Linux: The Business Opportunity

John H Terpstra,
CTO, Primastasys Inc.
jht@primastasys.com

Overview

- Market Size Estimates
- Market Segments
  - Characteristics
  - Needs
- Markets addressed by Linux
- Major Linux players
  - Target markets
  - Major channels
- How to be successful with Linux in Business

Estimating Market Size

US Business Statistics

2002 IRS Returns – Companies by Employment Size

Employees	Total	< 20	20–99	100-499	500+
Firms	5,697,759	5,090,331	508,249	82,334	16,845
Establishments	7,200,770	5,147,526	692,775	332,508	1,027,961
Employment	112,400,654	20,583,371	19,874,069	15,908,852	56,034,362
Percent of Employment		18.3%	17.7%	14.2%	49.9%
Percent of Firms		89.34%	8.92%	1.45%	0.30%
Average Empl / Firm		4	39	193	3326
Average Empl / Location		4	29	48	55
Average Locations / Firm		1.0	1.4	4.0	61.0

Global GDP 2004 (Estimates)

Area	$USD	Percent
Total	5.55E+013	100%
USA	1.18E+013	21%
EU	1.17E+013	21%
China	7.26E+012	13%
Japan	3.75E+012	7%
India	3.32E+012	6%
Rest of World	1.78E+013	32%

How Many Servers?

The Global Server Market

Company Size	# Empl / Co	Users per Server	USA # (2002)	Global Factor	Global Number	# Servers	% of Servers	% of Companies
500 +	3326	50	16,845	3	50,535	3,361,588	6.3%	0.2%
100-499	193	10	82,334	4	329,336	6,356,185	11.9%	1.2%
20-99	39	10	508,249	5	2,541,245	9,910,856	18.5%	9.0%
< 20	4	3	5,090,331	5	25,451,655	33,935,540	63.4%	89.7%
Total			5,697,759		28,372,771	53,564,169	100.0%	100.0%

Global Server OS Market Share

Platform	2000	2003	2006
Windows NT/200X Server	14.0 mm (58%)	16.0 mm (53%)	18.0 mm (50%)
NetWare	3.5 mm (14.6%)	1.6 mm (5.3%)	1.0 mm (2.7%)
UNIX (all)	2.8 mm (11.7%)	2.3 mm (7.7%)	2.0 mm (5.6%)
Linux (Servers)	1.5 mm (6.3%)	5.2 mm (17.3%)	11.0 mm (31%)
Total	24 million	30 million	36 million

