IBM Sterling Order Management

Holiday Readiness 2023

2022 Peak Retrospect



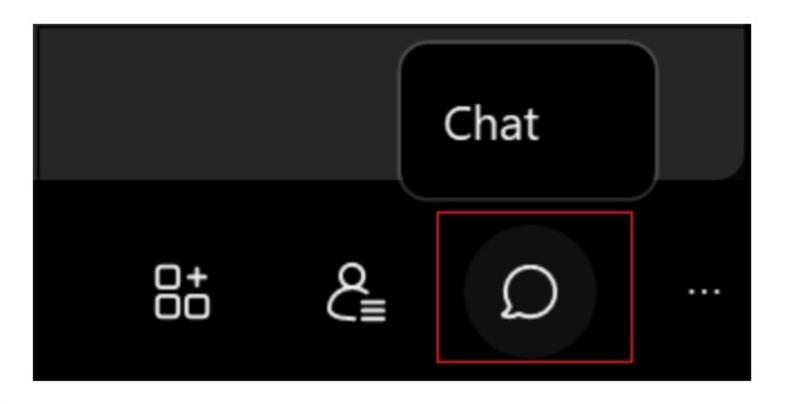


Have a Question(s)?



2

Open the Chat panel from the link in the lower right of the meeting window:

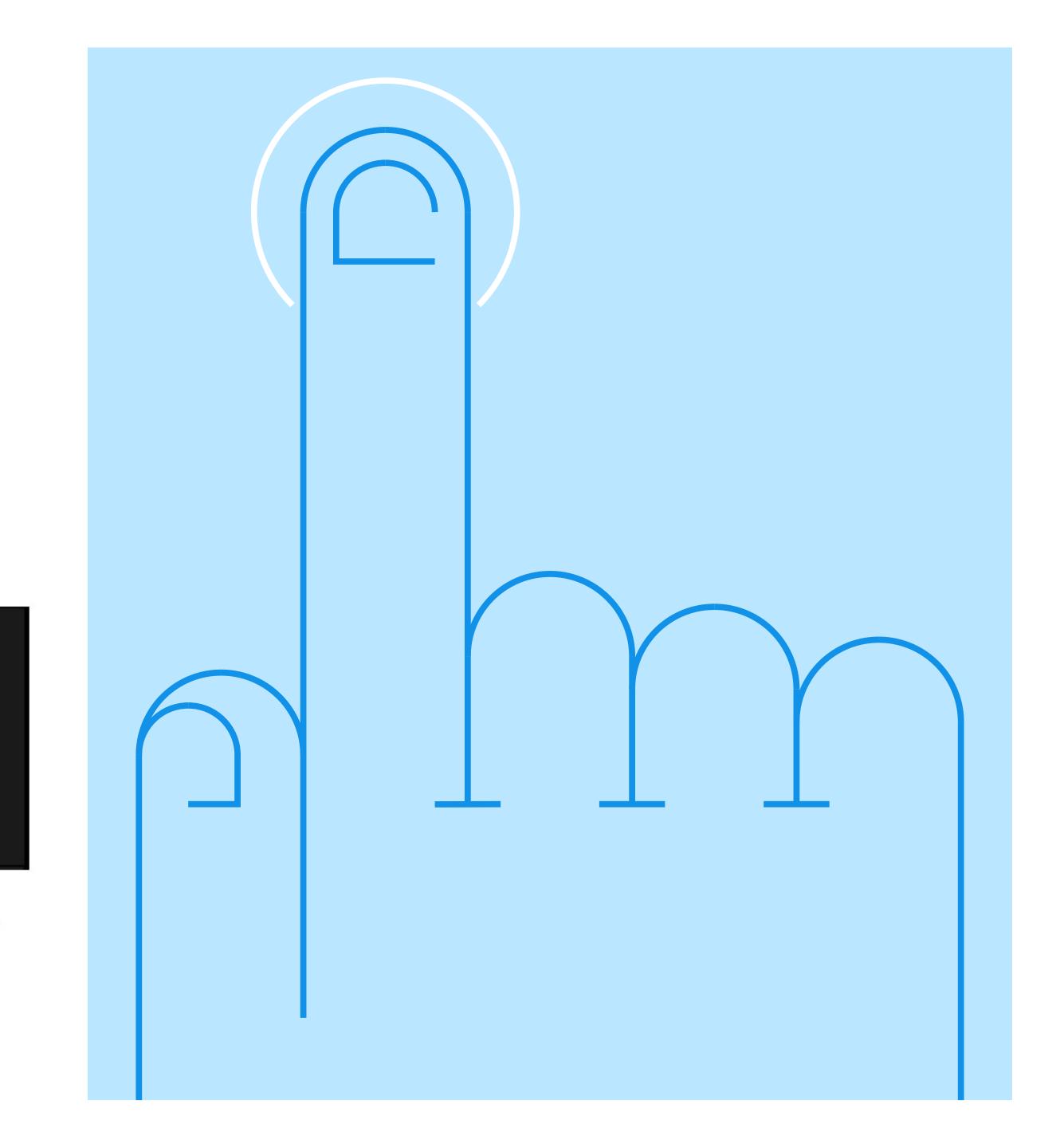


In the **To** drop-down list, select the recipient of the message.

| To: Everyone | ^ |
|--------------|---|
| En Everyone | ~ |
| | |

3 Enter your message in the chat text box, then press **Enter** on your keyboard.





Your Holiday Readiness Team ... and today's speakers



Chris Burgess Manager – Americas & AP Support Experience Team



Mike Callaghan Program Director – WW Supply Chain Support



Shoeb Bihari Technical Lead / SRE Advisor – Order Management Support



Senthil Ponnusamy Technical Lead / SRE Advisor – Order Management Support



Jitendra Buge Technical Support Engineer Order Management Support



Rajiv Madassery Senior Manager Order Management Support



Jelena Markovic Technical Support Analyst Order Management Support



Abdul Shad Technical Lead – Order Management Support



Agenda



Our Journey to peak success

Key Metrics

Common issues

Enhancements

Recommendations

Alerts & Monitoring overview



Journey to Peak Success

What <u>Not</u> to Do

Plan



Aggressive rollout plans

Outdated product, stack

Narrow test coverage

Unclear peak workloads



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Prepare

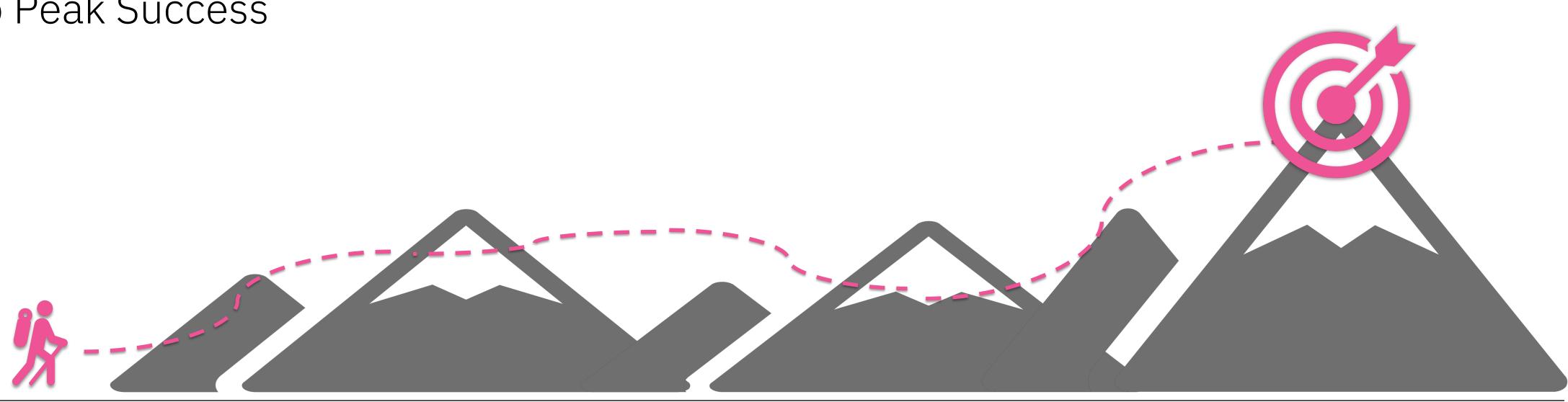


- Poor DB hygiene
- Major DG changes
- Defer Q3 push
- Last-minute fix, deploy
- Open recommendations

Execute Oversell detected BOPIS orders delayed Major Escalation Chaotic War-room Tedious triage Tune on the fly



