Abstract
In global rollout scenarios, organizations deploy their central applications to multiple countries where they have operations. However, they often run into a myriad challenges in the form of legal compliance, local intricacies, adoption, and legacy systems in different countries. The key challenge lies in the diversity of these issues which cannot be generalized to enhance the efficiency and ease of the global rollouts. Here are a few guiding principles that can be useful to organizations planning to take the plunge.
During the last meeting of the board of directors, the majority felt that the IT landscape, which is currently being used only by global headquarters, is contributing to immense business benefits. The board took a unanimous decision to roll out the central application to several other countries of operations to achieve economies of scale, business benefits of a standardized process and cost benefit of centralized application maintenance. You, being the global CIO of the company, have been entrusted with the rollout. Understanding the immensity of this change, you have appointed a Program Director to manage this gargantuan exercise. The key question is: What aspects should the Program Director never lose sight of and what should constitute his key considerations?

Though such rollouts are undertaken several times by organizations across the world, each brings with it a new set of challenges. This article attempts to highlight key challenges involved in such an exercise along with recommendations to address these while mitigating associated risks.
360-degree Planning
Planning plays a vital role in any engagement. To create a well laid-out and calculated plan is half the battle won. Let us turn our attention to certain aspects specific to global rollouts.

Transition
Change is one of the most difficult hurdles to cross in a global rollout scenario. The success of an engagement can be measured by the business benefits it delivers. When the transition is complete, the business user community should be able to adopt the new system with ease. This can be achieved through a two-fold transition plan where:

1) End users develop familiarity with the system and confidence in using it through training, acceptance testing and sanity checks before the go-live.

2) End users are able to continue with business as usual after the support and maintenance period.

Thereafter, the central Programme Management Office (PMO) can monitor the common and local interests and drive all the countries or units toward the corporate objective.

Unavailability
The availability of each country or unit needs to be studied and considered in the overall plan for a global rollout. They may work according to their own holidays, leave periods or business seasons. This can greatly impact the completion or rollout schedule. During such periods, internal phases such as development, unit testing or data loads can be planned.

Resource Overload
As detailed in the next section, the presence of central business process owners (CBPO) is essential during the planning of the business transition. Similarly, other teams such as release management, configuration control and test groups need to work throughout the rollout. However, precautions must be taken to not let such units become the bottleneck in case of multiple rollouts taking place in parallel. This is where planning can make a difference.

The various phases across parallel rollouts can be organized in such a way that the dependency on any given team at any given time is minimal. Deployment managers working on country-based plans need to meet on a weekly basis to mitigate cross-rollout impacts on shared resources.
These can be categorized into the following groups:

- Legal
- High business impact
- Set-up

Legal requirements are critical to the rollout – as well as to the business as a whole. Requirements with a high business impact must be substantiated with numbers (transactions and impact on revenue). The local processes must be mapped to the standard process followed in the central application. Any other requirements could also be mapped to the standard process on a case-to-case basis.

Legal Requirements

These are related to legal and governmental aspects such as copyright charges, environmental charges, requirements of the Waste Electrical and Electronic Equipment (WEEE) directive, and taxation requirements. Many countries have similar requirements and ideally the functionality needs to exist in the central application. If it does not exist in the application, it needs to be enabled for a new country. However, some legal requirements are specific to certain countries such as the Central Processing Fee (CPF) in Hungary. In such cases, the new functionality must be built into the application before the application goes live in the country.

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High Business Impact

Some local requirements may exert a very high impact on the rollout. For example, in a country, 50% of the service part of the business may be handled by third parties. The country has an existing process built around this whereas the central application may not support it. A proper fit-gap analysis needs to be carried out and the “to-be” process must be agreed upon by the country office. After a cost-benefit analysis, a decision can be taken to either retain the legacy application or augment the central application.

Another surprise factor can be the stream of businesses where the organization may plan an expansion. When a country, where 40% of the revenue is coming from such a stream of business, is to be brought on-board, it becomes imperative that the functionality of the central application is augmented to handle this.

Set-up

Some local requirements can be handled by carrying out set-up activities in the application. Requirements around language, currency and time zone fit into this category.
Country Buy-in and Team Harmonization

Cultural differences among countries can sometimes contribute to differences within the team. The impact of cultural mind-sets can intensify the problem manifold. To gain acceptance, the change management processes must be robust. Resistance to change must be managed well. Let us look at some suggestions to achieve harmonization within the team:

- Identify appropriate and qualified ambassador users (LBPOs) who will be involved during the entire project lifecycle. They can address the expectations and concerns of the country.
- Train the Trainer (TTT) and End User Training (EUT) must ensure users are comfortable with the application before the go-live.
- The sponsorship for the program must come from top management (CEO or CFO) to drive the change.
- Roll out a multi-lingual application for greater adoption if end-users are not well-versed with the standard language (English in most cases). In certain geographies such as Europe or Middle East this option is desirable. If the scope includes client portals, using which end customers will access the application, the multi-lingual feature becomes almost mandatory.
Legacy System Integration

There are different approaches to evaluating legacy systems. Forming a **centralized application architecture team** is critical to taking decisions with respect to retention or replacement of legacy systems. These teams have visibility of the overall IT architecture or landscape and are able to visualize the fitment of legacy systems into the application roadmap. There are two approaches to the integration of legacy systems:

**Replacement**

In this approach, legacy systems are eventually phased out. For most applications, this is the preferred option as significant overlapping of functionality can exist in both (old and new) systems.

