The Media Streaming Journal
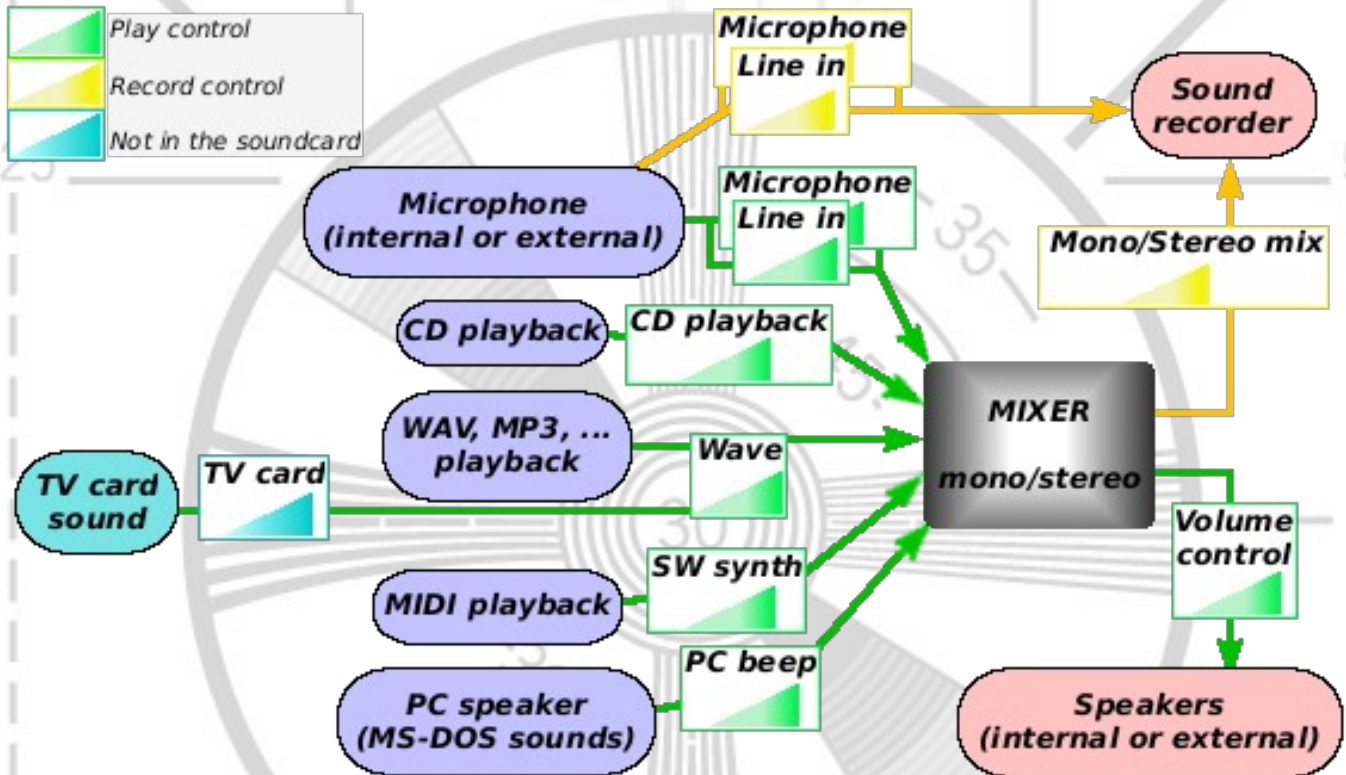
Covering Audio and Video Internet Broadcasting

Brought To You By

RADIOSOLUTION

www.radiosolution.info

Welcome to The Media Streaming Journal

Welcome to the latest installment of The Media Streaming Journal.

The demand for OTT Internet delivered content via the Internet continues to grow. New content delivery services continue to expand into an almost unlimited variety of content. Podcasting also continues to grow in both demand and a wide variety of available formats and content. Advertising and marketing demand also continues to grow within the Internet digital multimedia content delivery format, with the trend forecasted to continue at a rapid pace.

The sky is the limit for opportunities to establish or work with an existing organization and make yourself heard around the globe.

Please feel free to contact either the Publication Director (Derek Bullard) or myself if you have any questions or comments regarding The Media Streaming Journal.

