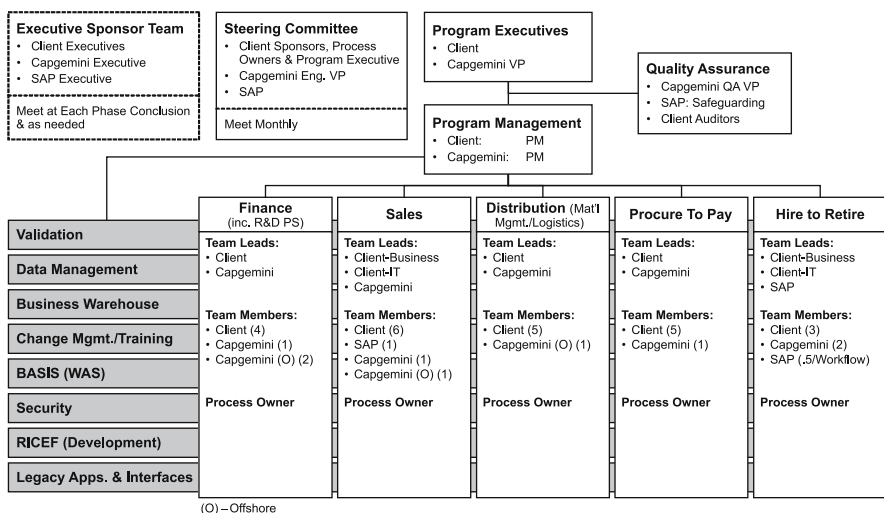
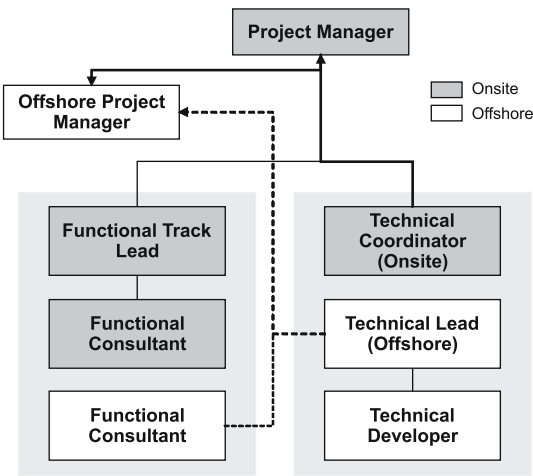


Fig. 16.4 Project organization

Fig. 16.5 “One Team Concept” with clearly defined roles and responsibilities



a key element of the project approach, namely the co-teaming of Capgemini team members and client business and technical team members. This facilitated the integration and communication between business and consultants.

The coordination between the onsite and offshore teams was carried out on the basis of the “one team” concept illustrated in Figure 16.5. This concept relies on frequent communication between the onshore and offsite teams. Onsite/offshore communication for the functional teams took place directly between the offshore configuration analysts and their corresponding onshore functional track leaders. For the development team, all offshore team communication went through the onsite coordinator.

16.2.2 Roles and responsibilities

To ensure adequate coordination of the distributed team as well as a smooth running development and implementation process, it is essential for the project manager to clearly define the requirements and responsibilities for each project role, and for all team members to fully understand their responsibilities. Table 16.1 provides a summary of the client and consulting positions filled for a distributed delivery project:

Table 16.1 Roles and responsibilities

Role	Onshore/ Offshore	Responsibility
Executive Sponsors	Onshore	Own the program. Final authority to set priorities, approve scope, and settle company-wide issues.
Steering Committee	Onshore	Maintain a high-level oversight of the project. Have responsibility for the overall success of the project.

