



# Quelques distributions sans systemd testées pendant les vacances

F.L.G. / Alternatives 87 / Octobre 2018

# Quand GNU et Linux s'éveillent

- Grub / Lilo / ...
- **Le processus d'init**
- Les services
  - Réseau, partitions, chiffrement, X, etc...
- Les programmes utilisateur (userland)

# Les différents inits

- BSD init (/etc/rc)
- SysVinit (avec Open-RC pour gérer les services)
- Systemd
- Runit
- InitNG
- UpStart
- ...

# SystemD : a true (bad?) story

- Date de création : 30 mars 2010 par Lennart Poettering (RH), Kay Stevens (RH), Harald Hoyer, Daniel Mack, Tom Gundersen et David Hermann.
- Écrit en C, placé sous licence GPL/LPGL 2+
- « Never finished, never complete but tracking progress of technology » (mai 2014)

# Histoire d'adoption

- Distributions qui l'ont chronologiquement intégré (liste non exhaustive) :
  - Fedora (mai 2011)
  - Opensuse (septembre 2011)
  - Mageia (mai 2012)
  - Archlinux (octobre 2012)
  - Core OS (octobre 2013)

- CentOS (avril 2014)
- R.H.E.L. (juin 2014)
- SuSE E.L.S (octobre 2014)
- Debian / \*buntu (avril 2015)
- Mint, Solus ...



# Jusqu'ici tout va bien...

- SystemD : bug de l'ident commençant avec chiffres
- Gros code pour un init... 1/2 million de lignes de code ?

```
[anonymous@ParaB github]$ git clone https://github.com/systemd/systemd
Clonage dans 'systemd'...
remote: Enumerating objects: 16, done.
remote: Counting objects: 100% (16/16), done.
remote: Compressing objects: 100% (14/14), done.
Réception d'objets: 45% (110620/241351), 60.99 MiB | 345.00 KiB/s
```

# ... on t'a dit que jusqu'ici tout va bien !

- <https://lwn.net/Articles/758128/>
  - Version 239 : (8 ans de dev donc...) « When hibernating, systemd will now inform the kernel of the image write offset, on kernels new enough to support this. This means swap files should work for hibernation now. »
  - Et aussi : Renommage (encore) des interfaces réseau virtuelles : « NETWORK INTERFACE DEVICE NAMING CHANGES: systemd-udev's "net\_id" builtin will name network interfaces differently than in previous versions for virtual network interfaces created with SR-IOV and NPAR and for devices where the PCI network controller device does not have a slot number associated »
  - Etc...



# En quoi c'est un problème ?

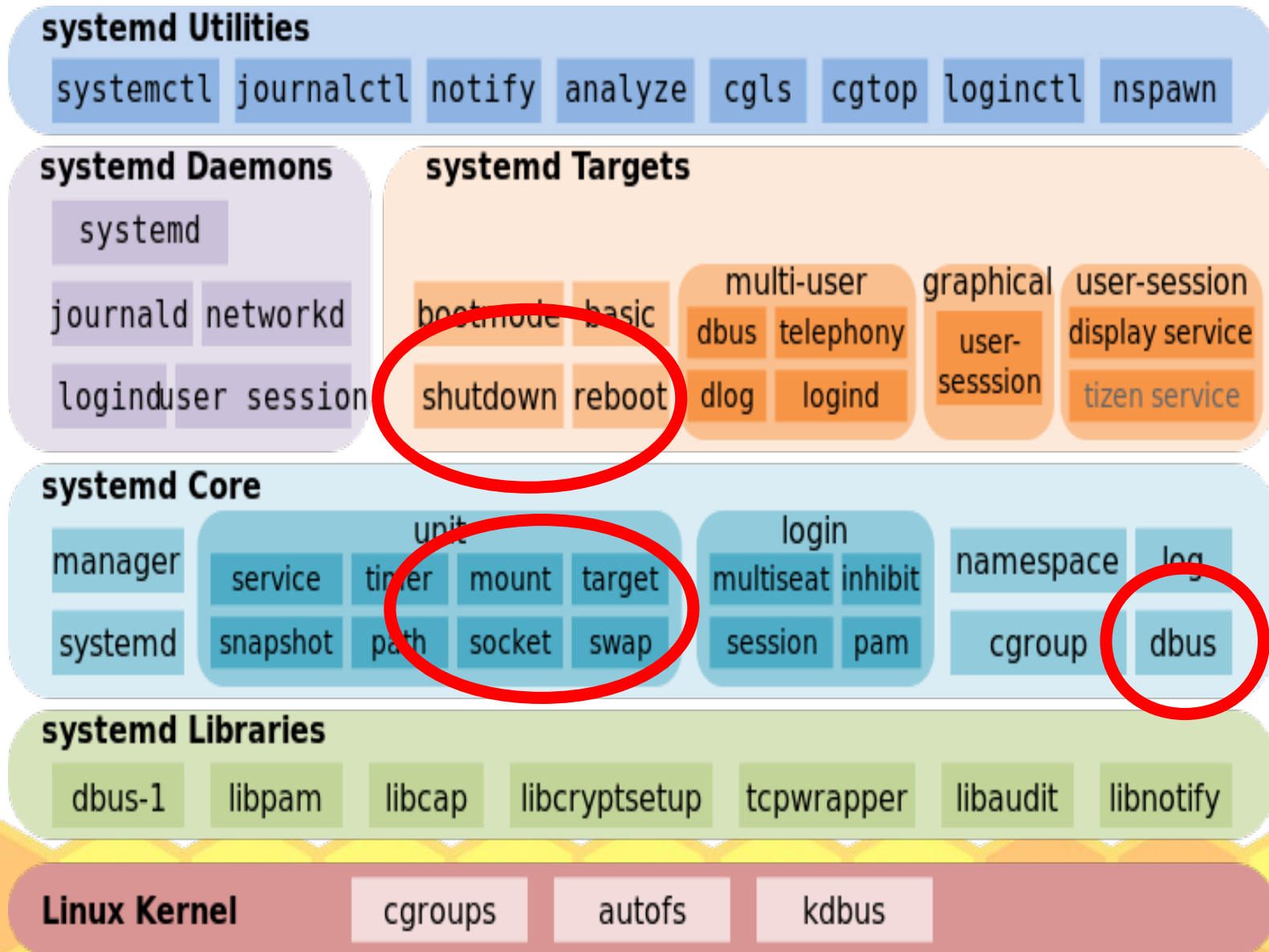
C'est pour ton bien donc il n'y a pas de problème !  
(et si t'es pas d'accord c'est que t'es un vilain ..... )

