

Using NetData Lite

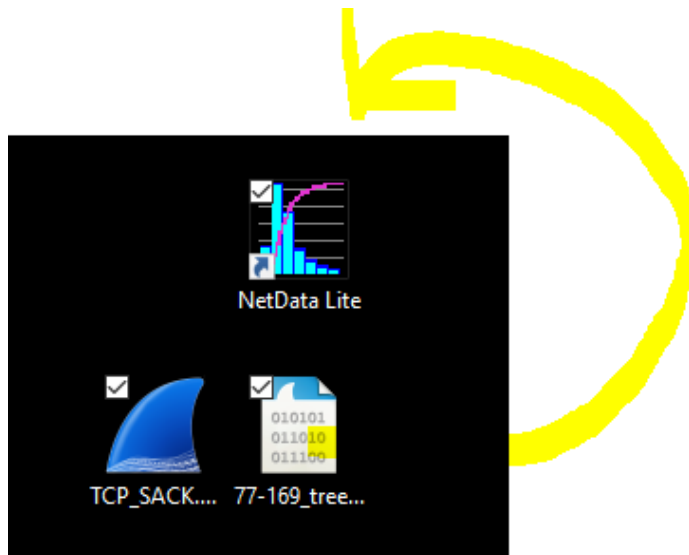
NetData imports packet capture files – of many flavours.

If you create the capture files with Wireshark, try to use a “capture filter” so that you only capture packets going to/from the server(s) that you are interested in.

Also, remember to add the extension “.pcap” when you give Wireshark the filename for your capture. It doesn’t add an extension by default.

Step 1.

Drag your “pcap” file onto the NetData Lite icon.

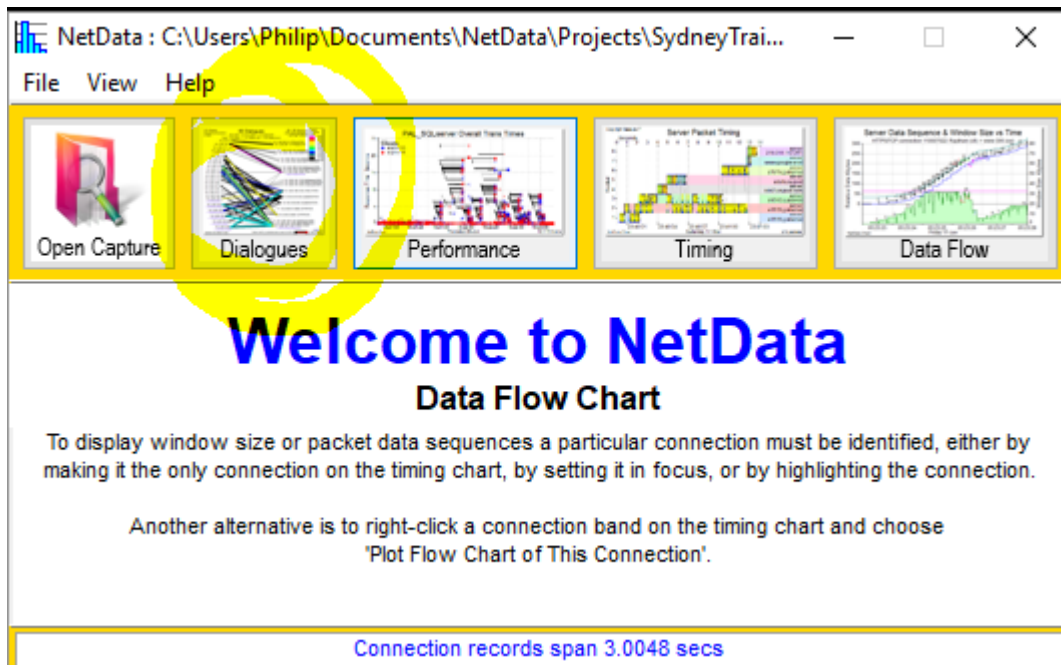


You can launch NetData Lite then use “File” - “Open Capture...” if you prefer.

Step 2.

If there is only one server in the packet capture, NetData will automatically popup and draw a whole sequence of charts.

The main window is this one:



You can press the “Dialogues” button on the main screen, or just bring the one already displayed to the foreground.

Right-click on the IP address of the server you’re interested in, then select “Focus Server” on the popup menu. (It is 4th from the bottom).

