What does it mean being an Open Source project manager in Enterprise
enterprise edition

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Toshiharu Harada

<haradats@nttdata.co.jp>

NTT DATA CORPORATION

Abstract

In an enterprise, every project has a project manager regardless of the scale and of the theme. Open Source projects, which do not quite fit the traditional and formal enterprise way (rules, forms, licenses ...), cannot be exceptions. Though sharing the same name, the role of project manager is totally different for enterprise and Open Source projects.

The speaker is project manager of TOMOYO Linux, a security enhancement feature which was just merged in version 2.6.30. It was developed by one of the largest SI companies in Japan. The session reviews the project history and tries to summarize the differences between the enterprise and Open Source projects using TOMOYO Linux project as an example. This session is for project managers at enterprise, and kernel development experiences are absolutely not required.

"Managing an Open Source project requires different demands on management and leadership."

-- Jan Sandred (The author of "Managing Open Source Project")

Who am I

- I work for NTT DATA CORPORATION, one of the largest system integration company that has over 9000 (30000 as a group) employees in Japan

- Being involved in Open Source projects management since 2003

- This presentation is based on my personal experience as project manager of TOMOYO Linux which has been merged in kernel 2.6.30

What's this all about

- Every Enterprise has its own way of managing projects: a set of tools, documentation, rules, procedures, meetings and so on
- Open Source projects which has a different origin that can not just fit Enterprise way
- Project manager is a bridge
- How to be a good bridge is the main theme of this talk

Enterprise way

and

open source way

Enterprise projects

- Intended to be closed

inside of Enterprise projects

- Organized and compartmented

Enterprise project

- Characteristics
  - Enterprise has a complete definition for a project
  - Design and document first, then coding and test
  - Try to avoid risks as much as possible
  - Strictly defined forms, procedures, protocols
  - Every decision requires an approval
  - Information is closed

Open Source projects

- Born to be "opened"

inside of Open Source projects
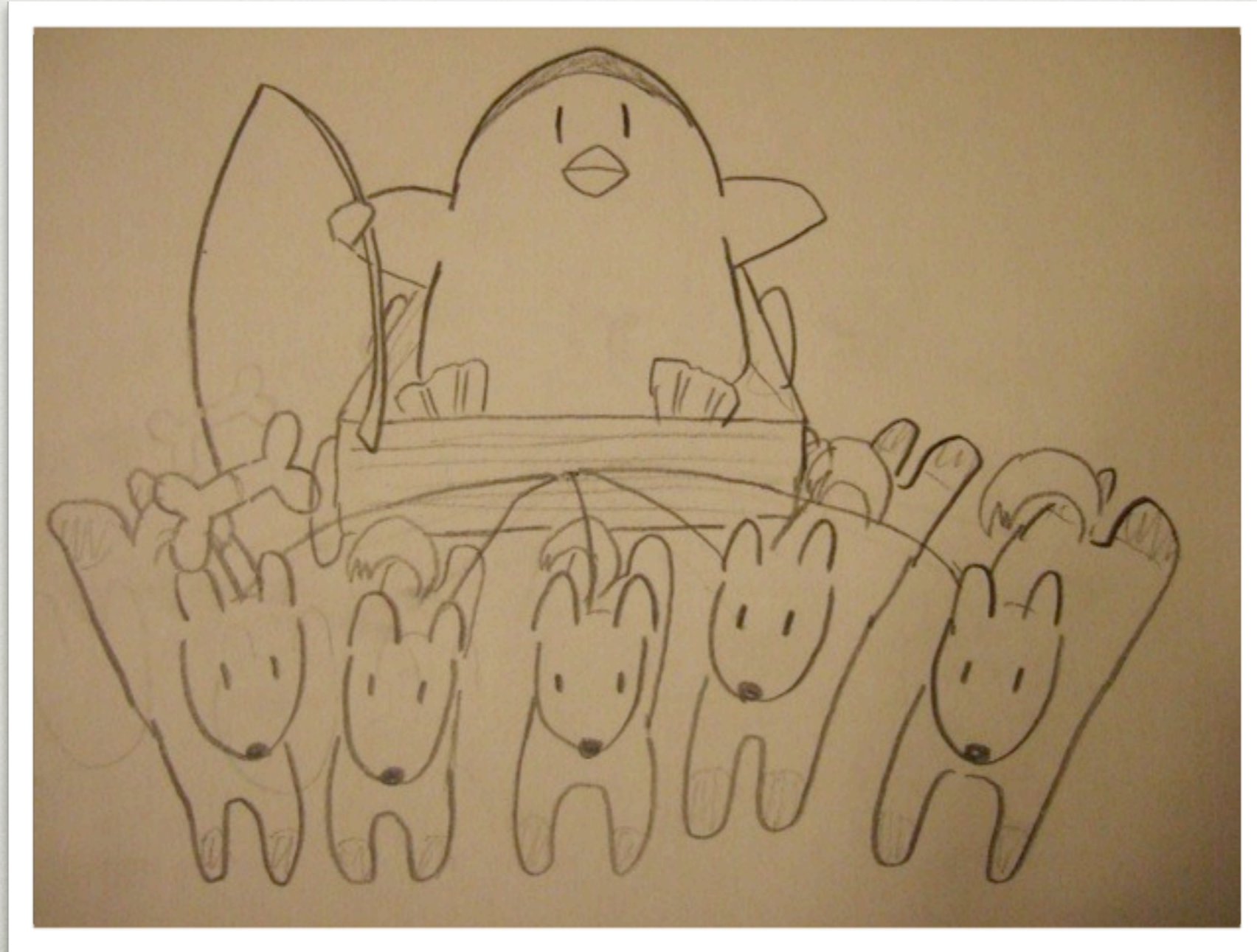
- Inside is outside (or outside is inside)

