



# C A S E • S T U D Y

## HISTORY

Since 1949, CRISTA Ministries has been serving its community and the world through six distinct ministries: Broadcast Radio Stations, Camps, Schools, Senior Care, Christian Veterinary Mission, and World Concern.

Headquartered in Shoreline, Washington, CRISTA Broadcasting today has four stations: KCIS-AM (Edmonds/Seattle), KWPZ-FM (Lynden), KCMS-FM (Spirit 105.3, Seattle/Tacoma), and KFMK-FM in Austin, Texas. CRISTA streams all four stations as well as Pure Music Radio, its internet HD Radio station.

CRISTA first began streaming its stations at the turn of the 21st century. Faced with reliability issues and high bandwidth costs, the company turned to StreamGuys several years later — and saved up to \$8,000 a month in the process. With StreamGuys' ongoing assistance, CRISTA has since made several technical advances while continuing to minimize costs that has helped it to grow its streaming footprint and increase its online — and now mobile — audience.

## SITUATION

Streaming audio has come a long way since StreamGuys and CRISTA first came together in 2004. Initial consultations focused on establishing reliable streams for both dial-up and broadband audiences. StreamGuys also

helped CRISTA establish its own server, which allowed the broadcaster to more effectively manage costs and maintain control of its product — an advantage that most content delivery networks didn't offer.

StreamGuys has in recent years helped CRISTA shift its focus to enhancing stream quality and format support for its growing online audience. This has allowed CRISTA to launch higher quality audio streams while supporting several formats and bitrates.

**“StreamGuys has long worked beside us to make our streaming operation as efficient and cost-effective as possible.”**

“Windows Media was the most popular format when we started, but we quickly found that the stereo imaging at 32 KB/s would shimmer and swirl and deliver

an unbalanced listening experience,” said Bryan Hubert, director of engineering, CRISTA Broadcasting. “StreamGuys helped us launch an AAC+ stream at the same bitrate and more recently raised the streaming quality to 40 KB/s. That got rid of the stereo imaging anomalies we found distracting.”

StreamGuys also moved CRISTA to a format-flexible Wowza server environment. This enabled the broadcaster to launch a Flash player with video pre-rolls and other dynamic features while still supporting existing audio formats. The popularity of its AAC+ streams has since skyrocketed — paving the way for a unique and innovative mobile streaming platform that its listener base has greeted with enthusiasm.

## SOLUTION

With StreamGuys' guidance CRISTA recently launched several new streaming audio features in the Spring of 2012, including HE-AAC+ audio support for Apple iOS and Android mobile devices. The same HE-AAC+ version 2 software also now supports its traditional online streams.

StreamGuys has also launched a complete mobile streaming solution that delivers HE-AAC+ audio quality, rich mobile apps and interactive features, driving closer audience engagement as the streaming media experience is elevated to new heights.

The complete solution has simplified life for CRISTA, eliminating outdated processes for communicating information to listeners over mobile devices. It has also opened new revenue streams through advertising campaign support.

Channah Hanberg, new media specialist at CRISTA Broadcasting, notes scheduled push notifications as one major enhancement, allowing mobile listeners to receive bible verses at their convenience. Listeners previously received bible verses via text message. The new process eliminates the

labor associated with texting more than 500,000 bible verses to listeners each month.

"We have enjoyed working with StreamGuys for a long time," said Hanberg. "We have a large community of listeners, and the mobile apps allow us to go deeper than the music — which is important as a Christian broadcaster. Our listeners can hear us live, interact with us closely through station events, and receive bible verses in any part of the world at the time of their choosing."

CRISTA also continues to take advantage of its "in-house" server platform— still fully supported by StreamGuys reporting, monitoring and troubleshooting services — by increasing its on-demand streaming options and utilizing the additional storage capacity afforded by StreamGuys' cloud-based server platform.

"We've done more on-demand over the years as national artists come into our studio," said Hubert. "We added a video channel so listeners can watch our live content from our web page. The StreamGuys server platform allows us to do many things. It's really like having our own storage space in the cloud."

## RESULTS

Hubert sees the launch of mobile as the next evolutionary step for both CRISTA's on-air product and his long-standing partnership with StreamGuys.

"WiFi capability has made it so our listeners aren't going to be charged a lot of money to listen to our stations on their mobile devices," said Hubert. "And now that streaming bandwidth is more affordable, I expect we'll work with StreamGuys to standardize all of our mobile and online streams at 48 KB/s AAC+."

Hubert expects to support mp3 as well for many years, and slowly phase out some of the lower-quality bitrate streams across all formats as more listeners switch to the higher quality options.

For the immediate future, CRISTA will continue to grow and nurture both its online and mobile models with StreamGuys' support.

"StreamGuys has long worked beside us to make our streaming operation as efficient and cost-effective as

possible, while we focus on delivering broadcasts that our listeners can enjoy in many formats across many devices," said Hubert.



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