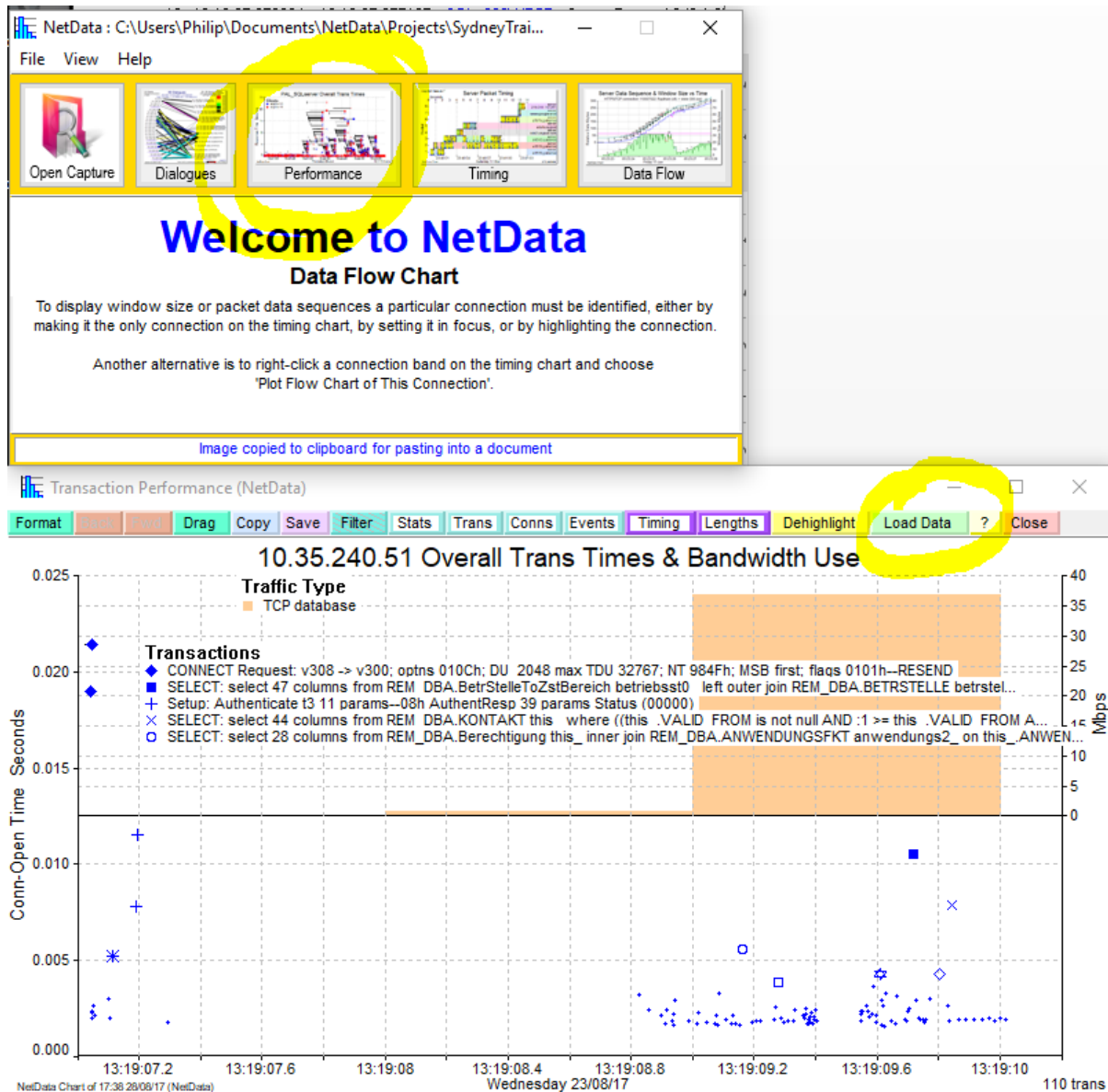
This will turn the server green as below (more importantly, will “remember” the IP address or name).



Step 3.

