



# Bharat Operating System Solutions

# BOSS GNU/Linux

- Product from NRCFOSS
- Linux distribution developed by C-DAC for enhancing the use of Free/Open Source Software in India.
- Made specifically for the Indian environment , it consists of a pleasing desktop environment coupled with Indian language support and other packages that are most relevant for use in the government domain.
- The ultimate goal is to localize in all Indian regional languages. So this benefits non-English speakers to reach technology that bridge digital divide in India.

# BOSS DVD - Contents

- All variants of BOSS DVD contains below sections
  - Live session
    - Lets the user to boot BOSS OS from RAM and work on all the applications in BOSS
  - Install
    - Lets the user to install the OS in the Hard Disk
  - Utility
    - consists of add-on packages that can be installed in BOSS for some specific applications like web server, education tools, open office language packages etc.

# BOSS Variants

- BOSS is derived from Debian, a popular and influential Linux distribution.
- BOSS GNU/Linux is available as
  - Desktop version
  - Education version
  - Server version
  - Notebooks version

# BOSS Variants

## Desktop release

- BOSS1.0 (Tarang) – released in January 2006
- BOSS 2.0 (Anant) – released in September 2007
- BOSS 3.0 (Tejas) – released in September 2008
- Latest stable version – BOSS 4.0 (savir) – released in April 2011
  - Kernel – 2.6.32 and 2.6.39
  - GNOME 2.30 desktop
  - Openoffice 3.2
- Current Development version – BOSS 5.0 (anokha)
  - Kernel – 3.2
  - GNOME 3.4 desktop
  - Libreoffice 3.4

# Contd..

## EduBOSS

- BOSS Linux customized to School domain.
- This is aimed towards the education sector and would include popular educational tools.
- Includes authoring tools, Edutainment, Graphics, Maths, Science, Social
- bundled with Productive application suite – BharateeyaOO - comprising of word processor, spread sheet, Draw, Database, Presentation.
- Features enhanced presentation tool, Migration tool, SCIM
- EduBOSS 1.0 - released in June 2010
- EduBOSS 2.0 released in Apr 2011
- Current development version EduBOSS 3.0 with
  - Kernel 3.2
  - GNOME 3.4
  - Libreoffice 3.4

## Contd..

### Server release

- BOSS variant for Intel x86 and AMD machines consists of all necessary servers including web server, DNS servers, DHCP servers, Proxy servers.
- BOSS server 1.0 released in 2010
- BOSS Advanced Server – current version

### NetBOSS

- Light weight BOSS designed specifically for Notebooks having lower configuration.

# BOSS GNU/Linux – features

- User Friendly Graphical Installer
- Indian version of OpenOffice – BharateeyaOO
- 3D Desktop
- Auto detecting of devices
- Better usability for digital cameras, printers, scanners, Bluetooth, TV tuner.
- Auto mount of all Hard disk partitions
- Localization support for desktop in 22 Indian languages
- Smart Common Input Method
- Migration tool - Bulk document converter
- Internet tools – Pidgin, Iceweasel, X-chat
- Multimedia support



# Cost Comparisions

	Proprietary solution APPROXIMATELY	Linux/FOSS Solution	Savings
COMPANY A : 50 USERS	₹. 13,39,500	₹. 0	₹. 13,39,500
COMPANY B: 100 USERS	₹. 27,05,000	₹. 0	₹. 27,05,000
COMPANY C: 250 USERS	₹. 64,12,500	₹. 0	₹. 64,12,500

