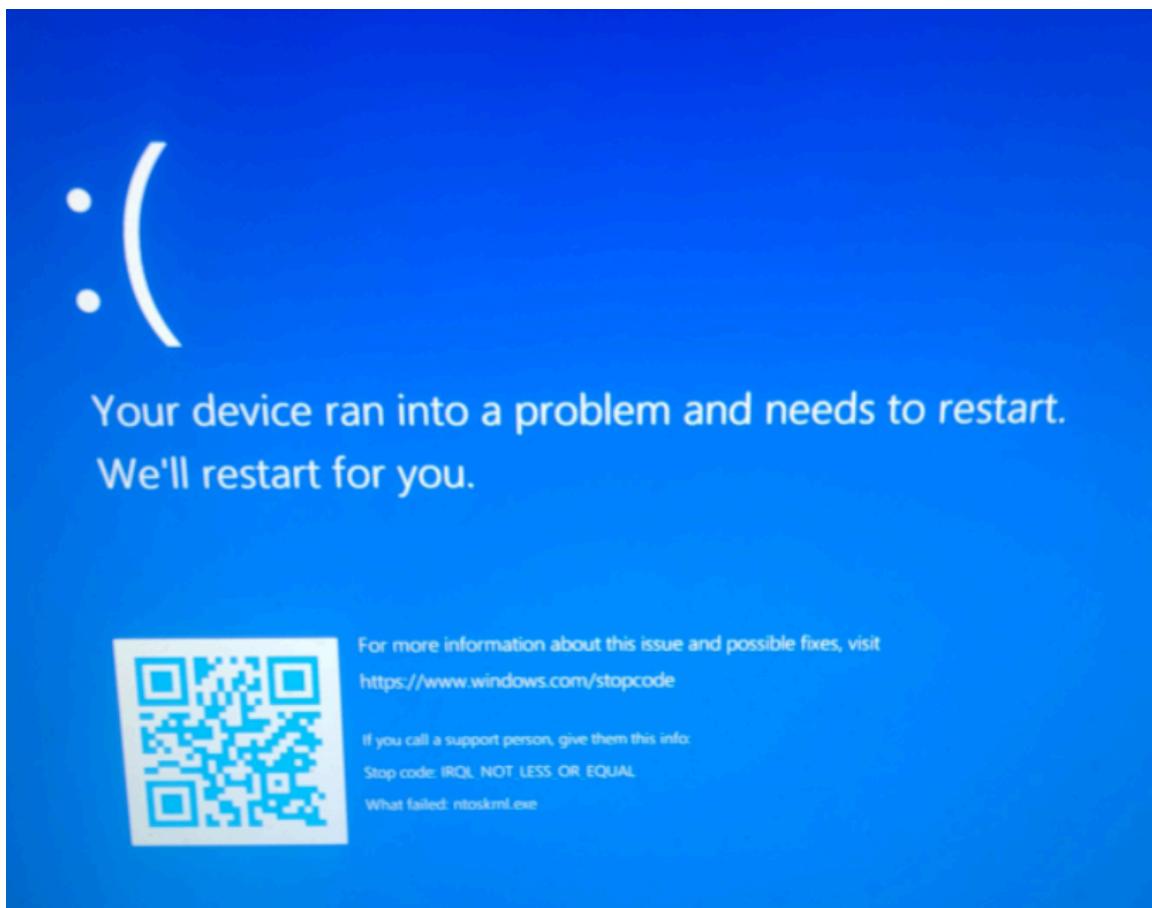


Fixing SYSTEM_THREAD_EXCEPTION_NOT_HANDLED (0x1000007e) Caused by RtUsbA64 Realtek USB WiFi Driver

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

The screenshot shows the BlueScreenView application interface. At the top, it displays the title 'BlueScreenView - C:\WINDOWS\Minidump' and a menu bar with File, Edit, View, Options, and Help. Below the menu is a toolbar with various icons. The main area contains two tables. The first table, titled 'Dump File', lists a single entry: '082325-12890-01.dmp' with a crash time of '23/08/2025 6:03:33...' and a bug check string of 'SYSTEM_THREAD_EXCE...'. The second table, titled 'Filename', lists system files and their memory addresses. The bottom of the window shows a status bar with '1 Crashes, 1 Selected' and a copyright notice: 'NirSoft Freeware. <http://www.nirsoft.net>'.

