

IPTV vs. Analog Coax TV

Is it really a choice anymore?

In 1989, the National Cable & Telecommunications Association formed the now defunct "Cable in the Classroom" initiative to promote bringing analog Cable-TV to school classrooms. The world changed a lot in the last 30 years making that proposition largely irrelevant. The widespread use of VCRs, DVRs, and access to the public Internet long ago eclipsed the Cable-TV delivery proposition, but the utility of the live program content remains.

While coax wiring inside buildings have atrophied, digital networks are ubiquitous. Investments in digital networks have given teachers, students, and staff rapid access to just about everything they could need. Whether wired or wireless, today's schools and classrooms are digital.

IPTV means delivering television over the common digital network infrastructure. Cable-TV means delivering television over analog coax cable, which must be installed and maintained. The advantages of IPTV are obvious:

	IPTV	Coax
Desktops, Windows, MAC	Yes	No
Mobile, Tablets, SmartPhones	Yes	No
TVs	Yes	Yes
Server Recording	Yes	No
Classroom Projectors	Yes	No
Security Settings	Yes	No
Viewing Metrics	Yes	No
Program Guide	Yes	Yes

Cable-TV infrastructure was typically deployed using a rack of Cable-TV amplifiers and modulators, which can be problematic for HD digital TV, often relegating local TV distribution to lower quality signals.

IPTV infrastructure already exists, it is the Ethernet / IP digital network. The TV signal may originate from a Cable-TV box, a satellite receiver (e.g. "Dish"), or free Over-the-Air broadcasts. Each TV signal is presented to an encoder channel that delivers it to a video server, which may be located anywhere. The video server then delivers the live TV channels to authorized viewers.

Network citizenship for IPTV systems is a legitimate concern, and hosting an IPTV system on an existing network may worry the IT staff. Years ago when networks were shared media 10M Ethernet, and when encoding technology required 5 Mbps per TV channel, the concerns were well warranted. But today, the bandwidth required is 1/10th what it used to be, and networks are commonly 100/1000 Mbps and beyond. Deployment history shows that most IT professionals are proud that their networks deliver live TV to their communities.