

# Instalación de servicio de audio (Icecast2/Darkice)

## Icecast2

Primeramente hacemos el **apt install** de los paquetes de “icecast2”.

```
ubuntu@ip-172-16-81-17: ~  
ubuntu@ip-172-16-81-17:~$ sudo apt update  
Hit:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy InRelease  
Get:2 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates InRelease [128 kB]  
Get:3 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-backports InRelease [127 kB]  
Get:4 http://security.ubuntu.com/ubuntu jammy-security InRelease [129 kB]  
Get:5 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main amd64 Packages [2591 kB]  
Fetched 2975 kB in 1s (4339 kB/s)  
Reading package lists... Done  
Building dependency tree... Done  
Reading state information... Done  
68 packages can be upgraded. Run 'apt list --upgradable' to see them.  
ubuntu@ip-172-16-81-17:~$ sudo apt install icecast2 -y  
Reading package lists... Done  
Building dependency tree... Done  
Reading state information... Done  
icecast2 is already the newest version (2.4.4-4build1).  
0 upgraded, 0 newly installed, 0 to remove and 68 not upgraded.  
ubuntu@ip-172-16-81-17:~$
```

El archivo de configuracion /etc/icecast2/icecast.xml deberias tenerlo bien por defecto.

```
<limits>  
  <clients>100</clients>  
  <sources>2</sources>  
  <queue-size>524288</queue-size>  
  <client-timeout>30</client-timeout>  
  <header-timeout>15</header-timeout>  
  <source-timeout>10</source-timeout>  
  <!-- If enabled, this will provide a burst of data w  
    first connects, thereby significantly reducing t  
    time for listeners that do substantial buffering  
    it also significantly increases latency between  
    client and listening client. For low-latency se  
    might want to disable this. -->  
  <burst-on-connect>1</burst-on-connect>  
  <!-- same as burst-on-connect, but this allows for be  
    specific on how much to burst. Most people won't  
    change from the default 64k. Applies to all moun  
  <burst-size>65535</burst-size>  
</limits>  
  
<authentication>  
  <!-- Sources log in with username 'source' -->  
  <source-password>sourcepass</source-password>  
  <!-- Relays log in with username 'relay' -->  
  <relay-password>relaypass</relay-password>  
  
  <!-- Admin logs in with the username given below -->  
  <admin-user>admin</admin-user>  
  <admin-password>adminpass</admin-password>  
</authentication>
```

Importante permitir el puerto **8000** en el security group.

```
listings. You MUST configure it properly.

-->
<hostname>localhost</hostname>

<!-- You may have multiple <listen-socket>
<listen-socket>
    <port>8000</port>
    <!-- <bind-address>127.0.0.1</bind-address>
    <!-- <shoutcast-mount>/stream</shoutcast-mount>
</listen-socket>
<!--
</listen-socket>
```

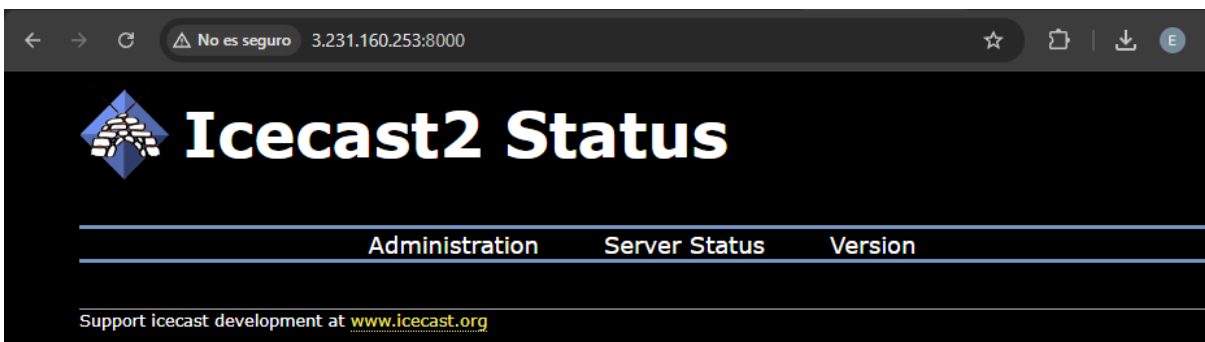
Reiniciamos y habilitamos el servicio icecast2.

```
ubuntu@ip-172-16-81-17: ~
ubuntu@ip-172-16-81-17:~$ sudo systemctl restart icecast2
ubuntu@ip-172-16-81-17:~$ sudo systemctl enable icecast2
icecast2.service is not a native service, redirecting to systemd-sysv-install.
Executing: /lib/systemd/systemd-sysv-install enable icecast2
ubuntu@ip-172-16-81-17:~$
```

