

The 7th Northeast Asia Open Source Software  
Promotion Forum Keynote Report

**Development of Open Source Software in China**

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# The Rise of Open Source (1)

- There are some new trends of software technology and business, such as the development of Internet (particularly the rise of WEB 2.0), the popularity of open standards, the application of virtualization technology, the promotion of some new business: hosting, lease and tenant, as well as the development of other similar business: software as a service (SaaS), service-oriented architecture (SOA), application service provider (ASP), Outsourcing, etc. These all provide Open Source a favorable external environment.
- The reason of why open source software is better than private commercial software is its open, low-cost, flexibility, security, and not entire dependence on software providers. Much original open source software has some advanced community development mechanisms and its technological innovation is also in front rank.

## The Rise of Open Source (2)

- With the maturity of open source technology, it has made a challenge to the private commercial software. Open Source is becoming a mainstream software mode, continually changing the development path of the world software industry and bringing some developing opportunities to China software industry as well.
- Since 2004, Northeast Asia Open Source Software Promotion Forum, co-originated by China, Japan and Korea, is a platform for regional communication, exchanges, sharing and cooperation to promote open source software industry. This year is the 7th session and has achieved fruitful results and some beneficial influences on the three countries and even the whole world.

# Linux Development around the world

- On Internet, Linux and open source software has many advantages
- In the server field, Linux has become one of the mainstream operating systems.
- In the field of the desktop, the Linux market share is still very low, whose development depends on the third-party support of driver and application; the development of consumer *Linux Desktop* is more difficult than that of enterprise *Linux Desktop*; the development of portable PC (such as MID) has posed a challenge to the desktop PC, and the Moblin-based (a community) Linux release version replaces the *Linux desktop* version, and makes great progress.
- In the field of mobile embedded system (for instance, mobile phone), the use of Linux embedded system is increasing amazingly.

# Linux Development in China (1)

- In 2007, Linux annual sale growth rate in China is 27%. The technology of Linux operating system in China is maturing gradually and the market of Linux has transferred from the fields of government and education to the fields of business, finance, postal services, telecommunications, railways, electricity, Oil, public security, aviation and other big markets.
- Presently, more than 50 open source communities in China have appeared, of which 12% develop healthily and productively; 8% belong to the communities of research, consulting and training; 10% get on the right track and produce fruit; 70% also need to be rectified. In February, 2008, COPU and the international Linux Foundation co-organized *2008 Beijing Linux Developers Symposium*. The Chinese elites and international specialists in open source community discuss together, and the original research results of Chinese elites bring great influence. China has also held open source software competition three times, involving 29 provinces and cities, 15 Software Park, and 20,000 people. Now we are changing from the role of international community resources consumer to that of the contributors.

## Linux Development in China (2)

- China has emerged a group of internationally recognized Linux company, and millions of pre-installed OEM agreements have been signed with Dell, HP, ASUS, HEDY, LENOVO, HASEE, XINLAN, Malata and Great Wall. The Lemote's self-developed Linux PC(loongson 2E/2F CPU and Linux OS provided by SWL, RedFlag and Co-Create) has started to produce in great quantity. Until now, 20,000 PCs have been produced, and 100,000 PCs are in producing according to the contracts. RedFlag /Asianux cooperates with Intel to develop Mobile Internet Device (MID, a portable PC). For build the Linux eco-system, RedFlag has signed OEM agreements with BenQ, LENOVO, AIGO and Hitachi, has signed cooperative agreements with the 3rd party of drivers and applications development providers like Tencent, Great Wisdom and Lingtu. By the end of 2008, 110,000 units will be put in the market.

# OSS Development in China (1)

- Open Source Software Middleware: the OSS Middleware (Apusic, community version) produced by Kingdee has been downloaded 50,000 times on line and the application server software based on Apusic is still in developing. Other OSS Middleware, like Apache, JBOSS and JonAS, also has been applied a lot. In 2005, the application of Apache accounted for 17.65%, which is the second from the bottom in the world. In September 2007, the Apache in China market share reached to 24.22% and its position in the world also raised a lot.
- OSS DBMS: In 2006, 2.5 million units MySQL of community versions were downloaded online, which accounted for 22.7% share in the world. 800 units MySQL of commercial versions were sold, which accounted for 0.7% share in the world. In 2007, 1500 units MySQL of commercial versions were sold with the sales figure of 17.6 million yuan, and the annual growth was 120%. As for the domestic DBMS companies, like Dameng and Kingbase, they are still on their first step.

