6

Diagnostics and Troubleshooting

Topics:

Handling swollen Lithium-ion batteries

Like most laptops, Dell laptops use lithium-ion batteries. One type of lithium-ion battery is the lithium-ion polymer battery. Lithium-ion polymer batteries have increased in popularity in recent years and have become standard in the electronics industry due to customer preferences for a slim form factor (especially with newer ultra-thin laptops) and long battery life. Inherent to lithium-ion polymer battery technology is the potential for swelling of the battery cells.

Swollen battery may impact the performance of the laptop. To prevent possible further damage to the device enclosure or internal components leading to malfunction, discontinue the use of the laptop and discharge it by disconnecting the AC adapter and letting the battery drain.

Swollen batteries should not be used and should be replaced and disposed of properly. We recommend contacting Dell product support for options to replace a swollen battery under the terms of the applicable warranty or service contract, including options for replacement by a Dell authorized service technician.

The guidelines for handling and replacing Lithium-ion batteries are as follows:

- Exercise caution when handling Lithium-ion batteries.
- Discharge the battery before removing it from the system. To discharge the battery, unplug the AC adapter from the system and operate the system only on battery power. When the system will no longer power on when the power button is pressed, the battery is fully discharged.
- Do not crush, drop, mutilate, or penetrate the battery with foreign objects.
- Do not expose the battery to high temperatures, or disassemble battery packs and cells.
- Do not apply pressure to the surface of the battery.
- Do not bend the battery.
- Do not use tools of any type to pry on or against the battery.
- If a battery gets stuck in a device as a result of swelling, do not try to free it as puncturing, bending, or crushing a battery can be dangerous.
- Do not attempt to reassemble a damaged or swollen battery into a laptop.
- Swollen batteries that are covered under warranty should be returned to Dell in an approved shipping container (provided by Dell)—this is to comply with transportation regulations. Swollen batteries that are not covered under warranty should be disposed of at an approved recycling center. Contact Dell product support at https://www.dell.com/support for assistance and further instructions.
- Using a non-Dell or incompatible battery may increase the risk of fire or explosion. Replace the battery only with a compatible battery purchased from Dell that is designed to work with your Dell computer. Do not use a battery from other computers with your computer. Always purchase genuine batteries from https://www.dell.com or otherwise directly from Dell.

Lithium-ion batteries can swell for various reasons such as age, number of charge cycles, or exposure to high heat. For more information on how to improve the performance and lifespan of the laptop battery and to minimize the possibility of occurrence of the issue, search Dell Laptop Battery in the Knowledge Base Resource at www.dell.com/support.

Bluetooth

This section outlines the instruction to pair a Bluetooth device with your Chrome devices.

Bluetooth technology lets you connect devices wirelessly over short distances. To use the Bluetooth accessories with your Chromebook, first check if your Chromebook supports Bluetooth. You will then need to pair it with the accessory.

To see if you can use the Bluetooth accessories with your Chromebook, click the status area in the lower right corner, where your account picture appears. If you see the Bluetooth icon bt on or bt off in the menu, your Chromebook supports Bluetooth. If you do not see either of these icons, your Chromebook does not support Bluetooth. If your Chromebook supports Bluetooth, it can connect to a wide range of the Bluetooth accessories, including the following:

- Keyboards
- Mice
- Speakers
- Headphones
- Headsets (audio only)

To connect a Bluetooth device with your Chromebook, you will need to pair them. Here is how:

1. Sign in to your Chromebook.
2. Click the status area in the lower-right corner, where your account picture appears.
3. Select your Bluetooth status in the menu that appears.
4. If Bluetooth is disconnected, click the disconnected icon bt off or click Enable Bluetooth in the menu. Your Chromebook will automatically begin scanning for available Bluetooth devices.
5. Pick the device you want to add from the list of available Bluetooth devices and click **Connect**.
6. Follow the instructions on the screen to connect your Bluetooth device.
   - If you are connecting a mouse, no PIN is normally required. If you are prompted for a PIN, enter the PIN for your mouse using your Chrome device's keyboard.
   - If you are connecting a keyboard, enter the randomly generated PIN on the keyboard you wish to pair and press **Enter**.

To confirm that your Bluetooth device is connected, check the Bluetooth status. You should see your device listed there.

NOTE: Just got your Chromebook or Chromebox? If you are turning on your Chrome device for the first time and you have a Bluetooth device nearby that is also turned on, your Chrome device may automatically detect the device and show you steps to pair it. You will see these instructions only if your chrome device does not already have a similar device connected or its functionality is not built in, like a keyboard or trackpad.

Basic troubleshooting

This page contains all the information for Dell Chromebook 13 (3380) basic troubleshooting.

NOTE: Refer to **Google Help Center** for the online troubleshooter.

NOTE: Resetting the Chromebook, also known as Powerwash, can be attempted before Recovering the Chromebook. Recovering the Chromebook is the last resort.

Power issues

Table 8. Power Issue

Power issues	
Issue	**Possible solutions**
Chromebook does not Power On	If the Chromebook does not turn on, follow these steps: 1. Remove all external devices. a. If the Chromebook starts, reconnect devices one at a time while restarting the computer to figure out which device is causing the problem. You are done.

Table 8. Power Issue

Power issues	
Issue	**Possible solutions**
	b. If the Chromebook still does not start or exhibits the same problem, do not reconnect anything, and continue troubleshooting. 2. The battery life might be too low. Plug the Chromebook into the AC adapter and let it charge for at least an hour and try turning it on again. **NOTE:** When a new Chromebook is used for the first time, the battery is still in shipping mode. To resolve this issue, turn off the Chromebook and plug in the AC adapter and turn on the Chromebook again. 3. Depending on the Chromebook you have, you may see a power indicator light close to the charging port. If you have let the Chromebook charge and the light is not coming on, perform a hard reset by pressing Refresh + Power. 4. Use a different AC adapter with the same power voltage. 5. Remove the AC adapter and turn on with the battery power only. 6. If the above steps did not resolve the issue, perform a hard reset. **NOTE:** You can perform a hard reset by pressing Refresh + Power.

Display issue

Table 9. Display issue

Display issue	
Issue	**Possible solutions**
Screen is Blank	If the Chromebook's screen is blank, try the following troubleshooting steps to resolve the issue, checking to see if the screen turns on after each step: 1. Make sure the Chromebook is on. If you are using the battery, plug the Chromebook in and press the power button. 2. Restart the Chromebook by holding the power button down until the device turns off, then turn it back on again. 3. Reset or Recover the Chromebook.

Audio, screen and camera issues

Table 10. Audio, screen, and camera issues

Audio, screen and camera issues	
Issues	**Possible solutions**
Audio issues	If you hear static or the volume from the speakers is very low when attempting to listen to audio: 1. Make sure the device is not muted. Try adjusting the volume. 2. Try rebooting the Chromebook. 3. Try playing audio from various sources, including YouTube and audio files stored locally on the Chromebook.

