

## Royal Flying Doctor Service South Eastern Section

### *Written submission to the Joint Committee on the National Broadband Network*

The Royal Flying Doctors Service has provided medical care to people in remote settings since its inception in 1928. From our Broken Hill base, the Royal Flying Doctors Service South Eastern Section (RFDS SE) delivers medical services to remote Australians across an area of more than 640,000 square kilometres. We provide health care to some of the most isolated people and communities, with some of the worst health indicators in the country. To say that our clients are disadvantaged in health is an understatement. And the difference in health outcomes in these populations lies primarily in access to, and the use of, health services.

The RFDS SE is committed to providing the best possible health care to Australians living, working and travelling throughout far west NSW, south west Queensland and north east South Australia. We have our corporate headquarters in Broken Hill and our staff live in Broken Hill. Access to fast, reliable broadband is therefore crucial to all aspects of our operations.

We also work very closely with the University of Sydney Department of Rural Health in Broken Hill (UDRH) to support the training and education of current health professionals, remote health workers and the future health workforce. Our work with the UDRH is critical to our success. We have therefore touched on the IT needs of the UDRH in this document.

Due to the remote areas in which we operate, the RFDS SE has had to embrace technology in order to provide essential medical and health services in far west NSW and beyond. The organisation provided telehealth consultations, before the term was invented, by conducting consultations over the radio, initially by Morse code. We pioneered radio medical calls and provided station properties with access to the outside world.

The RFDS SE still delivers many essential health services by telephone but we have moved from being a telecommunications provider to a telecommunications user.

We are, and will continue to be, a high user of IT. However the IT facilities we currently have available are unsatisfactory and are compromising patient care. The already disadvantaged communities that we serve are falling even further behind.

Four years ago, the RFDS SE embarked on a project to provide our clinicians with Electronic Medical Records using "Medical Director". We centralised this database to one location and the system provided remote clinicians with access to current patient records, thus ensuring

safe medical care. We provided remote access to the central site using USB Wireless Broadband and then Citrix to log onto our Company Network.

Four years ago, the RFDS SE clinicians were probably the only users in the area accessing data over wireless systems. Today, however, with the influx of "I" devices, such as iPads, iPhones and other smart phones which use NextG wireless connections, the bandwidth available to operate our clinical services is no longer adequate.

Over the last four years, our doctors have experienced the broadband getting slower and slower, even though the signal strength is adequate. We have been advised that voice has priority over data on country cell towers so this may be a critical factor. Our clinical staff each lose approximately 30 minutes productivity a day at remote clinics due to the slowness of the system. Four years ago when we first moved from paper to electronic records, our doctors saved approximately 60 minutes per day. The demand on voice services will only increase so with the current infrastructure, capacity for data transmission will diminish further.

The NBN infrastructure is planned to pass through Wilcannia. This is a regular RFDS SE clinic location accounting for approximately 25 per cent of RFDS SE workload. However a node has not been planned for Wilcannia. There is in fact only one node proposed for the whole 640,000 square kilometres that we cover. A node at Wilcannia, in addition to Broken Hill, would significantly improve broadband capacity in the region, allowing us to implement a range of initiatives that would improve and enhance health services and health outcomes.

The RFDS SE provides regular general practice and nursing clinics in 18 isolated communities in far west NSW, south west Queensland and north east South Australia. In order to provide co-ordinated, and safe, medical care at these clinics, the RFDS SE doctors and other clinical staff need to be able to access our centralised medical records. And for this they need access to fast, reliable broad band.

The patients attending our remote clinics often have to travel to capital or regional cities for specialist appointments and investigations and results are usually provided electronically. While medical staff can receive a fax telling us what the xray or CT scan appeared to show, often it is important to actually see the image (like when trying to manage a fracture). While all remote clinics have access to a fax machine, they do not have the broadband capacity to download high definition images from xrays and CT scans for example.

Beyond our current needs for IT infrastructure, we have a vision for providing telehealth to our isolated patients into the future using the latest technology. Telehealth has been identified as a future direction for health care and a growing need for our country.

Telehealth can provide remote Australians with timely access to appropriate medical care. For most people telehealth might be considered a bonus in that their basic medical care is taken care of, and telehealth initiatives provide access to more specialist services. In our case, we need telehealth to provide the most basic medical care. We would like to offer consultations not only by phone, but take advantage of video conferencing opportunities, as well as improved capabilities for emailing clinical pictures.

