At its February 20th meeting the Senate IT Committee received a request from Lake Campus to address issues of quality and availability with regards to faculty web conferencing between the various Wright State campuses. The IT Committee agreed to form a videoconference subcommittee to investigate the issue and report back with their findings and recommendations.

**Subcommittee Membership**
Sheri Stover, CEHS (Chair)
Miryung Lee, BSoM-Research Park
Weiqun Zhang, LAKE
Larry Fox, CaTS (ex-officio non-voting IT member)
EXECUTIVE SUMMARY

Many of Wright State departments are now geographically distributed such as the Lake Campus and the Research Park. Commuting between the Main and Lake Campuses is highly time consuming and costly to the university. In Spring 2014, the WSU Faculty Senate IT Committee received a request from the Lake Campus to investigate the options for video conferencing and make recommendations so that the Lake Campus faculty and staff are able to participate in events and meetings remotely. A sub-committee was formed to discuss the issue. Based on our research and investigation, the IT Committee makes the following recommendations.

1. WEB CONFERENCING

We recommend web conferencing solutions for participating in meetings remotely. Web conferencing technologies are advanced enough to allow Wright State departments to have reliable and robust communications without having to continually travel between Wright State facilities. Cloud-based web conferencing typically requires the Internet for connection and audio/video device for conversations. The primary advantage of using these web conference products is that people can attend from anywhere and on a wide range of devices with a fairly robust Internet connection. Web conferencing can also be used to collaborate with colleagues around the world, conduct interviews with potential candidates, and support research and committee work.

Products available today are mature and reliable with robust support. A few products to consider are Lync, Skype, and BlackBoard-Collaborate. Please refer to the attached report and particularly the section of Conferencing Technology Recommendations for a detailed analysis of the pros and cons of these technologies.

We would like to make a note that on campus we still have the IVDL/Polycom classroom. However, this environment is extremely expensive and has been scaled down and primarily only used in the classroom. CaTS reported they have reduced the number of IVDL classrooms on campus from four to one due to lack of use.

2. OFFICE OF FACULTY SENATE

The committee highly recommends a Logitech Conference Cam BCC950 to be used by the Wright State Office of Faculty Senate. The support staff are frequently setting up web conferences in conference rooms throughout the campus and immediately need a unit to support their conferencing with Lake. The device is small and portable and can be carried with the administrative staff while they move from conference room to conference room. The unit is fairly inexpensively (list price $299 and usually sells for about $210) and can be set up in any conference room by plugging it into a USB plug.
3. COLLEGE, SCHOOLS, AND DEPARTMENTS EQUIP CONFERENCE ROOMS TO SUPPORT CONFERENCING

With more people on campus beginning to do web conferences, we feel it is now time for each college, school, and department to designate locations to equip conference rooms to support web conferencing technology (permanent computer, projector, internet connection, web cam, microphone, and speaker). We don’t envision that every single functional department on campus put in a web conferencing system. The installation of such system should be guided by the need and actual use. This could mean that logical grouped departmental areas, for instance, several departments in a close geographical area (a building), to share access to a permanently installed web conference system.

The hardware and software required are now reasonably priced, not too large, and are relatively easy to install. The committee feels that the cost will quickly justify itself with the savings by the reduction in frequent travel costs. CaTS is currently testing some microphone/video options such as the Logitech ConferencCam CC3000e. CaTS will volunteer to offer consulting services and training (see the next section Support). The committee feels that each department should be responsible for the cost of the equipment; CaTS has volunteered to help the departments install.

Here is an example to illustrate the adoption of a web conferencing system. The College of Education and Human Services recently justified the installation of a web conferencing system in one of their conference rooms during a job search. The search committee had narrowed down the number of candidates to four. Instead of bringing all four candidates to campus, the committee conducted web conference interviews with all four candidates and then selected the top two candidates to bring to campus. This saved the college $2,000, which justified the installation of a system that only cost $1,000.

4. SUPPORT

The committee recommends the support for web conferencing options to be provided in the following ways.

