





Scott Ksander

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- 40+ years in the IT field, 26 years at Purdue
- Wrote his first program (FORTRAN) when he was in 5th grade. Purdue degree in Computer Science.
- Areas of interest – systems development, networking, security
- In retirement, Scott writes a technology column for the Purdue Retirees Newsletter and does presentations for the Purdue Women's Club
- Scott and Peggy enjoy life with their kids and grandkids – especially on trips to DisneyWorld
- Scott grew up in Chicago and Peggy grew up in Fish Lake, Indiana (city boy meets farm girl at Purdue story – and the adventure continues ...)




Phone 11 vs iPhone Mini vs iPhone SE





iPhone 12 Pro
Best Camera Ever!

- Optical image stabilization
- Improvements in “computational photography”
- New Apple ProRAW format



LiDAR Scanner

iPhone 12 adds LiDAR Scanner | Light Detection and Ranging

The image shows a close-up of the iPhone 12 Pro's camera system. It features three large lenses arranged in a triangle, a flash, and a LiDAR scanner. A white line points from the text 'LiDAR Scanner' to the scanner's lens. Below the image, a dark grey banner contains the text 'iPhone 12 adds LiDAR Scanner' followed by a vertical line and the text 'Light Detection and Ranging' in yellow.

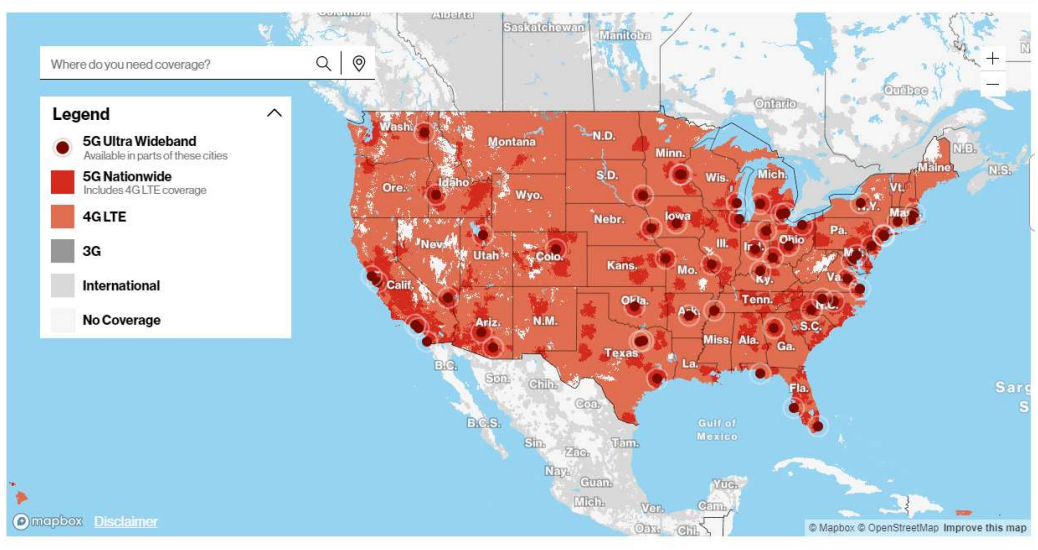
The infographic for the Apple A14 chip is centered around a dark blue chip image with the Apple logo and 'A14' text. Surrounding this central image are several key features and performance metrics:

- 70% faster ML accelerators**: Accompanied by an icon of three overlapping rectangles.
- First 5 nm chip in a smartphone**: Accompanied by a detailed chip layout diagram.
- 16-core Neural Engine**: Text displayed in large blue font above the central chip image.
- 50% faster GPU**: Accompanied by a GPU core icon and the text 'Faster than any other smartphone chip'.
- 11 trillion operations per second on the Neural Engine**: Text displayed in large blue font.
- 6-core CPU**: Accompanied by a CPU core icon.
- 80% faster Neural Engine**: Text displayed in large blue font.
- 4-core GPU**: Accompanied by a GPU core icon.
- Machine learning controller**: Text displayed in a glowing green box.
- Best machine learning platform in a smartphone**: Accompanied by a blue cube icon with 'ML' on it.
- 11.8 billion transistors**: Text displayed in large purple font over a background of circuit patterns.
- Improved memory compression**: Accompanied by an icon of three upward-pointing arrows.
- 50% faster CPU**: Accompanied by a CPU core icon and the text 'Faster than any other smartphone chip'.
- Secure Enclave**: Accompanied by a blue padlock icon.