Journey to Peak Success



Plan

- □ Retrospective
- □ Align Business and IT
- Platform Enhancements
- □ Align Schedules
- □ Know the Best practices
- □ Identify Risks

Prepare

- □ Implement Best Practices
- Ongoing housekeeping
- Performance test, tune
- □ Know, test Breaking points
- □ Failover, DR scenarios
- Monitoring & Alerting

Execute

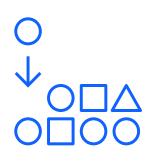
- □ Roles & responsibilities
- Escalation paths
- Critical Workloads
- □ Triage Runbooks
- Mitigation Techniques
- Communication Plan



IBM OMS Holiday Readiness Our Mission Statement

Stable Platform

Continuous improvement of platform and monitoring, with focus on performance, stability, reliability



Best Practices

Establish, expand and apply a robust collection of proven selfhelp best practices focused on peak season success

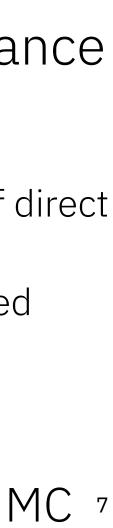


Proactive Engagement

Early and regular identification, communication, and mitigation of potential risks

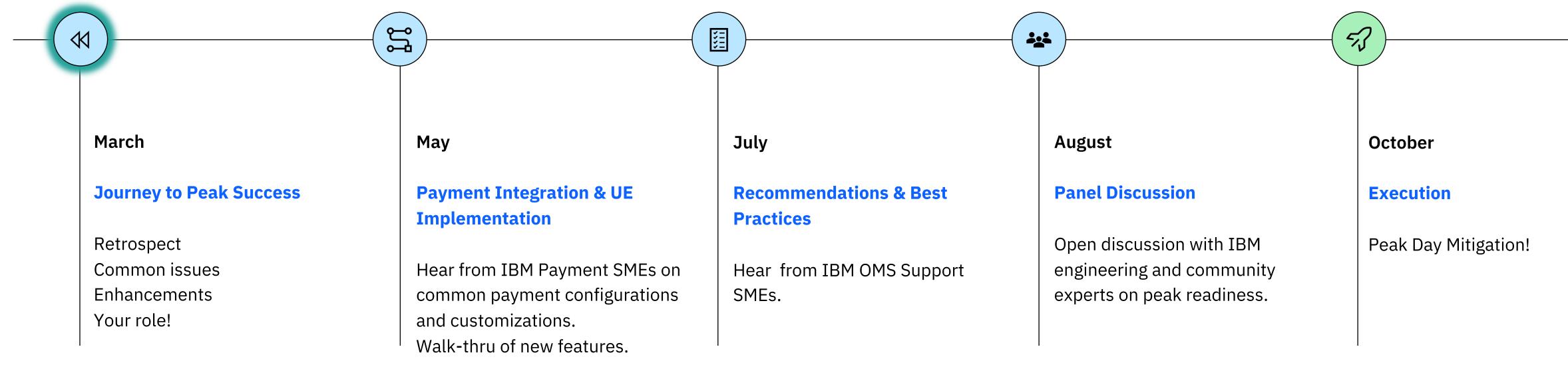
Prescriptive Guidance

Deeper partnership with specific clients in need of direct analysis and prescriptive guidance via our Enhanced Event Readiness offering



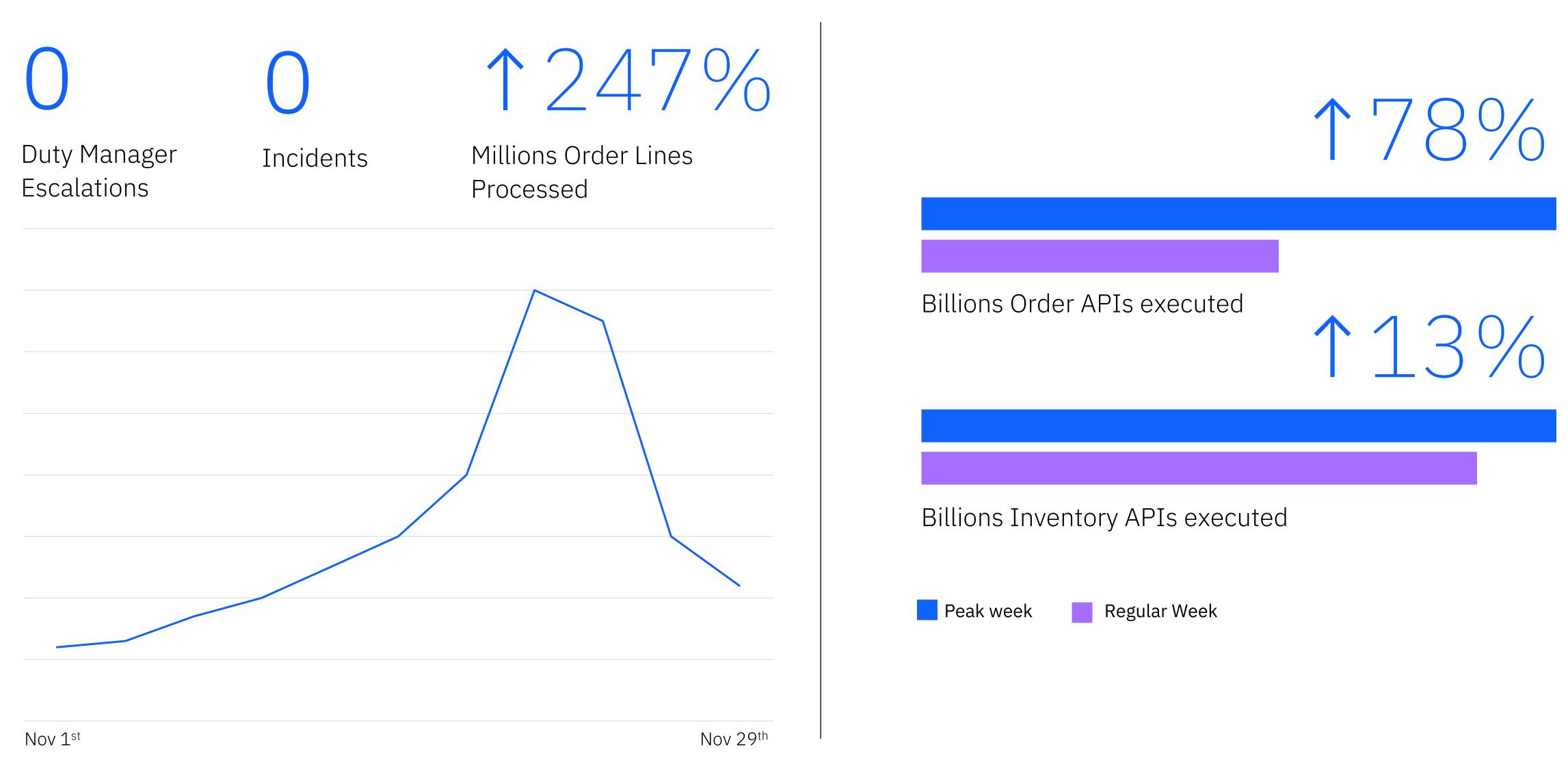
The Path Ahead Journey to Peak Success

The IBM OMS Support team are continuously expanding our technical best practices based on the observations and learnings over our supported launches and peak events!