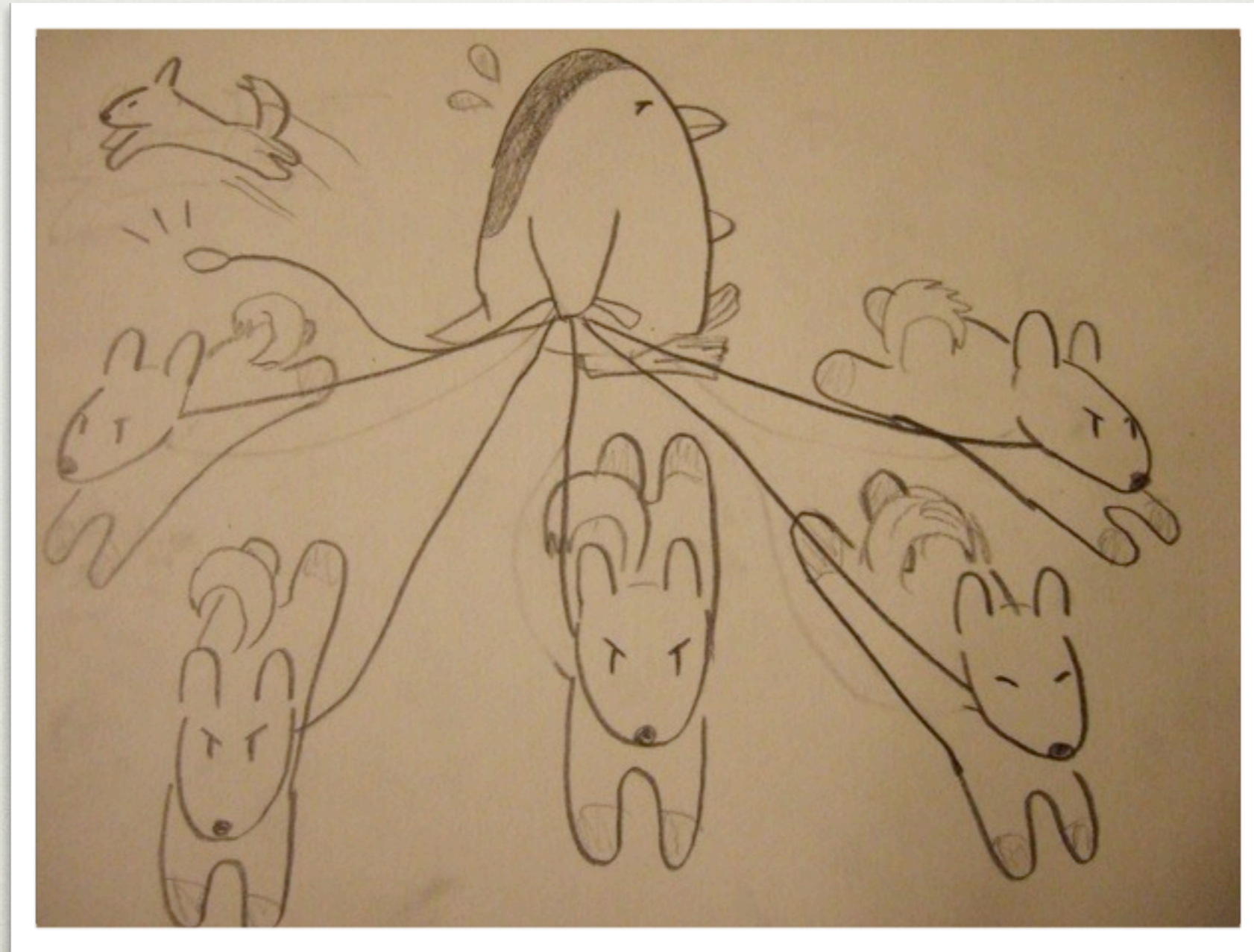# System of Enterprise projects

System of Open Source projects

OPEN SOURCE PROJECT + ENTERPRISE =

- Chaos
- Troubles
- Difficulties
- Frictions
- Contradictions
- Headaches

OPEN SOURCE PROJECT + ENTERPRISE =

- From Enterprise:
  - Incomprehensible
  - Uncontrollable
  - Undesigned
  - Non-predictable

OPEN SOURCE PROJECT +
ENTERPRISE =

- From Open Source:
  - Rules, procedures and forms
  - Stubborn
  - Lockstep

WHAT IS IT LIKE TO MANAGE AN OPEN SOURCE PROJECT IN ENTERPRISE?

what Shall i compare thee to ...

