JOURNEY THROUGH THE RABBIT HOLE [*]

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ABSTRACT

Rejection of the Admin Portal project was an unthinkable outcome. The long involvement for discussing multiple initiatives, the planning cycles, the high-end prototypes and most importantly the hard work put by the teams went down the drain.

Was it a communication issue? Or was it a planning fallacy? Did the difference in culture play a role? This case study provides the context and unfolds the events, as they happened, to understand what possibly lead to this situation.

1. BACKGROUND

1.1. Nakatomi Corp.

Nakatomi Corporation (NAKATOMI) [1] is a Japanese multinational conglomerate headquartered in Tokyo, Japan. Its diversified products and services include information technology and communications equipment and systems, electronic components and materials, power systems, industrial and social infrastructure systems, consumer electronics, household appliances, medical equipment, office equipment, lighting and logistics.

1.2. Nakatomi Technologies

Nakatomi Technologies (NAKATOMI TECH) is newly formed unit to focus on—Storage, Cloud and Big Data. It caters to internal and external customers. The members of this division joined from other business units of Nakatomi like—Software Services, Telecom, Electrical systems, PC/Laptop business etc.

The key people involved in the Admin Portal project were,

[*] For more information on this term —https://en.wikipedia.org/wiki/Alice's Adventures in Wonderland

[1] For organization structure, refer to Exhibit 1

1. Sasaki–san: VP
2. Kuroki–san: General Manager
3. Kimura–san: Sponsor
4. Shimizu–san: Chief Specialist
5. Takahashi–san: Specialist

Apart from this, Fukazawa–san who was a Specialist from the Nakatomi Solutions (NSOL), a Japanese software services division of Nakatomi, was occasionally involved during reviews.

1.3. Nakatomi America Information Systems

Nakatomi America Information Systems (NAIS) is a subsidiary of Nakatomi Inc., in North America. NAIS is engaged in offering IT products and services to the North American markets. Historically, NAIS has been selling PCs, Laptops, Printers and other devices to its customers.

The recent developments in Cloud technologies, the rise of mobile devices is adversely affecting the traditional PC and Laptop market. To counter this, NAIS made a strategic decision to start offering STaaS[2]. NAIS engaged with the newly formed Nakatomi Tech team for discussing the possibilities. Together they worked out a solution and a high-level plan to implement it and the go-to-market strategy.

1.4. Nakatomi Software India

Nakatomi Software India (NSI) is a technology development center set up to develop reusable software components. NSI is a CMMI Level 5 and ISO 27001 certified organization. Based in Bangalore, Nakatomi Software India (NSI) is an integral part of Nakatomi Corporation, Japan.

1.5. NSI - Tech Team

Sasaki–san, VP of the Nakatomi Tech division, had worked with NSI in the past for more than 5 years, when he was heading a different business unit. During this time he experienced the benefits of having a team at NSI like—saving cost, CMMI processes to ensure quality at all levels, exposure to industry expertize and access to the talent pool available in the Silicon Valley of India. Based on these factors, he made a decision to setup a team at NSI for the Nakatomi Tech division.

Sasaki–san was involved in hiring Hari; designated to lead the team at NSI. Hari had 15+ years industry experience with strong skills in virtualizaiton and storage domains. He had spent many years in US working for organizations like—EMC, Citrix etc. He was a hardcore technology person; who preferred working alone.

[2] STaaS stands for Storage as a Service

Rest of the team members were hired laterally by Hari and Murugan. The team members joined from organizations large and small like—EMC, Cisco, Ariba, Nokia Siemens to name a few. One strange observation to note about the NSI Tech team was—that 80% team members were hired at junior levels (<3 years experience) and with no prior experience in virtualization, cloud or storage domain.

Hari traveled and stayed at Osaka (headquarter of Nakatomi Technologies) to meet senior executives of Nakatomi Tech to set the strategy and overall direction. During this time, unfortunately, he could not create a convincing vision for the group. Partly due to the fact that Nakatomi Tech team did not have necessary domain exposure to understand the proposals made by Hari and partly because Hari failed to pay attention to the Nakatomi Tech team's inputs and most importantly their concern about time-to-market.