The local health district is installing high definition video cameras into its emergency assessment areas in local clinics. We need access to high definition video to be able to see these images and then assist rural nurses to deliver emergency care. As an example, our on call doctors have had to explain to non-midwives, over the telephone, how to deliver a baby. With high definition video, our doctors could tell the nurses what to do much more clearly and easily than they can without being able to see what's going on. We can not use the available technology, however, without reliable high-speed broadband networks.

As explained above, fast, reliable broadband can enable a doctor to provide real-time support to a remote nurse or health worker as they deal with a medical emergency. Equally though, remote video assessments can be used to improve access to specialist health services. The use of remote video assessments for patients with mental health symptoms has been evaluated by the UDRH<sup>1, 2, 3</sup>. In these circumstances a remote consultation can benefit both the patient and the remote nurse or rural GP caring for them. Furthermore remote specialist consultations would help prevent expensive and sometimes unnecessary aero-medical retrievals and hospitalisations.

Equally, remote patients with a life threatening diseases often have to travel considerable distances for specialist appointments. Some of these visits may be averted if remote video consultations could be provided. All these services however require reliable broadband and high definition video capabilities.

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<sup>1</sup> Emily Saurman, David Perkins, Russell Roberts, Andrew Roberts, Martyn Patfield, David Lyle, Responding to mental health emergencies: Implementation of an innovative telehealth service in rural and remote NSW, Australia Accepted Nov 2010 Journal of Emergency Nursing.

<sup>2</sup> Saurman, E., Perkins, D., Lyle, D., Patfield, M., & Russell, R. (2010). Mental Health Emergency Care - Rural Access Project: Assessing Rural and Remote Emergency Mental Health in Western New South Wales Australia by Videoconference Technology. In A. Cashin & R. Cook (Eds.), *Evidence-Based Practice in Nursing Informatics: Concepts and Applications* pp 191-203 Medical Information Science reference (IGI Global), Hershey and New York .

<sup>3</sup> Saurman E, Perkins D, Roberts R, Patfield M, Lyle D. (2010) Better mental health emergency care access for rural and remote Australians. In *A bright future for Rural Health: Evidence-Based Policy and Practice in Rural and Remote Australian Health Care*. Eds Larson A, Lyle D. Australian Rural Health Education Network, 2010. ISBN 978-0-9775687-3-4. pp 45-47.

While access to health care is considered a basic right, it is important to remember that in remote settings some critical health services are necessarily delivered from a distance. Telehealth provides tremendous opportunities to improve health care in remote areas, but we need fast, reliable broadband to maximise the potential of this technology. It is not fair that some of the most isolated and disadvantaged communities in the country are disadvantaged even further by being made to 'make do' with inadequate systems.

In addition to its clinical uses, fast, affordable, broadband services with large bandwidths can assist in providing education and support to remote health workers. Remote area nurses are skilled generalists who provide a wide variety of care and often manage the local hospital as well. They require regular updating and training; more so than nurses who work in a specialist team in the city. For instance, they need to be able to provide palliative care in small communities a few times year managing pain, and addressing the family and spiritual needs of patients. These same nurses may also be called on to deliver a baby, support patients with chronic diseases or deal with a road traffic accident. Good broadband services can help them access training in the work place and in a virtual classroom with their peers. This minimises disruption and lost time due to travelling but also helps provide collegiate support from their peers.

The other key educational focus is with undergraduate health students and junior medical officers. The UDRH provides extensive clinical training for medical, nursing and allied health students in Broken Hill and in surrounding communities. These placements provide the students with valuable remote clinical experience and help inform metropolitan providers about rural practice and the needs of rural residents. Furthermore they promote rural and remote practice to future health professionals thus helping increase the future rural health workforce. Good broadband enables close links with their home universities during these clinical placements ensuring the students can continue to access formal course content and enabling them to also access other world-class education resources.

Another key to safe and high quality practice is the expert supervision of staff. Supervisors who visit from the city can only be part of the solution. Face to face supervisor visits can be supplemented by online supervision where the parties can see each other, make use of resources such as video and other materials, and meet with groups of peers as they would in the city.