- Managing an Open Source project in Enterprise
  - Invisible
  - Compartmented
  - Unexpected risks
  - Encounters with "community"
  - Unpredictable ...
- Yes, it is like

(1) invisible

- Open Source projects tend to be virtually isolated in Enterprise
  - Physically exists, but logically invisible
  - Aims, status, progress, thoughts are sometimes hard to understand by outer (inner) people
- Managing an Open Source project resembles a space voyage

(2) CLOSER RELATIONSHIP

- Apart from the planet (Enterprise)
- Confined in a spaceship
- Exposed to unexpected troubles and risks
- Relationship and communication become closer

(3) tight collaboration

- When on the ground
  - project member does not have to think every detail of one's project
- When in the space
  - each crew members recognize the spaceship is his own
  - roles are just guidelines

BEING A "MANAGER"

- Meaning of being manager is changed
  - Dedicated manager is not needed
  - Duty from Enterprise remains
- Past experiences do not help
- Project manager begin to ask himself, "who am I?" and "what shall I do?"

- There can't be no single answer
- As I believe Open Source is a mutual benefit society, so I'll share my six years experience as TOMOYO Linux project manager (I'm still in my voyage, though ;-)

HISTORY

MY DAYS AS TOMOYO LINUX PROJECT MANAGER

2003
Launch

- Mission was given: "To create a new security enhancements for Linux"

  - Open Source projects are artifactually-produced in Enterprise

  - The past experiences and knowledge do not help

  - Under such circumstances, being a "manager" does not make differences

2004
GROPE

- Starting open source development is easy
  - Tools and information are freely available (even for Enterprise)
- Environment has some difficulties
  - Enterprise has the strongest level of firewalls and you can't get through git and ssh
- We somehow managed to get patches

2005
TOWARDS THE DOOR

- Though not ordered, we wanted to make TOMOYO Linux open source

  - *Open Source has changed our way of thinking*

- In Enterprise, every procedure requires approval

  - "1st case" is always troublesome

  - Every move requires procedures and approval (this is tough)
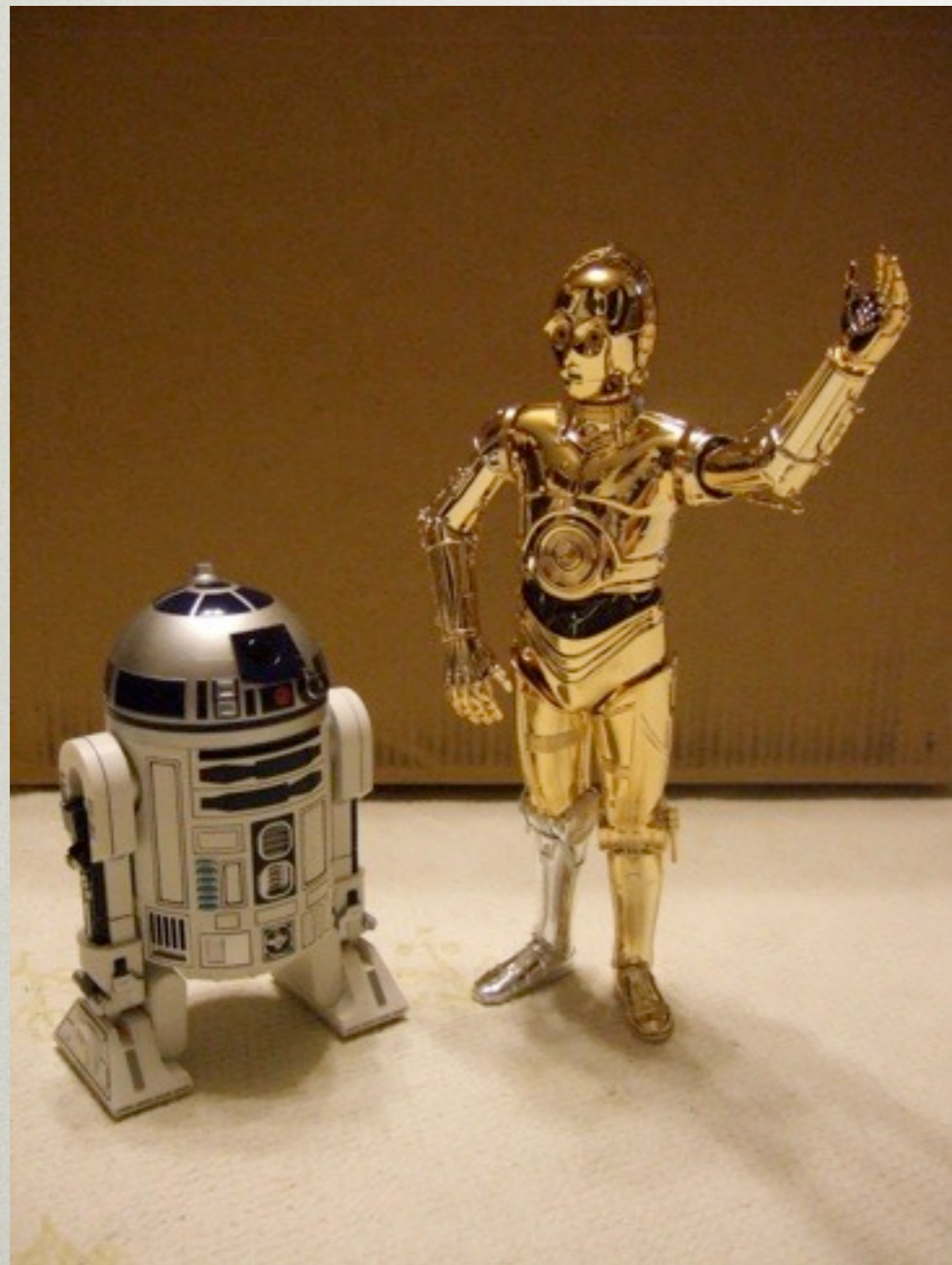
Company Cultures

