

**TEAM ASSIGNMENT 3**

**Software Process And Quality Management**

**Team 5 K16T1**



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**REVISIONS**

# MEMBER LISTS:

|  |  |
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# INTRODUCTION:

## DOCUMENT PURPOSE:

* This document is designed for description team assignment 3 for Software Process and Quality Management course.
* The document focus on description the case of FibreNet Project.
* Background: Characters and Events.
* How were they used?
* Conclusion.
* Aspects of the models.

## REFFERENCES AND RELAVENT DOCUMENTS:

* Reading[15]: 15-FibreNet\_Project.pdf

# BACKGROUND:

## CHARACTERS:

* This is table show characters have in FibreNet\_Project:

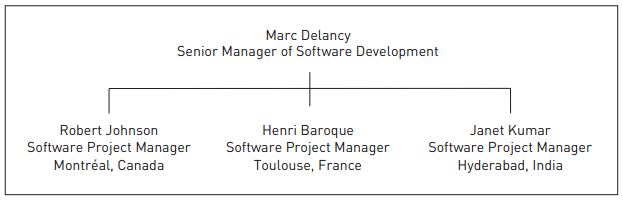


Figure 1: FibreNet software project management

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| --- | --- | --- | --- |
| NAME | Title | Description | Responsibility |
| Marc Delancy | Senior Manager of Software Development. | Marc is an experienced manager who has led multiple teams in the development and delivery of software products on time and within budget. Marc has led virtual teams but is new to global software development. He faces challenges that he did not have when man-aging teams located at one site or within the same geographical area.  He thinks that he has recently been troubleshooting problems rather than managing decisions to minimize problems in the project execution. | Marc Delancy is responsible for delivering a new product to manage transmissions over ﬁber-optic networks |
| Robert Johnson | Software Project Manager, ***Montréal, Canada.*** |  | Robert Johnson is responsible for the QoS algorithms |
| Henri Baroque | Software Project Manager, ***Toulouse, France*** |  | Henri Baroque team is responsible for develop User interface layer |
| Janet Kumar | Software Project Manager, ***Hyderabad, India*** |  | Henri Baroque team is responsible for develop Business layer |

## EVENT:

|  |  |  |  |
| --- | --- | --- | --- |
| No | Events |  | Description |
| 1 | Choose the way to develop product | Marc Delancy | Decision to locate the company’s development sites in strategic but geographically dispersed places to, over time, achieve substantial reductions in development cost and time. |
| 2 | Marc is hearing the same comments from his project managers repeatedly |  |  |
| 3 | Realizes that there is a recurring pattern to what is being said and how it is being said | Marc Delancy | The time of teleconference is not fitted for all teams. |
| 4 | Marc realizes that other than these weekly teleconferences, the three managers  probably have minimal communication with each other. | Marc Delancy |  |
| 5 | He had decided on traveling to the Hyderabad and Montréal sites every three months | Marc Delancy | **In-Person Meetings with the Project Managers:**  When planning his travel budget for the project, he had decided on traveling to the Hyderabad and Montréal sites every three months. Over the eighteen-month project, he would take six trips to each of these sites. |
| 6 | The first three months of the project is the time to communicate in person and in private with the project managers at each site | Marc Delancy | **The first three months of the project have passed:**  Considering the current state of communications between the software managers, Marc decides that this is the time to communicate in person and in private with the project managers at each site. He wants the project managers to feel comfortable in talking candidly. |
| 7 | Marc travels to India to talk with the Hyderabad team members | Marc Delancy | **On to India**  After his meeting with Henri, Marc travels to India to talk with the Hyderabad team members. The team members are very interested in what Marc has to say about the development of the QoS policies and user interface layer in Toulouse. They are also eager to show him the design for the architecture of the business layer that they have been drafting. |
| 8 | Marc has some ideas about why his team is having problems with communications and collaboration. | Marc Delancy | **After his meeting with Janet:**  Marc has some ideas about why his team is having problems with communications and collaboration. He hypothesizes that there are issues involving trust among the different sites. Hyderabad is in the middle because the software being developed there must interface with software being developed at both Toulouse and Montréal |
| 9 | Determine ways to improve the communications and collaboration across the globally distributed FibreNet Project | Marc Delancy | Marc knows that he must determine ways to improve the communications and collaboration across the globally distributed FibreNet Project. He thinks that tasks that require high degrees of collaboration, such as the specification of software interfaces for the layers in the Network Manager, are potential stumbling blocks in the schedule when there are breakdowns in communication and coordination. He realizes that special efforts are needed to ensure the appropriate levels of collaboration on these types of tasks. |

# HOW WERE THEY USED?

Figure 2: ODA Improvement Model

* **Observe**
* Marc realizes that the tasks involving collaboration between the sites are behind schedule while those that can be done solely within the local sites are on schedule.
* Marc find out that global communications and collaboration across the three development sites are not happening
* Marc realizes that other than these weekly teleconferences, the three managers probably have minimal communication with each other.
* The three sites are obviously not collaborating on the design of the interfaces to the different layers of the Network Manager.
* Because of geography distance, three project managers discussed via teleconference. It is difficult to everyone could express their comment and opinion about topic.
* Marc thinks that the start of the meeting the times in the different locations were 8 a.m. in Montréal, 2 p.m. in Toulouse, and 5:30 p.m. in Hyderabad. The times roughly correspond to the start and end of the working day as well as the time directly after lunch for the participants. This may be why everyone seemed sluggish.
* **Decide:**
* Marc plans his travel budget for the project, he had decided on traveling to the Hyderabad and Montréal sites every three months. Over the eighteen-month project, he would take six trips to each of these sites.
* Considering the current state of communications between the software managers, Marc decides that this is the time to communicate in per-son and in private with the project managers at each site.
* **Action:**
* Marc met Henri in France and Janet team members in India to collect feedbacks from each about their counterpart.