mais en regardant  
de plus près ...

- Systemd phagocyte  
peu à peu plein de  
services qui ne sont  
pas à lui !

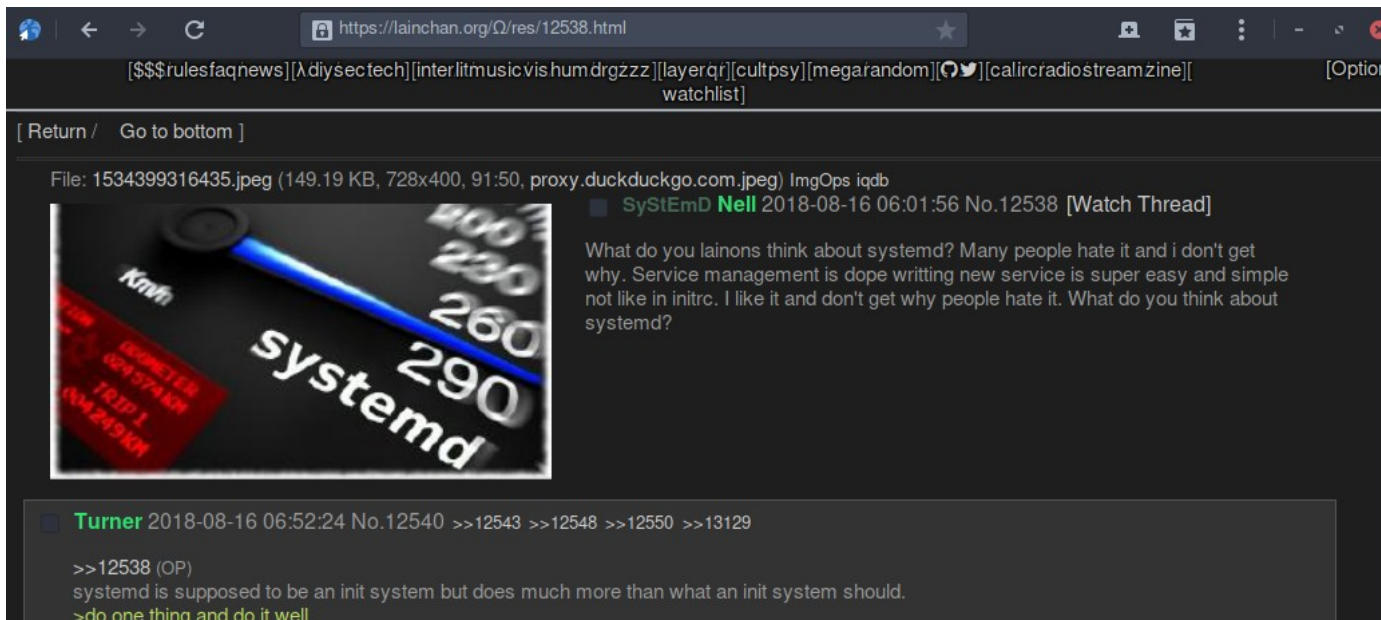


# Non mais en quoi c'est un problème ?



# Effets de boards ...

Ça fait discuter dans les forum ...



**Turner** 2018-08-16 06:52:24 No.12540 >>12543 >>12548 >>12550 >>13129

>>12538 (OP)

systemd is supposed to be an init system but does much more than what an init system should.

>do one thing and do it well

It goes against the unix philosophy. Complexity breeds bugs and vulnerabilities.

► **Anonymous** 08/23/18 (Thu) 14:30:56 No.959299

File (hide): 71cf8e33648a0220.gif (475.42 KB, 359x270, 359:270, YUIisMOEFIDDLING.gif) (h) (u)



I still use gentoo because its no systemd and mature distro(as in number of packages, searchable online support, stability)

I also appreciate having the source code of all my software so I can check how many LOC there are and make small changes that for some strange reason are not possible through configs. The 9999 versions of packages are also a nice way to install the newest version of software from git.

Being able to do use flags optimizations and kernel customization is nice flexibility to have but I dont see the need for saving disc space and barely noticeable speed gains.

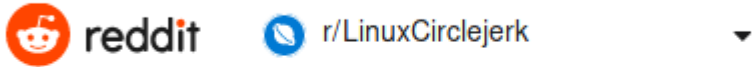
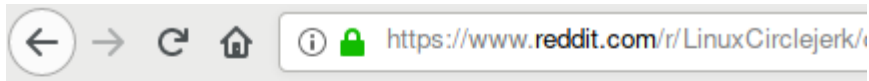
If not for the lack of maturity crux and void linux seem like better options. They seem to offer choice of whether to compile from source or install binary, so can save time when compile is not needed.

crux is more interesting because of it's focus on simplicity and void is interesting because of it's simple fast init runit and using musl which is more minimal than glibc.

... et cela génère de la créativité ...