The image displays a collection of feature tiles for the iPhone Pro series, arranged in a grid. The tiles include:


- Apple ProRAW**: A tile showing a person in a dark room, representing the new RAW image format.
- LIDAR**: A tile with the word "LIDAR" in a stylized font, representing the depth-sensing technology.
- Smart HDR 3**: A tile showing a sunset over water, representing the advanced HDR technology.
- 4K HDR**: A tile with the text "4K HDR" and "video recording with Dolby Vision", representing high-resolution video recording.
- Face ID**: A tile with the Face ID icon, representing facial recognition.
- Stainless steel flat design**: A tile showing the edges of the phone, representing the new material and design.
- MagSafe**: A tile showing the back of the phone with the MagSafe charging system.
- Pro camera system**: A central tile showing the back of the phone with the camera lenses.
- A14**: A tile with the A14 chip logo, representing the new processor.
- Ceramic Shield**: A tile with the text "Ceramic Shield", representing the new front cover material.
- Super Retina XDR**: A tile showing a globe, representing the new display technology.
- Pro camera system**: A tile with the text "Wide Telephoto Ultra Wide", representing the camera options.
- New display sizes**: A tile showing two phone screens labeled "6.7\" and "6.1\"", representing the new screen sizes.
- New colors**: A tile with the text "Pacific Blue", "Gold", "Graphite", and "Silver", representing the new color options.
- 5G**: A tile with the "5G" logo, representing the new cellular technology.
- Water and dust resistant**: A tile with the text "Water and dust resistant" and "IP68 up to 6 m", representing the new IP rating.
- Great battery life**: A tile with the text "Great battery life" and a battery icon, representing the new battery technology.

Real Benefits From “5G” Requires Coverage



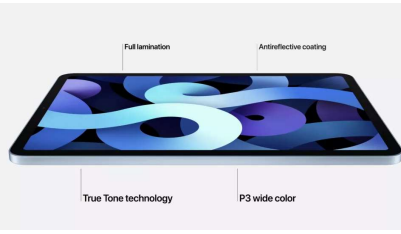


Missing From iPhone 12



iPad Air 4 (2020)

- Gigabit-class LTE
- A14 Bionic Chip
- Touch ID
- \$599 - \$829





The image shows the Zoom logo in white lowercase letters on a dark teal background. To the right of the logo are five teal icons: a vertical bar with a horizontal line, a circle with a wavy line, a square with a spiral, a vertical bar with a horizontal line, and a triangle. Below the logo is a stylized globe with pink and teal segments. Two green birds are flying on the left, and a pink arrow points to the right on the top right.

Current Topics

- Zoom brings third-party applications into its video conferencing experience - Zapps, where apps developers can build within Zoom
- OnZoom, a new Zoom event marketplace to help content creators with monetization for ticket sales


Starlink Deployment Status

- In the past two years, SpaceX has:
 - Invested hundreds of millions of dollars in Starlink to date
 - Built a U.S. world-leading manufacturing system, now building 120 satellites per month
 - Deployed over 650 satellites to date, now by far the largest satellite constellation in the world by far
 - Building gateway ground stations throughout the United States and internationally
 - On track to produce thousands of consumer user terminals per month, heading toward high-rate production
 - Begun beta service for users across multiple U.S. states



