



# Technology Brief: Dial-Out Modem / ACTS Server

## Automated Computer Time Service Over Telephone

### What it Means to You:

- Back-up for GPS enhances reliability
- Use as primary for start-up or where GPS is not practical
- Distribute time over telephone to ACTS clients or other NetClocks

### Option 03 Modem Features at a Glance:

- Supports NIST ACTS and SPRING ACTS
- Supports ITU-R TF583.2, ITU-R TF583.4
- Client Mode (GPS back-up or primary) Configurations
  - Recur at intervals (every N minutes, or hours, or days)
  - Recur periodic: daily, weekly, monthly, yearly
  - Test now or test on interval
  - At boot up, if out of sync
  - Number of retries
  - Calibrate modem latency
  - Dial-out log
- ACTS Server Mode (distribution) Configurations:
  - Time service name
  - Time adjustment (DUT1, leap seconds, DST/summertime)
  - Custom modem configuration
  - Modem speaker on/off
  - Custom getting message to caller
  - Server stats/server log

### Introduction

The Automated Computer Time Service (ACTS) was developed by the National Institute of Standards and Technology (NIST) as a reliable means of distributing its "official" time to computers with telephone access and an ACTS client application. The cost for this service is only the price of the phone call. Typically Spectracom NetClock® products utilize GPS signals to ensure it is distributing accurate time, however ACTS can be used as a back-up or as primary source of Legally Traceable Time® by the use of a modem and its built-in application. The modem and application can also be used to receive calls to distribute ACTS signals to other computers of clients, including other NetClocks, when in ACTS server mode.

### Dial-Out Modem (Option 03)

Option 3 is available for NetClock models in the 9100, 9200 and 9300 series either at the time of order or as a field upgrade to existing systems. 9200 and 9300 series units can operate in client or server mode (but not both simultaneously). Use client mode to automatically back-up GPS. If the GPS signal is lost, the unit automatically dials NIST, etc. to maintain stratum 1 operation. Or use client mode as the primary reference for installations that cannot support a GPS antenna but has analog telecom lines. Server mode can be used to distribute time to ACTS clients or other NetClocks with option 03 configured for client mode.

