Thunder Eagle, Inc. ® VOIP-100

Extend your Weather Eagle® Audio Throughout Your Network!

1) Theory of Operation:

At the request of emergency management, Thunder Eagle, Inc. developed an easy way to deliver the NOAA weather radio audio (or any other analog audio) throughout your Lan/Wan network.

The source of the audio is the Unmuted audio from the Weather Eagle® 110. The audio is sourced from the WE110 from the rear RCA unmuted audio connector.

A Barix Instreamer is used to transition the analog audio into digital packets that can travel across Lan/Wan networks. Special firmware needs to be loaded into the Instreamer.

The Instreamer sends the digitized audio to a ShoutCast software server program running on a server. Multiple users can simultaneously connect to the ShoutCast server using WinAmp and other streaming audio players. The number of users is only limited by available bandwidth.

Audio streams can be very difficult to run on different computer platforms. Thunder Eagle had made arrangements to re-stream the Barix audio to an audio company that handles many platforms and users in a very efficient manner.

2) Barix Instreamer SetUp

a) Plug the LAN cat 5 cable into the Instreamer and into your network. Have pen and paper available. Plug the earphone into the HP (headphone) jack and put the earphones in your ears. Plug one end of the RCA audio cable into the Instreamer (mono use one cable (red or white), stereo use both cables (red and white) and the other end into your audio source. For the Weather Eagle audio, use one cable and plug one end into the Instreamer Line In and the other end (same color) into the Unmuted audio out on the rear of the unit. The input audio level can be adjusted from the pot on the rear panel of the Weather Eagle unit. Plug in the Instreamer and listen for the IP address. Write down the IP address and tape it to the Instreamer. The IP address will be something like 192.168.1.213

b) Bring up Internet Explorer (or other browser) on another computer on the same network and type the IP address into the browser's address box and hit go. The Instreamer home page should appear as below. Feel free to zoom in to 150% in this word document to make the screen shots easier to read.

c) Press the configuration button (top left under the logo) and the configuration screen will appear as below. Make sure firmware VA2.01 (10/14/2005) or later is loaded into the Instreamer. The firmware version is listed on the top of the configuration page.

