

Monitor Network Traffic per Process with Nethogs

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Monitor Network Traffic per Process with Nethogs</div> <div class=„post“ id=„post-54073“>
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comments“>Go to comments</a> <div class=„fixed“/> </div> <div class=„gcacheb gcacheb-1
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nethogs/“>Tweet</a></div> <p>Yesterday I wrote about using <a
href=„https://www.cnx-software.com/2018/02/11/how-to-use-3g-and-gps-on-raspberry-pi-with-thaieas
yelec-3g-hat-expansion-board/#comment-551666“>3G on Raspberry Pi board</a>, &#160; and one
of the commenter mentioned higher traffic than expected when connecting to 3G to just send a few
bytes before disconnecting. One of the reasons are the extra data needed if you transmit data over a
secure connection, for example establishing a PPP connection, connect to the board over SSH, and
disconnect, results in the transmission &amp; reception of a few kilobytes on my board:<br/></p>
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<div class=„crayon-info c4“/> <div class=„crayon-plain-wrap“> <textarea class=„crayon-plain print-
no c5“ data-settings=„dblick“ readonly=„readonly“> Connect time 1.9 minutes. Sent 5815 bytes,
received 6972 bytes. </textarea></div> <div class=„crayon-main“> <table class=„crayon-
table“><tr class=„crayon-row“><td class=„crayon-nums“ data-settings=„show“> <div
class=„crayon-nums-content c6“> <div class=„crayon-num“ data-
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line=„crayon-5a8d11db86b32696168211-1“>1</div> <div class=„crayon-num crayon-striped-num“ data-line=„crayon-5a8d11db86b32696168211-2“>2</div> </div> </td> <td class=„crayon-code“>
<div class=„crayon-pre c7“> <div class=„crayon-line“
id=„crayon-5a8d11db86b32696168211-1“>Connect time 1.9 minutes.</div> <div class=„crayon-line crayon-striped-line“ id=„crayon-5a8d11db86b32696168211-2“>Sent 5815 bytes, received 6972 bytes.</div> </div> </td> </tr></table></div> </div> <p>
 But if you get much more traffic than that, you may want to investigate if another package may transfer data when it detects the connection is up. To analyze traffic, tcpdump and Wireshark are good options, especially if you want to look into the packets data, however such tools do not tell you which process is sending or receiving the data.</p><p><a href=„<https://www.cnx-software.com/wp-content/uploads/2018/02/Nethogs.png>“><img class=„aligncenter wp-image-54074“ src=„<https://www.cnx-software.com/wp-content/uploads/2018/02/Nethogs.png>“ alt=„“ width=„640“ height=„405“ srcset=„<https://www.cnx-software.com/wp-content/uploads/2018/02/Nethogs.png> 812w, <https://www.cnx-software.com/wp-content/uploads/2018/02/Nethogs-300x190.png> 300w, <https://www.cnx-software.com/wp-content/uploads/2018/02/Nethogs-768x486.png> 768w“ sizes=„(max-width: 640px) 100vw, 640px“/></p> <p>So I searched whether I could find a program that would do just that, and a <a href=„<https://askubuntu.com/questions/257263/how-to-display-network-traffic-in-the-terminal>“>thread on Ask Ubuntu discussing how to display network traffic in the terminal, mentions some interesting utilities like bmon, iftop, tcptrack, etc… which all show info about the connections, but the utility that does exactly what I want is called nethogs. Installing it in Ubuntu/Debian is very easy.
</p> <div id=„crayon-5a8d11db86b3f206203715“ class=„crayon-syntax crayon-theme-classic crayon-font-monaco crayon-os-pc print-yes notranslate c8“ data-settings=„ minimize scroll-mouseover wrap“> <div class=„crayon-toolbar crayon-tools c3“ data-settings=„ mouseover hide delay“> <div class=„crayon-button crayon-nums-button crayon-button-icon“ title=„Toggle Line Numbers“/> <div class=„crayon-button crayon-plain-button crayon-button-icon“ title=„Toggle Plain Code“/> <div class=„crayon-button crayon-wrap-button crayon-button-icon“ title=„Toggle Line Wrap“/> <div class=„crayon-button crayon-expand-button crayon-button-icon“ title=„Expand Code“/> <div class=„crayon-button crayon-copy-button crayon-button-icon“ title=„Copy“/> <div class=„crayon-button crayon-popup-button crayon-button-icon“ title=„Open Code In New Window“/> Shell</div> <div class=„crayon-info c4“/> <div class=„crayon-plain-wrap“> <textarea class=„crayon-plain print-no c5“ data-settings=„dblclick“ readonly=„readonly“> sudo apt install nethogs </textarea></div> <div class=„crayon-main“> <table class=„crayon-table“><tr class=„crayon-row“><td class=„crayon-nums“ data-settings=„show“> <div class=„crayon-nums-content crayon-num c6“>1</div> </td> <td class=„crayon-code“> <div class=„crayon-pre crayon-line c7“>sudo apt install nethogs</div> </td> </tr></table></div> </div> <p>