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	ffffffff`c00

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:	ffffffff`c0000005
Parameter 2:	fffff802`6771e45d
Parameter 3:	ffffee0c`832bef58
Parameter 4:	ffffee0c`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

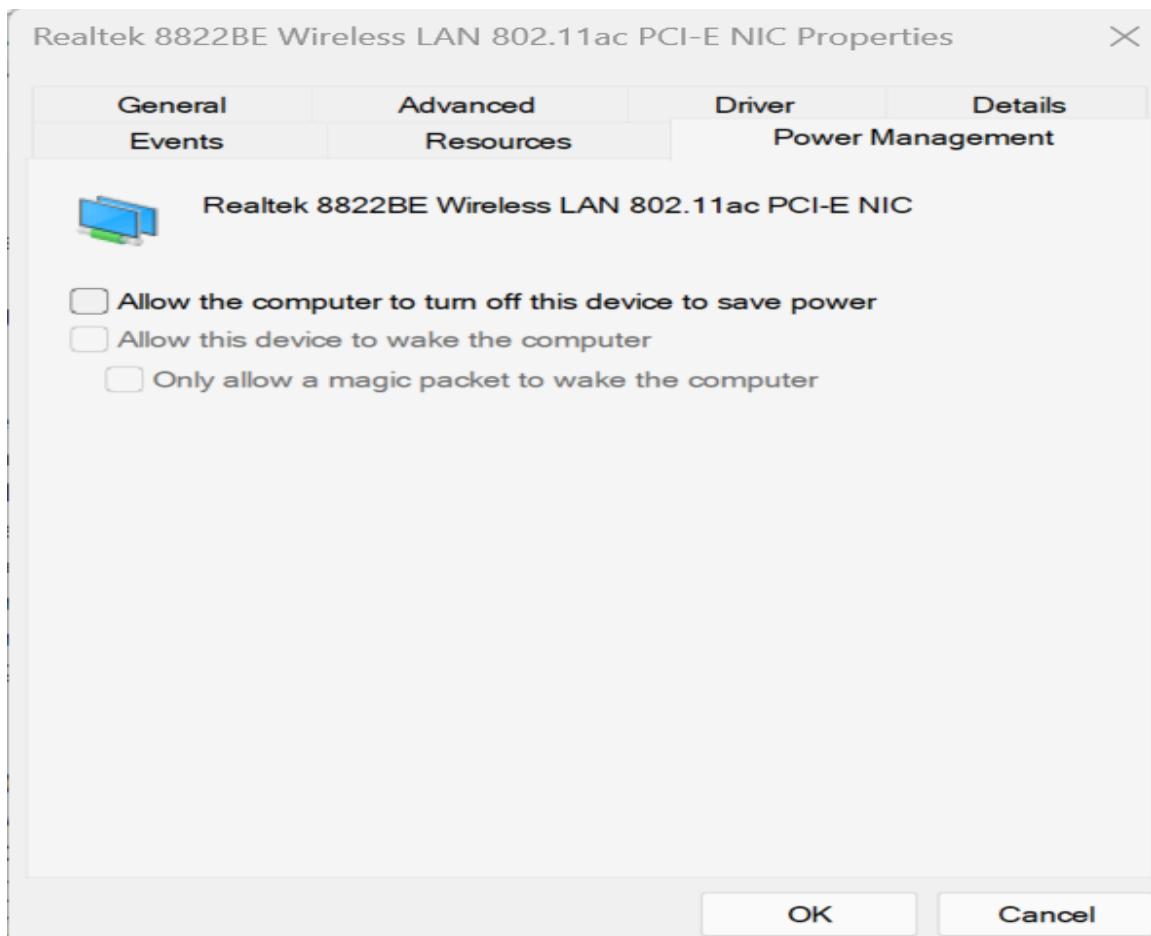
2. Step 2: Uninstall and Reinstall Updated Driver