Starlink Global Broadband

- High-speed, low latency broadband to any location on Earth
 - Tested at over 100 Mbps using standard user equipment
 - Latency <40-50ms round trip to internet
- Rapid build-out of constellation – gearing to launch 120 satellites per month with SpaceX's reusable Falcon 9 launch system
- Resiliency through path diversity: phased-array antennas for satellites and user terminals
- Responsible space operation with low altitude system and autonomous collision avoidance
- Ethernet and integrated Wi-Fi capacity in user terminal
- Simple user installation—point at the sky and plug in
- Hundreds of gateways across the US to optimize service anywhere in the country

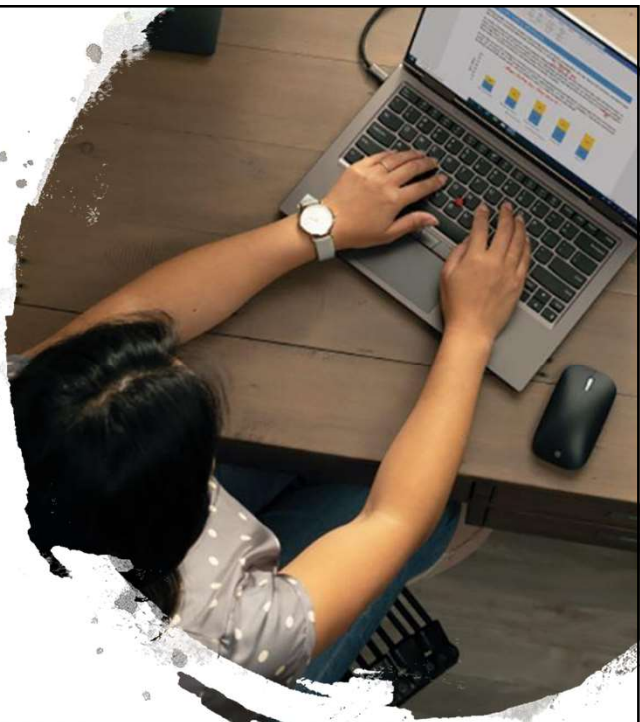



The image displays three screenshots of the Starlink web interface, arranged vertically. Each screenshot shows a dark-themed dashboard with the following data:

- Top Screenshot:** PING: 19 ms, DOWNLOAD: 103.07 Mbps, UPLOAD: 41.99 Mbps. A 'GO' button is visible on the left. Below the metrics, there are sections for 'Connectors', 'How Many Communications', 'Change Service', and 'Reconnect Starlink'.
- Middle Screenshot:** PING: 18 ms, DOWNLOAD: 102.88 Mbps, UPLOAD: 40.58 Mbps. A 'GO' button is visible on the left. Below the metrics, there are sections for 'Connectors', 'Whitelisted Communications', 'Change Service', and 'Reconnect Starlink'.
- Bottom Screenshot:** PING: 18 ms, DOWNLOAD: 102.88 Mbps, UPLOAD: 40.58 Mbps. A 'GO' button is visible on the left. Below the metrics, there are sections for 'Connectors', 'Whitelisted Communications', 'Change Service', and 'Reconnect Starlink'.

