

# **Men in the Dark**

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## **1. SUMMARY:**

Customer was eagerly anticipating the release of the much anticipated **NFC** (Near Field Communication) chip from Nakatsu Corporation.

But, the situation at the Hyderabad premises of Gyrissys Systems was not very cheerful. Nakatsu Corporation had out-sourced the complete development of the FPGA and its System Software to Gyrissys Systems.

Although Gyrissys had successfully completed the Hardware development and verification, at the final phase of Software development, Gyrissys was not showing enough signs to mollify Nakatsu regarding quality of software (which was critical for successful delivery to Nakatsu's customer).

Kautilya Software (Subsidiary of Nakatsu in India), was anxious about its role as quality controller and whistleblower for the project.

At the start of the project, clear protocols and channels for communication were established between the partners to avoid any kind of misunderstanding or confusion.

The current situation occurred even after establishing strategic partnership and effective protocols between the 3 parties well ahead of time.

The question at hand was to find the way forward to ensure a successful release of the product to the customer and to identify root cause for the current situation (to avoid such situations in the future).

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## **2. BACKGROUND**

### **a) Nakatsu Corporation, Japan**

A Japanese multinational corporation headquartered in Tokyo, Japan having its product presence in all aspects of life from Home Appliances to Nuclear power plants. The company and its subsidiaries offers a diversified products and services including Advanced Microelectronics, Memory, Personal Computing, Home Appliances, Social Infrastructure including Lifts/Elevators to Smart Products aiding Power Generation, Transmission and Distribution.

It has approximately 196,000 employees. Its products and services are available in over 100 countries.

### **b) Gyrissys Systems, India**

An Indian multinational IT Services, Consulting, System Integration and Business Solutions Company headquartered in Bangalore, India. The company is one of the largest Indian companies by Market Capitalization and Revenues. It is world's 8<sup>th</sup> largest IT service provider by revenue. It has 166,000 employees worldwide and having over 850 of the Fortune 1000 corporations as its clientele. It has its presence in over 80 countries.

### **c) Kautilya Software India Private Limited (KSIP)**

It is a subsidiary company of Nakatsu Corporation based in Bangalore, India. This organization was started in 2003 to tap the huge software potential available in India. It started as a technology development center set up to develop reusable software components, with a small number of 60 members (servicing only Semiconductor Company at Nakatsu Corporation). By 2015 it has expanding to 850 members supporting almost all member companies of Nakatsu Corporation from Semiconductor to Smart Community, from Low Level System Software to Application Software development.

As a CMMI Level 5 and ISO 27001 certified company, KSIP has been growing with the results of strategic planning and execution of projects with a vision to contribute towards the parent company Nakatsu Corporation, Japan.

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### 3. CONTEXT AND KEY PLAYERS

Nakatsu Corporation Japan had agreed to deliver strategically critical product NFC7016 to its customer on 05-Feb-2015.

Weighing the proposals from various vendors, Gyrissys Systems, India was chosen to handle the responsibility of Hardware/ FPGA (Field Programmable Gate Array) development. This project was to be developed by the Gyrissys Systems team operating out of their Hyderabad premises.

Upon completion of FPGA development, Mr. Srinivasan (the BDM of Gyrissys) was in Tokyo for completing closure formalities. In the dinner arranged for Srinivasan, Fukui-san asked if Gyrissys could take up the System software development for the SoC.

This step was seen as the logical continuation of FPGA development carried out by Gyrissys. Srinivasan accepted the proposal next day (22-Oct-2014) after consulting with his senior management.

Considering the Geographical and Cultural proximity in addition to the Software expertise, Nakatsu had entrusted the responsibility of monitoring and control of Gyrissys Systems to Kautilya Software (Subsidiary of Nakatsu Corporation). It was also responsible for Acceptance Testing of the Software delivered by Gyrissys Systems.

Following are the key members (from the 3 organizations) responsible for this endeavor.

- a) **Mr. Naoki Fukui** is a Senior Manager at Semiconductor and System Software Division at Nakatsu Corporation Japan. He has the distinction of handling complex projects involving multiple vendors at Japan for past 25 years. However, this is his first experience with a vendor outside Japan.
- b) **Mr. Kazuya Nishimura** is a Senior System Specialist at Semiconductor and System Software Division at Nakatsu Corporation Japan. He was the Chief Architect responsible for over 15 successful Tape-outs of multimillion gate design from 45nm to 14nm. He is the Technical Consultant for this project assisting Fukui-san for all Technical issues.
- c) **Dr. Nandini Mukherjee** a Program Manager is one of the leading forces at KSIP. She has the rare distinction of executing every project under her successfully. Her “out of the box” thinking makes her the default choice for any projects under critical situations.

