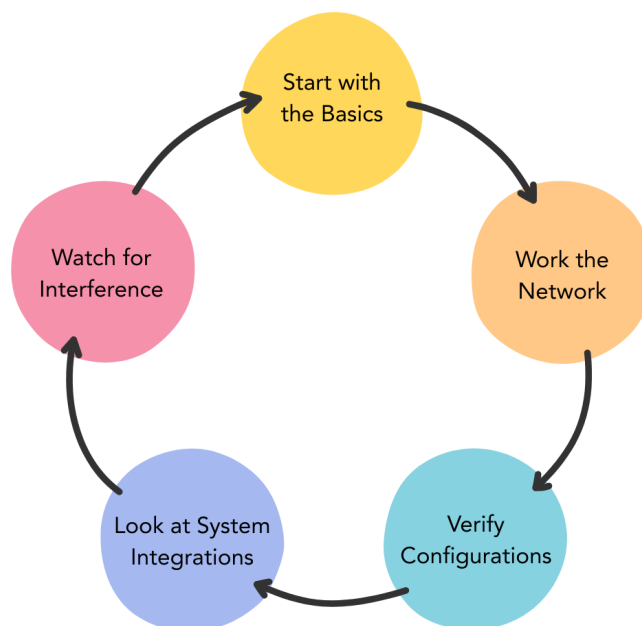


Troubleshooting Advice for Security Technicians

By Mitch Nelson, Installation Technician, Eastern Security Services

In the security industry, things rarely go wrong at a convenient time. Cameras drop offline, a card reader stops responding, a device starts triggering false alarms—and it's on the technician to bring everything back online quickly. The real skill isn't just fixing a problem—it's knowing how to troubleshoot in a way that's efficient, thorough and repeatable.

Over the years in the field, I've learned that most service calls can be solved by sticking to a methodical process. Here are the practices that I rely on most:



1. Start With the Basics

When a system isn't working, I always begin with the simple checks:

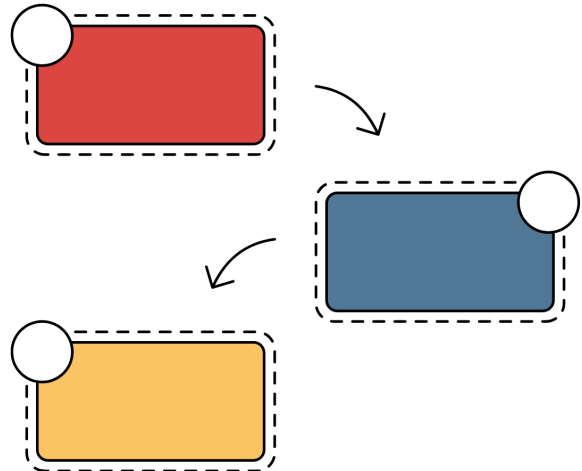
- **Power:** Is the device powered on? Are batteries still good? Breakers tripped?
- **Cabling:** Any loose, cut or damaged wires? Bad terminations?
- **User error:** Has a password changed, a setting been adjusted or a cable been unplugged?

Technicians sometimes jump straight into advanced troubleshooting, but in my experience 30–40% of problems are caused by these fundamentals.

2. Work the Network

Today's cameras, panels and controllers all live on the network, so connectivity is one of the first things I check. My process looks like this:

1. **Ping the device:** If there's no response, trace the connection back.
2. **Check IP settings:** Conflicting or incorrect addresses are common issues.
3. **Inspect switch/router ports:** VLANs, disabled ports or firewall rules can block communication.
4. **Test cables and patch points:** Never assume a cable is good just because it looks fine.



Step by step, you can narrow down the problem without making unnecessary changes.

3. Verify Configurations

Configuration mistakes can make good equipment look like it's failing. Three areas I always review are:

- **Firmware:** Outdated firmware can cause random lockups or prevent features from working. Updating to the latest version often solves the problem.
- **Device settings:** For example, a camera may appear “broken” when it's actually set to the wrong recording schedule, or a motion zone isn't aligned with the coverage area.
- **System rules and schedules:** In access control, door unlock times or credential permissions often explain why “the system isn't working.” Double-check that the programming matches what the client expects.

This step can feel tedious, but catching configuration issues saves a lot of return trips.

4. Look at System Integrations

Most modern sites don't just run one platform—they rely on multiple systems talking to each other. Access control tied to video, intrusion reporting to the central station and intercoms linked to the access control.

When troubleshooting integration issues, I focus on:

- **Confirming the connection points:** Are both systems licensed, updated and actually configured to link?
- **Checking credentials and permissions:** If video isn't showing up inside an access platform, it could be an authentication or rights issue.
- **Verifying data flow:** For example, is the intrusion system sending signals to the monitoring center, or is it only reporting locally?

Integration problems are often less about hardware failure and more about two systems not “speaking the same language.” Understanding those connection points makes troubleshooting much faster.



5. Watch for Interference

Wireless devices such as cameras, sensors and locks save time during installs but can bring their own troubleshooting challenges.

- **Signal strength:** Always test, never guess.
- **Environmental factors:** Concrete walls, metal and even reflective glass can degrade signals.
- **Competing devices:** Microwaves, routers and industrial equipment can all interfere.

Sometimes the solution is as simple as relocating an access point or adding a repeater.

6. Call for Reinforcements

This should go without saying, but there's a good chance someone on your team has run into the same issue you're working on—or is more familiar with that client's system. Never be afraid to call for help, but be sure to document the fix so that you'll remember it in the future.

Sometimes you may also need to call the equipment manufacturer. Unfortunately, with many global manufacturers, this step can be pretty tedious and leave you on hold for hours. If you think it might be an issue with the equipment, I might even recommend calling the manufacturer's tech support line early in the process, allowing you to continue to eliminate possible causes while you wait on hold.

Closing Thoughts

If you fail to plan, you're planning to fail. Jumping in without a clear process is the fastest way to get stuck. Start with the basics and the most common issues, then eliminate what's working until you isolate the root cause. Following the same process every time will help you work more efficiently and lower your chances of missing an easy fix. Becoming a better troubleshooter will also make you a more reliable technician and help you move forward in your career.

Good luck out there.

