

Meeting Notice**Thursday, July 8, Kansas City Scout**

600 NE Colbern Rd.; Lee's Summit, MO 64086; 816-622-6500

Gather at restaurant 11:30 a.m. (optional); meeting at KC Scout 12:15 noon



Kansas City Scout facility tour. Kansas City has become the third largest city in the nation in land area, stretching the metro's highway's to their capacity. To address the need to keep the city's traffic moving, Scout acts as a lookout for Kansas City-area travelers. With 75 high-resolution video cameras and roadway sensors, Scout is able to monitor traffic conditions, send help to clear congestion, and provide traffic updates to travelers more quickly. You have likely seen the message boards on many of the highways already. These signs are tied to the facility in Lee's Summit.

Gather at the facility for Kansas City Scout by 12:15 p.m. The chapter business meeting will be held before the tour. If you would like to have lunch, you can join others from the chapter at Waldo Pizza, 1543 NE Douglas, Lee's Summit. ☺

Certification Exam Dates		
Exam Date	Location	App. Deadline
Aug 13-23, 2004	Local Chapter	CLOSED
Nov 12-22, 2004	Local Chapter	Sep 24, 2004
Feb 4-14, 2005	Local Chapter	Dec 27, 2004

Last Month's Meeting

We met at the studios of Taketwo Productions in downtown Kansas City. Matt Kinan hosted the event. Committee reports were provided, and the new information presented is in this newsletter.

During the preview of upcoming programs, the topic of the September meeting—All About SBE Certification—was discussed. A tutorial on computer networking has been provided at other chapters and conventions, which has been followed by an exam opportunity to take the SBE Broadcast Networking Technologist exam. Several attendees expressed an interest in hosting a tutorial event like this. Chriss Scherer, chapter certification chairman, will investigate this possibility.

One important item of business was announced. For personal reasons, Mike Douthat has stepped down as chapter chairman. Steve Epstein, as vice chairman, will assume the responsibilities of chapter chairman. Epstein will appoint a chapter vice chairman at the July meeting.

The program was presented by Bob Weafer, regional marketing manager for L-3 Communications Electron Devices. L-3 has several divisions that deal with electronics and technology. The Electron Devices division was previously known as Litton Electron Devices. Weafer's presentation, *Inside the MSDC IOT*, provided an in-depth explanation of the super-efficient, five-segment multi-stage depressed collector (MSDC) IOT. The presentation included a chronology of UHF transmitter output amplifiers, but primarily

discussed tube operation differences for analog and digital transmission.

A pizza lunch from D'bronx was provided by L-3.

Chairman's Chat

By Steve Epstein, CPBE CBNT

A New Start

I was out of town for the last meeting, so I was unable to attend. Let me just say that this change came as surprise, but I pleased to take over as chairman of Chapter 59.

When the chapter elections were held earlier this year, some around me suggested that I run for chairman. I quietly declined stating that vice chairman would be better, because it would give me a chance to "get my feet wet." Well I got my feet wet for a month or so, and now the time has come to jump in.

For those of you who do not know me, I have lived in Kansas City more than 15 years. I have a wife and two daughters. My wife is a freelance graphic artist, one daughter is married and works with pet adoptions, the other daughter is working on a mechanical engineering degree at the University of Missouri-Rolla. Both my wife and I have been working on our own businesses after each of us were laid off near the end of 2002.

My first job in Kansas City was to move MCC, a production house in Lenexa, to a location north of the river. In 1998, I moved much of the equipment back to Lenexa. I was assistant chief engineer at KSMO for several years, and built the technical portion of the Cambridge Circle facility. For most of the '90s I was the technical editor of both *Broadcast Engineering* (a.k.a. Dr. Digital) and *Video Systems* magazines. In 2000 I went to work at Sprint PCS researching website usability. Since 2003, I have been consulting, technical writing and have put together a website for the broadcast and professional A/V industries

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called BroadcastBuyersGuide.com. If you get a chance, please take a look and let me know how I can make it more helpful for you.

I have been in and out of the SBE since the early 1980s when I worked at KWCH in Wichita. Fifteen years ago, I attended my first SBE59 meeting. It was at a small '50s diner on Wesport road called Lucille's. I think there were four people at that meeting. Ben Weiss and Ed Treese were two of them. Since then, Lucille's has burned down, and Chapter 59 has grown to where it is today—a chapter with 10 to 20 active members that attend every meeting. In addition, we have several outstanding officers, a newsletter and a website.

According to the Chapter 59 website we currently have 60 SBE members assigned to the chapter, only 29 of whom are certified—less than 50%. As chairman, one goal is to see that percentage increase. To that end, I have been writing a monthly CBNT tutorial for the newsletter. If you take the time to familiarize yourself with the material, you will be prepared for the CBNT exam. The six parts will wrap up in the September newsletter, just in time to sign up for the November exams.

I am always open to additional ideas on how we can improve the chapter, its membership and our certification percentage. Let me know what you think.