- d) **Mr. Raghu Dixit** is a dynamic Project Manager at KSIP having pronounced communication and negotiation skills. He has been with KSIP right from its inception and has good understanding of Japanese work culture and expectation. Raghu Dixit is supporting Fukui-san to manage the project outsourced to Gyrisys Systems India Pvt. Ltd.
- e) **Mr. Hari Srinivasan** is Business Development Manager at Gyrisys Systems responsible for China and Japan region. He has a vast experience handling clients from China and Japan for the past 12 years.
- f) **Mr. Singampalli Venugopal Subba Rao** is the Project Manager at Gyrisys Systems responsible for both Hardware and Software development of NFC7016 project. He brings in rich experience of handling big size projects for many Fortune 1000 clients (majorly in the US and Europe). This is his first experience with a Japanese client.

Details on the Software development by Gyrisys were updated through weekly status reports and video conferences (VC). Based on the updates during the VC on 15-Dec-2014, Fukui-san started sensing some risk in the project.

To handle the risks and to ensure smooth completion of the project, he decided to travel to India and stay at Gyrisys premises in Hyderabad for 4 weeks to monitor the progress.

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#### 4. MEN IN THE DARK

Anxiousness was evident in the face of Fukui-san, reflecting on the glass partition inside the posh campus of Gyrissys systems, HITEC City, Hyderabad.

Since past 4 days Raghu Dixit and Fukui-san were at the vendor premises (forgoing their Christmas holidays) for understanding the current situation and to negotiate for alternate plans to save NFC7016 project from failure.

Fukui-san had travelled from Tokyo directly to Hyderabad and asking Raghu to join him from Bangalore.

The SoC (System on Chip) was planned to be released to the customer in 5 weeks (First week of February). Any delay in the release would nullify all early release advantages expected.

During the status discussion of the Software development, Subba Rao mentioned.

“We are on track with the development of both the modules but,” he staggered, “if we need to release the software by 30-Jan-2015, we cannot take the change requests raised after 05-Dec-2014”.

Raghu asked “why was this not raised as risk explicitly?”

Subba Rao looked nervous answering this question.

“We have listed this in the weekly status report sent on 12-Dec-2014” replied Subba Rao assertively.

This project started at Gyrissys Systems, 2 months before (27-Oct-2014) and the Contract/SOW (Statement of Work) between the two parties did not contain detailed acceptance criteria (Criteria against which the completion of the project will be measured).

Gyrissys Systems was doing everything possible to support Nakatsu Corporation to make the release. Considering the extremely short span of the project, the implicit understanding of Gyrissys Systems was, to adopt a lifecycle where the focus is primarily on software development and evidence for quality was not required. With this they inferred that creating associated documents were not expected.

“When would the implementation get over?” Fukui-san asked.

“We are hopeful to complete the implementation by 3rd week of Jan if no more issues surface” replied Subba Rao still appearing to be pre-occupied with the issues acting as show stoppers for the software.

“Can we understand your plan for testing? Are the identified cases covering all the paths?” Raghu asked.

Raghu Dixit was responsible also for the Acceptance testing of the project.

“We plan to verify the functionality of the software in last week of Jan, once the implementation is completed” answered Subba Rao.

“When will be the Unit and Integration Test design be ready for review” questioned Raghu.

“Within this short span of project it is not possible to create a formal Test Design” replied the annoyed Subba Rao.

Fukui-san was now worried, “Then, how do you ensure the software quality?” he asked.

His next question was more precise “How do you justify the quality of **your** software”.

“In this short span of development, comprehensive testing is not possible. We have not accounted for this”. Subba Rao was trying hard to justify his stand and view point.

Fukui-san was of the view that although the span of the project is very short, quality cannot be compromised and Nakatsu expects comprehensive Unit level testing and reports to prove the product quality.

“Can we break for a while and again meet after 40 min?” Fukui-san asked.

He wanted to get aligned with Nishimura-san. Moreover he was now worried about the quality of recently concluded FPGA development.

