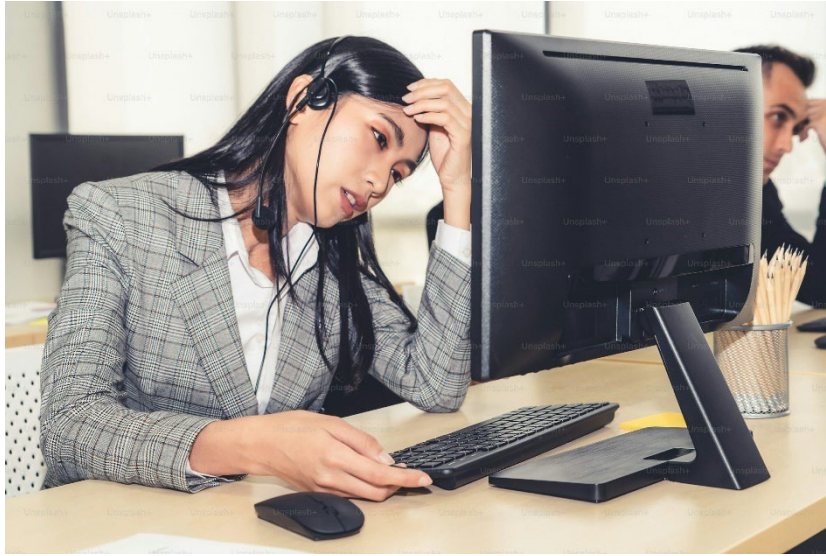


Digital Dependency Exposed: How a Single Update Disrupted Global Hospitality and Tourism



Source: Unsplash (2022)

Background

In the modern digital age, technology has become an inseparable part of our daily lives, enhancing our quality of life by simplifying countless tasks and processes. However, the following case illustrates the inherent fragility of the digitized world we live in, highlighting how our increasing reliance on technology can lead to vulnerabilities and challenges.

On July 19, 2024, a faulty update wreaked havoc as about 8.5 million PCs worldwide experienced critical system failures (CEPS, 2024). The issue arose from an update released by CrowdStrike, a prominent cybersecurity firm, which inadvertently impacted all its customers using Microsoft Windows, the world's leading desktop operating system (29 News, 2024). As part of the update—intended to improve communication between the firm's Falcon software and Windows—CrowdStrike unknowingly introduced a logic error that caused the software's sensor to crash, and subsequently, the Windows systems in which it was integrated (TechTarget, 2024).

This event is considered one of the largest IT blackouts in history, resulting in a US\$5.4 billion loss for US Fortune 500 companies (TechTarget, 2024). The CrowdStrike outage had an immediate and disruptive impact on the hospitality and tourism industry, particularly in air travel. On July 19, 2024, more than 1,100 flights were canceled and hundreds more delayed in the U.S. alone, leaving travelers stranded and scrambling for alternatives as major airlines like American, United, and Delta struggled to restore operations (ABC News, 2024). This widespread disruption created a domino effect, with planes and crew members out of position, threatening to prolong delays and cancellations throughout the weekend. Travelers faced long lines at airport terminals, uncertainty about their itineraries, and the need to seek out hotel and food vouchers or reimbursement for unexpected expenses. The incident highlighted the vulnerability of the travel sector to IT failures and underscored the importance of robust contingency planning, clear communication, and passenger support systems within the

hospitality and tourism industry. It also emphasized the need for travelers to be proactive, stay informed, and understand their rights during such disruptions, as even events beyond the control of airlines can have far-reaching consequences for both businesses and guests.

Although CrowdStrike was able to identify and deploy a fix for the issue within 79 minutes, the fix required a manual reboot, and it took nearly two weeks for all customers to recover their affected systems, given the scale of the crash (TechTarget, 2024). Following the incident, CrowdStrike promised to enhance its quality control by adopting updated testing procedures, providing customers with more autonomy in deciding whether to update, and hiring two independent contractors to review their code before releasing every patch (Forbes, 2024).