Current Topics

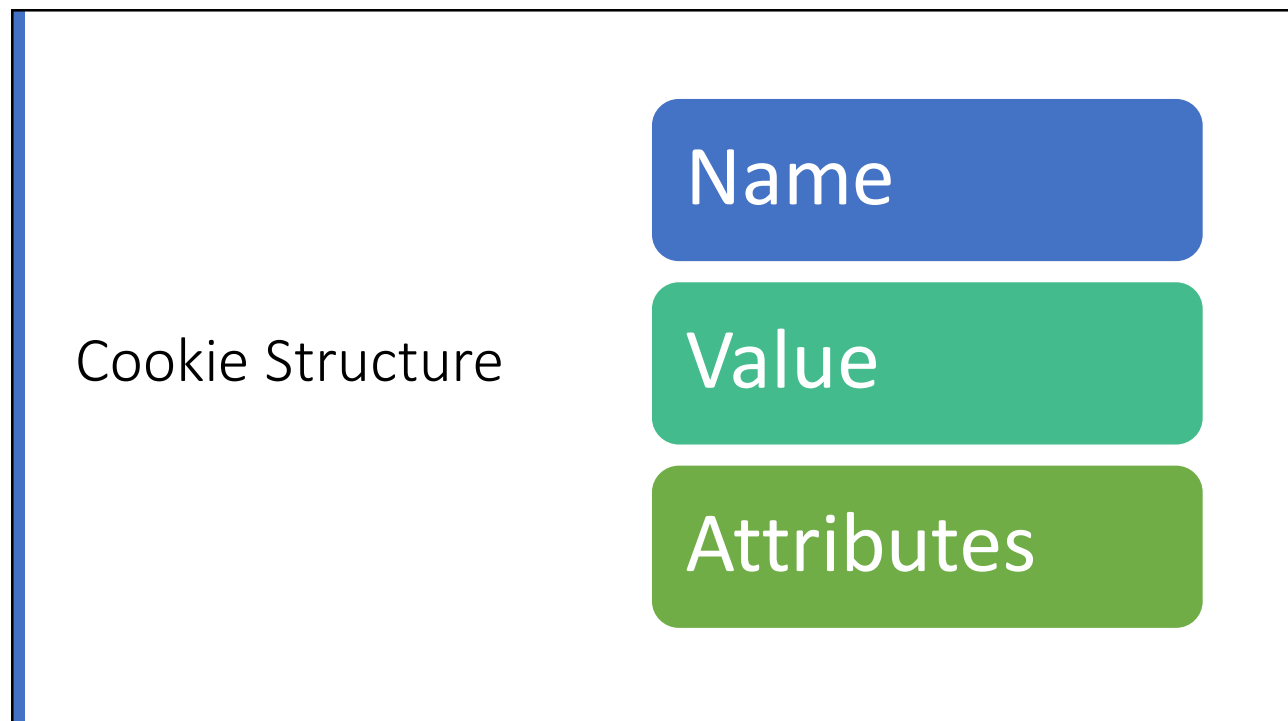
- End-of-Support for Office 2010 (October 13, 2020)
 - IT WILL STILL WORK!!
 - New file formats list x/sx can be a problem but all new version still produce backward compatible files line xls
- Office 2013 EOS is April 11, 2023
- Office 2016 EOS is October 14, 2025
- Office 2019 EOS is October 14, 2025
- Microsoft 365/Office 365 subscription is the future
- Google Apps is still a distant second





Let's Talk About Cookies

- First usage was June 1994. Based on the Unix term “Magic Cookie” which is a packet of data a program receives and sends back unchanged.
- Original motivation was for the web server to not retain transaction information due to privacy concern. Data would be kept as a Cookie by the originating browser.
- Initially Cookies were accepted by browser as default and most users had no knowledge of their usage
- Came into public view in 1996 when discussed by the Federal Trade Commission





There are 3 Basic Types of Cookies

- Session Cookies
 - “Temporary” Cookies are website “memory” since every click is a new event to the web server. A good example is your shopping cart.
- Persistent Cookies
 - These Cookies track your preferences such as language and sometimes even authentication
- Third-Party Cookies
 - Also sometimes called Tracking Cookies. These Cookies collect your behavior and are most often used for advertising purposes



