# 2023-06-13 Promoted Display Offline Data Delayed

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| **Environment** | Production |
| **Description** | On 12-13 June 2023 the insertion of offline data for Promoted Display was delayed due to several reasons (explained below), and as a result we were unable to provide 100% correct data in sellers performance reports even after 72 hours. |
| **Reviewed by** | Ellen Zheng, Naz Davani, Oleg Muravskiy |
| **Problem Report** | [Incident Ticket](https://ebayinc.service-now.com/nav_to.do?uri=incident.do?sys_id=cc17595f47df61908bf3a1bf336d4317%26sysparm_view=standard)  2023-06-11 23:06 MST – DSS is aware that the offline replacement data file is not ready ([Slack thread](https://ebay-eng.slack.com/archives/C03VBBCGARE/p1686549970417369)) 2023-06-12 18:53 MST – Offline replacement data file is ready ([Slack thread](https://ebay-eng.slack.com/archives/C03VBBCGARE/p1686621199068969)), ADPP could proceed with replacement in the database 2023-06-13 01:00 MST – ADPP started data backfilling jobs for TOS and PLX/PLS features. 2023-06-13 03:10 MST – ADDP On Call receives an [alert](https://ebay-cpt.pagerduty.com/incidents/Q0BPK4GSE8VVIC) about promoted display offline replacement missing the SLO. Investigation is started. 2023-06-13 03:39 MST – Investigation revealed that one of the replacement jobs is taking too long, and blocking all other jobs, including backfill jobs and promoted display replacement. NuData team is engaged to fix the issue ([Slack thread](https://ebay-eng.slack.com/archives/C0TTLQPRP/p1686652777443939)). 2023-06-15 06:17 MST – The issue with blocking job is resolved, and the queued jobs start to be processed. 2023-06-14 02:05 MST – Another issue with running replacements in the NuColumnar ([Slack thread](https://ebay-eng.slack.com/archives/C0TTLQPRP/p1686733544410489)) prevents executing data replacements. 2023-06-14 04:21 MST – The issue in NuColumnar is resolved, but we have a queue of replacement jobs to be processed. 2023-06-14 06:24 MST – Replacement jobs for Promoted Display table are failing for unknown reason (replacement jobs for other tables are fine).  2023-06-14 17:58 MST – Replacement of Promoted Display data completed successfully. |
| **FCI** | Sellers see not 100% correct data in the Promoted Display performance reports |
| **Revenue Impact** | none |
| **Domain Impacted** | Ads reporting |
| **Triage** | PagerDuty [alert](https://ebay-cpt.pagerduty.com/incidents/Q0BPK4GSE8VVIC) started an investigation |
| **Examine** | Check active partition in NuColumnar table, ADPP offline replacement [dashboard](https://oig-offinggrafana-prod.vip.ebay.com/d/DXq7J-3Mz/offline-ingestion-dashboard-ads?orgId=1&refresh=15m), and [DSS alerts channel](https://ebay-eng.slack.com/archives/C04LXHCTL77) |
| **Root Cause** | * offline data from DSS is delayed * when data from DSS is delayed, the job expecting it blocks other offline replacement jobs * replacement jobs in NuColumnar fail and block all consecutive jobs; manual action by NuData team is required to unblock them * scheduled data backfill jobs run with the same priority as daily replacement jobs, and block them |
| **Cure** | * re-shuffle or re-schedule jobs in the queue, so that they are not blocked by missing input files * notify other teams if action from their side is required |
| **SLI** | [Monitoring by ControlCenter](https://adsshepherd.muse.vip.ebay.com/alerting/rule-manager?name=OfflineIngestionReplacementMissed_promoted_display) |
| **Opportunities** | * modify offline replacement pipelines, so that jobs without input data do not block execution of other jobs [[ADP-1666](https://jirap.corp.ebay.com/browse/ADP-1666)] * [Improve automation on offline ingestion](https://airtable.com/appJKHWElravPZJqm/tblS2TqJP6zLLDG1T/viw1omvm2MvVjuyFh/recNedPVU5hOTXkxn?blocks=hide) * improve offline data replacement in NuColumnar, including proper fixes to handle Promoted Display dataset |
| **Flow** | DSS offline data files → ADPP offline processing → NuColumnar data replacement |
| **Rollback** |  |
| **Related items** |  |
| **Status** | Incident resolved, RCS reviewed and closed |