

THIRTEEN/WNET

The nation's largest and most watched public TV station pursues a cost-effective HD path with Grass Valley routing

CUSTOMER:

Thirteen/WNET
New York, US

APPLICATION:

HD Infrastructure/Digital Signal
Distribution



Photo: Joseph Sinnott/WNET

BACKGROUND:

Although it began broadcasting high-definition (HD) programming in 2008, Thirteen/WNET, America's most-watched public television station, completed the migration of all of its production operations to HD in January of 2011.

To do this correctly, they had to carefully expand the existing signal distribution infrastructure to accommodate more HD content and a significant but decreasing amount of standard-definition (SD) shows as well.

Up to this point the engineering team had been using a Grass Valley™ 7000 Series routing switcher for SD and a small (64x64) Grass Valley Concerto™ Series router to convert signals when necessary and to support its steadily

increasing HD broadcasts. Recognizing that this equipment complement was no longer adequate, the station installed a 256x256 Grass Valley Trinx™ HD video router and 128x128 Grass Valley Apex digital audio signal router, all controlled by Grass Valley Encore™ software (installed on two computers in the facility, with one for redundancy).

Being a public television station, new capital investments are always a concern. Therefore, the Trinx router was purchased used and completely retrofitted with new parts (including a new warranty and service contract). The Trinx was populated with a new 256x256 HD matrix and HD (128x128) I/O cards, giving the station lots of room for growth. It provides a testament to the reliability and longevity of Grass Valley's Trinx line of digital video routers.

OPERATION:

The station still handles some SD content, so the new Trinx gives the station much more capacity than it had before on the SD side. They now have expanded HD routing capability as well for moving signals throughout the building and—once programs are finished—sending them directly to master control for layout.

In an automated broadcast environment like the one that Thirteen/WNET has implemented, it's critical to have a reliable, totally redundant routing infrastructure that gets signals where they need to go, at exactly the right time they need to be there. It's called "deterministic switching" and is critical to what the station accomplishes on a daily basis.

"There's a lot more to routing signals today than ever before. We have been a Grass Valley user for many years, because we have confidence in its ability to get the job done they way we need it to."

Frank Graybill, Director of Engineering at Thirteen/WNET

"We like the Grass Valley Trinix and Apex platforms because they offer lots of features per card and give us the ability to mix and match different processing cards in the same frame. This has helped immensely with our migration to HD by keeping our costs low while still giving us access to the most advanced features."

Frank Graybill, Director of Engineering at Thirteen/WNET

The infrastructure supports 18 sources coming in from satellite that are ingested on a daily basis, and broadcasts nine playout channels, so the Trinix and Apex routers (under automation system control) have to manage all of that without any hiccups. And they do.

Although the station initially had a few issues learning the Grass Valley Encore router control software, they are now adept at configuring it. The flexibility of the Encore software is leveraged for all of the station's logging and signal management, in addition to its traditional signal distribution.

Now that the upgrade of its video and AES audio distribution capabilities is complete, Thirteen/WNET can now switch HD signals and send them to wherever they need to go a lot easier and more accurately than they ever could before. And the "new" Trinix router supports up to 1080p/59.94 (3 Gb/s) signal paths, so the station is ready for any new type of programming management might want to pursue in the future.



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