This conflict grew over next few months and lead to a feeling of distrust and rejection towards the leadership at NSI Tech team. A few months after returning to India, Hari quit NSI to pursue other career opportunities.

Hereafter, Sahil—responsible for people and the project management and, Jatin—responsible for technical ownership, lead the team.

The key people involved in Admin Portal project from NSI Tech were,

1. Murugan: Delivery Manager
2. Sahil: Project Manager
3. Jatin: Technical Architect
4. Madhav: Project Lead
5. Vishal: Team Lead

2. CONTEXT

The NSI Tech team was newly formed and laterally hired as mentioned earlier. The team members were unfamiliar with the Japanese work culture as well as the quality processes/system at NSI.

Similarly, the Nakatomi Tech team was newly formed, working on setting up their own processes. For the time being they borrowed the process and software expertize from Nakatomi Solutions (NSOL), another IT service company within Nakatomi group, located in the city of Kamakura,Japan. Some of the members of Nakatomi Tech team were earlier associated with NSOL so they were familiar with its processes.

For both the teams this was the first project undertaking with each other—implying lack of familiarity about processes on other side, communication styles, cultural aspects etc.

2.1. Cultural differences

The Japanese and the Indian working cultures are similar in terms of being "high context", yet retain their crucial differences—in terms of communication styles, decision making and confrontations. Additionally, the Indian work culture is significantly influenced by North American work culture, whereas Japanese work culture still remains very much Japanese.

The teams did not suspect the differences may affect the overall project.

2.2. Methodology

Majority of the NSI Tech team members were following Agile Methodologies in their previous organizations. And some even actively vouched for it. It seemed natural for them to adopt the same practices at NSI Tech team. They proposed using SCRUM[3] methodology for executing this project and the Nakatomi Tech team obliged to this request—unaware that rest of the NSI follows a more traditional methodology for managing projects.

This seemingly benign decision would later haunt the project during planning and execution phases—as it's based on agility to help deal with constant changes to the project, but fails to address the need for clarity or to tackle uncertainty, which is a one of the prime needs of Japanese work cultur

2.3. Language barrier

The language is a medium to communicate, however difference in the primary language can create communication barriers between two entities. The Japanese and Indian teams usually face this challenge—how to effectively communicate with each other. Ideally, one or both of the teams need a language expert, knowing both the languages fluently. Most often, thats not the case. The teams need to rely on their sole language expert for all the communications—sometimes leading to delays, or misunderstandings.

Takahashi–san was the face of Nakatomi Tech team as he was the only member with reasonable English language skills.

3. THE RABBIT HOLE

Late during 13B[4] cycle[5], Takahashi–san shared the requirement for automating some of the manual tasks to deploy the STaaS environment in data-center. The manual

[3] SCRUM is an agile framework for managing projects. For more info, http://www.scrumalliance.org/

[4] Nakatomi follows a system to divide a calendar year in two semesters and align project deliveries and billing activities accordingly. Cycle 'A' lasts from April to September and cycle 'B' lasts from October to March.

[5] Refer to Exhibit 2 for a time-line view of the project

steps take 5-6 days to setup the STaaS environment. The project aimed at reducing the manual efforts by 30–50%. Nakatomi Tech team was hoping to automate by using simple scripting solution with minimum development efforts.

There were many manual tasks in deployment, however the current scope of work focused on automating the deployment of servers and virtual machines (including software components residing on them) only, the other elements like networking, firewall etc. were excluded for the time being.

Jatin was excited to see this opportunity and decided to implement the automation by using the Chef[6], a cutting edge DevOps[7] platform. The team reviewed this idea internally however Sahil, Madhav and Vishal were concerned about the ramp up time, as this was a completely new technology for everyone in the team. Jatin, who was very optimistic about the idea, convinced them it won't take long for the team to learn the platform and the scripting.

NSI Tech team shared a proposal with Nakatomi Tech team.