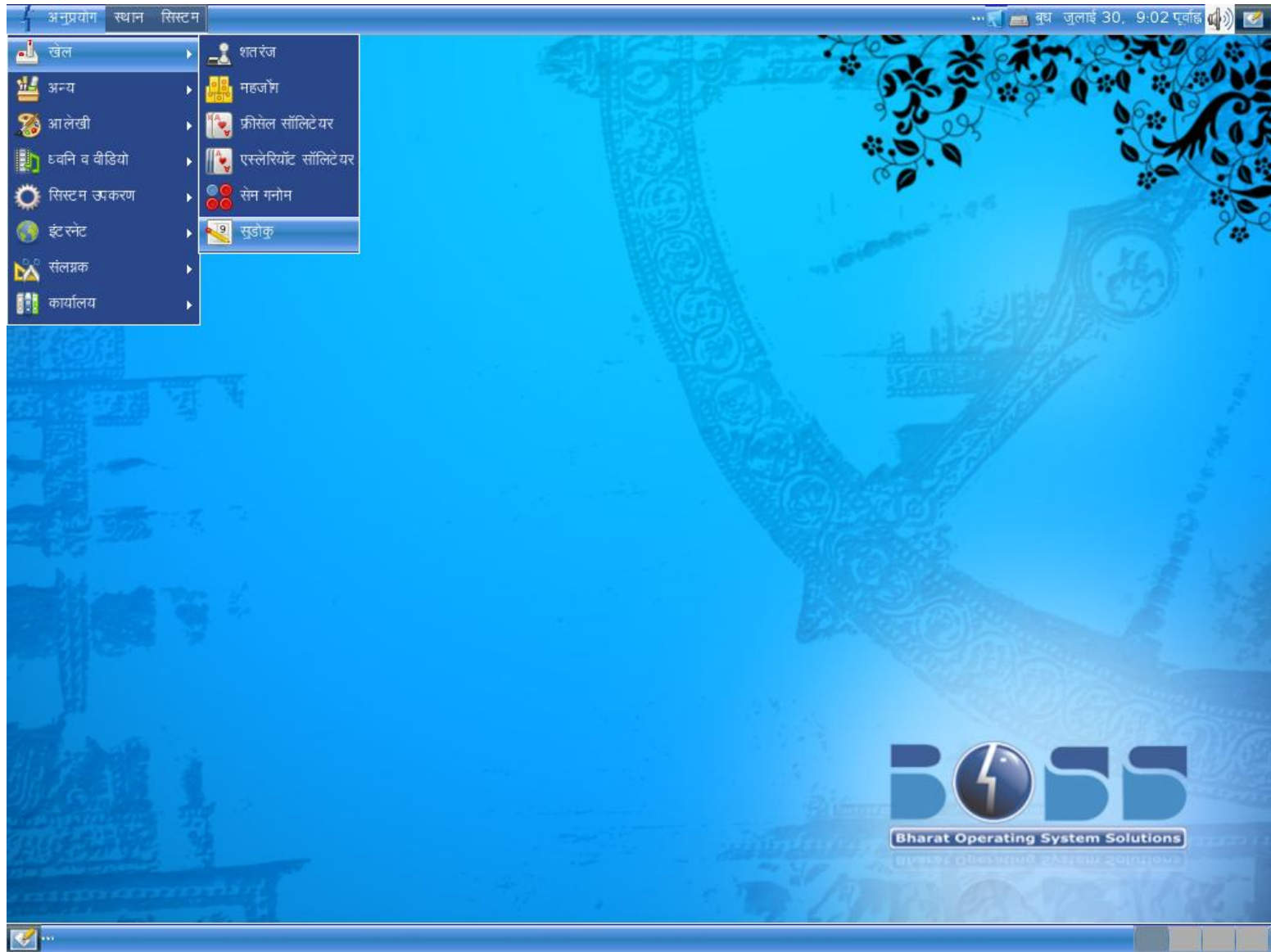
## *PROPRIETARY SOFTWARE IN DETAIL*

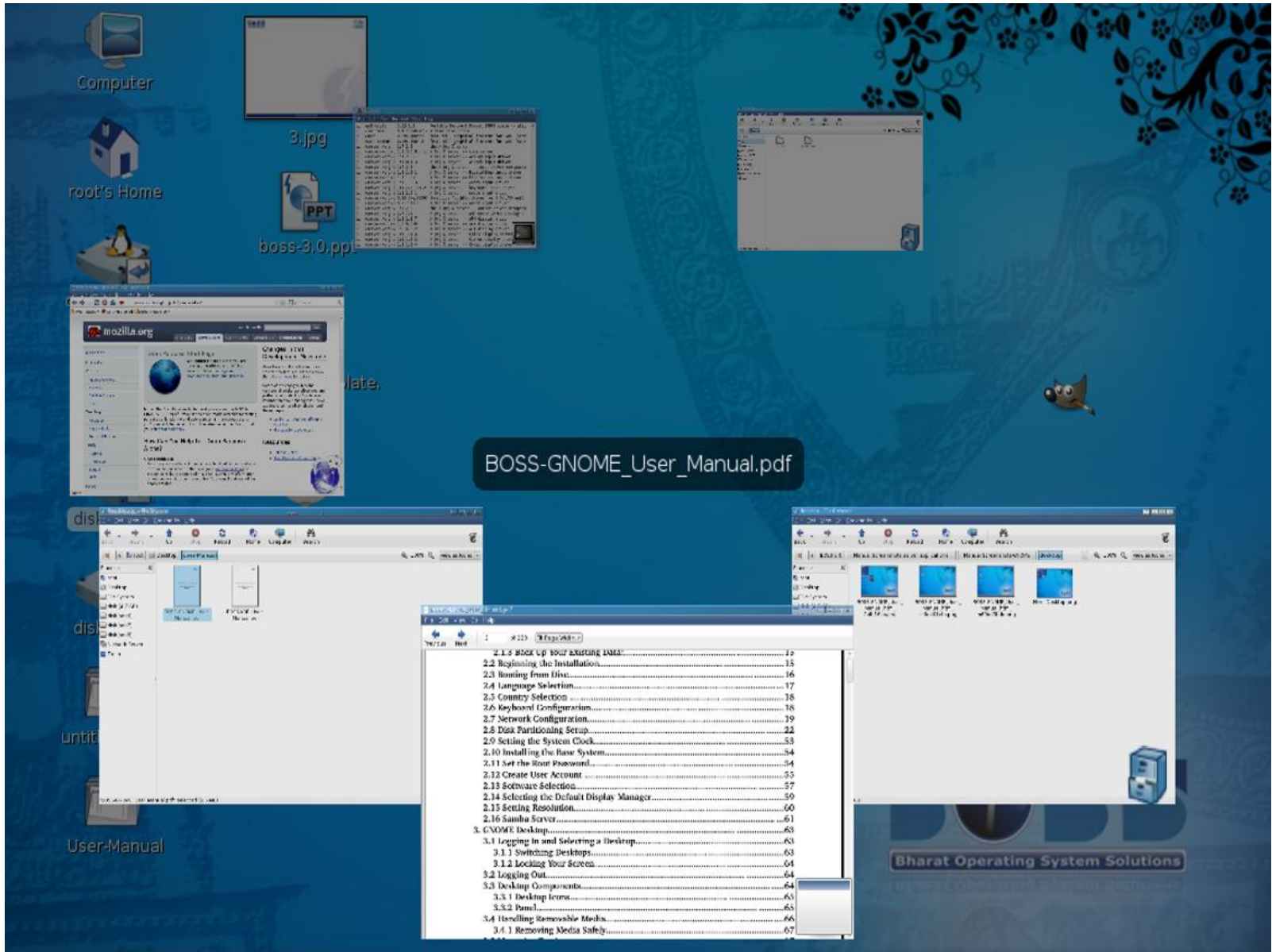
Software	Per employee	Expenditure of A	
Desktop OS	5000	50	250000
Office Suite	15000	50	750000
Anti Virus	1000	50	50000
Server Operating System	15000	2	30000
MS Programming	1500	3	4500
Photoshop	15000	2	30000
MS Database Software	10000	5	50000
Firewall	25000	1	25000
Additional client access licenses	5000	30	150000
<b>Total Expenditure</b>	<b>92500</b>		<b>1339500</b>

