Dear Editor,

Claiming the six infinity stones and interconnecting them in the gauntlet (in Marvel Cinematic Universe) gives the wielder tremendous power. Similarly in this pandemic, we have innovated a coronicle (corona + cubicle) for examining all outpatient department (OPD) patients and interconnected inside it all the ophthalmic gadgets (fundus photography, optical coherence tomography, corneal topography, visual field analyzer, optical biometry, web browser and electronic medical record (EMR) to the personal computer (PC) by Local Area Network (LAN) [Figs. 1 and 2].\[1] The coronicle was innovated for all OPD patients following the COVID-19 pandemic lockdown to ensure the safety of the ophthalmic service provider as well as the patients attending the OPD services.

**Setting up the LAN Framework**
The LAN networking is established by an eight-port switch [Fig. 3a] present inside the coronicle which finally relays to the CISCO (Commercial and Industry Security Corporation...
Figure 1: Infinity tools of an ophthalmologist

Figure 2: (a) Connecting all ophthalmic gadgets inside the coronicle (corona + cubicle) with an eight port switch. (b) Magnified view of the eight port switch

Figure 3: (a) Eight port switch connections to/from various gadgets. (b) Commercial and Industry Security Corporation (CISCO) Switch (Yellow arrow indicates the 28 ports in CISCO)

Figure 4: Example of a LAN structural connection. (a). LAN cable from fundus photography machine to eight port switch. (b). LAN cable from eight port switch to laptop/PC Desktop

Figure 5: Steps in assigning IP address (Control Panel->Network and Internet->Network Connections->Use the following IP address). Unique assigning number for each gadget is different; (can be from 1 to 254) and is depicted by the red circle

Switch) switch [Fig. 3b] outside. Cisco enables connected devices to share information and communicate with each other connected on the same network within the building. It also connects wireless access points, printers and servers on the same network for additional facilities. A working example of setting up a LAN connection, assigning an IP (internet protocol) address and screen mirroring the data are shown [Figs. 4-6]. IP address can be assigned by following these simple steps (Control Panel->Network and Internet->Network Connections->Use the following IP address) as shown in Fig. 5 in detail. In this example, we have assigned IP address of 192.168.1.17. Each ophthalmic gadget will have a unique IP address assigned. Once the IP
address is assigned for that particular gadget, the same address is entered in the web browser of the PC desktop placed near the doctor’s slit lamp for activating the screen sharing relay display from the machine [Fig. 6].

The role of information technology (IT) personnel may be warranted to assist the ophthalmologist for the basic integration of these pieces of equipment via LAN. For machines where LAN is not an option, interconnectivity could be achieved using a WiFi network. It is called WLAN (Wireless Local Access Network). For printing the final clinical case documents, the respective images need to be downloaded to the personal computer connected via LAN with the ophthalmic gadget, in a JPEG format or PDF format and can be printed via USB (universal serial bus) cable connected to the printer.

Role of LAN in Telemedicine
Connecting with remote desktop access tools are best for telecommunication using LAN. The five best desktop access tools available are TeamViewer, SolarWinds Take Control (Free trial), AnyDesk, Chrome Remote Desktop and Microsoft Remote Desktop. For eye practitioners considering telecommunication using LAN, remote desktop access tools can be used in addition to the mandatory web interface tool for LAN which connects the device in your practice.

Advantages of LAN over electronic medical records (EMR)
How LAN has an edge over EMR software is that EMR software has fixed frame modules whereas the LAN display provides dynamic facilities such as zoom and multiple frames [Figs. 7 and 8]. The data of every patient can be viewed immediately, once the patient has completed the evaluation. Also, they can be compared, side by side with their previous baseline and other investigations [Figs. 9 and 10]. This serves as a smart time-saver (i.e) doctor walking time to the investigative machine can be prevented and patients can be counselled by showing their image. Finally, the patient’s copy can be mailed or sent to their phone directly (from the machine through Bluetooth), so they will have the best copy for future reference [Fig. 11]. By going green, multiple paper handling can be reduced, avoiding aerosol mediated infection.

Economics factor
Even today, majority eye care professionals invest in EMR than the cost-effective LAN because of lack of awareness of the advantages of LAN. Costing of CISCO server [Fig. 3b] with the switch is approximately one lakh, costing of eight-port switch [Fig. 2b] is approximately 5000 rupees and wiring required to achieve the LAN network may cost approximately 5000 rupees depending upon the area covered. Still, it is relatively cost-effective compared to an EMR.

We ophthalmologists who face an additional difficulty due to the proximity of evaluation and various entity of diagnostic procedures that have now become mandatory for an eclectic setup can avoid the proximity of evaluation with the help of LAN. According to our knowledge, there is no publication in literature depicting this novel technique of holistic comprehensive LAN usage for all gadgets in ophthalmic practice. Interconnecting one tool with the other enhances the functionality of the other by using a single internet connection and be accessed and controlled by one another. This simple modification can help us continue our routine OPD services in a much safe way.

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Nil.
Figure 10: Simultaneous comparison of two modalities on a PC desktop screen. Central serous retinopathy - Fundus photography (Yellow arrow) and OCT (red arrow)

Figure 9: Simultaneous comparison of two modalities on a PC desktop screen. Functional polar analysis of the superior visual field loss (black arrow) compared with structural superior neuro‑retinal rim defect (red arrow)

Figure 11: Superiority of soft copy. (a). Soft copy (b). Hard copy with artefacts

Conflicts of interest
There are no conflicts of interest.

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