

## Multi-Country Rollouts – Challenges & Solutions

Growing competition & decreasing profit margins have forced Telecom service providers to keep innovating with respect to technology, process & resource utilization and to adopt new practices. This whitepaper advocates a new multi-country roll out delivery model which can be integrated with existing methodologies for use in both Greenfield and Brownfield transformations.



## Background

This whitepaper covers both Greenfield and Brownfield transformation and focuses on the post-SIT phase of testing & assurance. The paper recommends a centralized approach to deployment, including multiple drops and adopting a staggered approach till all testing is completed and then go for 'big bang' launch.

## Introduction

Increase in competition and leaps in technology have forced companies to adopt some innovative approaches to re-assess themselves with respect to, products, services and processes. A solution which is the best fit now may not be adequate going forward. Client organizations are therefore always seeking good partners to help them work on the "what, when & how" of solutions with minimum investment. Two big challenges therefore are:

- Deliver nothing less than the best
- Cut down on costs

These challenges are compelling companies to think different. Earlier, TSPs (Telecom Service Providers) were pleased with sequential development or transformation of projects to have better visibility and control of the entire project lifecycle, starting from requirements gathering to delivery. These companies were following Waterfall model or V-Model and later Agile methodologies in recent times. But these methodologies are now appearing too conventional as they address one project at a time. Business can't afford to deliver projects one-by-one in a sequential manner. The current need is to rollout projects in parallel to cut down costs, maintain a competitive edge by constantly showcasing latest offerings to attract & acquire potential customers and keep them engaged.

This whitepaper attempts to present an innovative methodology designed to help TSPs overcome challenges that prevent them from delivering 'Fast & Flawless' solutions.

## Current Challenges

While TSPs are trying hard to rollout multiple projects simultaneously in a faster and more cost efficient way, they are facing lot of challenges due to lack of any standard business models that would support analogous rollout. They are putting in huge capital investment and time to achieve their goal, but still finding it tough to meet quality & deadlines. Some common challenges faced:

- **Controlling Project Cost:** Conventional delivery models involve more time and TSPs therefore make higher investment in infrastructure and dedicated resources for every region
- **Reinventing the Wheel:** There is very little thought on reusability of same infrastructure after the project gets completed
- **Time-to-Market:** Delay in launch of projects in sequential rollout may result in revenue loss for TSPs
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- **Lossing Brand Value:** Companies lose brand value if they do not provide products and services on time to end users
- **Knowledge Sustenance:** Since projects take longer, lessons learnt may not get carried forward and resources may need re-training
- **One Project at a Time:** These methodologies are tend to be rigid and support only one project at a time

Its time to look for alternatives that could be integrated with Agile to meet these challenges and help TSPs grow.

## Solution Approach

- At present, the necessity is to overcome the challenges faced by the TSPs in rolling out their projects in parallel, whether same or multi country rollout in a more controlled and cost effective manner. Also the implementation of systems at different locations becomes much more complicated and expensive. There is need for standard mechanism which could assure them that their product will meet the demands of the regions/countries without compromising on quality
- It is not necessary for companies to focus only on Development but also on Assurance services as well because testing can also slow-down the go-to-market process. Hence, this paper advocates a new strategy in Quality Assurance to integrate with Agile model called **Multi-Rollout Model (MR – Model)** – It helps TSPs to achieve rollouts in parallel and to keep good control on “Cost & Time” with matured resource management processes. As an example, **Fig.1** suggests that two similar projects with or without some variance can be rolled out in parallel with same QA team. It shows single QA team getting involved in two projects starting from requirement understanding to delivery
- Although two projects run in parallel, their release dates could vary. Therefore, the assurance team needs to understand requirements and segregate **core functionalities & unique functionalities** for both projects. Core functionalities would be designed for both projects; and distinct requirements per project or geography would be designed as per project specific information. Similarly, the test execution for core functionalities could be executed once in a common test environment and distinct specifications tested separately per project in separate environment. By adopting this approach, defects occurring in a release could be captured and reported to other project developers well in advance to save “cost & time,” provided version of program is same

## MR Model



Fig. 1 – MR Model

## Benefits of MR-MODEL Over Conventional Approach

- Simultaneously country rollouts are possible
- Core test designs will be shared among projects to remove duplicity and provide almost 60-70% reusability of common test cases to optimize the design
- Single test environment would address the requirement of both projects by way of virtualizing server & clustering database thus controlling infrastructure setup cost
- Core defects occurring in a project release will be reported to other projects as well to avoid same defects occurring in upcoming releases
- Lessons learnt during execution of common test cases will cut down the total execution time
- Common defect management tool & shared repository will capture both project documents and bugs for better visibility and co-ordination
- Time-to-market of products and services is faster and better controlled thus giving an advantage over competitors
- Resulting Program cost is lower than conventional approaches