 Now run it as root, as you should get a list of processes that send and received data over a specific interface:
</p> <div id=„crayon-5a8d11db86b43762695138“ class=„crayon-syntax crayon-theme-classic crayon-font-monaco crayon-os-pc print-yes notranslate c8“ data-settings=„ minimize scroll-mouseover wrap“> <div class=„crayon-toolbar crayon-tools c3“ data-settings=„ mouseover hide delay“> <div class=„crayon-button crayon-nums-button crayon-button-icon“ title=„Toggle Line Numbers“/> <div class=„crayon-button crayon-plain-button crayon-button-icon“ title=„Toggle Plain Code“/> <div class=„crayon-button crayon-wrap-button crayon-button-icon“ title=„Toggle Line Wrap“/> <div class=„crayon-button crayon-expand-button crayon-button-icon“ title=„Expand Code“/> <div class=„crayon-button crayon-copy-button crayon-button-icon“ title=„Copy“/> <div class=„crayon-button crayon-popup-button crayon-button-icon“ title=„Open Code In New Window“/> Shell</div> <div class=„crayon-info c4“/> <div class=„crayon-plain-wrap“> <textarea class=„crayon-plain print-no c5“ data-settings=„dblclick“ readonly=„readonly“> sudo nethogs </textarea></div> <div class=„crayon-main“> <table class=„crayon-table“><tr class=„crayon-

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row"><td class=„crayon-nums“ data-settings=„show“> <div class=„crayon-nums-content crayon-
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nethogs</div> </td> </tr></table></div> </div> <p><br/> The full options can be found with -
h:<br/></p> <div id=„crayon-5a8d11db86b47424962722“ class=„crayon-syntax crayon-theme-
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Shell</div> <div class=„crayon-info c4“/> <div class=„crayon-plain-wrap“> <textarea
class=„crayon-plain print-no c5“ data-settings=„dblclick“ readonly=„readonly“> nethogs -h usage:
nethogs [-V] [-h] [-b] [-d seconds] [-v mode] [-c count] [-t] [-p] [-s] [ device [device [device ...]]]
```

1. V : prints version.
2. h : prints this help.
3. b : bughunt mode - implies tracemode.
4. d : delay for update refresh rate in seconds. default is 1.
5. v : view mode (0 = KB/s, 1 = total KB, 2 = total B, 3 = total MB). default is 0.
6. c : number of updates. default is 0 (unlimited).
7. t : tracemode.
8. p : sniff in promiscuous mode (not recommended).
9. s : sort output by sent column.
10. a : monitor all devices, even loopback/stopped ones.

device : device(s) to monitor. default is all interfaces up and running excluding loopback

When nethogs is running, press: q: quit s: sort by SENT traffic r: sort by RECEIVE traffic m: switch between total (KB, B, MB) and KB/s mode

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</textarea></div> <div class=„crayon-main“> <table
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<https://schnipsel.ggelm.de/>

[illegible]

[illegible]

160; </div> <div class=„crayon-line“

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traffic

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## Manage Devices on Your Network with Your iOS/Android Smartphone">Fingbox Helps You Monitor

& Manage Devices on Your Network with Your iOS/Android Smartphone</a></li> <li><a

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## Web-based Remote Monitoring Tool for ARM Development Boards such as Raspberry Pi and Orange

Pi">RPi-Monitor is a Web-based Remote Monitoring Tool for ARM Development Boards such as

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[u/" rel="bookmark" title="Dual Monitor Setup with ATI Graphics Cards in Ubuntu">Dual Monitor](#)

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[ure-alternative-to-lorawan-protocol/" rel="bookmark" title="RadioShuttle Network Protocol is an](https://www.radio-shuttle.net/en/alternative-to-lorawan-protocol/ "RadioShuttle Network Protocol is an")

## Efficient, Fast & Secure Alternative to LoRaWAN Protocol">RadioShuttle Network Protocol is an

## Efficient, Fast & Secure Alternative to LoRaWAN Protocol

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Thunderbird Emails between Windows and Linux

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<a href=„<https://www.cnx-software.com/tag/networking/>“ rel=„tag“>networking</a>, <a href=„<https://www.cnx-software.com/tag/ubuntu/>“ rel=„tag“>ubuntu</a></div> </div>

