



## eHAB™

Multimedia Videoconferencing for rehabilitation consultations

A major challenge faced by the international allied health community is the provision of high quality health services to all. The eHAB™ system combines state of the art videoconferencing technologies with an array of objective measurement tools to provide a visual communication tool for health practitioners. Using eHAB™ as a service delivery tool improves patient access to clinical services and provides an elegant solution to the difficulties in recruiting and retaining health practitioners in rural and remote areas.

With the eHAB™ tool, long distance meetings and clinical interactions with clients can be held as if all members were in the same room, saving time and the costs associated with travel.





Leveraging the coverage and data throughput of the Telstra™ Next G™ network, eHAB™ can provide a comprehensive rehabilitation service to over 99% of the Australians#. No Wires, means that eHAB™ is a truly mobile solution, and will even operate on battery when mains power is unavailable. eHAB™ utilizes the latest in video and audio compression and decompression technologies providing high quality videoconferencing while minimizing data requirements.

Unlike other videoconferencing tools, eHAB™ boasts a large array of measurement tools which enables the health specialist to perform real-time objective evaluation of their clients to assist with accurate diagnostic and treatment procedures. Other features of eHAB™ include the ability to capture high resolution and high quality video and audio footage independent of the videoconference, data sharing capabilities such as displaying instructional images and video clips to the client, remote camera control capabilities and touch screen facilities\* to enable direct client interaction. Additional tools extend the functionality of eHAB™ by providing users with access to motion analysis and speech and language assessment suites and acoustic analysis tools for objective measurement.

The feature rich mobile eHAB™ system is a vital tool for effective, affordable and evidence based remote health consultations.

#### DESIGN FEATURES

- Portable lightweight system designed for easy transportation to the client
- Simple setup procedures for quick and easy operation
- Intuitive user interface to ensure quick frustration-free consultations.

#### SYSTEM FEATURES

- Large 15 inch widescreen displays provide a vibrant visual experience
- Noise-cancelling microphones reduce unwanted background noise and distraction
- Speaker freq response: 20Hz – 20kHz
- Microphone freq response: 100Hz – 8kHz
- Enhanced video capabilities together with glass lenses ensure superior video quality even in low-light
- Videoconferencing at CIF (352 × 288 pixels) resolution
- 180 degree controllable conferencing cameras ensures the client is always in-frame
- Store-and-forward video and audio capture available utilizing multiple CODECs to ensure high definition media at up to 640x480 pixel resolution..
- Touchscreen\* enabled for direct client interaction

#### NETWORK FEATURES

- Videoconferencing possible via Telstra™ Next G™ wireless Internet, ADSL or local area networks.
- Video CODEC dynamically adapts to network throughput ensuring high quality images
- Support for bit rates up to 6Mbit/s

#### MEASUREMENT TOOLS

- Motion analysis suite. Enables the objective measurement of physical parameters such as range of motion and linear distance
- Speech, voice and Language Suite. Designed to enable the informal assessment of speech, voice and language parameters

\*Touchscreen features available only on eHAB™ Touch model

# According to Telstra™ documentation: [Http://www.telstra.com.au/mobile/networks/coverage/broadband.html](http://www.telstra.com.au/mobile/networks/coverage/broadband.html)

# eHAB™ Tools

Designed with unique needs of the Allied Health clinician in mind, eHAB™ incorporates a comprehensive array of measurement tools to ensure that telerehabilitation consultations are accurate, repeatable, objective and ultimately evidence based. All tools have undergone extensive calibration and clinical testing to ensure a high level of accuracy can be achieved with each measure.

## Motion Analysis Suite

To assist with assessment and the clinical decision-making process, measurement of patient performance and response to intervention is paramount. eHAB™ satisfies these clinical requirements in the virtual environment through the measurement capabilities of the Motion Analysis Suite. Real-scale measurements of angular displacement and linear distance enable the operator to quantify parameters such as joint range of motion and human anthropometric characteristics which assist with accurate diagnostic and treatment procedures. Measurement algorithms have been optimized to limit errors that are inherent with other optical measurement based systems.

## Speech and Language Suite

A suite of speech and language assessment tools enables the accurate and repeatable quantification of speech and language parameters across the live telerehabilitation link. eHAB™ enables the real-time recording of high quality audio media to facilitate these measures and provide a rich store of patient assessment material.

## Product Packages

### eHAB™ Standard

The core package including the eHAB™ communications system, the Motion Analysis Suite and the Speech, Voice and Language Suite.

### eHAB™ Touch

The core package including the eHAB™ communications system with interactive patient touchscreen, the Motion Analysis Suite and the Speech, Voice and Language Suite.

### eHAB™ In-Motion

The core package including the eHAB™ communications system with a wireless mobile camera, the Motion Analysis Suite and the Speech, Voice and Language Suite.

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