Multicast Routing in the LSP 500 PRO Windows Software

The LSP 500 PRO Windows Remote Control Software allows the control of up to 20 LSP 500 PRO devices via a WLAN connection. Any Windows 7 device and all Windows 8 Desktop devices (not Windows 8 RT) can be used. If devices have more than one network interface, the communication can be misrouted. For establishing a reliable and stable connection, please follow these instructions.

Background information on multicast routing

For assigning IP packages to the correct network interfaces, operating systems use a so-called routing table. In addition to the information on the network address and the network interface, a value called metric is included. In Windows 7 and 8 this value is an idicator for the bandwidth of the connection. The lower the metric value, the higher the bandwidth.

The LSP 500 PRO devices send out multicasts to indentify themselves in the network. The Windows Remote Control Software subscribes to the specific multicast address to detect the LSP 500 PRO devices and then connects to them. By means of this mechanism, the LSP 500 PRO devices can be connected to the Windows Remote Control Software automatically without knowing the specific IP address of the LSP 500 PRO.

Issues with multicast routing

The subscription process is handled by the operating system. In Windows 7 and 8, the multicast subscriptions are only performed on the interface with the highest bandwidth / lowest metric.

This may lead to the following issue: if there are active network interfaces with a higher bandwidth than the one used for the LSP 500 PRO devices, the Windows Application will not detect any LSP 500 PRO devices at all.

Possible solutions

- Before starting the Windows Remote Control Software, disable all network adaptors with a potentially higher bandwidth than the interface used for connecting the LSP 500 PRO devices.
- If other network interfaces are needed, configure the metric of the multicast for the LSP 500 PRO's interface in the operating system's routing table to a lower value than the value of the other multicast routes.