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href=„<http://shrs1.com/pdqs>“ target=„\_blank“ rel=„nofollow“>Development Boards</a></li> <li><a href=„[http://dx.com/c/laptops-tablets-1499/tablets-1409?Utm\\_rid=93072394&Utm\\_source=affiliate](http://dx.com/c/laptops-tablets-1499/tablets-1409?Utm_rid=93072394&Utm_source=affiliate)“ target=„\_blank“ rel=„nofollow“ title=„Buy a cheap tablet, set-top box and more“>Low Cost Android Tablets and STBs on dx.com</a></li> <li><a href=„<https://goo.gl/y1m00A>“ target=„\_blank“ rel=„nofollow“>GearBest</a></li> <li><a href=„[https://www.amazon.com/b?\\_encoding=UTF8&camp=1789&creative=9325&linkCode=ur2&node=172282&site-redirect=&tag=cnxtra-20&linkId=XM5EUDLZNRWVCVDP](https://www.amazon.com/b?_encoding=UTF8&camp=1789&creative=9325&linkCode=ur2&node=172282&site-redirect=&tag=cnxtra-20&linkId=XM5EUDLZNRWVCVDP)“ target=„\_blank“ rel=„nofollow“>Amazon</a><img src=„<https://ir-na.amazon-adsystem.com/e/ir?t=cnxtra-20&l=ur2&o=1>“ width=„1“ height=„1“ border=„0“ alt=„“ class=„c14“/></li> <li><a href=„<http://shrs1.com/?~4iaj>“ target=„\_blank“ rel=„nofollow“>GeekBuying</a></li> <li><a href=„<http://www.dpbolvw.net/click-5741794-10956595>“ target=„\_blank“ rel=„nofollow“ title=„\$5 discount for orders over 100 USD“>Aliexpress</a><img src=„<https://www.lduhtrp.net/image-5741794-10956595>“ width=„1“ height=„1“ border=„0“/></li></ul></div> <div id=„tag\_cloud-3“ class=„widget widget\_tag\_cloud“> <h3>Tags</h3> <div class=„tagcloud“><a rel=„nofollow“ href=„<https://www.cnx-software.com/tag/4k/>“ class=„tag-cloud-link tag-link-1373 tag-link-position-1 c15“ aria-label=„4k (325 items)“>4k</a> <a rel=„nofollow“ href=„<https://www.cnx-software.com/tag/android/>“ class=„tag-cloud-link tag-link-2285 tag-link-position-2 c16“ aria-label=„Android (2,169 items)“>Android</a> <a rel=„nofollow“ href=„<https://www.cnx-software.com/tag/antutu/>“ class=„tag-cloud-link tag-link-1017 tag-link-position-3 c17“ aria-label=„antutu (171 items)“>antutu</a> <a rel=„nofollow“ href=„<https://www.cnx-software.com/tag/arduino/>“ class=„tag-cloud-link tag-link-620 tag-link-position-4 c18“ aria-label=„arduino (266 items)“>arduino</a> <a rel=„nofollow“ href=„<https://www.cnx-software.com/tag/arm/>“ class=„tag-cloud-link tag-link-97 tag-link-position-5 c19“ aria-label=„arm (371 items)“>arm</a> <a rel=„nofollow“ href=„<https://www.cnx-software.com/tag/armv8/>“ class=„tag-cloud-link tag-link-712 tag-link-position-6 c17“ aria-label=„armv8 (173 items)“>armv8</a> <a rel=„nofollow“ href=„<https://www.cnx-software.com/tag/automation/>“ class=„tag-cloud-link tag-link-1350 tag-link-position-7 c20“ aria-label=„automation (157 items)“>automation</a> <a rel=„nofollow“ href=„<https://www.cnx-software.com/tag/benchmark/>“ class=„tag-cloud-link tag-link-715 tag-link-position-8 c21“ aria-label=„benchmark (303 items)“>benchmark</a> <a rel=„nofollow“ href=„<https://www.cnx-software.com/tag/bluetooth/>“ class=„tag-cloud-link tag-link-489 tag-link-position-9 c22“ aria-label=„bluetooth (231 items)“>bluetooth</a> <a rel=„nofollow“ href=„<https://www.cnx-software.com/tag/camera/>“ class=„tag-cloud-link tag-link-538 tag-link-position-10 c20“ aria-label=„camera (158 items)“>camera</a> <a rel=„nofollow“ href=„<https://www.cnx-software.com/tag/debian/>“ class=„tag-cloud-link tag-link-352 tag-link-position-11 c23“ aria-label=„debian (241 items)“>debian</a> <a rel=„nofollow“ href=„<https://www.cnx-software.com/tag/development-board/>“ class=„tag-cloud-link tag-link-590 tag-link-position-12 c24“ aria-label=„development board (1,038 items)“>development board</a> <a rel=„nofollow“ href=„<https://www.cnx-software.com/tag/development-kit/>“ class=„tag-cloud-link tag-link-437 tag-link-position-13 c25“ aria-label=„development kit (210 items)“>development kit</a> <a rel=„nofollow“ href=„<https://www.cnx-software.com/tag/devkit/>“ class=„tag-cloud-link tag-link-315 tag-link-position-14 c26“ aria-label=„devkit (255 items)“>devkit</a> <a rel=„nofollow“ href=„<https://www.cnx-software.com/tag/firmware/>“ class=„tag-cloud-link tag-link-222 tag-link-position-15 c27“ aria-label=„firmware (143 items)“>firmware</a> <a rel=„nofollow“ href=„<https://www.cnx-software.com/tag/h-265/>“ class=„tag-cloud-link tag-link-1337 tag-link-position-16 c28“ aria-label=„h.265 (215 items)“>h.265</a> <a rel=„nofollow“ href=„<https://www.cnx-software.com/tag/hevc/>“ class=„tag-cloud-link tag-link-1336 tag-link-position-17 c29“ aria-label=„hevc (149 items)“>hevc</a> <a rel=„nofollow“ href=„<https://www.cnx-software.com/tag/how-to/>“ class=„tag-cloud-link tag-link-452 tag-link-

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