Namaste

David Childers

The Grand Master of Digital Disaster
(Editor In Chief)

www.linkedin.com/pub/david-childers/4/736/72a

David Childers

The Grand Master of Digital Disaster

<u>Current Member</u>: International Association Of Internet Broadcasters

<u>Former Member</u>: Society of Motion Picture and Television Engineers

Published Author

Introduction To Internet Broadcasting
Amazon Publishing

30 Creative Commons Computer, Technical and Internet Broadcasting Guides

Newspaper Interviews

New York Times

Internet TV: Don't Touch That Mouse!
Tim Gnatek
July 1, 2004

Lagniappe - "Something Extra for Mobile"

Mobile Gets Hoaxed
Rob Holbert
Mar 16, 2016

Cited By

Five Essays on Copyright In the Digital Era
Ville Oksanen
2009

Turre Publishing
Helsinki Finland

Open Source Developer

Developed software architecture to continuously source multimedia content to Youtube Live servers.
Scenic Television – The sights and sounds of nature on the Internet.
http://www.ScenicTelevision.com

Projects

Researched and developed documentation for Peercast P2P multimedia streaming project.
http://en.wikipedia.org/wiki/PeerCast

Researched and developed technical documentation for NSV / Winamp Television.
http://web.archive.org/web/20080601000000*/http://www.scvi.net

MidSummer Eve Webfest

A virtual International festival focusing on Digital art and Free Software that was coordinated by OrganicaDTM Design Studio.

Presentation and discussion regarding Internet multimedia content distribution.
http://web.archive.org/web/20061104230522/http://www.organicadtm.com/index.php?
module=articles&func=display&catid=37&aid=61

LinkedIn Contact Information

http://www.linkedin.com/pub/david-childers/4/736/72a

Join our technical discussion on Facebook

http://www.facebook.com/groups/internetradiosupport/

Magazine cover:

https://commons.wikimedia.org/wiki/File:Soundcard_mixing_schema.png

RADIOSOLUTION

Our Mission

Let our friendly, knowledgeable staff assist you to build your project, such as an online radio station using our high end reliable video and audio streaming technologies. We want to become your partner for all your hosting needs, as well as your one stop shop for radio products such as custom DJ drops and radio ID's.

Start An Internet Radio Station

Whatever you need to start Internet radio station, we will deliver! We provide high quality Internet Radio services to make your music radio project a success. We can provide Wowza, Icecast, SHOUTcast hosting and internet radio services to hobbyists, deejays, amateurs and established professionals. No radio station client is too big or too small for Radiosolution.

Choose between complete hassle-free service packages or new features to add to start internet radio station. Benefit from customized services and the latest in internet radio technology. You will receive professional, personalized and better Internet Radio Station services than you have received up till now. If you already have an Icecast or SHOUTcast hosting provider, we can still help you transfer your radio server over to us with no hassle and at no charge.

Internet Radio Station Services

Launch your internet, digital, satellite or AM/FM radio station anywhere in the world with all of the right tools. A broadcasting specialist is on standby to help you get started with an SHOUTcast or Icecast hosting package. We have servers ready for reliable streaming in North America and Europe. Our hosting packages have all the features you need to make your radio station project a success.

If you stream live or with an Auto DJ, we can provide you with the latest in web-based Cloud technology. You will love the simple to use control panel. Discover how easy it is to manage live deejays, upload fresh music and create custom scheduled programming. You will be able to track your listeners by getting real time statistics.

Starting your own Internet radio has never been easier. Get in touch with us anytime to start your Internet radio station.

Radiosolution is a SHOUTcast hosting provider located in Quebec Canada. We also offer Icecast, Wowza and Web Hosting services. Contact us to discuss the best option available as you start internet radio station. Radiosolution can provide personalized service in English, Dutch, and French. Starting an internet radio station can be intimidating, many people want to start one, but have no idea where to start. Radiosolution will be there for you every step of the way. Everyday people are searching the internet for free SHOUTcast servers. With Radiosolution SHOUTcast hosting we will allow you to try our services for FREE. By trying our services, you can be confident that you have chosen the best radio server hosting provider. You have nothing to loose because we offer a 30 day satisfaction guarantee. What are you waiting for? Contact us now! Radiosolution offers everything you need to start internet radio station. You will not need to go anywhere else. We can create your website, market your station and help you submit your station to online directories. We also feature the voice of Derek Bullard aka Dibblebee He can create affordable commercials, DJ intros, sweepers, jingles, ids and so much more.