## Execution Process

- The approach is to deliver projects in parallel for multiple country rollouts in a more consistent and standardized manner. In Fig.2, we propose to setup shared repository & shared test management tools which will be used by cross-skilled resources, following best practices. It is believed that the benefit of shared services is by centralization of effort and expertise, thereby eliminating duplication of effort. Also, this aids in cross utilizing the resources in dynamic business conditions. Configuration management is key in such roll outs, so along with common test management, we propose a common & standard configuration management process. This ensures core functionalities once tested and packaged, require only regression testing
- Stream leads will handle different projects individually, but will share project status and knowledge amongst team, on regular interval of time to ensure everyone is on the same page
- Test Manager will control all ongoing projects on technical front and will be central authority to all stream leads and teams. He will be leading all the projects to ensure smooth and timely delivery, and reports to delivery manager
- Delivery manager will participate in all commercial talks with client and finalize required resource and budget. Delivery manager will report to program manager who is the final authority of the entire program from the assurance side. It is important to standardize the process and systems which lead to enhanced service experience for our customers
- Governance model helps TSPs achieve their goal in minimum time without losing quality. The framework shown below outlines the phases of testing, resources, systems and the process flow from requirement to delivery in different phased manner. And, the quality is assured by applying metric analysis for evaluating the software processes and services

## Governance Model

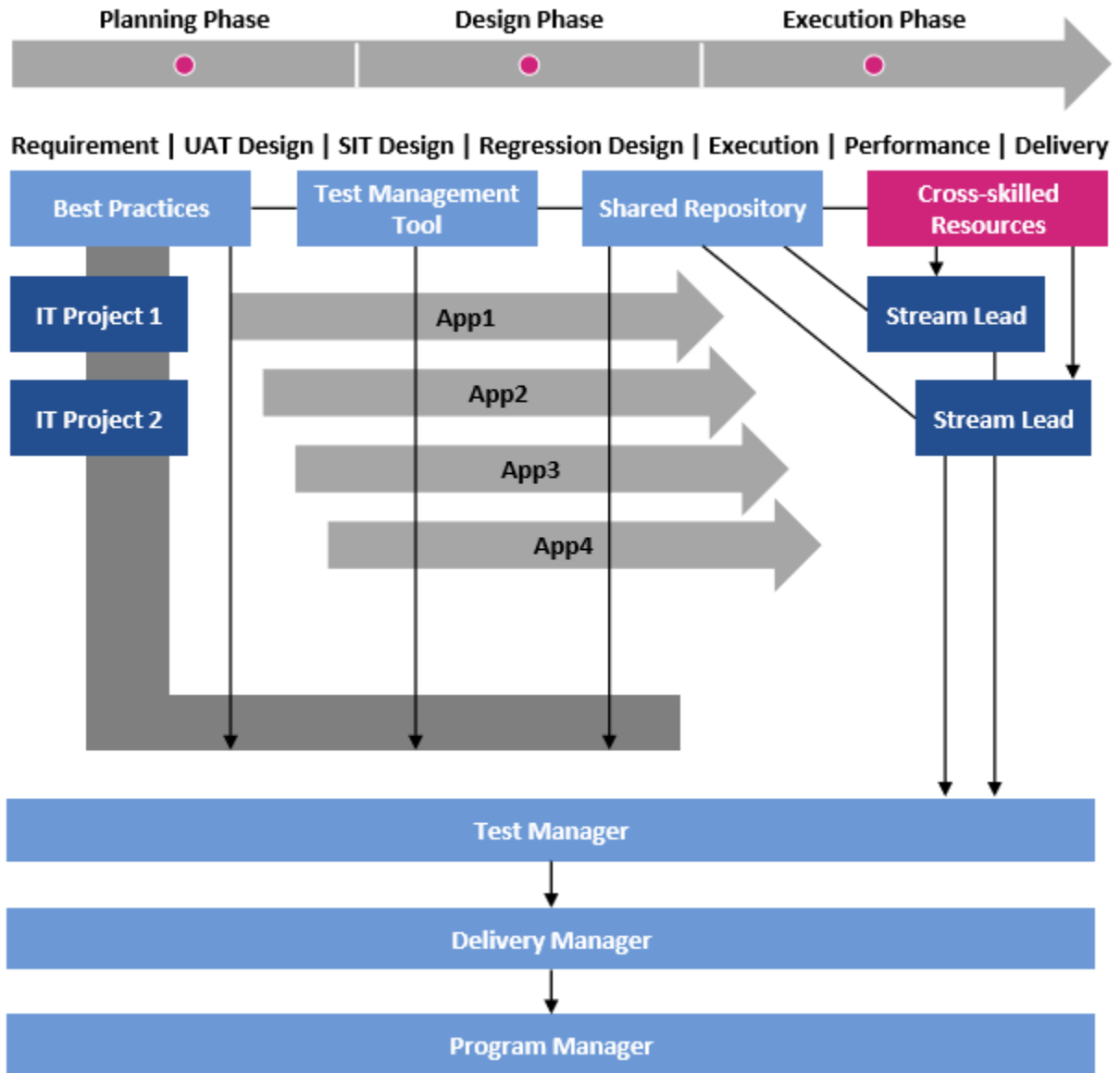


Fig. 2 – Governance Model

Testing’ & ‘Launch’ matrices would be used in multiple rollouts – this gives a complete understanding of the project to help make right decisions in every phase and also indicates the progress of the project. Metrics are used to improve the quality and productivity of services thus achieving customer satisfaction. **Different metric(s) tend to act as monitor when the process is going out of control.** Different testing metrics trends include requirement gathering metrics, test design metrics, test execution metrics, defect removal metrics, effort variance, schedule variance, which will ensure minimum launch issues and quantify effort and cost savings. Launch metrics give visibility of the market response after go-live.

