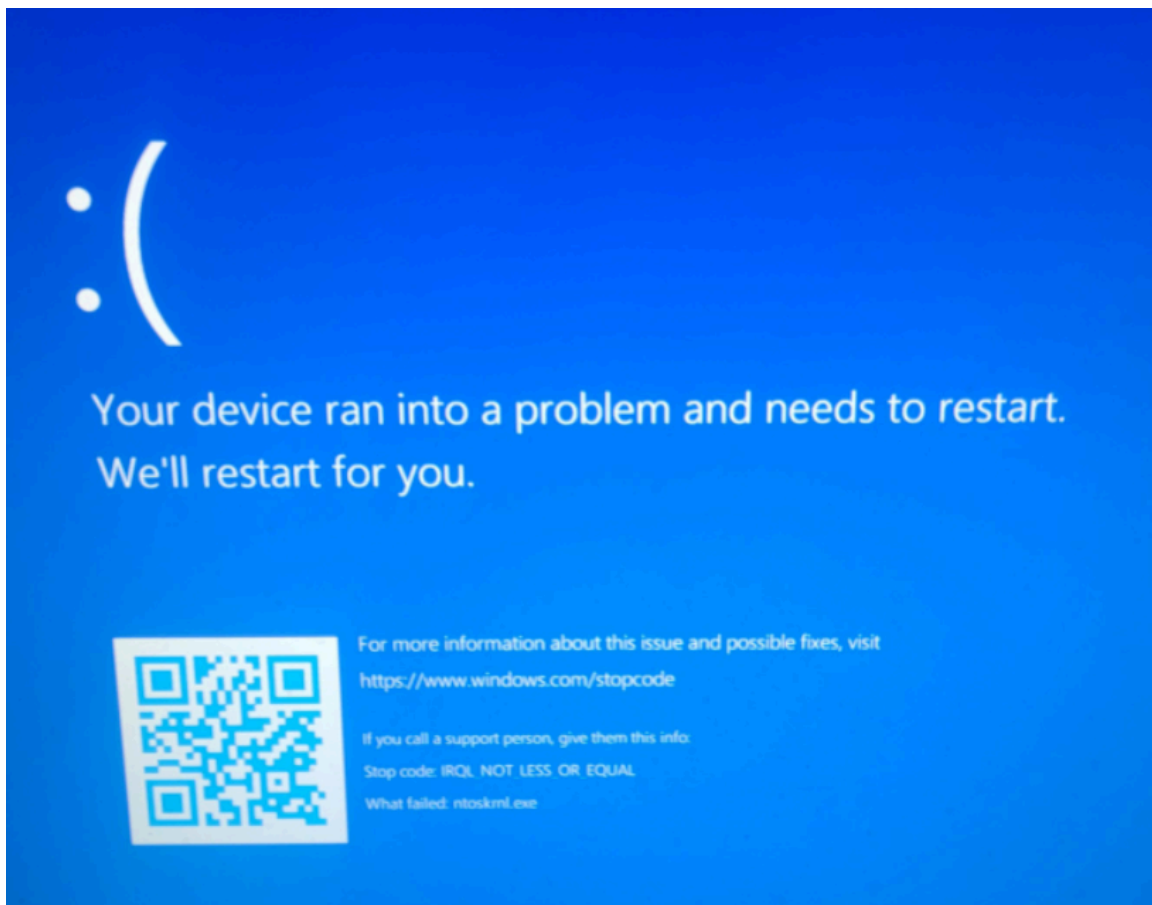


Fixing SYSTEM_THREAD_EXCEPTION_NOT_HANDLED (0x1000007e) Caused by RtUsbA64 Realtek USB WiFi Driver

This document provides a step-by-step guide to diagnose and resolve a Windows Blue Screen of Death (BSOD) error related to SYSTEM_THREAD_EXCEPTION_NOT_HANDLED with Bug Check Code 0x1000007e. The crash was traced to the Realtek USB WiFi driver (RtUsbA64_03F00269.sys), which triggered the kernel streaming component ks.sys. This commonly occurs when using Virtual Machines, proxy configurations, or network interception tools such as Burp Suite.