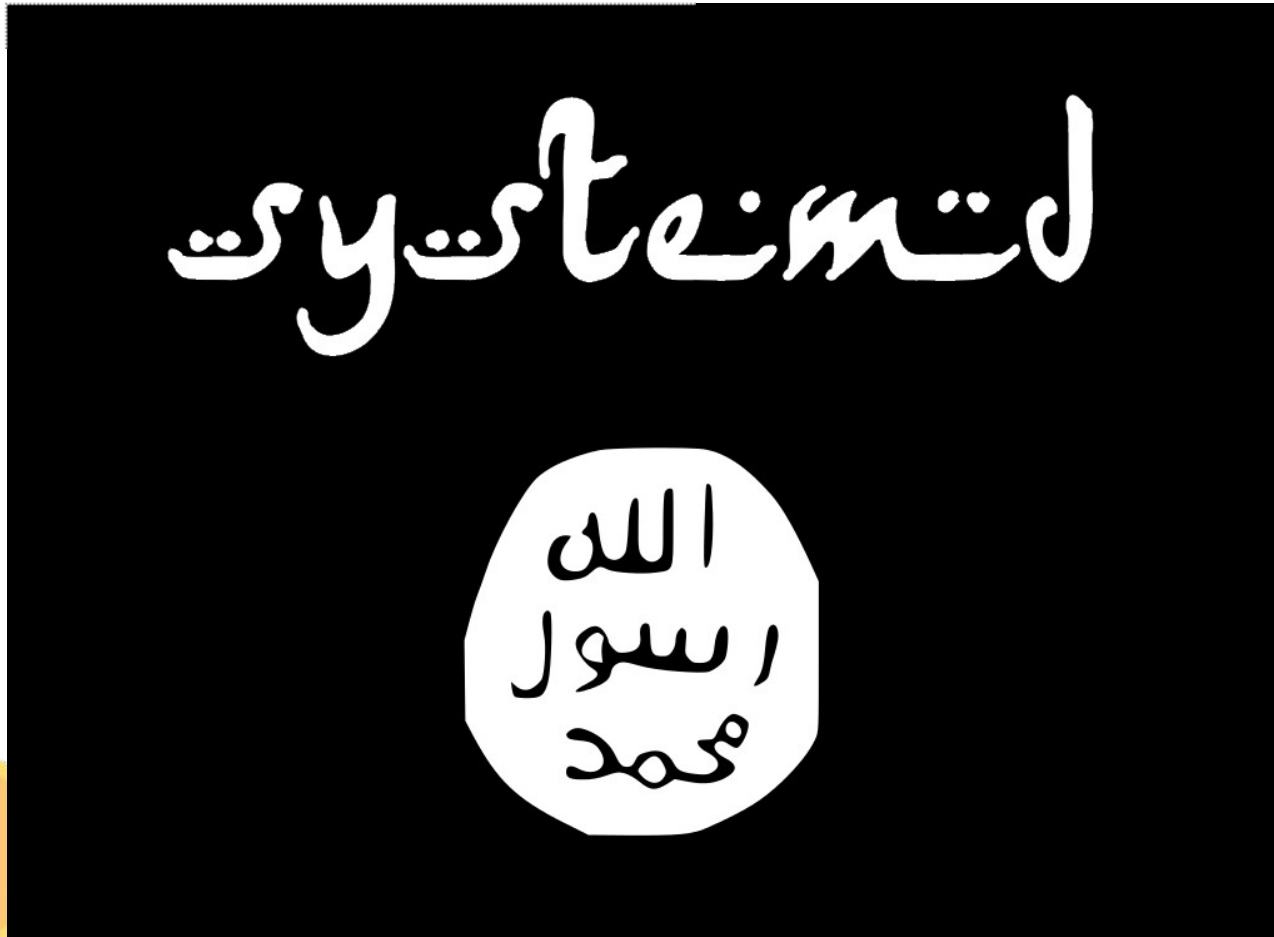


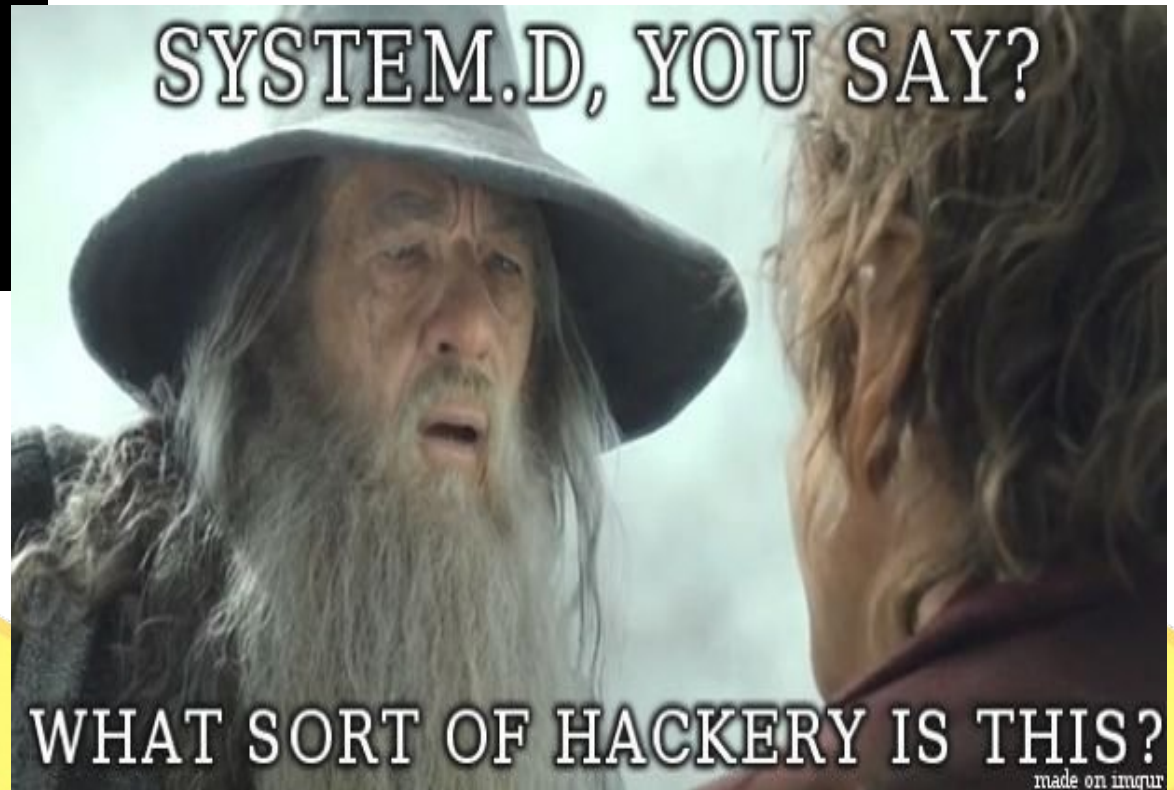
... y compris d'un goût douteux...