3.1. Initial discussions

Takahashi–san was confused to see the proposal which recommended using a DevOps platform. He said to himself "Why is NSI proposing a complex solution when all we need is some scripting to automate the tasks?" Besides, the proposal lacked diagrams and other details, making it hard for Takahashi–san to comprehend it fully.

Just a week back, when he shared the requirements, he had insisted to keep things simple. He felt the new approach will need more time and increase the exposure to risks. Not sure how to respond, he thought it was time to take a smoke and clear his mind first.

When Takahashi–san was back at his desk, he decided to have a quick conference call with NSI to get this sorted out.

3.1.1. TELECONFERENCE CALL #1

January 2, 2014
10:30 IST / 14:00 JST

Takahashi–san: "Good morning NSI team!"

NSI Team: "Konnichiwa (こんにちは) Takahashi–san!"

Takahashi–san: "I was looking at the email from Jatin and I don't quite understand the proposal. It says we are going to use Chef platform for the automation. Why?"

[6] Chef is a configuration management tool written in Ruby and Erlang. https://www.chef.io

[7] DevOps or **Dev**lopment **Op**erations is a software development method that stresses communication, collaboration, integration, automation and measurement of cooperation between software developers and IT professionals. (Wikipedia)

Jatin: "Yes Takahashi–san, Chef platform offers many capabilities for automation and it's a widely adopted tool for DevOps projects."

Takahashi–san: "But I don't think we need a complete DevOps solution now. We only need to automate some part of storage node[8] provisioning. For us, the time-to-market is much more important."

Jatin: "It's good for the future. It will be easy for us to automate more tasks. The Chef platform supports automation not only for servers or VMs, but also for network equipments, storage servers and software components as well. We can propose this to NAIS. This will be a great idea for them as they can save a lot of time by automating tasks."

Takahashi–san: "Maybe, but we don't know the future requirements yet. And do we know the platform well?"

Jatin: "It's very easy to learn Takahashi–san. We can learn the platform architecture in 1–2 weeks."

Takahashi–san: "Hmm. Let's see. I have to discuss this with Shimizu–san. By the way, there are no system diagrams in the document, can you add them and send me the updated document?"

Sahil: "Sure, Takahashi–san. We will send you the updated document in a couple of days."

Takahashi–san was at his desk and unlike he thought his discomfort still remained. He wasn't convinced whether we really need to go the Chef way or not. There may be risks or it may take more time to develop.

Growing skeptical—words "…good for the future…" were ringing bells in his mind—reminding him of the discussions his team has had with Hari. That thought scared him for a moment.

He planed to discuss this with Shimizu–san, who was in the US, at the earliest.

3.2. Planning and feasibility

After lengthy discussions between Nakatomi Tech and NSI Tech team, it was agreed that NSI Tech team will do a feasibility study to find out any limitations or risks with Chef Platform. It look around a months time to setup the Chef environment, understand the key elements of Chef platform, find the interdependencies between the servers and VMs for automation and learn the Python scripting language.

[8] A 'Storage Node' can also be a virtual machine or virtual LUN with access to one or more HDDs and/or SDDs

During this time team stumbled on various issues like—unknown dependencies between system configuration or components, order of servers/VMs to be automated and significantly underestimated learning time for the Python scripting language.

After completing the feasibility, NSI submitted the rough-order-of-magnitude estimate to complete the automation work. As per the estimate and the current resource allocation the work will complete by mid-November.

It's been almost a week now and there was no communication from Nakatomi Tech team. This silence was not comforting, as Sahil was remembering the frequent warning from Kinjo–san, MD of NSI "…remember, silent Japanese customer is like a bomb…". Sahil, who was fascinated by Japanese culture, hoped it was not Mokusatsu (黙殺)—silent contempt common in Japanese culture.

There is a weekly meeting tomorrow and Sahil decides to review the estimates during the meeting.

3.2.1. TELECONFERENCE CALL #2

January 27, 2014
10:30 IST / 14:00 JST

Sahil: "Good afternoon Takahashi–san."

Takahashi–san: "Good morning Sahil."

