

Windows 11 Update Failure — Diagnostic Summary

Prepared for Microsoft Support escalation · Updated 2026-08-29

Issue

Windows 11 Pro cumulative/security updates consistently fail at the offline commit phase (“Working on updates” hangs at ~96–98%), then roll back after ~1 hour. Ongoing since approximately July 2026. A previous support case was closed without resolution after first-tier steps (service restarts, update-menu options, retry) which did not change the behaviour.

Request

Requesting escalation to the Windows servicing / CBS team. Standard first-tier remediation has been exhausted (detailed below). Process Monitor boot-log capture, CBS logs, and MemTest86 report are available on request.

System

- Windows 11 **Pro**, version 25H2, currently OS Build **26200.8037**
- Gigabyte **Z390 UD**, BIOS **F12a** (BIOS release date 06/12/2025; flashed 2026-02-07 — five months before failures began)
- Intel **Core i7-9700K** @ 3.60 GHz (8 logical processors)
- 16 GB DDR4 — 2 × 8 GB G.Skill F4-2400C15-8GVS, running stock JEDEC 2132 MT/s 15-15-15-36 1.2V (**XMP disabled**)
- C: = WDC WDS500G2B0B SATA SSD (105 GB free of 464 GB); D: = WD 2 TB HDD
- No third-party antivirus (Windows Defender only); BitLocker off

Failing Updates (identical failure pattern)

- **KB5101650** — failed 2026-07-15 (0x800f0920), 07-17 (0x800f0920), 07-25 (0x800f0845)
- **KB5101684** (preview) — failed
- **KB5121003** (26200.9168) — failed 2026-08-12, 08-15, 08-21; failed again after a full in-place upgrade repair, and again after the most recent support case (0x800f0920)

Error codes: 0x800f0920 (CBS_E_HANG_DETECTED) and 0x800f0845, alternating depending on which stage the rollback caught.

Key Diagnostic Finding — Process Monitor boot-log of the failing commit

TrustedInstaller.exe launches, initializes CBS/COM, loads the servicing stack (wdscore.dll from servicingstack_10.0.26100.9156), spawns worker threads — then goes **completely silent**. Zero file, registry or CPU activity for the entire remaining hang duration. No process exit and no rollback until the internal timeout forces one. This is a **thread deadlock** (blocked on a synchronization object that never signals), not slow progress and not file corruption. Procmon cannot observe the blocking object; identifying it would require a kernel debugger attached during the pre-desktop servicing phase.

Diagnostics Performed — all clean / negative

- **MemTest86 v11.7**, 2026-08-29: **PASS — 48/48 tests, 0 errors**, 2h41m, full 19,424 MB range, stock JEDEC timings, CPU 43–64°C

- **sfc /scannow** — no integrity violations
- **DISM /ScanHealth** — no component store corruption (earlier /RestoreHealth failed 0x800f0915, repair content not found)
- **DISM /StartComponentCleanup** — completed successfully
- **chkdsk C: /f /r** — no errors; SMART status OK on both drives
- No stuck pending.xml transaction (file not present)
- WinRE enabled; recovery partition 784 MB; EFI System Partition 60 MB free of 95 MB
- No third-party filter drivers (fltmc — all stock Microsoft, incl. WdFilter, bindflt, CldFlt, luafv)
- BitLocker fully decrypted / off
- Single servicing stack installed cleanly: SSU 26100.9156 (2026-08-12)

Remediation Attempted — none resolved it

- Reset Windows Update components (renamed SoftwareDistribution + catroot2, restarted wuauserv/cryptSvc/bits/msiserver)
- Stopped and disabled Windows Search service during install attempts
- Extended TrustedInstaller **BlockTimeIncrement** from 900s (15 min) to 3 hours — install still hung 4+ hours with no self-recovery
- “Fix problems using Windows Update” (Recovery-page in-place reinstall) — completed successfully, did not fix
- Offline install of KB5121003 via **DISM /Add-Package** — **staged successfully** (clean exit code 0 after 3+ hours of genuine activity) but failed to commit at reboot
- **Full in-place upgrade repair** from mounted Win11 25H2 en-US ISO (“Keep files and apps”) — completed successfully, reset baseline to 26200.8037; the next genuine cumulative still deadlocked identically
- Prior support case: service restarts + update-menu options + retry — no change, case closed unresolved

Most Significant Facts for Triage

- A **full setup-engine in-place upgrade** rebuilt the OS and component store from clean ISO files, yet the very next genuine cumulative deadlocked identically. This rules out corrupted system files as the sole cause.
- The **DISM offline path staged the update to completion** where the Windows Update client could not — the failure is specific to the **offline commit** stage, not download or staging.
- **Hardware is verified clean:** memory passes 48/48 MemTest86 tests at stock timings; disk, SMART, and controller responsiveness all normal.
- **BIOS is unlikely to be causal:** F12a was flashed 2026-02-07, five months before the first update failure (2026-07-15).
- **Relevant history:** a genuinely defective RAM module (reproducible single-bit error, bit 19) was present on this system earlier in 2026 and was RMA'd. The update failures began while it was still installed. Corruption written into persistent servicing state during that period is a plausible origin, though an in-place upgrade did not clear it.