Rurally based research which is needed to determine how best to reduce the gap in health outcomes for both indigenous and non indigenous is also dependent on broadband services. Researching rural health, access problems and new service models requires teams of experts working collaboratively. UDRH staff based in Broken Hill work closely with teams in Sydney, Newcastle, Orange, Lismore, Moree, Bendigo, Alice Springs and overseas. The ability to

work collaboratively, to supervise PhD students, to attract and retain Postdoctoral researchers and to undertake research that is both competitive and practical depends on good, reliable and fast internet services; services that are taken for granted in the city.

As is demonstrated above, far west NSW urgently needs an upgrade in IT infrastructure to ensure safe, efficient health care, to support remote health care providers, to facilitate remote clinical experience for students and junior health professionals, and to facilitate critical research.

At the rate of decline of the broadband system in our area, if nothing is done now, it will soon reach a point where the system will be unusable by the RFDS clinicians and the UDRH. This will have serious ramifications for the delivery of health care to remote populations. The Broken Hill area needs to be upgraded now, not later, or we will not be able to meet the health needs of people living and travelling in our area.

The RFDS SE is committed to this region and to the delivery of high quality health care. We welcome this opportunity to demonstrate our very high need for fast and reliable broadband and to respond to your specific questions. Please find enclosed a report entitled "Future IT requirements for RFDS; concepts for enhanced telehealth and access" prepared by Dr Mike Hill. The information provided in this paper was specifically requested by the Committee at our formal presentation in Broken Hill. If you have any further questions or would like more information on any of the matters raised, please feel free to contact Capt Clyde Thomson at our Broken Hill Base.





Royal Flying Doctor Service

SOUTH EASTERN SECTION

## **FUTURE IT REQUIREMENTS FOR RFDS**

### **CONCEPTS FOR ENHANCED TELEHEALTH AND ACCESS**

Dr Mike Hill

July 2011

## **1. Introduction**

The RFDS has evolved many systems over the years for delivering health care. Many of these changes have simply been an extension of evolving technology as it becomes available for the general public. Rather than leaving system development to chance, this document attempts to map out a future direction for the RFDS in terms of Telehealth and IT requirements. It is acknowledged that not all systems will be in place at once, and that it will take some years to fully develop. As much of the development depends on buying and replacing existing equipment, it helps to know what features we require, so as to avoid having to replace items simply because of lack of features or abilities.

This document will look at public access to RFDS Telehealth, professional access, RFDS staff access, aircraft access, and specialist support. It will also attempt to address future technology requirements for the aircraft medical equipment. All this is done while being aware of current discussions in government about IT access across the country, and specifically the National Broadband Network (NBN).

The RFDS concept is for a communications 'portal' that would allow multiple ways of accessing the system, and allow multiple users to see / hear the same consultation at the same time. It would need to have enough robust security to prevent unauthorised access. It needs to be flexible enough to allow one off access to people who would not normally be part of the system. It also needs to be 'cross platform' in that people accessing the system by web camera could be talking to a doctor on the phone for example.

It is further acknowledged that not all things may be feasible. As a principle, however, the system should be laid out as it would work in an ideal world, and the technical aspects left to those with knowledge of complex communication systems.



## **2. Public Access**

Traditionally the public has accessed the resources of the RFDS by calling the Emergency Medical Line on the phone. Previously this access has also included High Frequency Radio. While this is still offered, it is little used, as satellite phones have become more common. Currently some people will contact the RFDS and email pictures, but this is an ad-hoc arrangement. Future methods of accessing the RFDS Telehealth portal would include;

1/ Traditional fixed line phone calls,

The patient or advocate (family / friend) rings the RFDS on the normal Emergency Medical phone number (08) 8088 1188. This dials into the Telehealth portal. The RFDS clinician should be able to access the consultation with any modality with which they are able to connect.

2/ Email with attachments (pictures).

The patient or advocate emails a generic RFDS medical email address with pictures attached. This needs to be a generic email that all doctors can access so that the pictures/ email requests can be seen. Emails should not be directed to an individual. This is important as these requests can end up in the 'inbox' of someone who may be away for annual leave, and therefore have no way for relieving medical staff to see the request or action it. It is also important to make sure all public access is to a generic address to avoid individual practitioners being inundated with personal requests. The RFDS clinician should be able to access the consultation with any modality with which they are able to connect. Images could be saved to the portal for incorporation into records.

