Participation into Upstream OSS Development

TAKASHI KUNAI, Technical Adivisor, Linux Foundation Japan

The 15th NEA OSS Promotion Forum in Cheju

Profile

- ~2000   OS (Mainframe, UNIX, etc.) Development at Fujitsu
- 2001~2005 Linux Dev & Promotion in Fujitsu
- 2006   Head of Open Source Development Lab
-            (OSDL) Japan
- 2007~2011 Head of the Linux Foundation (LF) Japan
- 2011~   Technical Advisor of LF Japan

* Contributions to Japan OSS Promotion Forum including OSS Licensing Analysis, Linux / Windows TCO Compa- rison, etc.

Stages of OSS Matuarity

Stage 1:

OSS Users

Stage 2:

OSS Biz / Product

Stage 3:

Participation
&
Contribution

Many Companies have reached to Stage 3 in these 10 years

Participation is not Duty, but...

"To be a part of Global Open Innovation (?)"

<Reason for Participation>

   Inovative Hardware / Applications not possible with OSS as is

   In-house modifications of OSS is possible, but not sustainable
         without Upstream Participation

   Successful Code Submission to UPSTREAM causes;
               - Reduction of Costs for repeated modification and testing
               - Code Optimization
 UPSTREAM FIRST rather than in-house Modifications

Obstacles to Asian Developers

Language Barrier
- Codes can speak for smaller patches, but ..
- Ever lasting DEBATE for new features
    which enable Enterprise adoptions of Linux Servers

Cultural Gap between OSS Communities and Japanese Companies
- ex. Linus was said to be against OS debugging featues
    such as Trace or Memory Dump, but ...
- ex. Linux Community Leaders noted "OSDL needs to educate
    Japanese Vendors"

Construct Bridges
between Communities and Companies

OSDL was nicely positioned
- Participants from US/Japanese IT Vendors
- Hired Linus and Andrew in 2005 and accepted advises from Community

2006, OSDL Japan started "Japan Linux Symposium"
- 1 day event / 3 times a year
- Invited Linux Community Leaders
- Japanese Developers explained their ideas in "English"

Later, grown to LF LinuxCons (Japan, North America, Europe)
- Most important means to gather community & company developers together
- 3 day event / once a year

How was Consequences ?

Increase of Contributions from Asian Company Developers
     ->Next Slide

Community gradually changed (or, simply turned out to be)
     - Linux Community needed Asian Development Resources
     - Enough flexible to accept Companies` needs
          from Small Embedded Systems to Enterprise Servers
          wider Coverage than Windows
     - Good Leaders are always nice gentlemen

Companies Contributing to Linux Kernel (1)

Linux Kernel 2.6.11~2.6.24 (2005/3~2008/1)

Rank	Company Name	% of Total Patches
1	Red Hat	11.2
2	Novell	8.9
3	IBM	8.3
4	Intel	4.1
5	LF	3.5
14	Renesas	0.9
22	Fujitsu	0.5

From LF White Paper "Who Writes Linux (2008)"

Companies Contributing to Linux Kernel (2)

Linux Kernel 2.6.39~2.6.35 (2009/6~2010/8) Linux Kernel 3.11~3.18 (2012/9~2014/12)

Rank	Company Name	% of Total Patches
1	Red Hat	12.0
2	Intel	7.8
3	Novell	5.0
4	IBM	4.8
5	Nokia	2.3
6	Renesas	2.0
8	Fujitsu	1.7
18	NTT	0.8
24	Samsung	0.6

Rank	Company Name	% of Total Patches
1	Intel	10.5
2	Red Hat	8.4
3	Linaro	5.6
4	Samsung	4.4
5	IBM	3.2
11	Renesas	2.1
19	Huawei	1.0
24	Fujitsu	0.7

From LF White Paper "Who Writes Linux (2010&2015)"

Looking Forward

Open Innovation Further Expands
- LF hosts around 60 Global OSS Projects
  - AGL : Automotive Grade Linux
  - ALLSEEN ALLIANCE : IoT
  - DroneCode : Drone Controller
  - HYPERLEDGER : Block Chain Technology

Critical Contributions from Asian Companies
- Producing New Projects
- Project Maintainers / Leaders
===Inventing Truely Innovative Hardware / Applications===

Talented OSS Developers / Leaders in Demand
- More Industries participate into OSS Developments
- Community Recognition should be reflected in Promotion and Salary
- Mobility of Top OSS Developers unavoidable

感謝