**NYEC / NYHIX Prod Support**

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| **Notification Rules** | 1. When you see the notification emails you need to look at oldest unprocessed for queue processor and hours delay for ETL jobs. 2. If an ETL job/Queue processor is 24 hours behind there is a major issue. 3. If an ETL job/Queue processor is 2 hours behind it should be monitored. If it is still moving, then watch closely and send an update that it is moving slow and is being monitored. 4. Anything running for more than 4 hours should be escalated. 5. Use the sqls mentioned in the document to monitor the ETL jobs and queue processor. One should see the counts changing if the sqls are run every 10 or 15 minutes. |

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| **Known Issues** | 1. There is a ticket open to work on Complaints processor as we understand that it is slower than other queue processors.   <https://jira.maximus.com/browse/NYHIX-47459>   1. The daily monitoring summary email should mention about any known issues that are being worked on. Eg: Mention that Complaints queue processor is slow and is a known issue and the following ticket is in progress to address it.  <https://jira.maximus.com/browse/NYHIX-47459> |

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| **Notification Email template** | Status For NYSOH and NYEC send hourly monitoring summary emails starting 7:00AM Eastern to 9:00AM Eastern  This is what we want to check and send a status email – Good or bad   1. Check for NY prod email alerts – Both NYHIX and NYEC    1. Check for alert emails, if errors are reported, send email    2. Investigate and remediate any errors 2. Look at job stats table on NYECMXDP and NYHIXMXDP    1. Ensure all jobs have completed or  have started in the last hour  (MFB can be 2 hours)    2. Look for long running processes – We should establish a base line so we can see if something is getting slower over time    3. This might be helpful script:   SELECT js.JOB\_ID, js.JOB\_NAME, js.JOB\_STATUS\_CD, js.PROCESSED\_COUNT, js.RECORD\_UPDATED\_COUNT, js.JOB\_START\_DATE, js.JOB\_END\_DATE,  Round(((js.JOB\_END\_DATE-js.JOB\_START\_DATE)\*24\*60),0) elapseMinutes  FROM CORP\_ETL\_JOB\_STATISTICS js  WHERE js.JOB\_START\_DATE > TRUNC(SYSDATE-1)  ORDER by  js.JOB\_START\_DATE DESC;   1. Look at Queue process on NYECMXDP and NYHIXMXDP    1. Make certain we are not failing behind    2. This might be helpful script   SELECT   BPM\_SOURCE\_LKUP.BSL\_ID,NAME                ,count(BPM\_UPDATE\_EVENT\_QUEUE.BSL\_ID) Total                ,sum(CASE WHEN BPM\_UPDATE\_EVENT\_QUEUE.WROTE\_BPM\_SEMANTIC\_DATE IS NOT NULL THEN 1 ELSE 0 END) "Processed - Not Archived"    FROM BPM\_SOURCE\_LKUP    LEFT OUTER JOIN BPM\_UPDATE\_EVENT\_QUEUE ON BPM\_SOURCE\_LKUP.BSL\_ID = BPM\_UPDATE\_EVENT\_QUEUE.BSL\_ID  GROUP BY BPM\_SOURCE\_LKUP.BSL\_ID,NAME  ORDER BY BPM\_SOURCE\_LKUP.BSL\_ID;  Who do we notify  Valerio, Gary, Praveen, Sara ,Lavanya, Devin, Sean, Virginia, Rey, Sanjay, bill, Arun, Syed  Eg:  Status For NYSOH and NYEC as of 07:00 AM Eastern   1. Alerts    1. NYEC – No Alerts received – this indicates data is current    2. NYHIX – No Alerts received – this indicates data is current 2. Job  status    1. All jobs are current. 3. Actions Taken:    1. PP\_WFM\_TASK\_AUDIT issue :   [NYHIX-52895](https://jira.maximus.com/browse/NYHIX-52895) jira ticket was created on 9/24/2019. It’s a known issue and is being worked upon.  There is no need to rerun the job. Its purpose is to check for changes to the TASK table which are over 30 days old. It should run ok tomorrow. |

**Checking Queue Processor**

1. **Understanding Queue processor**

This happens after the ETL runs and is a process that batches the ETL changes and prepares

them to load into the semantic layer.