*FOSS SOFTWARE IN DETAIL*

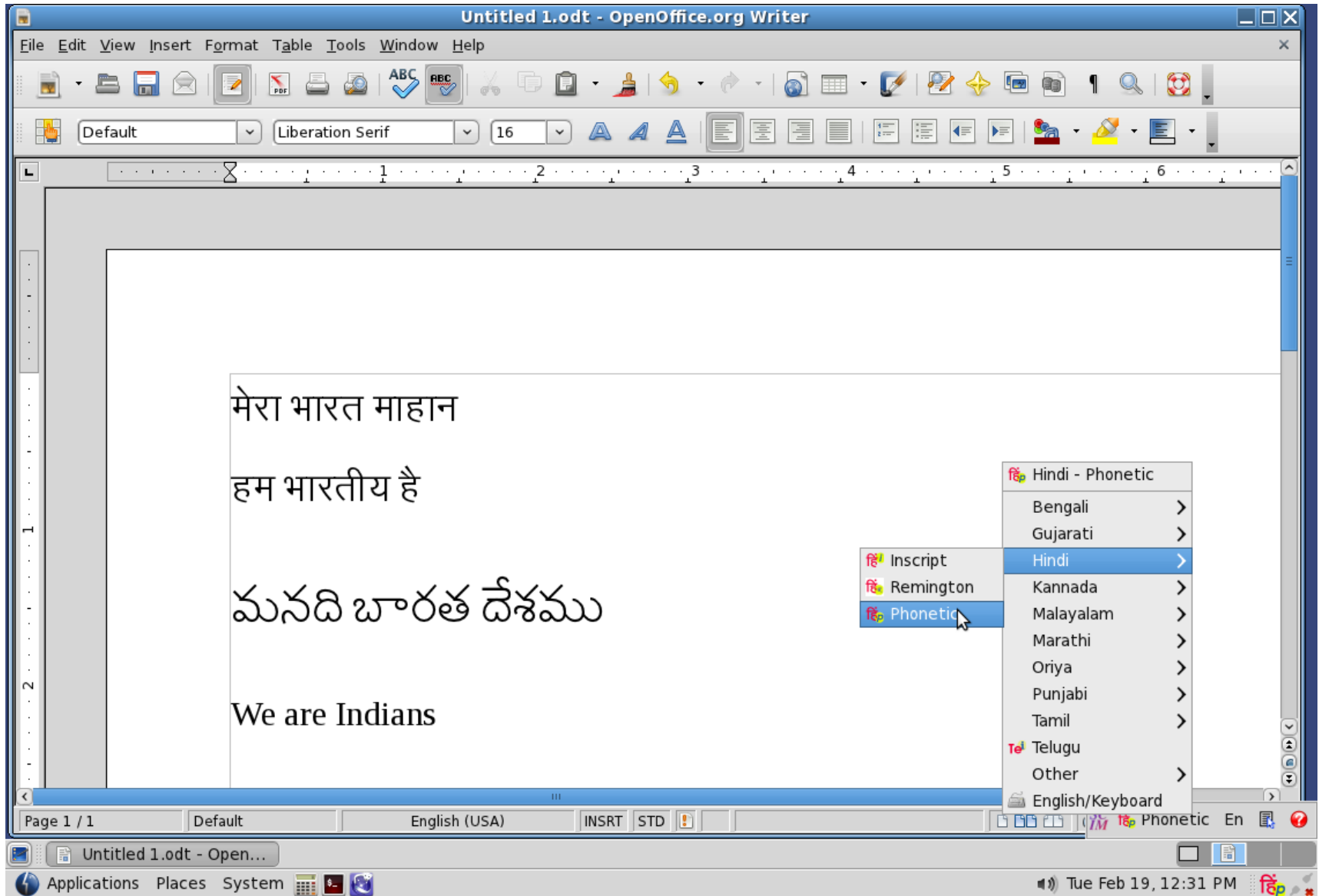
Software	Per employee	Expenditure of A	
<u>BOSS linux</u>	0	50	0
<u>LibreOffice</u>	0	50	0
<u>Clamav</u>	0	50	0
<u>BOSS Adv Server</u>	0	2	0
<u>Open source – PHP, Java etc</u>	0	3	0
<u>Gimp</u>	0	2	0
<u>MySQL, Postgres Database</u>	0	5	0
<u>Iptables as desktop firewall</u>	0	50	0
<u>Additional client access licenses</u>	0	30	0
<b>Total Expenditure</b>	<b>0</b>		<b>0</b>

