

TROUBLESHOOTING GUIDE

This guide will assist you when you have a difficulty with your telecommunications system. Following these guidelines you'll be able to correct the problem, avoid a service call or expedite the repair process.

The most important part of the troubleshooting process is getting the proper information.

- ✓ Internal/External
- ✓ All phones or just your phone
- ✓ Describe process you followed when you discovered the problem
- ✓ Has anyone made any recent changes (voice or data) before this problem occurred
- ✓ Is everything else working properly (computers, fax, etc.)

I CAN'T MAKE PHONE CALLS:

- # 1. Are other users experiencing the same problem? If not, you are experiencing a phone problem. Go to “Phone Problems” section for troubleshooting process.
- # 2. If other users are experiencing the same problem, ask if the caller’s phone is dead (i.e. no lights, LED’s, sound, etc). If so, proceed to “System Is Dead” section for troubleshooting.
- # 3. If other users are experiencing the same problem and the system is not dead, proceed to “Line problems” for troubleshooting.

I CAN'T RECEIVE PHONE CALLS

- # 1. Are other users experiencing the same problem? If not, you are experiencing a phone problem. Go to “Phone Problems” section for troubleshooting process.
- # 2. If other users are experiencing the same problem, ask if the caller’s phone is dead (i.e. no lights, LED’s, sound, etc). If so, proceed to “System Is Dead” section for troubleshooting.

SYSTEM IS DEAD:

The leading cause of downed systems is due to power problems. Either there is no power to the system or there was a power interruption that caused the system to freeze.

- # 1: Confirm that the system is getting power. Just because it is plugged in to an outlet does not automatically mean that the system is receiving power. The easiest way to determine if the system is getting power is to check for any status lights on the system. Norstar, BCM and NBX systems all have some type of light on the front of the unit. If there are no lights lit, the system has either died or is receiving no power. Contact whoever is in charge of power in your office.
- # 2. If the system has no signs of power, plug another electrical device (light, radio, etc.) into the same jack. If that device works, go to the section “Re-boot your system”.
- # 3. If the system lights are lit but the system is non-functional, see the following section on “Re-booting your system”.

RE-BOOTING YOUR SYSTEM:

Phone systems will occasionally freeze and stop operating. The solution is to re-cycle the power. Here are the procedures on the following systems:

NORSTAR: Simply pull the electrical plug, wait 30 seconds, and re-power the system. Allow approximately five minutes for the process to complete. When the phones are showing “time/date” information, re-boot the voice mail system using the same process. Again, allow five minutes for the process to complete. Test to confirm that problem has cleared.

BCM: From the main menu, choose the “logoff” tab. Choose reboot and allow a few minutes for the system to re-boot and come back up. Standard telephones will reboot along with the system. IP phones must be unplugged and plugged back in after the reboot to make them functional. Test to confirm that problem has cleared.

3COM NBX: Go to “Tab To It” and choose “Operations”. Click on “reboot”. Allow several minutes for the system to re-boot. After re-boot is complete, unplug all phones and plug them back in again. Wait a couple of minutes to confirm phones reboot. Test to confirm that the problem has disappeared.

LINE PROBLEMS:

When you dial a number, what do you hear? If you hear dead air, you could have either a system or carrier problem. Call Teledynamic to troubleshoot further. If you hear a pre-recorded message of any kind, you are getting that message from the carrier, not the system. Contact your local carrier to report the problem.

Is the problem on all lines? If so, it is most likely you have a problem with your carrier. To expedite repair, contact them before contacting Teledynamic so they'll get a head start on troubleshooting.

Are any fax and modem lines also experiencing the problem? If so, you are experiencing a carrier problem. Contact your local carrier to report the problem.

Does a neighboring business have the same problem? If so, the area is experiencing a carrier problem. Contact your local carrier to report the problem.

Is the problem on local calls only? If so, it is likely that you have a local carrier problem. Contact your local carrier to report the problem.

Is the problem on long distance calls only? If so, it is likely that you have a problem with your long distance carrier. Contact them to report the problem.

Is the problem on international calls only: If so, it is very likely that either your phone system or your carrier has restricted international calls as part of an effort to cut down or eliminate toll fraud.

Solution: Checking these items isolates the problem to either the telephone lines or the equipment.

TELEPHONE SET PROBLEMS

Is anyone else experiencing the same symptoms? If so, then it's probably a system-wide problem.

Did you just relocate your phone? If so, it is possible that the new jack is not “hot”, meaning that it’s not physically connected to your system. Or, on a Norstar or BCM if you just moved your phone and didn’t use automatic set relocation, the phone took on the programming that was associated with the new jack. You’ll need to re-program your phone to match your old programming.