Posted by u/deletedj 2 years ago

56 TIL systemd was created by ISIS





**SYSTEMD**



**BECAUSE WE CAN**

imgflip.com



Linux distros

A simple, decent  
init system

systemd

They're all getting distracted

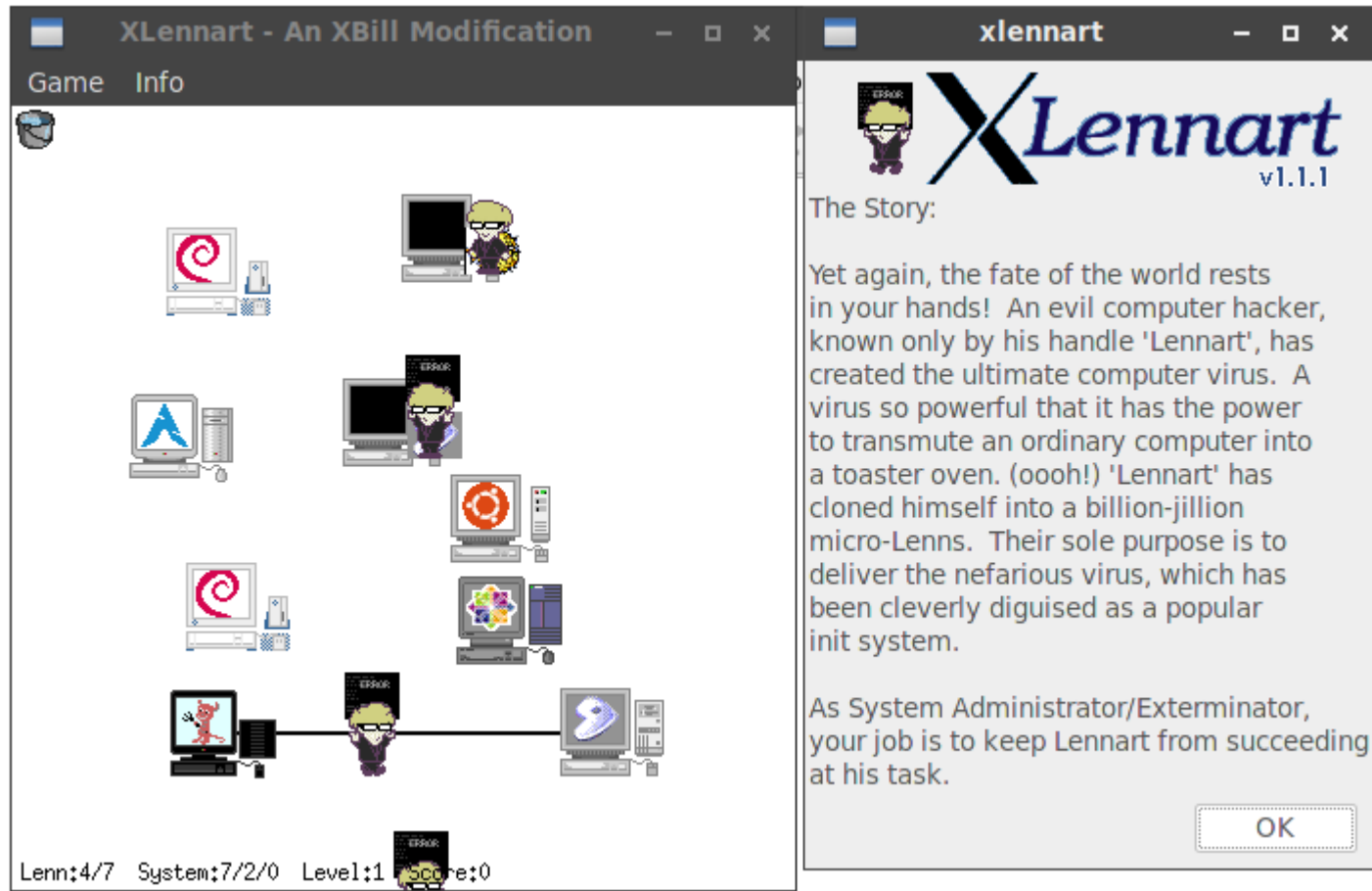


# Lennart Poettering à l'école des sorciers

- Si ça fonctionne plus avec systemd ...
- Attaques personnelles
- Le cas « pulseaudio »
- Réputation



... donnant même des jeux ...



# Les alternatives : quelques exemples de distributions sans systemd

- Rappel : GNU/Linux possède des alternatives
- Si on est courageux ou courageuse : audit et compilation personnelle !