Comprobamos el estado del servicio.

```
ubuntu@ip-172-31-32-229:~$ sudo systemctl status icecast2
● icecast2.service - LSB: Icecast2 streaming media server
   Loaded: loaded (/etc/init.d/icecast2; generated)
   Active: active (exited) since Mon 2025-05-19 11:09:52 UTC; 10s ago
     Docs: man:systemd-sysv-generator(8)
  Process: 15411 ExecStart=/etc/init.d/icecast2 start (code=exited, status=0/SUCCESS)
    CPU: 18ms

May 19 11:09:52 ip-172-31-32-229 systemd[1]: Starting LSB: Icecast2 streaming media server:
May 19 11:09:52 ip-172-31-32-229 icecast2[15411]: * Starting streaming media server:
May 19 11:09:52 ip-172-31-32-229 icecast2[15416]: /etc/icecast2/icecast.xml
May 19 11:09:52 ip-172-31-32-229 icecast2[15416]: <authentication>
May 19 11:09:52 ip-172-31-32-229 icecast2[15416]: ^
May 19 11:09:52 ip-172-31-32-229 icecast2[15411]: ...done.
May 19 11:09:52 ip-172-31-32-229 systemd[1]: Started LSB: Icecast2 streaming media server:
ubuntu@ip-172-31-32-229:~$
```



Icecast2 Status

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Support icecast development at [www.icecast.org](http://www.icecast.org)

## Darkice

Procedemos con la instalacion del servicio darkice.

```
ubuntu@ip-172-16-81-17: ~  
ubuntu@ip-172-16-81-17:~$ sudo apt update  
Hit:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy InRelease  
Hit:2 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates InRelease  
Hit:3 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-backports InRelease  
Hit:4 http://security.ubuntu.com/ubuntu jammy-security InRelease  
Reading package lists... Done  
Building dependency tree... Done  
Reading state information... Done  
68 packages can be upgraded. Run 'apt list --upgradable' to see them.  
ubuntu@ip-172-16-81-17:~$ sudo apt install darkice  
Reading package lists... Done  
Building dependency tree... Done  
Reading state information... Done  
darkice is already the newest version (1.3-0.3).  
0 upgraded, 0 newly installed, 0 to remove and 68 not upgraded.  
ubuntu@ip-172-16-81-17:~$
```