Challenges

The incident not only brought to light the fragility of our Internet's core infrastructure but also highlighted two critical issues: our over-reliance on a narrow pool of service providers and the risks associated with automated software updates (CEPS, 2024). The event demonstrates the severity and extensiveness of outage impacts when the market is dominated by a few service providers that almost everyone relies on. Moreover, it is alarming how many organizations were completely unprepared to handle large-scale outages. Hence, this incident calls for a reevaluation of our reliance on a limited number of service providers and the implementation of more robust contingency planning to mitigate the effects of future disruptions.

Discussion Questions

1. In what ways did the outage disrupt the hospitality and tourism industry?
2. How did the outage affect hotel operations and guest experiences?
3. What lessons can be learned about customer support and compensation during IT crises?
4. How can the hospitality and tourism industry diversify its technology infrastructure to reduce risk?

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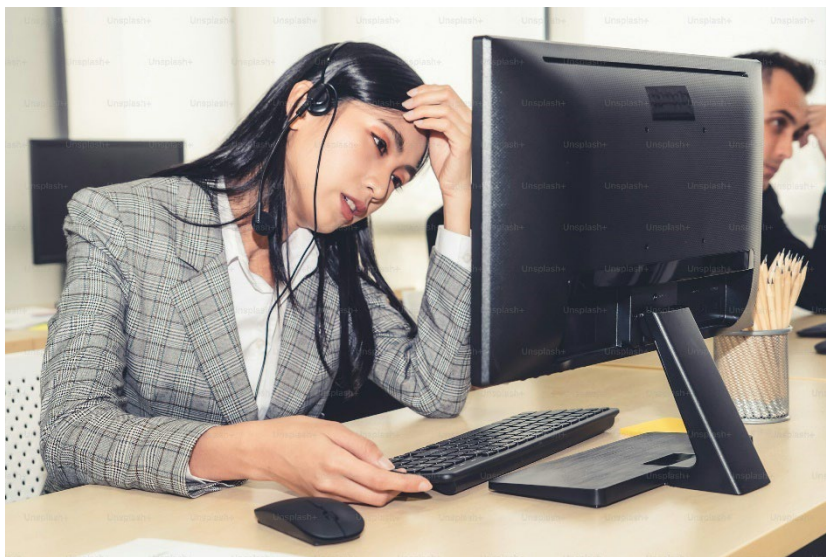
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Keywords

- Hospitality and Tourism
- Technology
- Over-reliance
- System failure
- Blackout
- Cyber security
- Operational challenge

数字依赖暴露：一次更新如何扰乱全球酒店与旅游业



Source: Unsplash (2022)

背景

在现代数字时代，技术已成为我们日常生活中不可分割的一部分，它通过简化无数任务和流程来提升我们的生活质量。然而，以下案例揭示了我们所生活的数字化世界固有的脆弱性，突显出我们对技术日益增长的依赖如何导致弱点和挑战。

2024年7月19日，一次有缺陷的更新造成了严重破坏，全球约850万台个人电脑遭遇了关键性的系统故障（CEPS, 2024）。问题源于一家知名网络安全公司CrowdStrike发布的更新，该更新无意中影响了其所有使用全球领先桌面操作系统Microsoft Windows的客户（29 News, 2024）。作为该更新（旨在改进该公司Falcon软件与Windows之间的通信）的一部分，CrowdStrike无意中引入了一个逻辑错误，导致该软件的传感器崩溃，随后使得集成了该软件的Windows系统也出现问题（TechTarget, 2024）。