Sahil: "I have Jatin, Madhav, Vishal, Tarun, Gowri and Tamiran with me in the conference room. Who else is with you?"

Takahashi–san: "Good morning everyone. I have Shimizu–san with me."

Sahil: "Aha! Good afternoon Shimizu–san, good to talk to you after long time."

Shimizu–san: "Good to talk to you too, good morning everyone."

Sahil: "Okay. Let's get going. We have completed the significant part of the feasibility study and shared the estimates based on our findings and the quantum of work. Can we review the estimates first? I shared it 2 days back, did you get a chance to look at it?"

Takahashi–san: "No I haven't looked at it. Can you please share the excel sheet n the screen?"

Sahil: "Sure, it's on the screen now."

Takahashi–san: "Let's look at the Windows AD[9] server estimates. Can you tell us why it takes 12 days to complete this work? It's just too much. I think it should be 1–2 days."

[9] Windows®Active Directory™ (AD) is a directory server for Windows®domain.

Sahil: "Takahashi–san, this estimate includes time for scripting, creating Chef artifacts, unit testing and documentation. It's not just development as you might have assumed."

Takahashi–san: "Even then it's too much time. I don't think we need so much time just for AD Server."

Sahil: "Okay, I have shared another excel sheet on the screen. It shows the detailed tasks involved in setting up the AD Server. Can you see, there are 38 steps involved in setting up the AD server and each step will be a separate script, some reusable and some not. Additionally, we have to integrate all these scripts into a Chef recipe and test out every step. Then do the unit testing. Once all of that is over, then write the documentation for the same."

Takahashi–san: "I see. Hold on, please."

At this time, Takahashi–san and Shimizu–san start discussing their concerns in Japanese. The team can sense tension in the voices, but can not understand whats discussed.

Shimizu–san: "Okay, we would like to to get the estimates verified from Fukazawa–san and the NSOL team. Can you send us the detailed task list that you just shared for all the servers and VMs? One more thing, can you prepare a Low Level Design document for review? We haven't seen one so far."

Sahil: "It will take us at least 3-4 days to put together the details for rest of the servers and VMs. So by next Wednesday I will send it across to you."

As discussed, the team shared the details of steps involved for storage server and different types of storage nodes. A lot of other details were requested—like priorities for each server and node, the risk profiles for each step. The oddest of all was the request to pre–plan all the SCRUM sprints [10] ahead of the time. There was lot of back and forth communication during the next 2 weeks.

The NSI Tech team members are getting concerned over this matter and the sentiments are running high. One afternoon, some of the members walk into Sahil's office to discuss their concerns.

Vishal: "Hi, Sahil. Can we talk about the details we have been sharing with the Nakatomi Tech team?"

Sahil: "Sure, we can. Anything bothering you?"

Vishal: "Yes, I just want to check if this back and forth communication is going to end or not! I mean, are we ever going to start developing the portal?"

[10] A Sprint is a get-together of people involved in a project to work on focused development of the project (Wikipedia).

Madhav: "And it's not just both of us, the whole team is worried about the amount of time being spent in reviewing the details and the schedules. They are concerned that this is eating time from their development schedule. And they don't want to be in the office again working around the clock and weekends too. That's what we had to do to get past the issues faced during feasibility."

Sahil: "Hmm. I can understand. I am with you on this, but there seems to be no definitive response from the other team. Not sure what's taking so long. By the way, did you update the LLD[11] Jatin?"

Jatin: "Hang on. Why should I update the LLD? How many times are we going to change it?"

Sahil: "I guess they want to see a network diagram and to me this seems fair expectation. Otherwise, how are they going to check if this will fit into NAIS environment?"

Jatin: "Okay, I will update the LLD. But this better be the last time."

Vishal: "Sahil, we need to get a decision ASAP. I don't think the team can stretch the patience any further. Last two weeks have been very frustrating."

Sahil: "Alright guys, I get your feelings. We have a meeting day after tomorrow with Nakatomi Tech team and I will try my best to a commitment during that meeting."