➔Note..the Barix firmware has been significantly updated in 2010. Not all of the settings appear in the 2005 firmware.
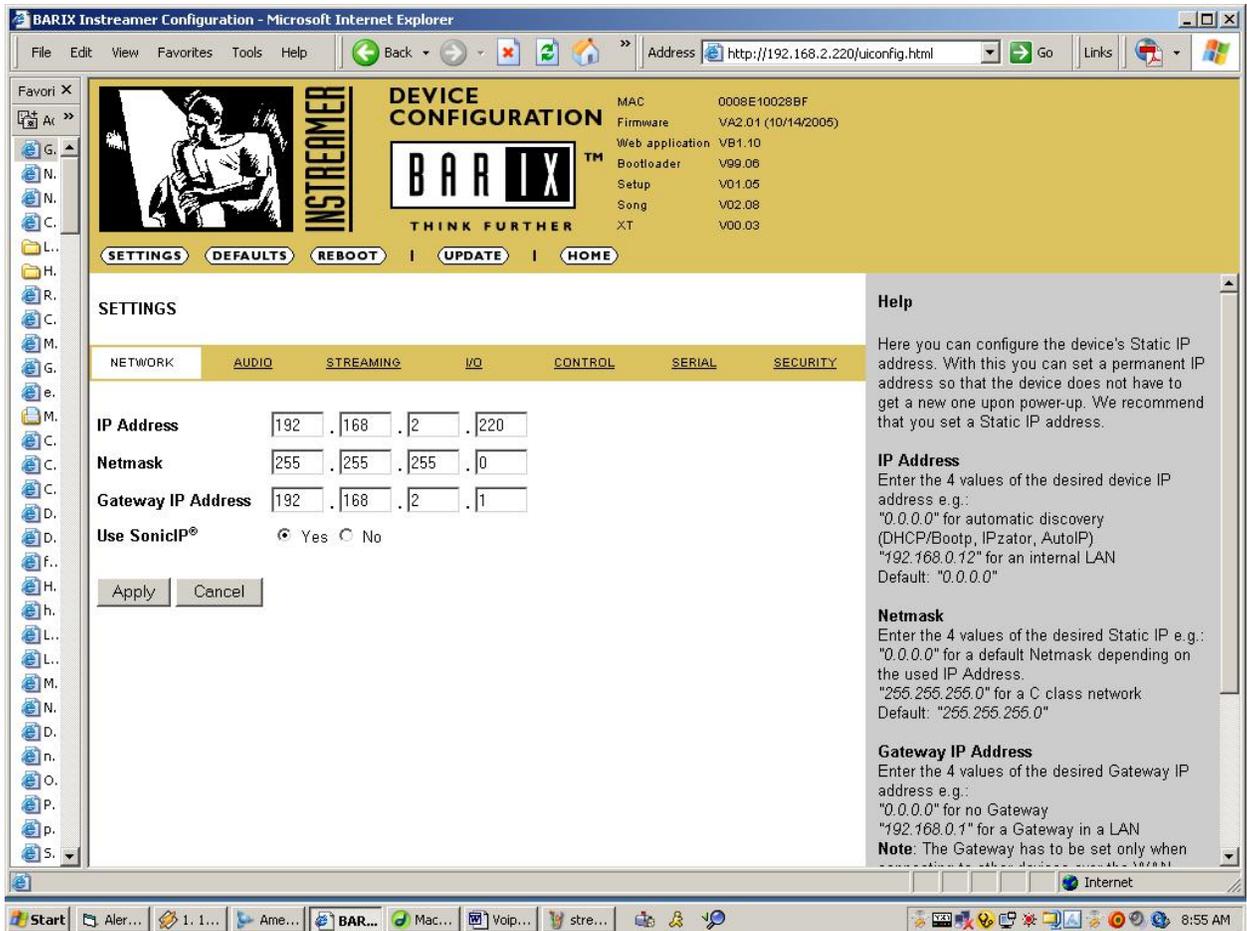
d) Insert your desired IP address (like 192.168.1.220), Netmask (like 255.255.255.0) and IP Gateway (router) (like 192.168.1.1). Leave SonicIP set to yes so you can verify your settings with the headset on powerup. Click the Apply button to load your settings into the Instreamer. Check your settings by placing the earphones in your ears, unplugging and replugging in the Instreamer and listening for your new IP address. Write the IP address, netmask and gateway on a paper and tape it to the Insteamer. Bring up Internet Explorer and type your new IP address into the address field and click go and make sure the configuration screen appears. Click the configuration button and make sure your settings appear.
e) Click the Audio button.
➔Note..the Barix firmware has been significantly updated in 2010. Not all of the settings appear in the 2005 firmware.
➔**The audio encoding and frequency MUST be changed to MPEG1 / 32kHz (MP3) (or some other MP3 setting from the default setting!
Set the audio from stereo to make sure audio appears on both RCA connectors, although the audio from the WE110 is mono.

f) Click the Streaming button and the Streaming page should appear as below. There are three screen shots due to the length of the page (top and bottom).

➔Note..the Barix firmware has been significantly updated in 2010. Not all of the settings appear in the 2005 firmware.

g) Enter the name you want your connection to be named when people connect to the ShoutCast server in the "Own Name" and "icy-Genre" fields. The radio path should remain /xstream and the other default settings on this screen should work fine.