Creamos y agregamos el contenido al archivo /etc/darkice.cfg.

```
GNU nano 6.2 /etc/darkice.cfg  
[general]  
duration = 0  
bufferSecs = 5  
reconnect = yes  
  
[input]  
device = default  
sampleRate = 44100  
bitsPerSample = 16  
channel = 2  
  
[icecast2-0]  
bitrateMode = cbr  
format = mp3  
bitrate = 128  
server = localhost  
port = 8000  
password = sourcepass  
mountPoint = live.mp3  
name = Stream d'audio  
genre = Talk  
public = yes
```

```
ubuntu@ip-172-16-81-17: ~  
ubuntu@ip-172-16-81-17:~$ sudo apt install linux-image-generic  
Reading package lists... Done  
Building dependency tree... Done  
Reading state information... Done  
linux-image-generic is already the newest version (5.15.0.140.135).  
0 upgraded, 0 newly installed, 0 to remove and 68 not upgraded.  
ubuntu@ip-172-16-81-17:~$
```

```
ubuntu@ip-172-16-81-17: ~$ grep menuentry /boot/grub/grub.cfg
if [ x"${feature_menuentry_id}" = xy ]; then
  menuentry_id_option="--id"
  menuentry_id_option=""
export menuentry_id_option
menuentry 'Ubuntu' --class ubuntu --class gnu-linux --class gnu --class os $menuentry_id_option 'gnulinux-simple-8553
8820-9e86-47ea-9d4a-f18019b855c3' {
  submenu 'Advanced options for Ubuntu' $menuentry_id_option 'gnulinux-advanced-85538820-9e86-47ea-9d4a-f18019b855c3' {
    menuentry 'Ubuntu, with Linux 6.8.0-1024-aws' --class ubuntu --class gnu --class os $menuentry_id_option 'gnulinux-6.8.0-1024-aws-advanced-85538820-9e86-47ea-9d4a-f18019b855c3' {
      menuentry 'Ubuntu, with Linux 6.8.0-1024-aws (recovery mode)' --class ubuntu --class gnu --class os $menuentry_id_option 'gnulinux-6.8.0-1024-aws-recovery-85538820-9e86-47ea-9d4a-f18019b855c3' {
        menuentry 'Ubuntu, with Linux 6.8.0-59-generic' --class ubuntu --class gnu --class os $menuentry_id_option 'gnulinux-6.8.0-59-generic-advanced-85538820-9e86-47ea-9d4a-f18019b855c3' {
          menuentry 'Ubuntu, with Linux 6.8.0-59-generic (recovery mode)' --class ubuntu --class gnu --class os $menuentry_id_option 'gnulinux-6.8.0-59-generic-recovery-85538820-9e86-47ea-9d4a-f18019b855c3' {
            menuentry 'Ubuntu, with Linux 5.15.0-140-generic' --class ubuntu --class gnu --class os $menuentry_id_option 'gnulinux-5.15.0-140-generic-advanced-85538820-9e86-47ea-9d4a-f18019b855c3' {
              menuentry 'Ubuntu, with Linux 5.15.0-140-generic (recovery mode)' --class ubuntu --class gnu --class os $menuentry_id_option 'gnulinux-5.15.0-140-generic-recovery-85538820-9e86-47ea-9d4a-f18019b855c3' {
            }
          }
        }
      }
    }
  }
}
```

```
ubuntu@ip-172-16-81-17: ~  
GNU nano 6.2 /etc/default/grub  
# If you change this file, run 'update-grub' afterwards to update  
# /boot/grub/grub.cfg.  
# For full documentation of the options in this file, see:  
#   info -f grub -n 'Simple configuration'  
  
GRUB_DEFAULT="Advanced options for Ubuntu>Ubuntu, with Linux 5.15.0-140-generic"  
GRUB_TIMEOUT_STYLE=hidden  
GRUB_TIMEOUT=0  
GRUB_DISTRIBUTOR=`lsb_release -i -s 2> /dev/null || echo Debian`  
GRUB_CMDLINE_LINUX_DEFAULT="quiet splash"  
GRUB_CMDLINE_LINUX=""
```

Aplicamos los cambios con un **sudo update-grub**.

```
ubuntu@ip-172-16-81-17: ~  
ubuntu@ip-172-16-81-17:~$ sudo update-grub  
Sourcing file `/etc/default/grub`  
Sourcing file `/etc/default/grub.d/40-force-partuuid.cfg`  
Sourcing file `/etc/default/grub.d/50-cloudimg-settings.cfg`  
Sourcing file `/etc/default/grub.d/init-select.cfg`  
Generating grub configuration file ...  
GRUB_FORCE_PARTUUID is set, will attempt initrdless boot  
Found linux image: /boot/vmlinuz-6.8.0-1024-aws  
Found initrd image: /boot/microcode.cpio /boot/initrd.img-6.8.0-1024-aws  
Found linux image: /boot/vmlinuz-6.8.0-59-generic  
Found initrd image: /boot/microcode.cpio /boot/initrd.img-6.8.0-59-generic  
Found linux image: /boot/vmlinuz-5.15.0-140-generic  
Found initrd image: /boot/microcode.cpio /boot/initrd.img-5.15.0-140-generic  
Warning: os-prober will not be executed to detect other bootable partitions.  
Systems on them will not be added to the GRUB boot configuration.  
Check GRUB_DISABLE_OS_PROBER documentation entry.  
done  
ubuntu@ip-172-16-81-17:~$
```

```
ubuntu@ip-172-16-81-17:~$ sudo reboot
```

```
ubuntu@ip-172-16-81-17:~$ uname -r  
5.15.0-140-generic  
ubuntu@ip-172-16-81-17:~$
```

