Summary of Server Troubleshooting and Resolution

Initial Symptom:

"My server is acting weird, let's reboot." The server started behaving abnormally, prompting an initial reboot attempt. This led to various error messages and failures during boot-up.

Issues Encountered:

1. **POST Error 1792:**
    - The system reported valid data found in the RAID controller cache, but this did not lead to a successful boot.
2. **NMI Detected:**
    - A red screen error appeared, indicating a Non-Maskable Interrupt (NMI), with instructions to check the Integrated Management Log (IML).
3. **Maintenance Mode Switch Toggled:**
    - Despite no changes being made to the DIP switches, the server reported that the maintenance mode switch was enabled.
4. **iLO Security Override Warning:**
    - The iLO interface indicated that the security override switch was toggled.
5. **Crashed Boot Attempts:**
    - The server intermittently rebooted during the boot process, often halting at "Power & Thermal Configuration."
6. **No Display Output Locally:**
    - At one point, the server had no video output, requiring direct KVM access to diagnose further.

Steps Taken to Troubleshoot:

1. **Initial Diagnostics:**
    - Checked Integrated Management Log (IML) for clues. (that was about zero help. "No logs indicated why it was doing what it was")
    - Attempted to reset the server via cold boot and by draining residual power (disconnecting power and pressing the power button).
    - Switched between active and backup ROMs to rule out firmware corruption.
2. **Firmware Updates:**

- Updated iLO firmware to ensure compatibility and address potential bugs.

3. **DIP Switches:**
    - Flipped all DIP switches off and on to ensure they were in the default position.
    - Specifically addressed maintenance mode and security override switches.
4. **Hardware Isolation:**
    - Removed components step by step, including PCIe risers, RAID controller, backplane connections, and CMOS battery.
    - Verified minimal configuration with only the motherboard, CPUs, RAM, keyboard, and display connected.
5. **CMOS Reset:**
    - Attempted a CMOS and NVRAM reset by toggling the appropriate DIP switches.
6. **Direct Access via KVM:**
    - Used a direct KVM connection to monitor boot progress and errors.
7. **Reassembly:**
    - Gradually reinstalled components, starting with the CMOS battery and verifying configurations with each step.
8. **Identified the Culprit:**
    - During a final inspection before selling for parts, discovered a **loose RAM stick** in one of the slots. Reseated all RAM modules.

Resolution:

- After reseating the RAM, the server successfully booted past the previous error messages and returned to normal operation. Subsequent diagnostics confirmed that no further hardware issues were present.

Lessons Learned:

1. **Always Check Physical Connections:**
    - Loose components, especially RAM, can cause intermittent and seemingly unrelated errors.
2. **Minimal Configuration is Key:**
    - Simplifying the system to its bare essentials can help isolate issues more effectively.
3. **Document and Verify:**

- Systematically document steps and verify the status after each change to avoid overlooking critical details.

Next Steps:

- Run a full hardware diagnostic to ensure long-term stability.
- Double-check RAID and storage configurations for integrity.
- Document the incident and resolution for future reference.

This issue ultimately stemmed from a simple loose RAM module, but the troubleshooting process reaffirmed the importance of a systematic and thorough approach to hardware diagnostics.