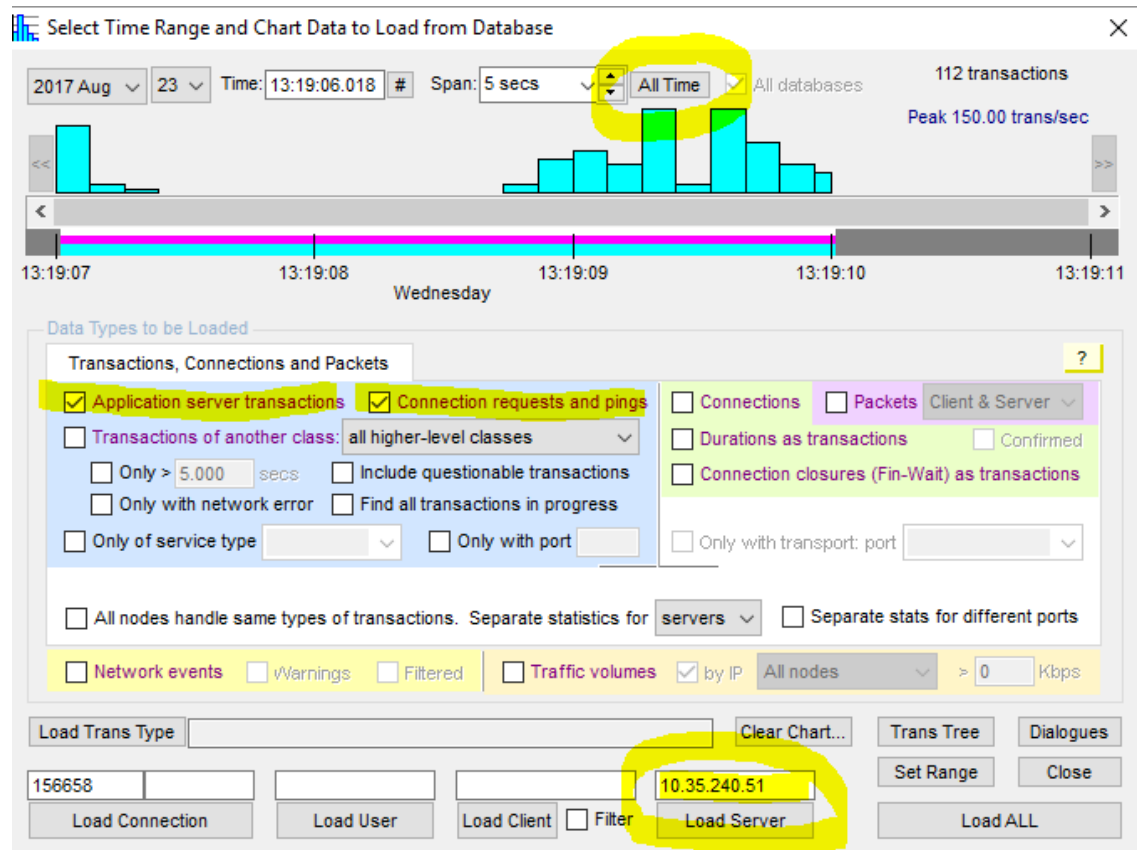
Either:

- Press the "Performance" button in the main window, or
- Locate the existing "Transaction Performance" chart and press the "Load Data" button.
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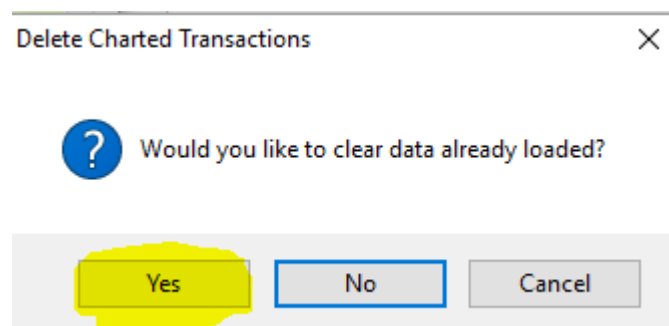


You'll then get this "Load Data" dialog box:

- Choose a time period, or just press "All Time".
- Make sure that "Application server transactions" is checked.
- I always also check "Connection requests and pings" so that we see TCP setups as transactions.
- The action of "Focus server" earlier means that your server IP/name should appear in the server field. If not, you can enter it manually.
- Press the "Load Server" button.



If you get this dialog box, press "Yes". (This will remove superfluous information that might be on the already-existing Performance Chart).