|  |  |  |
| --- | --- | --- |
| Event | Source of feedback | Content |
| Marc met Henri in France | Henri Baroque | Henri reflects Janet team that didn’t collaborated. He didn’t satisfy with attitude’s Janet team:   * “We are stuck. We cannot seem to motivate Hyderabad to share a draft of the architecture. But this is not much different from the way Montréal” |
| Marc met Janet team members in India | Janet Kumar | Janet reflect her team moderate not good. She also didn’t satisfy with attitude’s other team:   * Janet answers, “No. I tried to establish weekly teleconferences between the people working on the interfaces to the business layer and to the network layer, but many of the meetings were canceled because of low attendance from the Toulouse and Montréal sites. At the meetings that we had, the Toulouse and Montréal people normally explained what they decided and asked whether we had any questions. There was little to no dialogue.” |
| Marc back in Robert’s office | Robert | Robert reported that the description of the algorithms is not yet complete:   * “We want to provide Hyderabad with the specifications but are concerned that the team there will make design decisions that will need to be redone since the description of the algorithms is not yet complete.” * “We do not know what Hyderabad will do with the information. We have not had time to complete the documentation of the QoS algorithms or the instructions on how to incorporate these algorithms into the design of QoS policy management schemes” |

* **Re-observe:**
* He identifies factors that he thinks may have influenced his team’s problems with communication, collaboration, and coordination. Next, Marc formulates questions that he needs to answer in order to understand each factor’s influence better.

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| Factor (Marc’s Notes) | Questions |
| Trust (very influential) | * How well do the team members trust that their colleagues can and will complete their project deliverables according to the quality specifications? * How does the grouping of team members into distinct clusters affect the trust shown across the whole team? * How else does trust impact collaboration across the team? |
| Cultural differences (influential) | * How do the development sites differ in the following aspects that affect collaboration and coordination? * Styles of communication * Approaches to collective problem solving * Approaches to making group decisions * Communications with people at different levels of responsibility within the team and across the various locations |
| Time separation (influential) | * How does the difference in time zones affect the ability of the team members to communicate? * In what ways does the difference in time zones support productivity through opportunities for the team to work around the clock? |
| Communication protocols (not established) | * What guidelines are established for communicating across globally distributed teams? * What practical help do the guidelines provide for resolving problems that involve issues such as courteous language and timely communication? |
| Planning for collaboration (probably not adequate) | * How well does the task breakdown & schedule do the following: * Promote working in parallel and around the clock? * Clarify the tasks and information that will need to be coordinated within given time frames? * What understanding do the project members (and project managers) have about the way in which they need to collaborate to develop and deliver project deliverables on time and within budget? * What plans do the project managers have for ensuring the necessary communication and collaboration? |

* **Re-decide:**
* Marc reflects that they had spent little time discussing issues related specifically to the management of global software development. They had made the following decisions regarding communications across the distributed team. Prior decisions regarding communications:
* Communications would be in English.
* The communication technologies would be Internet-based: e-mail, video conferencing, VoIP, and instant messaging.
* A central repository for sharing documents, code, and other software artifacts would be located at the Montréal site. The repository would support configuration control.
* The project managers would have Web cameras on their desks and use headsets. Each site would have a meeting room equipped with videoconferencing equipment for group discussions with the other sites.

# CONCLUSION:

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| --- | --- | --- | --- | --- |
| #ID | Issue | Improvement | How to Use | Conclusion |
| 1. | Communication channel is not good between site because different location. | Communications would be in English, e-mail, video conferencing, VoIP | Require all site discuss in teleconference by English  The communication technologies would be Internet-based: e-mail, video conferencing, VoIP, and instant messaging | For everyone could express their comment and opinion about topic. |
| 2. | Lack of collaboration with each other in the transfer of material | Configuration Management. | A central repository for sharing documents, code, and other software artifacts would be located at the Montréal site. The repository would support configuration control. | For all sites to capture the work status and avoid having to wait the work of the other. |
| 3. | Meeting time via teleconference software is not unreasonable | Find a reasonable time for meeting. | The project managers would have Web cameras on their desks and use headsets. Each site would have a meeting room equipped with videoconferencing equipment for group discussions with the other sites. | To create psychological comfort for three managers discuss in an effective way. |
| 4. | This site are not satisfied with work attitude of the other site | Work attitude. | Marc should create meetings periodically for three managers talking candidly about work attitude of the other and then solve their problems. | To improve the attitude of cooperation between sites. |

# ASPECTS OF THE MODELS:

* **Aspects of the models that might have been applied are:**
* *V-Model:* Requirement Engineering, architecture and design, implementation, and testing
* *CMMI:* Project Planning, Project monitoring and control, Verification using simulation and review, Configuration Management.
* **Recommend:**
* Applying Risk Management (of CMMI framework) to manage issues/problem before they occur instead of troubleshoot problems.
* Applying Process management (of CMMI framework) to define/refine process (overcome weaknesses of V-Model before apply it) as weaknesses that Robert mentioned: “Diagrams of the V Model present ideas that apply in general to particular phases of software development, but they do not illustrate how the ideas can still apply when phases are overlapped. Following the V Model for software development does not preclude decomposition of the system requirements and architecture blocks. We can work on aspects of the architecture that are related to system requirements that are stable. Decomposition along with decoupling of project tasks may allow more parallelism in task scheduling”.
* Applying Integrated project management + IPPD (of CMMI framework) to build a distributed team; implement cross-integrated team communication (follow guidelines) to ensure collaboration & communication.

# REFLECTION

N/A