DEVICE CONFIGURATION

INSTREAMER

BARIX ™

THINK FURTHER
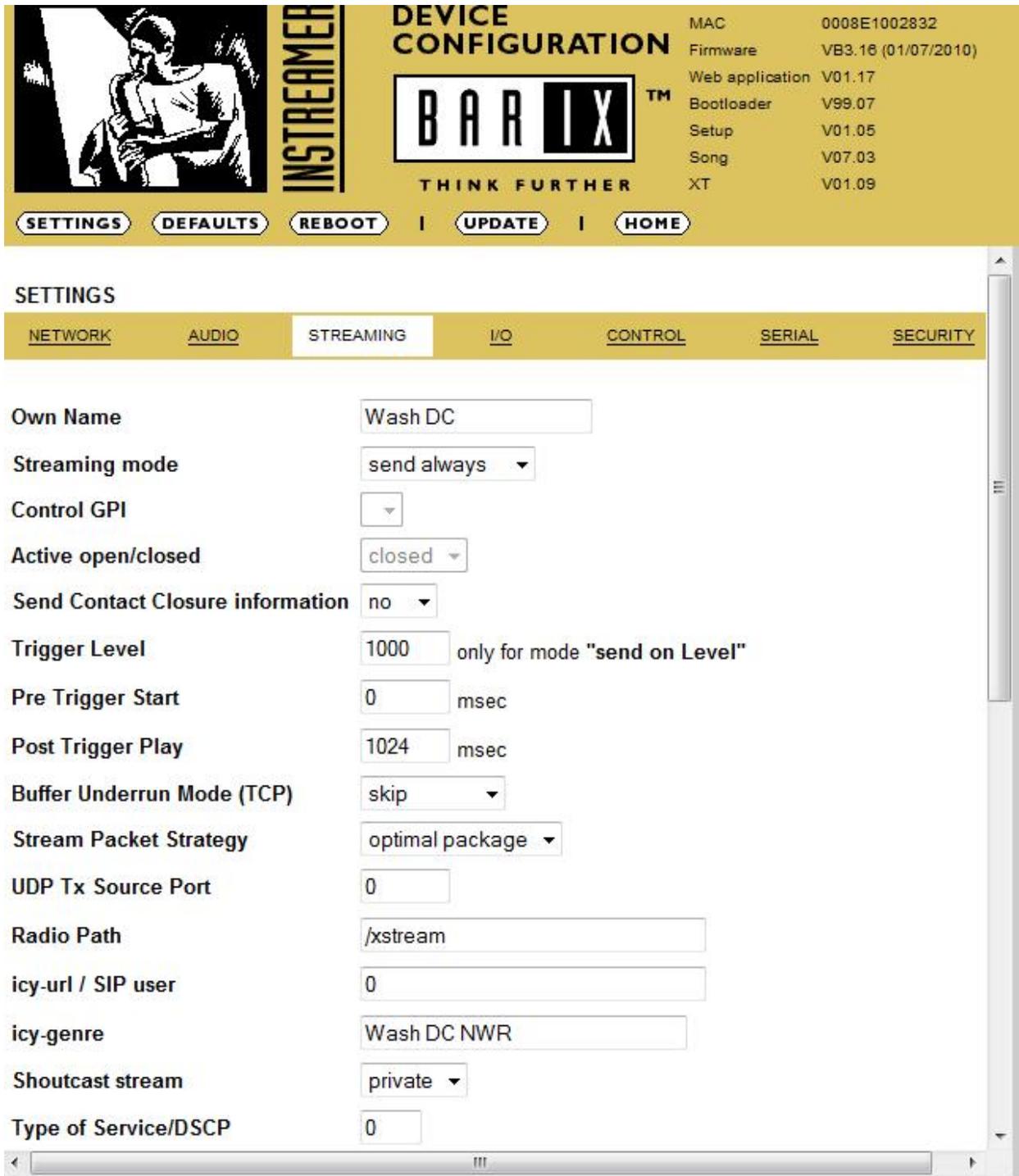
MAC	0008E1002832
Firmware	VB3.16 (01/07/2010)
Web application	V01.17
Bootloader	V99.07
Setup	V01.05
Song	V07.03
XT	V01.09

(SETTINGS) (DEFAULTS) (REBOOT) | (UPDATE) | (HOME)

Type of Service/DSCP   0

Stream to

#	Conn. type	IP #	#	#	#	Port #
1	Shoutcast	72	. 3	. 238	. 239	: 10020
2	Internet Radio	0	. 0	. 0	. 0	: 0
3	Internet Radio	0	. 0	. 0	. 0	: 0
4	Internet Radio	0	. 0	. 0	. 0	: 0
5	Internet Radio	0	. 0	. 0	. 0	: 0
6	Internet Radio	0	. 0	. 0	. 0	: 0
7	Internet Radio	0	. 0	. 0	. 0	: 0
8	Internet Radio	0	. 0	. 0	. 0	: 0

List of TCP and BRTP connections

SNMP

Trap Target IP Address	0	. 0	. 0	. 0

Low Audio Level	Left 0	Right 0	
High Audio Level	Left 0	Right 0	
Trap Repeat	Left 0 sec	Right 0 sec	
Silence Timeout	Left 0 sec	Right 0 sec	

| Apply | | Cancel |

The ShoutCast stream should be set to private, unless you want others to find your station on shoutcast.com.

