

## Application Note

### Remote control of L- and C Series amplifiers over Ethernet using USB device servers

L- and C-Series amplifiers are equipped with a USB 2.0 interface for remote control and monitoring. Firmware 2.0 (free upgrade, available as download on [dynacord.com](http://dynacord.com)) in combination with SONICUE sound system software supports now the use of so-called USB device servers, allowing the use of USB devices in an Ethernet network with all its advantages. For networked audio transmission we recommend to use 3<sup>rd</sup> party Dante converters (see [audinate.com](http://audinate.com) for listed products).

#### Requirements

L- or C- Series amplifiers with firmware 2.0 (or higher)

SONICUE Sound System Software 1.1 (or higher) installed on computer

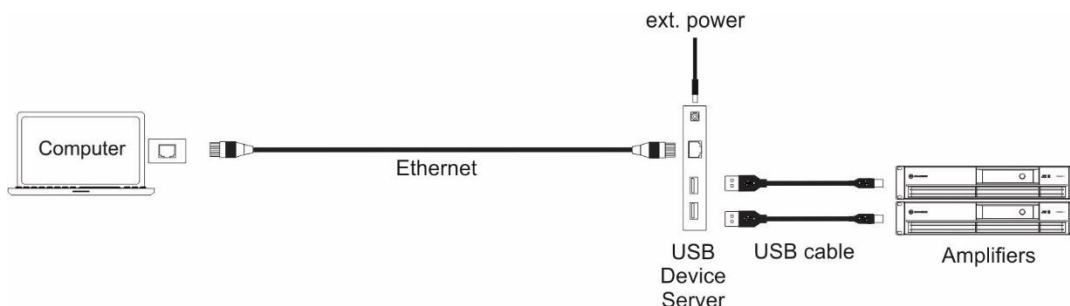
USB Device Server (3<sup>rd</sup> party\*): USB 2.0 (480Mbit/s), Ethernet (10BASE-T, 100BASE-TX, 1000BASE-T), compatible with Windows 10 OS.

Ethernet cabling: Cat5e/Cat6

#### Operation

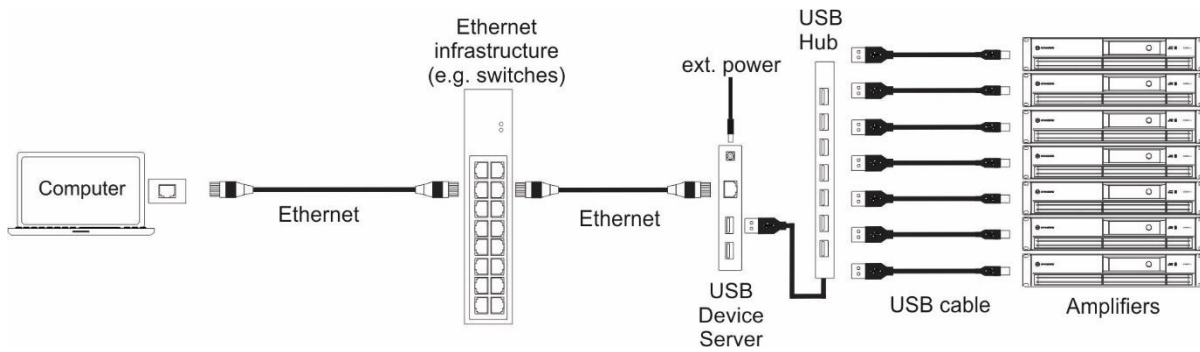
USB device servers are designed to easily connect and share USB devices over a network. Typically they are used to enable printers, scanners, or disk drives with network capability. They can also be deployed to remotely control and monitor L- and C Series amplifiers. There are two components in the system: the USB device server itself which connects the USB devices by translating USB data into TCP/IP protocol. The second component is a software tool, which needs to be installed on the computer. It translates back TCP/IP protocol into USB data.

#### Basic set up



Direct connection from computer to the USB device server.

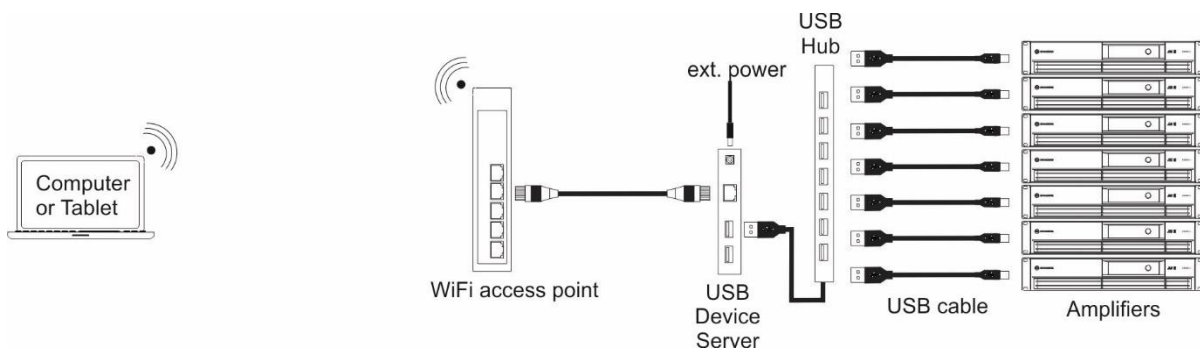
## Setup in network



Network integration and using a USB hub (if supported by the USB device server) to connect more amplifiers to the USB device server

*Note: the maximum amount of amplifiers to be connected to one USB device server is limited to seven devices. For more amplifiers you have to deploy additional USB device servers.*

## Setup with wireless access point



WiFi connection from computer (or tablet) to USB server – allows using off-the-shelf IT devices to tune systems.

\*) we tested several devices from different manufactures and found them all compatible. However, we can't guarantee that all devices available on the market will work.