Table 16.1 Roles and responsibilities

Role	Onshore/ Offshore	Responsibility
Program Executives	Onshore	Ensure consistent project lifecycle steps and practices. Define project management standards. Monitor project status.
Project Manager (onshore)	Onshore	Manage daily operation of the project. Ensure compliance with project management standards. Accept and be responsible for project deliverables. Communicate project status. Develop and maintain the risk management plan.
Offshore Project Manager	Offshore	Responsible for offshore project planning, coordination and the daily management of the project. The Project Manager is also responsible for overseeing the resolution of identified issues.
Business Process Owners	Onshore	Conduct the final approval for the business design. Support the template-driven approach. Arbitrate cross-functional and process-specific issues.
Functional Team Lead (IT)	Onshore	Manage the development of the functional and/or technical design. Provide process integration with other technical areas. Plan, track, and manage the execution of team tasks.
Functional Team Leads (Business)	Onshore	Motivate business participation in the area. Identify the requirements of the business area. Resolve issues and gaps as spokesperson of the business area.
Team Members	Onshore	Support the definition of the functional area requirements and processes. Support the review of the solution design for completeness. Support data conversion and change management activities. Participate in user testing and training activities.
Organizational Change Management	Onshore	Develop and manage a communication strategy for end-users and other affected parties within the organization. Develop the recommended training approach and coordinate trainings. Facilitate the process of measuring organizational readiness throughout the project.
Functional Consultant (onshore)	Onshore	Functional experts in a specific functional stream. Support the definition of the functional area requirements and processes. Support the review of the solution design for completeness. Support data conversion and change management activities. Participate in user testing and training activities. Communicate with the respective user group onshore and functional/technical team offshore.
Functional Consultant (offshore)	Offshore	Functional experts in an individual functional stream. Support the definition of the functional area requirements and processes. Communicate with the functional team onshore and technical team offshore.
Technical Coordinator (onsite)	Onshore	Responsible for the technical coordination with the offshore team. Act as a single point of contact for status on all technical objects.
Technical Developer	Offshore	Responsible for all technical development.

16.3 Project and configuration processes

16.3.1 *Getting started*

Compared to working with a team located onsite, the successful execution of a project by a distributed team requires more rigorous planning, communication, methods and tools. There are a number of critical factors in making the remote team successful, but the two which the project team found most essential were establishing adequate communication channels between the team members and defining rigorous project procedures.

Establish channels of communication:

“Connectivity” comprises both the physical connections for communicating and sharing information between all team members and the knowledge connections of the team. The project team covered this important aspect by bringing the offshore team onsite during the blueprint phase, which allowed the overall team to:

- develop a common understanding of the project
- get to know each other and become familiar with their business and consulting counterparts
- understand the business requirements that were gathered during the blueprint design sessions

Develop a common understanding of the project:

The project scope, project timeline, and the processes and procedures for managing the project and developing the solution need to be well defined for a distributed project team. They also need to be clearly communicated to the team and complied with to be effective. Co-location of the core team allows the team members to become familiar with the processes used for the project.

Getting to know each other:

The “One Team Concept” was a key element of our approach for the project. For any team to be successful, the team members need to know each other. Although it may not always be feasible for all team members to spend time together, it is important for the offshore team leaders and functional leaders to be co-located for some time with the onsite team during the early stages of the project. This allows them to develop a common understanding and establish channels of communication essential for the daily project activities. The “One Team Concept” didn’t just consist of including the offshore team for realization activities, but having them involved from start to finish.

Understand the Business Requirements:

Key members of the offshore configuration team joined the onshore team during the blueprint phase of the project and participated in the blueprint design workshops, where they worked with the business owners and functional analysts to understand

the business requirements and define approaches to the solution. They furthermore collaborated with the local project team in developing the initial design, and then returned to the development centers in India to continue working with the expanded team. These sessions allowed them to understand the business functions and unique requirements of the client, the issues behind the design, and priorities for conflicting requirements.

Establishing methods and processes

Documentation

Most successful ERP projects have defined processes and deliverables for project management and the development/configuration activities. However, formalizing these processes is especially vital for a distributed project team. In addition, it is not enough to merely present them in a kick-off session, as they need to be available for review and reference throughout the project lifecycle. Some of the specific project management deliverables of key importance for distributed teams are:

- Clear scope of work defining the activities to be performed by the offshore and onsite teams
- Documented project organization structure, specifically the integration between the onsite and offshore teams
- Formal and agreed definition of acceptance criteria for deliverables
- Defined processes and hand-offs for the technical development and functional work
- Documented and clearly communicated testing strategy

Project methods

For our project, the onshore and offshore teams used the Capgemini DeliverSAP methodology along with complementary processes from the SAP Distributed Delivery Framework (SAP DDF). DeliverSAP is a web-based tool providing guidance for all phases of the SAP project. The SAP DDF provides specific processes and guidelines for projects using a distributed team.

