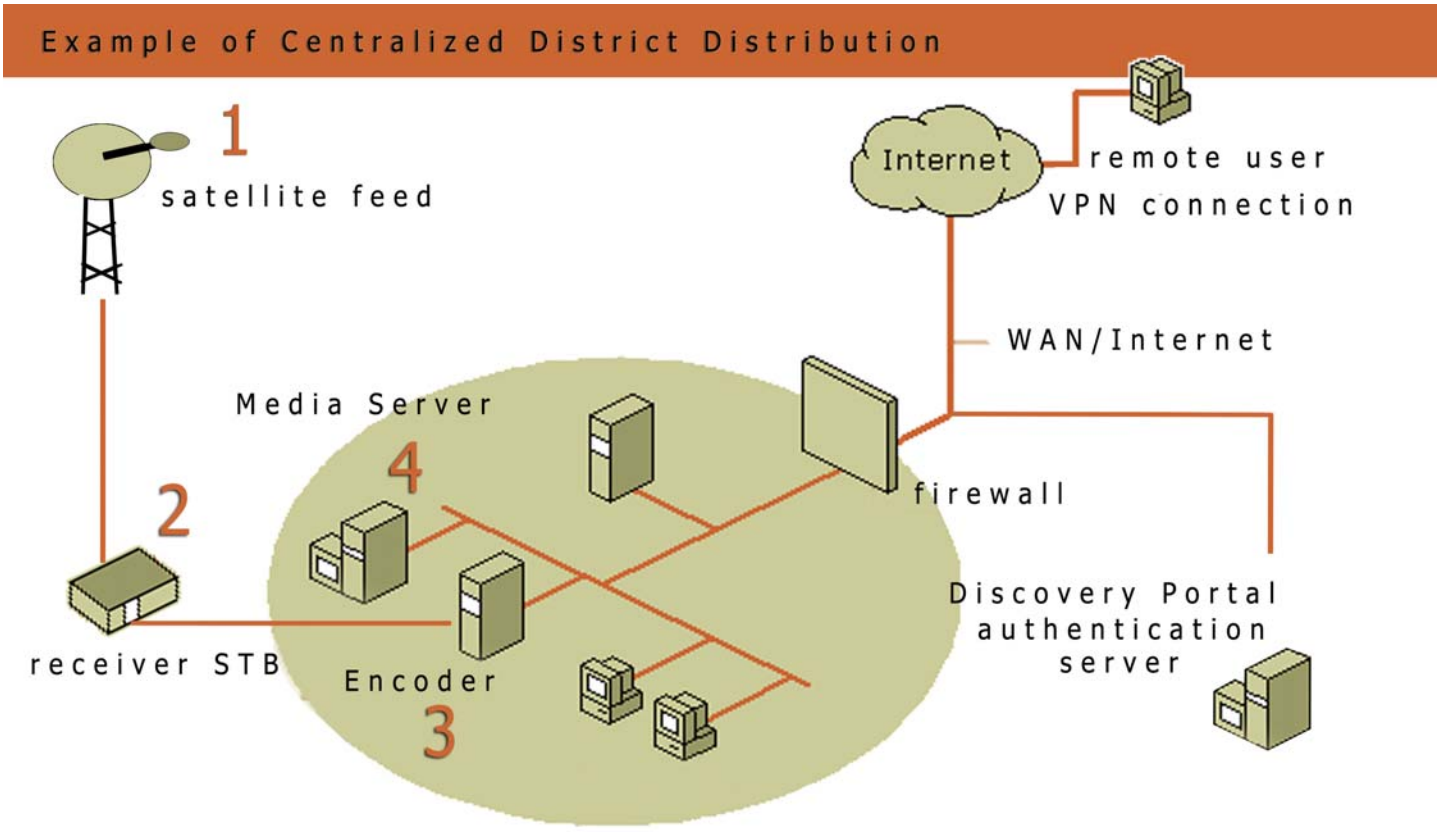
ETV IP MEDIA DISTRIBUTION – PHASE II

After the initial deployment of IP Media systems to thirty-three (33) districts in the upstate (see district list), we have begun to deploy a second generation of systems to districts as more funding becomes available.