Error screenshot showing the Error code: IRQL_NOT_LESS_OR_EQUAL

1. Error Details Identified from Crash Dump

BlueScreenView - C:\WINDOWS\Minidump

File Edit View Options Help

| Dump File | Crash Time | Bug Check String | Bug Check Code | Parameter |
|---------------------|-----------------------|-----------------------|----------------|---------------|
| 082325-12890-01.dmp | 23/08/2025 6:03:33... | SYSTEM_THREAD_EXCE... | 0x1000007e | fffffffc00... |

| Filename | Address In St... | From Address | To Address | Size |
|-----------------------|---------------------|-------------------|-------------------|------------|
| ks.sys | ks.sys+1e770 | fffff802'6fcb0000 | fffff802'6fd36000 | 0x00086000 |
| RtUsbA64_03F00269.sys | RtUsbA64_03F0026... | fffff802'676f0000 | fffff802'6776b000 | 0x0007b000 |
| ntoskrnl.exe | | fffff802'd1e00000 | fffff802'd3250000 | 0x01450000 |
| hal.dll | | fffff802'd3600000 | fffff802'd3606000 | 0x00006000 |
| kdcom.dll | | fffff802'63720000 | fffff802'6372b000 | 0x0000b000 |
| symcryptk.dll | | fffff802'63730000 | fffff802'6373b000 | 0x0000b000 |
| cng.sys | | fffff802'63800000 | fffff802'638d3000 | 0x000d3000 |

1 Crashes, 1 Selected

NirSoft Freeware. <http://www.nirsoft.net>

| Properties | | × |
|--------------------|---|---|
| Dump File: | 082325-12890-01.dmp | |
| Crash Time: | 23/08/2025 6:03:33 PM | |
| Bug Check String: | SYSTEM_THREAD_EXCEPTION_NOT_HANDLED | |
| Bug Check Code: | 0x1000007e | |
| Parameter 1: | ffffff`c0000005 | |
| Parameter 2: | ffff802`6771e45d | |
| Parameter 3: | ffffe0c`832bef58 | |
| Parameter 4: | ffffe0c`832be740 | |
| Caused By Driver: | ks.sys | |
| Caused By Address: | ks.sys+1e770 | |
| File Description: | | |
| Product Name: | | |
| Company: | | |
| File Version: | | |
| Processor: | x64 | |
| Crash Address: | RtUsbA64_03F00269.sys+2e45d | |
| Stack Address 1: | | |
| Stack Address 2: | | |
| Stack Address 3: | | |
| Computer Name: | | |
| Full Path: | C:\WINDOWS\Minidump\082325-12890-01.dmp | |
| Processors Count: | 8 | |
| Major Version: | 15 | |
| Minor Version: | 26100 | |
| Dump File Size: | 2,735,571 | |
| Dump File Time: | 23/08/2025 6:03:59 PM | |

Screenshot above showing the Minidump file Opened in BluescreenView for further troubleshooting

The Properties that we are interested in are below.

- **Bug Check String: SYSTEM_THREAD_EXCEPTION_NOT_HANDLED**
- **Bug Check Code: 0x1000007e**
- **Caused by Driver: ks.sys (triggered)**
- **Crash Address: RtUsbA64_03F00269.sys (Realtek USB WiFi driver)**

2. Root Cause Summary

The crash was caused by instability in the Realtek USB WiFi network driver. This issue commonly appears when:

- Using VirtualBox or VMware in Bridged Network mode(**in my case**)
- Using USB passthrough for WiFi in a Kali Linux VM
- Network adapter power saving is enabled
- Outdated Realtek driver is installed
- Network monitoring or interception tools increase driver load

3. Resolution Steps

1. Step 1: Identify the Realtek WiFi Adapter

- Open Device Manager > Network Adapters
- Locate entries such as:
 - Realtek USB Wireless LAN
 - 802.11n USB WiFi Adapter
 - RTL8723 / RTL8188 / RTL8192 series