Company cultures are like country cultures. <u>Never try to change one.</u> Try, instead, to work with what you've got.

-- Peter Drucker

"MOTIVATION" SHOCK

- Finally we could get an approval and we had to "name" it
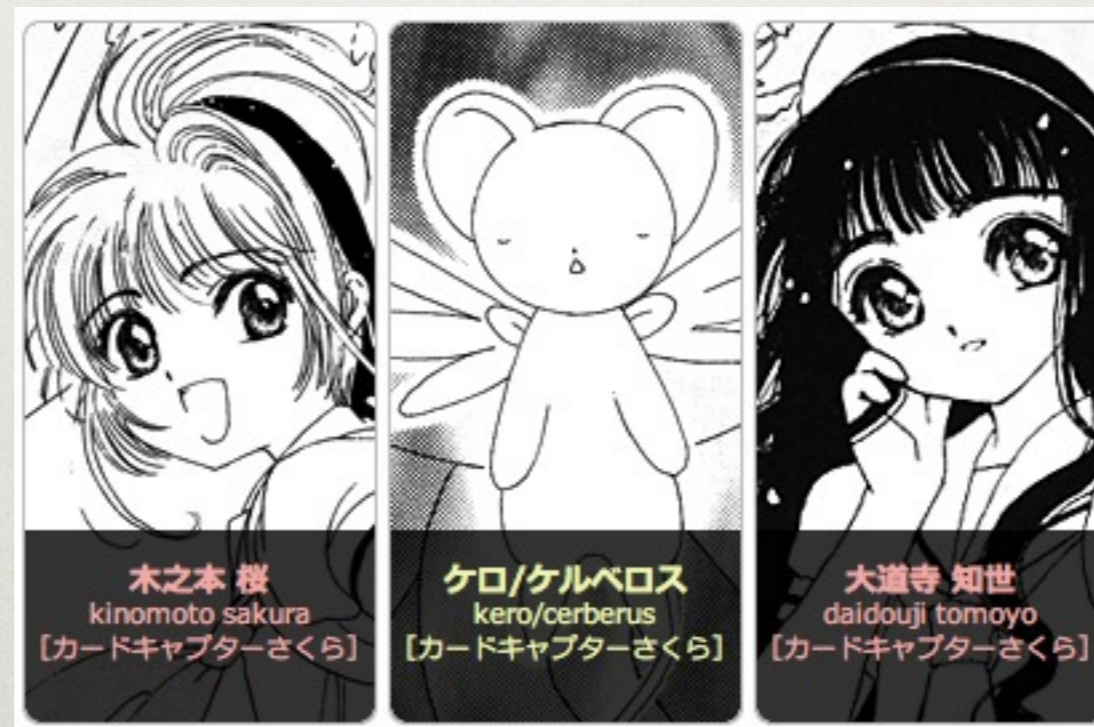
Now, we need a name for the patch.
I'm going to have you name it, as you worked so hard.
Any candidate?
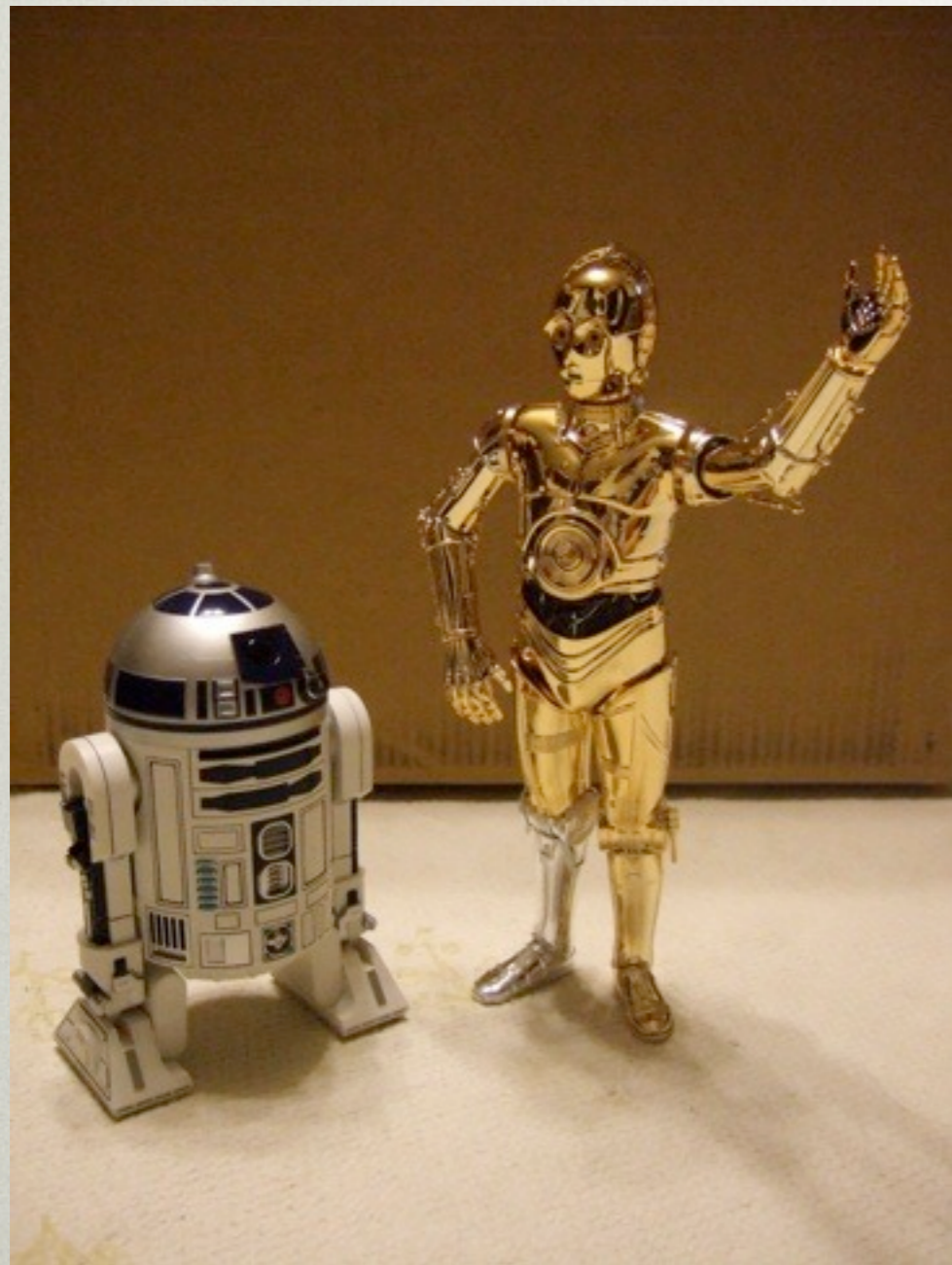
Yes, it will be "TOMOYO"

Huh?

- "TOMOYO" was taken from his favorite Japanese cartoon which story and characters have an affinity with the security functions of our project

For more detail, http://www.clamp-net.com/html/contents/character/

Well, nice name, but I'm afraid **it is not so appropriate to the Enterprise** ... Could you give another?

... If you say so, I will. But my motivation will decrease

MOTIVATION!!!

- Wow

"MOTIVATION" MATTERS

- The word, "motivation" hit me
- I intuitively understood I should not force him to pick a name for my sake
- Motivation is important for any projects, but **it is crucial in Open Source project**
- Keeping motivation for each member is the most important job for manager
  - "How" is not documented, of course

Motivation Matters

Management is nothing more than motivating other people.

-- Lee Iacocca

Motivation Matters

The greatest way to manage living in a world of greater uncertainty and risk is to focus on *a positive purpose* that attracts you.