## OSS Development in China (2)

- Open Office suite: Steve Ballmer, CEO of Microsoft, said that Microsoft was not afraid of Google, but Open Office and Star Office are the real challenge of Microsoft. At the beginning of November this year, Open Office.org will hold the annual meeting in China. Redflag2000 will release Open Office and Red Office. The Chinese customers have shifted their focus to the independently developed Office suite since Microsoft started verification process aimed at Windows XP (professional) and Office in November 21, 2008. Therefore from November 13 to 21, only the download of *Yongzhong integrated Office 2009 (Individual for free)* has reached to 2.4 millions.
- The application of PHP free program language in China ranked the fourth from the bottom in the world, but it extraordinarily increased in 2007 and ranked middle in 175 countries and regions. As chairman of COPU, I was invited to participate in China-Japan signature ceremony for PHP enterprise cooperation agreement.
- The use rates of OSS developing environment/ Eclipse JDT (Java developing tool) are 50%~60% .

# High-end Application of Linux and Compatibility of Linux and Windows

- 2008 Cloud computing and Trusted Computing Architecture Technology Summit was co-organized by COPU and China Trusted Computing Alliance in November 14~17. Many issues were discussed by senior experts in this meeting, for example, Cloud computing, grid computing, high-performance computing, virtual computing and security issues, particularly, the credibility of the calculation, as well as the use of Linux as a platform to support its high-end applications. The experts from IBM, Google, HP, Intel, EMC, Microsoft, the European Union, the University of Texas, Beijing University, Wuhan University, Fudan University, Investor Company all participated in the discussions. At present, cloud computing is rising in China, and the trusted Computing is on its first step.
- This year, we organized research and testing about the interoperability of UOF, ODF and OOXML with domestic universities, research institutions, enterprises and Microsoft Corporation. We also plan to improve the interoperability of Open Office, domestic office suite and Microsoft Office 2007, including the opening of API, protocol, arithmetic, and the handling of intellectual property issues.

# Domestic Application Situation of Linux and Open Source Softwares(1)

- The most important thing is promoting the application of Linux and Open Source Software. Not only should we insist on the open property of OSS software (If this violates the requirement of license, please revised the open source code and issue it again, and it is illegal to stop or change the open spreading direction.), but also we should point out that OSS products are able to have commercial mode, and the precondition is that the open property is not changed.
- The technical weakness of domestic Linux and OSS products is lack of engineering technology or production technology. We should go further with production technology development, on the basis of keeping the original development method of OSS communities. Engineering technology consists of Engineering Experience, Know How, Quality Certification, UI Design (for improving product usability), Industry Design, Location-based technology, Bug Fix/Patch, Consistent Support, and the Optimize Configuration of various software modules. The engineering technology represents whether people have the correct knowledge about the Open Source Project (which is developed by community and has no business model) and the Open Source Product (which is developed by enterprise or distributor and has business model), as well as how about the industry level of enterprise.

# Domestic Application Situation of Linux and Open Source Softwares(2)

- PC enterprises signed the pre-install agreement with domestic Linux distributors (enterprises) in OEM way. According to our survey, there is a high proportion of users uninstall the Linux OS. This problem needs certain measure to solve.
- We also plan to call on a group of large customers (finance, telecommunication, energy, railroad and so on) to hold a meeting this year, in order to expand the use of Linux and open source software or make them enter the high-end application. The distributors will listen to the user's needs at the meeting, communicate and improve their services. We also intend to invite the distributors to introduce some successful use cases, to eliminate the users misunderstanding of promotion and application of open source software.
- Support the adoption of Mixed Source Stack based on the user's actual requirements in providing the application solutions, as well as strongly recommend the LAMP solution (Open Source Stack).

# OSS Talent Training

- The Ministry of Education will build 56 open source software education and training centers and accept open source software as the formal university education courses.
- Two non-governmental organizations, the Leadership of Open Source University Promotion Alliance (LUPA, Zhejiang) and the Guangdong Linux Center (GDLC) will carry out Linux and open source software education and training in about 100 colleges under the local financial support, using different teaching materials in different semesters and ways.
- China is now carrying out Linux and open source education and training to enterprises, schools and communities in collaboration with Red Hat, Intel, LPI and other foreign enterprises and institutions.
- Many open source companies, communities and schools launch their own internal Linux and open source education and training.
- Co-Create Software League organizes national open source software competitions in concert with local government and national software parks.