# BOSS Desktop Version Screenshots

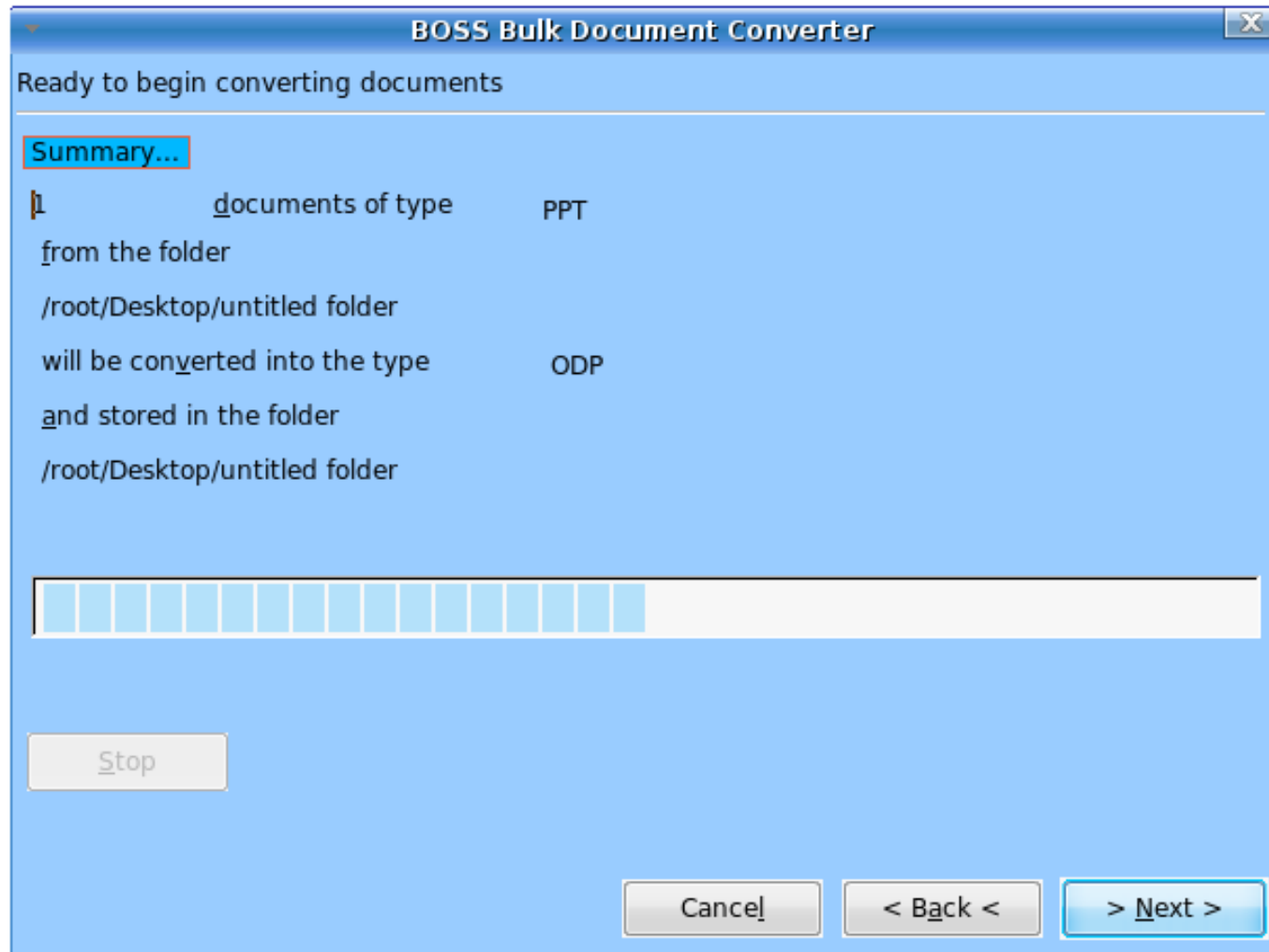




BOSS-GNOME\_User\_Manual.pdf







## ...BOSS Vs Commercial Equivalents

Features	BOSS	Commercial Equivalents
Printer Drivers Support	Yes	Yes
Scanner Drivers Support	Yes	No
Digital Camera Drivers Support	Yes	Yes
Editing Still Picture	Yes	Yes
Bluetooth Support	Yes	Yes*
TV Tuner Support	Yes	Yes*
Presentation Tool	Yes	No
Bulk Document Converter	Yes	No



# Comparison of BOSS with other Linux Distributions

Features	BOSS 4.0 (Savir)	Ubuntu 8.04(Hardy Heron)	Asianux 2.0	Red Hat(Desktop Version 5)
Origin	India	Africa	East Asia(China,Japan,Korea)	USA
Cost	free	free	Non free	Non free
No. of CD/DVDs for Installation	One DVD	One CD	Two CD	Five CD
Versions	3.0	8.04	Asianux 2.0	Red Hat Desktop Version 5
Office suit	BharateeyaOO 2.2 with Gujarati, Hindi, Kannada, Malayalam, Marathi, Oriya, Punjabi, Tamil, Telugu and Urdu	OpenOffice 2.3	OpenOffice 2.0	OpenOffice 2.0
Package Management System	Debian Package Management System	Debian Package Management system	Red Hat Package Management System	Red Hat Package Management System
Language support	Assamese, Bengali, Gujarati, Hindi, Kannada, Malayalam, Marathi, Oriya, Punjabi, Sanskrit, Tamil, Telugu, Bodo, Urdu, Kashmiri, Maithili, Konkani, Manipuri	International Languages	Supports Asian languages like Chinese, Japanese, Korean.	19 languages including international languages

# Comparison of BOSS with other Linux Distributions

Features	BOSS 4.0 (Savir)	Ubuntu 8.04(Hardy Heron)	Asianux 2.0	RedHat(Desktop Version 5)
Onscreen Keyboard support	Yes 1) Supports Tamil, Hindi, Malayalam, Bengali, Kannada, Punjabi, Gujarathi, Telugu 2) User can change the keyboard layout.	Nb	Nb	Nb
BOSS Presentation Tool	Yes Supports the display of pdf, ppt, pps, ocp, directory containing images as presentations.	Nb	Nb	Nb
BOSS Bulk Document Converter	Yes Migration tool for converting a set of documents from one format to another.	Nb	Nb	Nb
Message Sending Application	Yes kannel – An application to send SMS	Nb	Nb	Nb

# Comparison of BOSS with other Linux Distributions

Features	BOSS 4.0 (Savir)	Ubuntu 8.04(Hardy Heron)	Asianux 2.0	RedHat(Desktop Version 5)
Support and maintenance	Since BOSS is developed in India, the maintenance and support cost drastically reduces.	Since developed outside India, the maintenance and support cost is too high. Ubuntu India is the official Indian local community team	Since developed outside India, the maintenance and support cost is too high.	Since developed outside India, the maintenance and support cost is too high.
Architectures supported	Intel x86(including Intel pentium, Celeron and AMD Athlon)	Intel x86,AMD	Intel x86_32, x86_64,AMD	Intel x86(32 bit), Intel x86(64 bit), AMD64
Detection of existing partitions	BOSS detects Windows and other existing Linux partitions	Detects Windows and other existing Linux partitions	Detects existing Windows partition	Detects existing Windows partitions
Document Converter	BOSS Bulk Document Converter	No Converter	No Converter	No Converter
Browser	Firefox 3.0	Firefox 3.0 Beta	Firefox	Mozilla Firefox 1.5