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

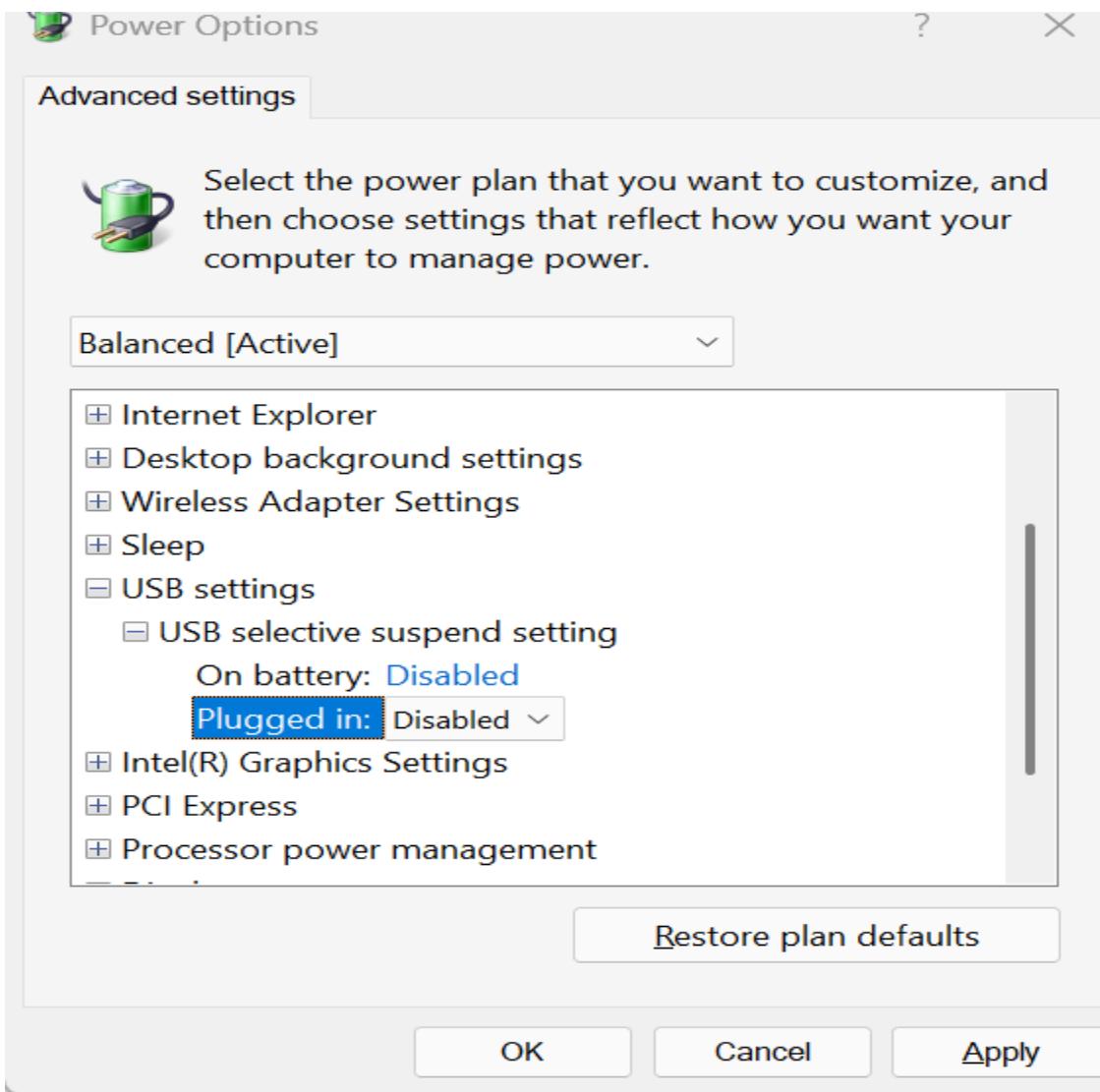
3. Step 3: Disable USB Power Saving

- 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