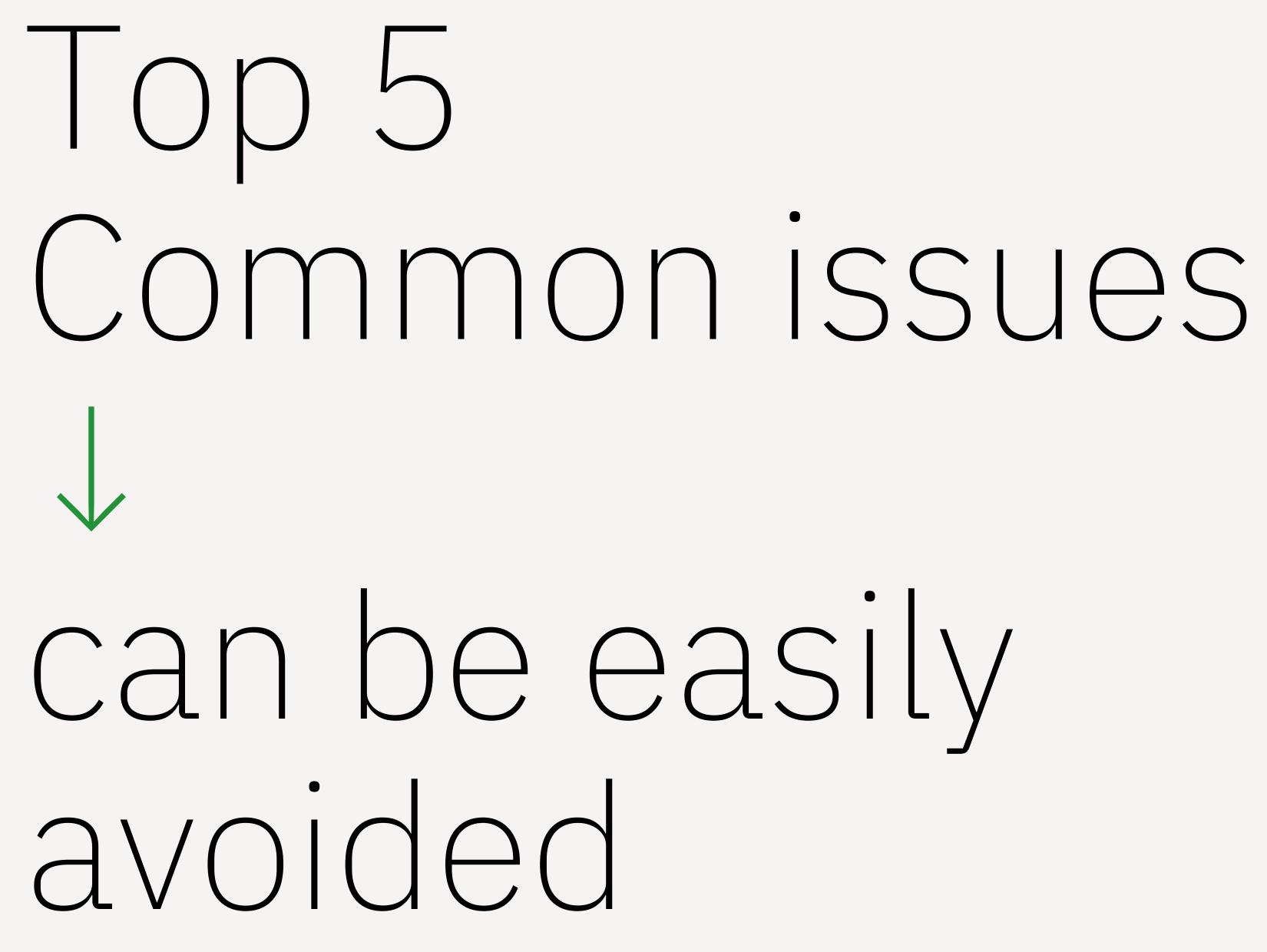




Burst volume handled flawlessly across the Sterling OMS SaaS platform Peak 2022 Retrospective



Source: Representative sample datapoints of burst volume handled between Nov 22nd to Nov 29^{th,}, compared to regular 2022 week







Case Study Payment Processing Issue

Payment collection agents not working as expected

- Infinite Loop
- Multiple open authorizations
- Settlement delay
- Partial cancellation throwing Insufficient funds
- Orders with too many charges transaction records



Challenge

Payment collection agent not processing new orders / Payment processing Slow

Database contention having cascading impact on other components such as Order Monitor, Store server, etc.

Impact to order fulfilment NFRs.



Solution

Applied hold on the old orders which was continually getting processed due to to which new orders not processing.

Refactored the UE implementation to address reprocessing of invoiced order with authorization expiry in past.

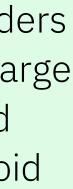


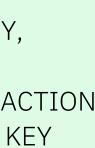
Recommendation

– Keep a check on old orders with high number of charge transaction records and put them on hold to avoid repeated processing

– Sample query

- SELECT ORDER_HEADER_KEY, COUNT(*) FROM YFS_CHARGE_TRANSACTION GROUP BY ORDER_HEADER_KEY HAVING COUNT(*) > 200 ORDER BY ORDER_HEADER_KEY
- Check if there are invoiced orders which are having expiration date in the past, review and correct your UE implementation.
- Forthcoming enhancements











Case Study Issue with sourcing

Promising and Sourcing APIs are performing slow

- Inventory lookup timeouts —
- Delay in capturing demand
- Reprocessing overhead
- Unable to meet NFRs for ____ targeted Order Types (BOPIS, Curb-Side Pickup, etc.)



Challenge

Slow **findInventory** and reservation real-time calls

Schedule order taking time.

As number of eligible nodes an d number of order lines per order increases, the solver can take time to perform the evaluation

Use IBM Order Management for complex sourcing \rightarrow



Solution

Refactored sourcing configuration

Enabled sourcing optimization configurations

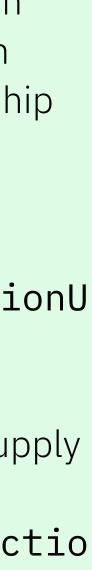
Tuned YFS_Calendar_Shif tDBCacheHome, YFS_Calendar_Shift_Eff_ PerdDBCacheHome cache size.

Refactored AvailabilityCorrectionF **orItemListUE** to 0 quantity supply records for the item. This reduced assignment evaluation time by by 70-80% resulting significant improvement.



Recommendation

- Enable Smart Sourcing
- Configure multiple DG in sourcing sequence with maximum of 25 to 30 ship nodes.
- Evaluate and use getSouringCorrectionU Ε
- Exclude items with 0 supply quantity when using AvailabilityCorrectio nForItemListUE.
- Use optimal inventory/promising API





Case Study Entity Cache Management

Effective use of Cache, for better performance



Challenge

IBM Sterling OMS database was consistently running with high CPU and impacting overall database transactions response time.

The CPU consuming SQL queries were fired against a custom table which already have cache enabled.

This presented an opportunity to check how efficiently cache is been reused.



Entity cache drop statistics (YFS_STATISTIC_DETAIL)



Solution

Although table level cache was enabled, it wasn't effectively used for better performance because every SQL queries had unique values(timestamp) in them, which resulted in unique cache key for every SQL call and cache didn't get reused.

We had to update the SQL queries to make it non unique in every single query for efficient use of cache.



Recommendation

- Analyze cache utilization metrics from System Management Console (SMC) periodically.
- Review cache clearing statements from logs to understand how frequently cache is cleared.
- Tune the default cache size if the frequent invalidation is happening because cache getting filled up quickly.
- Turn off the cache if the invalidation overhead due to frequent changes outweighs the benefit of having cache enabled.
- When caching custom tables, ensure SQL query parameters are not unique in each execution



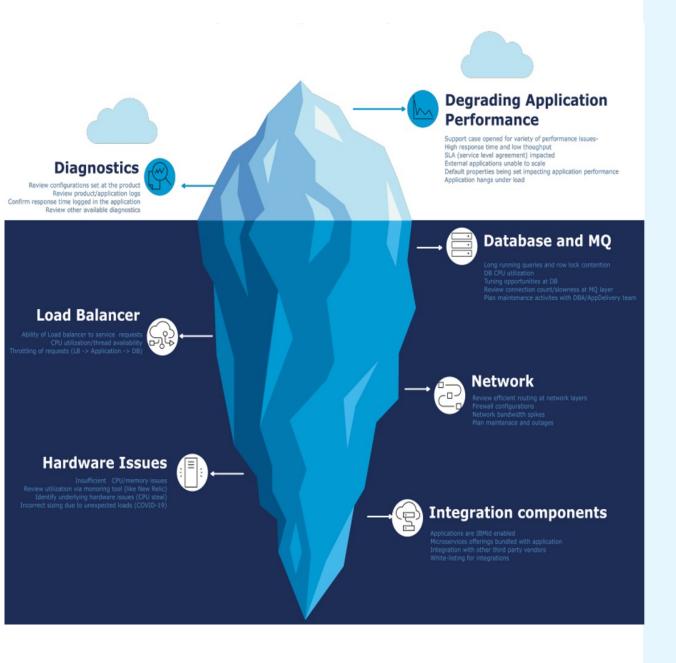






Case Study Lack of common data

Always-on diagnostic data collection, quicker troubleshooting





Challenge

During critical production issue situations, we are unable to collect the required data to debug before mitigating the issue with the temporary solution or workaround.

Lack of data prevents us from doing detailed root cause analysis and push a fix for this issue.

This is one of the common symptoms we see with onpremise customers.

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Solution

Have always on diagnostic data collection tools enabled in production environments.

Have monitoring systems in place on each layer of environment setup.

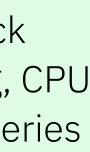
Have predefined runbook steps to collect details on demand if needed.



