

"The Picture Quality Is Perfect"

Major Law Firm Distributes Television on Cat 6 Cable

"Many of our attorneys monitor activities in Congress using satellite TV delivered to their offices on Cat 6 cable," according to E. Pete Karelis, Team Lead of the Network & Systems Infrastructure Group at the Venable Law Firm in Washington, DC. "They mute the audio and read closed captioning to minimize disruption to other conversations."

Venable uses a Lynx Video and Data Network to deliver satellite TV from the IDF closets to the offices on Category 6 cable. Twelve channels deliver live coverage of congressional hearings, committee proceedings, and C-SPAN programming to television sets in 25 offices in Venable's Government and Regulatory Affairs Group.

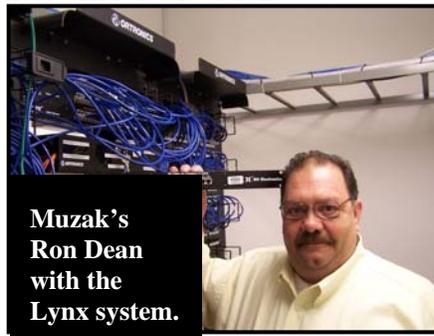


"The picture quality is perfect," Karelis said. "It was very impressive to get broadband video to the outlets on Cat 6 cable, especially with Ethernet signals running side by side on the same cable."

Venable recently relocated its flagship office in Washington and wanted an IT infrastructure that would be scalable for 10 years growth and adaptable to changing technologies. Karelis

and others spent more than two years planning the new infrastructure, which is used by nearly 500 employees.

When planning for the relocation Karelis wanted a standard infrastructure that could deliver any service to any location. He wanted to avoid building two separate horizontal networks - a Cat 6 network for data and voice and a coax network for television.



The Lynx Video and Data Network uses three eight port hubs (located in the IDF closets) and 24 breakout converters (located in the offices) so that all horizontal cabling is Cat 6 cable. Twelve satellite channels travel from the dish to the headend and then to the IDF closets via a coax backbone.

In the IDF closets the Lynx hubs use patented broadband video baluns to convert unbalanced coaxial signals into balanced signals that travel on pair four of the Cat 6 cable. Ethernet signals are inserted on pairs two and three and both signals travel each office on a single Cat 6 cable. Then a special converter separates the signals and converts the television signal back to coaxial form just before it enters the TV.

The television distribution network was installed by Muzak, which offers music, on-hold messaging, sound masking, audio, video, and systems integration services to corporate customers around the world. Venable learned about Lynx from Applied Technical Solutions, the consulting firm that assisted in planning for the new facility.

"A Muzak video engineer installed the system in one weekend," Karelis said. "There wasn't one problem and the picture quality was immaculate."

The shortest cable run from a hub to a TV was 75 feet; the longest run is about 200 feet. "There has never been a complaint about signal degradation or quality", he said.

"The Cat 6 video distribution network saved up to six thousand dollars because we didn't have to run both coax and Cat 6 to each desktop," Karelis said. "The other thing we gained is flexibility. If you have a coax cable drop someplace, that's the only place that gets television. I have Cat 6 everywhere. If someone wants to add a TV in a hallway or conference room, I can use Lynx and Cat 6 to hook up a new TV in minutes."

Venable was founded over one hundred years ago and is currently one of *American Lawyer's* top 100 law firms. Its headquarters are in Baltimore and it has offices in Washington DC, Towson, MD, Rockville, MD, and Vienna, VA.

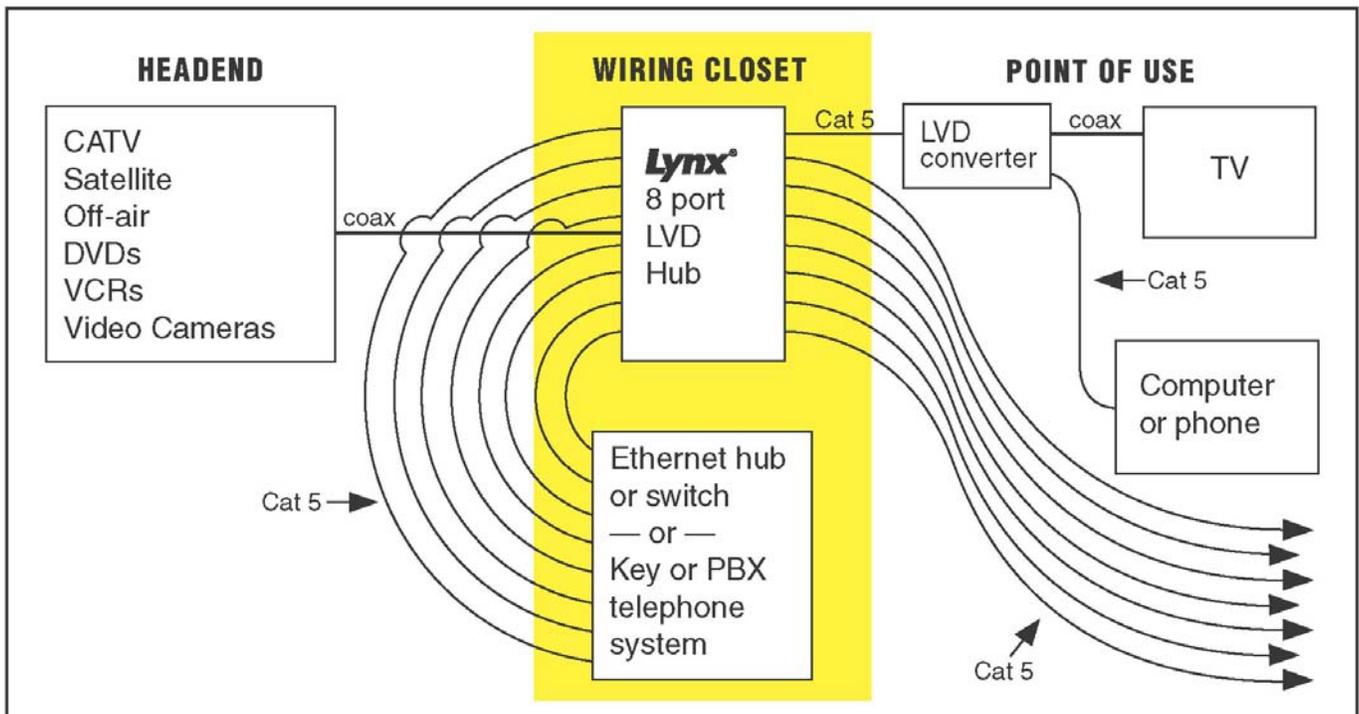
**For more information visit
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Product Photos



A Lynx distribution hub converts a coaxial television signal into eight UTP output signals that travel on pair four of the UTP cables. It also delivers Ethernet on pairs two and three. At the point of use, the television signals are converted back to coaxial form and the data signals are delivered to an RJ-45 connector.

System Design



R&D 100 Awards

The Lynx Video Network received the 1996 R&D 100 Award for its ability to deliver television signals on a dedicated twisted pair cable. The Lynx Video and Data Network received the 2003 R&D 100 Award for its ability to simultaneously deliver television and data (Ethernet) on a single twisted pair cable. The R&D 100 Award is presented by *R&D Magazine* to recognize the 100 most technologically significant new products introduced each year.