Type in the IP address of the ShoutCast server (to be discussed below). This is the IP address of the computer that will host the ShoutCast server software! You may want to use port 80 as it is usually open in firewalls for http.

➔TWO ports are necessary for ShoutCast..the Input port (port in the table AND the next higher port). Make sure both are available AND the firewall to the server is opened for both ports.

The remainder of the default settings should work. Press the Apply button to load your settings into the Instreamer.

The I/O, Control and Serial default settings should work fine.

h) Click on Security and the following screen should appear.

In the Ice/Shoutcast field type a password you will use with your ShoutCast server.

➔The password will NOT appear, but 'not set' will change to 'set'.

➔**Important➔to clear a password..type in 27 spaces and press apply to completely clear the password register.

Press the Apply button to save your settings into the Instreamer.

   i) The Instreamer should be set up and ready to be tested. Use WinAmp, or most other streaming audio media players such as Windows Media Player, and type in the address of the url of the Instreamer followed by /stream. For example: http://192.168.1.220/xstream   http://192.168.1.220:8000
Where 8000 is the port number in the chart. Remember you also need to open the next higher port number in the firewall and have that port available (for example 8000 and 8001). You should hear the audio through your computer's speakers.

3) Set up the ShoutCast Server.
a) The next step is to set up the ShoutCast server which takes the digitized audio from the Instreamer and makes it simultaneously available to numerous users across the Internet.
b) Download the latest version of the ShoutCast server from http://www.shoutcast.com/download/serve.phtml#scdownload
c) The 'read me' files to install the ShoutCast server appear below.
d) Configuration instructions follow after this information.
e) The key ShoutCast settings are the Incoming (lower) port number and the Shoutcast password set in the Barix unit.
f) You need to decide whether to make the 'station' public or private.

Installing your SHOUTcast Server

Once you downloaded the SHOUTcast server, depending on the platform, will be installed differently. Here is the basic information you need to know to install SHOUTcast listed by type of platform.

Win32 Platform :	Windows users should download the server, and unzip into an appropriate folder such as "c:\Program Files\SHOUTcast". Once the files are extracted into the folder, create a shortcut for SC_SERV.EXE to the Desktop. Start up the SHOUTcast server by running the executable, then click on the "Edit config" menu option located at the top. This will start the default text editor, opening the configuration file for SHOUTcast server. Please follow all the directions that are written into the configuration file. Once you are done making changes, save the file, close the editor, and restart the SHOUTcast server application.
UNIX and Variants :	Those of you serving from Unix should download the version appropriate for your operating system, gunzip the distribution, and un-tar the archive. Use a text editor to configure the sc_serv.conf file (see below for details

on configuring). It doesn't matter what user the server runs at, save that the user has read access to the config file, and write access for the files you define for file storage and log storage.

Configure your SHOUTcast Server

If you wish to configure the SHOUTcast server, the configuration file contains several options that can be changed. here is a basic explanation of what each option does.

PortBase:	The port SHOUTcast should send use for sending audio. The default is 8000. Unix users should be aware that they cannot use a port below 1024 unless they run the server as root.
MaxUser:	The maximum allowable listeners at any one time. Make sure you set this to a realistic number depending on your bandwidth and operating system. Maximum bandwidth used for serving is equal to the bitrate you are serving at multiplied by MaxUser x 1.1.
Password:	The password to use for streaming content and administration. This needs to precisely match the password in the shoutcast dsp plug-in in order for source providers to send content with your server.
Logfile:	The file to use to store the console log. Use /dev/null or leave empty to disable file-based logging.
SrcIP:	The IP interface to bind the source listener to. Only important on machines with more than one IP interface or ethernet card. Default is to listen to all ip addresses, when set to ANY.
DestIP:	The IP interface to listen for clients on. Only important on machines with more than one IP interface or ethernet card. Default is to listen to all ip addresses, when set to ANY.
RelayServer:	[Optional] If defined, the SHOUTcast server will not accept source connections, and instead attempt to connect to the server name defined here for transmission
RelayPort:	[Optional] The port that the relay server is sending audio on.
RelayPublic:	[Optional] When running a relay server, use "always" to make the server always public (regardless of whether the source server is public) or "never" to make the server never public. Anything else makes the server the same as the source server.
RealTime:	[Console systems only] This flag determines whether or not the server displays a real-time status indicator with listner

count.