1. **Query to check Queue Processor jobs**

This query can be used to check what jobs are running (queue processor)

select \* from PROCESS\_BPM\_QUEUE\_JOB where STATUS != 'STOPPED' order by BSL\_ID asc, BDM\_ID asc, PBQJ\_ID asc;

Select

  --bsl.BSL\_ID,

  bsl.NAME "Staging Table Name",

--  count(bueq.BSL\_ID) "Total",

  sum(case when bueq.WROTE\_BPM\_SEMANTIC\_DATE is null then 1 else 0 end) "Semantic Pending",

  --sum( case when bueq.WROTE\_BPM\_SEMANTIC\_DATE is not null then 1 else 0 end) as Not\_Archived,

  nvl(round(((sysdate - min(EVENT\_DATE)) \* 24),2),0) "Hours Delay",

  nvl(to\_char(min(EVENT\_DATE),'YYYY-MM-DD HH24:MI'),'Current') "Oldest Unprocessed"

from BPM\_SOURCE\_LKUP bsl

left outer join BPM\_UPDATE\_EVENT\_QUEUE bueq on bsl.BSL\_ID = bueq.BSL\_ID

--and bsl.BSL\_ID = 15

group by bsl.BSL\_ID,NAME

order by bsl.BSL\_ID asc;

1. **Steps to follow when queue rows are stuck**

These are the steps to follow whenever queue rows are stuck and not processing.

1. Identify the processes that are stuck via the alert email

select \* from bpm\_source\_lkup – Identify the processes that need to be reset

1. Stop job processor:

execute MAXDAT\_ADMIN.SHUTDOWN\_JOBS;

2.Reset queue rows:

execute MAXDAT\_ADMIN.RESET\_BPM\_QUEUE\_ROWS\_BY\_BSL\_ID(BSL\_ID from the above query); --

After all the processes are reset one after the other

3. Restart job processor:

execute MAXDAT\_ADMIN.STARTUP\_JOBS;

Anyone who is available and has access to run MAXDAT\_ADMIN package in Production should be able to run the above. If no one is available or not responding, immediately create a jira, Emergency break fix CR and get it going. Pinging appadmin/DBA that you know will help speed up the process instead of waiting for the jira to be assigned to someone.

1. **Email Alerts**

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| NYHXMXDP - BPM Queue Processing Workload Remaining | | | | | | |
|  | | | | | | |
| BSL ID | Staging Table Name | *Oldest Unprocessed* | *Hours Delay* | *Total in Queue* | *Processing* | *Not Archived* | |
| 1 | CORP\_ETL\_MANAGE\_WORK | Current | 0 | 0 | 0 | 0 | |
| 12 | CORP\_ETL\_PROC\_LETTERS | Current | 0 | 0 | 0 | 0 | |
| 16 | CORP\_ETL\_MFB\_BATCH | Current | 0 | 0 | 0 | 0 | |
| 18 | NYHIX\_ETL\_MAIL\_FAX\_DOC | Current | 0 | 0 | 0 | 0 | |
| 21 | NYHX\_ETL\_IDR\_INCIDENTS | Current | 0 | 0 | 0 | 0 | |
| 22 | CORP\_ETL\_COMPLAINTS\_INCIDENTS | 2019-09-23 10:02 | 7 | 4,502 | 422 | 0 | |
| 23 | NYHBE\_ETL\_PROCESS\_APEALS | Current | 0 | 0 | 0 | 0 | |
| 24 | NYHIX\_ETL\_MAIL\_FAX\_DOC V2 | Current | 0 | 0 | 0 | 0 | |
| 30 | NYHIX\_ETL\_DOC\_NOTIFICATIONS | Current | 0 | 0 | 0 | 0 | |
| 2001 | CORP\_ETL\_MW\_V2 | Current | 0 | 0 | 0 | 0 | |

Report any batches that are not current. Make sure to send an email update.

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| NYECMXDP - BPM Queue Processing Workload Remaining | | | | | | |
|  | | | | | | |
| BSL ID | Staging Table Name | *Oldest Unprocessed* | *Hours Delay* | *Total in Queue* | *Processing* | *Not Archived* | |
| 1 | CORP\_ETL\_MANAGE\_WORK | 2019-09-22 18:00 | 22.73 | 2,717 | 0 | 0 | |
| 2 | NYEC\_ETL\_PROCESS\_APP | 2019-09-22 03:28 | 37.27 | 8,749 | 0 | 0 | |
| 4 | NYEC\_ETL\_PROCESS\_APP\_MI | 2019-09-23 08:05 | 8.66 | 284 | 0 | 0 | |
| 5 | NYEC\_ETL\_PROCESS\_MI | Current | 0.00 | 0 | 0 | 0 | |
| 7 | NYEC\_ETL\_STATE\_REVIEW | Current | 0.00 | 0 | 0 | 0 | |
| 22 | CORP\_ETL\_COMPLAINTS\_INCIDENTS | 2019-09-23 08:02 | 8.70 | 557 | 0 | 0 | |
| 2001 | CORP\_ETL\_MW\_V2 | 2019-09-22 18:01 | 22.72 | 2,505 | 0 | 0 | |

Report any processes that are running longer than 1 hour, ensure and verify batches are running.

