

Breach Breakdown: Solarwinds

4/28/2021

Society for Cyber Security



BREACH BREAKDOWN: Solarwinds



Solarwinds is breached

Hackers break into Solarwinds and embed malicious code onto their Orion application.



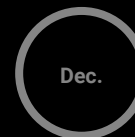
Orion is shipped to customers

The infected network management software, Orion, is shipped to over 18,000 customers.



Hackers comb through victims data

Hackers make their way around victims networks.



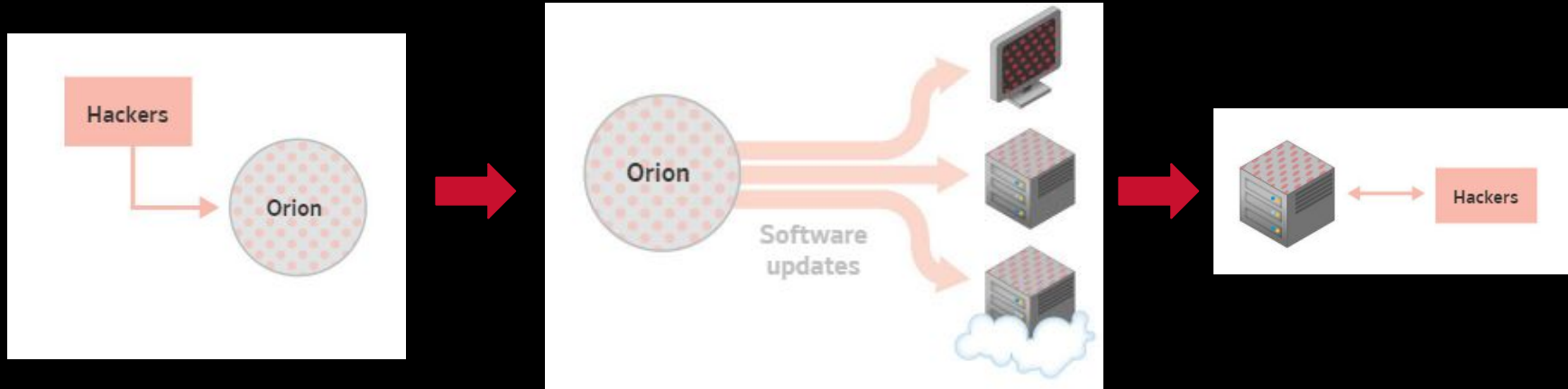
FireEye discovers malware

FireEye receives alert of a potentially compromised user and decides to investigate the incident.

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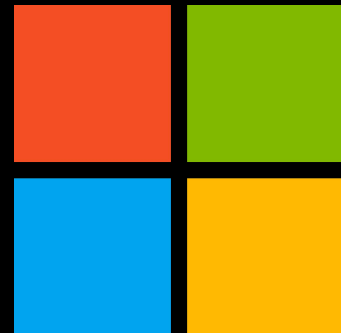
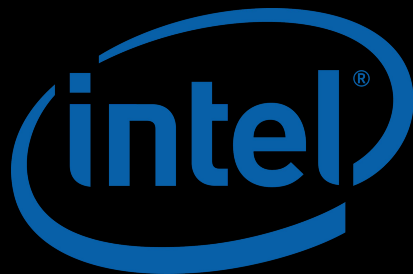
How did it happen?



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Who was affected?



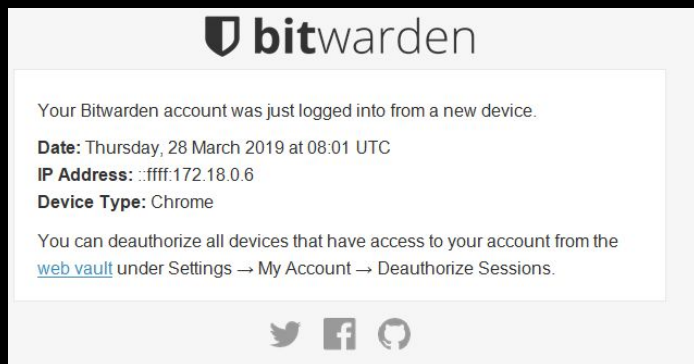
Microsoft



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How was the malware discovered?



"We looked through 50,000 lines of source code, which we were able to determine there was a backdoor within SolarWinds," said Charles Carmakal, senior vice president and chief technical officer at Mandiant, FireEye's incident response arm.

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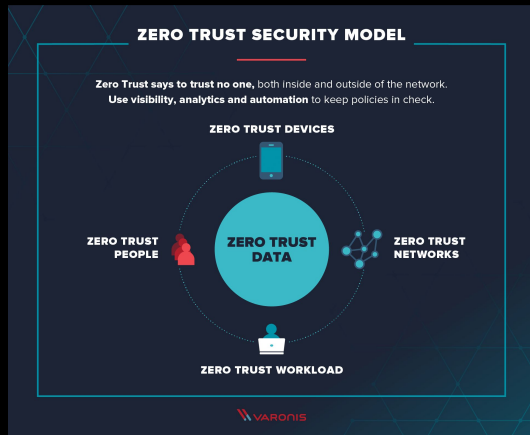
Who is behind the SUNBURST malware?



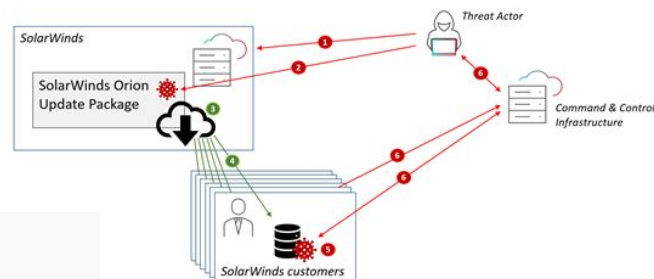
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What can we learn from this attack?



- 1 Threat actor breaches SolarWinds
- 2 Threat actor hides backdoor in Orion plugin module
- 3 SolarWinds publishes update package with backdoor
- 4 SolarWinds customer downloads and installs Orion update
- 5 Orion executes and loads backdoored plugin
- 6 Backdoor initiates contact with C2 and receives commands and exfiltrates data



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BREACH BREAKDOWN: Solarwinds - Sources and Articles

- <https://www.bloomberg.com/news/articles/2020-12-15/fireeye-stumbled-across-solarwinds-breach-while-probing-own-hack>
- https://github.com/ITAYCOHEN/SUNBURST-Cracked/blob/main/OrionImprovementBusinessLayer_modified.cs
- <https://www.wsj.com/articles/hack-suggests-new-scope-sophistication-for-cyberattacks-11608251360>
- <https://www.channele2e.com/technology/security/solarwinds-orion-breach-hacking-incident-timeline-and-updated-details/>
- <https://www.newsweek.com/solarwinds-orion-software-cyberattack-hack-victims-targets-list-1555840>
- https://media-exp1.licdn.com/dms/document/C4D1FAQEUYT4vqLzDNw/feedshare-document-pdf-analyzed/0/1619469461234?e=1619560800&v=beta&t=vkZl_x52yHqL-num_MQYGoN4D7IL9EYs0ZCDHNS7v_l
- <https://whatis.techtarget.com/feature/SolarWinds-hack-explained-Everything-you-need-to-know#:~:text=How%20did%20the%20SolarWinds%20hack,to%20hack%20the%20networks%20directly.>

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