After all the details shared, the Nakatomi Tech team had an off-line review with the NSOL team. Later there was a joint meeting between Nakatomi Tech, NSI Tech and the NSOL team to review the estimates. There was not much change requested by NSOL and not many concerns raised by NSOL. The estimates changed only by approximately 2-3%. The team had spent 2-3 weeks in putting together the details and waiting for approval from the Nakatomi Tech team. The NSI Tech team wished that the Nakatomi Tech team should have had the trust in them.

3.3. Execution

While the NSI Tech team was focusing on executing the project all at once, there was a sudden request from the Nakatomi Tech team to release a portion in the month of March'14 to support the billing and audit processes.

This was not planned for by the NSI Tech team. Now to cater to this request and make sure the release portion is logically complete, the NSI Tech had to juggle the priorities, change the sequence of implementation as well as testing. This resulted in letting go of significant portion of the work done so far and start new development.

There was an urgent meeting called to discuss and freeze the scope.

[11] LLD is Low Level Design document that captures the implementation level details for software development.

3.3.1. TELECONFERENCE CALL #3

February 14, 2014
10:30 IST / 14:00 JST

Sahil: "Good afternoon Takahashi–san."

Takahashi–san: "Good morning Sahil."

Sahil: "Today's meeting is to discuss the scope for the March release. I have sent across an excel sheet yesterday to define the scope of March release. Did you get a chance to look at that?"

Takahashi–san: "No I haven't looked at it. Can you share it on the screen?"

Sahil: "Okay, here is comes on the screen. As you can see, we have listed the items that can be covered in the March release."

Takahashi–san: "Okay, let me take a look. Hmm. Based on what have you selected the scope? I don't see the features like Start/Stop or selecting the VMware or Citrix platforms on the UI[12]."

Sahil: "The scope is based on the time available to us and interdependencies in the components. We have tried to define a scope in which things will be logically complete."

Jatin: "So with the current scope, all the 7 VMs will be created with basic configuration that includes OS[13] installation, OS configuration, and networking configuration. This would ensure the data-center administrator can pickup from there and install the software components manually until we make the next release to automate that also."

Takahashi–san: "Why can't we do the Start/Stop? It's important to have this feature."

Sahil: "We need additional 2 weeks to implement that feature. Can we push the release to mid-April?"

Takahashi–san: "No we can not change the release date."

Sahil: "Without extra time we can not implement any additional features or changes."

Jatin: "By the way, as mentioned in the low level design document, we are not doing any validations in this release—like duplicate environment names or storage node names and checking for the clashing IP[14] ranges etc."

[12] UI or User Interface is a space where interactions between humans and machines occur.
[13] OS stands for Operating System
[14] IP stands for Internet Protocol address

Takahashi–san: “Understood. I will confirm the scope after the meeting.”

Sahil: “We need the confirmation before end-of-day today Takahashi–san. Any delay in confirming the scope will impact the time-lines.”

Takahashi–san: Sure, we will confirm before that. Bye!

Takahashi–san and Shimizu–san are sipping coffee and discussing about the meeting with NSI Tech team[15].

Shimizu–san: NSI はリリースのための検証はやらないってこと？

Takahashi–san: ええ、スコープ記述書にはそう書かれています。

Shimizu–san: UI の検証はスコープに含まれてる？UI の検証もやらないつもりかな？

Takahashi–san: 既存ホストネームや、重複 IP の確認といった手間のかかる検証はやらないでしょうが、UI の検証はやるでしょう。

Shimizu–san: NSI には確認した？

Takahashi–san: いや、してませんけど、そんなのは超基本的なことだから、やるでしょう。

Shimizu–san: そうだな。

The Nakatomi Tech team confirmed the scope and NSI Tech team focused all the energies in getting the release out on time as per the agreed scope. The team members worked day and night and on weekends to make sure the delivery happens on time.

There were a few demos planned during the development cycles and all went well. The only concern for the NSI Tech team was there was still no interaction or involvement from the end-customer even during the demos. Hopefully, the product being built was acceptable to the end-customer.