Table 10. Audio, screen, and camera issues (continued)

Audio, screen and camera issues	
Issues	**Possible solutions**
	If the speakers are not responding when attempting to listen to audio: 1. Unplug the device from all cables (USB, headphones, and displays). 2. Try playing audio from various sources, including YouTube and audio files stored locally on the Chromebook. 3. Try rebooting the Chromebook. 4. If audio still does not respond, try Reset or Recover the Chromebook
Screen issues	If the screen is not operating properly (images are too dark or no image is appearing): 1. Try adjusting the brightness with the brightness keys at the top of the keyboard. 2. In the status area in the bottom-right of the screen, check the display and make sure there are no issues with a mirrored or extended display. 3. Try rebooting the Chromebook 4. If the screen issues persist, try Reset or Recover the Chromebook.
Camera issues	If the camera is not operating properly (blurry images or poor performance): 1. Check that the camera is not being blocked or covered by a privacy screen or other obstruction. 2. Try using different apps that use the camera. Try a Google+ Hangout or the onboard camera app 3. Try rebooting the Chromebook 4. If the camera issues persist, try Reset or Recover the Chromebook.

Bluetooth issue

Table 11. Bluetooth issue

Bluetooth issue	
Issue	**Possible solutions**
Bluetooth issues	If you run into issues while attempting to pair or use a Bluetooth device with the Chromebook, try the following steps to resolve the issue: 1. First, make sure that the Bluetooth device you're trying to pair is supported by the Chromebook. Check with the device vendor for compatibility. Chrome does not support driver installation, so specialized devices may not work. 2. Try disabling and re-enabling Bluetooth connectivity from the status area in the lower-right corner. 3. Try restarting the Chromebook. 4. If you are still encountering issues with Bluetooth, try Reset or Recover the Chromebook.

Touchpad and Hotkeys Issues

Table 12. Touchpad / Hotkeys Issues

Touchpad / Hotkeys issues	
Issue	**Possible solutions**
Touchpad not responding	If the touchpad has stopped responding, try the following steps to resolve the issue. Try moving the cursor after each step: 1. Tap the Esc key several times. 2. Drumroll the fingers across the touchpad for a few seconds. 3. Restart the Chrome OS by holding down the power button until the device turns off, and then turn it back on again. 4. If the cursor still does not move when using the touchpad, try logging in from the Guest account using the tab key to navigate. 5. If users experience touchpad issues with the account that is not the owner (primary) account, delete the user account and re-create it. Again, use the tab key to navigate. 6. If none of the above steps work, try Reset or Recover the Chromebook.
Top row of keys (Hotkeys) not responding	If a hotkey (like the volume or brightness keys) is not responding, try the following troubleshooting steps, making sure to test the keys after each one: 1. If the affected key is volume or brightness, check to make sure you are not at the upper or lower limit for that setting. 2. If the backward or forward buttons do not work, check the same icons in a web browser are not grayed out. For example, if the back button on a web page is grayed, this is because the browser is not aware of a page to move backward to. 3. Restart the Chrome OS by holding down the power button until the device turns off, and then turn it back on again. 4. Try using the keys in the Guest account. 5. If users experience hotkey issues with the account that is not the owner (primary) account, delete the user account and re-create it. 6. If none of the above steps work, try Reset or Recover the Chromebook.

Chrome OS issue

Table 13. Chrome OS issue

Chrome OS issues	
He's Dead, Jim ! error message	If the Chromebook becomes slow or unresponsive, and the **He's Dead, Jim!** error message appears, the system could be running low on memory. **NOTE:** If you terminated the process using Google Chrome's Task Manager, the system's task manager, or with a command line tool, this message will appear as well. 1. If the page wasn't ended intentionally, reload the page to continue. If the message continues to appear, try closing inactive tabs or other programs to free up more memory.

Table 13. Chrome OS issue (continued)

Chrome OS issues	
	2. If issue persists, please see He's Dead, Jim! from theGoogle knowledge base
Chrome OS is missing or damaged	If the Chromebook does not start and displays the message, **Chrome OS is missing or damaged. Please insert a recovery USB stick into the USB ports on the device**: Perform a system recovery. See performing Recover Chromebook for more information.
Chrome OS stops responding and nothing moves on the computer display	If the Chrome OS stops responding and nothing moves on the computer display: 1. Turn off the computer. 2. Disconnect all peripheral devices and remove all USB devices and media cards 3. Disconnect the AC adapter. 4. Press and hold the power button for 10 seconds. 5. Reconnect the AC adapter and turn on the system. 6. If issue persists, please perform a Reset or Recover the Chromebook.
Lost / Forget Sign in password (Chrome OS)	If you lost/forget the sign in password to the Chromebook: 1. 1. Check if this is a managed device (Enterprise enrolled device). a. If this is a managed device, please contact the administrator to have them reset the password via Google Admin Console. b. If this is not a managed device, please proceed with the following steps. 2. Sign in as guest or use a different PC. 3. Open an internet browser and navigate to https://www.google.com/accounts/recovery/. 4. Select I don't know my password, and then enter the e-mail address that you use to sign in to Google. 5. Click Continue and follow the on-screen instructions to reset the password.
Other Chromebook lock up or freeze symptoms that are not listed here.	If none of the above symptoms match the Chromebook's issue, refer to Google Help Center for the online troubleshooter and more help.

Chrome commands

Chrome:// pages contain experimental features, diagnostic tools, and detailed statistics. They are hidden in Chrome's user interface. **Chrome://about** page lists all Chrome's internal pages. To view all the commands, type **chrome://about** in the Chrome browser URL as shown below:

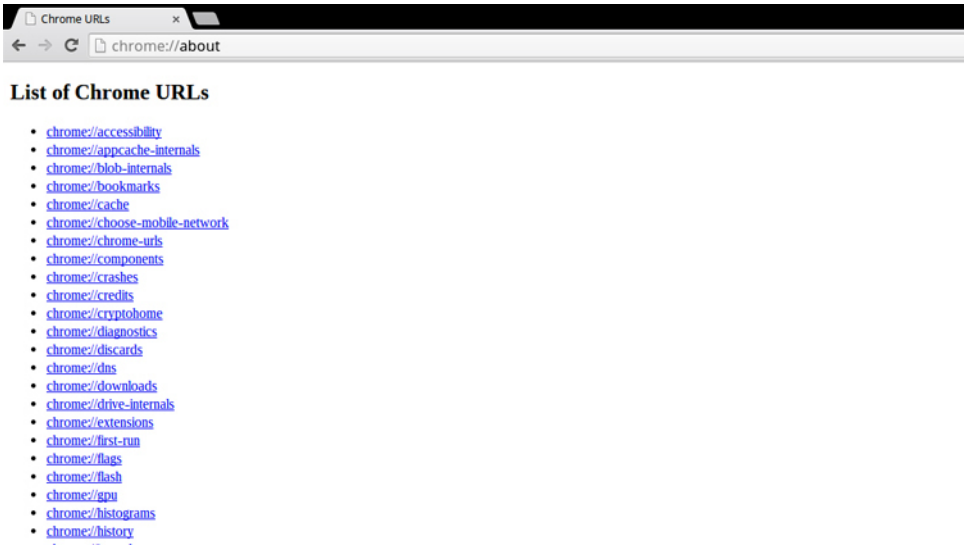
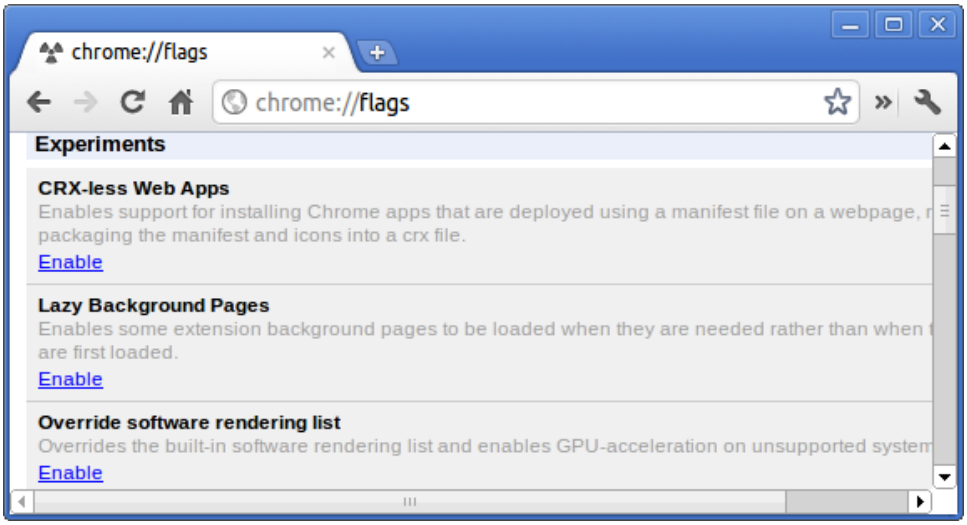


Table 14. Chrome browser shortcuts

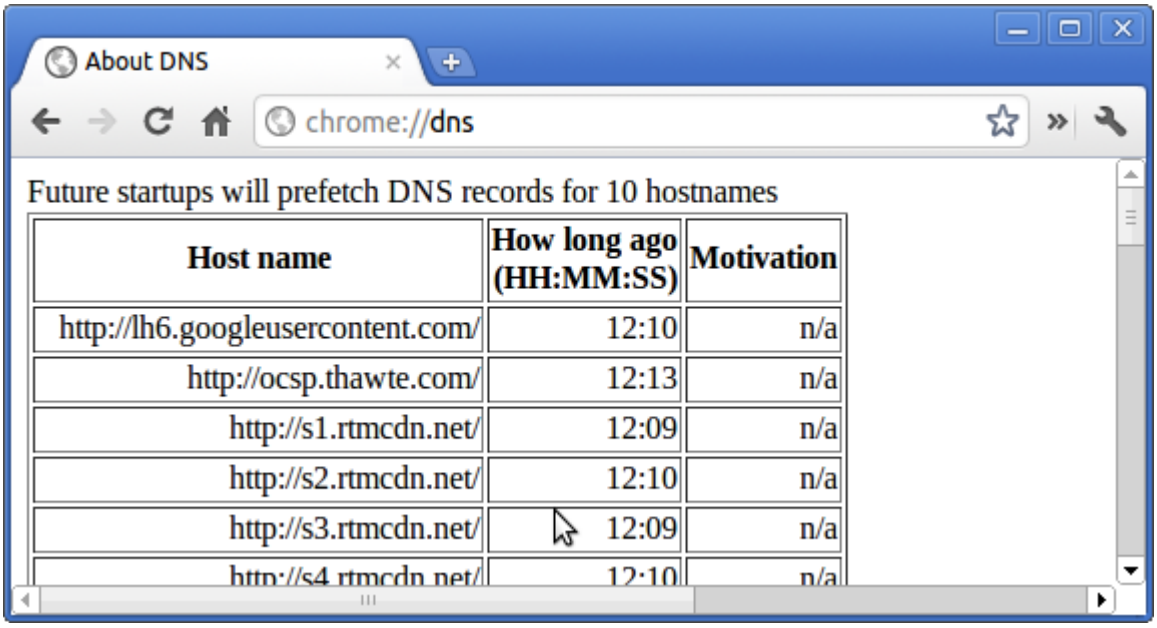
Purpose	Browser Shortcut	Explanation
System Information	`chrome://system/`	"Who am I".. BIOS version, and so on
Basic Connectivity Diags	`chrome://diagnostics/`	Test for NIC and Internet connection
Chrome Information	`chrome://version`	More "Who am I" type of stuff
Create Recovery USB Stick	`chrome://imageburner/`	Google's version of DBAR/DBRM
Chrome Flags	`chrome://flags`	Experimental features beyond the scope of what Dell supports
Memory Troubleshooting	`chrome://memory`	View running processes and memory utilization
Module Load	`chrome://conflicts`	Shows conflicts of all modules loaded by Chrome
Chrome Sync Status	`chrome://syncchrome://sync-internals`	Allows troubleshooting of connected accounts
Connectivity Troubleshooting	`chrome://net-internals`	Comprehensive network/connectivity diagnostics, including DNS analysis, Waterfall and Bandwidth diagnostics, and so on
Histogram	`chrome://histograms`	Actual work and I/O audit
Credits	`chrome://credits`	References to all module/libs contributions and their respective wiki/ license URLs
Crash Reporting	`chrome://crashes`	Shows detailed crash report, if the feature was enabled
Apps RAM Utilization	`chrome://appcache-internals`	Detailed memory usage for apps/ extensions, especially handy for 2 GB Chromebooks

Following are the 12 most helpful chrome:// commands that you should know:

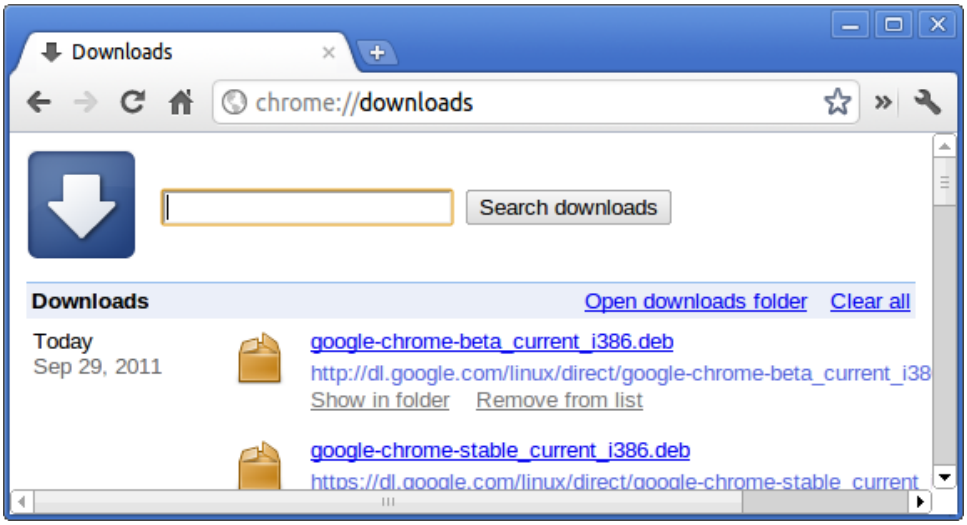
1. **chrome://flags** : From here you can enable some of the experimental features that are hidden in the Google Chrome browser. Please note that as mentioned on this page, since these are experimental, these might not work as expected and might cause issues. Enable these features, and use it at your own risk.