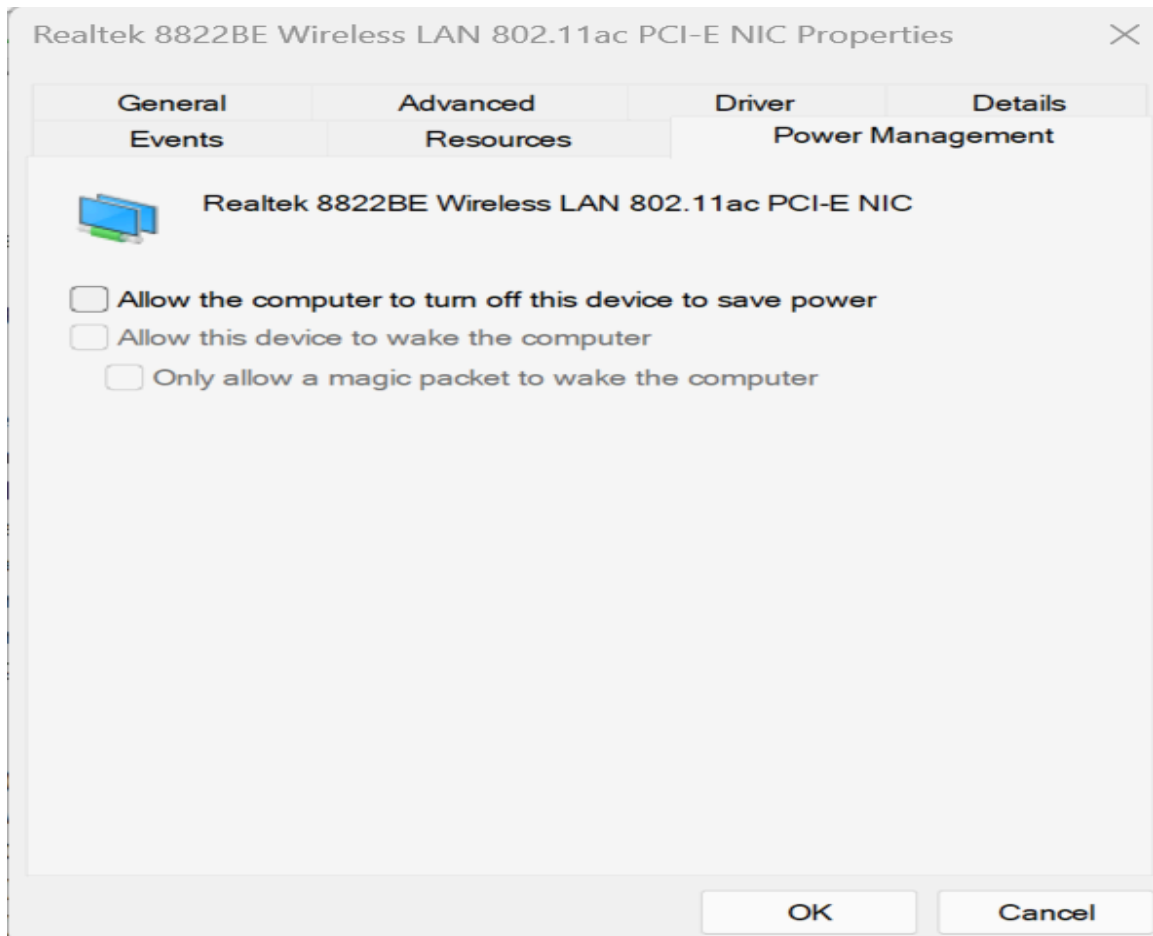
2. Step 2: Uninstall and Reinstall Updated Driver

- Uninstall current driver from Device Manager
- Reboot the system
- Install latest driver from Realtek or device vendor
- Official driver source: <https://www.realtek.com>