We recommend that CaTS set up, update, and maintain a web site with product recommendations, links to tutorials on hardware, links to tutorials on software (such as Lync, Skype, BlackBoard-Collaborate), and information on services provided by CaTS. The web site would also include any conferencing options available on campus (even those supported by other departments besides CaTS). This website should also report best practices for conferencing options outside of Wright State that CaTS would recommend that are reasonably priced.

The committee also recommends that CaTS become the main source of support on campus for providing consulting and installation of web conferencing hardware and software. CaTS has volunteered to offer consulting services on recommendations on hardware, software, and installation requirements as well as training to the department technical support personnel so that the department can support themselves.

We also recommend that CTL offer frequent training workshops for popular web conferencing tools such as BlackBoard-Collaborate, Skype, and Adobe Connect.
Wright State Senate IT Committee  
Lake Campus Web Conferencing Sub-Committee  
Report Findings  
Tuesday, March 25, 2014

ATTENDEES: Chris Flannagan (CaTS), Larry Fox (CaTS), Greg Kremer (Lake Campus), Miryoung Lee (BSOM), Bryan Ford Nethers (Faculty Senate Secretary), Cindy Riley (Faculty Senate Secretary), Sheri Stover (CEHS), Tim Wertz (CaTS), Weiqun Zhang (Lake Campus)

REPORT FROM LAKE CAMPUS FACULTY: Lake Campus faculty are seeking recommendations from the IT Committee regarding video conferencing with main campus. Currently they are using a laptop w/ webcam and microphone, which only works for very small meetings (5 or fewer attendees). There are few office support staff and faculty are knowledgeable enough to setup and/or troubleshoot issues. Using the dedicated IVDL has robust quality, but requires prohibitive expense and time for support and set up. Suggestion to have a dedicated all-in-one conference package for check out from CaTS for faculty use equipped with laptop, microphone, camera, and Video Conferencing software. Dr. Mark Cubberly requests better audio quality of the current CTS conference microphones. Results of a survey of Lake Campus include:

1. FREQUENCY OF TRAVEL TO MAIN CAMPUS:  
   Lake campus faculty report they are frequently driving to main campus for meetings. The majority of responders said they come to main campus 1-2 times per month (10 of 25) and 1-2 times per semester (8 of 25).

2. COST OF TRIPS TO MAIN CAMPUS:  
   Lake campus faculty report spending lots of time and money while traveling to main campus. The report conducted by Lake Campus faculty report that they spend about $34,361/year and spend 1086 hours per year driving.

3. ABILITY TO USE WEB CONFERENCING FOR MEETINGS:  
   Faculty from Lake Campus reported they rated the ability to attend meetings without having to drive to main campus as important by rating it 94 out of 100. There were 77% of Lake Campus faculty that reported they definitely would use technology to attend meetings if it were available.

4. TOOLS NEEDED:  
   Faculty from Lake Campus reported they needed the ability to hear other attendees and the ability for other attendees to hear them. The also requested the ability to see other attendees and for other attendees to see them.

5. PREFERENCE OF VIRTUAL MEETING LOCATION:  
   Faculty from Lake that attend the meetings attend from the Lake Campus location (35%) and from home (27%), with the rest not having a strong preference of where they attend virtual meetings.

FINDINGS: In conducting research on options that are available for Lake Campus faculty to implement, here is what we found:

1. CURRENT CHALLENGES:  
   The issue really seemed as if it was coming from the Dayton campus and not the Lake
Campus location. When meetings are held in Dayton, the “hosting” person might (if they are technically knowledgeable enough), to set up a virtual meeting and then email the link to the Lake Campus faculty. Currently for many of the Senate meetings, Bryan Ford Nethers is setting up meetings Google Hang Out. He checks out an audio unit from CaTS CTS (Clear One). The audio quality on the unit he checks out is very poor. The challenges of the unit being checked out is that it have poor quality on its audio reception and it also is not robust enough for most conference rooms.

2. **IVDL:**
The use of IVDL has diminished so much, that there is really only one classroom on campus that is set up for IVDL sessions. CaTS does support some use of the Polycom in meeting rooms, but is not encouraging the use for meetings as the cost to have equipment and licenses is becoming cost prohibitive and CaTS has to set up a separate session each time.