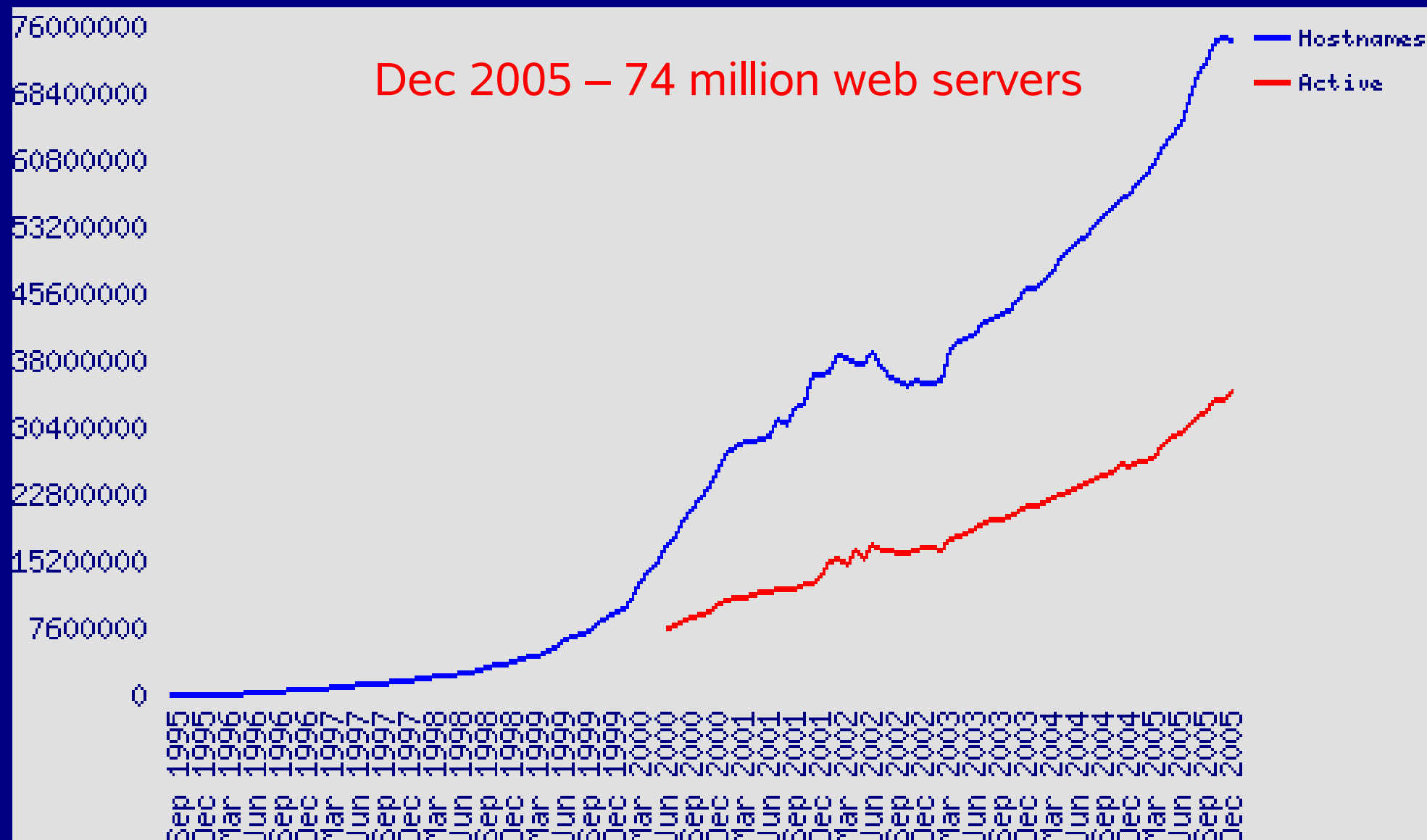# *IDC Estimates of Installed Base*
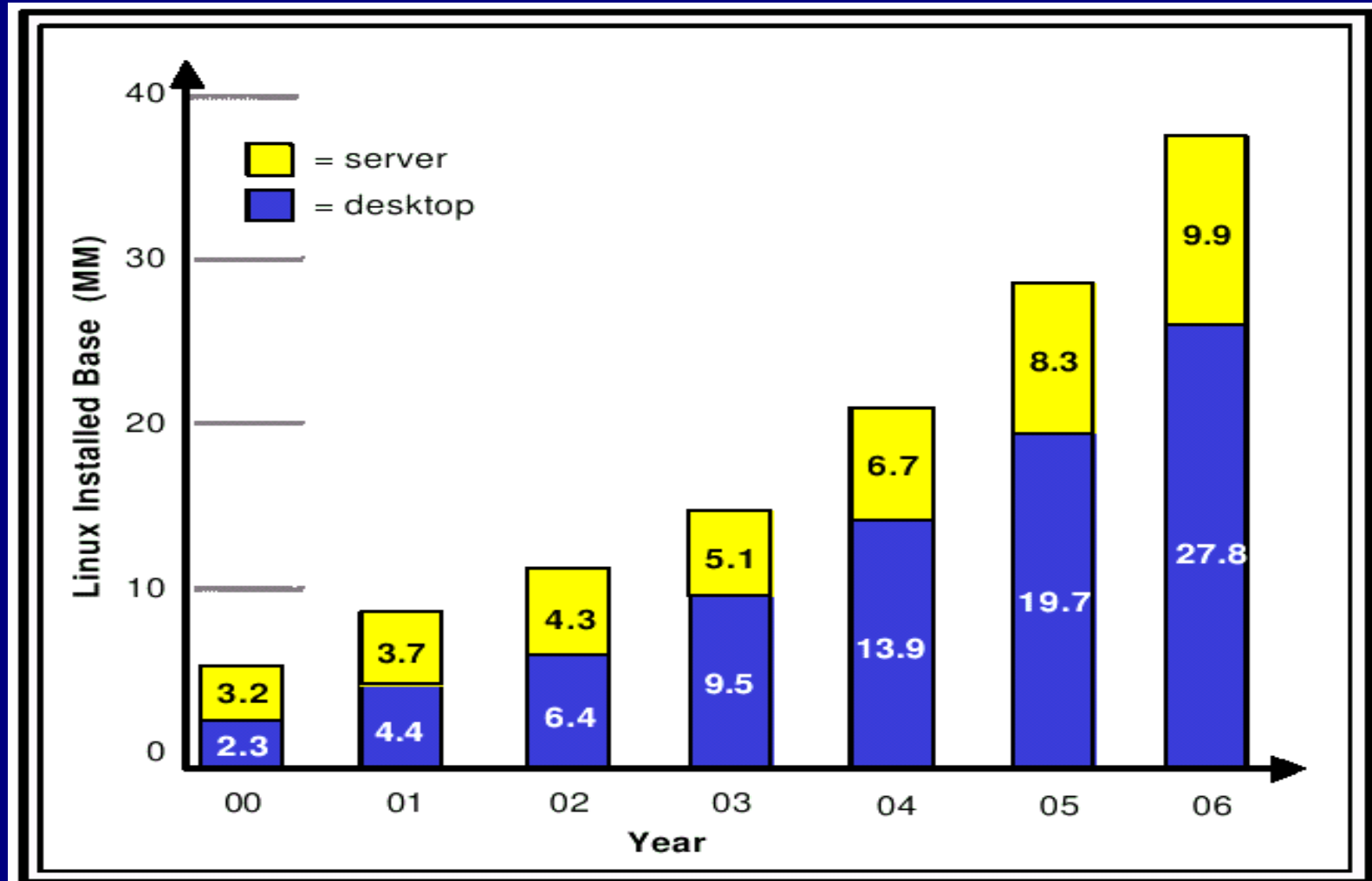
Source: IDC, July 2002. Installed base units include revenue and free units, but exclude "multiple deployments", such as internal copying, mirrored web download sites, etc.

