WEGL Runs Across Livewire

By Marc Johnson

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AUBURN, Alabama

WEGL(FM) is the student-operated, student-funded and student-managed radio station of Auburn University.

WEGL’s old audio consoles were outdated and needed repairs, but some necessary replacement parts were no longer available. So WEGL started looking for an alternative.

The station stumbled across a new technology for audio routing, mixing and wiring — Axia Livewire, which uses an Ethernet cable to carry real-time uncompressed digital audio, device control messages and program associated data. A facility can be wired in a matter of hours, rather than weeks.

After several phone calls and lots of questions, the station decided to go with Axia.

WEGL now uses an Axia SmartSurface, a control surface/mixing board that gives users personalized control and provides an interface for the studio mix engine, which the station also now uses, along with a GPIO node and two analog line nodes.

WEGL uses two more analog line nodes to incorporate its existing analog mixing consoles and production rooms into the Axia system, and there’s an analog line node in the engineering closet that feeds the STL and streaming computer.

The equipment was out of the box and on the air in a matter of hours; the installation could not have gone smoother. The Cat6 network cables were run by the time the equipment arrived. The staff racked the equipment, plugged in the power, connected audio I/O and then connected it to the network. After less than two hours of configuration via Web browser, the Axia system was ready to go.

Wiring an Axia system involves only short runs of cable. Users install the Axia nodes close to where their equipment is anyway. Besides the microphone and speaker cables, the longest audio cable the station now has is 1 meter. This equipment placement and cabling is certainly preferable to conventional wiring techniques.

Our operators enjoy the capabilities and flexibility that the Axia system provides. As with any new equipment, there were some training issues. But other than general operational questions, there have been no major problems. In fact, considering the staff has been accustomed to rotary-pot analog consoles, I’d say they became comfortable with the SmartSurface quickly.

Traffic jam

There was one problem. WEGL had a multicasting traffic issue with Auburn University’s existing computer network. The Axia system multicasts ARP packets across the network. This posed a problem when the staff connected Axia to the rest of the university network.

However, there was a simple solution. By adjusting the settings of the HP ProCurve 2626 networking switch, it kept the multicast traffic off Auburn’s network.

Within the next year or two, WEGL plans on replacing the analog consoles in the production rooms with more Axia gear.

However, WEGL will not need much equipment. Axia makes connecting additional audio sources to the network as easy as connecting additional computers to a traditional local area network.

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