**Checking ETL jobs**

1. **Email Alerts**

Alert! CORP ETL Job Load Time Exceeds 2 hours

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Job ID | Job Name | Status | Start Date | End Date | Processed Count | Error Count | Warning Count | Inserted Count | Updated Count | *Metrics* | *Hours Since Last Update* |
| 960084 | CORP\_ETL\_MFB\_FORM | STARTED | 9/23/2019 1:00:02 PM |  |  |  |  |  |  | | 2.2 |
| 960085 | CORP\_ETL\_MFB\_BATCH\_COUNTS | STARTED | 9/23/2019 1:00:02 PM |  |  |  |  |  |  | | 2.2 |
| 960086 | CORP\_ETL\_MFB\_BATCH\_EVENTS | STARTED | 9/23/2019 1:00:02 PM |  |  |  |  |  |  | | 2.2 |
| 960087 | CORP\_ETL\_MFB\_DOCUMENT | STARTED | 9/23/2019 1:00:02 PM |  |  |  |  |  |  | | 2.2 |
| 960089 | CORP\_ETL\_MFB\_ENVELOPE | STARTED | 9/23/2019 1:00:02 PM |  |  |  |  |  |  | | 2.2 |

Ensure all ETL BPM processes have started and ensure nothing is running for more than 1-2 hours.

Advise and look into why jobs are taking longer than 2 hours using the script below

1. **Script to check the ETL job status**

SELECT js.JOB\_ID, js.JOB\_NAME, js.JOB\_STATUS\_CD, js.PROCESSED\_COUNT, js.RECORD\_UPDATED\_COUNT, js.JOB\_START\_DATE, js.JOB\_END\_DATE,

Round(((js.JOB\_END\_DATE-js.JOB\_START\_DATE)\*24\*60),0) elapseMinutes

FROM CORP\_ETL\_JOB\_STATISTICS js

WHERE js.JOB\_START\_DATE > TRUNC(SYSDATE-1)

ORDER by js.JOB\_START\_DATE DESC;

1. **Command to check for errors in the logs directory:**

egrep -l `[`false] \*201909\*.log

1. **Steps to resolve Stuck jobs:**

If the jobs are stuck, look for :

- /u01/maximus/maxdat-prd/NYHIX/ETL/scripts/\*check.txt file

Then

1. Kill the PIDs and remove the check.txt file for the ETL to continue processing

2. Determine the PIDs to be killed

Follow the instructions in the document : /trunk/ETL\_DOCUMENTS/Kill\_Unix\_Kettle\_scripts

else follow the steps below:

ps -edf | grep kitchen.sh

This command shows the PIDs. The first one is the child and the next one to it is it's parent

for

Eg. 9540 9502

In this case, the child is 9540 and the parent is 9502

grep for the child until the java process is found

ps -edf | grep 9540

The java PID should be the first PID on the list of PIDs to be killed. Followed by the parent PID of that java PID and then followed by the next parent ID

Eg:

9597

9540

9502

3. Create a jira ticket ( Issue )

Eg : https://jira.maximus.com/browse/NYHIX-47365

4. Create a Cherwell Incident

Eg: Incident : 991080

5. Call IT Help Desk to escalate the incident to P2

6. Create an Emergency Break-fix CR

Eg: Emergency break-fix CR : 40478

7. Update the jira ticket with Incident# and Emergency Break Fix CR #

8. Follow up with app admin team with an email (stating that it’s a production outage)

9. Verify that the jobs completed Successfully

10. If everything is running as expected, close the Jira ticket and the Incident

**Sample Tickets for NYHIX Patching**

1. <https://defect-tracker.maximus.com/browse/MAXDAT-10426>
2. <https://defect-tracker.maximus.com/browse/MAXDAT-10417>