3/ Web camera consultations.

The patient or advocate is able to access the RFDS Telehealth Portal using a standard web camera. The system needs to have robust security in ensuring privacy. It also needs to be 'private' in that it does not become an avenue for non RFDS clientele to start using. While we accept that travellers in our region should have equal access to RFDS clinicians, we need to ensure that our staff do not end up with requests from people outside of our area of operations. It should not be publicly listed in Skype for instance. The access needs to be simple yet secure. The RFDS clinician should be able to access the consultation with any modality with which they are able to connect. Snapshots could be taken and saved to the portal for incorporation into records.

4/ Mobile phone video / picture messaging.

The patient or advocate is able to access the RFDS Telehealth Portal by dialling up on a mobile phone. Any use of mobile video conferencing or picture messaging should be enabled if necessary. Ideally the phone number would be the same as the emergency medical line to avoid confusion. The RFDS clinician should be able to access the consultation with any modality with which they are able to connect. Snapshots could be taken and saved to the portal for incorporation into records.

### **3. Professional (Nurse) Access**

The Remote Area Nurse should be able to access the RFDS Telehealth Portal in the same means as the general public, with some additional modalities.

#### 1/ Traditional Fixed Line Calls.

This would be no different to current arrangement, with the exception that the call goes to the Telehealth Portal, which can then route the consultation to the clinician by different modalities.

#### 2/ Email with attachments (pictures).

Same as per general public.

#### 3/ Web camera consultations.

Same as per general public.

#### 4/ Mobile phone video / picture messaging.

Same as per general public.

#### 5/ ISDN Video Conferencing.

Many health facilities have access to ISDN video conferencing units. These should be able to connect to the RFDS Telehealth Portal by dialling in on an ISDN line. Snapshots could be taken and saved to the portal for incorporation into records. The RFDS clinician should then be able to access the consultation by any modality of access. For example, the nurse uses the ISDN video conference, and the RFDS Dr deals with it by use of a mobile phone.

#### 6/ ISDN Emergency Camera System.

Many health facilities are now having high definition video cameras fitted in the emergency assessment areas. These cameras are remotely operated by the user at the distant site. These cameras protect privacy by being normally switched off. They can only be seen by the distant operator when the remote clinic turns the camera system on. They have very good optical systems that enable the distant user to zoom in by a factor of 36. This is good enough to even see an ECG without the need for it to be faxed through. Snapshots and video clips could be taken also and saved to the portal for incorporation into patient records.

#### 7/ Faxing of information.

This is currently being done with ECGs, but ideally the ECG could be faxed directly into the Telehealth portal. This would then be able to be viewed over the internet, and incorporated into the Medical Record. As the ECG goes through the portal, other practitioners can view it at the same time as needed.

#### 8/ Access to RFDS Electronic Health Records.

This is currently being rolled out in many clinics, allowing local staff access to a centralised record. It is limited however to those areas with reliable higher speed internet access. There would be some locations that would need access via satellite systems if they were to attempt connecting to the centralised record.

#### **4. RFDS Staff Access (Ground)**

RFDS staff need to access the portal so as to obtain advice from more senior staff. This could be the Registrar or Flight Nurse. Mechanisms of access could be the same as listed for the Professional (Nurse) access listed above, with the addition of the facility to stream live images from a portable Ultrasound Machine.

Real-time access to a centralised electronic health record remains a core component of any RFDS Telehealth project. While many locations have access to the internet via the wireless Next G Network, the speed of this connection has dropped off significantly in recent years as more devices connect to this technology. The RFDS needs to look at mechanisms to improve / safeguard our fast access to the internet.

While connection to wireless networks offers affordable internet connection, there will always be some locations that due to their remoteness, will never have a wireless system installed. For these locations, satellite connection will be our only solution to real time live access. Currently our staff do a 'briefcase' of the medical database when going to these locations. This has distinct disadvantages in that it only allows 1 person at a time to access the medical record at the remote site. It also means that the health staff who live at that location will never have access to the centralised record unless a satellite connection is technically feasible, and within reasonable costs.

Streaming of live images from a portable Ultrasound machine may be a way of offering services to those who currently cannot readily access ultrasound for routine investigations. It may also be a method of allowing for a 'second opinion' or decision support for staff looking for expert advice on images from that remote site. While our staff can easily be trained in the basics of ultrasound examination and techniques, often the difficulty with ultrasound is the interpretation of the image which may require significant anatomical knowledge and experience (depending on the site/ reason for the scan). For this to be viable, it would require significant bandwidth for upload speeds, by which ever method gave the best result.

