

Open-Source: The Future of Software?

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“I have a vested interest in the future,
because I plan on living there.”

Neil Gershenfeld, MIT Media Lab

“The future is here.
It's just unevenly distributed.”

William Gibson, author

Recent Open-Source Developments

Interesting Times Ahead

- Mah Police tender: 1,500 PCs running Linux with Devnagari
- Indian govt (CDAC, NCST) release Linux in 5 languages
- Red Hat revenues up 36% last quarter; profitable
- Sun releases Java Desktop System
- Virus fear could hurt Windows (WSJ headline)
- Novell buys Ximian
- China, Korea, Japan working on open-source Asian OS
- Brazil recommends Linux in government
- Munich shifts 14,000 desktops to Linux
- Nutch: an open-source search engine under development
- Chandler: next-generation PIM (Mitch Kapor)
- Lindows PCs for USD 169-199

Information Flow

My Presentation

- Our Open-Source Usage and Experience
- Open-Source as Business
- Open-Source in India
- Open-Source and Affordable Computing
- Opportunity: SME Market
- Open-Source Project Ideas

Netcore Solutions

Engineering Tech's Next Revolution

- Creating disruptive innovations to bridge the digital divide in technology's next markets
 - Next set of opportunities will be driven by the twin themes of Utility and Affordability
 - Use new and emerging innovations to build Affordable Tech Utilities
- Focus: SMEs and Rural Markets
 - Pragatee, Emergic (Affordable Computing Solutions)
 - Deeshaa (Rural Infrastructure and Services Commons)
 - BlogStreet (Weblogs, RSS, Publish-Subscribe Web)

Open Source Software in IW and Netcore

Users since 1994

- IndiaWorld (1994-2000)
 - All websites built on Intel+Linux platform
 - Samachar.com, Khel.com, Khoj.com, Bawarchi.com
 - Hosted 150+ corporate websites
- Netcore (1998-present)
 - MailServ: Email, IM, Proxy, Firewall, Anti-Virus, Global Address Book – on Linux
 - 200+ corporate customers, 500+ locations
 - Thin Client-Thick Server Computing within our office
 - Pragatee and Emergic on Linux
 - Support for IndLinux for language computing on Linux



- All-In-One, Affordable Server
- Messaging and Security
 - Email, Proxy Server, Firewall, Anti-Spam, Anti-Virus
- Desktop Computing
 - File and Print Server
- Information Management
 - Digital Dashboard
- Business Applications
 - Accounting, CRM, Database, Reports Generator
- Support and Services



- Suite of specialised, affordable software solutions for SMEs
- Vision: “a connected computer on every desktop”
- Enables SMEs to become intelligent, real-time enterprises.

- Messaging and Security: Emergic MailServ
- Desktop Computing: Emergic Freedom
- Information Management: Emergic Topsight
 - Traction, Digital Dashboard, Events Horizon, Info Aggregator
- Business Applications: Emergic Enterprise
 - Integrated eBusiness suite, Visual Biz-ic, Forms Designer
- Support and Services: Emergic Services

Our Experience

Open-Source Everywhere!

- Linux/Open-Source offers more than cost savings
 - Freedom, Flexibility; Platform to build a business on
 - Set of commodity software components that can be put together for different purposes
- Open-Source Software is more than Linux
 - Sendmail, Apache, MySQL, PostgreSQL, LTSP
 - JBoss, SQL-Ledger, OpenCRM, SpamAssassin
 - Evolution, OpenOffice, Mozilla, KDE/Gnome, GAIM

In Our Office

Linux Desktops

- Linux on the desktop is a reality
 - Email, Web Browser, Office Suite, IM Client, PDF Reader/Writer, File Manager
- Server-centric computing
 - Thin Clients (old, low-cost PCs) with Thick Server
 - Simplified Administration
 - OpenOffice can read/write MS-Office file formats
 - Virus-free, spam-free environment!

Open-Source as Business

Is there Money to be Made?