# GNU/Linux Distributions without systemd

Devuan uses sysvinit, offers openrc, runit, sinit

Dragora uses sysvinit + perp

Gentoo uses openrc (see [Gentoo without systemd](#))

Obarun uses s6 supervision suite

Slackware uses sysvinit

Stali, the static Linux, uses sinit

Void Linux uses runit

Hyperbola uses openrc

Artix offers OpenRC and runit

Source :  
<https://www.devuan.org/os/init-freedom/>

Feature	Init system									
	sysvinit	OpenRC	upstart	systemd	SMF	launchd	Epoch	finit	runit	BSD rc.d
Supported in Gentoo	partially (used by OpenRC)	✓ Yes (default init)	✗ No	✓ Yes	✗ No	✗ No	✓ Yes	✗ No	✓ Yes	✗ No
Package / Bug#	sys-apps/sysvinit <a href="#">↗</a>	sys-apps/openrc <a href="#">↗</a>	<a href="#">🐛 bug #498376</a> <a href="#">↗</a> sys-apps/upstart <a href="#">↗</a> in unity-gentoo overlay.	sys-apps/systemd <a href="#">↗</a>	-	-	sys-apps/epoch <a href="#">↗</a>	-	sys-process/runit <a href="#">↗</a>	-
Supported platforms	Linux / BSD	Linux + BSD	Linux	Linux	Solaris	MacOSX	Linux	Linux	Linux	BSD
Main coding language	C	POSIX shell (+ C)	C	C	C	C	C	C	C	POSIX shell (+ C)
Main dependencies	-	init (sysv or BSD)	D-Bus	D-Bus	init(sysv?)	-	libc, /bin/sh	?	-	rcorder
Init script/service format	single config file	shell scripts	config files + shell fragments	config files (ini)	XML (+ shell scripts)	plist	multiple or single .conf	multiple or single .conf	shell scripts	shell scripts
Per-service configuration	✗ No	✓ Yes (conf.d)	✓ With in-job mechanisms (normal exit, respawn)	✓ Yes	✓ Yes (service instances)	?	✓ Yes (v1.1+)	?	✗ No	✗ No
Running as a daemon	✓ Yes (PID 1)	✓ Yes (PID 1)	✓ Yes (PID 1)	✓ Yes (PID 1)	✓ Yes (invoked)	✓ Yes (PID 1)	✓ Yes (PID 1)	✓ Yes (PID 1)	✓ Yes (PID 1)	✓ Yes (PID 1)
Cross-service dependencies/events	✗ No	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✗ No	✓ Yes (basic support, v1.3+)	?	✓ Yes	✓ Yes
Parallel service startup	✓ Yes	✓ Yes (optional)	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✗ No	✓ Yes	✓ Yes	✓ Yes
Keeping daemons alive	✓ Yes	✓ Yes (optional v0.21+ via supervise-daemon)	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes

Nom du système	Open RC	Runit	SystemD
<b>Ajouter un service au démarrage</b>	rc-update add service runlevel	ln -s /etc/sv/_name /var/service/_name	systemctl enable service_name
<b>Supprimer service au démarrage</b>	rc-update del service runlevel	rm /var/service/_name	systemctl disable service_name
<b>Arrêter un service</b>	/etc/init.d/<service> stop rc-service <service> stop	sv down service_name	systemctl stop service_name
<b>Démarrer un service</b>	/etc/init.d/<service> start rc-service <service> start	sv up service_name	systemctl start service_name
<b>Redémarrer un service</b>	/etc/init.d/<service> restart rc-service <service> restart	sv restart service_name	systemctl restart service_name
<b>Statut d'un service</b>	/etc/init.d/<service> status  rc-service <service> status	sv status service_name	systemctl status service_name
<b>Gestion clavier</b>	/etc/conf.d/keymaps	KEYMAP=layout dans /etc/rc.conf	localectl set-keymap layout_
<b>Gestion clavier X</b>	/etc/X11/xorg.conf.d/10- keyboard.conf	/etc/X11/xorg.conf.d/10- keyboard.conf	localectl set-x11- keymap layout_

# Devuan

- Installation très semblable à debian, en mode texte ou graphique
- Environnements disponibles : tous ceux non liés jusqu'à la moëlle à systemd
- Ne conserve qu'une librairie liée à systemd (libsystemd0)

```

anonymous@b4ph0m3t: ~
anonymous@b4ph0m3t:~$ screenfetch -D Devuan Ascii 2.0
anonymous@b4ph0m3t
OS: devuan
Kernel: x86_64 Linux 4.9.0-6-amd64
Uptime: 4m
Packages: Unknown
Shell: bash 4.4.12
Resolution: 1440x900
WM: OpenBox
CPU: Intel Pentium Dual CPU T2370 @ 1.733GHz
GPU: Mesa DRI Intel(R) 965GM
RAM: 272MiB / 3004MiB

#####
#####
##0#0##
#####
#####
#####
#####
#####
#####
#####
#####
#####
#####
#####
#####
#####
#####

anonymous@b4ph0m3t:~$

```

Documents

Fichier Édition Affichage Aller à Signets Outils Aide

home anonymous Documents

- Devoirs
- cahier-notes.ods
- calendrier-bimestriel-20-18-19.ods
- calendrier-bimestriel-20-18-19.pdf
- calendrier-bimestriel-N-plus1.ods
- feedlist.opml

6 éléments Espace libre: 83,3 Gio (total : 103,6 Gio)

