

Troubleshooting Problem: Telecommunications

Frank Lopez, Communications Technician, AT&T, Dallas, Texas

Background:

One of Frank Lopez's main tasks is troubleshooting, which means identifying telecommunications problems, determining their cause, and solving them. Frank uses a step-by-step process for troubleshooting, although the precise steps vary from one kind of problem to another. He may make and use a flow chart that guides him in the process, such as the one given here.

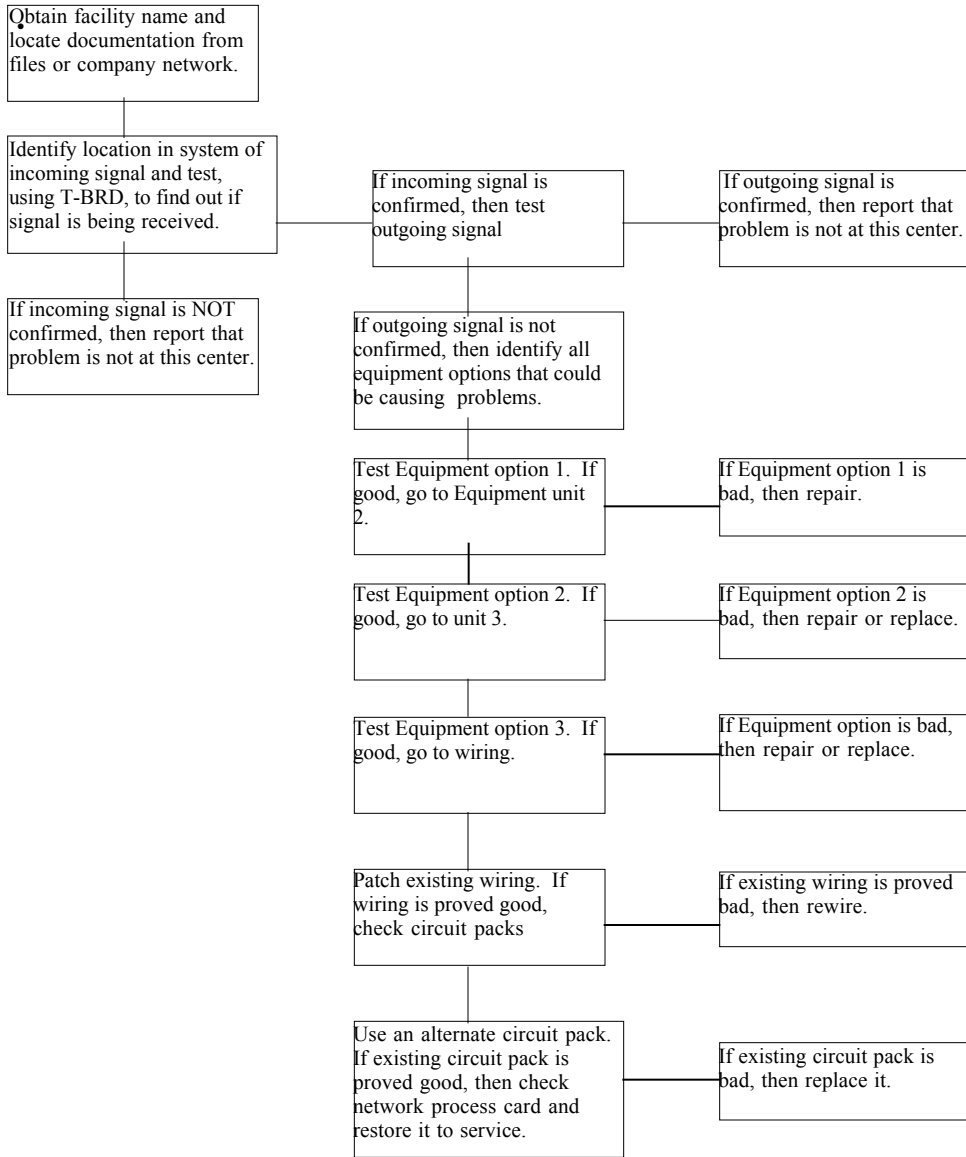
Problem:

You are a technician in a telecommunications center. Customers call in to report problems with making and receiving calls; each one is reported to you as a "failed facility," which means a telecommunications path is out of service. This tells you that there is an "open circuit," that the telecommunications pathway from one point to another is not being completed.

Use the troubleshooting flowchart. (The flowchart is a fictional one, based loosely on the type of troubleshooting that Frank does in his job.) Write a list of numbered steps that you must take to

- (a) Identify an equipment option 2 failure, and
- (b) Identify the need to replace a circuit pack.

Trouble Shooting Flowchart



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Solution:

The steps required to identify an equipment option 2 failure are:

- Obtain facility name and locate documentation from files or company network.
- Identify location in system of incoming signal and test, using T-BRD, to find out if signal is being received.
- If incoming signal is confirmed, then test outgoing signal.
- If outgoing signal is not confirmed, then identify all equipment options that could be causing problems.
- Test Equipment option 1. If good, go to Equipment unit 2.
- Test Equipment option 2.

If Equipment option 2 is identified as bad, then repair or replace it.

The steps required to identify the need to replace a circuit pack are:

- Obtain facility name and locate documentation from files or company network.
- Identify location in system of incoming signal and test, using T-BRD, to find out if signal is being received.
- If incoming signal is confirmed, then test outgoing signal.
- If outgoing signal is not confirmed, then identify all equipment options that could be causing problems.
- Test Equipment option 1. If good, go to Equipment unit 2.
- Test Equipment option 2. If good, go to Equipment option 3.
- Test Equipment option 3. If good, check wiring.
- Patch existing wiring. If wiring is proved good, check circuit pack.
- Use an alternate circuit pack. If existing circuit pack is proved good, then check network process card and restore it to service.

If circuit pack is shown as bad, then replace it.