ScreenLog: [Console systems only] If this flag is set to 1, the server will display all diagnostic data on screen in addition to writing it to the logfile.

HistoryLog: [Optional] If set to anything other than 'none', the server will append to the file named here information on listener count, timestamp, and metadata at a provided interval.

HistoryLogTime: [Optional] The value, in seconds, of how often the server should update the HistoryLogFile.

Yport: [Optional] If you're located behind a web cache, you can tell the Shoutcast server to use a different inbound port to send directory data to. The only values that work are 80 and 800. The default is 80.

NameLookups: [Optional] If set to 1, the server will attempt to resolve all IP addresses into their FQDN (i.e. 207.48.52.225 becomes www.winamp.com)

AutoDumpUsers: [Optional] If set to 1, the server will disconnect listeners whenever the source becomes inactive. Otherwise, listeners are left connected and either get dead air or the BackupFile (see below).

IntroFile: [Optional] If defined, the server will send this file as-is to the listener before joining them with the content stream. CAUTION: This file MUST be in MP3 format, and of the *PRECISE* same bitrate, samplerate, and mono/stereo setting as your stream!!! If the file differs from the stream, the user gets an earful of nastiness or dead air.

BackupFile: [Optional] If defined, the server will send this file as-is to the listener whenever the server loses contact with the source stream or the source stream idles for 30s or more. CAUTION: This file MUST be in MP3 format, and of the *PRECISE* same bitrate, samplerate, and mono/stereo setting as your stream!!! If the file differs from the stream, the user gets an earful of nastiness or dead air.

TitleFormat: [Optional] When defined, this string will repurpose how metadata appears to the player. If the flag %s is included in the parameter, then the title data from the source is included at that point in the string. For example, if your TitleFormat is 'Justin Radio: %s', and the source plug-in's title is 'Billy plays the blues', then the net title is 'Justin Radio: Billy plays the blues'. Note: only works on non-relay servers. The default is no format string.

URLFormat: [Optional] This behaves just like TitleFormat, except it applies to the minibrowser URL. Only useful when you

want to do redirections and keep track of 'em.

CurrentLog: [Optional] CurrentLog provides a mechanism for regular updates to a file located on the same server as the SHOUTcast server. CurrentLog itself as a parameter does not exist, but rather is a family of parameters. They are as follows:

CurrentLogIn is the filename of an HTML template file.

CurrentLogOut is the filename the server should output the file to.

CurrentLogTime is the number of seconds the server should wait between updates to the output file.

The HTML template file is best explained with an example. Consider this file, stored on the same server and pointed to as CurrentLogIn:
```
<HTML><HEAD>
<TITLE>My Current Stats</TITLE>
<HEAD><BODY>
My SHOUTcast server is currently playing <!--
CURRENTSONG -->.
You get see more information about it at <!-- URL -->
</BODY></HTML>
```
As you can see, the server inserts parameters where it finds comment fields with appropriate parameters. The parameters it recognizes are LISTENERS, MAXLISTENERS, LISTENERTABLE, GENRE, DESCRIPTION, URL, HITS, and CURRENTSONG. More information on these parameters can be found in the sc_serv.conf or sc_serv.ini file's comments.

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streaming audio system
README.TXT for SHOUTCAST SERVER 1.9.5 - December 27, 2004

XML statistics
How to Choose Your Maximum Listeners Value
License
Version History

Introduction:

  SHOUTcast is a streaming audio system for Windows and Un*x platforms.
At the center of the system is this product, the SHOUTcast Distributed
Network Audio Server (DNAS). The DNAS is responsible for accepting
a broadcast feed from Winamp and the SHOUTcast Source DSP plug-in, and
repeating the broadcast to listeners connected to this SHOUTcast DNAS.
Once your source content is being fed into the SHOUTcast DNAS, it will
also, dependent on the source content's configuration, list itself
with the SHOUTcast directory so listeners can locate your broadcast.

  The DNAS also has the ability to deliver on-demand content in MP3
format stored in the content/ directory.