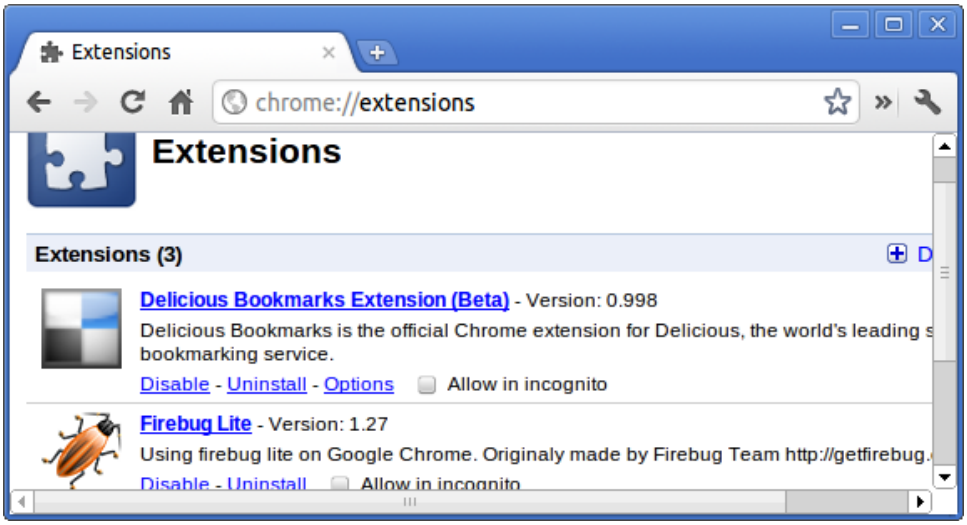
2. **chrome://dns**: This displays the list of host names for which the browser will pre-fetch the DNS records.



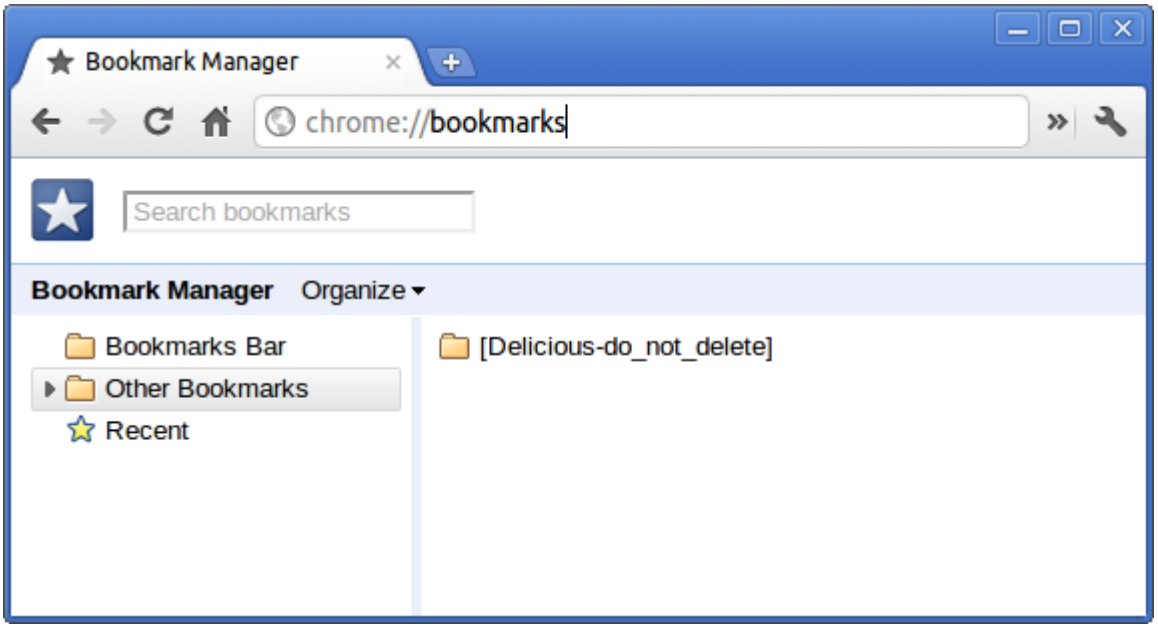
3. **chrome://downloads**: This is also available from the Menu > Downloads. Shortcut key is Ctrl+J.



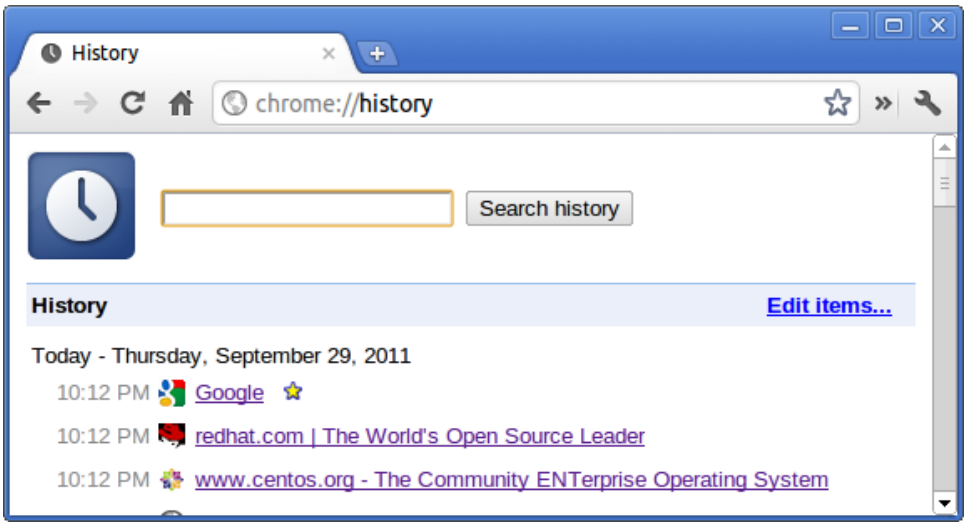
4. **chrome://extensions**: This is also available from the Menu > Tools > Extensions.