Recommendation

- DB2 Collect or Oracle AWR report
 - To identify any lock wait, long running, CPU or IO intensive queries
- Host level metrics
 - CPU, Memory, IO, Network, etc.,
- OMS mustgather documents.
 - Must gathers specific to individual components.
- Java Health Center
- MQ Gauges
- Monitoring tool







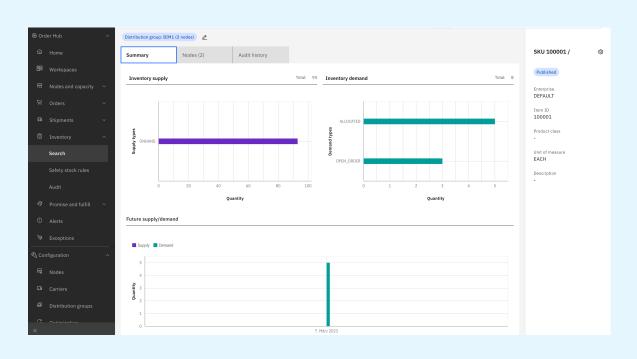


Best Practices Sterling Inventory Visibility (IV)

These best practices can help you achieve your NFRs.

Common issues - 2022

- 1. Incorrect availability during internal event-based audit.
- 2. Slow API response due to excessive token generation.
- 3. Synchronize inventory for entire catalog



Token Management

Reuse IV token as much as possible

Generating token instead of reusing can negatively affects performance.

Automatically regenerate a token before the expiration time or as part of error handling on 401 Unauthorized or 403 Forbidden response. Read more →

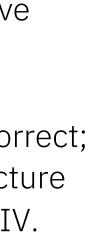
Avoid redundant Snapshot calls

Only publishes the current inventory picture

Space out the sync supply and snapshot calls

If possible, sync only items for which inventory picture changed

| Us | e Optimal Payload | Event Management |
|--|--|---|
| invo IBM item API - Av - Su | ere to best practice when king IV APIs. Read more → recommends no more than 100 is per payload when invoking IV s with multiple lines. vailability lookup pply adjustment / sync eservations | Do not miss failed events; implement a process to retrieve failed events. Read more → Supply/Demand audit looks corr however, cached inventory pictu does not match availability in IV |
| Ne rec Rec recc DG. Upd avai | oid redundant twork availability computes ompute Network Availability API omputes availability for existing ate DG API will recompute lability for newly created or lified DGs but not for existing | Use enhanced APIs Do not use depreciated APIs, instead use updated APIs. – Item FO/Threshold APIs – Safety stock APIs – Event Threshold APIs – Ship node and DG managemer APIs are moved under Sterling Intelligent Promising. Read more → |





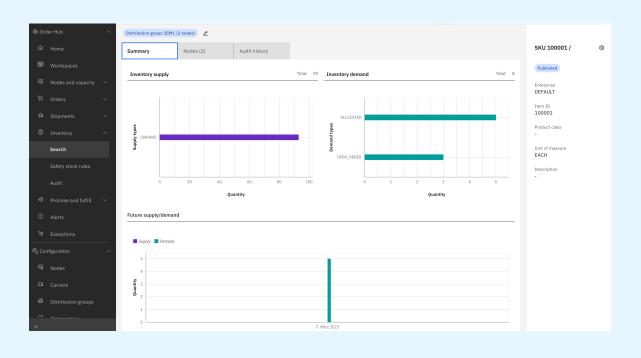


Best Practices Sterling Inventory Visibility (IV)

Transparent Supply and Demand update.

Common issues - 2022

- 1. Incorrect availability during internal event-based audit.
- 2. Slow API response due to excessive token generation.
- 3. Synchronize inventory for entire catalog



Supply Sync Transparency

Supply Sync transparency shows progress of supply sync

Gives ability to reprocess any failed items, no longer a "black box"

New records, status, history APIs

- status: [QUEUED, IN_PROGRESS, COMPLETED, EXCEPTION, DELAYED]

Read more \rightarrow

Supply & Demand Audits

Retrieve up to 7 days of supply or demand change audit for an item.

Audit can be used to trace order release status (YFS_ORDER_RELEASE_STATUS) change.

Read more \rightarrow

POST →

https://api.watsoncommerce.ibm.com/inventory/{tenant_id}/v1/supplies/transaction/status

