



Inca Helps Ritter Communications Save with New IPTV Build

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-Joey Willis, Network Engineer, Ritter Communications

Going Digital

As Ritter Communications was preparing to transition the city of Alpena, Arkansas from analog to digital services, they knew they needed a reliable, high-quality solution for their off-air. Not all viewers were ready to welcome the switch to digital – many were perfectly happy with their analog TV service and were anxious about change.

Founded in 1906 and headquartered in Jonesboro, Arkansas, Ritter Communications is a fifth-generation, family-owned company. Serving over 45,000 customers across three U.S. states, Ritter Communications is a leader among independent communications providers, offering business, residential and wholesale customers advanced internet, phone, video and hosted services.

Recently, Ritter needed to purchase a new 8VSB to IP solution to serve off-air channels digitally to their video subscribers. The off-air component was part of a larger project – Ritter Communications was building a new IPTV system branded as "NexTV" in an area that offered only analog. As part of the rollout plan, both analog and digital video services would be available for four months before shutting down the analog services permanently.

Initially, Ritter planned to mirror the set-up in one of their other headends where 8VSB signals were transmitted to ASI and then to IP outputs, with additional transcoding completed before delivering to customers as MPEG-4 AVC video. Separate boxes were used for 8VSB to ASI, for ASI to IP and then for the IP transcoding. It wasn't a very elegant solution, but it worked.

The plan changed once Ritter Communications discovered that a single Inca box was capable of receiving their entire off-air lineup and transcoding to MPEG-4 AVC IP outputs.



CHALLENGE

- Providing a high-quality digital solution to convince viewers that were anxious about the switch from analog
- Eliminate analog services in favor of new IPTV services
- Find a 1RU solution to minimize rack space and power usage

SOLUTION

- Serve entire off-air line up with one 4430 chassis – An all-in-one solution for 8VSB to IP and transcoding to MPEG-4 AVC
- Confidence monitoring of OTA channels using the Inca All Seeing Eye 5420

RESULTS AT A GLANCE

- No failures or problems with the Inca gear
- Easy to set-up, manage and maintain with an intuitive user interface
- Training other headend engineers to use Inca products takes a couple hours



All-in-one 1 RU solution

Joey Willis, Network Engineer at Ritter Communications, had previously purchased Inca equipment for transcoding and was a fan. "Our engineers love the Inca gear," explains Joey. "It's so easy to set up and manage. It takes me no time at all to show them how to add or delete a channel. With gear from other vendors, it can take weeks to train the team."

Joey contacted Inca Networks about the new IPTV project and discovered that the 4400 Modular Series had 8VSB receiver modules available that could optionally transcode from MPEG-2 to MPEG-4 AVC. When discussing the number of OTA channels to support with Inca gear, Joey soon realized a single Inca chassis was all that was required to deliver the entire off-air line up to viewers – saving Ritter substantial costs, rack space and power.

Ritter Communications purchased the 4430 chassis, part of the 4400 family, for the project. The 4430 has three expansion module bays that can be used with optional input modules for GigE, ASI or 8VSB/QAM. Ritter only needed to use 2x 8VSB modules in their 4430 chassis to support 6x HD and 15x SD off-air services. They have left the third expansion bay empty for now. "We might get a third module if we need it," explains Joey. "We like having the spare room in case we want to add additional services in the future."

Setting up the Inca gear was incredibly easy. "It's the easiest solution I've come across to set up 8VSB reception," says Joey. "I just had to take it out of the box and configure it. It was easy to set up and then I didn't have to worry about it at all. It's been running 24/7 with no problems. Next year we may potentially replace some of our 8VSB units from Harmonic with more Inca units."

Time to Roll Out

To launch the new IPTV services, Ritter Communications demoed the new digital video services to residents at the local city hall. At the meeting, residents were informed that both the analog and digital services would be available for at least four months before analog was discontinued. Many people were anxious about the switch. They were familiar with their analog TV services and didn't know what to expect with the change. Prior to the city hall event, Ritter Communications made personalized phone calls, delivered mailers and sent emails informing

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customers of the upcoming changes.

Most of the concerns were alleviated once they saw the digital TV services with their own eyes. "People were just floored by the difference in quality," said Joey. "Once they started using the digital service, we had a lot of positive comments from our customers. They were very happy. NexTV brings many new features and pricing structure benefits that were not previously available in this market."

To help stay on top of service disruptions, Ritter Communications monitors all their digital video services using the Inca All Seeing Eye 5420, a sophisticated confidence monitoring solution featuring a visual overview mosaic. The 4400 Modular Series with 8VSB Reception includes integrated probes for the All Seeing Eye so no additional equipment was required to add monitoring for the off-air. Joey and other engineers at Ritter can check the All Seeing Eye mosaic at any time and know at a glance if there are any stream impairments or outages. Joey commented that the Inca gear handles problematic source streams well and there is rarely a need to intervene.

Joey is already recommending Inca to other companies nearby. Local power and electrical companies in Arkansas who haven't offered video before recently approached Ritter Communications for advice. Ritter is insisting they should get in touch with Inca. "The Inca gear can do everything they need, runs reliability and outputs high-quality video. It's a great all-in-one solution."

For more information about Inca's 4400 Modular Series and 8VSB solution options, see the product page or email us at sales.na@incanetworks.com. We're here to help.