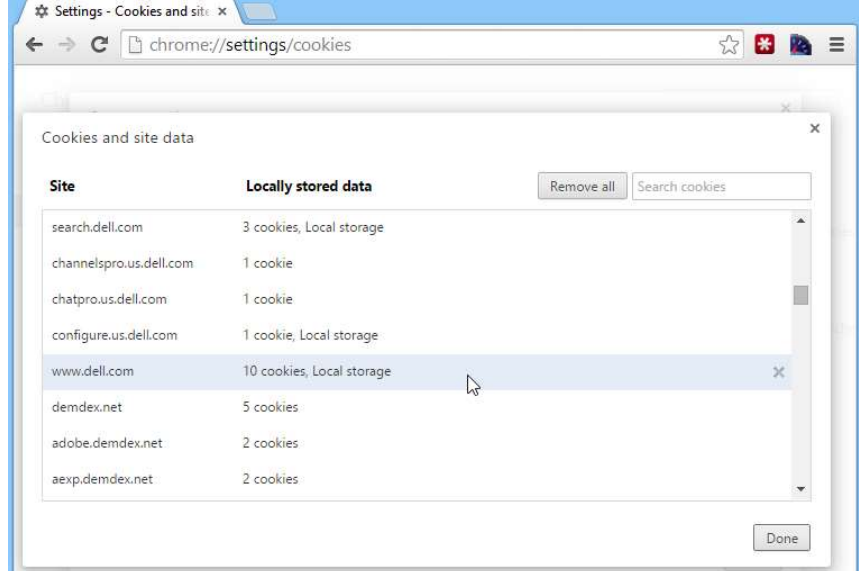
YOU CAN NOT
GET VIRUSES
FROM COOKIES

- Cookies only contain text
- They can not be executed
- A Cookie can not cause any action such as pop-ups
- Again, Cookies can not cause viruses

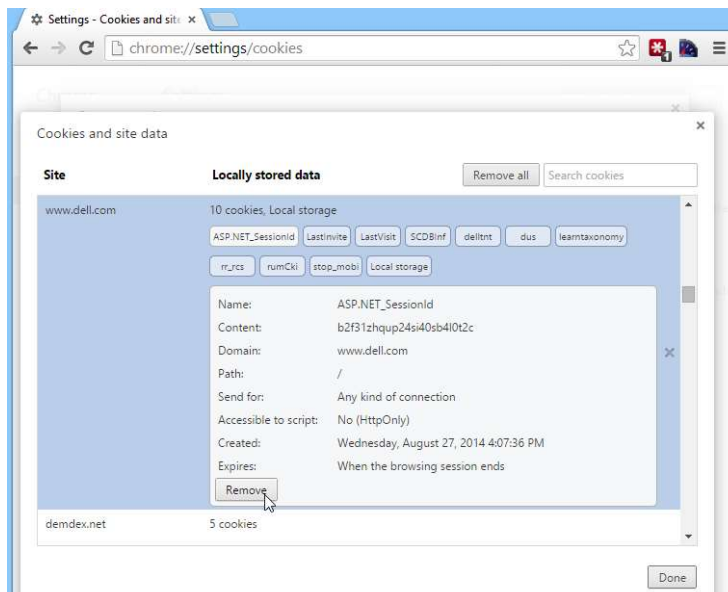
A Likely Scenario

- You login to Amazon. Your browser receives a “first-party Cookie” because it was sent directly from the Amazon domain you accessed
- On the Amazon homepage there is an ad from nosyad.com
- Your browser also accessed the ad and gets a cookie from nosyad.com
- When you login to Facebook, your browser sees an ad from nosyad.com and downloads a Cookie. You now have 2 Cookies for nosyad.com and both Amazon and Nosyad know it.

