# 2023-01-02 : Guidance and CDP services latency impacted by RNO r1lime pool saturation

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| **Environment** | Production |
| **Description** | Brief Issue Description:  Guidance and CDP service P95 latency was increased from ~ 500 ms to ~3000 ms due to saturation on RNO r1lime pool  What was failing:   * 1/2/23 ~ 1/4/23 Lime latency increased and timeout due to a ME team related python job running on Hadoop Apollo RNO.  The lime pool LB is colo-affinity so if a client is keeps calling lime from RNO, all traffic would be routed to RNO.  Additionally, Lime pool owner MAD was not informed by ME team of the higher resource usage job so capacity sizing was not done. |
| **Reviewed by** |  |
| **Problem Report** | Incident Ticket  ATB  Timeline (MST):   * Impact time: 1/2/23 at 7:48 am MST - 1/4/23 20:33 pm MST  1. Ads Data Pipeline: Hadoop Apollo RNO → r1lime RNO 2. Traffic ramp timeline: RNO Traffic ramped up 1/2/23 at 7:48 am MST |
| **FCI** | Ads Guidance was not available for suggesting PLA campaign keywords |
| **Domain Impacted** | Ads Guidance and Campaign Details Page (CDP) |
| **Triage** | Jan 3, 2023  6:19 AM MST: TDO reported r1lime was seeing more traffic in RNO and identified a pattern at 6:37 MST <https://ebay-eng.slack.com/archives/C0G4ZU28J/p1672751969106139> |
| **Examine** | Jan 3, 2023  6:19 AM MST: TDO reported r1lime was seeing more traffic in RNO and identified a pattern at 6:37 MST <https://ebay-eng.slack.com/archives/C0G4ZU28J/p1672751969106139>  14:27 - exited RNO for r1lime  14:53 - TDO reached out via e-mail to HS-CORE and PL-Ranking DLs with screenshots of current pool platform/perfmon metrics from SREStar's r1lime  15:07 - reintroduced RNO for r1lime as the script maxed out other colos  Avinash (@agadam) Acked and started investigation 14:56  Jan 4, 2023  10:04 Avinash engaged b\_marketing\_ep\_infr Admins and provided list of ME related jobs which could be causing the issues  14:18 TDO's increased r1lime pool from 18 to 36 servers, 12 in RNO, which did not appear to help.  15:25 Prajakta added Kevin Gao to emails who paused the ME jobs which were running in RNO against the lime cluster.  The jobs were for Keyword to L2 category mapping project.  It fetched item listing results given an input keyword through the LIME API.  +12hr Chao Shan killed the still running timed out remaining jobs as excessive traffic was still being observed.  r1lime recovered by 20:26  Lime timer <https://console.sherlock.io/d/-3Kg9rVVk/pla-keyword-recommendations?orgId=1&from=1672560000000&to=1672991999000&viewPanel=23>  Lime TPS platform metric <https://console.sherlock.io/d/Ng12B8Qnk/drill-down-experience-dashboard?orgId=1&var-pool=r1lime&var-applicationresourceid=All&var-applicationresourceid_prefix=All&var-commandname=All&var-colo=All&var-az=All&var-errTypes=All&var-groupby=pool&var-groupby=colo&var-groupby=commandName&var-groupby_lbmetrics=All&var-groupby_appstats=All&var-groupby_noCommand=All&var-lookback=&var-lookback_num=0&var-latencypercentile=0.99&var-environment=%21~%22%28pre-production%7Csandbox%29%22&from=1672646400000&to=1672911755651&viewPanel=47> |
| **Root Cause** | Root Cause: ME team started a python job Jan 2 on Hadoop Apollo rno kept calling production lime pool, which saturated r1lime rno colo. |
| **Cure** | Lime pool owner killed all python processes |
| **Opportunities** | * What can be improved   + Ask ME team to improve the job:     - Reduce the load     - Distribute the traffic to 3 colos     - Can ME team use library/beans instead of service? Praj asked Kevin if they can check into this?   + Ownership of lime pool is split:     - Lime Owned by Page Opt for release and monitoring but relies on individual for FT sign off;     - Most SJC teams are dependent on lime service but library releases are owned by individual teams (ie MFE, homesplice).     - **There should be client consumerId of a sort for capacity analysis/tenant management**     - **Action item: Check which teams are using the service and request they move to the library which has more frequent updates and queries cassini directly -** [**Wei, Mike**](file:////display/~xwei) **/** [**More, Prajakta**](file:////display/~pramore) **Do you know if there is an existing ticket?**   + The lime pool LB policy is colo-affinity, if a client from a fixed colo keeps calling lime, all traffic will be routed to the same colo. The owner needs to consider update the lime LB policy to round-robin. – This is the first case where colo affinity matters via batch, as others were service to service   + ME team will be aware of the capacity restraints & work within those constraints:     - Keyword to L2 category mapping project is a one time project which is all set for now, and there will be no further need for the LIME API from us unless there are requirements for a refresh or some other mapping project.     - [@gramakrishnan](https://ebay-eng.slack.com/team/W3YK81C4A), I was given thresholds on busy threads and TPS, and the previous job was configured to not cross those thresholds.     - Since the job is all complete, the incident like before won't occur from our side again for this project.   + Monitoring   + Code   + Automation   + Process |
| **Flow** | Data/Pool Dependencies |
| **Rollback** |  |
| **Related items** |  |
| **Status** | Incident Status, RCA edit status |