# EduBOSS Applications

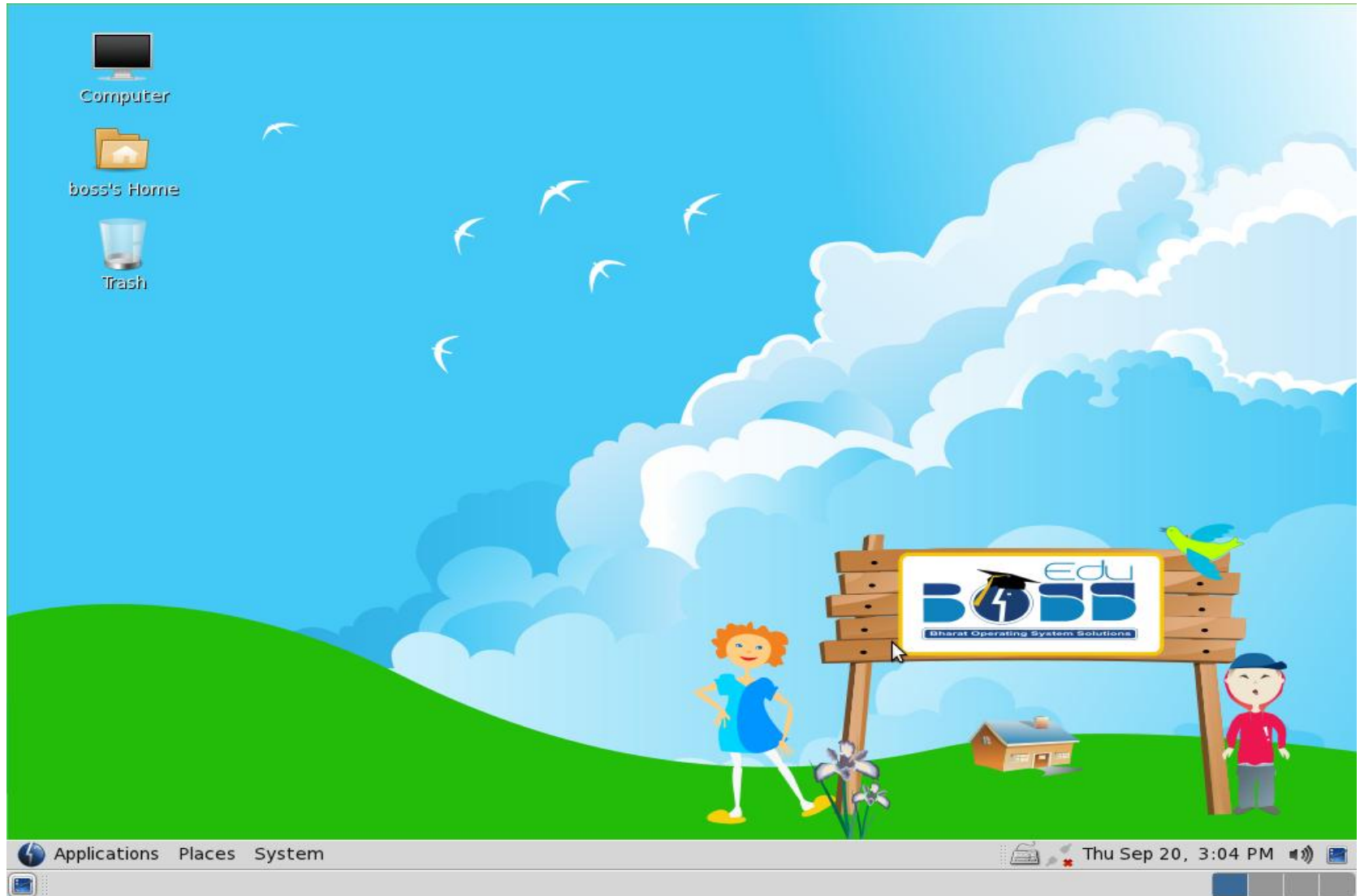
- Words – a typing tutor
- Alphabets – An application that helps kids to learn alphabets
- Childsplay, gcompris - Suite of educational games for young children
- Tux Paint - a paint program for young children
- gbrainy – brain teaser game.
- Programming IDEs, compilers etc.,
- Dr.Geo - an interactive geometry software
- Tuxmath - math game for kids with Tux

# EduBOSS Applications

- Fractions - Provides exercises related to Fractions
- Multiplication Puzzle
- Edukator – Physics - Contains animations that explains about optics, archimedes principle.
- Kalzium – Chemistry - Kalzium is a program which shows you the Periodic Table of Elements.
- EasyChem & Xdrawchem – Chemical Structures Editor
- Avogadro - Molecular Graphics and Modelling System
- Stars - A graphical desktop planetarium.