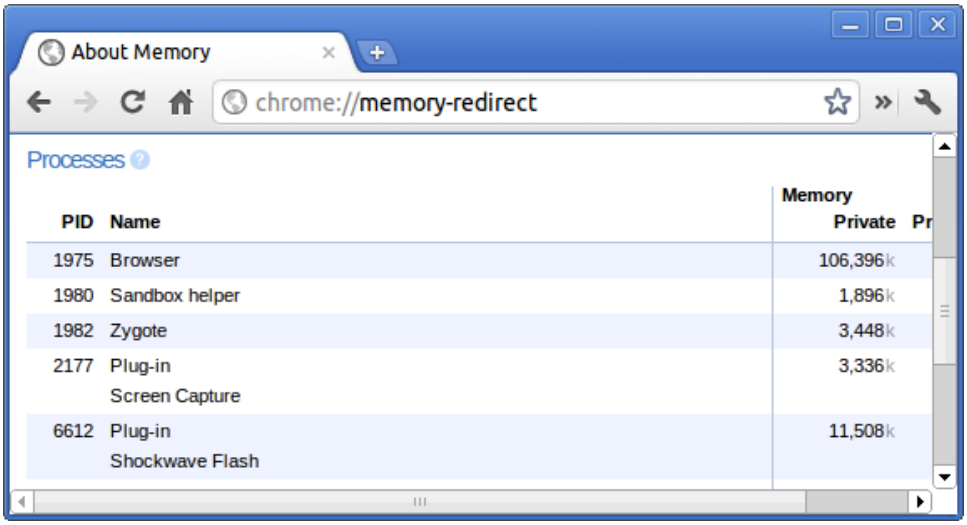
5. **chrome://bookmarks**: This is also available from the Menu > Bookmarks > Bookmark Manager. Short cut key is Ctrl+Shift+O.



6. **chrome://history**: This is also available from the Menu > History. Short cut key is Ctrl+H.

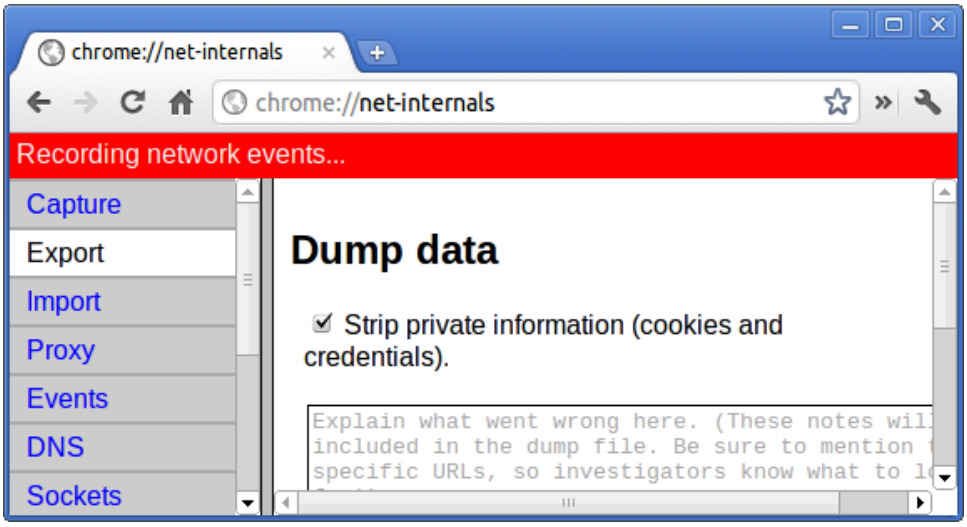


7. **chrome://memory**: This will redirect to “chrome://memory-redirect/”. This will display the memory used by the Google Chrome browser. This also displays all the process related to browser with their PID, process name, and the memory it takes.

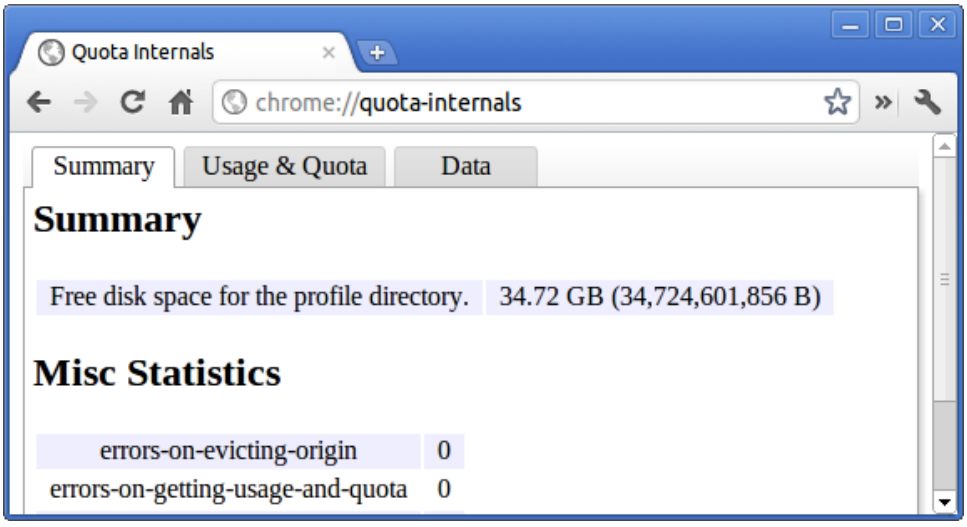


8. **NOTE:** Net-internals events viewer and related functionality has been removed. Please use Chrome://net-export to save netlogs and the external Catapult netlog_viewer to view them.

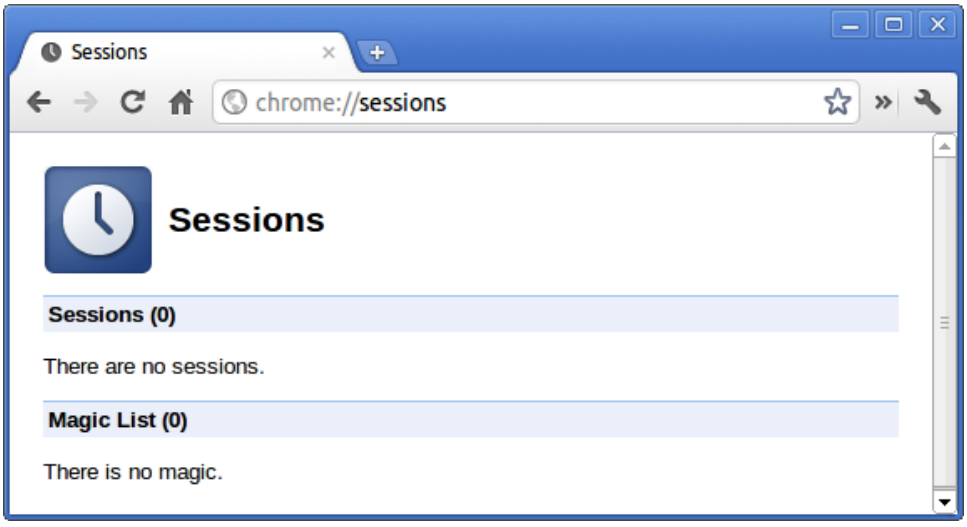
chrome://net-internals: This displays all networking related information. Use this to capture network events generated by the browser. You can also export this data. You can view DNS host resolver cache. One of the important features in this feature is “Test”. If a URL failed to load, you can go to “chrome://net-internals” > click on “Tests” tab > type that URL which failed, and click on “Start Test”, which does some test and report you why that URL failed. chrome://plugins/.