## **5. RFDS Staff Access (Aircraft)**

Currently the aircraft has very limited options for telecommunications. The cabin is fitted with a satellite phone system, but the lack of clarity of this system, and the frequent disruptions to calls and call drop out make this a very limited option. There is the option to patch a ground call through on a dedicated aero-medical VHF frequency. This is limited in that it can only be done during normal working hours as it needs our ground communication staff on duty to put the call through. It also means that the message is transmitted on a standard non secure VHF radio frequency. Many people have hand held radio scanners and these units can readily pick up these calls. Needless to say, it is not often used for clinical calls for those reasons. The provision of reliable secure communications to the aircraft is an urgent necessity. Many systems have been tried, but all have fallen short of promised results. For any Telehealth project involving the aircraft to work, this needs to be addressed first.

Other needs for the aircraft include:

### **1/ Access to centralised Electronic Health Record.**

Our staff in the aircraft should have the same access to patient data that our ground staff enjoy. Currently all records are done on paper, with the only data accessible being those notes photocopied or printed prior to take off. While this works well enough for routine transports, it is of little benefit when the aircraft is re-tasked while out due to urgent needs. There is little point in moving to electronic health record systems in the aircraft if the issue of data connections cannot be resolved.

### **2/ Electronic capturing of data from patient monitors and other medical devices.**

If the RFDS is to look at future directions for patient care, the issue of patient records is an area that needs to be looked at. We have 1 flight nurse on each aircraft, often with 2 patients under their care. This means that while they are involved in recording standard medical observations and making notes, they cannot be actually providing hands on physical care for the patients. Any system that removes routine recording and creates more time for hands on patient care must be worth pursuing. Modern Medical monitors record many different parameters such as pulse rate, blood pressure, respiratory rate, oxygen saturation, to name a few. These monitors store the data in a way that can be incorporated electronically into a record. However, most of these monitors have been made with hospital use in mind, and assume connectivity by cables into a network. As our stretchers are moved in and out of the aircraft, and into ambulances, our systems need to involve wireless transmission of data within the aircraft. This sort of information also now comes from other devices such as ventilators as well.

While capturing this information into a record is useful in its own right, if we have the capability of data transmission outside the aircraft, then that information could also be transmitted to a ground station for advice / further scrutiny.

3/ In cabin video camera.

It should be possible to mount a small camera in the cabin that transmits via a ground station or satellite for viewing by more experienced people to offer support and advice in clinical situations.

4/ In cabin communications.

It should be possible to have wireless headsets for the crew in the cabin so as to enable them to move about the cabin but while at the same time being in contact with the pilot. Some systems already exist, but have technical limitations at present.

## **6. RFDS Staff Access (Duty Emergency Crew on Ground)**

This section refers to the delivery of side of the Telehealth initiative. Currently our Duty Medical Officer receives calls via a fixed land line or on the mobile phone if away from the base. While this works well, it is limited in that it does not make use of evolving technologies. Just as those who seek to use our service should be able to access that service in many different ways, our staff should be able to deliver those services in just as many ways. By accessing the portal, our staff should be able to take the phone call, video conference call, mobile phone picture message/ video message etc. This access should be “cross platform” in that it is independent of the modality used to access the system in any direction. For example, a bystander is at a road crash and dials in on a mobile phone with video capability. It should be possible for our doctor to view this on the computer via a web site. I say this, because typically the screen on a mobile phone is too small to see adequately. If it is viewed on a computer screen, the viewer can see a much larger image. This is just one example of the “cross platform” functionality needed for the system to be useful.

Any access into the portal should allow for multiple users to access any call, thereby allowing “conferencing” in real time independent of the modality used to access the service. While this can easily be done with phone calls, it should also be possible to do the same with web cameras, emailed pictures, mobile phone messaging and ISDN connections. I am advised that for multiple users to access these systems at the same time would require faster connection significant bandwidth. If needed, clips or images should be able to be stored and incorporated into the patient health record.

At the same time that the consultation is occurring, it should be possible to access the medical record and view that while seeing/ talking to the client. This may be on a different monitor/ computer or by having multiple windows open on the desktop.