The Order of the Iron Test Pattern is an association of people who have had the opportunity to work in or around the television and broadcast / cable industry. People who have an interest in television broadcasting are also welcome.
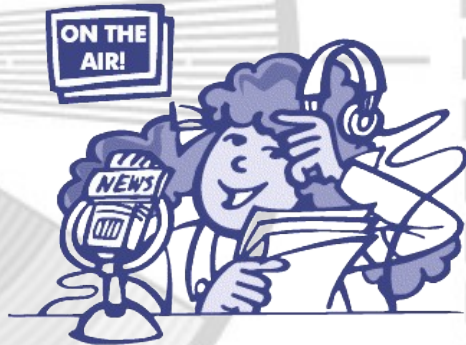
Hey You! Yes, You!
Why Should Anyone Listen to You?!

Do you need compelling, clever copy or catchphrases for your Internet station? If you do, please visit and lets talk!

http://www.ielectrify.com/work-with-me/

I am a professional writer with 15+ years of experience creating high-converting copy, for a variety of radio, broadcasting and marketing applications.

Takeing A Spin Around The Radio Dial

You may not fully appreciate the genre formats presented, but these Internet-only radio stations offer a very polished and professional product. These stations have a growing audience with a growing global audience that appreciates the dedication and care put into the production.

- Station Identifactions.
- Station announcements.
- Formated multimedia meta data.

- Station website.
- Ability to provide feedback.

If you are going to invest time and money in creating an online presence, take the time to create a station that offers both an enjoyable experience and a professional appearance. Putting in the extra time and effort certainly makes a difference in the final product.

"JIB on the Web" is a re-creation of what was once one of the USA's premiere radio stations playing Beautiful Music (Easy Listening). Serving the greater Boston, Massachusetts market, 'JIB enjoyed more than two decades of audience and advertiser appeal following its sign-on in 1967. Now, it's back ... playing carefully selected and programmed lush, orchestral arrangements of familiar standards and contemporary favorites along with an occasional solo or group vocal.

http://jibontheweb.com/

80's alternative at its best. Gem Radio New Wave is one of those stations you can switch on, and more than likely, you will recognize the song that's playing. And its a good chance you will know the one after, and after that again, and so on. Listen out for artists such as The Beat, The Specials, ABC, Sparks, Sex Pistols, R.E.M., The Cars, and many more. We reckon it's a good station for a couple of hours listening for all 80's enthusiasts who get tired of the usual "safe" options adhered to by mainstream daytime radio.

https://gemradio.webs.com/

The Scalla web radio is produced with great care so that we can bring back, or at least, get closer to the quality of programming in music and information, which has been a tradition for over 20 years on FM radio in the greater São Paulo.

Our intention is, in addition to keeping SCALLA on the air, for you, it is also to bring back, faithfully soon, the great programming along the lines of what SCALA was originally in addition, to increase the site with the history and homage to those who have already gone through Scalla microphones.

https://radioscalla.minharadioonline.net/

Icecast With Karl Heyes

Icecast is a multimedia streaming server software application created as free software maintained by the Xiph.org Foundation, which is a nonprofit organization that produces free multimedia formats and software tools.(2) Icecast was created to provide an open-source audio and video streaming server that anyone could use, or modify.(1)

Karl Hayes has created a fork of Icecast, which is based on the current set of branches of ices2 and icecast2. This "fork" consists of taking a copy of the original Icecast source code and beginning independent development of it, resulting in a distinct and separate software application that provides enhanced features. These additional features are based on requests and feedback from users. Some of these features are not suitable for distribution from Xiph, like the FLV wrapping/MPEG parsing. Other features are more suited for large scale installations.

https://karlheyes.github.io/

(1) https://en.wikipedia.org/wiki/Icecast

(2) https://en.wikipedia.org/wiki/Xiph.Org_Foundation

https://www.xiph.org/

Quotations To Ponder

I suppose popularity is measured by ratings. If a broadcaster is known as the leader because of ratings, then that's where people most want to be seen and heard, so there's no question that there's an advantage.

Walter Cronkite

The newspaper fits the reader's program while the listener must fit the broadcaster's program.

Kingman Brewster, Jr.

This Network Generation have grown up in a connected world. With Skype, Facebook, Twitter and the Internet, the world is at their fingertips via their smart phone. They find the idea of watching TV programmes at a time to suit the broadcaster quaint and old-fashioned.

Douglas Alexander

The beauty of the Internet is that anybody can be a broadcaster now.

Jeff Zucker

XML Shareable Playlist Format

The XML Shareable Playlist Format (XSPF) is an XML-based playlist format for digital media, sponsored by the Xiph.Org Foundation. It is a file format for sharing a playlist that can be played on a personal computer or portable device. In the same way that any user on any computer can open any Web page, XSPF is intended to provide playlists' portability.