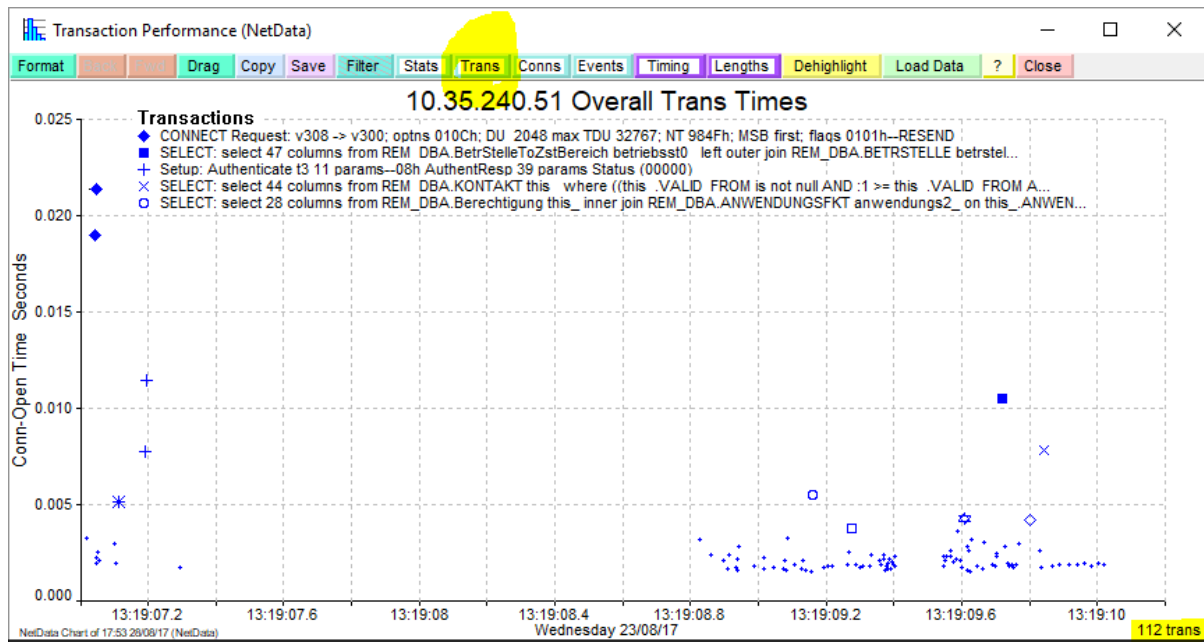


Step 4.

You should now get a simplified “Transaction Performance” chart, containing all the transactions to your chosen server. The transaction count is at the bottom right.

You can hover on any of the symbols to get a popup with more details.

To get the table view, press the “Trans” button along the top.

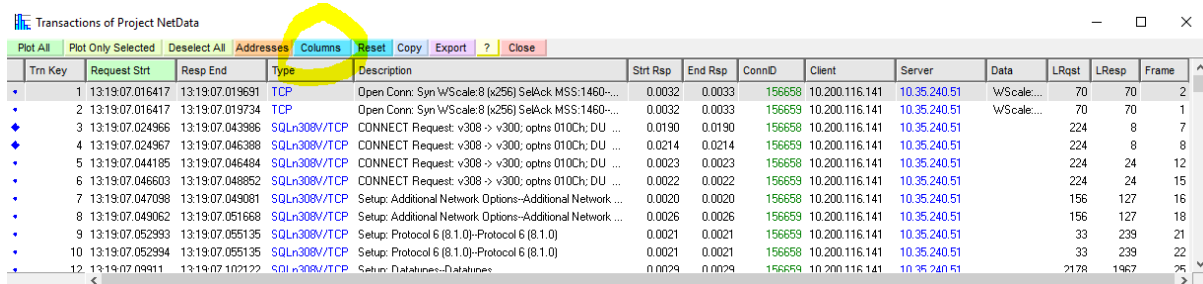


Experiment with some of the other buttons, such as “Stats” and “Lengths”.

Step 4.

You should now get a table of “Transactions”, containing all the transactions to your chosen server. The symbols in the first columns match the symbols on the Performance chart.

