IPC ISS Best Practices and Internet Connectivity Considerations

1. Ensure you give 2 weeks prior notice to set up a country portal – contact Thomas
2. Ensure you identify a System Admin who will support the users (during the analysis, training, or other activity which utilizes the ISS)
3. Ensure the System Admin takes both trainings prior to the event:
    a. Acute OR Chronic Analysts training (the Chronic is incorporated into the IPC training)
    b. System Admin training
4. Ensure the System Admin sets up the analysis on the portal 1 week before the event
    a. Gathers shape files and ensures s/he follows the guidance documentation for the shape file creation
    b. Uploads the shape files and creates analysis areas as per the needs of the event
    c. Creates users and sets permissions
5. Ensure that participants have taken the appropriate training in the ISS (acute, chronic). Utilize the following training materials;
    a. ISS Video Demonstration and PowerPoint presentation
    b. ISS Acute Analysts Training
    c. IPC Chronic Training (done using the ISS)
6. Ensure that your venue has reliable internet connectivity (see note below about internet speed)
    a. visit the location to test this if possible (also speak to colleagues/friends to ask their opinion). Connectivity has to be steady and reliable.
    b. Ask for a room with a separate router to ensure there is no problem with distance to the wifi router from the event room.
    c. Speak with the IT of the venue to explain the activity and your needs. Ideally this person will be present during the entire training or at worst ensure you have the contact person's phone number in case of problems.
    d. Ask the IT focal person if the network can be 'optimized' for the IPC work. This involves blocking users from video/audio downloads and uploads, and limiting other network traffic which is not related to IPC work.
    e. Ask users NOT to use the internet for personal reasons during the event. Email is OK, Facebook, Youtube, torrents, music, or other image, video, music sites slow down the internet connectivity for everyone. Smartphones also can slow down the internet connection if they auto-sync (see note below on internet speeds considerations)
7. Try to provide (or ask members to bring) GSM modems, either wifi (for a group) or USB (individual). These can sometimes be better than the internet connection of the venue. Additionally, these can be programmed to firewall (block) certain content such as YouTube, Facetime, etc. to ensure bandwidth is not taken up by other apps. Cost reimbursement from the GSU has been agreed (check with Stefania!).
8. Prepare the Evidence Repository in advance so that it is not built during the analysis and the Documentation Codes are modified. The DC's will not change unless you add different evidence to different analysis areas (add evidence that is 'area-only').
9. Where internet is slow/problematic, try to group users by analysis area and ask them to keep to the minimum navigation as possible. Ask users NOT to open too many browser 'tabs'. Each tab is similar to another computer connecting to the application. If each users opens 4 tabs, you do the math!
10. If ISS is used in a different language, please review a portal to ensure all important terms are translated. Contact Thomas or the person responsible for the translation in that language to check any 'new messages' which need to be translated. Remember that we are constantly making changes to the ISS based upon new change requirements from the Technical Working Group, so this means that new coding is done and new terms added to the ISS weekly.

In case of any problems, please contact Thomas. If Thomas is offline, contact Enock. We are available 24/7!

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Internet Speed and Reliability Considerations

In order to plan an adequate venue with a high-speed internet connection, please consider that internet speed is dependent upon various factors, not only on the 'bandwidth' or 'speed' of the connection which the venue is saying. These are noted below:

1. ISS Server resources – we can increase and decrease the # of ISS servers as well as the RAM for the servers. If you plan to have more than 15 concurrent users of the ISS let us know and we will increase the server resources for the time period of the analysis. We need to do this for any analysis with about 20 users who will be concurrently connected. This will greatly speed up your interaction with the ISS server, but is rarely the problem (connectivity issues are typically on the country side). So…
2. Speed/Bandwidth of internet connection and wifi signal strength – first and foremost is having a 'high-speed' internet connection from the venue to the service provider (Internet Service Provider or ISP). Though figures are hard to define, the minimum would be a 500kbps connection for 5 computers or 1mbps for 10-15, 2mbps for above 15 computers concurrently connecting to the ISS. But these figures can mean nothing if the connection is not properly configured, and there are not others on the same line playing games, watching videos, or using skype video/facetime/etc.
3. Wifi signal location and strength – a router should be placed directly in the room where the analysts are sitting. This will improve the signal strength for the wifi connectivity. Each computer should have at least 3 to 4 bars of signal strength. Anything lower results in slower connection speeds.
4. Router and hub programming – each network router is 'programmed' in a certain way. IT technicians can modify the settings of each router/hub in order to block certain traffic such as torrents, video/audio exchange, and other network traffic. Although this might sound too complex for IPC organizers, simply asking IT specialists to be on-call and asking them if the network is 'optimized' for IPC work might be sufficient.
5. # of devices connecting to the internet =
    a. Number of people using computers - if each person has a computer and there are 30 people, this means that 30 connections are active concurrently
    b. Number of people with smart phones/tablets/smart watches – if each person present has a smart phone or tablet, or other, these devices connect to the internet as well. Thus, you would multiply each user above by the devices they have, potentially arriving at 90+ devices connecting to the internet concurrently.
6. # of applications running on each device=
    a. PC Applications which auto-connect, auto-sync after wifi connection is established. Applications such as Facebook, Email (gmail, yahoo, Hotmail, other), Twitter, Snapchat and others. This adds to the bandwidth required to support so many applications
    b. Smart phone/watch and tablet Apps – these are also many and the same as above, plus Whats App and others which are native to smart phones. This includes auto-sync applications from Apple, Google, Microsoft, and other vendors which send data to their servers when a Wifi connection is established
7. Size of transfers, sync's etc.
    a. Dropbox, Google Drive, Microsoft Onedrive, Apple iCloud, and other file storage systems will also synchronize once a wifi connection is established. These can create a considerable slow-down of network performance because files can be quite large.
8. Malware, viruses, etc. – roughly 1 of 4 computers is infected with a virus/malware/etc. which can create additional network traffic. This traffic is worse because it is unknown and uncontrollable unless the user installs and runs anti-virus and anti-malware software.

Finally, try to have the IT people available to respond to your needs. If they are capable, they can improve the connection, make another connection possible, communicate with the ISP, or other types of immediate support. Again, having a backup plan (wifi or USB modems) is always the best contingency plan.