Input → {"batchId":["6230af14-a180-4966-9512-e6eafb7cd9d4"]}

```
Response →
              "data":[
                       "lastModifiedTs":"2023-03-07T23:15:10.917Z",
                       "submittedTs": "2023-03-07T23:15:10.865Z",
                       "supplySyncTransactionId": "d4974c1b-5f8f-4fba-99e4-6edb218dcead",
                       "batchId":"6230af14-a180-4966-9512-e6eafb7cd9d4",
                       "status": "QUEUED",
                       "method": "PUT",
                       "path":"/v1/supplies",
                       "parent": false,
                       "estimatedCompletionTime":"3.99s",
                       "details":{
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JM

Continuous Improvement OMS Version: 23.1.3.0 (10.0.2303.0)+

#OMSDemoDays

The IBM Order Management

Continuous improvement into our core platform to promote performance, stability, resiliency, self-service, security

Challenges:

- 1. Performance implication due to large transaction database tables.
- 2. Heavy traces left running on production and lower environment causing performance issues.
- 3. Delay in order flow impacting BOPIS, CURB Side SLAs.
- 4. Unintentional changes getting promoted to higher environments via CDT.
- 5. Redundant cache drops flooding application logs and impacting performance.

New Product Features

- 1. Entity level database compression to reduce the CLOB storage footprint.
- 2. New IgnoreStatus parameter for YFS_EXPORT purge.
- 3. New Order Audit purge agent, along with ability to push audits to external system using YFSBeforeOrderAuditPurgeUE.
- 4. Enhanced **modifyTrace** API to allow for trace expiry by setting TraceTTL attribute
- 5. Workload segregation for task queue agents, and Order size and Segregation filter indicators
- 6. New entity cache drop statistics (YFS_STATISTIC_DETAIL)
- 7. Environment-specific values can now be deployed or ignored in tables such as when using CDT.
- 8. New IV utility service is created to integrate with Sterling Inventory Visibility outside of Order Management Software - Sterling Inventory Visibility adapter.
- 9. Enhanced Inventory purge

New Platform Feature \rightarrow OMoC (Release: 23.1.3.0)

- 1. Longer retention with log compression,, and faster export logs self-service process.
- 2. OIDC configuration support for alternative authentication provider from a list of approved providers that are compliant with OpenID Connect (OIDC)
- 3. Viewing Inbox notifications & Banner for critical updates in Self-Service Tool
- 4. New event calendar for environment upgrade and maintenance events
- 5. Database metric dashboard has been enhanced to include BACKUP, RUNSTATS, REORG maintenance job history

Stack Upgrade

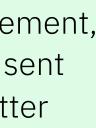
- 1. IBM JDK 8.0.7.20 (1.8.0_351)
- 2. IBM WebSphere Liberty application server 22.0.0.13
- 3. IBM DB2 11.5 Fix Pack 7
- 4. Third-party library upgrades

On the horizon...

- 1. Threshold based properties to gracefully terminate the long running promising API execution when using complex sourcing.
- 2. Payment serviceability enhancement to track payment reason and mapping with additional metadata.
- 3. Alert & Monitoring enhancement, queue depth alerts will be sent via Self-Service tool for better visibility.
- 4. Alert for long running Self-Service processes such as customization deployments, CDT import/export, major/minor upgrades, and more.









JB 17

OMS API Enhancements

IBM recommends you review our critical API enhancements and implement the changes needed to enable performance optimization. Be sure to understand behavior and ensure no impact to order flow!

reserveAvailableInventory

With Inventory Visibility Integration (phase 2) and

later, the **reserveAvailableInventory** API is enhanced to combine reservation calls to Inventory Visibility, whenever applicable.

✓ Therefore, you must set **yfs.UseAggregatedReservationsForIV** property to **"Y".**

Note: For OMoC 22.2 this aggregation property has been enabled by default.

The smart sourcing logic of IBM Sterling Inventory Visibility (phase 2) is disabled.

createOrder & changeOrder

The SQL query to fetch records from YFS_REGION_DETAIL and YFS_ITEM in the **createOrder/changeOrder** API is optimized to improve performance when creating or changing large orders.

manageCapacityReservation

The manageCapacityReservation API enhanced to support locking for capacity availability for Service resource pools (PS/DS), Locking happens depending on parameters passed in **yfs.properties**

New attribute LockCapacity has been introduced: To avoid locking for capacity availability, set **LockCapacity ="N"** manageCapacityReservation input.

The manageCapacityReservation API enhanced to update capacity during transaction commit, like order and inventory reservation APIs.

If yfs.yfs.persitCapacityAdjustments is set to true, pass • PersistCapacityAdjustments="Y" in manageCapacityReservation API so that capacity is updated only when a transaction is committed

getResourcePoolCapacity

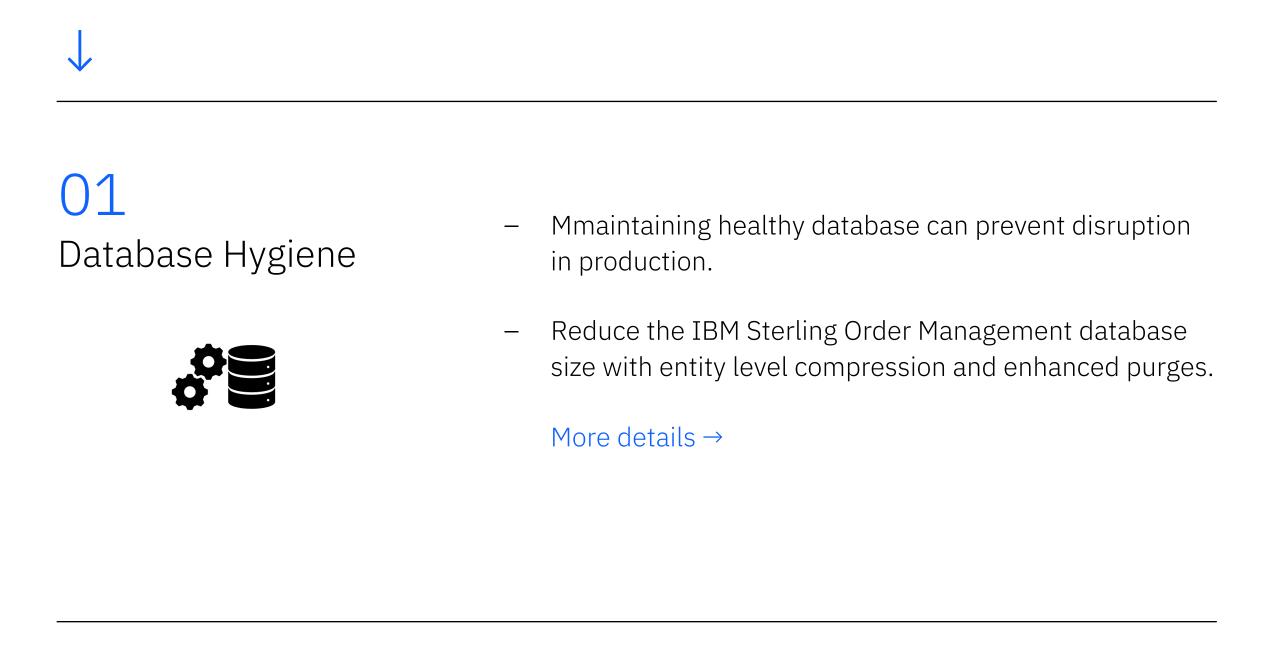
The getResourcePoolCapacity API enhanced to read capacity availability from Capacity Cache.







Plan and take necessary action to position y(our) solution for peak success, it is critical to *TAKE ACTION NOW!*



02 Slow Transactions

