



2015 Distro Talk

Linux in all of its gory distros

Ottawa Canada
Linux Users Group

Linux Distros

- Linux comes in a variety of distributions, some well known, others very obscure.
- A quick check of Distrowatch shows 272 distros with their page hit ranking¹
 - There are undoubtedly at least as many more.

¹ As of 2015-11-30 anyway

The full Distrowatch rank list

1	Mint	43	PC-BSD	84	Neptune	126	MINIX	167	RISC	209	Madbox	251	MAX
2	Debian	44	Peppermint	85	OpenBSD	127	Zentyal	168	Edubuntu	210	PelicanHPC	252	Volumio
3	Ubuntu	45	Korora	86	siduction	128	AUSTRUMI	169	Nanolinux	211	Plop	253	Karoshi
4	openSUSE	46	Solus	87	Salix	129	Bio-Linux	170	PoliArch	212	REMnux	254	Momonga
5	Fedora	47	Ultimate	88	Ubuntu Kylin	130	UberStudent	171	Untangle	213	Turbolinux	255	NexentaStor
6	Mageia	48	KNOPPIX	89	BlackArch	131	2XOS	172	Finnix	214	Exherbo	256	PLD
7	Manjaro	49	Ubuntu GNOME	90	Emmabuntüs	132	Bridge	173	Hantheta	215	LiureX	257	SELKS
8	CentOS	50	ArchBang	91	Wifislax	133	Proxmox	174	NST	216	APODIO	258	Ulteo
9	Arch	51	ClearOS	92	SlitTaz	134	Zenwalk	175	Linpus	217	Caixa Mágica	259	Chitwanix
10	elementary	52	Chromixium	93	Mangaka	135	Bella	176	Peach OSI	218	Greenie	260	LinEx
11	Android-x86	53	BackBox	94	SmartOS	136	Frugalware	177	Skolelinux	219	kademar	261	OLPC
12	LXLE	54	Vector	95	Solaris	137	Devil	178	SME Server	220	Zeroshell	262	Overclockix
13	PCLinuxOS	55	wattOS	96	Trisquel	138	NAS4Free	179	XStreamOS	221	Guadalinex	263	Open Xange
14	Kali	56	Alpine	97	Parsix	139	Porteus Kiosk	180	gNewSense	222	Nova	264	Sonar
15	Puppy	57	Ubuntu Studio	98	Raspbian	140	Webconverger	181	Leenux	223	Sophos	265	Ojuba
16	Lubuntu	58	HandyLinux	99	Univention	141	KolibriOS	182	Musix	224	Stella	266	Omoikane
17	Zorin	59	Clonezilla	100	AV Linux	142	Legacy	183	BlankOn	225	T2	267	SuliX
18	Lite	60	Chakra	101	ZevenOS	143	OpenMediaVault	184	LuninuX	226	DoudouLinux	268	Rockstor
19	deepin	61	OpenELEC	102	FreeNAS	144	Pentoo	185	DEFT	227	Elastix	269	Chapeau
20	Simplicity	62	ReactOS	103	Quirky	145	TurnKey	186	KXStudio	228	UPR	270	Parrot Security OS
21	Bodhi	63	Elive	104	Point	146	CAINE	187	LinHES	229	Smoothwall	271	Unity
22	SteamOS	64	ROSA	105	SymphonyOS	147	NuTyX	188	VyOS	230	VortexBox	272	OPNsense
23	antiX	65	Voyager	106	SUSE	148	Berry	189	BOSS	231	WM Live		
24	Xubuntu	66	Scientific	107	pfSense	149	Salentos	190	CAELinux	232	Baltix		
25	FreeBSD	67	Tanglu	108	NetBSD	150	Funtoo	191	Rocks Cluster	233	Bardinux		
26	Robolinux	68	GhostBSD	109	ALT	151	Kwort	192	Endian	234	Baruwa		
27	Netrunner	69	DragonFly	110	Qubes	152	Parabola	193	KANOTIX	235	Centrych		
28	KaOS	70	NixOS	111	SuperX	153	Pisi	194	openmamba	236	Pidora		
29	Q4OS	71	Semplice	112	IPFire	154	Connochaet	195	Rescatux	237	Bicom		
30	Kubuntu	72	Pinguy	113	OpenIndiana	155	blackPanther	196	Runtu	238	Securepoint		
31	Slackware	73	OLinux	114	Toutou	156	Rebellin	197	IPCpu	239	Source Mage		
32	Tails	74	OpenMandriva	115	Parted Magic	157	Vine	198	MiROS	240	Springdale		
33	Sabayon	75	CoreOS	116	MidnightBSD	158	Liquid Lemur	199	Oz Unity	241	UHU-Linux		
34	Black Lab	76	Calculate	117	NehtServer	159	Mythbuntu	200	Plamo	242	Fermi		
35	MakuluLinux	77	SolydXK	118	Fuguita	160	Haiku	201	Thinstation	243	Grml		
36	SparkyLinux	78	Oracle	119	CRUX	161	Parcus	202	Vinux	244	Linuxfx		
37	Ubuntu MATE	79	LinuxConsole	120	LFS	162	Void	203	BLAG	245	Miracle		
38	Antergos	80	Porteus	121	Ubuntu DP	163	LinuxBBQ	204	AsteriskNOW	246	NetSeL		
39	Red Hat	81	EXTiX	122	Lunar	164	LPS	205	Exe	247	OpenLX		
40	Tiny Core	82	Absolute	123	MiniNo	165	ChaletOS	206	GoboLinux	248	OSMC		
41	4MLinux	83	GParted	124	Slackel	166	Openwall	207	Kwheezey	249	paldo		
42	Gentoo			125	SystemRescue			208	SMS	250	Canaima		