Utilizamos el comando “**sudo modprobe snd-aloop**” para crear la tarjeta..

```
ubuntu@ip-172-16-81-17:~$ sudo modprobe snd-aloop
```

```
ubuntu@ip-172-16-81-17: ~  
ubuntu@ip-172-16-81-17:~$ aplay -l  
**** List of PLAYBACK Hardware Devices ****  
card 0: Loopback [Loopback], device 0: Loopback PCM [Loopback PCM]  
  Subdevices: 8/8  
  Subdevice #0: subdevice #0  
  Subdevice #1: subdevice #1  
  Subdevice #2: subdevice #2  
  Subdevice #3: subdevice #3  
  Subdevice #4: subdevice #4  
  Subdevice #5: subdevice #5  
  Subdevice #6: subdevice #6  
  Subdevice #7: subdevice #7  
card 0: Loopback [Loopback], device 1: Loopback PCM [Loopback PCM]  
  Subdevices: 8/8  
  Subdevice #0: subdevice #0  
  Subdevice #1: subdevice #1  
  Subdevice #2: subdevice #2  
  Subdevice #3: subdevice #3  
  Subdevice #4: subdevice #4  
  Subdevice #5: subdevice #5  
  Subdevice #6: subdevice #6  
  Subdevice #7: subdevice #7  
ubuntu@ip-172-16-81-17:~$
```

```
ubuntu@ip-172-16-81-17:~$ echo snd-aloop | sudo tee -a /etc/modules
```

```
ubuntu@ip-172-16-81-17: ~  
GNU nano 6.2 /etc/asound.conf  
pcm.!default {  
    type hw  
    card Loopback  
    device 0  
    subdevice 0  
}  
  
ctl.!default {  
    type hw  
    card Loopback  
}
```

```
ubuntu@ip-172-16-81-17:~$ sudo reboot
```

Utilizamos este comando para encender el servicio darkice.

```
ubuntu@ip-172-16-81-17: ~  
ubuntu@ip-172-16-81-17:~$ sudo darkice -c /etc/darkice.cfg  
DarkIce 1.3 live audio streamer, http://code.google.com/p/darkice/  
Copyright (c) 2000-2007, Tyrell Hungary, http://tyrell.hu/  
Copyright (c) 2008-2013, Akos Maroy and Rafael Diniz  
This is free software, and you are welcome to redistribute it  
under the terms of The GNU General Public License version 3 or  
any later version.  
  
Using config file: /etc/darkice.cfg  
Using ALSA DSP input device: default  
Using POSIX real-time scheduling, priority 4
```



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# Icecast2 Status

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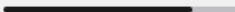

**Mount Point /live.mp3**  

Stream Name: Stream d'audio  
Stream Description: Unspecified description  
Content Type: audio/mpeg  
Stream started: Thu, 22 May 2025 15:32:57 +0000  
Bitrate: 128  
Listeners (current): 0  
Listeners (peak): 0  
Genre: Talk  
Currently playing:

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Support icecast development at [www.icecast.org](http://www.icecast.org)

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⏸ 0:03  



## Instalación de servicio de imagen (Gstreamer)

`sudo apt update`

`sudo apt install -y gstreamer1.0-tools gstreamer1.0-plugins-base`

`gstreamer1.0-plugins-good gstreamer1.0-plugins-bad gstreamer1.0-plugins-ugly`

`gstreamer1.0-libav gstreamer1.0-alsa gstreamer1.0-pulseaudio vnstat iftop iperf3`

`v4l-utils`

```
ubuntu@ip-172-16-81-17:~$ sudo apt install -y gstreamer1.0-tools gstreamer1.0-plugins-base gstreamer1.0-plugins-good gstreamer1.0-plugins-bad gstreamer1.0-plugins-ugly gstreamer1.0-libav gstreamer1.0-alsa gstreamer1.0-pulseaudio vnstat iftop iperf3 v4l-utils
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
gstreamer1.0-plugins-ugly is already the newest version (1.20.1-1).
iftop is already the newest version (1.0~pre4-7).
v4l-utils is already the newest version (1.22.1-2build1).
vnstat is already the newest version (2.9-1).
gstreamer1.0-alsa is already the newest version (1.20.1-1ubuntu0.4).
gstreamer1.0-plugins-base is already the newest version (1.20.1-1ubuntu0.4).
gstreamer1.0-plugins-good is already the newest version (1.20.3-0ubuntu1.3).
gstreamer1.0-pulseaudio is already the newest version (1.20.3-0ubuntu1.3).
gstreamer1.0-tools is already the newest version (1.20.3-0ubuntu1.1).
gstreamer1.0-libav is already the newest version (1.20.3-0ubuntu1).
gstreamer1.0-plugins-bad is already the newest version (1.20.3-0ubuntu1.1).
iperf3 is already the newest version (3.9-1+deb11u1build0.22.04.1).
0 upgraded, 0 newly installed, 0 to remove and 68 not upgraded.
ubuntu@ip-172-16-81-17:~$
```

Importante permitir el puerto 5000 en el security group.

```
ubuntu@ip-172-16-81-17: ~
ubuntu@ip-172-16-81-17:~$ sudo ufw allow 5000/udp
Skipping adding existing rule
Skipping adding existing rule (v6)
ubuntu@ip-172-16-81-17:~$
```