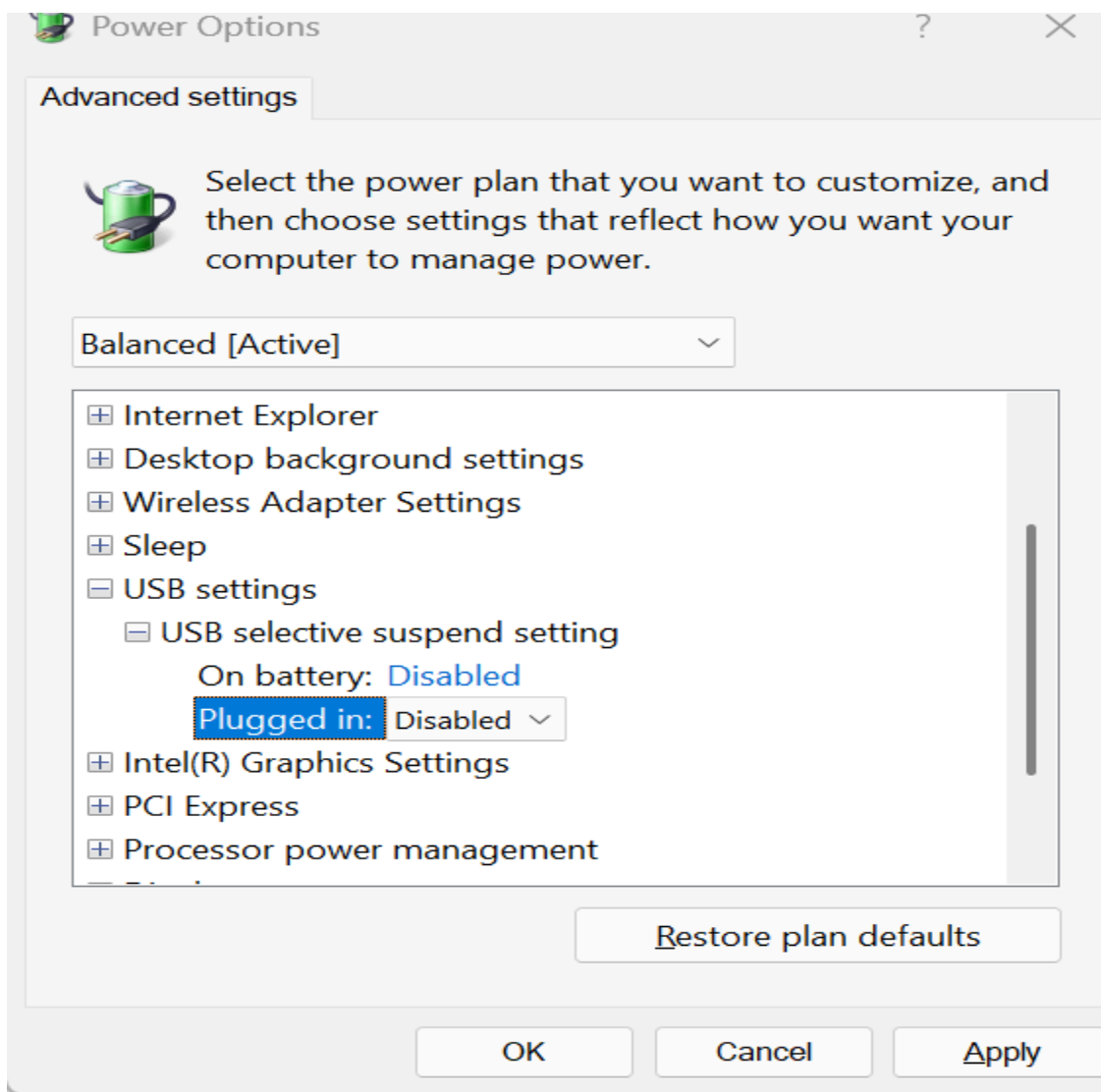
3. Step 3: Disable USB Power Saving

- Device Manager > Adapter Properties > Power Management

- Uncheck: “Allow the computer to turn off this device to save power”



- Control Panel > Power Options > USB Selective Suspend > Disable



4. Step 4: Adjust Virtual Machine Networking

- Change VM network mode to NAT (recommended)
- Avoid USB passthrough for WiFi adapters
- Disable Bridged Mode during proxy testing

5. Step 5: Optional Preventive Actions

- Ensure Windows updates are applied
- Avoid Realtek WiFi monitor mode in Kali
- Consider alternative chipsets for security testing

4. Expected Outcome After Applying Fixes

- ✓ No more BSODs during network operations
- ✓ Stable VM networking while using Burp Suite
- ✓ Reliable proxy interception from Chrome to Kali
- ✓ Improved system stability and reduced driver conflicts