-- Catherine Austin Fitts

Motivation Matters

If you want to be successful, it's just this simple: Know what you are doing, love what you are doing, and believe in what you are doing.

-- Will Rogers

HELLO, ANONYMOUS

- Someone wrote a funny article for slashdot and number of people commented

- Obviously it was not a happy situation for me

- Enterprise project usually ignores anonymous feedbacks because there are risks and no advantages to respond

- I got to feel "I should respond them" and began doing so as a person with my person time

LIVING WITH "COMMUNITY"

- "Interaction" is another crucial factor for Open Source project (at least I believe so)
  - Good (positive) feedbacks are rare
  - Negative feedbacks are many
- I strongly believe we should always respond regardless Enterprise or not
- IMHO project manager is responsible, at least I thought so and took actions

Some hints

Honesty is the cornerstone of all success, without which confidence and ability to perform shall cease to exist.

-- Mark Kay Ash

Some hints

Of all the attitudes we can acquire, surely <u>the attitude of gratitude</u> is the most important and by far the most life-changing.

-- Zig Ziglar

Some hints

Good manners are the lubricating oil of organizations.

-- Peter Drucker

"POISONOUS PEOPLE"?

- There's a Google video for the presentation titled "How Open Source Projects Survive Poisonous People (And You Can Too)"

- I don't really agree with the existence of "poisonous people"

- Everyone can be poisonous

WONDERING IDENTITY

- Working with Linux has somewhere along the line changed my way of thinking

- I realized that I must not forget my role as Enterprise project manager

- I've been standing between Enterprise and Open Source

- From project point of view, I was a bridge

WHY WE CHOSE TO CHALLENGE MAINLINE

- Like other Enterprise projects, we were working inside the company

- We seldom went out and didn't attend OSS events

- One day, we showed demonstration at CE Linux Forum technical meeting and received astonishing response

- They said, "We will not use TOMOYO because it's not in mainline" and "please challenge"
- Tetsuo and I were shocked because we had never thought TOMOYO could be merged

- A couple of months after, a famous Linux users group asked us to introduce TOMOYO

- Over 60 people came and "scolded" us because we didn't go out and try posting to the LKML

- Some of them took their day off to tell that to us

- I was uncomfortable and unhappy, but realized
  ## they were doing this for us

2007
A new voyage

- I reported those events to my boss and we got a new goal to make TOMOYO merged

- "Community" has set the goal of an Enterprise project

DEBUT TO THE WORLD

- We worked hard and presented at ELC2007 and OLS2007

- We subscribed to LKML (ml spool exploded)

- When we joined, AppArmor people were proposing (it was unfortunate for us ;-)

- Our lives suddenly became hard and exciting

Hard days night

```
while (1) {
  discuss;
  code;
  post;
  if (feedback) {
    depressed;
  } else {
    depressed;
  }
}
```

- "code" belongs to the world of programming
- "discuss" belongs to the world of human
- "feedback" belongs to the world of God
- "depressed" belongs to us

- It is interesting that just a three men can hardly agree with things

WHY COULD WE REPEAT THIS 15 TIMES?

- Any idea?

WHY COULD WE REPEAT THIS 15 TIMES?

- We were hopeless, but we believed in what we were doing

- We knew we were doing the right thing

- Experiences were stored internally and invisibly

- Human can learn from experiences and Open Source projects are full of opportunities

He had discovered a great law of human action, without knowing it --- namely, that in order to make a man or a boy covet a thing, it is only necessary to make the thing difficult to attain.

-- Mark Twain

Everybody has talent, it's just a matter of moving around until you've discovered what it is.

-- George Lucas

What you get by achieving your goals is not as important as what you become by achieving your goals.

--Johann Wolfgang von Goethe

An Unbelievable leap

- TOMOYO has been merged in 2.6.30
- It was an unrecognizable step, but an unbelievable leap for us

APPRECIATION TO ENTERPRISE

- I prepared a special certificate for NTT DATA CORPORATION as I felt showing appreciation is so important

- Without the support by the company, we could not develop TOMOYO Linux

- I handed the certificate to the CTO of NTT DATA CORPORATION

CTO

感 謝 状

株式会社NTTデータ殿

あなたは直接的には自社の利益につながらないLinuxのセキュリティ強化の取り組みについて辛抱強くその活動を見守り、日本からの貢献を実現しました。
その功績は誠に大であり、ここに表彰します。

平成21年7月3日

TOMOYO Linux プロジェクト

原田季栄

http://sourceforge.jp/projects/tomoyo/wiki/ThankYou

NTT DATA
CORPORATION, you
have patiently
supported an open
source project which
may not be able to
directly benefit your
company ...