Fukui-san calls up Nishimura-san,

### Inside Conference Room “Sarayu”

西村：（電話に応じて）調子はどうですか？

福井：困ってると言わざるを得ないね。

西村：どうしたんですか？

福井：ソフトウェアの詳細なテストは契約に含まれてなくて、この短期間ではできないってGyrisysは言ってくるんだよ

福井：他にリスクがないか教えてくれる？特にハードウェア。彼らのFPGA試験での品質はどう？

西村：開発自体はうまくいっているようなのですが、テストの詳細なエビデンスがないんですよ。

福井：品質なんていうのは当たり前の要求だよ。よく契約に含まれてないなんて言えるよね。

福井：まったく、インド人の考えは理解できないよ。

福井：まあ、製品レベルでの試験ができないか、説得してみるよ。

福井：ありがとう、また何かあったら電話するよ。

西村：（電話の最後に）頑張ってください。

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In parallel to this conversation, Subba Rao enters Srinivasan’s cabin in the 2nd Floor and starts pouring his frustration “Srini, I am fed up with the long status meetings!!!”

“The team is extending 4 extra hours every day and working on weekends to meet their impractical deadlines but they are not even acknowledging our efforts”.

Subba Rao continues “Their physical presence in our premises during this phase is further worsening the situation. I am ending up spending almost my whole day in meeting with the customers and the team is complaining that they are stuck up with issues which need my inputs and approval”.

“And, today they are hell bent on having a detailed Test Design. And even at this time the requirements are not frozen”.

“Did we not plan for Testing the Software?” Srinivasan asked.

“Of course we will test but having a detailed one, with proof for test case sufficiency is not possible. If the project has sufficient time, we can follow all the process expected in the project life cycle”

“They want the pleasure of both worlds together – High Quality in Short Duration”.

“Let me discuss with Fukui-san to understand their priorities and let’s try to arrive at a common formula” said Srinivasan trying to pacify Subba Rao.

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Meanwhile, Raghu had his own apprehensions about the next course of action and the likely discussion on the acceptance criteria between the Nakatsu Corporation Japan and Gyrissys Systems.

He was worried because the Acceptance Testing was the responsibility of KSIP. Any issues identified later by the customer, he knew would bring his reputation at stake.

The organization had hand-picked Raghu and entrusted this crucial project (role of interfacing between Nakatsu Corporation Japan and Indian service provider) to him.

The role of KSIP, to act as Nakatsu’s Bridge with Indian Partners, wholly depended on the success of this project.

Sensing the risk for the project, Raghu decides to call Dr Nandini.

#### **Inside Discussion Room “Kapila”**

“Hello Raghu, I was about to call you. How are you? And how are the meetings going on?” asked Nandini picking the call, in her ever spontaneous tone.

“Madam I am fine but, the project appears to be at risk” said Raghu.

“Are the Gyrissys people not co-operating?” asked Nandini.

“No madam, Subba Rao and his team is trying their best, but it appears not enough. It looks to be typical case of difference in understanding and expectations between the two parties” Raghu explained.

“Madam, you know the implicit expectations of these Japanese people but, Gyrissys have underestimated the effort and schedule considering the tight deadline and assuming that focus is only on the working software” added Raghu, trying to quickly summarize the position.



Dr Nandini understood the situation. “Raghu can we help Nakatsu Japan by adding our members for testing the software in parallel with Gyritys development?” enquired Nandini.

“Madam, let me try to get the precise situation from Subba Rao. After assessing the situation here and checking the current assignments of our suitable members, I will update you with my plan” assured Raghu. Glad with the assurance, Nandini said “Raghu, based on your response, I will speak to Fukui-san and Srinivasan for alternate approach to meet our combined goal”.

“I will wait for your call and positive reply. Raghu, please take care of yourself”. Dr Nandini ended the call.

Every stakeholder of the project was bringing in their distinctive view point.