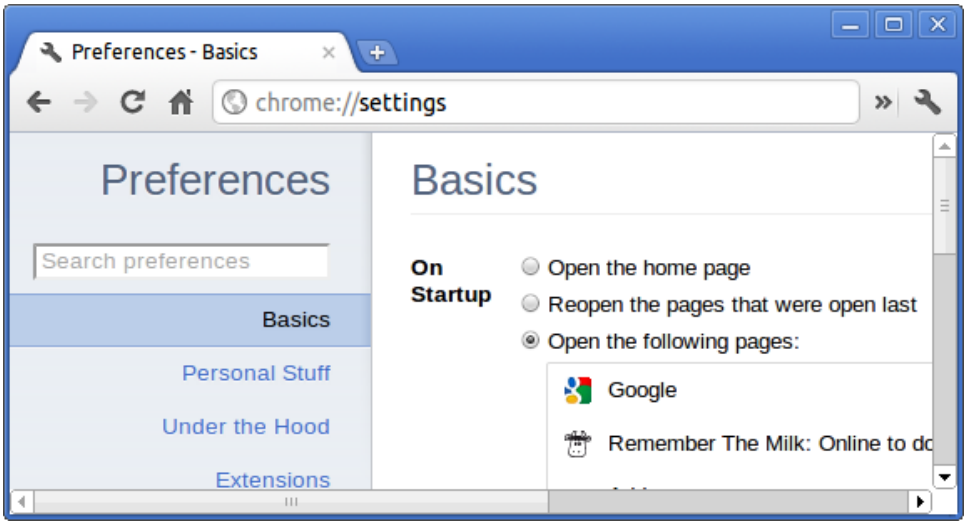
9. **chrome://quota-internals**: This gives information about the disk space quote used by the browser, including the breakdown of how much space the individual websites took under temporary files.



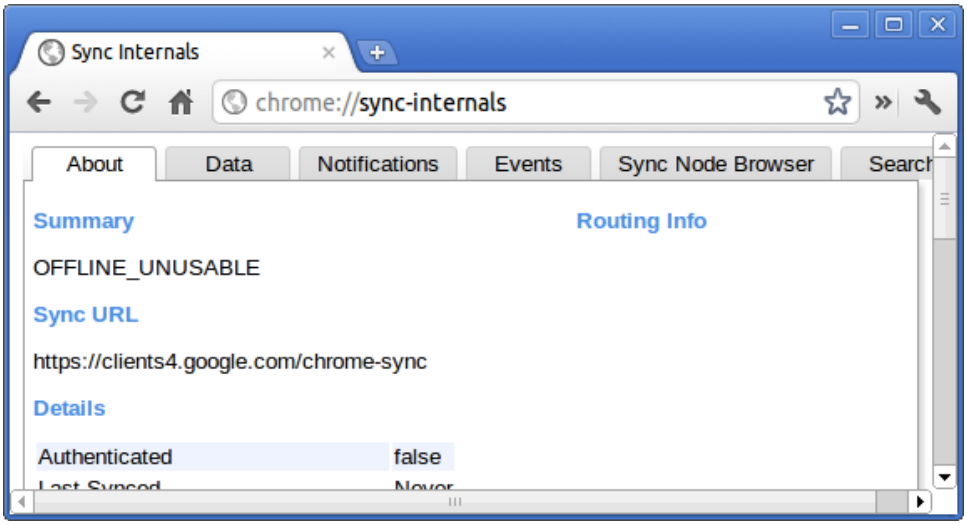
10. **chrome://sessions**: This displays the number of sessions and magic list that are currently running.



11. **chrome://settings**: This is also available from the Menu > Options (on Windows), and Menu > Preferences (on Linux). From here you can control various browser related settings.



12. **chrome://sync-internals**: This gives information about the Chrome sync feature, including the Sync URL used by Google, and sync statistics.

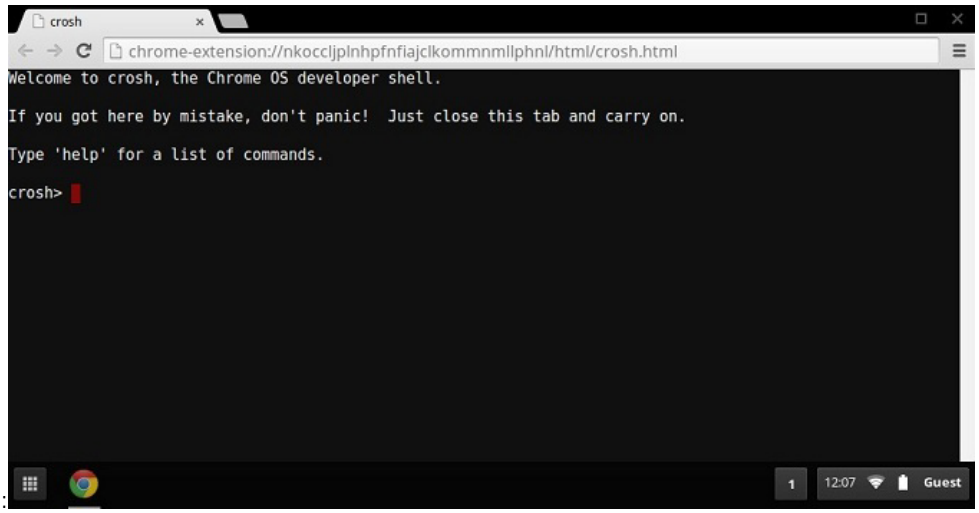


CROSH

This topic covers the information that you need to know for the Chrome Shell (CROSH). CROSH and the Google Chrome URL commands provide some troubleshooting tools, information, and advanced settings.

The Chrome OS does not support ePSA, Dell BIOS, the F12 boot menu, or DellConnect. There are no preboot diagnostics. All troubleshootings must be done inside the OS. Chrome Shell (CROSH) and the Chrome URL commands provide some troubleshooting tools, information, and advanced settings. CROSH is a command line interface similar to the Linux BASH or Windows command (cmd.exe) terminals. Chrome OS is based on Linux, but CROSH does not recognize most Linux commands. The most useful commands for troubleshooting are memory test, storage_test_1, storage_test_2, ping, and tracepath. Ping works differently than it does in Windows. By default, it repeats until you press **<Ctrl> + <C>**, and it does not show any statistics. The tracepath command is similar to the Windows traceroute command. A detailed explanation of the commands can be viewed below, by typing help, or help_advanced in CROSH.

1. Open the Chrome browser.
2. Press **<Ctrl> + <Alt> + <T>** The interface appears as shown in the screenshot below:



3. Type in the CROSH command for diagnostics. Type **'help'** for a list of available commands. Type **help_advanced** to display a complete list of commands for debugging purposes

Alternately, refer to CROSH Commands for the list of the CROSH commands available for diagnostics.

CROSH commands

The table below lists the available commands in Chrome Shell (CROSH).