- Open-Source as the operating platform
 - eBay, Amazon, Yahoo, Google
- Open-Source products, solutions and support
 - IBM, HP, Dell, Red Hat, Suse, Sun
 - MySQL, JBoss Group, Codeweaver
 - Six Apart (MovableType and TypePad)
- Open-Source ancillary services
 - Lindows (hardware integration, software subs.)
 - O'Reilly (books and conferences)

Open-Source in India

Too Little, Too Slow, But...

- Software Market: Piracy and Non-consumption
- Server-side usage increasing
- Open Office on desktops
- Lack of Government support
- Windows/Office hardwired into school curriculum
- Lack of a packaged software distribution network

- Need to shift from consumption to production
- Software development opportunity - can we lead the world?
- Colleges as focal points for change
- Enabler of the New, Emerging India

The Great Leap

Driving Innovation from the Bottom

- Disruptive Innovations compete against nonconsumption – that is, they offer a product or service to people who would otherwise be left out entirely or poorly served by existing products and who are therefore quite happy to have a simpler, more modest version of what is available in the high-end markets.

- Stuart Hart and Clayton Christensen (Sloan Management Review)

Is Open-Source Software a Disruptive Innovation?

OSS and Affordable Computing

Targeting the Next Billion Users

- Opportunity to build the next computing platform
- Disruptive Innovations for the next users
 - SMEs, Individuals / Families in Emerging Markets, Rural
 - Focus not on competition, but non-consumption
 - R&D Costs have to be minimal
 - Lag hardware by one generation; use latest software
 - From India to other emerging markets
- Low-Cost Computers
- Server-centric Computing
- Linux and Open-Source Software
- Localisation (Language Support)
- Remote Server Management

Opportunity: SME Problem Statement

3 million in India; 75 million globally

- SMEs are caught in two traps: technology and marketing
- Computing is still expensive
- Business benefits of using technology are still not clear to most SMEs
- As a result, SMEs use very little of computing – hardware and software
- SMEs do not have access to real-time information
- Supporting and managing technology is still a challenge
- There is no easy way to sell software to SMEs
- SMEs find it hard to find other SMEs for tapping business opportunities

Solution Outline: SME Tech Utility

Need for Co-ordinated Action

- Demonstrate how connected computers and the Internet can help SME business
- Create/propose a reference IT architecture for enabling intelligent, real-time SMEs
- A connected computer for every employee for less than Rs 500 per month
- Integrated Software Bundles, built around “only handle information once”
- Development platform for ISVs to build vertical / local solutions
- Managed services to remotely manage IT at SMEs
- A virtual marketing and connection mechanism for SMEs

7 SME Innovations

Each is an OSS Business Opportunity

- All-In-One Server-Software Solution
- Rs 2,500 Thin Client (Rs 5,000 with monitor)
- New Desktop
- Visual Biz-ic
- Social Network Software
- Information Marketplace
- Software Distribution Network

Simplicity, Affordability, Integrated, Managed

Open-Source Project Ideas

From Consumption to Production

- VMWare-clone: Run Linux and Windows on the same server
- Windows Terminal Services Clone
- Reverse-engineer Tally File Formats!
- New Desktop / Microcontent Client / Web Services Browser
- Social Software: Blogs, Wikis, People Networks
- Visual Biz-ic for Business Process Management
- Local Language Software and Applications
- RSS-based Information Marketplace
- Outsourced Linux Support / Development Centre
- Open Office Call / Support Centre

The Next New Thing

10X Change

- When a change in how some element of one's business is conducted becomes an order of magnitude larger than what that business is accustomed to, then all bets are off. There's wind and then there's a typhoon, there are waves and then there's a tsunami.

- Andy Grove (Intel)

Is Open-Source the Software Industry's Tsunami?

Moreover

Resources

- SourceForge, Freshmeat for Software
- Linux Today, Linux Journal, Linux Weekly News
- O'Reilly and ora.com for Books and Tech Articles
- Slashdot.org for Community
- Express Computers and Linux for You for India Updates
- Emergic.org (my weblog) for links, analysis, comment