All the hard work put by the NSI Tech members seem to have paid off, as they made the delivery as per the schedule on 18th March. There was a sense of relief felt by everyone.

The team now geared up to focus on the next big release that would happen by end of the next semester.

3.4. Release

Sahil traveled to Osaka for the project delivery formalities and attending the next semesters planning meetings. He is excited to meet the Nakatomi Tech team members and talk about his ideas about how to execute the next phase of the project more efficiently.

Aa part of the project acceptance, there is a quality audit planned for the recently released Admin Portal. Sahil, Takahashi–san and Shimizu–san are reviewing the process & product documentation, test reports and the deliverable.

[15] For English translation of this communication, please refer to Exhibit 3

3.4.1. IN THE MEETING ROOM,
April 2, 2015
10:30 AM JST

Takahashi–san: "Welcome, everyone. We are going to do a quality audit for the Admin Portal."

Sahil: "The team has worked really hard to get the product out. Let's begin."

Takahashi–san: "Sure, I understand. Let's look at the test reports first."

Sahil: "Here are the reports for functional and system testing."

Takahashi–san: "Let's look at the functional test report first. Could you please go to the UI Validations."

Sahil: "Well, as you are aware the UI Validations are not part of this release."

Takahashi–san: "What do you mean it's not part of the release?"

Sahil: "We agreed not to do any validations due to lack of time."

Takahashi–san: "We agreed not to do validations but UI or field validation is very *BASIC*."

Sahil: "It may be basic but once we agreed not to do something, we wont do it. Unless it's in the plan, it not getting done."

Takahashi–san: "This is a very *BASIC* quality requirement from Japanese perspective. We cannot release a product without UI validations."

Sahil: "I think since it's being used by internal users it's not a critical issue. We can document this as a known issues."

Takahashi–san: "We cannot accept the product without UI validations. The product has failed the quality audit and we are rejecting the delivery."

This was a devastating decision made based on the circumstance. Sahil was not sure how to take this and communicate it with the team members who had already started working on the next phase.

