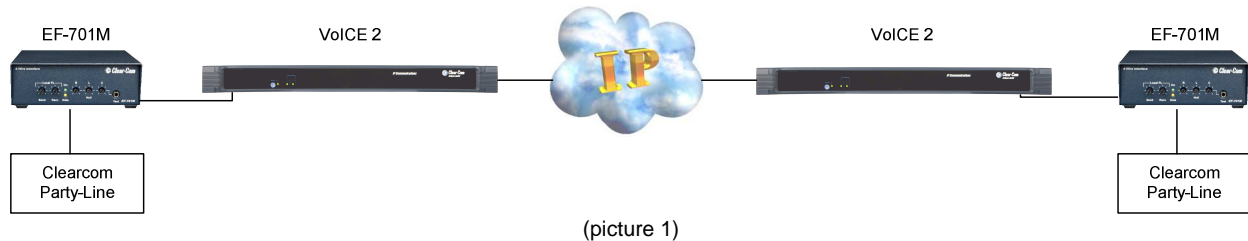


## Clear-Com Application Note

### “How to extend Clear-Com party line over IP using VoICE 2”

This note serves as a quick install guide to tell users how to extend Clear-Com party lines over IP using Clear-Com VoICE 2 (see picture 1)



#### Equipment:

To extended party line over IP you will need the following equipment:

- 2 EF-701M (EF-1M)
- 2 VoICE 2 units
- 2 RJ-45 Cables
- 2 Network Connections for VoICE 2 units or 1 Ethernet cross-over cable
- 2 3-pin XLR cables

#### Goal:

The goal is to extend party-line, both audio and call signaling, over IP.

#### Method:

To use the VoICE 2s to extend party-lines over IP we need to convert the party-line into 4-wire audio and data so the VoICE 2 can convert it to travel over IP.

The EF-701M is used to convert 2-wire party-line to digital matrix 4-wire audio with the data signals. The data signals are needed to pass the party-line call signals. The EF-701M requires power and its power is provided by the party line XLR, if the party line is “dry” or unpowered the EF-701M will not work.

Using RJ-45 terminated straight through CAT 5 cables we connect the EF-701M to a VoICE 2. We connect to the station port on the VoICE 2, ports 1 through 4, just make sure that the same port number is used on both VoICE 2s (ie port 1-Station on both VoICE 2s). The station ports are used on the VoICE 2s because the EF-701Ms RJ-45 ports are wired like a user station (see wiring example at the end of this note).

Failing to use the station ports will make the system not work and you may experience unexpected results.

The VoICE 2s connect to the network using LAN 1 on each VoICE 2 using either an existing network or an Ethernet cross-over cable. LAN 2 is used for configuration and troubleshooting and has limited functionality.

**Configuration:**

**EF-701M**

Ensure the dip switches on the back of the EF-701M are set correctly. Matrix Direct should be Off (down) and the CC/TW should be Off (down)

**VoICE 2**

The VoICE 2 is configured according to the manual for normal operation with one change. The Data framing used on each port connected to an EF-701M should be set to none. Please refer to the VoICE 2 setup manual for instructions on how to change this setting and configure the VoICE 2 as normal.

**Explanation and wiring:**

