



**"Salem to Shanghai: Open Source Opportunities"
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Thank you for the invitation to talk about the new open source opportunities in the global networked economy.

My colleagues from Red Hat and I welcome every chance to talk about this subject because new opportunities in technology is what created our company.

I am also grateful for the chance to visit with public sector leaders from across the US and abroad. You are on the front lines trying to find innovative technology solutions to make government quicker and more responsive to the needs of your citizens.

Together we can improve government services by unleashing the full power of networking technology. To do that, we need to remove obstacles that inhibit that full power. I believe that the Open Source Software model will do just that.

With the Open Source Software – or OSS – model, companies do not wrap their software innovations in a cloak of proprietary or patent-protection. Instead, they make their software code available – under appropriate copyright protection – where the software can be built on and improved by others in an environment of collaboration.

Fostering collaboration is a critical element of the OSS model. Linux, an open source operating system, was developed by Linus Torvalds when he was a graduate student in Finland. Linus shared his operating system with others over the World Wide Web, and his fellow programmers began adding to the kernel and sending Linus modifications. Today, approximately 750,000 developers across the globe work on Linux and other open source applications. This collaboration nature of OSS makes the technological advancements in the software come faster and more cost-effectively, while protecting the originator of the software innovation through copyright.

Think for a moment about the common sense of collaboration. No one person or company has all the answers or all of the good ideas – no matter what product or industry we are talking about. A

community of talented people melding their perspectives, experiences and ideas to build upon one another's work will always make a better product than someone trying to do it alone.

Take for instance the telephone network in this country. The United States telephone network was built by a single large monopoly we called The Bell System during the first half of the 20th Century. By government decree, this monopoly alone was responsible for maintaining and upgrading the network.

While the telephone network was always reliable, it was very very slow to adopt new technologies and changes. As a result, private entrepreneurs began to build data networks to accommodate the rising tide of computer traffic in the 1980's and the Internet in the 1990's.

Only after the The Bell System monopoly was broken up, did it begin to incorporate many of the changes needed to update its network and to do so at a competitive pace.

I use this example to make the point that today's global networked

economy -- can be – and will be – better served by an environment of collaboration than one in which any single company dominates through monopolistic practices.

Among the key players in the building momentum of OSS are the governments of the world. As more and more of them understand the compelling benefits of OSS, they become driving forces in removing impediments to its deployment. For example, in the last few months, India's parliament struck down software patent legislation, the EU Parliament voted down a directive to implement software patents, and the US Congress is considering major patent reform.

This is significant since some people and companies regularly abuse the patent system. They apply for and get patents for the most simple of software upgrades. That is not what the patent system was meant to protect, and the end result is a monopolistic hold on software code and the stifling of innovation.

Imagine if one company had been able to patent – and thereby keep secret – the basic engineering concepts for putting up a building. How much longer and how much harder would it have been to realize

the improvements to those concepts that led to the building of skyscrapers like the Petronas Towers?

Governments around the globe want OSS so they can speed up technological advancement and the economic benefits it brings. So, as we look around the world, there is significant activity in the public policy arena. Governments are getting more and more active in proposing OSS-based solutions because they believe it is a way for them to

- become competitive in this marketplace worldwide;
- encourage an indigenous software industry;
- fulfill a commitment to the 'informatization' of society;
- reduce the cost of IT purchases.

Many countries are unhappy with the United States' lead in the software industry. Governments view OSS as the way to compete in the software industry and also to insure that their needs are met by software companies. India, for example, has numerous local dialects. With proprietary software, Indian citizens must wait for the software vendor to create a version of the software in each dialect. With OSS, Indian citizens can assemble a team of developers and translate the

software themselves. That is why many governments are making decisions today about whether to require the consideration of OSS and reward a preference to it.

In several countries, government procurement laws are based increasingly on economic development decisions. Countries favor OSS because they believe they can create jobs by developing native open source companies which will lead to cheaper costs and provide a competitive response to companies that promote proprietary software codes. In March, China released its domestic software procurement policy that gave a preference to domestically-produced software. While proprietary companies without a significant China presence were excluded from the preference, OSS was included.

In other countries, governments want OSS to make technology more accessible to their citizens. Some countries provide software directly to its citizens by developing their own OSS distributions. Both China and Brazil have created their own versions of Linux to distribute for negligible prices to their populations. The Indian government recently announced it would set up an OSS center to develop free software for its people and cut personal computer prices. In the Moroccan

government, several agencies use OSS and have developed their own OSS applications.

Many governments also choose OSS because they believe that it is more inexpensive than proprietary software. In May, Spain's regional government of Valencia announced that it will move to OSS because of its democratic duty as a public administration to save \$ on software. In August, the French region of Auvergne announced its plans to distribute 64,000 CD packs with OSS to secondary school students as the school year begins in September.

Governments from Argentina to Vietnam have now introduced over 125 National Open Source Policies into the public policy arena either by

- 1) Executive order;
- 2) Legislative action;
- 3) Gov't CIO mandate;
- 4) and the most powerful of all, Grassroots initiatives.

Over 160 federal, regional, state and local governments are using open source software to run applications, entire agencies, and even

entire governments. This is critical to the OSS movement because the decisions made by these governments influence the businesses and individuals who interact with government.

In Brazil, adoption of OSS is happening very quickly. At least five of the government ministries have moved to OSS, and President Lula plans to mandate the use of OSS in all federal government agencies. Lula is also providing incentives to regional and local governments to switch to OSS. In Venezuela, President Chavez has signed a decree mandating the move to Open Source. The decree says that all Government institutions (26 ministries, 556 entities overall) must present a "migration plan" by the end of October.

In South Korea, the Ministry of Information and Communication said it will provide a total of 3 billion won (US\$2.95 million) for government agencies which want to use the Linux and other open-source computer programs this year. In July, the South Korean government announced that it would introduce the New Education Information System, an open source platform it developed based on the Korean Linux version called Buyeo, to 10,000 schools with rollout planned for the entire nation.

OSS adoption is also sweeping across Europe. In March, Spain announced the creation of the National Centre for Open Source Software to coordinate OSS developments across administrative layers and across the country. Munich, Germany, and Vienna, Austria, are in the process of moving to OSS. The United Kingdom government plans to fund an initiative, known as the Open Source Academy, to accelerate the use of OSS within the public sector. In June, Norway's IT minister announced the country's plans to convert the entire public sector to OSS. Norway will have migration plans in place by the beginning of 2006.

OSS is also prominent in Australia, where the government released an OSS guide to government agencies to assist them in switching to OSS to further Australia's e-government strategy of "Better Services, Better Government". In fact, Australia's government chose not to mandate the use of OSS in part because they were afraid that demand would outstrip industry's ability to supply OSS products.

So what does the future hold and how will it impact the global network economy? Well, if the present is any indication, the future looks

pretty bright to me. I don't know if any of you have read Tom Friedman's latest book, *The World Is Flat...* if you haven't, you should because it's an excellent book. If you have, you will recall that he devotes one full chapter to OSS and its positive impact on the present and the future.

What my company, Red Hat, and others are doing today in a collaborative spirit like the one I described earlier, is planting the open source seeds today for much wider use tomorrow. This will allow customers everywhere to have many more choices as open source moves up the stack.

So all in all, there is no doubt that OSS is a key factor in defining opportunity in the next generation of the global network and equally no doubt that governments will have a lot of influence in this space. As I have the opportunity to meet with and work with leaders in business, government and education all over the world, there is no doubt in my mind that OSS will play a critical role in building the global networked economy. Thank you.