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Presents

The Media Streaming Journal

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Covering Audio and Video Internet Broadcasting

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Welcome to the first edition of The Media Streaming Journal

Thomas L. Friedman wrote a book titled "The World Is Flat". In this book, he discusses various aspects of technology that have "flattened" the earth. This flattening effect has allowed people greater access to information and ideas from around the globe. With the Internet, you can sit in a Cafe in Anchorage Alaska and read the latest weather report for Durban South Africa. You can sit on a bus in Toronto Canada and read the latest news report for Santiago Chile.

A whole new world of opportunities has become possible with the advent of digital multimedia distribution. People are no longer forced to endure painful hours of listening to the diatribe of local radio stations. People can explore exotic music and fascinating entertainment. Unlike local broadcast stations, global broadcast stations can specialize in niche content. There are no geographic limitations or special technical licensing required. The possibilities have become unlimited for both the broadcaster and potential audience member.

I have had the opportunity to work and write within the Internet broadcasting field for several years, and I am amazed at the progress that this technology has achieved. Internet Broadcasting has revolutionized the ability to distribute entertainment, information, and education. The multitude of devices that enable the acquisition of Internet Broadcasting continues to increase. This includes the home environment, the business environment, and portable on the go devices.

I would like to thank Derek Bullard for this wonderful opportunity. I would also like to thank Neži Vidmar and Elena Georgescu for being a continued source of inspiration.

It is my hope that this Journal provides a valuable resource and outlet for the global Internet Broadcasting community.

Namaste

David Childers

The Grand Master of Digital Disaster
(Editor In Chief)

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

Twenty years from now you will be more disappointed by the things that you didn't do than by the ones you did do, so throw off the bowlines, sail away from safe harbor, catch the trade winds in your sails. Explore, Dream, Discover.

Mark Twain

The Media Streaming Journal

The Media Streaming Journal is looking for writers and articles to publish.

The Media Streaming Journal is looking for unique and original articles written about Internet broadcasting. This includes audio, video, production, planning and all aspects of Internet broadcasting. If your submitted article is selected for publication, a link to your website or station will be published along with your submitted article.

Contact the Media Streaming Journal today for more information: editor@radiosolution.info.

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Magazine cover graphic.

en.wikipedia.org/wiki/File:KOHL-radio-station.jpg

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What Is Internet Broadcasting

David Childers

Streaming multimedia on the Internet requires the conversion of video and audio into a compressed digital format then distributing the data through computer networks. This compressed data can be easily delivered using computer networks because of its smaller size. The video or audio can be live or recorded content that can be continuously streamed or delivered as on demand content.

Internet streaming is similar to standard radio and television broadcasting. Software is used to convert video and audio into a format that is suitable for delivery using a computer network. Radio and television stations use special hardware to convert video and audio data into a format suitable for broadcasting. Special computer network transport protocols enable the delivery of multimedia content to the end user (audience members) versus using broadcast transmitters to send the video or audio content to individual radio and television sets.

The first step in the Internet streaming process is digitally compressing the audio or video content. This is required to conserve bandwidth that is used for the delivery of the content. Specially developed software applications, called codecs, are used to compress the video or audio data. Codecs use mathematical algorithms to compress the data. Most codecs use a method of data compression known as lossy data compression. This method allows the compression of the content without losing the quality of the original video or audio content. Advanced codecs require large amounts of computer resources for high definition video and audio data compression. A balance must be established between the compression quality, bandwidth consumed and computer resources used. This balance ensures a quality listening and viewing experience for everyone.

The next step is to distribute the encoded video and audio content. Special server software is required for the continuous distribution of multimedia content. This specialized software can be installed and run on various computer operating systems including Windows, Linux and Macintosh; in addition to several other computer operating systems. Individual files can be distributed using on demand content delivery, without the need for specialized server software. On demand content can be hosted using a standard website account.

The final step is to prepare the compressed content for delivery. The method of data delivery used to transport the content via computer networks is determined by several factors that include: software used for the compression of the audio or video data, architecture of the computer network used for content delivery and end user requirements. Delivery of this data over computer networks uses special software or hardware instructions to route the video or audio content to the end user. Each computer network transport protocol has its own unique characteristics that make it applicable in specific situations.