16.3.2 SAP configuration with a distributed team

Performing ERP configuration offshore offers several advantages for an SAP implementation, but also presents a number of challenges that need to be met.

Remote configuration – the challenge

The challenge of remote configuration is that the configuration consultants need to define the solution and not merely configure it. They must closely collaborate

with the business users on a regular basis, even though they are separated by time zones and continents. They need a firm understanding of the business requirements, leading business practices, alternative process approaches, and SAP configuration options and capabilities – not just the mechanics of the configuration. Traditionally, analysts would develop the solution in a series of workshops and frequent review iterations face to face with key business users to ensure the solution covers the business requirements and objectives, even though these needs may evolve during the project.

Overcoming the inherent problems of a distributed project team is essential to make the process work and the project successful. The challenge is to provide the tools, processes, activities and other support that enable the team to collaborate effectively. In addition to the described project approach, transparent communication between all team members was vital to the success of this distributed project, as described in the “Effective communication” section to follow.

Remote configuration – our approach

The blueprint and realization of the functional design was performed by a joint onsite and offshore team. The division of work was determined based on evaluation criteria defined during the project preparation phase. An onsite lead was responsible for each of the main processes and the functional design, and acted as the primary interface for the business side in terms of scope and requirements. The sub-processes were divided among the onsite and offshore resources based on the scope and characteristics of the necessary work. For this project, the sub-processes assigned to the offshore team were carved out in relatively complete functions, allowing the offshore team to take ownership of a function and work more independently within

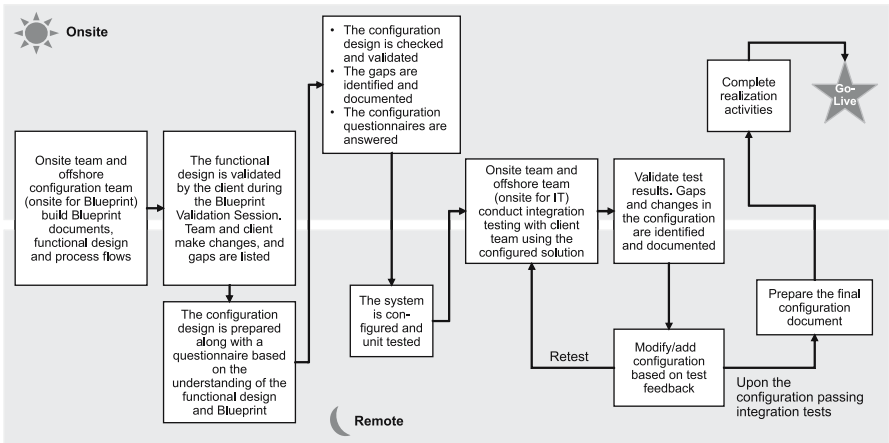


Fig. 16.6 Remote configuration process – an illustration

that specific area. For example, configuration of classification, batch management, pricing, master data, and output determination can be segmented and assigned to the offshore team.

The functional team members both onsite and offshore were involved early on in the blueprint phase and participated in the design workshops to ensure they had the opportunity to capture the necessary design knowledge and establish a working relationship with the business and project team members. This team worked directly with the business users to develop the blueprint design documents and business flows. Once the blueprint workshops were completed, the offshore functional team members returned to their home location to focus on realizing their assigned functional design areas. As the configuration was refined, it was reviewed, checked and validated by the onsite team. The final configuration and the unit testing were performed by the responsible SAP analysts – whether onsite or offshore.

16.4 Effective communication

As we have seen, the challenges to be addressed in distributed delivery are overcoming the issues of team separation and making the activities of each team as transparent as possible. This includes clearly communicating the project processes, guidelines, decisions, and issues.