• **A sample of test metrics standards are as below:**

- Requirement gathering efficiency = Total number of requirements applicable/total number of requirement received per day
- Test case design efficiency = No. of test cases written/time
- Test case execution efficiency = No. of test case executed/time
- DRE (Defect Removal Efficiency) = (Number of defects removed/Number of defects at start of process) \* 100
- E.V. (Effort Variance) = Actual effort/planned effort \* 100
- S.V. (Schedule Variance) = Actual no of days/plan no of days

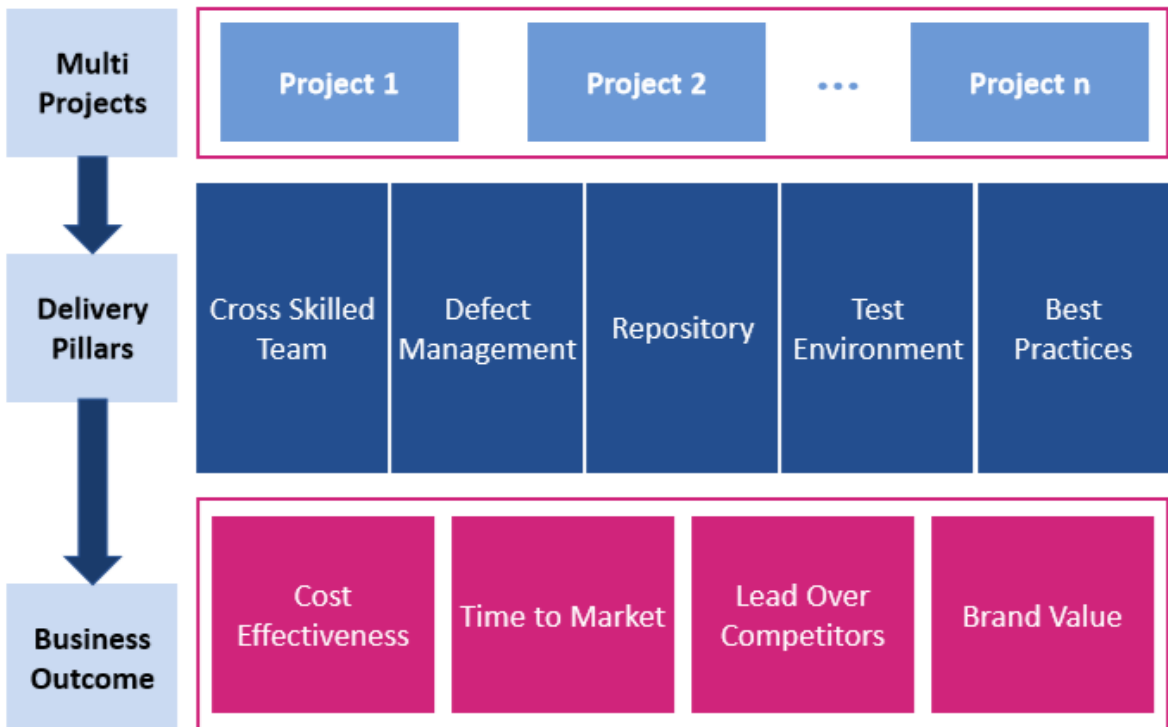
**A sample of Launch Metrics standards are as below:**

- User acquisitions: Average acquisition cost per user
- Customer engagement: Retained users – loyal and what keeps them loyal
- **Customer retention: Customers pleased with offerings, less enthusiastic**
- Revenue assurance: Monthly dashboards and financial reports of entire engagement


**Conclusion**

Considering the challenges faced by the TSPs, **MR-Model** guides companies on running projects in parallel, cut down their capital investment and offer solutions on time. It assures quality from requirements to release across the entire project lifecycle, with increased focus on defect prevention rather than defect detection. Below **Fig.3**, MR-Delivery model correlates the overall services offered. This represents the overview of the approach, resources & systems involved with the best practices to follow

**MR Delivery Model**



*Fig. 3 – MR-Delivery Model*



Therefore TSPs need to assess themselves on dilemmas they face in delivering their projects on the following questions:

- **Are you meeting all deliverables within timeline?**
- **Are you able to cut down overall program cost?**
- **Are you achieving all quality gates in your delivered projects?**
- **Are you a market leader in terms of releasing your offerings?**
- **Are you able to deliver multiple projects in one go?**

If these points are hitting them hard, TSPs are at the right stage to explore alternate methodologies and solutions

## **ABOUT MAVERIC**

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