No broadcast license or technical certification is required for Internet streaming, unlike a standard radio or television broadcast station. Standard radio and television broadcast stations are required to have a broadcast license and certified broadcast engineers. The only requirements for Internet video streaming are specialized data delivery server software, special audio and video encoding software and large amounts of bandwidth. Bandwidth is required for the delivery of the video and audio content to the end user.

All multimedia content is subject to applicable intellectual property regulations. These regulations differ from country to country; however the general rule for audio and video content is the station originating the Internet stream must own, or have a license to distribute material that is covered under copyright regulations. Content that has been released under creative commons, public domain or has fallen out of copyright protection is not subject to intellectual property regulations and can be streamed with no special content licensing requirements.

It is always advisable to seek legal counsel for maintaining compliance with intellectual property regulations.

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The Future of the Radio Streaming Industry

Derek Bullard

For many years radio has been satisfying a human's basic need by giving its listeners both diversion and musical satisfaction. It was only a short time ago that traditional radio was limited to two primary forms; AM or FM. Local radio stations attracted their listeners with programming and made money by selling advertising. To find a station with satisfactory programming or one that met your musical taste, you needed to do a quick scan through the local frequencies. You would hope that you would not pick up any interference in the signal when you found a station you liked. You may get the impression that the way I am describing radio is as if it is ancient history. Realistically though, FM land based stations are not yet dead. However, now thanks to the internet, radio has evolved, and we have the power of choice. Undeniably Internet radio has many advantages over terrestrial radio stations, but already the discussion about internet radio's future has begun.

Those involved in land based stations will rarely admit that FM stations are in danger. They argue that people still want the local news, weather and enjoy the DJ personalities. Those invested in the online internet radio world swear that FM radio is in danger of extinction. Whichever way you want to see it, the reality is that the internet is here to stay. Terrestrial stations will need to adapt and get creative in order to survive. It is very easy to start your own internet radio station, and the costs are minimal in comparison with land based radio stations. Not all internet stations out there are very good, and a very small ratio actually stands out amongst the thousands that exist. The future and success of internet radio stations will depend on a few very important factors.

Automobile Industry

Radio has always had a very special place in automobiles. AM and FM radio and local broadcast programming have long held the monopoly in cars. Most recently, automakers have been adding features in the dashboard such as Wi-Fi hot spots for in-car streaming. Listeners will be able to listen to their favorite internet radio station. According to State of the media, since January 2015, more than a third of U.S adult cell phone owners (35%) have listened to online radio in the car. This is more than the 21% who did so in 2013 and nearly six times the number (6%) in 2010. The automotive industry has recognized this technology trend and is working hard to make the car as connected as possible. This is without a doubt an enormous opportunity for internet radio.

Advertisers

Every radio station needs a continuous stream of revenue. Land based radio stations are required to play many commercials just to pay the expensive costs of running their business. Advertisers have long kept terrestrial radio alive, but now advertisers may be shifting their business to the estimated 143 million (half of Americans) that have listened to internet radio in last month of 2015. However, be warned not just any internet radio station will qualify.

Quality Programming

It seems that every Tom, Dick and Harry have either attempted to run an internet radio station or are currently running one. Let's face it; there are thousands of so-called internet stations out there. Many recognize the tremendous potential that Internet radio has to offer, but they do not meet quality programming standards that listeners are looking for. Therefore, they are not attracting many listeners at all. Internet Radio Stations need to have a clear objective, quality compelling programming and a target audience. They need to identify and analyse how their direct competitors are enjoying success. You will need to invest in a quality server and work with a reliable SHOUTcast/Icecast hosting service. Digital marketing is the key today, and it is important to have a strong web and social media presence. Radio stations that enjoy success offer incentives and always engage their listeners as much as possible. Simply put, the success of an internet radio station will depend on the creative ingenuity of the individual(s) running the station.

There is no doubt that internet radio is growing in popularity at a very fast rate. There is now an unprecedented opportunity in owning and operating an internet radio station. However, remember you will not enjoy success unless you are doing it right.

Developing a DJ or Radio or Music Show Logo Debby Peetam

In this day and age, plenty of DJs can turn their hobby into a paying gig. It is one of the fastest growing positions in the music industry. Whether it is internet radio or playing at events and clubs, having a recognizable DJ logo will make it more fun and effective to establish yourself as a professional and promote your services, show or radio station. You will be able to set yourself apart from the competition and present your unique brand and style in a creative and entertaining way. Offering your logo on merchandise, like T-shirts, caps, and other accessories, will not only help you spread the word, it could also be a means to generate revenue. Having a logo shows potential clients and listeners you are passionate and dedicated to your music, and when you take yourself serious, others will follow suit.