Exhibit 1

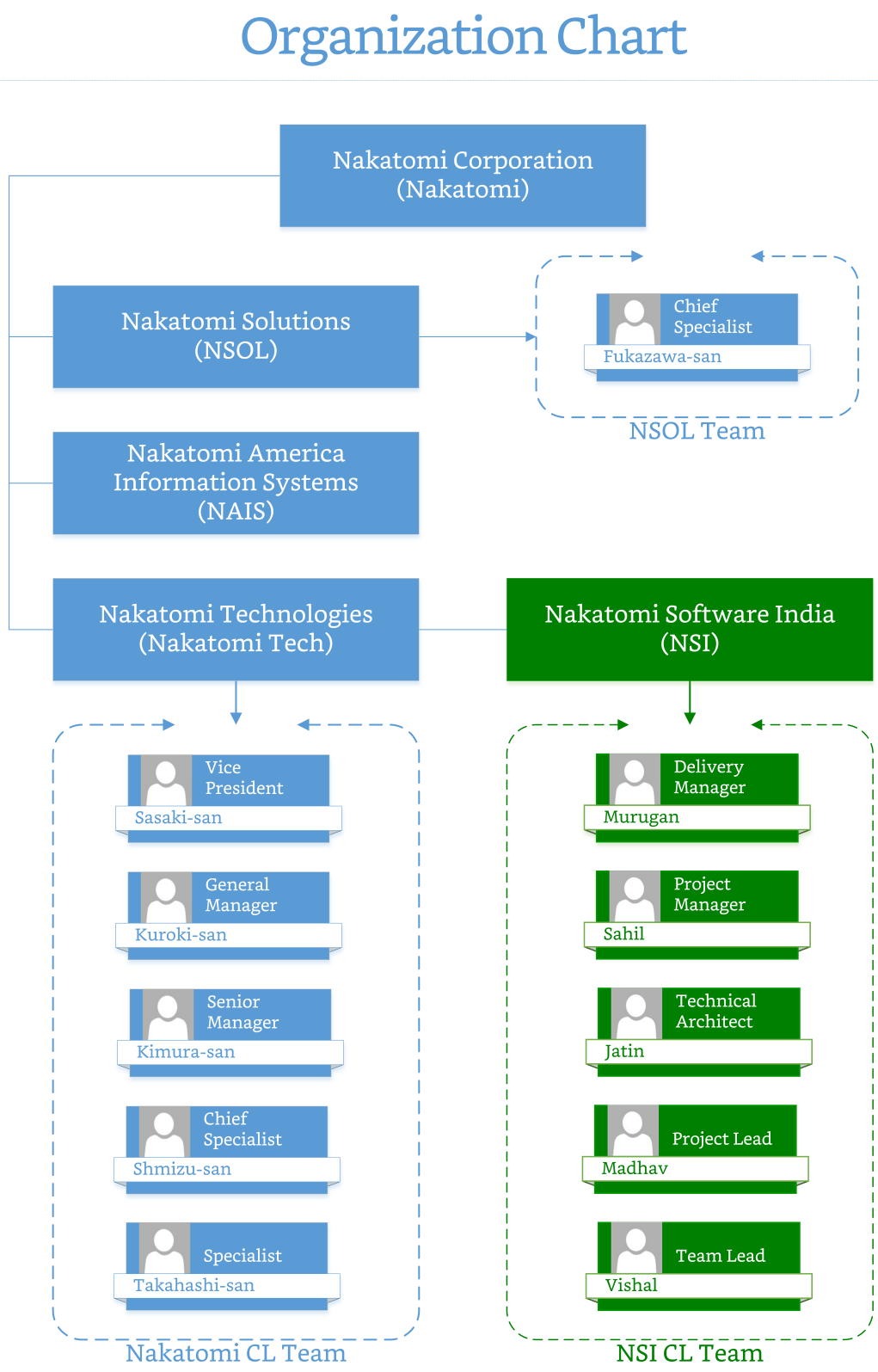
Organization Chart
Nakatomi Corporation (Nakatomi)
Nakatomi Solutions (NSOL)
Chief Specialist
Fukazawa-san
NSOL Team
Nakatomi America Information Systems (NAIS)
Nakatomi Technologies (Nakatomi Tech)
Nakatomi Software India (NSI)
Vice President
Sasaki-san
General Manager
Kuroki-san
Senior Manager
Kimura-san
Chief Specialist
Shmizu-san
Specialist
Takahashi-san
Nakatomi CL Team
Delivery Manager
Murugan
Project Manager
Sahil
Technical Architect
Jatin
Project Lead
Madhav
Team Lead
Vishal
NSI CL Team