MOC [play] - Trentem?ller - Vamp

Playlist

- 1 <http://cyberradio.pw:8000/stream> [ [ [ [ NET ]
- 2 <http://streaming.radio.rtl.fr/rtl-1-44-64> [ [ [ [ NET ]
- 3 <http://streaming.radio.rtl.fr/rtl-1-44-96> [ [ [ [ NET ]
- 4 <http://relay.broadcastify.com:80/wmqj7x2pcl1yf> [ [ [ [ NET ]
- 5 <http://mp3lg3.scdn.arkena.com/10489/europe1.mp3> [ [ [ [ NET ]
- 6 <http://ecoutez.radio-libertaire.org:8080/radiolib> [ [ [ [ NET ]
- 7 <http://audio.scdn.arkena.com/11007/franceinfo-lofi32.mp3> [ [ [ [ NET ]
- 8 <http://audio.scdn.arkena.com/11006/franceinfo-midfi128.mp3> [ [ [ [ NET ]
- 9 <http://audio.scdn.arkena.com/11016/fip-midfi128.mp3> [ [ [ [ NET ]
- 10 <http://audio.scdn.arkena.com/11017/fip-lofi32.mp3> [ [ [ [ NET ]
- 11 <http://necta-relay.mnus.de:8000/necta192.mp3> [ [ [ [ NET ]
- 12 <http://ouifm.ice.infomaniak.ch/ouifm-high.mp3> [ [ [ [ NET ]
- 13 <http://radiomer.ice.infomaniak.ch/radiomer-128.mp3> [ [ [ [ NET ]
- 14 <http://ouifm2.ice.infomaniak.ch/ouifm2.mp3> [ [ [ [ NET ]
- 15 <http://ouifmbluesrock.ice.infomaniak.ch/ouifmbluesrock-128.mp3> [ [ [ [ NET ]
- 16 <http://ouifm3.ice.infomaniak.ch/ouifm3.mp3> [ [ [ [ NET ]
- 17 <http://ouifm5.ice.infomaniak.ch/ouifm5.mp3> [ [ [ [ NET ]
- 18 <http://radio.7chan.org:8000/CH7> [ [ [ [ NET ]
- 19 <http://infinitespaceaudio.com:9654> [ [ [ [ NET ]
- 20 <http://lainchan.org:8000/lain.ogg> [ [ [ [ NET ]

Playing... [Progress Bar] Master 39% >000:00:00

> Trentem?ller - Vamp  
00:13 [00:00] 44kHz kbps [STEREO] [NET] [NEXT]



# Voidlinux

- Installation à partir d'un live-cd et un peu de transpiration
- Environnements disponibles :
- Pour : simple, pas de system-d
- Contre : pas d'installateur graphique de paquets, peu de paquets disponibles, équipe de dev réduite,
- Anecdote : le dev principal a disparu fin décembre 2017... (il est entré dans le vide !)

```
LXTerminal
Fichier Édition Onglets Aide
libcanberra-gtk3-0.30_9: configuring ...
libcanberra-gtk3-0.30_9: installed successfully.
gnome-screenshot-3.30.0_1: configuring ...
Updating MIME database...
Refreshing GSettings database from usr/share/glib-2.0/schemas... Warning: Schema
?org.gnome.crypto.pgp? has path ?/desktop/gnome/crypto/pgp/?. Paths starting w
ith ?/apps/?, ?/desktop/? or ?/system/? are deprecated.
Warning: Schema ?org.gnome.system.locale? has path ?/system/locale/?. Paths sta
rting with ?/apps/?, ?/desktop/? or ?/system/? are deprecated.
Warning: Schema ?org.gnome.system.proxy? has path ?/system/proxy/?. Paths start
ing with ?/apps/?, ?/desktop/? or ?/system/? are deprecated.
Warning: Schema ?org.gnome.system.proxy.http? has path ?/system/proxy/http/?. P
aths starting with ?/apps/?, ?/desktop/? or ?/system/? are deprecated.
Warning: Schema ?org.gnome.system.proxy.https? has path ?/system/proxy/https/?.
Paths starting with ?/apps/?, ?/desktop/? or ?/system/? are deprecated.
Warning: Schema ?org.gnome.system.proxy.ftp? has path ?/system/proxy/ftp/?. Pat
hs starting with ?/apps/?, ?/desktop/? or ?/system/? are deprecated.
Warning: Schema ?org.gnome.system.proxy.socks? has path ?/system/proxy/socks/?.
Paths starting with ?/apps/?, ?/desktop/? or ?/system/? are deprecated.
done.
gnome-screenshot-3.30.0_1: installed successfully.

2 downloaded, 2 installed, 0 updated, 2 configured, 0 removed.
[root@v1d3 anonymous]#
```

```
LXTerminal
Fichier Édition Onglets Aide
[anonymous@v1d3 ~]$ neofetch

      .;=====;_.
    _-+==+++=+==+==+;
  -+==+++=+==+==+==+
  -=:`      `--+=+==+.
    _vi,          --+=+==+
  .uvnvi.        -==+==+.
  .vvnvni.      ;|=|=|.
+QmQQmpvvnv;_yYsyQQWUUQQQm #QmQ#:QQQWUV$QQmL
-QQQQWpvvowZ?.wQQQE==<QWWQ/QWQW.QQWW(:jQWQE
-$QQQmmU' jQQQ@+=<QWQQ)mQQQ.mQQQC+;jWQQ@'
-$WQ8YnI:  QWQQwgQQWV`mWQQ.jQWQQgyyWw@!
  -lvvnvv.  ~+++      ++|+++
+vnvnv,    -|=|=
+vnvnvns.  :=
  -Invvnvnsi.____.=sv=.
  +Invvnvnnnnnnnnvnn;
  ~|Invvnvnnvnnv+
  ~|{*}*|~

anonymous@v1d3
-----
OS: Void Linux x86_64
Host: F7L 1.0
Kernel: 4.18.8 1
Uptime: 12 mins
Packages: 652 (xbps-query)
Shell: bash 4.4.23
Resolution: 1440x900
DE: LXDE
WM: Openbox
WM Theme: Onyx
Theme: gnome [GTK2], Adwaita [G
Icons: Adwaita [GTK2/3]
Terminal: lxterminal
Terminal Font: Monospace 10
CPU: Intel Pentium Dual T2370 (
GPU: Intel Mobile GM965/GL960
Memory: 200MiB / 2997MiB
```

