GENERAL

PERIOD

May / June 2012

SW VERSION

The test was performed with the software version 3.0.118B.

DEVICE CLASS

It is the most powerful settop system of the company with an integrated MCU for up to nine participants. Unfortunately, the internal MCU could not be used during the tests.

SCOPE OF DELIVERY

The system is delivered with codec, camera, microphone, remote control and all the necessary cables.

BANDWIDTHS

The system facilitates calls according to H.323 and SIP for point-to-point conferences with bandwidths up to 6120 kbps.
INSTALLATION

The installation proceeds smoothly. After few adjustments, the device is operative. The menu items' default values were chosen reasonably while still offering a wide range of possibilities for individual adaptations.

In order to separate private and public networks, two different ports are available (called LAN and GLAN). However, if there is a gatekeeper, its rules will always apply to both networks. This may require network adjustments.

TEST

OPERATION

Optically, the remote control is divided into five blocks. The most important buttons, which are used very often, are arranged in the middle of the remote control. The demarcations should protect from erroneous improper operation. The remote control's four coloured buttons are assigned differently, depending on context. They grant access to essential functions of every page. In combination with the well structured software interface, this ensures working fast and smoothly with the system.

AUDIO/VIDEO

Audio has been very good in both directions in all tests.

Video has been very good as well with one exception. Only in connections with the SONY PCS-G70, the image showed major errors in both directions. For video transmission, mainly the codec H.264 SVC is used.

H.239

No definite conclusions can be drawn from the data presentation tests. The results depend strongly on the remote side.

In general, H.239 transmissions work better the more modern the remote side. With the most recent generation of systems, presentations and HD videos are transmitted with FullHD with up to 30 fps in the data channel. These values are reached in connections with the CISCO EX 90 and the system CISCO C40 when using H.239. When using CISCO Jabber Video as the remote side, transmissions were always good.

Except for the aforementioned cases, the frame rate was negotiated relatively low in the range of 5-8 fps. This is sufficient for good to very good quality for slide shows and simple videos, but HD-videos are not possible like that in the data channel.

Various problems occurred in tests with devices from SONY, with the TANDBERG 6000 MXP and the LifeSizeRoom, which overall lead to a decreased quality. When using the Polycom HDX 8004, the transmission of the data channel finished automatically after around one minute of good quality.

REMOTE CONTROL

As long as the technical requirements were met, the remote control for the camera always worked in both directions.
MCU

Collaboration with the MCU of Codian in the realm of the service DFNVideoConference worked, up to the respective maximum bandwidth, without problems and in very good quality.
When using H.239, there are too many errors to permit sensible usage. Existing limitations of quality are still having too big a negative impact on data transmission.

GATEKEEPERS

The cooperation with the gatekeepers GNU-GK 2.0.7 and CISCO MCM was faultless and stable. It was always possible to register with the devices.

MISCELLANEOUS

According to the data sheet, the system is full HD-capable with 60 fps with 2 parallel channels. Those 60 fps though are only reached with NTSC. When using European standard PAL, only 50 fps at maximum are possible.
The system has two separate network ports, which are designed for internal and external purposes. The possibility to use different configurations increases data security. Additionally, an AES encryption with 128 bit is integrated by default.
When calling according to SIP to the DFN MCU by means of the syntax KonferenzID@mcu vc dfn.de the call is established only after a longer period of time, no matter whether the system XT5000 is registered with a gatekeeper or not. Sending and receiving data according to the BFC protocol works.
If a registration with a gatekeeper was not carried out, URI-dialing is possible with the syntax mcu vc dfn.de##KonferenzID or KonferenzID@mcu vc dfn.de. If the device is registered with a gatekeeper, calls via URI dialling are not possible.

CONCLUSION

The system XT 5000 is a high performance system of considerable quality, especially concerning audio and video. The user has many sensible settings at their disposal, which are easily accessible due to the well-structured menu. In connections with modern devices, the system shows its rich capacities. The collaboration with older models when using H.239 needs clear improvement though.

DOCUMENTATION

We would like to thank the companies RADVISION and Klengel Consult Dresden for providing the devices.
Manufacturer: RADVISION
Distributor: Klengel Consult GmbH - Dresden
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