

Global Windows 10 Crash: The Blue Screen of Death Explained

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ABSTRACT

Global Windows 10 Crash caused widespread disruption, affecting businesses and individuals worldwide. CrowdStrike update triggered Blue Screen of Death (BSOD) error, forcing windows to shut down. Crash impacted critical infrastructure, including banks, airports and supermarkets etc. Microsoft and CrowdStrike work to resolve issue, with status updates available.

National Cyber Security Coordinator of Australia rules out cyber attack, citing technical issue with third-party software. Enterprises experienced sudden shutdown and restarts.



Courtesy: Passengers wait at Milwaukee Mitchell International Airport, after airlines grounded flights due to a worldwide tech outage caused by an update to CrowdStrike's "Falcon Sensor" software which crashed Microsoft Windows systems.

Source: <https://www.hindustantimes.com/business/microsoft-global-outage-live-updates-biggest-it-crash-hits-airlines-banks-and-media-101721448959714.html>

INTRODUCTION

- Windows 10 users are experiencing a sudden and mysterious crash, causing widespread disruption.
- The crash is characterised by the Blue Screen of Death (BSOD) error, forcing Windows to shut down or restart.
- The issue is not limited to individual users, but also affects businesses and critical infrastructure.
- Reports of the crash have emerged from Australia, Japan, India, and the US, among other countries.
- The crash has resulted in significant disruptions to daily life, including flight cancellations and grounding.
- The cause of the crash has been identified as a recent update to CrowdStrike's Falcon sensor.
- CrowdStrike is a US-based cybersecurity provider, offering endpoint protection and threat intelligence solutions.
- This poster aims to provide an overview of the crash, its impact, and the response from Microsoft and CrowdStrike.

OBJECTIVE

- Investigate the cause and impact of the Windows crash triggered by CrowdStrike's Falcon sensor update.
- Examine the response of Microsoft and CrowdStrike to the issue, including patches.
- Evaluate the effectiveness of the solutions provided to resolve the crash and prevent future occurrences.
- Provide recommendations for Windows 10 users and organisations to minimise the risk of similar crashes.



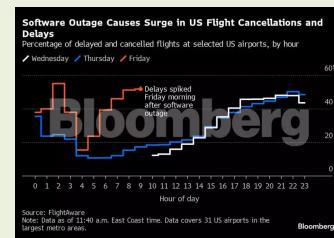
Courtesy: The Microsoft Windows Recovery screen displayed at John F. Kennedy International Airport (JFK) in New York on July 19. Photographer: Michael Nagle/Bloomberg.
Source: <https://www.bloomberg.com/news/articles/2024-07-20/crowdstrike-crash-affected-8-5-million-microsoft-windows-devices>

METHODOLOGY

- Collected data on Windows 10 crashes from online forums, social media, and news articles.
- Analysed system logs and event viewer data to identify patterns and correlations.
- Investigated CrowdStrike's Falcon sensor update and its potential impact on Window systems.
- Reviewed Microsoft's and CrowdStrike's official statements and responses to the issue.
- Conducted a literature review of similar Window 10 crashes and their resolutions.
- Validated findings through peer review and expert feedback to ensure accuracy and reliability.



Courtesy: Passengers waiting at the check-in desks at Suvarnabhumi Airport in Bangkok, Thailand as a global IT disruption continues to affect users on July 19, 2024. Photo: Getty Images
Source: <https://www.inc.com/kit-eaton/global-outage-paralyzes-millions-of-pcs-bringing-business-to-a-halt.html>



Source: <https://economictimes.indiatimes.com/news/company/corporate-trends/microsoft-cloud-outage-from-atms-to-stock-trading-and-flights-epic-it-crash-leaves-trail-of-chaos/articleshow/111875663.cms?from=mdr>

GLOBAL IMPACT

- The Microsoft global outage was caused by an update to CrowdStrike's Falcon Sensor software.
- The outage affected multiple sectors, including airlines, banks, and healthcare.
- The London Stock Exchange experienced a technical issue, and Sky News was off the air for a time.
- 911 services were disrupted in the US, and multiple airlines grounded flights.
- The Indian stock exchanges and clearing corporations were not significantly impacted.
- The Paris Olympics organising committee reported that its operations were "now running normally".
- Civil aviation minister K Rammohan Naidu stated that airline systems across airports were working normally.
- CrowdStrike CEO George Kurtz appeared nervous and choked on his words when asked about the outage.
- Apple users were not impacted, and the company's ecosystem protects 2.2 billion iOS devices.
- US federal agencies were still affected by the outage, with some staff facing a Windows error screen.
- The outage highlighted the importance of robust software testing and update procedures.
- The incident demonstrated the need for improved communication and collaboration between tech companies and users.
- The outage resulted in a significant decline in CrowdStrike's stock price.
- The incident underscored the potential for security software to compromise system stability.
- The resolution of the outage served as a model for collaborative problem-solving in the tech industry.

LESSONS LEARNED

- The Microsoft global outage highlights the importance of robust software testing and update procedures to prevent similar incidents.
- The incident demonstrates the need for improved communication and collaboration between tech companies and users to minimise downtime.
- The outage underscores the potential for security software to compromise system stability, emphasising the need for careful consideration.
- The resolution of the outage serves as a model for collaborative problem-solving in the tech industry, showcasing the importance of joint efforts.
- The incident highlights the vulnerability of interconnected systems, emphasising the need for enhanced security measures and contingency planning.

REFERENCES

- Malika Soni, Abhyjith K. Ashokan, "Microsoft Global Outage: Biggest IT Crash Hits Airlines, Banks", Hindustan Times, July 20, 2024.
- Ajmal, "Biggest IT outage in history? Microsoft glitch hits flights, banks, broadcasters", India Today Website, July 19, 2024.
- Lynn Dean and Matt Day, "CrowdStrike Crash Affected 8.5 Million Microsoft Windows Devices", Bloomberg Website, July 21, 2024.
- Tom Burnett, "Stansted Airport statement on Microsoft outage as glitch hits airlines and other businesses", Cambridge News Website, July 19, 2024.
- Kit Eaton, "A Global Outage Paralyzes Millions of PCs, Bringing Business to a Halt", Inc. Website, July 19, 2024.

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