此次事件被认为是历史上规模最大的IT故障之一，导致美国财富500强公司损失了54亿美元（TechTarget, 2024）。CrowdStrike服务中断对酒店和旅游业，尤其是航空旅行，产生了直接而严重的破坏性影响。2024年7月19日，仅在美国就有超过1,100个航班被取消，数百个航班延误，旅客滞留并争先恐后地寻找替代方案，因为美国航空、联合航空和达美航空等主要航空公司都在努力恢复运营（ABC News, 2024）。这种大范围的中断产生了多米诺骨牌效应，飞机和机组人员位置混乱，威胁到整个周末延误和取消情况的延长。旅客在航站楼排起长队，行程不确定，并且需要寻求酒店和餐食代金券或为意外开支寻求报销。这一事件突显了旅游行业对IT故障的脆弱性，并强调了酒店与旅游业内部强有力的应急规划、清晰的沟通和乘客支持系统

的重要性。它也强调了旅客在此类中断期间需要主动应对、保持信息畅通并了解自身权利的重要性，因为即使是航空公司无法控制的事件，也可能对企业和客人产生深远影响。

尽管 CrowdStrike 能够在 79 分钟内识别并部署针对该问题的修复程序，但由于故障规模巨大，该修复需要手动重启系统，所有客户恢复受影响系统花费了近两周时间 (TechTarget, 2024)。事件发生后，CrowdStrike 承诺通过采用更新的测试程序、给予客户更多决定是否更新的自主权，以及在发布每个补丁前聘请两名独立承包商审查其代码来加强质量控制 (Forbes, 2024)。

挑战

该事件不仅暴露了我们互联网核心基础设施的脆弱性，还突显了两个关键问题：我们对少数服务提供商的过度依赖以及与自动化软件更新相关的风险 (CEPS, 2024)。这次事件表明，当市场由几乎所有人都依赖的少数服务提供商主导时，中断影响的严重性和广泛性。此外，令人担忧的是，许多组织完全未准备好应对大规模中断。因此，这一事件呼吁我们重新评估对有限数量服务提供商的依赖，并实施更稳健的应急计划，以减轻未来中断的影响。

讨论问题

1. 此次中断以哪些方式扰乱了酒店和旅游业？
2. 此次中断如何影响酒店的运营和宾客体验？
3. 在 IT 危机期间，关于客户支持和补偿可以吸取哪些教训？
4. 酒店和旅游业应如何使其技术基础设施多样化以降低风险？

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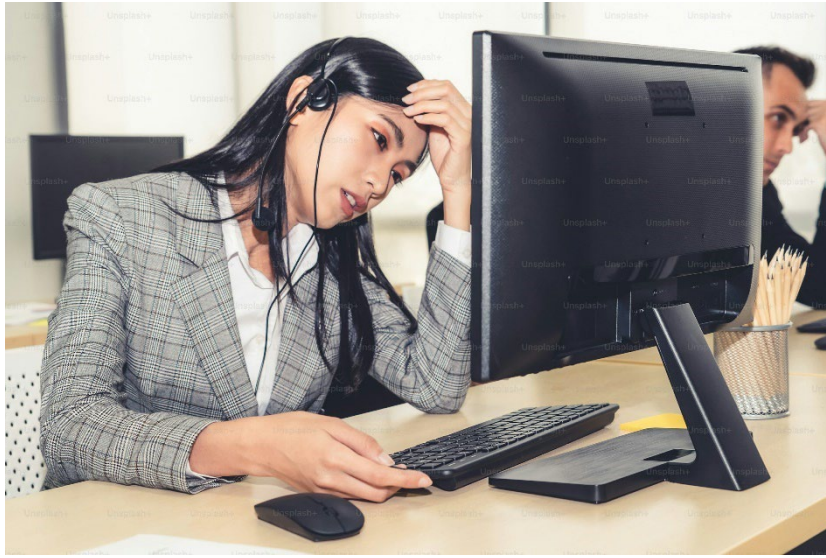
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关键词

- 酒店与旅游业
- 技术
- 过度依赖
- 系统故障
- 中断
- 网络安全
- 运营挑战

數位依賴暴露：一次更新如何擾亂全球酒店與旅遊業



Source: Unsplash (2022)