Is your phone securely plugged into the jack? Many times phone jacks and plugs wear out or become partially dislodged. Sometimes, simply unplugging and re-plugging a jack fixes the problem.

Is the line cord connected to the phone damaged? Replace the line cord with one from another phone and see if the phone now works.

Is the handset cord damaged? Replace the handset cord with one from another phone and see if the phone now works.

Do you use a headset? If so, have you checked the battery lately? Is the mute button on?

Has anyone spilled something on the telephone? If so, there's not much you can do except call us and order a new phone.

Is a button stuck on the phone? Occasionally a piece of debris will lodge itself between the button and the phone, causing it to stick in the engaged position.

Is your phone on Do Not Disturb?

Is your phone forwarded?

Is your phone in night transfer mode?

Check all of your phone's volume controls. Is any turned down or off?

On intercom, are you sure that you are calling a valid extension number? Sometimes phones get moved around.

TELEPHONE SET PROBLEMS, CONT'D.

I can't externally forward my phone: Call forward may have been restricted by Teledynamic or your system administrator as a way to protect against toll fraud.

IP PHONE SPECIFIC PROBLEMS:

If your phone is dead, confirm that the ethernet switch is connected to the network and functioning properly. Remember also that IP phones require electrical power – is your phone receiving power?

After all of this troubleshooting does the phone still not work? Trade out the troublesome phone and line cord to the wall jack with another identical set. Did that resolve the problem? If not, then the problem is in the system or the cabling, not the phone.

VOICE MAIL PROBLEMS

My password no longer works: On the Norstar and BCM, the systems can be set up to require passwords changes every XX days for security purposes. Listen carefully to the prompts when you call in to voice mail – they may include instructions on changing your password.

I'm locked out of my voice mail: Many voice mail systems have a “lock out” feature that will lock out any attempt to access it after xx unsuccessful password attempts have been made. The system administrator can re-set your password.

When callers reach our automated attendant and dial zero they go into voice mail: The most frequent cause of this problem is that the phone designated as the “zero out” phone is not being answered.

I can't add a new voice mailbox: You must have a license for each mailbox. Possibly you've run out of available licenses.

READING YOUR SYSTEM LED'S: Every system has a series of LED's that communicate information about your system. If you know how to read these LED's, they can assist substantially in the troubleshooting process.

NBX V3000

Disk/Act LED: Flashing indicates hard drive is active

Pwr/Status LED: Blinking green indicates system is booting
Blinking red indicates system boot has failed
Solid green indicates system is working

Status Lights S1 and S2

S2 LED: Flashing green indicates system boot has started
Solid green indicates disk drive initialization is complete

S1 & S2 LED: If they are flashing alternately, a file system check is running due to previous improper shutdown of system

Ethernet LNK/SPEED LED:

Yellow: 10Mb/s link
Green: 100Mb/s link
Off: No link

ACT LED: Flashing green indicates port activity
Off indicates no activity

Analog line card, ATA (analog terminal adaptor) and FXO LED's:

Fast steady blink: Waiting for sw download

Solid on: SW downloaded, flash memory is being loaded

Slow blinking: Waiting for completion of binding process to NBX

Off 9 secs, on briefly: Idle, line not in use

On for 9 secs, off briefly: Port is in use

NBX V3000, CONT'D.

NBX T1 Card:

CF LED: On indicates carrier failure. T1 card not receiving carrier signals

RA: On indicates remote alarm. The remote end is not receiving appropriate signaling from the T1 card.

LB: On indicates loopback testing in progress
Nominal: On indicates ready to send and receive

CO: Amber indicates alarm condition at remote end or CO not connected
Green indicates no alarm condition

POST: Off indicates POST (Power On Self Test) is running. After five seconds, off indicates the POST test failed

DCH: D channel status of an ISDN PRI Connection
Off indicates no PRI connected or card does not need D channel
Green indicates circuit is active
Amber indicates D channel is not established.

DNLD (download):

Flashing light indicates sw is being downloaded
Green indicates download complete or POST is running
Amber indicates download was interrupted

NBX T1 Card, Cont'd:

CALL (call audio traffic):

Off indicates no audio traffic on the link
Flashing indicates audio traffic is present

CARD (Card software status)

Green indicates all sw downloaded and all processes started successfully
Amber indicates problem with one or more of sw processes on the card.

NCP (network call processor):

Amber indicates card is trying to establish contact with NCP
Green indicates card has established contact with NCP

LINK:

Green indicates 10 Mb/s link
Red indicates 100Mb/s link
Off indicates no connection

ACT (ethernet activity)

Rapid blink indicates data is passing