  SHOUTcast is a product of Nullsoft, Inc, makers of the fantastically
popular Winamp audio player for Win32. The SHOUTcast system relies on
Winamp for playback and content sourcing. Winamp is available at
http://www.winamp.com

Requirements:

If you want to broadcast to listeners, you'll need:

* 90Mhz or faster server, running one of Windows 95, 98, NT, 2000, ME,
  Mac OS X, Sparc Solaris 2.7+, FreeBSD 4.x+, or Linux with a libc6 kernel.

* 14kB of memory for every listener you want to broadcast to (i.e. 1,000
  listeners means you need 14 Megabytes of RAM), plus whatever your
  operating system needs for overhead, plus 1.5MB for the server's
  base requirements. Don't set the listener count higher than you need,
  it just screws things up.

* Enough bandwidth to run the server. If you want to broadcast to 100
  listeners at 24kbps, you'll need about 24kbps*100 = 2,400kbps = 2.4Mbps
  of bandwidth. That's about 2 T1 lines worth of bandwidth. Trying to
  push 100 128kbps listeners down your 768kbps cable modem isn't going
  to work :)

* If you want people on the internet to be able to hear you, you also need
  a clear connection to the internet. No firewalls, NAT devices, web
  caches at the ISP, proxy servers, or internet sharing devices. In some
  cases you can make a workaround but if you intend to provide a quality
  streaming service you have to invest in a quality connection. Naturally,
  if you just want to run a private server locally on a LAN, you don't need
  this at all.

* If you want to list this server on the SHOUTcast directory, you will need
  a working DNS server configured as well. You can verify DNS is working

by pinging www.yahoo.com, or pulling up a web browser and visiting
www.shoutcast.com. Note that you can't ping www.shoutcast.com, because
AOL blocks ICMP traffic.

* A broadcast source. This is usually in the form of a computer running
  Winamp (can be the same computer running the DNAS), and the SHOUTcast
  Source Plugin. This is available in the I wanna be a DJ section on
  SHOUTcast.com.

If you don't have some/any of the above, you can still broadcast a station,
but you'll have to pay someone for the privelege of hosting a SHOUTcast server
for you, and you won't need this piece of software. To find good providers,
visit the SHOUTcast forums on www.shoutcast.com and hear what others say
about the growing number of streaming audio providers.

Updates:

  SHOUTcast world headquarters is at http://www.shoutcast.com. Stop by
to snag the latest version.

Bug reporting / Support:

  SHOUTcast is a labor of love, and as such has no formal support mechanism.
Please send your support questions to our volunteer-staffed (and highly
effective) web forums. Please search the forums BEFORE asking a question
someone else has probably asked a thousand times before.

  You may also find the SHOUTcast list server and forums to be useful tools.
The URLs are http://listserv.winamp.com and http://forums.winamp.com,
respectively.

Installation:

Windows: The provided installer will automatically install the DNAS,
an uninstaller, and Start Menu shortcuts.

Unix versions: Use gunzip and tar to decompress and extract the necessary
binaries for your particular operating system. When complete, you should
have three files: the server binary, server config file, and this readme.
Make certain the server is chmod u+x, and that the config file is readable
by the user you want to run the server as. The server does *not* need to
be run as root, unless you want to use port numbers below 1024 to serve
SHOUTcast audio streams.

Configuration:

Windows: Launch the GUI SHOUTcast DNAS by going to Start Menu -> SHOUTcast
DNAS. Click on Edit Config in the menu bar, and a text editor will appear
with the configuration file for the SHOUTcast server. When finished, save

your changes, and kill the GUI server. You have to restart the DNAS for
changes to take effect.

Unix: Edit the sc_serv.conf file in the text editor of your choice. Tom
would prefer you use Emacs, because it makes Justin really mad. Justin would
prefer you use vi, because he thinks Tom suffers from some vicious malaise.
You'll probably be lame and end up using Pico.

There's additional documentation available on the parameters on shoutcast.com
in the documentation section.

Running / Shutdown:

WINDOWS:

The SHOUTcast DNAS installer creates shortcuts under Start Menu -> Programs ->
SHOUTcast DNAS to launch either the console or GUI version of the DNAS.

To launch via command line, cd to the directory the DNAS is installed in, and run sc_serv_cons.exe sc_serv.ini.

To shutdown, click Kill Server in the GUI version, or press Ctrl-C on the keyboard in the console version.