3. **CONFERENCING TECHNOLOGY RECOMMENDATIONS:**
CaTS recommends several conferencing solutions that are currently available on campus. All of these options are internet based and users can set up these meetings independently without having to depend on anyone else. All of these options are also cloud based, so Lake Campus faculty can chose to attend from the Lake Campus office or home, since they can attend from any place that has a fairly robust internet connection and computer that has audio (microphone or headset) and possibly video options.
   a. **Lync**
   - **DISADVANTAGE:** Only can be used by Wright State users or those with Lync account. CaTS is still testing Lync, but they think it can be used with non-WSU people by sending an email hyperlink. Link works better for people running Office 2013.
   - **ADVANTAGE:** The cloud-based technology allows users to access from any place they have a fairly robust internet connection that eliminate them from being forced to come to a location that is equipped with equipment.
   
   b. **Skype**
   - **DISADVANTAGE:** Can’t do multiple users with the account we have here. User also needs to take the time to download a program to their computer.
   - **ADVANTAGE:** Since we have Microsoft accounts here at Wright State, it is easy for us to log onto Skype. The cloud-based technology allows users to access from any place they have a fairly robust internet connection that eliminate them from being forced to come to a location that is equipped with equipment.
   
   c. **BlackBoard-Collaborate**
   - **DISADVANTAGE:** Right now it is integrated into Pilot, so this is currently now set up for faculty to utilize in their academic classes. If faculty want to use outside their classroom, they need to request a blank Pilot shell. It is a web based technology, so you have the potential of having internet issues. The user does need to set up a BB-Collaborate room and the computer does need the free Java Applet drivers downloaded.
   - **ADVANTAGE:** Robust web conferencing tools that offer significant interaction opportunities. The cloud-based technology allows users to access from any place they have a fairly robust internet connection that eliminate them from being forced to come to a location that is equipped with equipment.
4. HARDWARE SOLUTIONS:
   a. AUDIO ONLY OPTIONS:
      Units that have high quality audio input/ output include:
      1. Yamaha PJP-20UR (about $350 each):
         High quality audio device that has a range good enough for about up to 5-8 people. Has noise cancellation, so it is the input and output device for audio. Has the ability to be daisy-chained, so four units can be connected for larger rooms.
      2. Yamaha PJP-50UR (about $899 each):
         High quality audio device that has a range good enough for about up to about 10-12 people. Has noise cancellation, so it is the input and output device for audio. Has the ability to be daisy-chained, so four units can be connected for larger rooms.
   b. PERSONAL/ VIDEO ONLY OPTIONS:
      Units that have high quality video include:
      1. Logitech HD Pro Webcam C930 (about $90 each):
         High quality video device.
      2. Microsoft Live Cam (about $60):
         Includes audio and video
   c. AUDIO/VIDEO OPTIONS:
      Units that have high quality audio input/ output and also include video include:
      1. Logitech Conference Cam BCC950 (List price $299, usually sells for about $210):
         High quality audio and video device that has a range good enough for about up to 5-8 people. Has noise cancellation, so it is the input and output device for audio.
      2. Logitech ConferenceCam CC3000e (about $900-$1,000 each):
         High quality audio and video device that has a range good enough for about up to 10-12 people. Has noise cancellation, so it is the input and output device for audio.

5. POSSIBLE HARDWARE SOLUTIONS:
   One alternative would be to recommend that CaTS and Lake Campus purchase equipment for check out for users on campus. Another alternative would be to have the individual departments or users purchase their own equipment.
   a. Web Conference Cart:
      Have a cart with hardware that has audio/video/laptop on cart that people can check out to use for sessions.
   b. Individual Unit w/Audio/Video:
      Have several LogiTech BCC950 units that include audio/video for people to check out.

6. POSSIBLE SUPPORT SOLUTIONS:
   a. Robust training for department tech support:
      CaTS to offer robust training to the department tech support and Lake Campus tech support so they can provide better support to their faculty.
b. **Offer Training Frequent Sessions for Faculty:**
   CTL to offer training sessions to faculty about how to use web conferencing solutions and also hardware.

c. **Develop robust online technical documentation:**
   CaTS to develop robust online technical documentation that faculty can use to support themselves.