LIGHTWEIGHT X11 DESKTOP ENVIRONMENT

# Artix

- Base archlinux
- Installation simplifiée à partir d'un live
- Pour : installation prête à l'emploi et automatisée
- Contre : pas d'installateur graphique de paquets (pacman, pacaure, yaourt ...), le chiffrement (/etc/inittab) n'a pas fonctionné (j'ai omis une étape ?)

**Playlist**

- [NET]
- http://streaming.radio.rtl.fr/rtl-1-44-64 [NET]
- http://streaming.radio.rtl.fr/rtl-1-44-96 [NET]
- http://relay.broadcastify.com:80/wnqj7x2pclyf [NET]
- http://mp3lg3.scdn.arkena.com/10489/europel.mp3 [NET]
- http://ecoutez.radio-libertaire.org:8080/radiolib [NET]

Playing... Master 75% >000:04:37

> The Algorithm Brute Force 2016https://ww

05:37 [00:00] 48kHz 224kbps [STEREO] [NET] [SHUFFLE] [REPEAT] [NEXT]

**AlsaMixer v1.1.6**

Carte: HDA Intel F1: Aide  
 Puce: Realtek ALC660-VD F2: Informations Système  
 Vue: F3:[Lecture] F4: Capture F5: Tout F6: Choisir la carte son  
 Contrôle: Master [gain dB: -16,00] Esc: Quitter

50 100<>100 100<>100 100<>100 0<>0 0<>0

< Master > Headphon Speaker PCM Mic Mic Boos S/PDIF S/PDIF D

Fichier Édition Affichage Aller à Signets Outils Aide

home anonymous Musique

Musique x Vidéos x Téléchargements x

Emplacements

- anonymous
- Bureau
- Corbeille
- Ordinateur
- Applications
- Réseau
- Appareils
- Signets
- Documents
- Images
- Musique

ALEX Cyber CyberPunk Mixxx

Feed Me - High Noon (Official Au...  
 Mega-City One Cyberpunk ...  
 The Evangelion Symphony ...  
 Thunderstor m and Rain Sounds - H...

8 éléments Espace libre: 28,4 Gio (total : 100,3 Gio)



```
anonymous@artix:~
$ neofetch

                dc.
                xdc.
                '.. ddc.
                c0d:oxllc;
                :0ddl0lc,lc,
                :ko.:0ddollc..dlc.
                ;Kkxo0ddollc' cllc.
                ,Kkkkxdddlc, .lll:
                ,Xkkkdddlll;...'dllldxk:
                ,Xkkkdddlllloxxxddo1llloooo,
                xxk0kkkdddolllloooooo1looooc;.
                dddkkkdddollc::;'.... .lll;
                .xdxkkddl'cl:. .llc,
                .0kkkxddl. ;'. ;llc.
                .K0kdcddl. .cllc.
                00kd' 'dc. .cll;
                k0kd' .llc,
                d0d, 'lc,
                :,. ...

anonymous@artix
-----
OS: Artix x86_64
Host: F7L 1.0
Kernel: 4.18.4-artix1-1-ARTIX
Uptime: 7 hours, 39 mins
Packages: 796 (pacman)
Shell: bash 4.4.23
DE: LXQt
Theme: Adwaita [GTK2/3]
Icons: Adwaita [GTK2/3]
Terminal: qterminal
Terminal Font: DejaVu Sans Mono 10
CPU: Intel Pentium Dual T2370 (2) @ 1.
GPU: Intel Mobile GM965/GL960
Memory: 957MiB / 2996MiB
```

# Hyperbola

- Base Archlinux
- Optique : Comme pour debian on cherche la longévité des paquets (un peu un mode Long Time Support LTS\*)
- Pour : heu... la frugalité amène la connaissance
- Contre : Mêmes arguments qu'artix

\* Support Long Terme

anonymous@Hype... MOC [play] - Porte... anonymous@Hype...

```

-----Playlist-----
1 http://cyberadio.pw:8000/stream [ [NET]
2 http://streaming.radio.rtl.fr/rtl-1-44-64 [ [NET]
3 http://streaming.radio.rtl.fr/rtl-1-44-96 [ [NET]
4 http://relay.broadcastify.com:80/wnqj7x2pc1yf [ [NET]
5 http://mp3lg3.scdn.arkena.com/10489/europe1.mp3 [ [NET]
6 http://ecoutez.radio-libertaire.org:8080/radiolib [ [NET]
7 http://audio.scdn.arkena.com/11007/franceinfo-lofi32.mp3 [ [NET]
8 http://audio.scdn.arkena.com/11006/franceinfo-midfi128.mp3 [ [NET]
9 http://audio.scdn.arkena.com/11016/fip-midfi128.mp3 [ [NET]
10 http://audio.scdn.arkena.com/11017/fip-lofi32.mp3 [ [NET]
11 http://necta-relay.mnus.de:8000/necta192.mp3 [ [NET]
12 http://ouifm.ice.infomaniak.ch/ouifm-high.mp3 [ [NET]
13 http://radiomer.ice.infomaniak.ch/radiomer-128.mp3 [ [NET]
14 http://ouifm2.ice.infomaniak.ch/ouifm2.mp3 [ [NET]
15 http://ouifmbluesrock.ice.infomaniak.ch/ouifmbluesrock-128.mp3 [ [NET]
16 http://ouifm3.ice.infomaniak.ch/ouifm3.mp3 [ [NET]
17 http://ouifm5.ice.infomaniak.ch/ouifm5.mp3 [ [NET]
18 http://radio.7chan.org:8000/CH7 [ [NET]
19 http://infinitespaceradio.com:9654 [ [NET]
-----Playing-----
> Porter Robinson - Flicker
00:34 [00:00] 48kHz 320kbps [STEREO] [NET] [SHUFFLE] [REPEAT] [NEXT]
PCM 100% >000:00:00
  