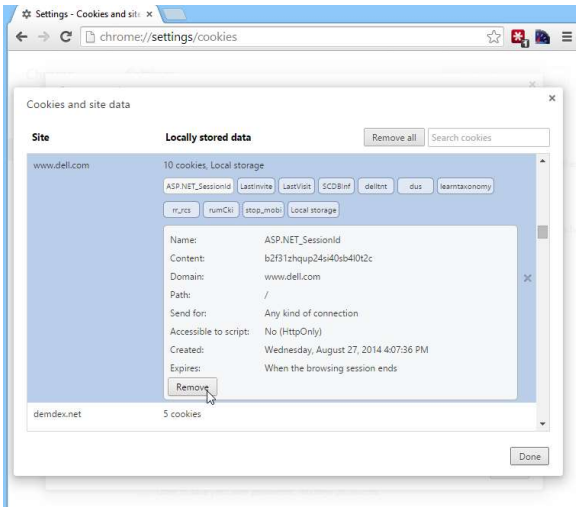
Viewing Cookies in Chrome



Contents of a Cookie



This is a Session Cookie



Content contains b2d31z

For the server, this is how one web page is known to link to another

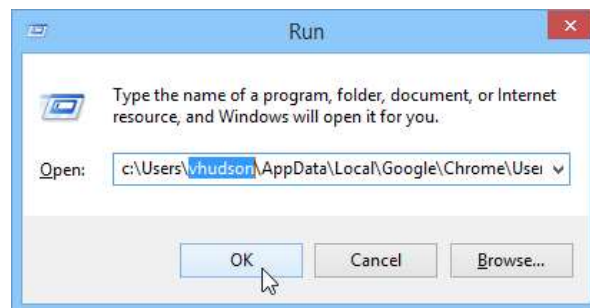
Expire attribute set to "When the browser session ends"

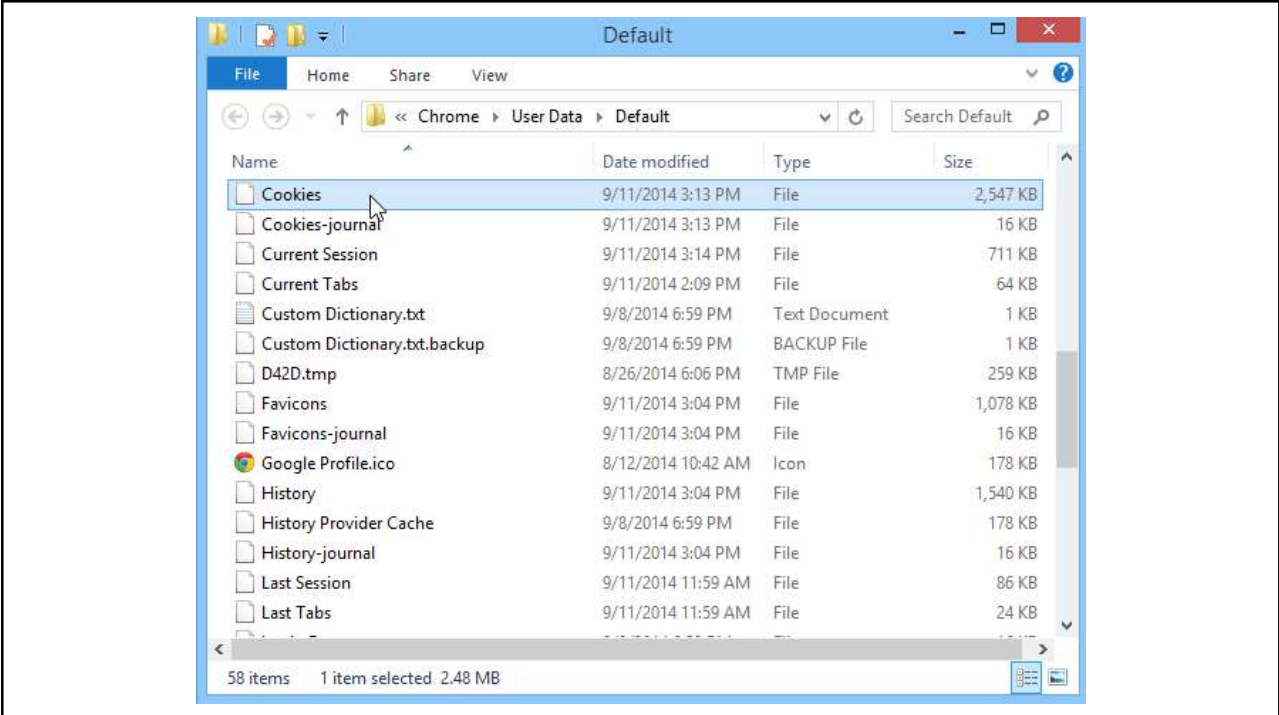
For example, this is why your Cart is lost when you close the website