- Long running transaction can lead to DB contention, and resource problem on JMS (MQ Server).
- Limits your ability to (auto) scale based on KPIs.
- Achieve scalability with smaller lightweight transactions boundaries.



Y(our) actions

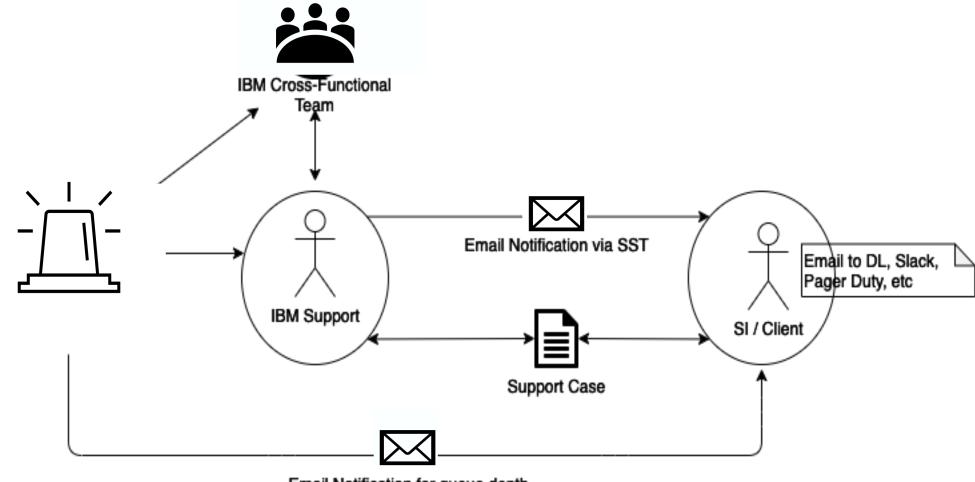
- Ensure all necessary purges are running to maintain healthy & lightweight database, which in-turn minimizes performance issues.
- Disable unnecessary transaction audits (Order Audits, General Audits, etc.)
- □ Implement entity level database compression for custom and OOB CLOB column types.
- Leverage Self-Service database dashboards; continuously review top tables optimization opportunities.
- □ Review and **consolidate agent and integration workload** to optimize resource allocation.
- Select correct JVM profile (*OMoC NextGen) based on analysis from verbose GC logs or your -Xmx/-Xms parameters (Legacy/On-Premise)
- Review and optimize long running transactions; average async transaction response time should be below 1 seconds.
- Review common configuration (<u>RTAM</u>, <u>HotSku</u>, <u>JMS</u>), based on the prior recommendations.
- Reduce message payload by optimizing API, event templates, pull only required data.
 Restrict output by setting the MaximumRecords in the inputs to any list API calls; use pagination (<u>link</u>)
- Review reference data cache; catch redundancy by analyzing application logs for frequent cache drops (i.e., 'Clearing cache'). Frequent refreshes of MCF reference data cache can lead to performance issues. (<u>link</u>)
- Review errors and ensure errors are addressed to avoid noise, if not address it could mislead during crunch time, also it could cost performance during elevated load, impacts our ability to monitor the system effectively.



Robust Monitoring & Runbooks

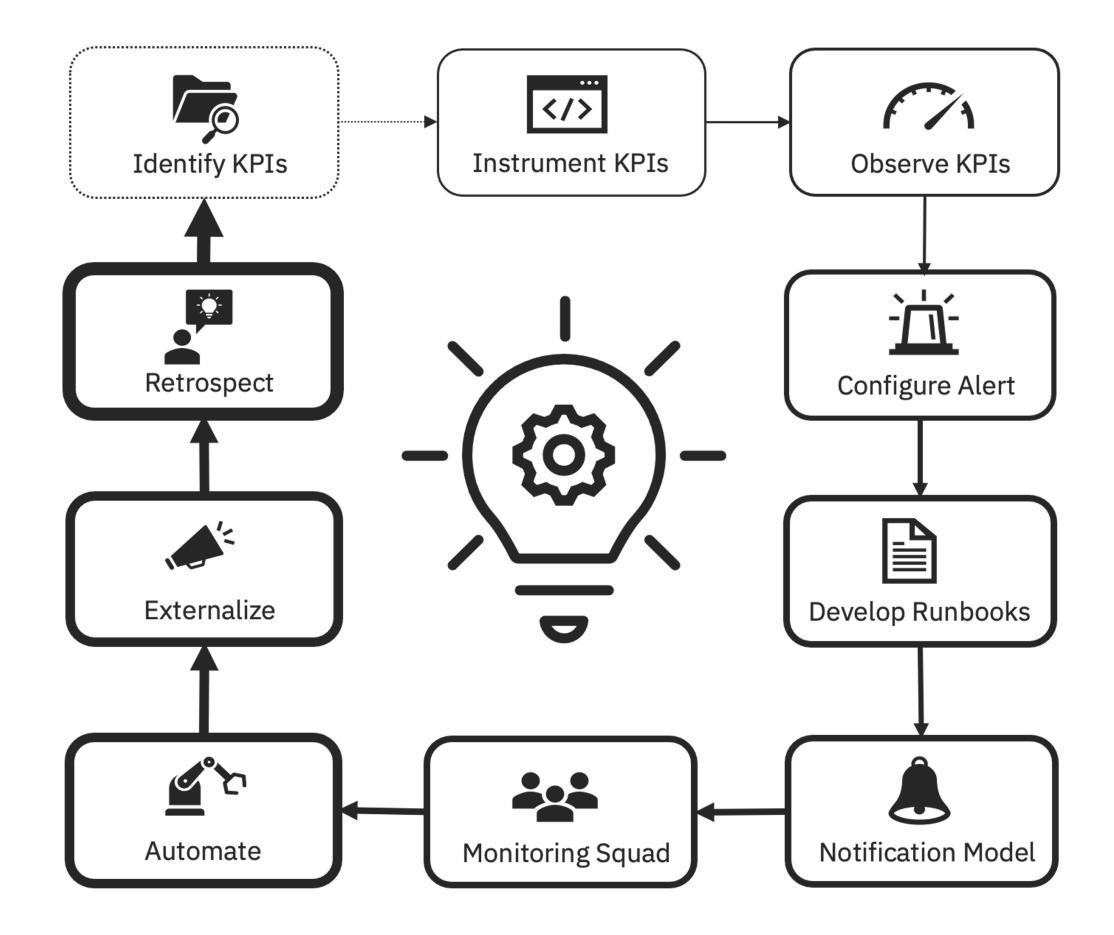
The OMS Proactive Support & Notification Model aims to quickly detect and mitigate issues before they become impactful

- ✓ IBM performs the following types of monitoring for assessing the health of your production site and its services:
 - System and infrastructure
 - Application
 - Synthetic
 - Business KPIs
- ✓ If a potentially impactful condition is detected, IBM Support will proactively notify you, and inform if your action is required to mitigate.
 - EMAIL () for issue with Multi-tenant shared infrastructure
 - SUPPORT CASE () via IBM Support Portal for client-specific component



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Email Notification for queue depth





Production Alert Handling

IBM are continuously improving monitoring, alerting and runbooks to allow quick handling of production issues:

- **1. Proactive case** will be opened by IBM Support to inform client/SI of triggered alert, and that investigation is underway
- 2. IBM capture **diagnostics**, review, determine source of alert
- 3. IBM act to, mitigate, if possible, inform
 / get consent from client/SI as needed
 (such as restarting an agent/integration server)
- 4. In event client/partner need to **take action**, the proactive case will be used to convey this information

Application

MQ Connectivity issue (JMS Metrics Dashboard)

(Max connections, JMS Transaction Failures)

- ✓ Critical MQ connection issue
- ✓ Excessive MQ Connection Reset
- ✓ MQ Invalid Message \rightarrow 2 in 10 min.

Database Connectivity Issue (Database Metrics Dashboard)

- ✓ Excessive Database Query Timeouts (YFC0006)
- ✓ Critical DB connection issue (YFC0003 Database Error)
- ✓ Max connections, DB Transaction Failures)

Application Server (Application Server Performance & JVM Metrics Dashboard) (Pool Time Failure / Syree Calle)

(Real Time Failure / Sync Calls)

- ✓ GC (Global) Overhead (High) \rightarrow 5% for 10 min.
- ✓ Heap memory usage (High) \rightarrow 80% for 15 min.
- ✓ Server Hung/Unresponsive → 90% threads used for 5 min.
- ✓ Excessive Errors by JVM critical
- ✓ Server Startup Failure (YIC10004) Cache Initialization
- ✓ Excessive REST:HTTP 401
- ✓ Process DOWN (Health Check , Missing POD)
- $\checkmark~$ Response time alerts for web requests

Stale Agent/Integration Server (Agent. Integration Server Performance &

(Agent, Integration Server Performance & JVM Metrics Dashboard)

(Stale Agents)

- ✓ Heap memory usage (High) \rightarrow 80% for 60 min.
- ✓ GC (Global) Overhead (High) \rightarrow 5% for 10 min.
- ✓ Custom Queue Depth Alert
- ✓ Agent & Integration Process DOWN

Stale/Stuck Query (Database Metrics Dashboard)

- ✓ DB: Lock-Wait
- ✓ DB: Long Running Query
- ✓ DB: Not enough storage is available, SQLCODE=-973
 DB: Too many open statements, SQLCODE=-805

Network/Connectivity Failures

- ✓ Connectivity Issue (ConnectException, SocketException)
- ✓ Data Extract Failure YFS: SFTP server is not reachable

OOB Integration (Application Server Performance

Dashboard)

- ✓ IV Integration Failures (Connectivity issue & Error Response)
- ✓ SIM Integration Failures (Connectivity issue & Error Response)

MQ Server (JMS Metrics Dashboard)

- ✓ MQ Listener Down: No listener running for (OM_QMGR)
- ✓ MQ Server Down
- ✓ Generic Queue depth alert 50%
- ✓ MQ failover alert

Low Severity alerts (Error count widget – App, Agent & Int Performance Dashboard)

(Based on Exceptions)

- ✓ Data Extract Failures, monitored for ErrorCode: CDE100005, CDE100014, CDE100016, CDE100019, CDE100020