As a graphic designer, I understand that any logo, including a DJ logo, radio station -or- music show logo, must be versatile. Whether it is displayed at the small top corner of your website, at the bottom of your newsletter or printed on a big poster, it is essential the logo works well in ANY media; both web and print, in any size. A good logo that supports popular brand identity is beautiful in its simplicity. An unanticipated or distinctive feature will make it memorable, without losing its identity in useless detail. A professionally designed logo demands attention, but never offends! The relationship between shape, font, color, and / or illustration must be in harmony and characterize the subject well. A wooden textured country style font, illustrated with a desert flower obviously doesn't work for the hyper energetic music of a DJ named TECHNOBOB! Most importantly a logo must embody the performer's personal style while remaining timeless. Anyone should feel excited to wear or present the logo at any time and place.

The first thing I assist my clients to decide on is whether their logo is going to be a wordmark or symbol or a combination of both. A word mark is when the logo is text based. A symbolic logo is typically an iconic graphic mark. A combination is an icon followed by simple text. When designing a symbol I try to create something that either literally characterizes the name or what it stands for or does. Then I choose a font. For a text based logo, I usually choose a more decorative font or play with the shapes and flow of the letters. For a symbol based logo I try not to draw the attention from the symbol. I believe the text should be more understated, but at all times PERFECTLY readable. Deciding on the color palette comes last, but usually there already is a preference that will be fine-tuned or adjusted at the final stages. It is crucial that the logo will work printed on both light and dark surfaces. I tend not to work with too many different colors in one design and often stick to just one or two icon color(s).

If you should ever have any questions, or would like to brainstorm regarding the development of a logo for your radio station, show or DJ services, please do not hesitate to contact me.

www.bythebee.ca

www.instagram.com/bythebee

info@bythebee.info

www.facebook.com/bythebee.ca

How you can run multiple commands at the same time

For the Windows platform - use a batch file.

For the Linux platform - use a shell script.

- Create a text file. command.exe #1
 command.exe #2
- Include the command.exe #3
 information on the left. (Do Not Include the #)

- Create a text file. #!/bin/sh
 command #1
- Include the command #2
 information on the left. (Do Not Include the #)

- Save and name the file: test.bat
 (Example file name - test.bat.)
- Use the command line and change to the
 directory where the batch file is located at, then
 execute the batch script by typing: test.bat

- Save and name the file: test.sh
 (Example file name - test.sh.)
- Use the command line and change to the
 directory where the shell script file is located at
 and execute the shell script by typing: ./test.sh

RADIO SOLUTION

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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.

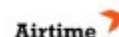
Internet Radio Station Services

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.



Computer Passwords David Childers

Computer security requires more than just installing a firewall. Effective computer security requires taking additional proactive steps. Password security is typically the weakest link in computer system security, and the purpose of a password is to prevent unauthorized people from gaining access to a computer or remote server account. Using simple or common words for passwords is the equivalent of not using any password protection.

- Select strong passwords for the ADMINISTRATOR / ROOT login. This password should contain a minimum of 12 characters, that should include at least 2 upper case letters, 2 lower case letters, 2 numbers and 2 special characters.
- Select strong passwords for the USER login. This password should contain a minimum of 12 characters, that should include at least 2 upper case letters, 2 lower case letters, 2 numbers and 2 special characters.
- Select strong passwords for the MEDIA SERVER software login. This password should contain a minimum of 12 characters, that should include at least 2 upper case letters, 2 lower case letters, 2 numbers and 2 special characters.
- Do not use identical passwords for all system logins.
 - * Root (Administrator) - Different individual password
 - * User - Different individual password
 - * Media server - Different individual password
- Establish a set routine for changing ALL system passwords on a regular basis.
 - * Root (Administrator)
 - * User
 - * Media server
- Do not store access passwords on the computer.
- Maintain physical security of all access password information.