Comando para enviar:

`gst-launch-1.0 -v videotestsrc ! videoconvert ! x264enc`

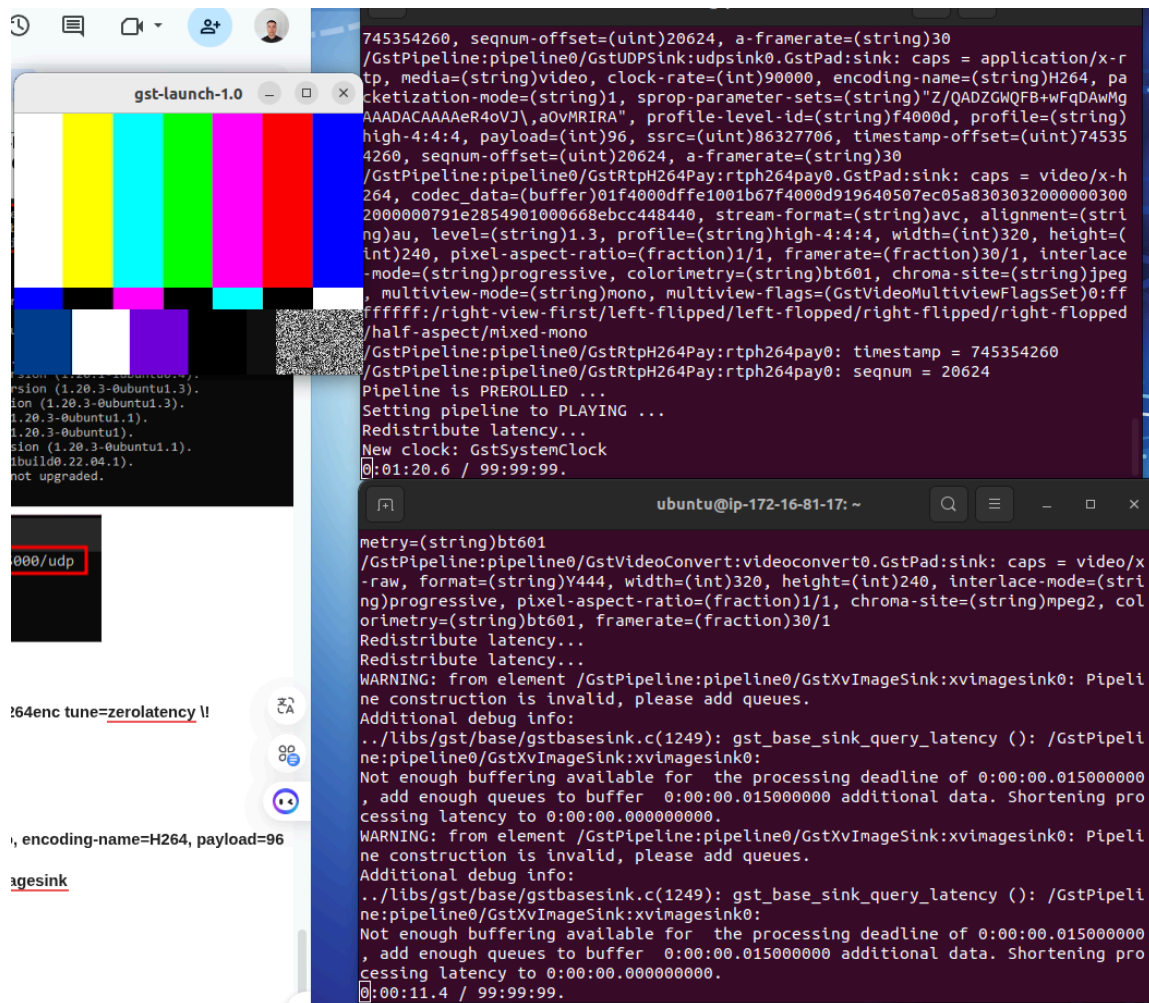
`tune=zerolatency ! rtph264pay ! udpsink host=127.0.0.1 port=5000`

Recibir:

`gst-launch-1.0 -v udpsrc port=5000 caps="application/x-rtp, media=video, encoding-name=H264, payload=96" ! \`

`rtph264depay ! avdec_h264 ! videoconvert ! xvimagesink`





Para reproducir un video concreto:

**gst-launch-1.0 filesrc location=/home/ubuntu/videoplayback.mp4 ! decodebin ! videoconvert ! autovideosink**