Press the “Columns” button to see a drop-down list of fields that you can add/remove as columns.



| Trn Key | Request Start | Resp End | Type | Description | Strt Rsp | End Rsp | ConnID | Client | Server | Data | LRqst | LResp | Frame |
|---------|-----------------|-----------------|-------------|--|----------|---------|--------|----------------|--------------|------------|-------|-------|-------|
| 1 | 13:19:07.016417 | 13:19:07.019691 | TCP | Open Conn: Syn WScale:8 (x256) SeqAck: MSS:1460-... | 0.0032 | 0.0033 | 156659 | 10.200.116.141 | 10.35.240.51 | WScale:... | 70 | 70 | 2 |
| 2 | 13:19:07.016417 | 13:19:07.019734 | TCP | Open Conn: Syn WScale:8 (x256) SeqAck: MSS:1460-... | 0.0032 | 0.0033 | 156659 | 10.200.116.141 | 10.35.240.51 | WScale:... | 70 | 70 | 1 |
| 3 | 13:19:07.024966 | 13:19:07.043986 | SQLn308/TCP | CONNECT Request: v308 -> v300; optns 010Ch; DU ... | 0.0190 | 0.0190 | 156659 | 10.200.116.141 | 10.35.240.51 | | 224 | 8 | 7 |
| 4 | 13:19:07.024967 | 13:19:07.046388 | SQLn308/TCP | CONNECT Request: v308 -> v300; optns 010Ch; DU ... | 0.0214 | 0.0214 | 156659 | 10.200.116.141 | 10.35.240.51 | | 224 | 8 | 8 |
| 5 | 13:19:07.044185 | 13:19:07.046484 | SQLn308/TCP | CONNECT Request: v308 -> v300; optns 010Ch; DU ... | 0.0023 | 0.0023 | 156659 | 10.200.116.141 | 10.35.240.51 | | 224 | 24 | 12 |
| 6 | 13:19:07.046603 | 13:19:07.048852 | SQLn308/TCP | CONNECT Request: v308 -> v300; optns 010Ch; DU ... | 0.0022 | 0.0022 | 156659 | 10.200.116.141 | 10.35.240.51 | | 224 | 24 | 15 |
| 7 | 13:19:07.047098 | 13:19:07.049081 | SQLn308/TCP | Setup: Additional Network Options-Additional Network ... | 0.0020 | 0.0020 | 156659 | 10.200.116.141 | 10.35.240.51 | | 156 | 127 | 16 |
| 8 | 13:19:07.049062 | 13:19:07.051668 | SQLn308/TCP | Setup: Additional Network Options-Additional Network ... | 0.0026 | 0.0026 | 156659 | 10.200.116.141 | 10.35.240.51 | | 156 | 127 | 18 |
| 9 | 13:19:07.052993 | 13:19:07.055135 | SQLn308/TCP | Setup: Protocol 6 (8.1.0)-Protocol 6 (8.1.0) | 0.0021 | 0.0021 | 156659 | 10.200.116.141 | 10.35.240.51 | | 33 | 239 | 21 |
| 10 | 13:19:07.052994 | 13:19:07.055135 | SQLn308/TCP | Setup: Protocol 6 (8.1.0)-Protocol 6 (8.1.0) | 0.0021 | 0.0021 | 156659 | 10.200.116.141 | 10.35.240.51 | | 33 | 239 | 22 |
| 12 | 13:19:07.09911 | 13:19:07.102122 | SQLn308/TCP | Setup: Database-Database | 0.0029 | 0.0029 | 156659 | 10.200.116.141 | 10.35.240.51 | | 2178 | 1467 | 25 |

Here I’ve added “Client Prep”, “Client Reaction” and “Records”.

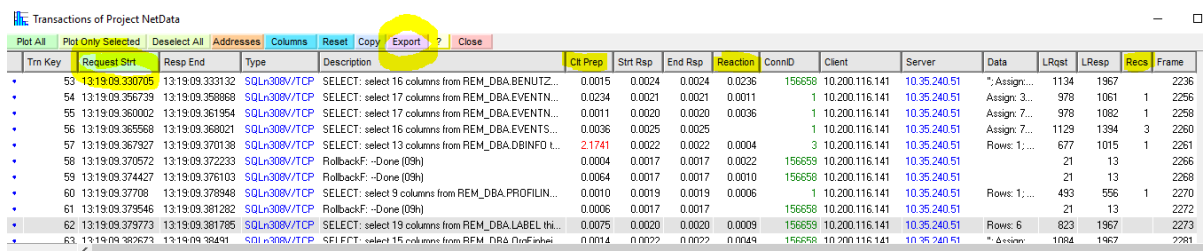
You might also like “Request End”, “Resp Start” or “Request Duration” and “Response Duration”.

You can also remove columns if you want to (eg, “Connection ID”, “Client” or “Server”).

You can press the column headings to sort by that column. Green means ascending and purple means descending. You can also drag the column headings to make them wider/narrower.