Table 15. Help commands

Command	Purpose
`exit`	Exits the CROSH Shell.
`help`	Displays this help.
`help_advanced`	Displays the help for more advanced commands, which are used for debugging.
`ping`	[-c count] [-i interval] [-n] [-s packetsize] [-W waittime] — Sends ICMP ECHO_REQUEST packets to a network host. If it is "gw", then the next hop gateway for the default route is used. It works like the ping command on other operating systems. Press **<Clrt> + <C>** to stop the ping process or halt any other command in CROSH.
`ssh`	[optional args...] — Starts the ssh subsystem if invoked without any arguments. "ssh <user> <host>", "ssh <user> <host> <port>", "ssh< user>@<host>". or "ssh <user>@<host> <port>" connect without entering the subsystem
`ssh_forget_host`	Removes a host from the list of known ssh hosts. This command displays a menu of known hosts and prompts for the host to forget.
`top`	Sets the chaps debug logging level. No arguments start verbose logging

Table 16. Advanced help command

Command	Purpose
`battery_test`[<test length>]	Tests the battery discharge rate for a given number of seconds. No argument defaults to a 300 s test.
`bt_console` [<agent capability>]	Enters a Bluetooth debugging console. The **Optional** argument specifies the capability of a pairing agent the console provides; see the **Bluetooth Core** specification for valid options.
`chaps_debug` [start|stop|<log_level>]	Sets the chaps debug logging level. No arguments will start verbose logging.
`connectivity`	Shows connectivity status.
`experimental_storage`<status|enable|disable>	Enables or disables experimental storage features.
`ff_debug` [<tag_expr>] [--help] [--list_valid_tags] [--reset]	Adds and removes flimflam debugging tags.
`memory_test`	Performs extensive memory testing on the available free memory.
`modem` <command> [args...]	Interacts with the 3G modem. Run **modem help** for detailed help.
`modem_set_carrier carrier-name`	Configures the modem for the specified carrier.
`network_diag`[--date] [--link] [--show-macs] [--wifi] [--help] [--wifi-mon] <host>	Performs a suite of network diagnostics and saves a copy of the output to your download directory
`network_logging` <wifi|cellular|ethernet>	Enables a predefined set of tags useful for debugging the specified device.
`p2p_update` [enable | disable]	Enables or disables the peer-to-peer (P2P) sharing of updates over the local network. This will both attempt to get updates from other peers in the network and shares the downloaded updates with them. Run this command without arguments to see the current state.

Table 16. Advanced help command (continued)

Command	Purpose
`rlz` < status | enable | disable>	Enables or disables RLZ.
`rollback`	Attempts to roll back to the previous update cached on your system. Only available on non-stable channels and non-enterprise enrolled devices. Please note that this will power wash your device.
`route` [-n] [-6]	Displays the routing tables.
`set_apn` [-n <network-id>] [-u <username>] [-p <password>] <apn>	Sets the APN to use when connecting to the network specified by <network-id>. If <network-id> is not specified, use the network-id of the currently registered network.
`set_apn - c`	Clears the APN to be used, so that the default APN is used instead.
`set_arpgw` <true | false>	Turns on the extra network state checking to make sure the default gateway is reachable.
`set_cellular_ppp` [-u <username>] [-p <password>]	Sets the PPP username and/or password for an existing cellular connection. If neither -u nor -p is provided, this shows the existing PPP username for the cellular connection.
`set_cellular_ppp -c`	Clears any existing PPP username and PPP password for an existing cellular connection.
`sound` <command> <argument>	Low level sound configuration. Can be used to play/record audio samples and enable beam forming on Pixel. **sound beamforming <on|off >** will enable/disable the feature. **sound record [duration]** will start recording. **sound play <filename>** plays the recorded audio samples
`storage_status`	Reads storage device SMART health status, vendor attributes, and error logs.
`storage_test_1`	Performs a short offline SMART test.
`storage_test_2`	Performs an extensive readability test.
`syslog` <message>	Logs a message to system log.
`tpcontrol`{status | taptoclick [on|off] sensitivity [1-5] | set <property>< value>} tpcontrol {syntp [on|off]}	Allows the user to manually adjust advanced touchpad settings.
`tracepath` [-n] <destination>[/port]	Traces the path/route to a network host.
`update_over_cellular` [enable|disable]	Enables or disables the auto updates over cellular networks. Run without arguments to see the current state.
`upload crashes`	Uploads available crash reports to the crash server.
`wpa_debug` [<debug_level>] [--help] [--list_valid_level] [--reset]	Sets the wpa_supplicant debugging level.
`xset m` [acc_mult[/acc_div] [thr]] xset m default	Tweaks the mouse acceleration rate.
`xset r rate` [delay [rate]]	Tweaks the autorepeat rates. The delay is the number of milliseconds before autorepeat starts. The rate is the number of repeats per second.
`xset r` [keycode] < on|off >	Turns autorepeat on/off. If a keycode is specified, it affects only that key. If not specified, it affects global behavior.

Commonly used CROSH command

This page contains information about the most commonly used CROSH commands to diagnose the Dell Chromebook 13 (3380).

Below are some of the most commonly used CROSH commands to troubleshoot a hardware issue.

NOTE: CROSH storage_test_1 and storage_test_2 are not supported on eMMC storage device.

Check battery charging status

The Chrome Shell (CROSH) includes a simple battery health diagnostic test. This is to confirm that the battery is charging and to check on the battery health and discharge rate. Follow the instruction provided to check on the battery charging status:

1. Connect the AC adapter to the Chromebook and a power outlet.
2. Turn on and sign in to the Chromebook.
3. Open the Chrome browser.
4. Press CTRL + ALT + T to open CROSH.
5. Type battery_test 1 into CROSH, and then press **Enter**.
6. Check the result to confirm that the battery is charging.

Check battery health

Follow the steps to evaluate the health of the Chromebook battery, and check the discharge rate:

1. Disconnect the AC adapter from the Chromebook.
2. Turn on and sign in to Chromebook.
3. Open the Chrome browser.
4. Press CTRL + ALT + T to open CROSH.
5. Type battery_test 1 into CROSH, and then press Enter.
6. A screen displays the current battery health and discharge rate.

- If the Battery health percentage is greater than 50%, the battery is within the expected wear limits.
- If the Battery health percentage is equal to or less than 50% and the battery is less than a year old, the battery is outside expected wear limits and might need to be replaced.
- If the test results show Battery is Unknown, the battery might need to be replaced.

Checking memory

Follow the steps below to perform a memory check for Chromebook:

NOTE: This will approximately take 20 minutes to complete the test, and it also depends on the capacity of the memory.

1. Turn on and sign in to Chromebook.
2. Open the Chrome browser.
3. Press CTRL + ALT + T to open CROSH.
4. Type memory_test into CROSH, and then press Enter.
5. A diagnostic screen displays the result of the memory test passed without any errors.

Example of a memory test failure.

Checking network status

If you are having trouble connecting to the Internet, use the steps in one or more of the following sections to test the network adapter.

Follow the instruction to gather the information about the network and diagnose the network errors.