How Many Web Servers?

Dec 2005 – 74 million web servers

How Many IT Users Globally?

WORLD INTERNET USAGE AND POPULATION STATISTICS

World Regions	Population (2005 Est.)	Population % of World	Internet Usage, Latest Data	Usage Growth 2000-2005	% Population (Penetration)	World Users %
Africa	896,721,874	14.0 %	23,867,500	428.7 %	2.7 %	2.5 %
Asia	3,622,994,130	56.4 %	327,066,713	186.1 %	9.0 %	34.2 %
Europe	731,018,523	11.4 %	273,262,955	165.1 %	37.4 %	28.5 %
Middle East	260,814,179	4.1 %	21,422,500	305.4 %	8.2 %	2.2 %
North America	328,387,059	5.1 %	223,779,183	107.0 %	68.1 %	23.4 %
Latin America/Caribbean	546,723,509	8.5 %	70,699,084	291.31 %	12.9 %	7.4 %
Oceania / Australia	33,443,448	0.5 %	17,655,737	131.7 %	52.8 %	1.8 %
WORLD TOTAL	6,420,102,722	100.0 %	957,753,672	165.3 %	14.9 %	100.0 %

http://www.internetworldstats.com/stats.htm

Understanding The Global Market

Market Segments

Market Segments

- Enterprise
  - 500+ Employees
  - 50,000 companies Globally

- Small to Medium Enterprise
  - 150-500 Employees
  - 300,000 companies

- Small to Medium Business
  - 2-150 Employees
  - 30 million companies

- Consumer Market
  - 6.4 billion population - 974 million consumers

The Enterprise Market

- Staff
  - Experts

- Some IT business is outsourced
  - Most is handled by own staff

- Complex buying process – Large Projects
  - Average decision time frame: 12 – 18 months

- Hardware life-cycle: 3-4 years

- Software life-cycle: 6-12 years

The SME Market

- Staff
  - Mostly qualified, despise OS religion

- Purchase decisions driven by technical needs
  - Project Concept to Completion: 6-12 months

- Hardware life-cycle: 3-4 years
  - Equipment is recycled during life-cycle

- Software life-cycle: 10-20 years

- Customers life-cycle: 15+ years

The SMB Market

- Few full-time IT staff (if any)
  - Most IT is out-sourced to resellers, vendors and contractors

- Hardware life cycle: 5-8 years
  - Will upgrade and recycle hardware thru life-cycle
  - Typical server role is 18 months to redeployment
  - Vendors assist customer with purchase
  - Many white-box systems
  - Purchase cycle: 30-60 days with rapid deployment

- Typical VAR has 51 such clients
  - VAR Loyalty: 15+ years

VAR Feedback Re: SMB Customers

- Most SMB customers have had bad experiences
  - With defective hardware
  - Software problems
  - Bad VARs

- Grumble and whine a lot
  - But very loyal to a trusted VAR
  - Always ask for lower price
  - Do not care what the solution is – it just has to work
  - Many complain about MS Windows problems
    - Lost time due to viruses, bad updates, etc.