Only after a complete replacement can an organization achieve long-term economic benefits of standardization. In this approach, close attention must be devoted to **training and change management**.

**Retention**

Retaining the existing system is a prudent option when the legacy system:

- Offers business benefits or features which cannot be made available in the standardized system (built on best-of-breed industry application)
- Delivers augmented functionality such as automation
- Requires minimal effort in close coupling and integration with the new system

While retention can jeopardize any subsequent cost benefits expected from the rollout, it offers the advantage of business continuity from the start. In this case, **acceptance testing** plays a vital role and ensures that both the systems work in unison.

Another aspect of retaining the legacy system is **integration type**. Different integration types imply varying price points. If instant flow of data and seamless integration is expected between the systems, real-time integration becomes mandatory. However, if batch interface serves the purpose, for example in billing systems, it can be a viable alternative.
Data Management

Each entity within the country may have its own data format and usage practice with no way of correlating the information in the absence of common standards. Moreover, they may be using different dimensional systems, for example, MKS (meter-kilogram-second) or FPS (foot-pound-second) measurement systems.

Many times, the value stored in a data element is derived from various sources or the same value is used in multiple fields. What-goes-where is the essence of the entire conversion process and any slippage can have adverse business impact.

Scalability of the application is another aspect that is frequently overlooked when designing the application. With volumes of data coming in with every rollout, systems may not be able to cope with the increased number of users and data, thereby jeopardizing system performance.

Availability of legacy data is important; but even more important is the usability of that data. In the absence of quality data, incorrect or invalid data in the system cannot be used to achieve business objectives.

Preventive Measures

Data mapping is the foundation of the conversion process and must be given due time. This exercise covers the entity-by-entity roadmap to be followed to move data from the legacy system. It also defines the transformation rules or logic to arrive at data element values.

Organizations need to limit the extent of legacy data incorporated in the new system. The incorporation of legacy data must be minimized to mitigate the impact of incorrect cross-referencing and mapping of values. Additionally, read-only access to legacy data must be encouraged.

Deviations in data formats need to be ironed out before commencing conversion. Metric system must be consistent and data structure must have the same meaning across locations and businesses.

Along with the ‘happy path’, it is imperative to define a data error handling strategy. For all the deviations, error handling mechanism must be built in and a user-friendly interface (UI) should display errors or warnings to business to rectify the data for the next cycle.

Yet another good practice is to plan multiple cycles before the final load into production system. This allows the team to work iteratively and incrementally with the data. If possible, closer to the go-live, the cycle frequency of the churn should be reduced to two weeks. Each conversion cycle should include:

- Clone of production systems
- Complete conversion from source data
- One or more billing runs

Concerns around data inconsistency, rules alignment and internal disputes can be addressed through a data governance program.

To ensure common data setup and maintenance, it is extremely crucial, especially for large transformations, to implement enterprise-wide data management policies and procedures. Data stewards are engaged to develop such policies and create mechanisms to ensure compliance.

It is difficult to completely eliminate issues related to data quality. However, maintaining and following data entity checklists can certainly reduce these issues to a great extent. These checklists should be considered as living documents by all the interacting teams – especially end-users – and should be maintained diligently during all test phases.

Extensive, detailed and timely acceptance testing is critical for successful conversion. End users need to ensure that the converted data supports critical business processes and transactions right from go-live.
Conclusion

In this backdrop, we propose a deployment approach for global rollouts. The key features of this approach are:

- Though the intent is to minimize customization, localization needs to be accommodated to improve usability and acceptance.
- Any perceived gaps in the solution must be documented, prioritized and resolved through one of the three approaches available to the change control board or PMO:
  - Change the local process to fit the standard process
  - Customize the central application to allow the local process to continue
  - Use the central application and provide a workaround to meet the local processes
- Resource dependency and availability as well as knowledge retention must always be factored into the overall deployment plan, especially in case of overlapping country rollouts.
- The global application team (comprising CBPO, LBPO and deployment teams) needs to be supported by the country team as well as the run and maintain team and other resources to ensure the timely delivery of a quality solution.
- Trade-off between the retention and replacement approaches needs to be based on the assessment of essential business benefits and the total cost of ownership.
- Data completeness and quality can be maintained through a template-based rollout approach which also offers the business a tool to provide the data to the data conversion team.

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