- ✓ JMS: Queue not created Error: javax.naming.NameNotFoundException
- ✓ JMS: Queue connection configuration Error: javax.naming.NoInitialContextException
- ✓ DB: Inserted Column Data > Column Size, Error: YDB92_001 (10+)
- ✓ DB: Failed Update due to concurrent modification, Error: YFC0009 (100+)
- ✓ Search index size alerts

Infrastructure

Database Server (Database Metrics Dashboard)

- ✓ Database CPU, Disk Utilization
- $\checkmark~$ Host is not responding for 5 minutes.
- $\checkmark~$ Transaction logs size
- ✓ HADR/TSA connection
- ✓ DB Read/Write/Disk Utilization

Other VM Host (Server Resource Utilization)

- $\checkmark~$ Local , NFS Disk Utilization
- ✓ VM (host) is not responding
- ✓ CPU, Memory , Disk Usage
- ✓ CPU Steal
- ✓ Cluster Health

Synthetics

Order Management Components

✓ Availability Check

Sterling Intelligent Promising APIs Self-Serve Tooling Order Hub Store Inventory Management APIs

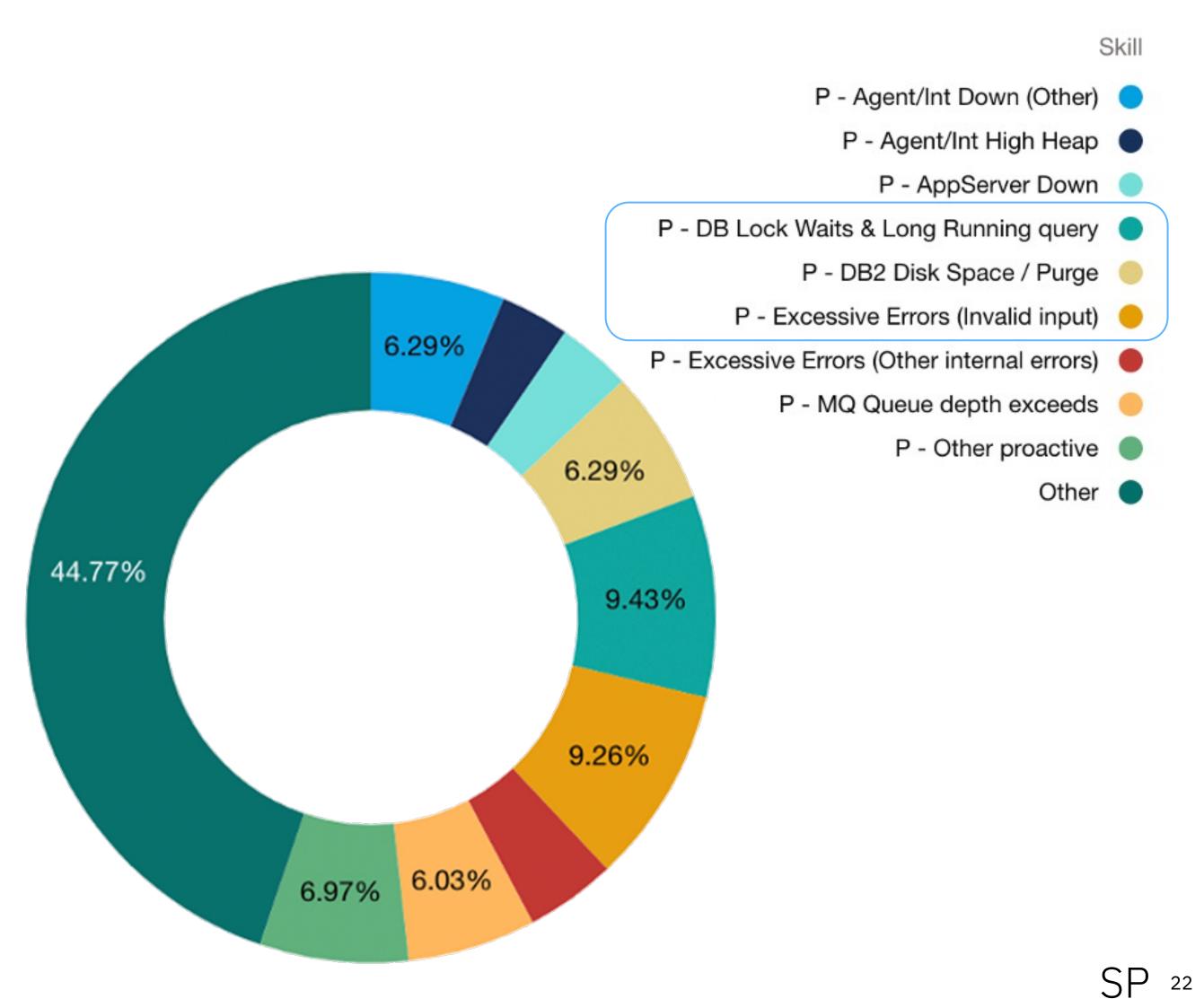


SP 21

Your role in being proactive Retrospective - OMoC Application Monitoring Alerts

The following are the top buckets of OMoC production alerts which led to critical issues before or during peak,

- ✓ Addressing them on ongoing basis using the SST dashboards would prevent any potential issues later.
- Active engagements through proactive support cases would help to identify and address the root of the issue.



Your role in being proactive Leverage Self Service Tool Proactively - Database Size

Ongoing House Keeping is Critical!

- Database dashboards are available to help you proactively \checkmark monitor database size and table growth (Read more \rightarrow)
- Ensure adequate purges are enabled and running
- Periodically review YFS_STATISTICS_DETAIL table data to \checkmark make purge agents are purging expected number of records and catching up with data growth.

IBM Sterling Self Service - Order Management

Top 10 tables by size

L TIME PICKER

| 45 | | 42.542 | | |
|---|---------------------|---------------------|---------------------|---------------------|
| 40 | | 72.372 | | |
| 35 | | | | |
| 30 | | | | |
| 25 | | | | |
| 20 | | | | |
| 15 | | 13.9 | 33 | |
| 10 | | 8.676 YFS_ | ORDER_LINE_SCHED | ULE_H |
| 5 | | | | |
| 0 | | | | |
| Apr 09, 08:00 PM | Apr 16, 08:00 PM | Apr 24, 10:25 AM | Apr 30, 08:00 PM | May 07, 08:00 PN |
| • YFS_ORDER | _AUDIT_DETAIL_H | • YFS_0 | DRDER_AUDIT_DETA | IL |
| | LIST_LINE | YFS_C | DRDER_LINE_H | |
| YPM_PRICE | | | ORDER_LINE_SCHED | ULE H |
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| | ENT_LINE | _ | STATISTICS_DETAIL | |

| U TIME PICKER V | | |
|---------------------------|-------------------|----------|
| TABNAME 🗘 | TABLE SIZE (MB) 🗘 | CARD 🗘 |
| YFS_ORDER_AUDIT_DETAIL_H | 43702 | 26837274 |
| YFS_ORDER_AUDIT_DETAIL | 33147 | 11776428 |
| YPM_PRICELIST_LINE | 28533 | 52501962 |
| YFS_ORDER_LINE_H | 19929 | 8119387 |
| YFS_AUDIT | 19597 | 8303476 |
| YFS_ORDER_LINE_SCHEDULE_H | 14327 | 23935795 |
| YFS_SHIPMENT_LINE | 13706 | 11415300 |
| YFS_STATISTICS_DETAIL | 12955 | 34770293 |
| YFS_ORDER_RELEASE_STATUS | 9092 | 16678426 |
| YFS_ORDER_AUDIT_LEVEL_H | 8912 | 26837274 |
| YFS_ORDER_LINE | 8899 | 3631080 |

Long running SQLs A

Last 7 days

| ACTIVITY STATE 🗘 | АСТІVІТҮ ТҮРЕ 🗘 | STMT TEXT 🗘 | ELAPSED TIME SEC 🗘 |
|------------------|-----------------|---|--------------------|
| IDLE | READ_DML | SELECT YFS_RESOURCE.* FROM YFS_RESOURCE YFS_RESOURCE WHERE APPLICATION_NAME = ? AND PARENT_RE | 7 |
| EXECUTING | READ_DML | SELECT YFS_ORDER_HEADER.* FROM YFS_ORDER_HEADER YFS_ORDER_HEADER WHERE (YFS_ORDER_HEADER.O | 5 |
| IDLE | READ_DML | SELECT YFS_CAPACITY_AVAILABILITY.* FROM YFS_CAPACITY_AVAILABILITY YFS_CAPACITY_AVAILABILITY WHERE | 3 |

ables with size and card detail

•

SVT OMoC NextGen (158554225... 🗸 🚺 Shoeb 🗸



SP 23

Your role in being proactive Leverage Self Service Tool Proactively – Long Running & Lock Wait Queries

Ongoing House Keeping is Critical!

- Database dashboards are available to help you monitor long \checkmark running and lock wait queries (Read more \rightarrow)
- Proactively review the most expensive and long running queries in production AND during load tests
- ✓ Optimize queries to avoid contention which will increase further under heavy peak load (rework, add index, RUNSTATS)

SVT OMoC NextGen $\, \smallsetminus \,$ M Sterling Self Service - Order Management

Current queries waiting for lock

Last 7 days

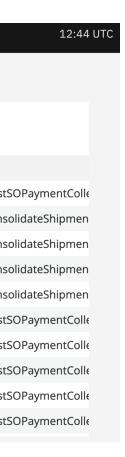
| TIMESTAMP 🗘 | LOCK WAIT TIME SEC $ \hat{\diamondsuit} $ | REQ APP HANDLE 🗘 | REQ CLIENT APP NAME 🗘 | REQ CLIENT ACCTNG 🗘 |
|--------------------------|---|------------------|--|---|
| February 26, 2023 20:47: | 0 | 64451 | INT&RequestSOPaymentCollectionServer&AgentServer | AGT&DefaultAdapter&RequestCollectionRETAIL&RequestS |
| February 26, 2023 20:37: | 0 | 21804 | INT&ConsolidateShipmentServer&AgentServer | ${\sf AGT\&DefaultAdapter\&ConsolidateShipmentRETAIL\&ConsolidateShipmentRETAIL\&ConsolidateShipmentRETAIL\&ConsolidateShipmentRETAIL&ConsolidAteShipmentAAIL&ConsolidAteShipmentAAIL&ConsolidAteShipmentAAIL&$ |
| February 26, 2023 20:37: | 0 | 22382 | INT&ConsolidateShipmentServer&AgentServer | ${\sf AGT\&DefaultAdapter\&ConsolidateShipmentRETAIL\&ConsolidateShipmentRETAIL\&ConsolidateShipmentRETAIL\&ConsolidateShipmentRETAIL&ConsolidAteShipmentAAIL&ConsolidAteShipmentAAIL&ConsolidAteShipmentAAIL&$ |