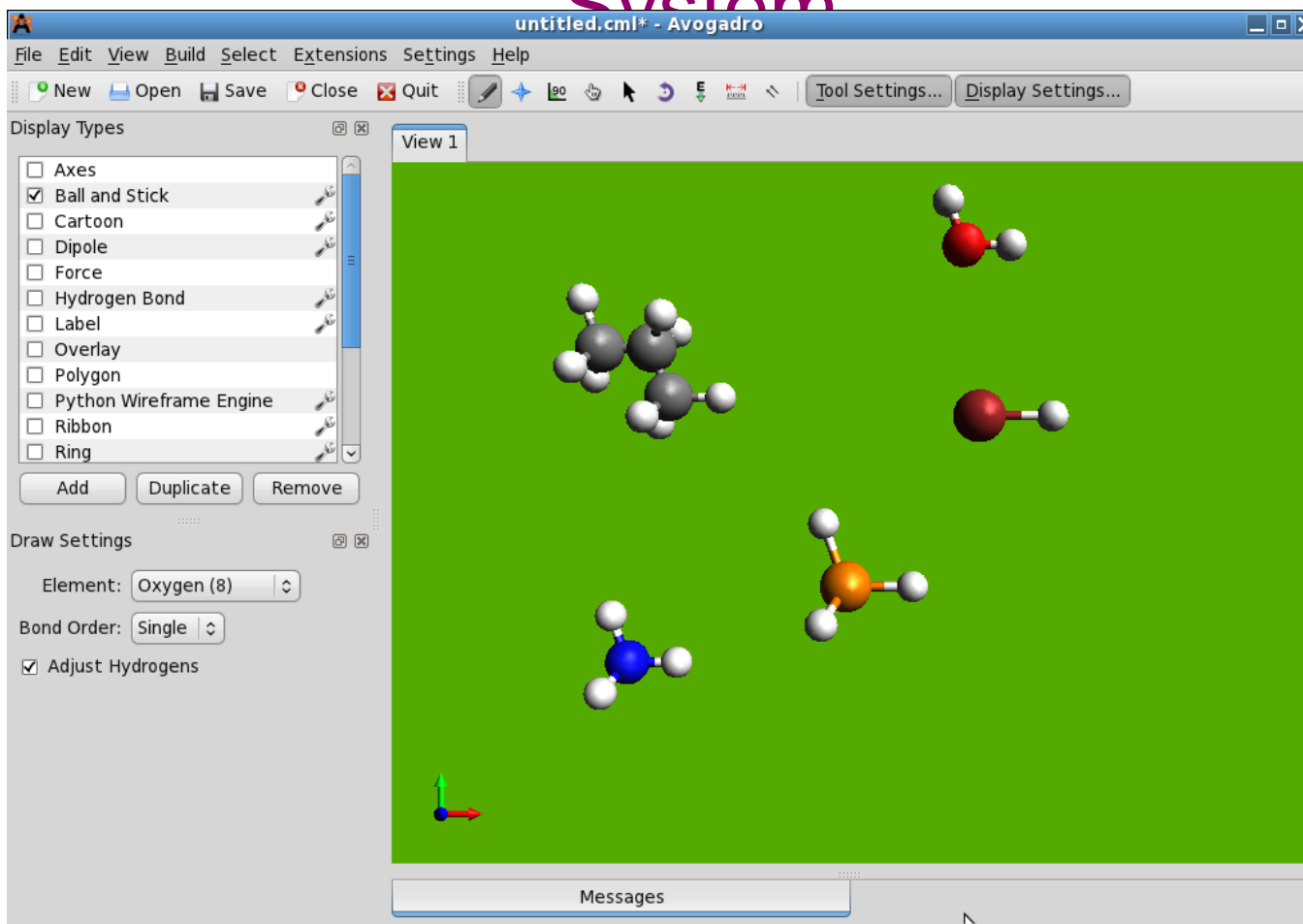
# EduBOSS Screenshots

# EduBOSS Desktop



# Avogadro

## Molecular Graphics and Modelling System





# Alphabets

An application that helps kids to learn alphabets



# Gcompris

## Activities for Children aged 2 to 10



# Kalzium – Chemistry

## Periodic Table of Elements

Periodic Table

File View Tools Settings Help

Scheme Show Legend Show Sidebar R/S Phrases Tables Isotope Table Molecular Editor Equation Solver Convert chemical files

Search:

**Overview**

**Berkelium**

97 **Bk**

247 u

State of Matter

Timeline

Calculate

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
H																	He
Li	Be											B	C	N	O	F	Ne
Na	Mg											Al	Si	P	S	Cl	Ar
K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge	As	Se	Br	Kr
Rb	Sr	Y	Zr	Nb	Mo	Tc	Ru	Rh	Pd	Ag	Cd	In	Sn	Sb	Te	I	Xe
Cs	Ba	La	Hf	Ta	W	Re	Os	Ir	Pt	Au	Hg	Tl	Pb	Bi	Po	At	Rn
Fr	Ra	Ac	Rf	Db	Sg	Bh	Hs	Mt	Ds	Rg	Uub	Uut	Uuq	Uup	Uuh	Uus	

Ce	Pr	Nd	Pm	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu
Th	Pa	U	Np	Pu	Am	Cm	Bk	Cf	Es	Fm	Md	No	Lr

Legend

- s-Block
- p-Block
- d-Block
- f-Block

Table Information

Berkelium (97), Mass: 247 u

# Tux Paint

## A paint program for young children



# TuxMath



# BOSS Meghdooth

## BOSS Meghdooth

Cloud stack that facilitates fully automated deployment of cloud environment with features like resource provisioning, auto scaling through elasticity, application hosting, API support, Web interface, Configuration management, Storage integration.