XSPF was created by an ad hoc working group that started work in February 2004 and achieved a rough consensus on version 0 in April 2004. Work continued on implementations and fine tuning throughout summer and fall 2004, and declared the final version to be version 1 in January 2005.

Traditionally playlists have been composed of file paths that pointed to individual titles. This method allowed a playlist to be played locally on one machine or shared if the listed file paths were URLs accessible to more than one device (e.g., on the Web). XSPF's meta-data rich open format has permitted a new kind of playlist sharing called content resolution.

A simple form of content resolution is the localization of a playlist based on metadata. An XSPF-compliant content resolver will open XSPF playlists and search a catalog for every title with <creator>, <album> and <title> tags, then localize the playlist to reference the available matching tracks. A catalog may reference a collection of media files on a local disk, a music subscription service like Yahoo! Music Unlimited, or some other searchable archive. The result is shareable playlists that are not tied to a specific collection or service.

Example of an XSPF 1.0 playlist

```
<?xml version="1.0" encoding="UTF-8"?>
<playlist version="1" xmlns="http://xspf.org/ns/0/">
  <trackList>
    <track>
      <title>Windows Path</title>
      <location>file:///C:/music/foo.mp3</location>
    </track>
    <track>
      <title>Linux Path</title>
      <location>file:///media/music/foo.mp3</location>
    </track>
    <track>
      <title>Relative Path</title>
      <location>music/foo.mp3</location>
    </track>
    <track>
      <title>External Example</title>
      <location>http://www.example.com/music/bar.ogg</location>
    </track>
  </trackList>
</playlist>
```

Features

- A playlist format like M3U or ASX.
- MIME content-type of application/xspf+xml.
- Patent-free (no patents by the primary authors).
- Specification under the Creative Commons Attribution-NoDerivs 2.5 license.
- XML, like Atom.
- Unicode support.
- Cross-platform support.

https://en.wikipedia.org/wiki/XML_Shareable_Playlist_Format

Secure Reliable Transport

Secure Reliable Transport (SRT) is an open source video transport protocol that utilizes the UDP transport protocol and is designed for low-latency live video transmission and optimizes streaming performance. This enhanced protocol helps minimize the effects of jitter and bandwidth changes, while error-correction mechanisms help reduce packet loss. SRT also supports end-to-end encryption with AES.

The SRT protocol provides connection and control, reliable transmission similar to TCP. However, it does so at the application layer, using UDP protocol as an underlying transport layer. It supports packet recovery while maintaining low latency (default: 120 ms). SRT only attempts to retransmit packets for a limited amount of time based on the latency as configured by the application when performing retransmission.

The protocol's reference implementation was initially published under the Lesser General Public License version 2.1 but was relicensed under the Mozilla Public License on 22 March 2018. In March 2020, an individual Internet-Draft, draft-sharabayko-mops-SRT, was submitted for consideration to the Media OPerationS (MOPS) working group of the Internet Engineering Task Force.

SRT is supported in the free software multimedia frameworks of GStreamer, FFmpeg, OBS Studio, and in VLC free software media player.

The protocol was derived from the UDT project, which was designed for fast file transmission. It provided the reliability mechanism by utilizing similar connection methods, sequence numbers, acknowledgments, and retransmission of lost packets. It uses selective and immediate (NAK-based) retransmission.

SRT added several features to support live streaming mode:

- Controlled latency with source time transmission (timestamp-based packet delivery).
- Relaxed sender speed control.
- Conditional "too late" packet dropping (prevents head-of-line blocking caused by a lost packet that was not recovered on time).
- Eager packet retransmission (periodic NAK-report).

SRT offers three working modes, of which the first two were derived from UDT:

- File-stream mode: like TCP
- File-message mode: similar to SCTP protocol – sending blocks of data with clearly defined boundaries
- Live mode: the data is transmitted in small packets (typically up to 1316 bytes, if the stream is MPEG-TS) with appropriate time intervals between them. The same single packets with the same time intervals between them are then delivered at the receiver side.

The SRT library also offers these features:

- Encryption using a pre-shared key. OpenSSL initially provided encryption support. Nettle (GNU TLS) or mbedTLS can also be used.
- SRT Access Control (aka "StreamID") can be used by applications to identify resources and use the user-password access method while using the same service port number for multiple purposes.
- The optional Forward Error Correction mechanism.

The SRT Alliance is an organization whose members develop, use, and promote the Secure Reliable Transport protocol and software based on it. The founding members of the alliance are Haivision and Wowza.

https://www.srtalliance.org/

https://en.wikipedia.org/wiki/Secure_Reliable_Transport