

Case Study



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Wisconsin Video Venture Thrives On Versatility of Minerva Platform

Midwest Video Solutions Leverages Middleware to Expand Partner Base and Bring on Advanced Services

The emergence of Midwest Video Solutions, LLC as a formidable presence in triple-play competition across rural Wisconsin underscores the vital role advanced IPTV middleware can play in helping smaller independent operating companies adjust to changing market conditions. Midwest Video was started by three IOCs to provide IPTV headend services to member operating companies over a redundant fiber optic network, thereby greatly reducing the video-related capital costs for each participant. With 16 companies representing over 56,000 telephone access lines now using these facilities, Midwest has been able to provision IPTV services, including HDTV, across multiple set-top and access environments very cost effectively, notes Marty Snustead, executive director at Midwest Video Solutions.

Midwest Video's flexibility to meet constituents' requirements is in part a result of its use of Minerva Networks' iTVManager to serve as the software core of its IPTV services. One of the founding companies on which Midwest Video Solutions is built, Midwest Telnet, based in Westby, Wisconsin, has been using the Minerva platform since 2001, when Midwest Telnet became the first company in North America to launch an IPTV headend.

Back then, Snustead notes, IPTV was so new that it took a long time to work out all the kinks related to sending video signals through the middleware, DSLAMs (DSL Access Multiplexers) and making a limited number of new IPTV set-tops work properly, delaying the actual launch of services until January 2003. Things have gone smoother with service enhancements in

the past couple of years, such as Minerva supporting their IPTV product in the marketplace for the past 7 years, that is driving additional IOC participation into this service offering.

Minerva is learning how to meet the challenges of this ever-evolving technology. At the time, Minerva allowed all the existing member companies to get into the business and gain new IPTV customers instead of waiting for all the kinks to be worked out and begin deploying 5 years ago. If they'd waited to go through all the learning curves, they'd have been far behind the eight ball when it came to meeting customer demands and requirements.

The long experience paid off with implementation of the latest version of Minerva's iTVManager, which recently rolled out on 5,000 set-tops in approximately 2,500 customer households at one of the member companies. iTVManager 3.2 was one of the better cutovers they have had. Out of 2,500 customer installs, there was only a limited number of truck rolls.

Smoothly loading new middleware with new code on multiple vendor set-tops is a big challenge, made harder still by the advanced features incorporated into the latest version of iTVManager. Among other things, the new middleware allows Midwest Video to launch HDTV services in MPEG-4 compression mode on newly installed boxes while continuing to support MPEG-2-based delivery of standard definition video to legacy as well as new boxes.

Using iTVManager, Midwest Video will be able to go its cable



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competitors one better in the race to bring HDTV services to market by being able to introduce whole-home DVR. The ability to offer HDTV with DVR support from one set-top to all the other set-tops in the home is a big advantage for MVS members. This is especially important as cable competitors begin to introduce voice services into Midwest Video's members' markets, where until now the IOCs have had the triple-play advantage mostly to themselves.

People typically don't want to buy multiple DVRs but want the convenience of watching what they record in any room. If a consumer can have one DVR and watch the movies they record on the living room set in their bedroom, that's a big plus.

Another big advantage for Midwest Video members against larger cable competitors like Mediacom, Charter Communications and Time Warner Cable is their position as local businesses with a commitment to serving customers that big national companies can't match, notes Dave Treptow, network engineer for Vernon Telephone Cooperative, another Midwest Video affiliate. "We're a local business that people know will give them good service, whether they call during business hours or later," Treptow says. He cites one instance when a service tech responded to an after-hours call from an elderly woman who needed help putting the battery in her remote control.

The triple-play single-bill appeal, together with the local service advantage, has helped build revenues for IOCs that have been offering IPTV for some time in the Midwest Video market, Snustead notes. "Overall, we have over 11,000 video customers on 56,000 lines served, but that includes a lot of companies that have just begun offering IPTV," he says. "Some of the ones that have been in the market longer are above 30 percent penetration."

Presently Midwest, which uses two headends that were brought to the venture by two founding companies, aggregates the content coming into the downlink facilities at both locations for common distribution to all members, using one headend as the source for MPEG-2 and both for MPEG-4 encoding of HD content. Pooling both downlink locations allowed the venture to nearly double the total number of HD channels available across the whole footprint, Snustead notes.

"We will now be able to offer 17 HD channels, not counting off-air," he says. "We hope to turn up an additional four to six HD channels in the next few months."

Over the next two or three years, Midwest Video hopes to phase out its MPEG-2 set-top base as the market transitions to HDTV sets, allowing it to operate in all-MPEG-4 mode with more channels across both headends. With the latest release of Minerva's iTVManager in place, the company will be well-positioned to add new types of set-tops to the mix as technology continues to evolve and new options emerge.

MVS also points to the flexibility the software affords with respect to the different bandwidth configurations and stream counts available from one IOC network to the next. Minerva's software knows how much bandwidth is available and determines what you have available to watch and record. The software's ability to manage stream usage set-top by set-top, household by household is especially important in a multi-access environment which, along with a preponderance of ADSL2+ lines, includes a few thousand homes connected to different types of all-fiber access networks.

The capability of the software to differentiate services by region is also very important to Midwest Video, Snustead adds. "The new version of Minerva's software will allow our members at some point to run different channel lineups and packages and lower maintenance expenses," he says. This is vital to a region where five different off-air markets provide local broadcast signals to member companies.

With the new level of flexibility built into iTVManager, Midwest Video Solutions has the option to continue to expand its service features, with video-on-demand (VOD) looming as a next logical step. No decision has been made as to timing, but the company is aware VOD could become a competitive necessity.

If so, it has the middleware platform in place to move ahead expeditiously, given Minerva's long experience supporting VOD with multiple vendor partners. They will be well-positioned for future growth.