TEST REPORT LIFESIZE ROOM + LIFESIZE EXPRESS

PDF-Version (optimized for print)

GENERAL

Period of Testing
Both devices were tested in May and June, 2008 in the VCC.

SW-Version
The software version was 3.5.2.(5).

Device Class
Both systems can be classified as set top systems.

The company LifeSize offers devices in different stages of expansion. The models are called Express, Team and Room. Die basic features of the systems are the same, they differ in only few details which are nevertheless important.

Decisive differences between the license models

<table>
<thead>
<tr>
<th>Multipoint ability</th>
<th>Express</th>
<th>Team</th>
<th>Room</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>nein</td>
<td>ja</td>
<td>ja</td>
</tr>
<tr>
<td>Wiring facilities for screens</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Camera</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mikrophone</td>
<td>two models of each</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Scope of Delivery

Codec, microphone, camera and remote control are included in the scope of delivery. There are two different microphones and cameras.

The larger microphone LifeSize Phone may be used separately for H.323 and SIP calls. Three participants at the same time are the maximal capacity for conferences.

Bandwidths

The device LifeSize Room enables LAN video conferences up to 6000 kbps, LifeSize Team up to 2500 kbps and LifeSize Express up to 2000 kbps.

For use with ISDN, the so-called LifeSize Networker is required. It enables calls with up to 4 ISDN-lines. It is also possible to connect the system to a primary multiplex connection (S2M).

---

INSTALLATION

Installation is carried out fluently. The device is ready for use after the adjustment of some settings.

---

TEST

Operation

Operating the software requires a certain learning curve. The menus are very nested, the current level is however always displayed in the first row. It is nevertheless not possible to recognize easily which setting may be adjusted in which menu item.

The remote control has a number pad and in addition, it features four control buttons which differ in color and labeling. These buttons may be assigned different functions in the various menu levels. This increases the scope of functionalities significantly. It requires attention as well so as to recognize which function is assigned to which button in a certain level.

The menu item "Recently" is new. It indicates which changes have been made recently. This is very useful, however, it is quite confusing in the beginning. The user needs to find the original place of the wanted option at least once.

The item "Audio" allows to ascertain the priority of codecs according to which a connection should be established with the remote station. This may possibly be helpful when an audio connection is to be established with older video conference devices.

Audio/Video

The video was good or even excellent in all tested connections. Audio was always received in good or event excellent quality. The exact results are available in our compatibility matrix.

The automatic choice of bandwidths is however frequently not the best solution for the audio and video quality. A manual entering of the bandwidth, which may also be the highest available, always provided the better results for the connection.

H.264

H.264 was possible in all connections with the device LifeSize Express up to a bandwidth of 2 Mbps, except in the connection with Polycom VSX 3000 which permits only 768 kbps.

The device LifeSize Room enables H.264 up to the own maximum bandwidth or up to the maximum bandwidth of the remote station. In a connection with the Codian MCU, the H.264 connection is established with 6 Mbps.

H.239

The quality of H.239 transmission is influenced and controlled by accessing the menu item "Video / Video quality" and eventually defining the relation of bandwidths of the video channel to the data presentation channel. The tests proved that a quota of 80:20 is sufficient.
Reception via H.239 was always possible. The quality was very high, the delay in practical use tolerable. Solely in the connection of VCON xPoint and LifeSize Express did the presentation need a very long time to load, even more than 30 seconds with LifeSize. The reception of videos via the data channel resulted in very poor quality. The second channel is not yet applicable for this purpose.

The resulting quality of the sent presentations at the remote stations was always good or even excellent.

**Remote Control**
Remote control was always possible in both directions provided the technical prerequisites were met at the remote stations.

**MCU**
Collaboration with the Codian MCU within the service DFNVideoConference worked in very high quality fluently with both devices at the maximum bandwidth.

**Gatekeeper**
Collaboration with the gatekeepers GNU-GK 2.0.7 and CISCO MCM worked without interruptions and steadily. Registering at the devices was always successful.

**Miscellaneous**
The devices of the company LifeSize support AES. It was applied in most cases. Only the devices SONY PCS-G70 and EMBLAZE-VCON vPoint 8.0 did not negotiate encoding when establishing a connection. The setting "always apply encoding" even led to the neglection of a connection establishment with the PCS-G70.

The smaller of the two delivered cameras seems to feature the better resolution, it does however not allow zooming in or slewing around as the larger camera does.

The TCS4 separator is not implemented at the moment.
ISDN-connections with SONY devices are impossible at the moment.
SIP calls became with the SW-version 4.0.3. (5) tested. They function to the Codian MCU with the syntax: KonferenzfID@ mcu.vc.df n.de. The connecting characteristics 720p, H.264 and AAC-LC were reached.

---

**CONCLUSION**

Both tested systems from the company LifeSize convinced in the tests. They are a real advance in the HD world. The cost-performance ratio allows these systems to become a serious competition to all other devices on the market.

**Documentation**
Manufacturer: LifeSize
Distributor: LifeSize

<table>
<thead>
<tr>
<th><strong>Supported General Standards</strong></th>
<th>H.323, SIP, H.239</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Audio Codings</strong></td>
<td>G.711, G.722, G.722.1C (Polycom® Siren14™), G.728, G.729, MPEG-4 AAC-LC</td>
</tr>
<tr>
<td><strong>Video Compression</strong></td>
<td>H.263, H.263+, H.264</td>
</tr>
<tr>
<td><strong>Bandwidth</strong></td>
<td>up to 6000 kpbs (LifeSize Room), up to 2000 kbps (LifeSize Express)</td>
</tr>
</tbody>
</table>

We would like to thank the company LifeSize for providing the test material.