PHASE II of our IP Media system deployment began around the summer of 2009. In this phase the districts have funded the systems themselves, mostly through new school construction monies. By opting out of installing coaxial networks in the new school building(s) a savings of approximately $40,000.00 is realized.

A cost savings is then also realized for all future school construction because the IP Media system acts as a district-wide television/ media distribution system, replacing the BDS (building distribution system) in all of the schools in the district.



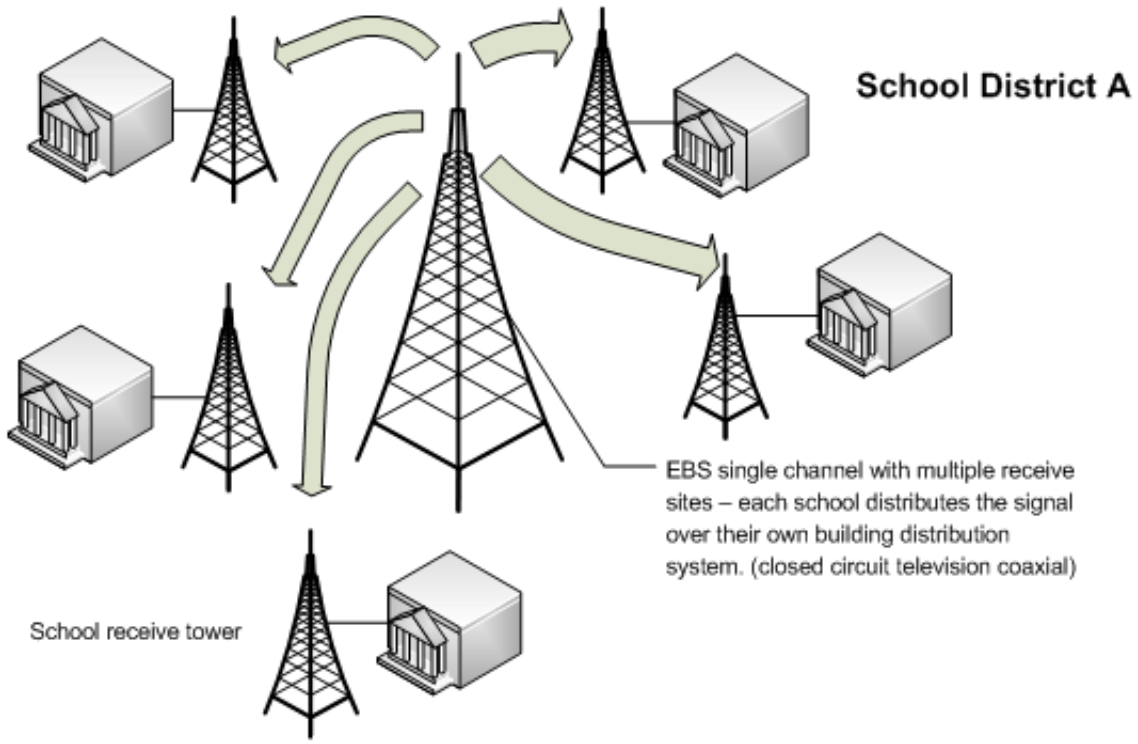
This diagram shows the basic *signal / encoder / stream* paths

Latest Developments:

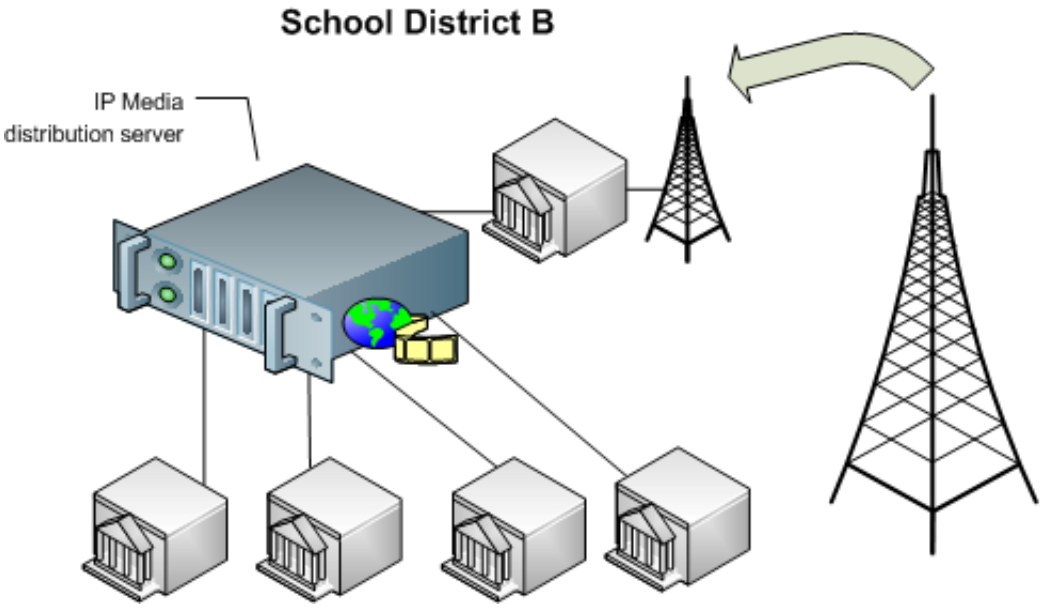
We have deployed four of the PHASE II IP Media systems to four school districts: Anderson 3, Calhoun, Beaufort and Georgetown counties.

Accounting for our first phase deployment and systems that were already in place before we began, we have approximately forty (40) IP Media systems in operation.
This leaves forty-five (45) districts for Phase II IP transition remaining.

Another important aspect of educational media in school districts is their use of EBS transmissions to deliver broadcast media through-out a district. We have transitioned approximately 80% + transmit sites to a mid-band configuration, in preparation for the new EBS Internet cloud. We will have one channel of EBS transmissions to every school district in the state. *(Mandated by recent state legislation)*
One way to greatly reduce mid-band transition costs and the support costs associated with receive sites and building distribution systems (BDS) maintenance is to reduce the amount of connection points needed in each school district. This can be achieved by installing IP Media Distribution systems on the school district WAN. By doing so we will reduce the receive site configuration requirements to only one per district – as apposed to one per school. By this manner we will guarantee substantial use for the single mid-band channel (an FCC mandate) through-out each school district with a minimal cost.
To better understand - review the graphics below:



In District “A” - a single transmit tower must be received at every school. This greatly increases costs because receive site tower and associated hardware must be maintained/replaced and school BDS components, used to distribute the signal through-out a school, must be maintained.



In District “B” - Adding an IP MEDIA DISTRIBUTION SYSTEM on a school district’s WAN allows a single channel EBS transmission to be received at all schools connected to the district WAN – through ONE RECEIVE SITE.

System configuration:

The original IP Media system consisted of a Dell 2950 with eight (8) gigabits of RAM, a 250 gig boot drive and 2x 1Terabyte of storage. Because of computer hardware advances and decreases in relative costs – we have been able to increase the capabilities of our IP Media system substancially. The current system hardware consists of a Dell T610 with forty-eight (48) gigabits of RAM, 2x 250 gig boot drives (mirrored for redundancy) and 8 Terabytes of RAID 5 storage with an automated “hot-swap”.

The system was and still is “two computers in one” – with a host operating system serving a secondary virtualized server – that serves the portal interface. The IP Media Distribution system serves video media based on Windows Media services but is open-ended in such a manner to be readily configured to support future, lower bit-rate, higher quality video streams.