HOWTO - troubleshoot data guard transport and apply

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Essentially you want to have an end to end view of the data guard transport and apply performance. Here’s how I will troubleshoot it (w/ scripts/tools on the table below):

1) get redo MB/s

* This is the redo generation

2) get the bandwidth link

* The bandwidth capacity

3) get the transport lag

* This metric will tell if there's a problem with the transport of the logs between the sites
* It's possible for redo to be generated at faster rates than what can be accommodated by the network

4) get apply lag

* This metric will tell if the managed recovery process is having a hard time reading the redo stream and applying it to the standby DB
* This is the difference of SCN of primary site and standby site that needs to be applied

5) get the IO breakdown/IO cell metrics

* Will tell if there is an IO capacity issue
* I would also get the cell metrics of primary just to compare

6) Primary and Standby DB wait events

* This will tell any obvious events causing the bottleneck
* On standby site AWR data is the same as primary. So we need to use ASH here because it’s in-memory.

7) Run the attached scripts from the following MOS notes

* Data Guard Physical Standby - Configuration Health Check (Doc ID 1581388.1)
* Script to Collect Data Guard Physical and Active Standby Diagnostic Information for Version 10g and above (Including RAC) (Doc ID 1577406.1)
* Monitoring a Data Guard Configuration (Doc ID 2064281.1)

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| Primary | | Network | | Standby | | |
| Primary wait events | redo MB/s | bandwidth link | transport lag | apply lag | IO breakdown / IO cell metrics | Standby wait events |
| Top events script <http://bit.ly/2fEwf5d> | iowl script <http://bit.ly/2fEtX60>  iowl\_filetype script <http://bit.ly/2fEmQuq> |  | v$dataguard\_stats | v$dataguard\_stats | cellmetrics <http://bit.ly/2fEsH2Q> | gv$ash script <http://bit.ly/2fEuDIP> |