Technology and Equipment for Remote CIL Service Delivery

General Recommendations

- Computers that use the Windows operating system are the most popular computers in the United States, so the following recommendations focus on them.
- Apple computers use the MacOS are great computers and can be substituted in these recommendations. Apple computers tend to cost significantly more than an equivalent Windows-based computer.
- In the end, choose what your organization and individual users are most familiar with.

Specific Systems Recommendations

The following specific recommendations are based on operating system requirements (the software that supports how a computer can function), remote service delivery software requirements that are best for delivering services remotely, and user experience over time.

The Basics

At a minimum, consider:

- Windows 10 operating system
- 16 MB of RAM memory
- An 8th Generation or greater Intel Core processor 2.5 GHz or faster in speed
- 250 GB hard drive, and 500 GB or more would be better.

Computer Brand Recommendations:

- Dell brand computers offer good products at good prices, and their warranty support is excellent.

Computer Type Recommendations:

- Desktop computers are generally a better option than laptop computers if you don't need to move from place to place. If it's necessary to travel with the computer, then a laptop is necessary.

Budgeting:

- Plan on spending $1500 for a basic desktop computer system, and $2500 for a desktop with higher specifications (faster processor, more RAM memory, larger hard drive or SSD drive, larger or more expensive monitors). A top-of-the-line desktop could cost $4000.

- Plan on spending $2000 for a good entry-lever laptop with warranty, and $3000 for a laptop with better specifications. A top-of-the-line laptop could cost $4500.

Desktop Computers:

- are less expensive
- have better technical specifications than their laptop counterparts
- are much easier to service and upgrade
- are generally more dependable
- have a longer usable life

Dell Desktop computer recommendations:

OptiPlex and Vostro lines are good budget-friendly business-class computers. Choose these over the lower-end Inspiron line, or more professional and expensive Precision and XPS lines unless there is a need for their higher performance.

Monitors: A single or dual 24-inch monitor setup it typical for user experience and productivity. For general office use and remote service delivery, most any monitor is fine. Make your decision based on price and convenience features such as adjustable-height monitor stands, USB ports on the monitor, and/or built-in speakers.

Warranties: Always choose the longest Basic Service warranty option that's offered, usually 3-5 years, because it includes onsite/in-home service after remote diagnosis (meaning a Dell certified technician will come to you to fix the computer instead of you needing to send the computer in the mail for remote repair). For a more critical computer, perhaps used by essential staff or for essential services, the additional cost of the ProSupport warranty may be justified for the quicker onsite/in-home service. Desktops are not generally vulnerable to accidental damage, so the ProSupport Plus warranty is not generally needed.

Specific Desktop Recommendation:
https://www.dell.com/en-us/work/shop/desktops-all-in-one-pcs/optiplex-7070-small-form-factor/spd/optiplex-7070-desktop/s007o7070sffus

Dell Laptop computer recommendations:

The Latitude line is an excellent choice. Prices and specifications vary widely through all the Dell laptop lines. Generally, the larger laptops are less expensive and have better specs than the smaller laptops.

Make your decision bases on your budget, choosing a computer from whichever laptop line offers the best specs (processor speed and amount of RAM memory and hard drive space) that meets your needs.

The Dell XPS 13 is a favorite laptop for those who frequently travel, if you have the budget for it.

Warranties:

When buying a laptop, always choose the longest warranty period offered and choose the ProSupport Plus warranty. This includes onsite/in-home repair and accidental damage. Laptops are more prone to failures in general and frequently suffer damage from accidents, so the more complete warranty is justified.

Specific Laptop Recommendation:

https://www.dell.com/en-us/work/shop/dell-laptops-and-notebooks/new-latitude-5410-business-laptop/spd/latitude-14-5410-laptop

Build Your Own Computer Options:

Dell OptiPlex Desktop Computers: https://www.dell.com/en-us/work/shop/desktops-all-in-one-pcs/sf/optiplex-desktops?appliedRefinements=14902,13725

Dell OptiPlex All-In-One Computers: https://www.dell.com/en-us/work/shop/desktops-all-in-one-pcs/sf/optiplex-desktops?appliedRefinements=14902,13722

Dell Latitude Laptops: https://www.dell.com/en-us/work/shop/dell-laptops-and-notebooks/sr/laptops/latitude-laptops/11-inch?appliedRefinements=15600,15601,15602,16856,15604,6094

Dell XPS 13 Laptops: https://www.dell.com/en-us/work/shop/dell-laptops-and-notebooks/new-xps-13-laptop/spd/xps-13-9300-laptop