UNIX:

Under Unix, cd to the directory where you unpacked the SHOUTcast server, and type ./sc_serv to start the server.
You can start the server in the background by entering ./sc_serv &. If you want to stop the server, send a TERM or
INT signal by issuing a ctrl-C if the server is in the foreground, or a kill -TERM if the server is running in the
background.

Signals support is included on UNIX. Issuing a SIGHUP (kill -HUP) will force the DNAS to close and re-open the
logfiles (useful for logfile rotation.)   Also, SIGWINCH (kill -WINCH) will reload the following config file items
(and, specifically, NOT items which aren't listed here) and start again:

  "Password"
  "LogFile"
  "RelayServer"
  "RelayPort"
  "PublicServer"
  "RealTime"
  "ScreenLog"
  "IntroFile"
  "AutoDumpUsers"
  "DestIP"
  "SrcIP"
  "AutoDumpSourceTime"
  "BackupFile"
  "Yport"
  "BanFile"
  "RipFile"
  "AdminPassword"
  "AllowRelay"
  "AllowPublicRelay"
  "ListenerTimer"
  "WebLog"

   "TchLog"
   "Sleep"
   "Unique"
   "ContentDir"
   "W3CLog"
   "W3CEnable"
   "CleanXML"
   "RIPOnly"

If you intend on broadcasting to more than 64 listeners, you may also want to look into unlimiting the descriptors allocated to your shell. The commands limit, ulimit, and unlimit may be of some assistance to you.

Tech Notes / How it Works:

As of SHOUTcast 1.6.0, there are two modes of operation. The DNAS's primary
function is as a live-broadcast repeater. It receives data from a broadcaster, notifies the SHOUTcast directory when requested to by the client, and repeats the broadcast audio data from the source to the listeners. It attempts to do this rather efficiently.

The second mode of operation is on-demand content streaming. If you place
.MP3 files in the content directory, SHOUTcast will send these streams to
listeners along with a small amount of protection keeping them from being
able to save the stream as it comes in (unlike web servers).

An example of on-demand streaming and how it works:

Assuming you've installed the DNAS in /usr/local/shoutcast, and have
copied a valid MP3 file named music.mp3 into /usr/local/shoutcast/content,
you would place a URL link on a web page as follows:

<A HREF="http://your.dnas.ip.address:port/content/music.pls">Music</A>

Now, although there is no file called music.pls in the content directory,
when a WEB BROWSER (NOT WINAMP) connects to the DNAS and requests music.pls,
the DNAS will check to make sure a file called music.mp3 exists in the
content directory, and if so, auto-generate a playlist for the browser to
hand off to the player for streaming.

The server runs under many operating systems. It's a threaded, multi-processor aware application. Memory use is static (meaning it won't change over time), and dependent upon the number of listeners configured. CPU usage of the DNAS is very low -- we've broadcasted 24kbps on a single 300mhz processor to over 600 listeners.

The DNAS server runs (as of this release) on Windows Server 2003, XP, 2000, Windows NT 4/3, Windows 98, Windows 95, FreeBSD, Linux (glibc), MacOS X, and Sparc Solaris.

Remote Administration:

Remote administration is handled by connecting to the server with a
web browser. Point your browser to http://your.servers.ip.address:port/
and log in with the admin password you have specified in the config
file.

XML Statistics:

The SHOUTcast DNAS provides an internal mechanism for providing statistics
to external applications via XML, which is useful for providing live
information on your DNAS embedded in other webpages via PHP, Perl, or
other methods which can implement XML. Accessing this data is a bit tricky,
so it's briefly explained here:

XML pages should be called via:

http://yourip:port/admin.cgi?pass=yourpass&mode=viewxml&page=0
http://yourip:port/admin.cgi?pass=yourpass&mode=viewxml&page=1
...

Where:
Page 0 is all DNAS data
Page 1 is only Main data
Page 2 is only Webdata Table
Page 3 is only Listener Table
Page 4 is only Songhistory Table

Your XML parser MUST send a User-Agent: HTTP header containing the
word "Mozilla" in order for the DNAS to recognize it as something
other than a listener.

A sample PHP script for getting XML data from a SHOUTcast DNAS is
available at http://beta.shoutcast.com/~tpepper/grabxml.phps. It
should be fairly painless to induce what should be done differently
for other implementations of middleware.