# Support and Implement the WGs' achievements in CJK Forum

- The main achievement of WG1: Distributed Resources and Information Management, the Linux Kernel Regression Test, public service web compatibility evaluation, web interoperation solution, etc; The main achievement of WG2: Perfect NEA HED analysis report of OSS technology education training system and relative suggestions; The main achievement of WG3: Input Method Engine Service Provider Interface. For the main achievement, we will organize and coordinate domestic enterprises to carry out or make them as working reference.

# Make Progress in Promoting SaaS and SOA(1)

- This task was raised in the 6th CJK IT DG's statement, and COPU seriously and carefully organized relative enterprises to carry out it.
- According to the report issued by *Analysys*, in the 4th quarter of 2007, the overall size of the SaaS market reached to 2.3 billion (RMB), as far as *CCID Consulting* report, the SME market will increase new market growth rate under the drive of the SaaS model. Nevertheless, generally speaking, China is just on the first step in the aspects of SaaS business. And as for the so-called SME market SaaS model, their customization ability is very weak, and they mainly face the low-end enterprise customers and the majority still remain in the primary mode: commerce agent. Seeing a number of domestic enterprises in the realization of SaaS leasing model, we can realize there is few enterprises can carry out a single, multi-tenant, customized high-level SaaS service system. A number of companies can only implement a single sharing on simple multi-tenant Web level, but can not achieved at the level of multi-tenant application of information security and isolation in the underlying database (tenants can not afford to modify their own databases). Moreover, their customization ability is a little bit weak, and they are not able to realize user customization in the aspects of key business processes and database associated operation. There is a long way for promoting the development of SaaS in China, so we have to be responsible and endeavor to do it. However, we can see that many new SaaS service system based on OSS operating system, OSS database and OSS middleware. These systems make use of OSS to decrease the system cost and make the software copyright control power to the service-end, realizing authority copyright in service-end and reducing users' IP rights risk.

## Make Progress in Promoting SaaS and SOA (2)

- The implementation of SOA has also started, and generally speaking, the multinational companies which have branches in China (IBM, Microsoft, Oracle, etc.) develop well; for some large-scale systems integrators (Digital China, Founder, etc.), most of them are in the stage of giving solution lectures to users, and don't have too many successful cases; as for the majority of small and medium enterprises, most of them are in the stage of study. The breakthrough of SOA doesn't depend on the techniques, but on innovation, therefore we have to practice and find the core business. In a word, the effective promotion of SOA still needs us to endeavor continually.

# OSS International Cooperation

- Open source software can not develop without international cooperation. International cooperation promotes the development of China OSS, and our international cooperation has our own characteristics. The main cooperative projects include:
  - China-Japan-Korea OSS Promotion Forum
  - China-France OSS Cooperation
  - China-Russia OSS Cooperation
  - China-Finland OSS Cooperation
  - (China-UN OSS Cooperation (Qualipso, OW2))
  - Cooperation between COPU and the Linux Foundation
  - Cooperation between China and international communities: Apache, MySQL, Firefox, Eclips, Open Office.org, etc.
  - COPU employed global OSS leaders and senior masters to form think-tank
  - COPU makes more than 20 IT multinational corporations which have braches in China become the members of the Union and cooperates with them

# Spring of OSS(1)

- In the world, OSS technology is getting mature and becomes a mainstream mode
- Gartner in the survey and analysis company believes: many OSS technologies are mature and stable, and the user can access to good technical support. In 2012, open source software technical factors will account for 80% in all commercial software, when open source software will be widely used around the world
- According to *The Report of 2008 International OSS Business Conference*, In the next five years, OSS business model, i.e. Subscription, will gradually replace traditional license sales model of private commercial software, becoming a mainstream model. Customization model also belongs to software *as a service* (SaaS) business model.

## Spring of OSS(2)

- The world is welcoming the spring of OSS
- In China, OSS has crossed the early stage of imitated learning, and the OSS technology is getting mature. The rise of OSS begins to form a trend
- China-Japan-Korea OSS Forum with the tenet of combination of government and non-government organization, sincere cooperation, practical promotion and rich of vigor and energy, has achieved some fruitful results and good influence on the countries and even the whole world. In the future, we should ascend another storey in order to make a greater contribution to OSS enterprise in Northeast Asia and the whole world.



**Thank you!**