Exhibit 2

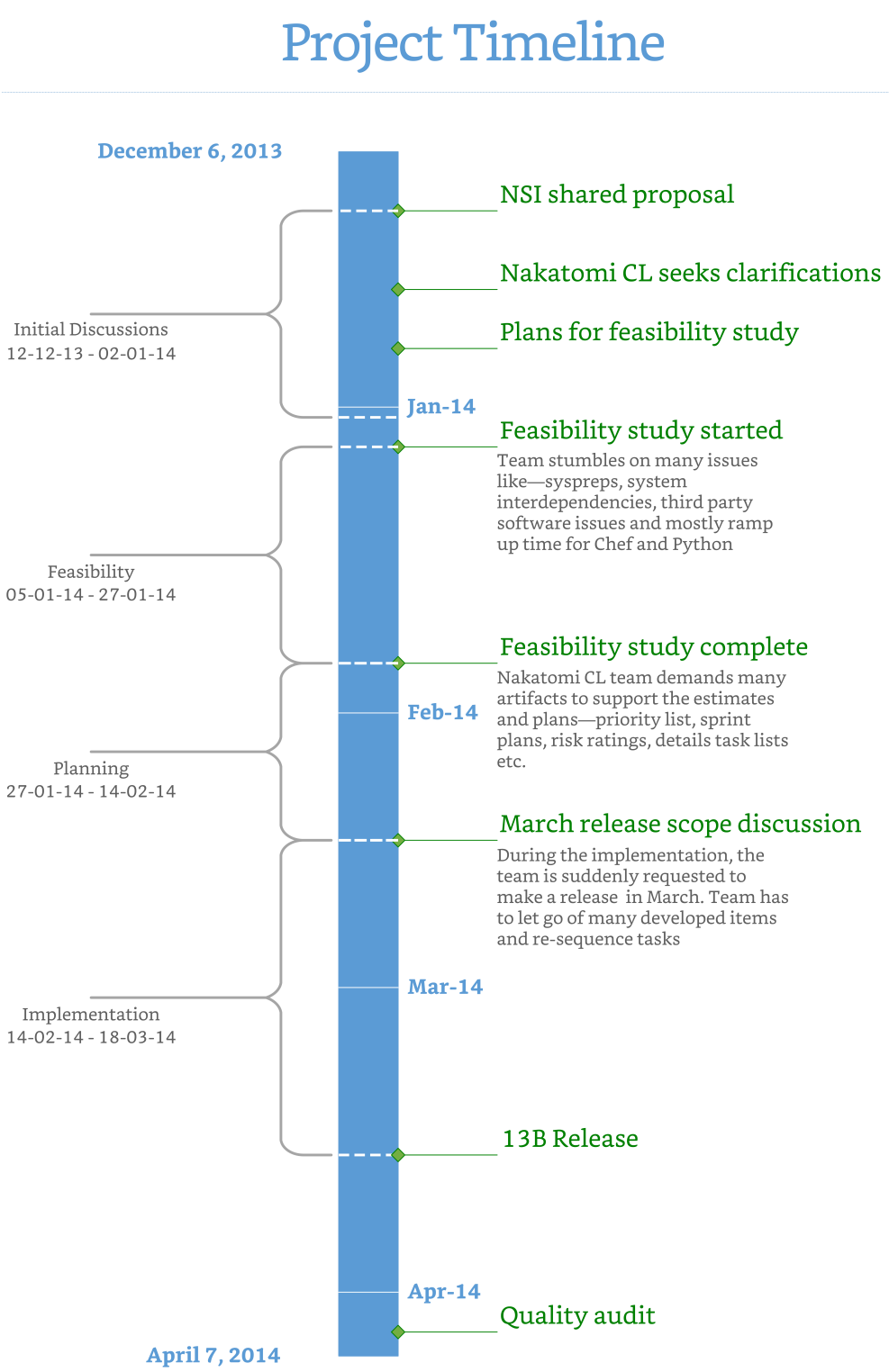
Project Timeline
December 6, 2013
NSI shared proposal
Nakatomi CL seeks clarifications
Plans for feasibility study
Initial Discussions
12-12-13 - 02-01-14
Jan-14
Feasibility study started
Team stumbles on many issues like—syspreps, system interdependencies, third party software issues and mostly ramp up time for Chef and Python
Feasibility
05-01-14 - 27-01-14
Feasibility study complete
Nakatomi CL team demands many artifacts to support the estimates and plans—priority list, sprint plans, risk ratings, details task lists etc.
Feb-14
Planning
27-01-14 - 14-02-14
March release scope discussion
During the implementation, the team is suddenly requested to make a release in March. Team has to let go of many developed items and re-sequence tasks
Mar-14
Implementation
14-02-14 - 18-03-14
13B Release
Apr-14
Quality audit
April 7, 2014

Exhibit 3

English translation of Japanese communication in section 3.3.1

Shimizu–san: So NSI says they are not doing validations for this release.

Takahashi–san: Yes, that is what the documents said.

Shimizu–san: Does that include UI validations as well? Are they not going to do the UI validations?

Takahashi–san: I think, they will not do the major validations like checking for existing hostname or duplicate IP address—because it's more work. They must do the UI validations.

Shimizu–san: Did you make it clear to the NSI team?

Takahashi–san: No, I have not. However, I think it is very *BASIC*, so they would do it.

Shimizu–san: I hope so.