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Remote Broadcasting On Campus

Some of the most common issues for a campus radio station center around sports and remote broadcasting. There are a wide variety of solutions for these problems. The basic options are ranked below by typical cost (cheap to megabuck):

- (1) The easiest solution is to have a direct audio connection from the campus sports center(s) to the studio. This is usually done using a “dry pair” line from the center to the studio. This means a line that runs from one point to the other without passing through any transformer or patch locations. In other words, its like running a phone line all across campus. Usually, you can get a campus phone technician to provide this kind of line for you. If you can, it makes it much easier to walk into the center connect up your audio and go. On the studio end, you simply connect the line like any other input on the console and run it. It is possible that the phone techs on your campus can do this for free. Nothing is ever free, but it is possible... Assuming that you are able to do this, your basic mixing board can be connected (line out) to the line back to the studio and away you go. You may require amplifiers to do this as well, but they are relatively cheap.
- (2) The second easiest solution is a direct audio connection using coaxial, fiberoptic, ethernet or another point-to-point cable from the center to the studio. In these cases, you will need some kind of converter to make the audio enter and exit the cable, but that is usually not too expensive. A heavily wired campus may have some or all of these options already in place. As with the above solution, you just connect to the converter and feed audio. Again, possibly with the addition of an amplifier.
- (3) The on-campus telephone system offers a variety of options. The most common would be to directly connect an open telephone line to the studio, similar to the “dry pair” but likely to have more noise. Another would be to use the campus system as a dialup connection to the studio phones. The main disadvantage is that this requires the purchase of equipment to connect and dial. The advantage would be that you would be able to use the dialup equipment for away games as well. The same basic mixing package in (1) would be able to be used, but it would connect to your telephone interface equipment instead of the audio line directly.
- (4) ISDN remote systems are the height of telephone remote broadcasting (for now). Some of them will run on standard POTS (Plain Old Telephone Service) lines as well. This would allow you the most flexibility for remote operation. But, like anything good, they cost a lot of money. Systems can easily hit \$10,000. They pay for themselves in terms of flexibility and clarity, but you also need to ensure ISDN connections are available at the remote site – not always easy!
- (5) Unlicensed wireless systems in the 900MHz and 2.4GHz ranges are available in many electronic shops. Some of these can reach a ½ mile range, but not guaranteed. They are lower cost and do not require a license. They may be a good solution for short-range coverage on a campus, but probably not for larger schools. Our experience with these systems is limited, but shows that line-of-sight and height are the critical performance issues.
- (6) Cellular wireless solutions are more expensive and more complicated, but also give you flexibility to get off the campus. Wireless packages are available for use with (and even including) cellular phones for their interface. This would be used in place of a direct line connection to the studio. The advantage is that the phone is unlicensed, and more flexible than some line-of-sight solutions for wireless, and it is very portable. The disadvantage is cost. However, you may be able to work a deal with a local cellular provider for some exchange of underwriting (or ads if you are not licensed) to cover the costs.
- (7) Remote Pickup Units (RPU) are a great way to get long range (several miles) coverage for your remote broadcasts without a phone connection. These start around \$5000, however, and require a license for operation. You may be able to find them used, but again, they need to be licensed. If you have the budget they are worth considering.