

Futures Trader Upgrades Its Infrastructure

TELEVISION ON CAT 6 OFFERS FUTURES TRADING ADVANTAGES

Advantage Futures recently upgraded its infrastructure and doubled its office space when it moved this spring from the Chicago Board of Trade to new facilities in the heart of the city's financial district. Nearly 40 miles of Category 6 cable and advanced equipment were installed to serve 48,000 square feet of custom-built space with state-of-the-art datacom, telecom, and television services.

Cat 6 cable was a key part of the infrastructure upgrade. It is tested for performance at frequencies up to 250 MHz and is suitable for 10BASE-T, 100BASE-T (Fast Ethernet), 1000BASE-T (Gigabit Ethernet) and 10GBASE-T (10-Gigabit Ethernet). Cat 6 transfers data at very high speeds due to its ability to minimize "pair-to-pair cross talk" and system noise.

Advantage delivers 1000 BASE-T Ethernet, VoIP phone (Voice over Internet Protocol), and cable television on its Cat 6 infrastructure.

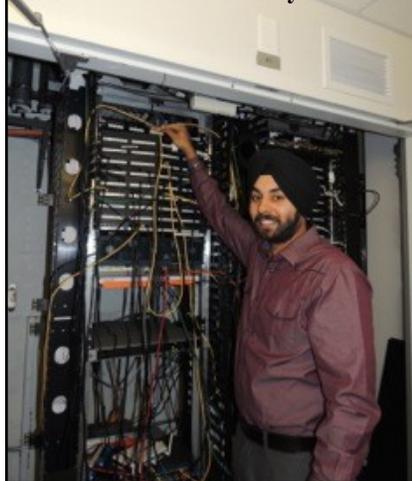
A vital technology improvement was switching the television distribution network from conventional coax cable to Cat 6. According to Sim Sabharwal, Vice President of Information Technology, the new system provides ultimate flexibility for handling "moves, adds, and changes" of television locations.

Employees and customers use the new offices for high volume trading operations, and often move from one suite to another as their needs change. When that happens, they need immediate access to political

and financial news without waiting for maintenance people to pull coax cable to their new location.

Advantage has experienced exponential growth since it began in 2003. Last year it processed trades for more than 290 million futures contracts, making it one of the top Futures Commission Merchants (FCM) in the nation.

Sim Sabharwal inspects the Cat 6 cables connected to a Lynx hub.



An FCM provides third party clearing and settlement services for futures transactions executed on futures exchanges. All members of a futures exchange are required to clear their trades at the end of each trading session and must maintain sufficient funds to cover their debit balances. An FCM is responsible to all members of an exchange for the fulfillment of contracts.

In addition to employing about 100 people for its international trade clearing operations, Advantage offers 45 single desks and 40 private

suites for independent trading firms. These firms sometimes employ up to 60 people.

"One of our biggest challenges was finding a television network that provided flexibility and scalability to easily add or move TVs to any location," Sabharwal reported. "We wanted TVs for our employees, TVs for traders, and TVs for public areas," he continued. "Television service is essential for traders, who need up to the minute information on world news, financial news, and market conditions around the world."

"There's quite a bit of movement on the trader's side, as new firms come on board and existing firms grow and add people," Sabharwal explained. "So, we need to move the cable TV signal and the TVs from one office to another without having to pull new cables."

CATV on Cat 6 Cable

Sabharwal's Information Technology team wondered if they could deliver cable television on Cat 6 cable, so they searched on-line and found Lynx Broadband®. Using Lynx hubs to distribute TV signals throughout Advantage's news offices, he was able to develop an ideal system for his application.

The network starts with RG-11 coax cable delivering programming to a Comcast set-top box, which is usually tuned to the Bloomberg channel. The HD signal is then deliv-

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ered to Lynx hubs in IDF closets located on the four corners of the office area.

Lynx hubs use RF baluns to convert the CATV to a “balanced signal” that travels on Cat 6. At the point of use a Lynx converter turns it back to an “unbalanced” signal that enters the TV through a conventional “F connector”.

Sabharwal worked with Gregg Kelley, National Sales Manager for Lynx Broadband, to design the network. The design and related drawings made it easy for Sabharwal’s team to install the entire system themselves.

One Hour Installation & Setup

Sabharwal and his team of four people installed the Lynx network in approximately one hour. This included installing the set top box, the amplifiers, hubs, converters.

One advantage of a “homerun” Cat 6 network compared to traditional “tap and drop coax” is improved reliability, because there are no taps, splitters, or other connectors between the wiring closet and the point of use. One Cat 6 cable goes to one TV, which greatly simplifies installation and troubleshooting.

Thirty five large, flat screen TVs are connected to the Advantage/Lynx network. Eighteen are tuned to the Bloomberg Network and distributed around the open office for employee viewing. Six TVs are in private

offices used by traders, while the others are in conference rooms, reception areas, and break rooms.

TVs used by our employees display only the Bloomberg channel, but the same system can deliver the full spectrum of Comcast channels to set

-top boxes in a trader’s office. The trader can change channels at will, and it only affects his TV.” (See top right corner of the drawing.)

Each employee and trader’s desk is equipped with four data jacks. All Sabharwal has to do to change a TV location is to move a patch cord in the IDF closet, unplug from the data jack in the old TV location and re-plug at the data jack in the new location.

Another advantage of the new TV system is its modest cost – only \$6,000 for the Lynx equipment and amplifiers. This was a relatively small investment compared to all the TVs, which cost \$17,500.

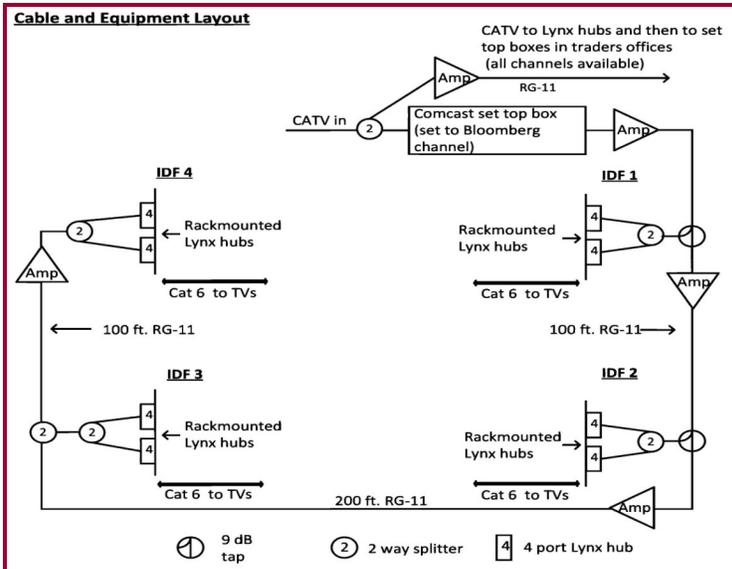
More About Advantage Futures

Advantage operates 10 climate controlled data centers around the United States. The Chicago office has space for 75 traders, on-site tech support staff, and a backup generator to ensure uninterrupted trading.

For More Information

Advantage Futures
www.advantagefutures.com

Lynx Broadband
www.lynxbroadband.com



In a few cases, the “in wall” distance from the patch panel to the data jack exceeded the 90 meter cabling standard, which reduced the signal strength and compromised picture quality. “We consulted Lynx and ordered more amplifiers,” Sabharwal said. “After adding the amplifiers, everything was good.”

“One of the features I like best is the ability to handle a variety of applications,” he continued. “The 18