

Overview of Legislature's Proposed Audio Streaming Project

A Few Comments on 03 March Meeting

How are the Committee rooms "wired" and are they wired to do audio streaming?

During the 03 March meeting members heard various remarks regarding the lack of "wiring" in the Capitol building and that there was a budget for this wiring in the Capitol Restoration Project.

The Capitol building was rewired and new network switches were installed for broadband during the various phases of the Capitol Restoration Project. This work was driven by the Legislature's 2004 strategic plan that also defined the need for updated applications, e.g., KLISS. Note: Broadband is a wide bandwidth data transmission with an ability to simultaneously transport multiple signals and traffic types. The medium can be coaxial cable, optical fiber, radio or twisted pair.

Nearly all of the wiring throughout the Capitol building, making up the Capitol's "local area network", is Category 6 cable, commonly referred to as Cat6, a standardized twisted pair cable for Gigabit Ethernet (speeds of up to 1 gigabit per second in standard configurations and up to 10 gigabits per second in advanced set ups). While some of the network switches, installed during the early phases of the Capitol Restoration Project, are nearing end-of-life, the Capitol's "wiring" is capable of handling data, voice, and streaming traffic.

As part of the Capitol's local area network, each Committee room has multiple "data jacks" at member and staff seats which are connected to a data switch housed in the nearest telecommunications closet. Connecting your computing devices to these data jacks enables connections to the local computing environment (Capitol Data Center) or the internet. Each Committee room also has microphones and ceiling speakers connected to an audio system housed in the same telecommunications closet.

What is required to stream audio from a Committee room and what about "free" audio streaming ?

During the 03 March meeting members heard various remarks regarding what is required to do audio streaming from Committee rooms and the potential for using "free" audio streaming sites.

The steps required to do audio streaming effectively from a Committee room include:

1. Tap into the existing audio system in the t/c closet and capture the analog audio stream.
2. Convert the analog stream to a digital audio stream using an encoder in the t/c closet.
3. Send digital stream to application server in the Capitol Data Center via the local area network.
4. Send digital audio stream to a content distribution service (CDN, Content Distribution Network).
5. The CDN enables users access the digital audio stream via a specific web address.

Regarding "free" audio streaming sites, it goes without saying that "free" is usually not.

The primary downsides of free sites include the:

- lack of capability to serve hundreds of concurrent users,
- no service level commitments,
- lack of ability to provide statistics regarding # of users accessing site, duration of session, etc. ,
- the gauntlet of advertising presented to users wanting to access the streams, and
- the inability of the sites to archive and provide ongoing access to the archived audio streams.