背景

在現代數位時代，技術已成為我們日常生活中不可分割的一部分，它透過簡化無數任務和流程來提升我們的生活質量。然而，以下案例揭示了我們所生活的數位化世界固有的脆弱性，突顯出我們對技術日益增長的依賴如何導致弱點和挑戰。

2024 年 7 月 19 日，一次有缺陷的更新造成了嚴重破壞，全球約 850 萬台個人電腦遭遇了關鍵性的系統故障（CEPS, 2024）。問題源於一家知名網路安全公司 CrowdStrike 發布的更新，該更新無意中影響了其所有使用全球領先桌面作業系統 Microsoft Windows 的客戶（29 News, 2024）。作為該更新（旨在改進該公司 Falcon 軟體與 Windows 之間的通信）的一部分，CrowdStrike 無意中引入了一個邏輯錯誤，導致該軟體的感測器崩潰，隨後使得整合了該軟體的 Windows 系統也出現問題（TechTarget, 2024）。

此次事件被認為是歷史上規模最大的 IT 故障之一，導致美國財富 500 強公司損失了 54 億美元（TechTarget, 2024）。CrowdStrike 服務中斷對酒店和旅遊業，尤其是航空旅行，產生了直接而嚴重的破壞性影響。2024 年 7 月 19 日，僅在美國就有超過 1,100 個航班被取消，數百個航班延誤，旅客滯留並爭先恐後地尋找替代方案，因為美國航空、聯合航空和達美航空等主要航空公司都在努力恢復營運（ABC News, 2024）。這種大範圍的中斷產生了多米諾骨牌效應，飛機和機組人員位置混亂，威脅到整個週末延誤和取消情況的延長。旅客在航站樓排起長隊，行程不確定，並且需要尋求酒店和餐食代金券或為意外開支尋求報銷。這一事件突顯了旅遊行業對 IT 故障的

脆弱性，並強調了酒店與旅遊業內部強有力的應急規劃、清晰的溝通和乘客支持系統的重要性。它也強調了旅客在此類中斷期間需要主動應對、保持資訊暢通並了解自身權利的重要性，因為即使是航空公司無法控制的事件，也可能對企業和客人產生深遠影響。

儘管 CrowdStrike 能夠在 79 分鐘內識別並部署針對該問題的修復程式，但由於故障規模巨大，該修復需要手動重啟系統，所有客戶恢復受影響系統花費了近兩週時間 (TechTarget, 2024)。事件發生後，CrowdStrike 承諾通過採用更新的測試程序、給予客戶更多決定是否更新的自主權，以及在發布每個修補程式前聘請兩名獨立承包商審查其代碼來加強質量控制 (Forbes, 2024)。

挑戰

該事件不僅暴露了我們網際網路核心基礎設施的脆弱性，還突顯了兩個關鍵問題：我們對少數服務提供商的過度依賴以及與自動化軟體更新相關的風險 (CEPS, 2024)。這次事件表明，當市場由幾乎所有人都依賴的少數服務提供商主導時，中斷影響的嚴重性和廣泛性。此外，令人擔憂的是，許多組織完全未準備好應對大規模中斷。因此，這一事件呼籲我們重新評估對有限數量服務提供商的依賴，並實施更穩健的應急計劃，以減輕未來中斷的影響。

討論問題

1. 此次中斷以哪些方式擾亂了酒店和旅遊業？
2. 此次中斷如何影響酒店的營運和賓客體驗？
3. 在 IT 危機期間，關於客戶支持和補償可以吸取哪些教訓？
4. 酒店和旅遊業應如何使其技術基礎設施多樣化以降低風險？

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關鍵詞

- 酒店與旅遊業
- 技術
- 過度依賴
- 系統故障
- 中斷
- 網路安全
- 營運挑戰