TOMOYO Linux project
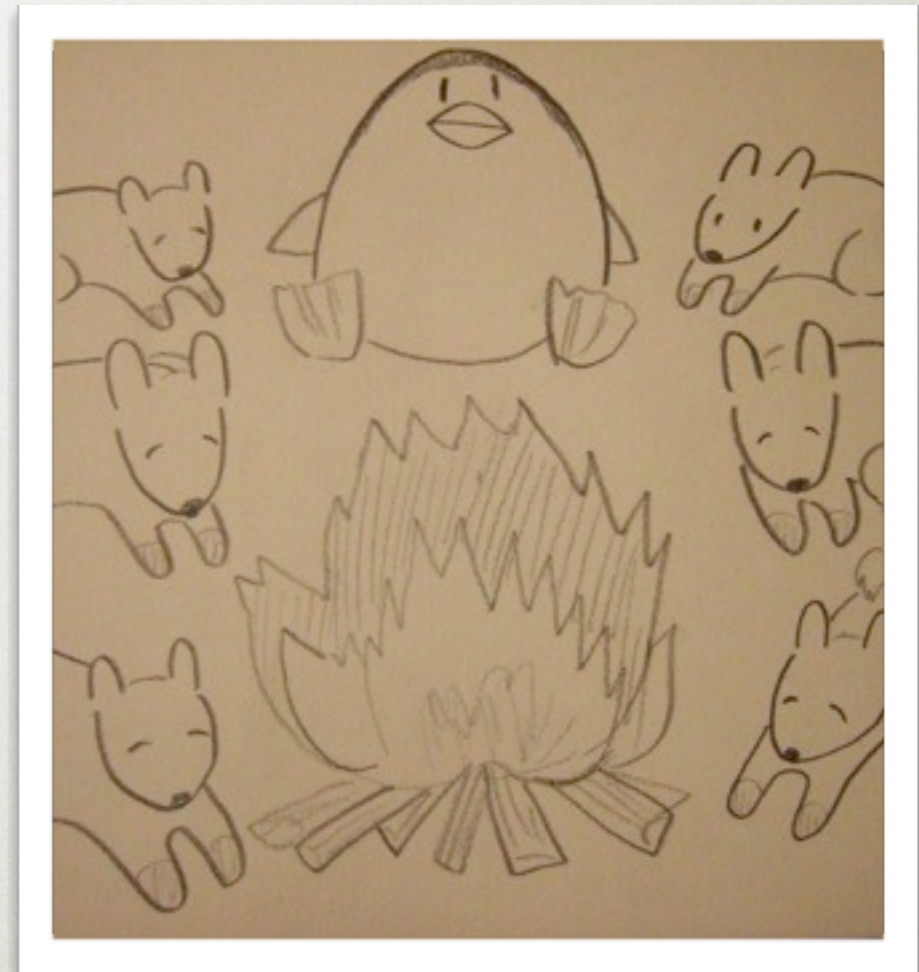manager, Toshiharu
Harada

CTO

LEADERSHIP

THERE IS NO ANSWER

- I just tried to be faithful and honest

- I trusted and respected the members

Relationship

- In an Open Source project, members get to work closely compared to an ordinary Enterprise project
  - They learn to have an opinion and express it
 - Communication is activated than usual
  - Roles are gradually conformed

- Role of project manager varies in accordance with the stage
  - a leader
  - a chairman
  - a person to claim for Enterprise
- Project manager needs to find or invent ones role
  - if one fails to find a role, a life will be painful

Role of project manager

- Take orders and report activities
- Simultaneously judge the status and make a decision (flexibility is an important factor)
- Play and serve project as a member
- Keep project members' motivation high and try try to self-motivate

What makes manager special?
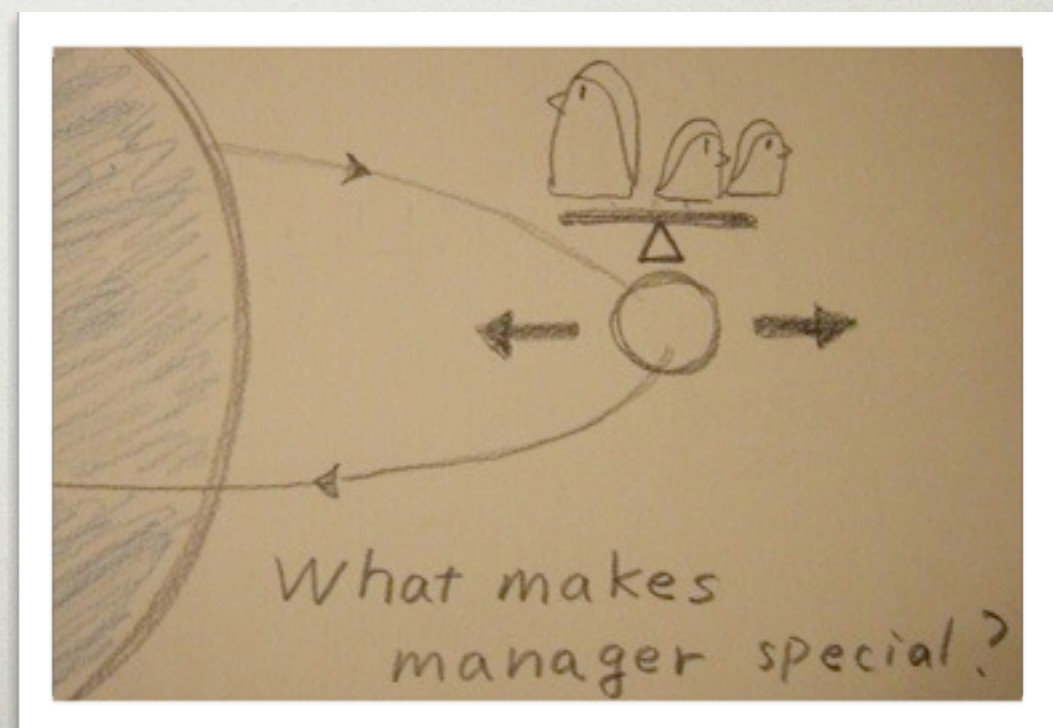
A brand for a company is like a reputation for a person. You earn reputation by trying to do hard things well.