*It was like the ancient folk tale where few “Men in the Dark” who encounter an elephant for the first time and attempt to learn about it by touch alone.*

*The experience of each is unique because each touches a different part of the elephant.*

*(Folk Tale Reference:*

*[https://en.wikipedia.org/wiki/Blind\\_men\\_and\\_an\\_elephant](https://en.wikipedia.org/wiki/Blind_men_and_an_elephant)).*

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## 5. QUESTIONS

- What do you think are the reasons/root-cause for the current situation?
  - If you were in place of Fukui-san,
    - What would you have done to avoid this misunderstanding among the stake holders?
    - In the current situation, what measures will you take to tackle the situation?
  - According to you, what were the mistakes of Subba Rao? And what should he do to handle the current situation?
  - What steps Dr Nandini should take to ensure the success of the project?
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## APPENDIX I

### (Translation of Japanese Conversation between Fukui-san and Nishimura-san at Conference Room “Sarayu”)

*“Hello, how are you?” asked Nishimura-san answering the call.*

*Fukui-san: “I should admit, I am worried”*

*Nishimura-san asked anxiously: “Why? What Happened?”*

*Fukui-san: “Gyrisys is telling, detailed testing of the software is not included in the contract and cannot be done in this short period of time”*

*Fukui-san: “I just wanted to enquire if we have any more risks, especially in the Hardware. How is the quality of FPGA Testing conducted by them?”*

*Nishimura-san: “The development itself seems to be good, but there is no detailed evidence of testing”*

*Fukui-san: “Quality is an implicit requirement. How can they say that is not a part of the contract?”*

*Fukui-san: “I really do not understand how these Indians think”*

*Fukui-san: “Ok. Let me see how I can convince them for the Product level Testing.”*

*Fukui-san: “Thank you very much and I will call you again if needed.”*

*Nishimura-san ended the call with “I wish you good luck”*

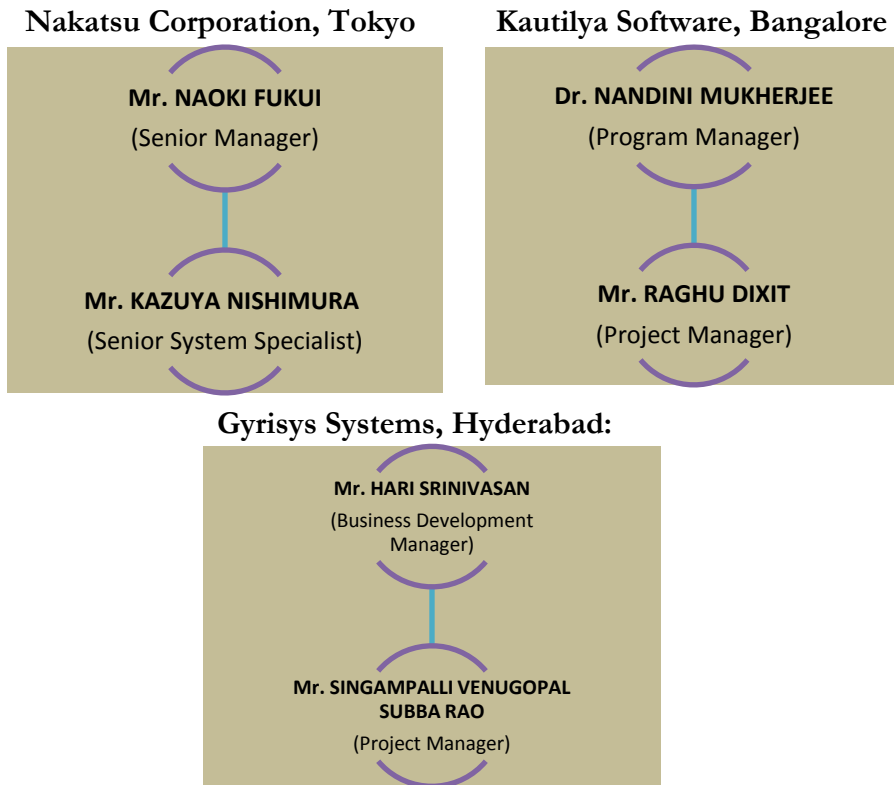
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## APPENDIX II (ACRONYMS AND DEFINITIONS)

Sl. No	Acronym	Definition
1.	KSIP	Kautilya Software India Private Limited
2.	BDM	Business Development Manager
3.	CMMI	Capability Maturity Model Integration
4.	FPGA	Field Programmable Gate Array
5.	ISO	International Organization for Standardization
6.	IT	Information Technology
7.	NFC	Near Field Communication
8.	SoC	System On Chip
9.	SOW	Statement of Work
10.	US	Unites States of America

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### APPENDIX III (ORGANIZATION STRUCTURE)



### APPENDIX IV (DEVELOPMENT CYCLE FOLLOWED AT NAKATSU)