The “Export” button will create a “CSV” file (in the directory where your NetData executables live).

The CSV will contain the columns currently displayed.



| Trn Key | Request Start | Resp End | Type | Description | Client Prep | Strt Rsp | End Rsp | Reaction | ConnID | Client | Server | Data | LRqst | LResp | Recs | Frame |
|---------|-----------------|-----------------|-------------|--|-------------|----------|---------|----------|--------|----------------|--------------|---------------|-------|-------|------|-------|
| 53 | 13:19:09.330705 | 13:19:09.333132 | SQLn308/TCP | SELECT: select 16 columns from REM_DBA.BENUTZ... | 0.0015 | 0.0024 | 0.0024 | 0.0236 | 156659 | 10.200.116.141 | 10.35.240.51 | ?: Assign:... | 1134 | 1967 | | 2236 |
| 54 | 13:19:09.356739 | 13:19:09.359888 | SQLn308/TCP | SELECT: select 17 columns from REM_DBA.EVENTN... | 0.0234 | 0.0021 | 0.0021 | 0.0011 | 1 | 10.200.116.141 | 10.35.240.51 | Assign: 3... | 978 | 1061 | 1 | 2256 |
| 55 | 13:19:09.360002 | 13:19:09.361954 | SQLn308/TCP | SELECT: select 17 columns from REM_DBA.EVENTN... | 0.0011 | 0.0020 | 0.0020 | 0.0036 | 1 | 10.200.116.141 | 10.35.240.51 | Assign: 7... | 978 | 1082 | 1 | 2258 |
| 56 | 13:19:09.365568 | 13:19:09.368021 | SQLn308/TCP | SELECT: select 16 columns from REM_DBA.EVENTS... | 0.0036 | 0.0025 | 0.0025 | | 1 | 10.200.116.141 | 10.35.240.51 | Assign: 7... | 1129 | 1394 | 3 | 2260 |
| 57 | 13:19:09.367927 | 13:19:09.370138 | SQLn308/TCP | SELECT: select 13 columns from REM_DBA.DBINFO... | 2.7141 | 0.0022 | 0.0022 | 0.0004 | 3 | 10.200.116.141 | 10.35.240.51 | Rows: 1; ... | 677 | 1015 | 1 | 2261 |
| 58 | 13:19:09.370572 | 13:19:09.372233 | SQLn308/TCP | RollbackF: --Done (03h) | 0.0004 | 0.0017 | 0.0017 | 0.0022 | 156659 | 10.200.116.141 | 10.35.240.51 | | 21 | 13 | | 2266 |
| 59 | 13:19:09.374427 | 13:19:09.376103 | SQLn308/TCP | RollbackF: --Done (03h) | 0.0064 | 0.0017 | 0.0017 | 0.0010 | 156659 | 10.200.116.141 | 10.35.240.51 | | 21 | 13 | | 2268 |
| 60 | 13:19:09.37708 | 13:19:09.378948 | SQLn308/TCP | SELECT: select 9 columns from REM_DBA.PROFILIN... | 0.0010 | 0.0019 | 0.0019 | 0.0006 | 1 | 10.200.116.141 | 10.35.240.51 | Rows: 1; ... | 493 | 556 | 1 | 2270 |
| 61 | 13:19:09.379546 | 13:19:09.381262 | SQLn308/TCP | RollbackF: --Done (03h) | 0.0006 | 0.0017 | 0.0017 | | 156659 | 10.200.116.141 | 10.35.240.51 | | 21 | 13 | | 2272 |
| 62 | 13:19:09.379773 | 13:19:09.381785 | SQLn308/TCP | SELECT: select 19 columns from REM_DBA.LABEL th... | 0.0075 | 0.0020 | 0.0020 | 0.0009 | 156659 | 10.200.116.141 | 10.35.240.51 | Rows: 6 | 823 | 1967 | | 2273 |
| 63 | 13:19:09.382673 | 13:19:09.38491 | SQLn308/TCP | SELECT: select 15 columns from REM_DBA.PlanP... | 0.0014 | 0.0022 | 0.0022 | 0.0049 | 156659 | 10.200.116.141 | 10.35.240.51 | ?: & c... | 1084 | 1467 | | 2281 |

Step 5.

Feel free to email me at philist24@optusnet.com.au or phil@networkdetective.com.au

Or Skype, “philist2903” for a screen sharing session.

Thanks, Phil Storey.