Computer Accessory Recommendations

Large capacity external hard drive. This is useful for periodically backing up important data. The smaller external drives like the Western Digital Elements line that do not require their own power supply tend to be more reliable and convenient to use. https://www.amazon.com/Passport-Portable-External-Storage-WDBY8L0020BBK-NESN/dp/B005HMKKH4/ref=sr_1_2?dchild=1&keywords=wd+elements&qid=1591388170&refinements=p_72%3A2661618011%2Cp_n_feature_keywords_browse-bin%3A3143948011&rnid=3093276011&s=pc&sr=1-2

Webcam with built-in microphone. Most any webcam will do. Features to look for are wide-area lenses and stereo microphones, especially if you may use the computer for a group call where there are a few people on your end sitting around the same computer. https://www.cdwg.com/product/logitech-c920-hd-pro-web-camera/2588857?pfm=srh

Headset (headphones with built-in microphone). A quality (but not necessarily expensive) headset such as the Logitech H390 USB headset can greatly improve the remote service delivery experience by blocking external noise, providing good audio pickup, and eliminating echo on the conference call.
https://www.amazon.com/Logitech-Headset-H390-Noise-Cancelling/dp/B000UXZQ42/ref=sr_1_23?dchild=1&keywords=logitech+webcam&qid=1591388285&refinements=p_72%3A1248879011%2Cp_89%3ALogitech&rnid=2528832011&s=electronics&sr=1-23

For Dell laptops, buy a Dell DA200 adaptor so the laptop can be connected external monitors and projectors and hard-wired into the Internet during remote service delivery presentations and interactions if the laptop does not already have these ports.
https://www.dell.com/en-us/work/shop/accessories/apd/470-abqn

Owl Labs Meeting Owl camera/microphone is expensive at $800, but one of the cheaper options for a conference room camera/microphone that connects to a standard computer and works well. This may work well for sites that have some employees who can transition to an in-office group setting who wish to connect with others still working remotely
https://shop.owllabs.com/products/meeting-owl

Remote Service Delivery Software and Services

Video conferencing software and services are crucial to remote service delivery.

- Zoom has become very popular and is accessible and easy to use. Different service plan options are available to meet your needs (https://zoom.us/pricing).
- Other popular services that work well and are generally familiar to consumers are
  - Skype (https://www.skype.com/en/)
  - FaceTime (https://www.apple.com/ios/facetime) for Mac users.

Secure file storage, transfer, and collaboration is important to remote service delivery. This is accomplished through various cloud-based systems.

- Box (https://box.com) is very flexible, easy to use, and has good support documentation. Files can be shared directly and securely with a single user or team, or shared links can be created to share non-sensitive files with many users. Box also offers many tools and apps to integrate their service into other services and for many different devices. Many different plans are available to fit your needs, and most have unlimited storage capacity (https://www.box.com/pricing/business).

Connecting Consumers to Remote Service Delivery

Consumers will often have their own devices and Internet service to receive remote services, but it may be necessary to provide consumers with these tools for temporary use. Tablets and cellular hotspots are good products to use for this need.

Devices: <u>Tablets</u> support the various remote service delivery software, have integrated webcams and microphones, are inexpensive to buy, small to ship, and easy to clean/disinfect after use. Various models and sizes are available with prices starting at $50 (https://www.pcmag.com/picks/the-best-tablets).

Internet Access: <u>Verizon</u> has good coverage across the United States and their <u>Jetpacks & Hotspots</u> are generally easy to use and reliable. Various models and service plans are available (https://www.verizon.com/internet-devices/). The MiFI 8800L device has better reception and allows more connected devices than the cheaper Ellipsis MHS900L in our testing.

On-Site Computer Setup Services

These potential services may or may not be available in all areas. These are from an online search, and we don't have experience with, or recommendations for, any of these services.

- Best Buy Geek Squad: https://www.bestbuy.com/services/triage/home
- HelloTech In-Home and Online Support: https://www.hellotech.com/
- Staples Tech Services: https://www.staples.com/Set-Up-My-Device/cat_CL218587
- Amazon Computer Hardware Setup in Home: https://www.amazon.com/Computer-Hardware-Setup-In-Home/dp/B00IAD0TU0
- Worldwide Tech Services: https://www.wwts.com/
    - (This company handles all Dell computer support issues in Montana and their tech have always been very good. I don't know if they handle individual clients, or only large contracts. I have inquired, but have not heard back yet.)
    - Brian 217-553-8448

There will likely also be local resources available by searching the Yellow Pages in your area.