Check the relative strength of passwords using free online resources

www.passwordmeter.com

www.microsoft.com/security/pc-security/password-checker.aspx

Open Source password generator software packages

Debian - Automated password generator. packages.debian.org/jessie/apg

Redhat / RPM - Gnome password generator. rpmfind.net/linux/rpm2html/search.php?query=pwgen

Windows - PWGen is an open source password generator. pwgen-win.sourceforge.net



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Microphone Techniques

Robert Andrews

Properly using a microphone is as important as properly encoding the audio for presenting the intended program.

- * Prior to broadcasting with a new or different microphone; test the microphone out by recording audio with it and reviewing the recording.
- * Speak into the microphone, not away from it.
- * Use proper distance between the microphone and your mouth.

Get close enough to the microphone so that your voice will not be obscured by ambient noise.

- * Avoid getting too close to the microphone.

This will prevent sounds from your tongue or lips to be picked up.

- * Use external dynamic directional broad frequency microphones.

This will provide the best audio spectrum during the recording process.

- * Ensure that a windscreen is used reduce the effects of noise generated by speaking.
- * The microphones should have a tripod or other piece of equipment to prevent it from moving around.
- * If the video requires multiple voice artists, each artist should have their own microphone.
- * Use the directional ability of the microphone.

Point the microphone to the source of sound in the studio.

- * Test distance the distance of the microphone from the speakers in the studio.

Ensure that you can clearly record the required sounds.

- * Avoid using the microphone around speakers or audio output devices.
- * Avoid placing the microphone in areas that absorb sound.

This will distort the audio.

- * Avoid using audio cables that show exposed wiring.

This will prevent electrical shock and picking up transient electrical noise that could degrade the audio.

- * Avoid placing the microphone in areas that produce echo.

This will distort the audio.

- * Avoid placing the microphone in areas that have other types of ambient sound.

This will overwhelm the intended audio you wish to broadcast.

- * Use proper grammar.
- * Avoid using slang grammar or jargon.
- * Be articulate in speaking.
- * Do not shout or raise your voice.
- * Use "cue" cards or scripts to avoid memory lapses.
- * Talk to the audience, do not merely read a script.
- * Be persuasive about the presentation.
- * Be enthusiastic about the presentation.
- * Avoid using excessive hand / arm motion.
- * Avoid using excessive moving around.

The Power Of Linux **Dan Uff**

There are alternatives to the Windows operating system that can provide exceptional performance and access to thousands of free software applications. Linux can provide a very cost effective method of increasing productivity and providing access to a very extensive collection of open source software applications geared for audio production, video production and Internet broadcasting.

Linux is a Unix-like computer operating system that was created in October of 1991 by Mr. Linus Torvalds when he was attending the University of Helsinki. It was developed as an open source and free operating system for personal computers and has since been ported to many computer hardware platforms.

The development of Linux is based on an open source software collaboration. Anyone can inspect the source code and submit modifications for system or security improvement.

Linux does not require state of the art hardware and can be easily used on much older computer systems. I have Linux installed on both a desktop and laptop computer that were designed for Windows XP.

Linux offers feature filled desktop environments for hardcore system users as well as people that require feature rich environments for lightweight systems. Linux supports both modern and legacy computer hardware. It also has excellent security architecture and features that prevent casual virus or malware attacks.

The Linux operating system has two main branches. Debian and Redhat.

Debian Linux is managed by the Debian Project, an open source software association. It has a development cycle that is relatively slow, which provides for better system stability and less system conflict. Debian provides software packages in Deb.pkg format.

Some of the major distributions of Linux based on Debian include:

Debian - Ubuntu - Linux Mint - Elementary OS

Redhat Linux is sponsored by the Redhat corporation. The development cycle is much faster, with emphasis placed on providing access to the latest Linux compatible applications and architecture. Redhat provides software packages in Rpm.pkg format.

Some of the major distributions of Linux based on Redhat include:

Open Suse - Centos - Redhat Enterprise Linux - Fedora

You can download "live" versions of Linux and burn the ISO image file to a compact disc to try on your computer. A live Linux compact disc will run as a normal operating system without the need for installation on the computer hard drive. Live editions of Linux can run on most computer systems. However, they tend to run better on systems that have large amounts of ram. The live cd will load the operating system on the ram as a "virtual" hard drive.

www.debian.org/CD/live/

www.fedoraproject.org/wiki/FedoraLiveCD

Linux is no longer the domain for computer nerds and techno geeks. Linux is here to serve you.

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