Distributed Polling System
Conclusion

Version 1.0

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1. Introduction

1.1 Purpose of this document

The purpose of this document is to summarize our experience in completing our project Distributed Polling System. The document presents the challenges faced and lessons learned during the entire lifecycle of DPS and finally end with conclusion of the whole exercise.

1.2 Intended Audience

- Supervisors (SCORE and Steering Group), who need to know overall project experience.
- Future developers of DPS application.

1.3 Scope

The scope of the document is limited to mentioning the experiences of the team members, steering group and customer.

1.4 Definitions and acronyms

1.4.1 Acronyms and abbreviations

Acronym or Abbreviation	Definitions
DPS	Distributed Polling System

2. Challenges

Following are few main challenges we experienced during the lifecycle of DPS:

Time Limitation: Following are the intercepts from the requirement document received from SCORE:

> *"The duration of the project is that of the University Course. Expectations will be adjusted to the duration. Duration of not less than 5 months and not more than 8 months is suggested."*

We have to finish DPS project in a period of 10 weeks which is 50% of the minimum time required for the project completion.

Communication and Requirement Engineering: Main challenge we faced was during requirement engineering. The only way of communication between team and customers is thorough email which led to some misunderstood requirements. The initial requirement definition was created using functional requirement document provided by SCORE. We had misunderstanding in one of the requirement of having anonymous user in the system; this was sorted out late in the development cycle which cost us significant amount of time because the solution of this problem included changing the design (Database and GUI changes).

Cultural Differences: We found some problems within the team during early stage of the project because of different communication and cultural difference barriers. Due to time constraints we had team meeting on weekend which created problem for some team members because they were not habitual of working on weekends and late night because of their work culture. But with mutual cooperation, understanding, respect and helping each other, we successfully overcome all problems.

Domain and Technology Competency: It is required to have knowledge of telecommunication domain for SMS communication and for exploiting certain functionality like receiving acknowledgement, setting up validity period in message and for delivery status report. Inefficient competency and configuration problem for different software like email server, email clients, application server, web server and integration of these software with rest of the core application

were a major issues in the project. By self learning, knowledge sharing and organizing sessions on various technology related issues we led our development process in a smooth way.

3. Lessons Learned

Deliver what the customer wants not what the developers want to develop: We made a mistake in prioritizing among the requirements without involving the customer, enough. This is our one of the most important learning from the project. Earlier we hey have reduced some functionality required, like the anonymous vote, with no agreement of the stakeholder. But now we have implemented those functionalities after receiving the requirements from the reviewers and are a part of DPS application.

Managing time, resources and activities: Our project "Distributed Polling System" is a great learning experience for us which has taught us to invest more time in proper architecture designing which in-turn reduces heavily the implementation time for any system. In addition to that, the architecture has guided us to segregate the whole system into granular components that has enriched maximum reusability and utmost team activity. Even the architecture has helped us to invest less time for component integration which has become evident while we started getting expected system behavior after our first time component assembling. Along with this we experienced how to distribute task and utilize team members to get maximum output in minimum time without compromising the desired quality of work.

Technology: During the project we have a good chance to learn some new technologies. Meanwhile, we also faced some problems during the system integration due to strict deadlines. Moreover, there was less time for testing of project. By all team working together, we were able to implement most of the system functionalities in a very limited development time.

Working Experience in Distributed and Multi Cultural Environment: We experienced how people from different nationality, all apart from their home place, not knowing each other before come together and generate a positive exponential synergy when an honorable opportunity and challenge such as SCORE is given to us.

4. Summary

In spite of having six team members from different cultural background and practices, by investing twenty hours per person per week for almost ten weeks, we successfully designed, developed, integrated and tested the functionalities.

Finally, we are able to finish our job in a smooth and systematic manner. The team is able to implement all major functionalities of SCORE and able to develop a fine product. The project is under Distributed Software Development course curriculum and team of different diverse culture and nationality members are working in distributed fashion to face overcome different real life challenges and work in distribute manner towards one goal. This project can be further enhanced by adding some new pretty good features if there is some more time for the implementation. However, with the current features and functionalities it is ready for the end users to use it in the real environment. Although we could not invest much more time due to having parallel courses in the same curriculum, we would be grateful to work further on this software to make it commercially successful.

It's our honor and privilege to be part of such kind of real time project implementation and we believe we could do further enhancement to this software in different aspects to make it a commercial software.