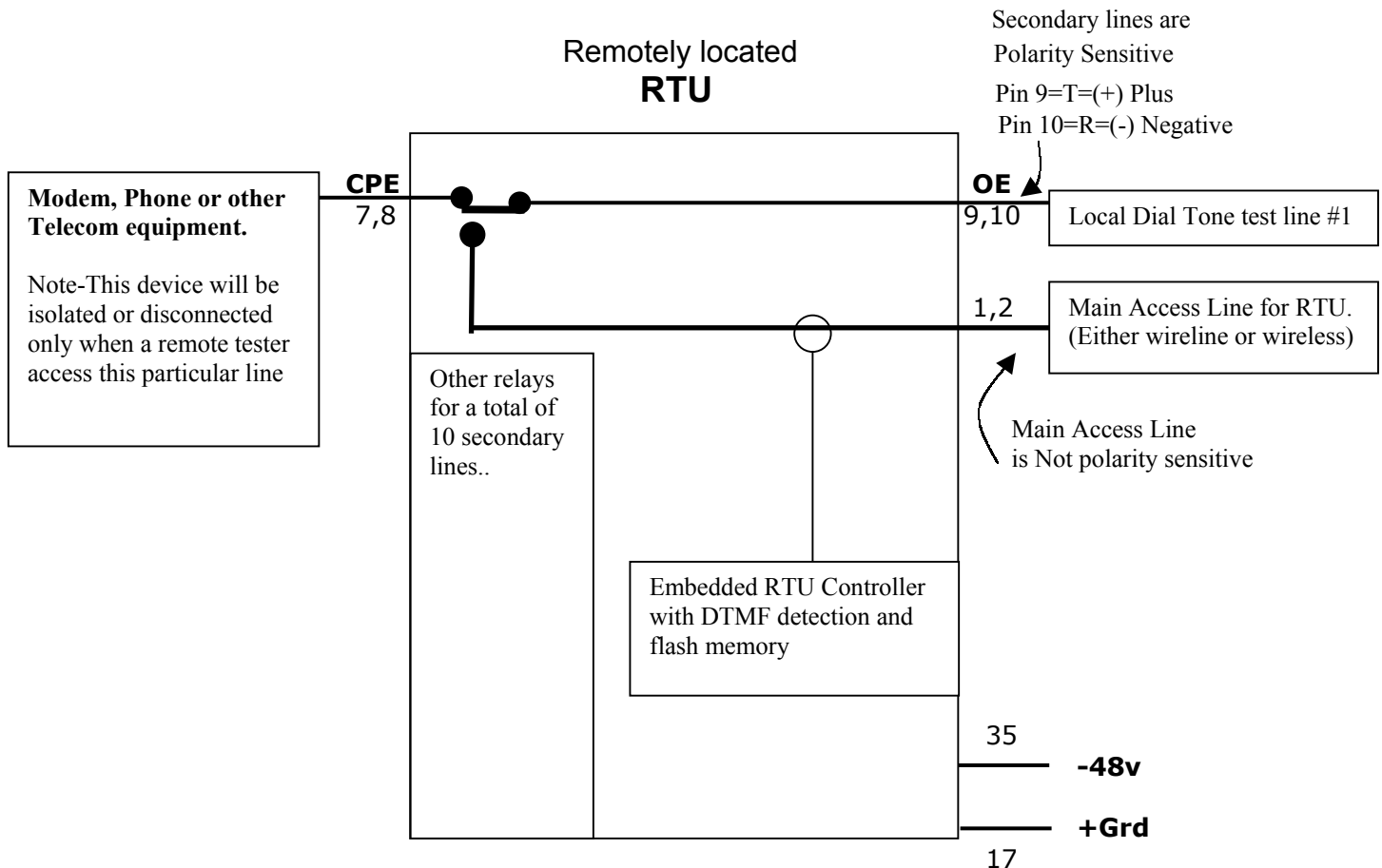# APPLICATION NOTE 23

## Wiring configurations for a RTU (with CPE)

Wiring up a Callnet Systems 761 RTU to a Nortel DMS-100 or other switch

There are a variety of ways that a 761 RTU maybe used and thus the following maybe somewhat limited.  This application provides remote access to a local line while allowing the line to be used for other purposes when the RTU is not being accessed.

**Remote Access for making test calls at a distant Central Office (WITH CPE).**
Generally the RTU is used for remote access of physical Dial Tone Lines at a remote location. The translations engineer, NOC personnel, or other user will typically dial the Main Access line, Login, and then Access dial tone on 1 of the 10 secondary lines.  In this application, a main access phone should be wired to pins 1 & 2, office battery to pins 17 & 35, and remote test lines wired to as many test lines that are needed.  In this application the Modem, phone or other equipment attached to pins 7 & 8 will be isolated when the test line #1 is accessed.  When the tester hangs up or releases Line #1, the modem or equipment will be re-attached to the local Dial Tone Line on pins 9 &10.

Remotely located
**RTU**

Secondary lines are
Polarity Sensitive
Pin 9=T=(+) Plus
Pin 10=R=(-) Negative

**CPE**
7,8

**Modem, Phone or other Telecom equipment.**

Note-This device will be isolated or disconnected only when a remote tester access this particular line

Other relays for a total of 10 secondary lines..

Embedded RTU Controller with DTMF detection and flash memory

**OE**
9,10          Local Dial Tone test line #1

1,2          Main Access Line for RTU.
             (Either wireline or wireless)

Main Access Line
is Not polarity sensitive

35
——— **-48v**

——— **+Grd**
17

See Application Note-24 for attaching multiple RTUs for more than 10 secondary lines.