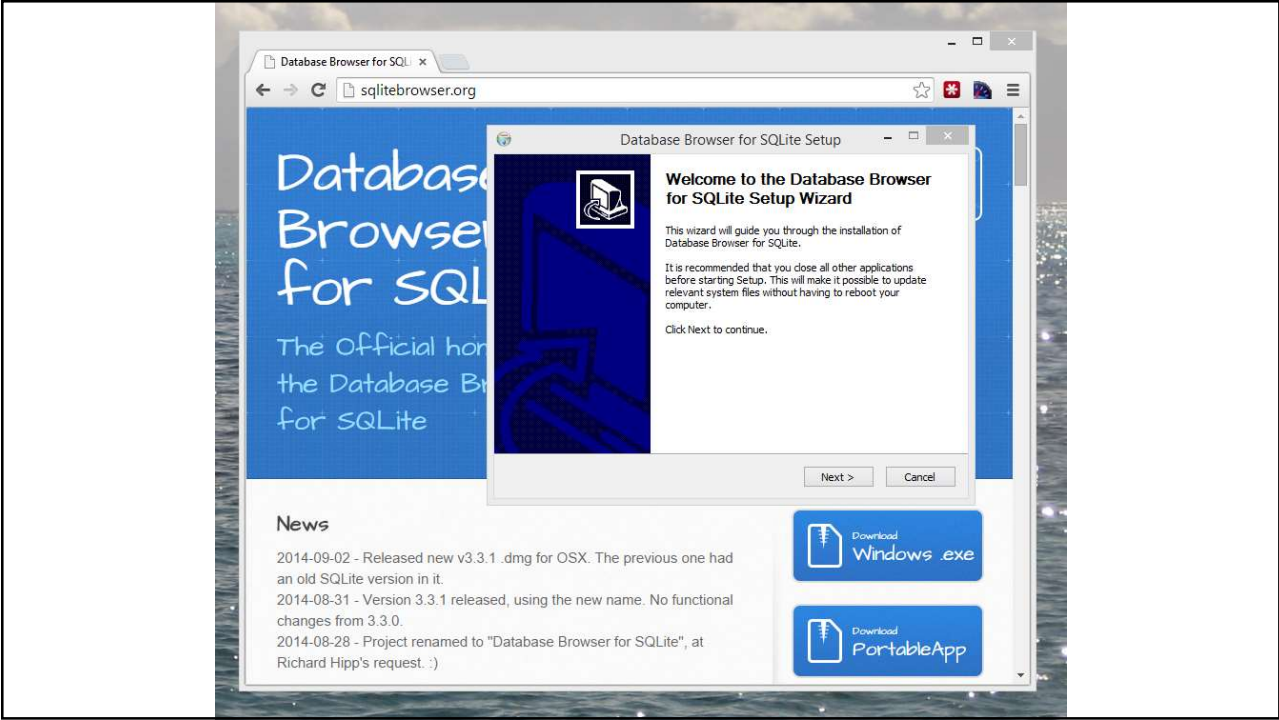
Chrome Stores Cookies as a Database

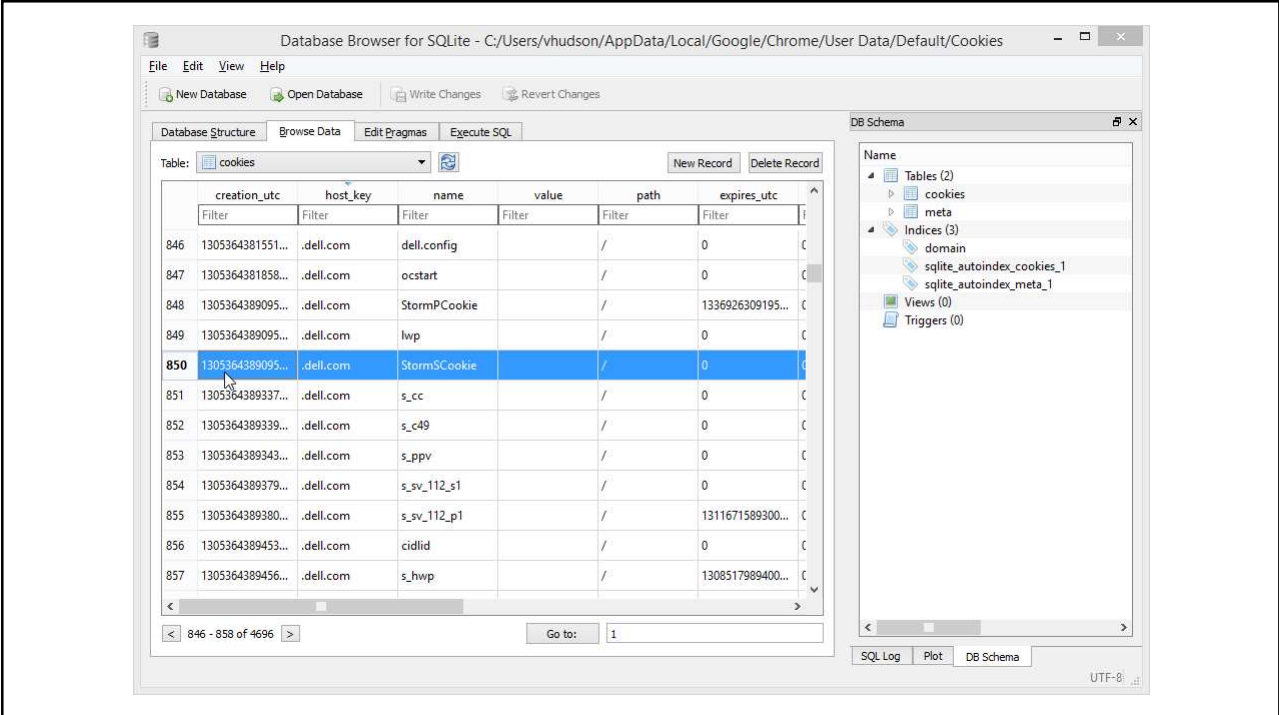


c:\Users\{**your id**}\AppData\Local\Google\Chrome\User Data\Default\

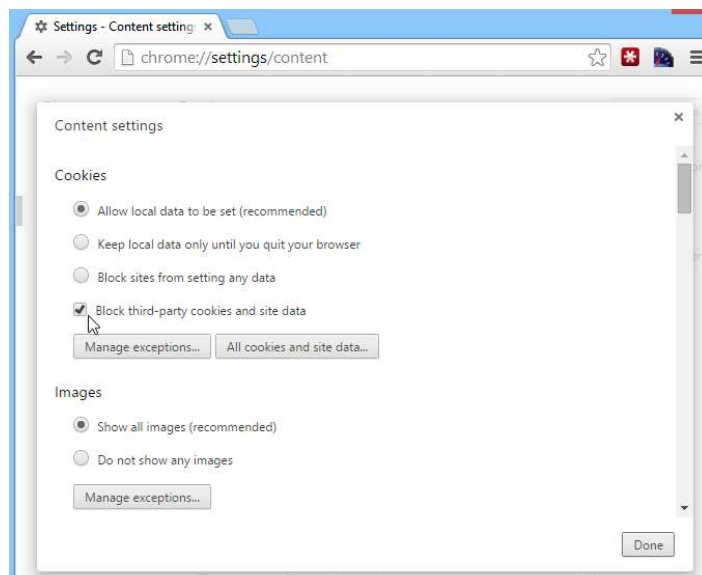








Blocking Third-Party Cookies



Bottom Line on Cookies

Roughly 40% of internet users block third-party cookies and under 5% of internet users block first-party cookies.

All in all, different people will have varying opinions on computer cookies. Some will enjoy the benefits of personal preference and memory, others may feel they are completely intrusive, and the rest will fall somewhere in-between. Understanding of the different types of computer cookies will help you decide your opinion on these data files. So, know your cookies and become familiar with your browser settings to craft the online experience that's right for you.