# Meghdooth Modules





# Features of Meghdooth

Open source  
Software based on  
Open Standards  
and open data  
formats

Create and deploy  
Private, Public or  
hybrid cloud

Ease of management  
and maintainance

Security and Quality  
of Service

Interoperable  
Providing interfaces  
and functionalities

Control on resources  
and  
distribution of  
services

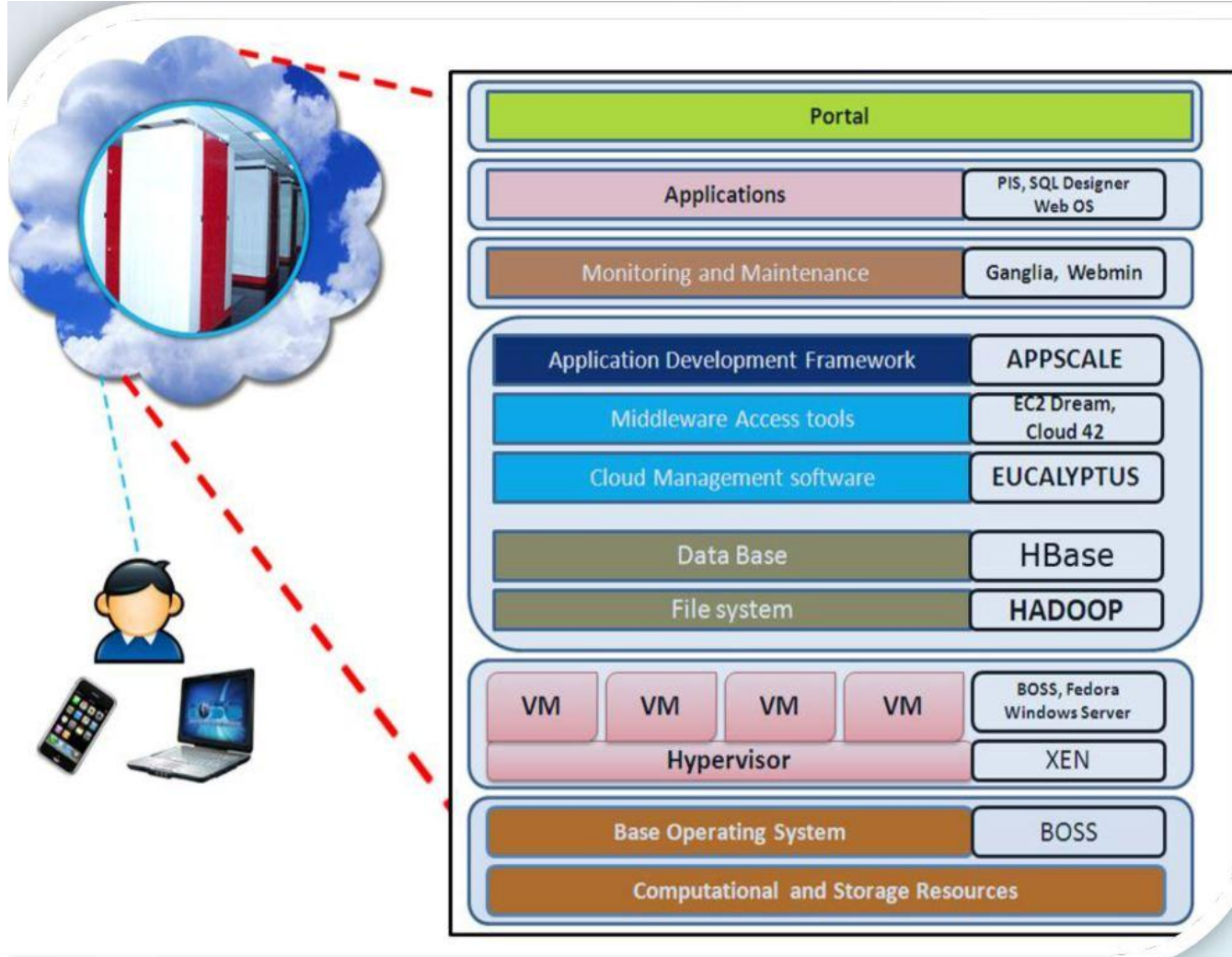
Maximum abstraction  
resources

Vendor lock in can  
be avoided

Compatible with most  
platforms to provide  
Maximum freedom to  
users  
And developers



# BOSS Cloud Stack



Interested to get BOSS DVD or Trainings

Reach Us @

[www.bosslinux.in](http://www.bosslinux.in)

[bosslinux@cdac.in](mailto:bosslinux@cdac.in)

Toll Free Number for Support : 1800 4250  
455

Desktop ??

Server ??

Notebooks / Laptops ??

Cloud ??

School Learning ??

Thus BOSS GNU/Linux Serves all your  
needs....



*Thank You*