Leader-Skills Course II Scheduled for August

The SBE Leader Skills Seminars, Course II will be held August 11-13 at the Marten House Hotel and Lilly Conference Center in Indianapolis. To attend Course II you must have first completed Course I. Dick Cupka will again be the seminar leader. Cupka has led Leader Skills Seminars for broadcast engineers for more than 35 years. More than 1,000 broadcast engineers have taken part in this program since its inception. A registration form is available in the April issue of the *SBE Signal* or from the National Office. Registrations will close on July 6 or when the maximum class size of 18 participants is reached.

FCC Releases NOI on Localism

The FCC has released a 26-page Notice of Inquiry to investigate the localism efforts of over-the-air broadcasters. According to the NOI, "The concept of localism derives from Title III of the Communications Act, and is reflected in and supported by a number of current Commission policies and rules. Title III generally instructs the Commission to regulate broadcasting as the public interest, convenience, and necessity dictate, and section 307(b) explicitly requires the Commission to 'make such distribution of licenses, frequencies, hours of operation, and

of power among the several States and communities as to provide a fair, efficient, and equitable distribution of radio service to each of the same.’ “

During the FCC’s review of its structural broadcast ownership rules, the agency claims that it heard concerns from the public that broadcast stations may be failing to meet the needs of their local communities. The FCC states in the NOI that, “there is a correlation between certain classes of broadcast station owners and certain characteristics of localism exhibited by those stations, such as the quantity of local news and public affairs programming.”

The purpose of the NOI is to address behavioral rules that promote localism, regardless of identity of ownership. This effort appears to be the result of Sen. John McCain’s statement at a localism and the public interest hearing: “[The Senate Commerce] Committee has spent considerable time examining and debating the role of ownership limitations to achieve public interest goals. Today’s hearing is to consider whether Congress should use other means to achieve these goals, such as putting ‘teeth’ in the public interest standard.”

The Commission has already assembled a Localism Task Force to gather empirical data on broadcast localism and to advise the Commission on concrete steps to promote this policy goal. The task force has held three events in Charlotte, NC; San Antonio, TX; and Rapid City, SD.

The NOI seeks direct input from the public on how broadcasters are serving the interests and needs of their communities; whether the FCC needs to adopt new policies, practices or rules designed directly to promote localism in broadcast television and radio; and what those policies, practices or rules should be.

The following topics are referenced for comment: Communication with Communities; Nature and Amount of Community-Responsive Programming; Political Programming; Underserved Audiences; Payola; Other Sponsorship Identification; Voice-Tracking; National Playlists; License Renewals and Additional Spectrum Allocations (LPFM).

Read the text of the MB Docket No. 04-233 NOI at http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-04-129A1.pdf.

Next EAS Required Monthly Test: July 27
The RMT is sent on the last Tuesday of the month


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Computer Connection

By Steve Epstein, CPBE CBNT

CBNT Review, Part 4: The OSI Model

The Open System Interconnection (OSI) model defines the framework for implementing network protocols in seven layers. It was developed in conjunction with the ISO, and you sometimes see it as the ISO 7-layer model. In simple terms, information starts at the application layer in one system and traverses the layers down to the physical layer. It is then transmitted over the physical layer to another system where it traverses back up the layers to the application layer. Not everything has to start at the application layer, but regardless of where information or data starts or ends, it always traverses the layers in order, much like the modulation/demodulation process that occurs in TV/radio transmitters and receivers.

The seven layers involved are Application (#7), Presentation (#6), Session (#5), Transport (#4), Network (#3), Data Link (#2) and Physical (#1). Let's take a closer look at each of these.

The Application layer supports application and end-user processes. Among other things, layer 7 provides services for file transfers, e-mail, and other network software services. Software such as FTP and telnet exist in the application level.

The Presentation layer translates information from the application format to network format, and vice versa. This layer formats and encrypts data to be sent across a network, providing freedom from compatibility problems. It is sometimes called the syntax layer. Different hardware platforms handle data differently, and it is this layer that accounts for those differences.

The Session layer establishes, manages and terminates connections between applications. When you point your browser to a website, a session can be established between the two that allows multiple instances of the browser to maintain contact with the web server. Things like tracking items in online shopping carts are handled by the Session layer.

The Transport layer provides transparent transfer of data between end systems, or hosts, and is responsible for end-to-end error recovery and flow control.

Switching and routing are handled at the Network layer, as are addressing, error handling, congestion control and packet sequencing.

Data packets are encoded and decoded into bits at the Data Link layer. The Data Link layer provides transmission protocol knowledge and management. It also handles errors in the physical layer, flow control and frame synchronization. The Data Link layer is divided into two sublayers: The Media Access Control (MAC) layer and the Logical Link Control (LLC) layer. The MAC sublayer controls how a computer on the network gains access to the data and permission to transmit it. The LLC layer controls frame synchronization, flow control and error checking.