## **7. Specialist Access (non RFDS staff)**

From time to time it will be advantageous to have input from a specialist source. This could be a hospital based emergency specialist, obstetrician or even a planned review for a chronic disease. In these situations, it would be very helpful for these people to access our Telehealth portal and have the same functionality as our staff. This would include seeing the medical record.

This access may be via a web interface, fixed line or mobile phone, or ISDN. The cross platform functionality would also need to extend to this use. It would need to be secure to prevent unauthorised access. In an emergency, we don't wish to have a system where an administrator is needed to allow ad hoc access. We would ideally need a system that allowed for ad hoc access by automatically generating password keys to allow any RFDS user to allocate that to an ad hoc specialist user. The system would need to be simple enough to allow these ad hoc users to gain access with minimal obstruction.

When the aircraft is set up for data transmission, this could include allowing the external specialist to see what was happening inside the aircraft via the camera, and obtain the monitor and ventilation data in real time.



## **8. Electronic Health Record**

All professional health staff need to be able to access this record regardless of their level of connectivity. Typically rural areas have limited options for internet, and there are many sites that still have access only to dial up 56K modems. Other sites use limited satellite services. The upload speed of these services, and the time delay, create technical problems for our current systems. These would need to be overcome for this project to be successful.

## 9. Technical Requirements

The Royal Flying Doctor Service medical staff operate both from home (broadband), remote clinic locations (some with NextG connectivity and some with none) and at our Base location at the Broken Hill airport.

Current broadband bandwidths are hindering the work they perform and desperately require greater bandwidth to cope with the current workloads.

The broadband requirements of future technology i.e. provide headroom for innovation. Although most solutions can operate on small bandwidth, they're like driving a car stuck in 2<sup>nd</sup> gear. An example is the Intel Health Guide "... it'll work on 3G, but to ensure a quality experience and advancements in the technology, fast broadband is recommended." Health Guide uses low res video conference today but there is already demand for it to support High Definition.

To assist with remote diagnoses, RFDS clinicians (and patients) should have the ability to create Video and High definition images to attach to medical records and send to specialists in other parts of the country.

Eric Dishman is one of our eminent Health Technology researchers; you may find some of his comments in this blog interesting [http://blogs.intel.com/healthcare/2010/04/dishman\\_provides\\_testimony\\_to\\_health\\_it\\_policy\\_committee\\_on\\_the\\_use\\_of\\_health\\_it\\_for\\_patient\\_and\\_fam.php?wapkw=ALL\(broadband\)](http://blogs.intel.com/healthcare/2010/04/dishman_provides_testimony_to_health_it_policy_committee_on_the_use_of_health_it_for_patient_and_fam.php?wapkw=ALL(broadband)) . Although he doesn't specify Broadband speed, anecdotally his testimony reads that without good broadband, innovation in health care delivery is crippled.

The difficulty here is that you can't point to any single solution and say I must have 100Mbps to run this. History has shown us that broadband speeds continue to increase and people find new ways to deliver services or enhance existing offerings. In likelihood, it will be a number of data streams the will consume bandwidth from medical imagery, patient telemetry, personal health records, educational videos, video conferencing; all of which involve data being downloaded as well as uploaded.

The NBN will only benefit RFDS and its patients if it provides a robust and positive experience. If it is not robust or reliable, clinicians and patients will simply revert to the current way of doing things – ad hoc digitised records, paper and phone calls; all of which impede services.

With the RFDS operating in remote areas which will only be serviced by Satellite for

the NBN, the RFDS believes that it requires a minimum upload speed of 5Mbps to be able to plan for the future in regards to video for health needs.

Speaking with our contacts in Intel, they have provided the following quote:

“In a medical context, the ability for the internet to compress time and scale effort can save lives. I think the ultimate medical usage model on NBN for RFDS will be RFDS clinicians being able to communicate to patients and specialists via Hi Def video, collaborate with them around a health record or Hi Def image, simultaneously viewing patient telemetry data and make a diagnosis on the spot. Highspeed broadband will provide a reliable infrastructure to deploy medical services such as these. Cisco Telepresence is my benchmark here – it requires a minimum 2MB uplink to get 720p resolution. The Telepresence Immersive experience requires 5Mb upload and provides 1080p resolution.”