Quick Statistics:

To snag a quick list of listener counts, server state, bitrate, and current
title, use the URL http://yourip:port/7.html

How to Choose Your Maximum Listeners Value:

All listeners are only able to listen at what their connections can support.
For most users on the net, when you consider modem/PPP overhead, internet
congestion, and the fact that most modems out there are around 33.6kbps, it
makes sense to use 24kbps for most public streaming. Even though,
theoretically, 33.6 users should be able to listen at 32kbps, with overhead
it becomes impossible.

Anyone with a 56k modem sending to an upstream server is affected by the
asymmetric nature of 56k modems. That is, the fastest a 56k modem can download
data as fast as 53kbps, the upload data is at most 31.2kbps. Sorry, no
56 or 32kbps streams are servable over a 56k modem.

You cannot serve more users that you have available bandwidth. If you're
running the SHOUTcast server over a modem link at any speed, the most you
can muster is one user at 24 or 32kbps. Attempting to serve more users than
you have bandwidth only causes skippage.

Shell sysadmins will be *very* unhappy if you consume their available bandwidth and server CPU without their consent. SHOUTcast is a highly demanding program of bandwidth. A T1 line can only theoretically support about 60 listeners if no other traffic is on that T1. Additionally, each listener takes up a thread on the server operating system, which can slow some operating systems if allowed to expand beyond the limits of the system. If you throw up a SHOUTcast server unbeknownst to the sysadmin with 50+ maximum users, you had better be prepared to face the consequences of your actions. As a fellow sysadmin, I offer this to you as your ONLY WARNING.

Pick a smart number of maxusers for your server. Calculate by taking the available bandwidth you have, multiplying by 0.9 to account for overhead, and dividing by the bitrate you want to serve at. For example, an ADSL connection @ 768kbps upstream * 0.9 / 24kbps ~= 29 maximum users. Again, set this number too high, and when you reach the limit of bandwidth ALL the streams will start to skip.

License:

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By using this software, you are agreeing to the above terms.

Additional Terms of Use information is available at:
http://www.shoutcast.com/disclaimer.phtml

g) Instructions continued:
Also download the WinAmp media player lite from http://www.winamp.com/player/free.php to a location that you can find. (If you have not already done so!) After the download, navigate to the file (like winamp513_lite.exe) and double click on it and install it on your workstation. The default settings should work fine.

h) Install the ShoutCast server by navigating to a file (like shoutcast-1-9-5-windows.exe) and double click on it and install the server.

i) Configure the ShoutCast server by opening Word Pad (start/programs/accessories/wordpad)

j) In WordPad, using file/open navigate to the c:\program files\shoutcast directory.
In the files/types in the file selection dialog box, choose all documents (*.*).

k) Open the sc_serv.ini file to enter the configuration. **It is recommended that you make a backup copy of the default .ini file which a changed name in case you need to start again!!

l) Add a desktop shortcut for the sc_serv.exe server by right clicking on it and choose send to desktop.

m) See the document: How To Install the ShoutCast Server With Barix Instreamer and Barix Exsteamers for further instructions.

n) Briefly, the following settings should be made to the .ini file

MaxUser	60 (depending on available bandwidth – 24k per user)
Password	The password you set in the Instreamer security section
PortBase	80 (The port you set in the Instreamer ShoutCast source)
LogFile	Sc_serv.log
RealTime (listener count)	3
ScreenLog	1 (displays diagnostic data on screen and log)
ShowLastSongs	10
W3Enable	Yes
W2log	Sc_w3c.log
SrcIP	any
DestIP	any
Yport	80
NameLookUps	0
AutoDumpUsers	0
AutoDumpSourceTime	3000
ContentDir	./content
TitleFormat	Stefan's Test Station
PublicServer	never
AllowRelay	No
AllowPublicRelay	No
MetaInterval	8192

o) Save and close the *.ini file

p) Double click on the desktop icon for the sc_serv.exe. The server should boot up and connect to the Instreamer. Correct any errors.

q) Test the server by opening WinAmp (or any other streaming audio media player) and connect to play url (for example) http://192.168.1.220:80 , where the IP address is the

IP address where the server is running (not the Instreamer IP address) and the :80 is the port specified in the Instreamer.

r) Enjoy and be proud!!

Created 02/16/06
Updated 05/10/10