The Physical layer transmits the bit stream—electrical impulse, light or radio signal—through the network at the electrical and mechanical level. It provides the hardware means of sending and receiving data on a carrier, including defining cables, cards and physical aspects. Fast Ethernet, RS-232 and ATM are protocols with physical layer components.

Obviously, for a broadcast engineer, most of your work will be either at the top or the bottom of the stack. You will be working with applications or the physical interconnect of the network cabling. In actual use, you will rarely need to know the intimate details of how these layers function. Basically,

when information traverses the layers from application to physical, it is placed in a new wrapper at each layer. Traversing the layers the other way results in each layer being unwrapped. Just think of it like the Russian matryoshka nesting dolls, the important data is the smallest doll on the inside—the other dolls are there to protect it and ensure that it makes it to the proper destination intact.

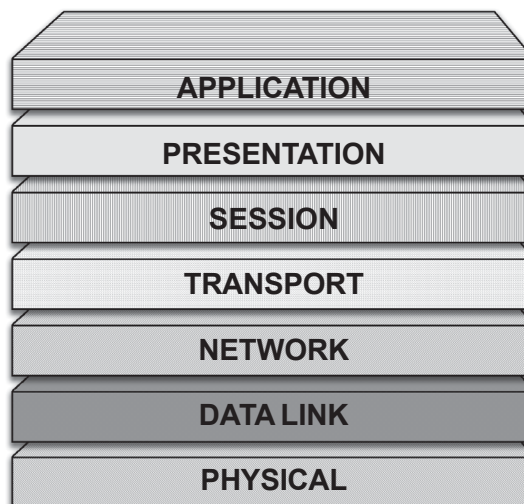
Remembering the OSI Order

By Chriss Scherer, CSRE CBNT

Trying to remember the order of the layers in the OSI isn't that difficult. There are plenty of mnemonic tricks to help you. One of the most popular establishes the order from the top down:

All People Seem To Need Data Processing

This even includes the name of one of the layers to help you remember it (Data). But if you like something different, try this one:



The seven layers of the OSI model.

All People Standing Totally Nude Don't Perspire
If you like to remember the order from the bottom up, here are a few to help you:

People Design Networks To Send Packets Accurately
Please Do Not Tell Secret Passwords Anytime
Please Do Not Throw Sausage Pizza Away

Nebraska Convention Announced

The Nebraska Broadcasters Association Convention and SBE Engineering Conference will be held on August 12. It will be held at the Embassy Suites in downtown Lincoln, NE. Look for details at www.sbe74.org. The 2003 event was very successful, and the convention organizers expect an even better show this year.

The technical sessions are being arranged by SBE74 chapter chairman Bob Drake and John Sims of RF Specialties.

Recently Certified

Congratulations to SBE59 member Nathan Chervek of Maryville, MO. Chervek took the CBT exam at NAB2004 and passed.

Old TV Camera Needed

Ned Soseman posted a note to the sbe-kc e-mail list on behalf of Peter Barrett, formerly of KCTV. Barrett, on behalf of the Barn Players of Johnson County, is looking to beg, borrow or rent a '50s-style studio camera on a pedestal or tripod. Ideally, the unit will be a black and white model with a turret lens. The camera will be used as a prop, so it does not need to work.

The Barn Players are presenting the play *My Favorite Year* in late July. The play is staged around a recreation of the Sid Ceasar show of the '50s.

If you can help, contact Ned Soseman at neds@pvskc.com.

SBE59 Wins National Award

The results of the SBE Annual Awards for 2003 have been announced, and SBE59 is a winner in the statistical category of Greatest Growth in New Members in Class B. Class B means that our chapter has more than the average number of members of all the chapters.

This award shows that interest in the SBE and chapter 59 has increased. Thanks for your support of the chapter.

National Nominations Still Open

Nominations for National officers and board will be accepted through July 23, 2004. Ballots will be mailed to voting members by August 6. To become a candidate contact the SBE National Office. ☺

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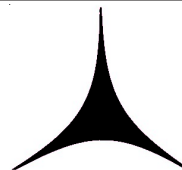
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Upcoming Meetings and Events

July 8 - Tour of Kansas City Scout
Lee's Summit facility

August 12 - IBOC Overview
Broadcast Electronics/RF Specialties

August 12 - Nebraska Broadcasters Convention
Embassy Suites, Lincoln, NE

September 9 - All About SBE Certification
The details of the industry benchmark

October 14 - Annual Picnic
The chapter's annual social gathering

November 11 - Topic TBD

New Certification Sample Test Software

The SBE introduced newly designed certification sample-test software at NAB2004. The new software runs on Windows and replaces the previous DOS-based software.



CERTpreview
Certification Sample Test Software

New sample tests will be available for Broadcast Technologist, Audio Engineer, Video Engineer, Broadcast Networking Technologist, Broadcast Engineer and Senior Broadcast Engineer. The software can be purchased through the National Office.



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