



# Midwest Video Solutions Migrates to WISI Tangram for Efficient Video Encryption & Delivery

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-- Justin Beaman, Video Network Technician

## Reaching a Turning Point

With a strain on their bandwidth and increasing operational costs, Midwest Video Solutions (MVS) turned to Inca Networks to help. The WISI Tangram Video Platform was the clear winner to help deliver a full IPTV lineup across different geographic regions efficiently and securely.

MVS is a Headend and Transport provider of standard and high-definition television signals for companies in Wisconsin, Minnesota, Illinois, Iowa, and Air Force Bases in Japan. With MVS, companies avoid having to incur the costs and time of deploying their own headend.

MVS provides its 26-member companies with the latest IPTV features and technology, with a secure solution that delivers video content all the way to approximately 32,000 end users. MVS had been working with legacy gear to take linear video streams, run them through an ad insertion server, and encrypt them before serving out to their network. With MVS serving four different geographic regions for localized ads, video services were multiplied during the ad insertion process resulting in approximately 500 streams to encrypt and send out. Two member sites incorporate Tangram for bulk decryption of MVS IP streams and route these video flows onto their own secure QAM platform.

The legacy servers that MVS had in place for encryption were operationally inefficient. They were burning power, hogging rack space and required regular maintenance to replace the hard drives. MVS knew that delivering a full IPTV lineup with encryption and localized ad insertion to different geographic regions required more sophisticated video processing equipment that could split the traffic efficiently, save bandwidth and improve operational costs.

And luckily, MVS knew who to turn to.



### CHALLENGE

- Replacing end-of-life servers used for encryption and distribution
- Serving multiple geographic areas with localized ad content
- Reducing strain on network bandwidth space

### SOLUTION

- WISI Tangram Video Platform with the GT41 module for Verimatrix encryption
- Tangram enabled MVS to securely serve ~250 video streams to multiple geographic regions using only 2 modules in a 1RU chassis

### RESULTS AT A GLANCE

- Significant power and rack space savings - a single 1RU Tangram unit will replace all 6x legacy servers previously doing the same application
- Tangram allowed delivery across four VLAN's, enabling MVS to load balance traffic to each regional zone



## The Answer is Tangram

“When I thought about who to approach for the project, Inca felt like a natural progression for us,” said, Justin Beaman, Video Network Technician at Midwest Video Solutions.

Justin has worked with Inca for more than three years, integrating 10 Inca Modular Series 4400 Transcoders into the MVS central headend. The MVS team have been happy with the density and modular nature of the Inca product line and found them to be solid, reliable units.

“Our previous (third party) units were very clunky, just the old way of doing things,” said Justin. “Inca products have an ease of use and are great on the management side of things. When thinking about this project, I approached Inca about the WISI Tangram product line and within two weeks we had one on site.”

MVS brought in the WISI Tangram Video Platform with the GT41 module to replace the third party server they had been using for encryption. The GT41 module is one of the available modules for the Tangram video processing platform. Other available modules include the GT21 for IP to Analog, the GT23 for IP to QAM, the GT32 for ASI to IP applications and the GT33 for 8VSB/QAM to IP. The GT41 enables operators to demultiplex, multiplex, encrypt video streams with Verimatrix, Pro:Idiom, or Samsung LYNK, and can also bulk decrypt Verimatrix streams. For MVS’ video delivery solution to member sites, Verimatrix encryption was required.

MVS initially purchased two Tangram chassis - one primary unit and one to serve as a spare. The primary Tangram chassis is not fully loaded. Six module bays are available in the 1RU chassis, but only two GT41 modules were enough to encrypt and deliver almost half of their 500 video streams.

Additionally, the Tangram’s flexible network interfaces enabled MVS to implement the required VLAN network to split traffic accordingly for the multiple geographic areas. MVS were impressed that they could achieve the content localization while saving bandwidth in a fewer number of units and in a much smaller footprint.

## Incredible Savings on Space & Power

The integration of the Tangram into their headend enabled MVS to continue serving secured Verimatrix encrypted video streams while moving away from older hardware, which was both end-of-life and burning through a lot of space and power in their headend.

Just one partially-loaded Tangram unit replaced two legacy servers MVS previously had in their central headend running the same application. MVS plans to replace the rest of their server environ-

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ment with additional GT41 modules added to the 1RU Tangram chassis.

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“I was tired of constantly replacing the hard drives in our old servers,” explained Justin. “With the Tangram, the ease of use and reliability made this a smooth transition, and space and power savings were enormous. I’m actually looking to purchase more units and have the Tangram take over other areas of our network.”

The Tangrams have been integrated into the MVS independent headend for encryption using Verimatrix and now deliver the encrypted streams to 26 member sites. Tangram allowed delivery across four VLAN’s, enabling MVS to ease the strain on their bandwidth network and load balance traffic to each regional zone. There, member sites receive streams, and where applicable, bulk decrypt and then deliver over secured QAM to subscribers.

“I’m recommending we integrate Tangram for bulk decryption with the GT41 module, and IP to QAM with the GT23 module for any new member adds that have these requirements,” said Justin. “I didn’t consider any other vendor and honestly, I don’t know of any other vendor that could step up and do what Tangram can do.”