| February 26, 2023 20:37: | 0 | 27427 | INT&ConsolidateShipmentServer&AgentServer | ${\sf AGT\&DefaultAdapter\&ConsolidateShipmentRETAIL\&ConsolidateShipmentRETAIL\&ConsolidateShipmentRETAIL\&ConsolidateShipmentRETAIL&ConsolidAteShipmentAIL&ConsolidateShipmentAIL&ConsolidAteShipmentRETAIL&$ |
| February 26, 2023 20:37: | 0 | 26716 | INT&ConsolidateShipmentServer&AgentServer | eq:consolidateShipmentRETAIL&Consol |
| February 26, 2023 20:07: | 0 | 45809 | INT&RequestSOPaymentCollectionServer&AgentServer | AGT&DefaultAdapter&RequestCollectionRETAIL&RequestS |
| February 26, 2023 20:07: | 0 | 63893 | INT&RequestSOPaymentCollectionServer&AgentServer | AGT&DefaultAdapter&RequestCollectionRETAIL&RequestS |
| February 26, 2023 20:07: | 0 | 59944 | INT&RequestSOPaymentCollectionServer&AgentServer | AGT&DefaultAdapter&RequestCollectionRETAIL&RequestS |
| February 26, 2023 20:07: | 0 | 60299 | INT&RequestSOPaymentCollectionServer&AgentServer | AGT&DefaultAdapter&RequestCollectionRETAIL&RequestS |
| February 26, 2023 20:07: | 0 | 64409 | INT&RequestSOPaymentCollectionServer&AgentServer | AGT&DefaultAdapter&RequestCollectionRETAIL&RequestS |
| | | | | |

IBM Sterling Self Service - Order Management

Current queries running long

| SVT OMo(| CNextGen \checkmark | |
|----------|-----------------------|--|
|----------|-----------------------|--|

| TIME PICKER Last 12 hrs | | | | |
|----------------------------|--------------------|--------------|----------------------------------|--|
| TIMESTAMP 🗘 | ELAPSED TIME SEC 🗘 | APP HANDLE 🗘 | CLIENT APP NAME 🗘 | STMT TEXT 🗘 |
| March 01, 2023 06:49:04 | 1 | 57421 | INT&EnhSOMonitorServer& | SELECT YFS_CAPACITY_AVAILABILITY.* FROM YFS_CAPACITY_AVAILABILITY YFS_CAPA |
| March 01, 2023 05:30:13 | 2 | 55582 | INT&EnhSOMonitorServer& | SELECT YFS_CAPACITY_AVAILABILITY.* FROM YFS_CAPACITY_AVAILABILITY YFS_CAPA |
| March 01, 2023 03:07:53 | 1 | 48157 | | SELECT PLT_PROPERTY.* FROM PLT_PROPERTY PLT_PROPERTY WHERE CATEGORY = |
| March 01, 2023 02:02:20 | 3 | 53679 | INT&EnhSOMonitorServer& | SELECT YFS_CAPACITY_AVAILABILITY.* FROM YFS_CAPACITY_AVAILABILITY YFS_CAPA |
| February 28, 2023 19:56: | 1 | 22191 | INT&SBAMetricsServer&AgentServer | SELECT YFS_SBA_ORDER_UPD.SBA_ORDER_UPD_KEY,YFS_SBA_ORDER_UPD.LOCKID F |
| | | | | |





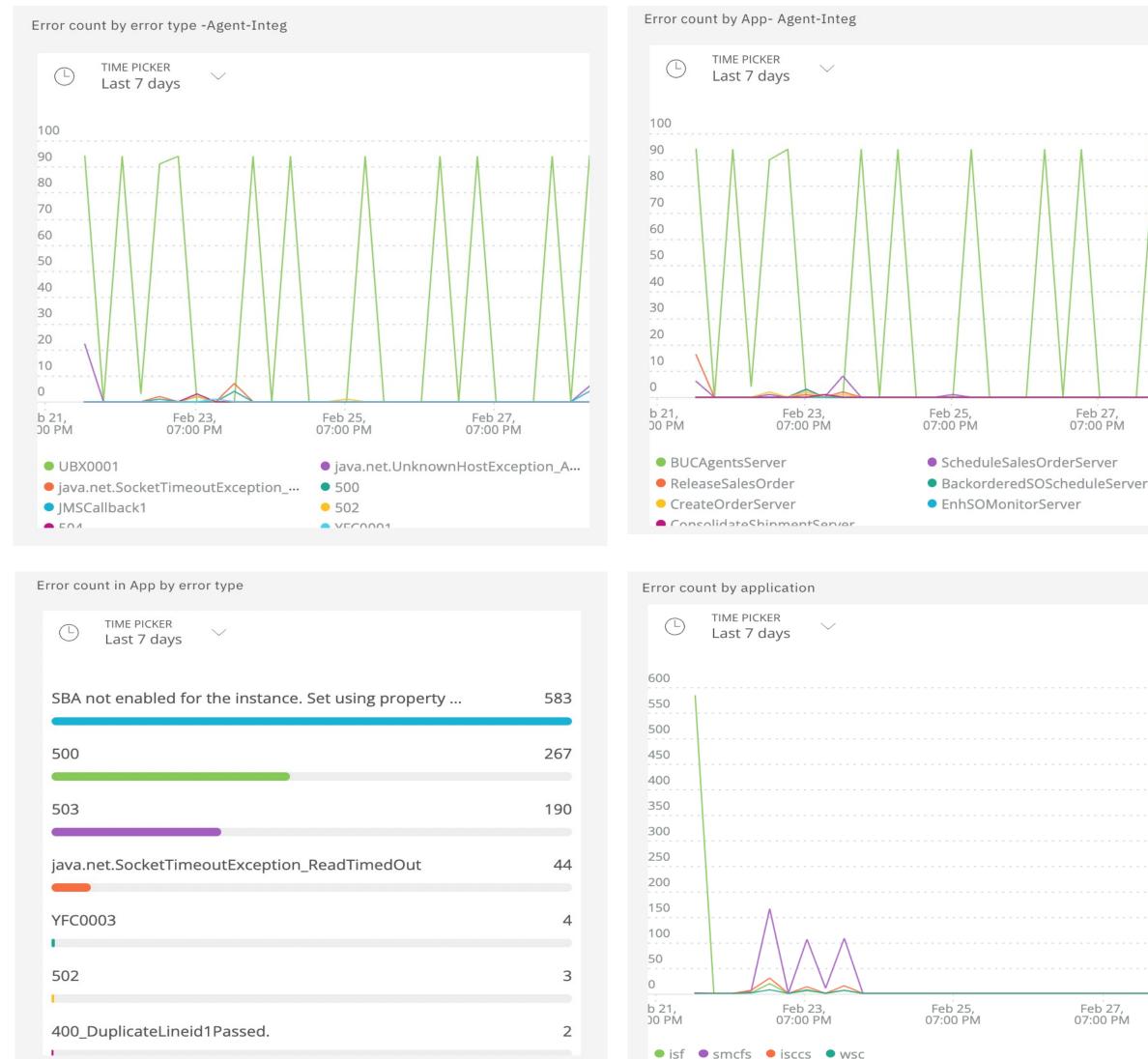




Your role in being proactive Leverage Self Service Tool Proactively – Excessive Errors

Ongoing House Keeping is Critical!

- ✓ Agent and Integration Server & Application Server Performance dashboards are available to help you proactively monitor the error rate (Read more →)
- Review the most frequent errors in production and address it on ongoing basis.
- Invalid input to the API is one of the most common errors, have ongoing review to detect it earlier and work with the external system making these calls to address it.





| - | - | - | - | - | | | - | - | - | - | - | - | - |
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| | - | - | - | - | | - | - | - | | | | - | - |
| | - | - | - | - | | - | - | - | | - | - | - | - |
| | - | - | - | - | - | - | - | - | | - | - | - | - |
| | - | - | - | - | - | - | - | - | | - | - | - | |
| | | | | - | | - | - | | | | | | |
| | | | - | | | - | - | | | | | - | |
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| 27, 0 PM | | | | | | | | | | | | | |

Journey to Peak Success

How to Succeed





- Retrospective
- Latest product levels
- Detailed projections
- Catch prior webcasts
- Engage help as needed



Prepare



- Align to IBM schedule
- Representative testing
- Proactive housekeeping
- Clean up the noise
- Track risks

Execute Clear runbooks, RACI Quickly detect issues Throttle as necessary Quick mitigation



Enhanced Event Readiness Offering

A proactive engagement leveraging a methodical approach to provide targeted, prescriptive guidance toward stability and success on IBM Order Management



Support Backlog

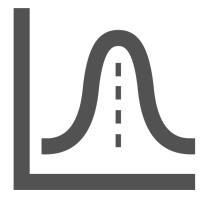
Reviews,

Prioritization





Database workload review



Peak Projection and Capacity validation



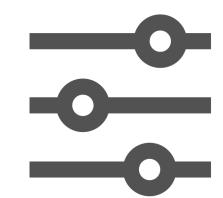
Best Practice Enablement, Consultation



Application workload review



Peak Day Readiness Checklist



Application Configuration Audit



Production performance review



SWAT Peak Day Standby

IBM Event Readiness Team

OMS Performance Experts apply

years of proactive preparation and support of worldwide clients for successful go-lives and peak events

- ✓ Identify, mitigate potential risks
- ✓ Align to proven best practices
- ✓ Peak day mitigation techniques

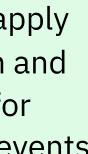
Support Experience Team prioritize Support workload, augment communication and escalation to help avoid blockers

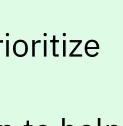
Expert Labs (optional) available to perform comprehensive reviews and health checks

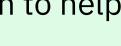
Event Readiness is modelled as 80-120 hour engagement over 4 months – partnering as you prepare, test, and execute go-live or peak event; For November peak, our Engagement must begin <u>no later</u> than September 1,

ensuring ample time to proactively review, implement, and validate recommendations

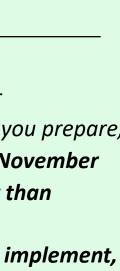












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Are you ready?



Technical Best Practices