In this project, contact between the teams was predominantly established by phone and email. What made these technologies effective was defining the timing

Table 16.2 Meeting schedule

Meeting	Frequency	Day/time	Attendees
Executive Sponsors	At each major milestone	TBD by team	Executive Sponsor and Steering Committee
Steering Committee	Monthly	Steering Committee Schedule	Steering Committee and Program Executives
Project Management	Weekly	Weekly (starting week 1)	Program Executives, Program Management, Process and Work-stream Team Leads
Process & Work Streams (separate meetings per team)	Weekly	TBD by team (30–45 minutes) (starting week 1)	Team Leads, Process Owners
Offshore Synchronization	Weekly and as required	TBD by team (starting week 4)	Team Leads, Program Management, and Offshore Team Members
Development Team	Weekly	TBD by team (starting week 5)	Technical Team Leads and Process Team Leads (including offshore coordinator and team)

of regular communication and the availability of contacts. In addition to the regular meeting schedule presented below, other standard contact points included:

- Review of all specifications for development objects by the onsite coordinator prior to sending them to the offshore team, and review of specifications directly with the offshore developers to establish a common understanding.
- Regular communication between the offshore functional analysts and the onshore functional team leader about all issues regarding business requirements and functional configuration.
- Clear documentation of all key project documents including project issues, decisions, project organization and contacts, and making them available to all team members in the shared project knowledge repository.

16.5 Distributed Delivery Framework and standards

SAP DDF overview

The team piloted the application of a newly defined Capgemini approach for distributed SAP projects known as the SAP Distributed Delivery Framework (SAP DDF). This tool offers a common framework for executing SAP implementation projects in a distributed delivery model and describes how the offshore centers collaborate with the onsite teams. SAP DDF uses an integrated governance approach, common tools and project methodology and a consistently applied delivery model to successfully manage and execute projects in a distributed environment.

Based on the DeliverSAP methodology, the framework delineates the activities and responsibilities on the level of phases, stages and deliverables, and provides a comprehensive set of templates, tools, procedures and sample deliverables across the entire SAP implementation lifecycle.

16.6 Lessons learned

The team learned a number of key lessons in terms of the Distributed Delivery Framework, such as viewing the entire team as one integrated group, scheduling frequent communication, onboarding onshore and offshore team members in the same way, and staffing offshore team members onshore to facilitate knowledge transfer and team building. But there are also some additional suggestions for future projects:

1. Bring the design and configuration teams together for key activities
Involve the offshore team responsible for design and configuration in selected blueprinting, testing and go-live activities as soon as possible. The key here is to successfully manage the time that the offshore resources spend onsite. In this

project, there was a 90 day threshold for onsite time which was planned and utilized in three distinct timeframes:

- 30 days during the blueprint phase
 - Allowing the offshore team to understand the design requirements, initiate the functional specifications for development objects, and establish working relationships with their US counterparts from Capgemini and the client.
 - 40 days during integration testing
 - The team was engaged in testing the functional configuration and development objects and preparing training materials.
 - 20 days during cutover/go-live and post implementation support
 - Selected offshore team members joined the onsite team a week before go-live to assist in the cutover activities, and then stayed for an additional two weeks for post go-live support.
2. Define specific configuration focus areas for the offshore team
Divide the design and configuration work effort in a fashion that allows the offshore team ownership of specific areas of configuration or sub-modules (e.g. project systems, assets, pricing).
 3. Assign senior configuration leads to the offshore team
The offshore team members responsible for the configuration activities need to have sufficient business acumen and SAP implementation experience to understand the business issues and define appropriate solutions.

Conclusion

Distributed project teams are becoming a more common characteristic of ERP projects, but for these projects to be successful project management and team members need to adopt an innovative approach. Whether team members are situated in multiple locations to be close to the business, or in different countries to leverage offshore advantages, the separation requires a more rigorous planning and communication routine as well as advanced methods and tools.

Our client successfully leveraged offshore configuration by following a number of essential guidelines. One key to success was the way the “One Team Concept” was carried out. The offshore team was brought onsite at key points allowing the full team to work side by side, which meant team members were able to develop a common understanding of the project and get to know the business, each other, and the rules of the engagement.

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