1. 1.Turn on and sign in to Chromebook.
2. Open the Chrome browser.
3. Press CTRL + ALT + T to open CROSH.
4. Type network_diag into CROSH, and then press Enter.

5. Wait while CROSH performs a set of network diagnostic tests. A diagnostic screen displays the results of the network adapter health test.
6. The diagnostic test log is saved as a .txt (plain text) file in the Files app.
7. If the diagnostic test returns a failure message, make sure the Wi-Fi adapter is enabled and connect to a network.

Reset Chromebook

This page contains all information about resetting the Dell Chromebook 13 (3380).

All local user data stored on the Chromebook can be cleared by resetting it to its original factory state (also known as Powerwash).

This step might be helpful if you want to reset owner permissions or if you are experiencing issues with your user profile.

NOTE: All data stored on your Chromebook such as downloaded files, photos, owner permissions, and saved networks, will be deleted for all accounts when performing a factory reset. After clearing this data, you will be guided through the initial setup again. Resetting your device will not affect your accounts themselves, or any data synced to these accounts.

NOTE: Do not follow the instructions below if you're using a managed Chrome device, as you will not be able to re-enroll your device after powerwashing it.

Follow these steps to reset your Chromebook to its original factory state:

1. Click the status area in the lower-right corner, where your account picture appears.
2. Click **Settings** as highlighted from the screenshot below.
3. Click **Show advanced settings** to expand the menu.
4. Click the **Powerwash** button.
5. Click **Restart** when prompted.

You can also reset your Chromebook from the sign-in screen by holding down the keys **Ctrl+Alt+Shift+R** and clicking **Restart**. (If you are signed in to your Chromebook, sign out first before you press on **Ctrl+Alt+Shift+R**, then click **Restart**. Once the Chromebook is restarted, click **Reset**.)

After you restart the Chromebook, you should now see the setup screen. Follow the instructions on the screen to set up your Chromebook again. Make sure you sign in with your primary Google Account, because this account will be set as the owner account.

Recovering Chromebook

This page contains information about recovering the Dell Chromebook 13 (3380).

Recovering the Chromebook

Install a new version of the Chrome operating system on your Chromebook by going through the recovery process. You may want to go through this process if you are having problems updating your Chromebook or if it stops working.

NOTE: All account information and data stored on your Chromebook, such as photos, downloaded files, and saved networks, will be deleted. Owner privileges for your primary account will also be reset. However, the actual Google Accounts and any data synced to these accounts are not affected by the recovery process. After the recovery process is complete, you will be guided through the initial setup again.

Prerequisites:

Before starting this process, you will need the following:

- A Chrome device, Windows, Mac, or Linux computer with administrative rights.
- A 4 GB or larger USB flash drive or SD card that you do not mind clearing.

Step 1 - Check for the Chrome OS is missing or damaged message

If you see this message, you can first try to perform a hard reset on your Chromebook by pressing Refresh + Power. If you still see this message after performing a hard reset, please proceed to Step 2.

If you see the **Chrome OS verification is turned off** message, refer to **Chrome OS verification is turned off** section below.

Step 2 - Create the recovery USB flash drive or SD card

Insert a USB flash drive or SD card into your computer and follow the instructions below:

Table 17. USB flash drive or SD card

Operating System	Instructions
Chrome Device Instructions	Create a recovery flash drive by using the Image Burner. The tool may not be available in all languages. 1. Type chrome://imageburner into the omnibox (browser's address bar) . 2. Run the tool and follow the instructions that appear on your screen. **NOTE:** When recovering your Chromebook, make sure to create the recovery flash drive on the same model.
Windows Instructions	1. Click this link to download the Recovery Tool. If you are a network administrator for your school, business, or organization, click this link to download the Recovery Tool: 2. Run the tool and follow the instructions that appear on your screen. 3. After you recover your Chromebook, you must format your USB flash drive or SD card using the Recovery Tool. If you do not format your USB flash drive or SD card, you will not be able to use all the storage space on your external device. Additionally, your USB flash drive or SD card may not be recognizable by Windows.
Mac Instructions	Create a recovery flash drive by using the Recovery Tool. The tool may not be available in all languages. 1. Click this link to download the Recovery Tool. 2. Run the tool and follow the instructions that appear on your screen. After the process is complete, you might see an alert saying your USB drive or SD card is unreadable. If this fails, try removing and reinserting your USB drive or SD card. Your USB drive or SD card should now be ready to use for recovery.
Linux Instructions	Create a recovery flash drive by using the Recovery Tool. The tool may not be available in all languages. 1. 1. Click this link to download the Recovery Tool. 2. Modify the script permissions to allow execution with the following command: `$ & sudo chmod 755 linux_recovery.sh` 3. Run the script with root privileges with the following command:`$ sudo bash linux_recovery.sh` 4. Follow the prompts from the tool to complete building the operating system image.

Reinstall the Chrome Operating System

1. Start your Chromebook.

2. When the **Chrome OS is missing or damaged** screen appears, insert the USB flash drive or SD card you created into the USB port or SD card slot on your Chrome device
3. Wait for the Chromebook to boot up from the flash drive
4. Follow the instructions that appear on the screen.
5. On successful installation of the Chrome operating system, you will be prompted to remove the USB flash drive or SD card.
6. Remove the USB flash drive or SD card when prompted, and your Chromebook will automatically restart.

You should now be able to start your Chromebook as normal. Because the data stored on your Chromebook has been cleared, you will need to go through the initial setup again. Make sure you sign in with your primary Google Account, because this account will be set as the owner account.

Chrome OS verification is turned off Message

By default, Chromebooks are set to the normal user mode. If you've set the user mode to developer mode instead, you'll see a screen with the message "Chrome OS verification is turned off" when you start up. Use the developer mode if you want to test your own version of the Chrome operating system.

Press **Ctrl+D** to enter developer mode. If you press the space bar instead, you'll see a screen asking to recover your device.

NOTE: Dell does not support the use of the Developer Mode or non-standard OS versions.

Troubleshooting Tips

Table 18. Troubleshooting tips

Question	Solution
I am unable to recover my Chromebook	To help ensure that you are running the latest version of Chrome OS once you recover your Chromebook, we recommend creating the recovery media with the latest version of Chrome OS and avoid using recovery media that may contain an older version of the operating system.
An error message **An unexpected error has occurred.**	Try the following steps: 1. Confirm that you successfully completed all instructions exactly as specified in **Step 2: Create the recovery USB flash drive or SD card** above. 2. Try using a different USB stick or SD card. 3. If the problem persists, contact Google Chrome support team.
An error message **You are using an out-of-date Chrome OS recovery image.**	You should download an up-to date recovery image. Simply follow all the instructions exactly as specified in Step 2 above.
You successfully recovered your Chromebook but now you can not use your USB or SD card with Windows	After you have completed recovery, you need to format your USB or SD card using the recovery tool.
You successfully recovered your Chromebook but now Windows does not recognize the whole size of the USB or SD card used for recover.	After you have completed recovery, you need to format your USB or SD card using the recovery tool.