--Jeff Bezos

Leaders are more powerful role models when they learn than when they teach.

-- Rosabeth Moss Kanter

I start with the premise that the function of leadership is to produce more leaders, not more followers.

-- Ralph Nader

Good leaders must first become good servants.

-- Robert Greenleaf

DEAR ENTERPRISE

A MESSAGE FROM AN ANONYMOUS
PROJECT MANAGER

NOTICE INVISIBLE ESSENTIALS

*"Anything essential is invisible to the eyes,"
the little prince repeated, in order to
remember.*

-- Antoine de Saint-Exupery, "The Little
Prince", translated from the French by
Richard Howard

A GREAT AND UNFORGETTABLE CHALLENGE

We choose to go to the moon. We choose to go to the moon... (interrupted by applause) we choose to go to the moon in this decade and do the other things, not because they are easy, but because they are hard...

-- John F. Kennedy

- What important was not a rock of the moon
- True results are within each of "us"
- The merge of TOMOYO was an accomplish, but it was not all
- The project members and I are no longer the same before the project
- Invisible and invaluable changes

- The world of "Open Source" seems to be an wild jungle and it sure is

- It is not a perfect world, but great treasures are hidden and wait for challengers

- We are standing in the new era and Enterprise should make a "giant leap"

- Welcome aboard

Time to begin, time to change

O God, give us serenity to accept what cannot be changed, courage to change what should be changed, and wisdom to distinguish the one from the other.

-- Reinhold Niebuhr

Time to begin, time to change

Change before you have to.

-- Jack Welch

Trademarks

- Linux is a trademark of Linus Torvalds in the united states and other countries
- TOMOYO is a trademark of NTT DATA CORPORATION

OTHER ISSUES

Belongingness

- Upon encountering with the spirit of Open Source, the crew got influence

- Understanding Open Source way and spirit somehow compromise project members' sense of belongingness to Enterprise

Performance Evaluation (project)

- Enterprise has a complete system
  - Project manager just follows the procedure
- How about an Open Source project?
  - Activities and performance of Open Source projects are hard to measure for Enterprise
  - Open Source projects have an unique feature that activities and performance can be observed in outer Enterprise

Performance Evaluation (individual)

- Enterprise has a complete system
  - Employee gets rating and feedbacks for their roles and jobs (quantitatively-modeled)
  - Salary and bonus are calculated by equations
- When working in an Open Source project
  - Each individual can receive feedbacks from members and community
  - Those feedbacks includes variety of things (aspects) and have nothing to do with money

CONCLUSION

What is project manager?

- A person who cares his/her project and its members

- I'm glad I was assigned as an Open Source project manager

WHAT IS LINUX?

- Linux is not just the source code, but the people who collaborate and the system
- Linux is great because the people are great
- I am so glad to participate

REFERENCES

- *"Managing Open Source Projects: A Wiley Tech Brief (Wiley Tech Brief Series) "* by Jan Sandred

  - A great introduction for managing open source projects strongly recommended

  - http://www.wiley.com/legacy/compbooks/sandred/

- *"Producing Open Source Software"* by Karl Fogel (paper and on-line)

  - http://producingoss.com/

  - Another recommendation

ACKNOWLEDGEMENT

- The graphic image of the universe was taken from a program **Mitaka plus** which is an enhanced version of **Mitaka**. How wonderful it is to visit the space from my desktop! Please find a time to visit their web pages and see with your eyes.

  - http://4d2u.nao.ac.jp/english/index.html

  - http://orihalcon.jp/mitakaplus/index_e.html