Top 10 Distributions

Rank	<u>Distribution</u>
1	Mint
2	Debian
3	Ubuntu
4	openSUSE
5	Fedora
6	Mageia
7	Manjaro
8	CentOS
9	Arch
10	elementary

CentOS

COMMUNITY ENTERPRISE OPERATING SYSTEM



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Official Definition

- The CentOS Linux distribution is a stable, predictable, manageable and reproducible platform derived from the sources of Red Hat Enterprise Linux (RHEL).

<https://www.centos.org/about/>

Well...

- That is the current propaganda, now that RedHat has taken over the reins of the project
- CentOS started out as something similar to Scientific Linux, essentially a way to get RedHat without having to deal with all the licensing and support costs
 - More on this later

What's in a name?

- As noted on the section title, CentOS stands for **C**ommunity **ENT**erprise **O**perating **S**ystem
- As the name implies, it is an enterprise-class operating system
- This translates as stable, long term support and older versions of packages

What's in a name?

- It is a community-supported, free version of RHEL (RedHat Enterprise Linux)
- You can find it deployed on the web servers of many web startups as well as established companies

Origins

- CentOS originated with Red Hat Software, thanks to its release of its source code under the terms of the GNU General Public License (GPL)
- Red Hat was an early commercial provider with a business model of providing the software for free and selling a multitude of support services
- The OS was widely adopted simply because the software was free and Red Hat offered the support that was needed

Origins

- A little over 10 years ago, Red Hat started to focus on a more stable release for the corporate world
- Rather than provide quarterly or monthly releases, the company started to do fewer releases and to offer longer support cycles
 - Which is very attractive to business
- This more stable distribution of Linux was called Red Hat Enterprise Linux

Origins

- RedHat provides a non-enterprise version called Fedora that is meant more for desktop or laptop computers
 - Stable is not one of the common terms used to describe it however
- People still want a free enterprise-class version and that is how CentOS came to be

Origins

- In January 2014, Red Hat took back the reins of CentOS as a sponsor
- The company hired many of the core developers and centralized many of the efforts, which provided some needed direction
- The reasoning behind the move was partly to get rid of some of the bureaucracy, partly to deal with competition

Origins

- Both CentOS and RHEL base their software releases on the Fedora version of Linux out of Red Hat
 - You should consider Fedora to be the bleeding edge development version of RHEL

CentOS vs. RHEL

- You'd think none and you would be mostly be correct. As far as I have been able to determine, the only real difference is the bundling:
 - RHEL comes in two basic variants, desktop and server, two sets of media
 - CentOS comes in one all-in-one version, one set of media

Why would you use CentOS?

- Stability
- Long term support (10 years from release)
- Mature package ecosystem
- Seamless upgrades
- Modern packages are available

How do I get modern packages?

- RPM Forge
 - <http://repoforge.org/>
- Extra Packages for Enterprise Linux (EPEL)
 - <http://fedoraproject.org/wiki/EPEL>
- REMI –
 - <http://rpms.famillecollet.com/>
- Enterprise Linux Repo (ELRepo)
 - <http://elrepo.org/>

Why do I use it?

- \$DAYJOB has for the past 12 years was mainly supporting RHEL, so this keeps me current with it
- I mess with enterprise system deployments and other server technologies, so an enterprise server OS is preferred for my use cases
- Stable is good, I hate updating all the time
- It also installs well on desktops and laptops

RHEL derivatives that is

DERIVATIVES



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Popular

- ROSA Enterprise Linux Server
- Scientific Linux
- ClearOS
- Oracle Linux

Appliance-oriented derivatives

- Google Search Appliance - derived from CentOS
- Cisco Unified Communications Manager
- VMware ESX's Service Console software
- Amazon.com Amazon Linux AMI RHEL5/RHEL6 userland with a linux-xen-kernel

Lesser-known distros:

- Springdale (formerly PUIAS) Linux
- Rocks Cluster Distribution - derived from RHEL (earlier versions) and CentOS (recent releases)
- Fermi Linux, a.k.a. Fermi Scientific Linux, derived from Scientific Linux with additional software specific for the Fermilab research facilities

Lesser-known Distros:

- SME Server - derived from CentOS
- CERN Linux, a.k.a. CERN Scientific Linux, derived from Scientific Linux with additional software specific for the CERN research facilities
- GENtOS Linux
- StartCom Enterprise Linux

Lesser-known Distros:

- Bull's XBAS or bullx (for high-performance computing)
- Ascendos
- Inspur K-UX, certified to The Open Group's UNIX 03 standard

Resources

- Distrowatch: <http://distrowatch.org>
- Official site: <http://centos.org>
- <http://www.gtcomm.net/blog/a-short-history-of-centos/>
- Wikipedia -
[https://en.wikipedia.org/wiki/
Red Hat Enterprise Linux derivatives](https://en.wikipedia.org/wiki/Red_Hat_Enterprise_Linux_derivatives)