Subject: Re: digital radio vs analog radio
Posted by Wayne Parham on Thu, 25 Oct 2007 18:20:08 GMT
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I've always winced at VoIP/SIP technology. It's a mis-match at best. IP is designed to be robust, and to this end, data streams are packetized and sent in chunks. They don't have to take the same path to their destination and don't have to arrive in order or even close to the same time. So to send a real-time analog signal across IP means you can't be sure of quality. It's just a bad idea, in my opinion. At least where quality is sought, it's bad.That said, it is becoming very popular. It usually works pretty well. The occasional dropout probably isn't any worse than dropouts from bad reception over the airwaves. Still, I have a hard time accepting SIP because of the technical mis-match.There's another thing that bugs me. As some of you know, I've worked in computers and communications over most of my career. The last decade or so, I've done computer work at large telecommunications companies. I've worked small shops and large, with some of the brightest minds in the industry from IBM, Lucent (former Bell Labs) and MCI/Worldcom (now Verizon). These guys are movers and shakers, and I've been blessed to work with them. Some of the smartest guys I know are in these fields.My whole career, I've known that one day we would have a single unified information technology conglomerate. It was easy for me to see in 1980 that one day, voice telephone, data and video would all move over the same data channels. I've been able to work on many of these core technologies in the past 25+ years, gradually putting them together into one huge network.Three early players emerged. First was the telephone companies, with their well-established network evolved over 100 years of hanging telephone lines between switches and terminations. Second was the Arpanet, the TCP/IP protocol. It came about in the mid-1960's, but the general public was really unaware of it until 1990 or so. The third was the satellite and cable television companies. They started wiring up households in the 1980's.The video networks could actually be broadened to include broadcast television, starting in the 1940's, I suppose. Every country had broadcast television networks. But the real video networking "race" started taking hold in the 1980's. This is when the three types of networks started growing towards an eventual competition of technologies.Each technology has its own strengths. The most robust is the tip/ring telephone phone system we've had for years. Think about it. You can have a storm that knocks out power and you still have telephone service. It's probably the most reliable system we have. Batteries keep power on the lines even if the power grid is knocked off. It is pretty incredible, really, in that even though there are millions of miles of telephone lines, lightning rarely knocks out the service.Next is probably the Arpanet. It is designed to be robust, to be able to route digital data packets around dead spots in a network. It relies on multiple data paths to provide redundancy. As long as there is some kind of interconnection, data gets through. There are millions of spaghetti-like paths around the country, so it's a pretty sure bet that packets will reach their destination.Last is the cable and satellite companies. They don't have as robust a network because they were originally setup to be an entertainment service, not a mission critical five-nines kind of deal. But it is still an investment, and when you look at the totality of broadcast video, the network television stations and programs and all the systems required to bring them to their audiences, you're looking at a pretty massive deployment of stuff.Of these technologies, the phone company has the largest investment of hardware. There's 100 years worth of lines and switches and what-not that the phone companies have developed and installed. The cable companies and broadcast networks have also invested a fair amount of hardware. But the Arpanet really rides on top of these technologies. Not much investment was required to bring about the internet. That's a good thing, because it leverages

existing technologies and creates a robust system on top of them.That brings me to my point. When I see a phone company like "Vonage" spring up and sell VoIP phone service, I can't help but think of them as a "Johnny come lately" or a "hanger on". They ride on the coattails of organizations that built the world. When I see an internet video broadcast become popular, I think the same thing.So I'm of two minds. These little IP start-ups are a good thing. They move forward in a productive way. And I'm not a guy that generally hangs on to the big corporate America as the best thing that ever happened. I don't see them as an evil empire either, but I sure as hell hate Microsoft Vista. That's another story. I just don't much care for the little start-ups 'cause they didn't have to do much for the technologies that buttress them.Still, we put an internet radio station together a year ago. So we did it too. ART Radio is a lot of fun, and when you listen, you know you're hearing the same thing everybody else is listening to on ART. Let's us all have a little background music while we work. I don't think it is suitable source for high-end evaluation, but it is fun.