```

```

[anonymous@HyperB ~]$ screenfetch -t
anonymous@HyperB
OS: Hyperbola GNU/Linux-libre
Kernel: x86_64 Linux 4.9.125-gnu
Uptime: 5m
Packages: 603
Shell: bash 4.4.12
Resolution: 1440x900
DE: LXDE
WM: OpenBox
WM Theme: Syscrash
GTK Theme: Arc-Dark [GTK2]
Icon Theme: Arc
Font: Sans 10
CPU: Intel Pentium Dual T2370 @
GPU: intel
RAM: 188MiB / 3004MiB

[anonymous@HyperB ~]$
  
```

```

AlsaMixer v1.1.3
HDA Intel
Realtek ALC660-VD
F3:[Lecture] F4: Capture F5: Tout
Master [gain dB: -21,00]
  
```

39 100<->100 100<->100 100<->100

◀ Master Headphon Speaker PCM

# MXLinux

- Très semblable à une Ubuntu ou une Mint (base ubuntu)
  - Beaucoup (trop) de paquets préinstallés
- Prend le parti-prix d'utiliser sysvinit en émulant systemd

## 1.7 Systemd

Because the use of `systemd` as a system and service manager has been controversial, we want to be clear about its function in MX Linux. **Systemd is included by default but not enabled.** You can scan your MX system and discover files bearing `systemd*` names, but those simply provide a compatibility hook/entrypoint when needed.

MX Linux uses `systemd-shim`, which emulates the `systemd` functions that are required to run the helpers without actually using the `init` service. This means that `SysVinit` remains the default `init` yet MX Linux can use Debian packages that have `systemd` dependencies such as CUPS. This approach also allows the user to retain the ability to choose his/her preferred `init`.





# J'aurais pu citer aussi ...

- Parabola (base open-rc) : semblable à une archlinux donc non aisée si on prend l'installateur cli
  - Il existe une live-iso !
  - Pour : tout est « libre »
  - Contre : tout est « libre »
- Alpine linux

```
anonymous@ParaB ~]$ neofetch
      ____
     /  __ \
    /___/  \
   /      \
  /        \
 /          \
/            \
              anonymous@ParaB
-----
OS: Parabola GNU/Linux-libre x86_64
Host: F7L 1.0
Kernel: 4.18.11-gnu-1
Uptime: 3 mins
Packages: 1080 (pacman)
Shell: bash 4.4.23
Resolution: 1440x900
DE: LXDE
WM: Openbox
WM Theme: Numix
Theme: Numix-dark [GTK2/3]
Icons: Papyrus [GTK2/3]
Terminal: lxterminal
Terminal Font: Noto Sans Mono 10
CPU: Intel Pentium Dual T2370 (2) @ 1.
GPU: Intel Mobile GM965/GL960
Memory: 315MiB / 2993MiB
[anonymous@ParaB ~]$
```

```
.. /
/home/anonymous/REZZ
Diluted Brains-xkvjfDy7XG8.mp3 [04:07|MP3]
pLAgue - REZZ & 1788-L-2i_Ipyzq4TQ.mp3 [15:39|MP3]
PREMIERE - Rezz - Matrix (Original Mix)-BMEKy6Nw4Ls.mp3 [04:04|MP3]
Premonition-VYu8oXJQqok.mp3 [04:34|MP3]
RAW _ REZZ _ GREEN GUSHER-REi2Nm_85-4.mp3 [03:01|MP3]
Reckless (Original Mix)-C1vvBNBEUqg.mp3 [04:00|MP3]
REZZ - Cryptic-xE2vEx852BU.mp3 [03:13|MP3]
REZZ - Delusion-dw_X6M9owbg.mp3 [04:16|MP3]
REZZ - EDC Las Vegas 2018 (Full Live Set)-X16w3EJR4tI.mp3 [73:36|MP3]
REZZ - Edge-2oIAQSut9mo.mp3 [03:43|MP3]
REZZ feat. Delaney Jane - Lost-Ecy7qaf02VU.mp3 [ |MP3]
REZZ feat. Laura Brehm - Melancholy-Nddso8IgcAs.mp3 [ |MP3]
REZZ - Flying Octopus (Official Music Video)-khNKb0mE4JY.mp3 [ |MP3]
REZZ - ID @ EDC Las Vegas 2017-87fiDlqDkto.mp3 [ |MP3]
REZZ - I (Original Mix)-48B2PFyU_xQ.mp3 [ |MP3]
|-----|-----|-----|
|Playing...|-----|Master| 62% |-----|>002:00:13|
> REZZ - Edge-2oIAQSut9mo.mp3
00:31 03:12 [03:43] 48kHz 228kbps [STEREO] [NET] [SHUFFLE] [REPEAT] [NEXT]
```



# Quelques ressources internet.

- **Without systemd** :  
[http://without-systemd.org/wiki/index.php/Main\\_Page](http://without-systemd.org/wiki/index.php/Main_Page)
- **No systemd** : <https://nosystemd.org/>
- **Suckless** : <https://suckless.org/sucks/systemd/>
- **I hate systemd** : <https://ihatesystemd.com>