



TECHNOLOGIES OF TELEHEALTH  
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### Videoconferencing

There are four classes of end-user equipment currently used on the Utah Telehealth Network. The majority of endpoints use Polycom models although UTN can support endpoints from all major vendors including Tandberg and Lifesize.

Room System



Desktop System



PC System



Mobile



- **Room systems** are used in a permanent conference room with three or more people and typically feature a movable camera.
- **Desktop systems** typically reside on a desk and are intended for one or two users. These systems feature a camera which is usually fixed.
- **PC systems** are software applications that run on a PC or Mac. They operate in conjunction with a built in or externally mounted webcam.
- **Mobile systems** are typically made up of a room system that has been mounted to a cart and can be moved easily.



Most endpoints connect to a **videoconferencing gatekeeper**. It improves security and reduces network troubleshooting.

When three or more sites meet simultaneously, all endpoints connect to a central **videoconferencing bridge**.

### Telehealth Technical Teams

Start up telehealth programs must collaborate with existing I.T. staffs. An action team would usually consist of a telehealth administrator plus:

- Videoconferencing Coordinator – someone who manages the videoconferences
- Network Engineer – a person who builds and maintains the networks

- IT Security – a person who ensures HIPAA compliance and that the equipment is as tight as possible.

### **Networking**

- ISDN vs. IP – ISDN is an older technology that uses advanced telephone lines. IP is for traveling across the internet. IP is usually less expensive than ISDN, and can be secured with proper equipment configurations.
- Private IP's – IP addresses inside an organization can only call each other. They are not capable of traveling through the internet.
- Public IP's – IP addresses that are accessible by the internet

### **Security**

- Videoconferencing usually has encryption built into the equipment.
- Firewalls block unwanted traffic.
- Virtual Private Networks (VPN's) encrypt traffic between organizations.

### **PACS**

Video consults often require X-Rays. PACS can archive and transmit images.

### **Connecting from Home:**



# Utah Telehealth Network

## Model for Supporting Physician Homes

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