- Most SMBs want something better, newer

The Consumer Market

- Purchase IT hardware / software from retail stores
  - Many purchase on-line and per phone
    - Dell, HP, IBM, Gateway

- Retail outlets offer limited Linux PCs
  - Most stores offer none
  - Consumers depend on store staff for advice

- Must hardware sold by major outlets does is unsupported

The Microsoft Market Place

The Consumer Market

- Over 90% of all PCs and Laptops are shipped with Microsoft Windows XP pre-installed
  - Consumers know little else

- Consumers expect
  - To use anti-virus software
  - Regular updates
  - A wide selection of commercial software

- Microsoft own the consumer with a near total monopoly

The SMB Market

- Main Microsoft product in this market
  - MS Small Business Server (SBS)
    - Email & workgroup communication
    - Web server
    - File & Print

- Channel is very important
  - VARs install and support MS SBS
  - VARs mostly provide updates
  - VARs attend regular trade meetings
    - See MS solutions at work
    - Then roll them out at customer sites

- This is the most important market for Microsoft!

The SME Market

- Major Microsoft Products
  - MS Windows Server 2003
    - Active Directory
    - File & Print
  - Exchange Server
  - SQL Server

- Depend largely on up-market VARs
  - Many willing to use any solution that works
  - Committed to a solution once installed and running

The Enterprise Customer

- Microsoft use the visibility of Linux in the enterprise space to deflect attention away from the SMB/SME markets
  - Losses to Linux have been small, but significant
    - Losses are highly visible
    - Important to protect market share

- Microsoft are desperate to protect the business they have in the SMB and consumer market space
  - That is why Microsoft are so aggressive in countering all potential loss of market dominance
    - Also pressuring the OEM vendors to not support Linux

Linux in the Market

Market Segments Targeted

- Red Hat and Novell both target what they consider to be the low-hanging fruit
  - They target existing UNIX business
    - That basically means Sun Microsystems Solaris

  - Both seek to work with and through the OEM hardware vendors

  - Both work with Intel and AMD

  - Both believe that the cost of market entry into the SMB market is high

Other Factors

- Key factors explaining why existing Linux vendors have little presence in the SMB market
  - Belief that they are too small to compete with Microsoft

  - Fear of competition

  - Disdain for the channel

  - Disdain for Microsoft and a separation from anything that Microsoft do
    - Mistaken belief that Microsoft technology is inferior

Real Factors in Linux Failure

- First, we must accept that Linux has failed to gain significant market share
  - It has targeted the Enterprise market
    - It did this with the blessing of Intel because it increased the market for Intel CPUs
    - It leaves the Intel/Microsoft business in tact
      - i.e.: Is non-competitive

- Second, Linux business has been led by technicians who believe that the world will beat a path to the door of the company that has the BEST solution

Human Factors Ignored

- It has been said the BetaMax is video better technology than VHS
  - But VHS won

- Political factors shaped the market
  - Not technical ones
  - Pure technology seldom shapes the market

- People buy with emotions
  - And then justify with logic
    - That is why the logic of a purchase decision is so nutty!

Result of Enterprise Linux Focus

- Linux has been focused on gaining

  - Only 0.18% of all business customer opportunity

  - The target market accounts for only 6.3% of all servers in use today

  - Linux has gained approximately 30% share of this market, and that accounts for only 2% of all servers!

    - The cost of gaining this has been over $500 million

    - What market share might this investment have gained had it been invested into the SMB space?

Objections

- Some object claiming that Red Hat and Novell, through HP and IBM are targeting the SME market also

  - What does this mean?

    - Total market focus then is on:

      - Less than 1.4% of business customers

      - Less than 18.2% of all business servers

      - Approx. 30% of server sales value – but that does NOT have the same Linux sales value!