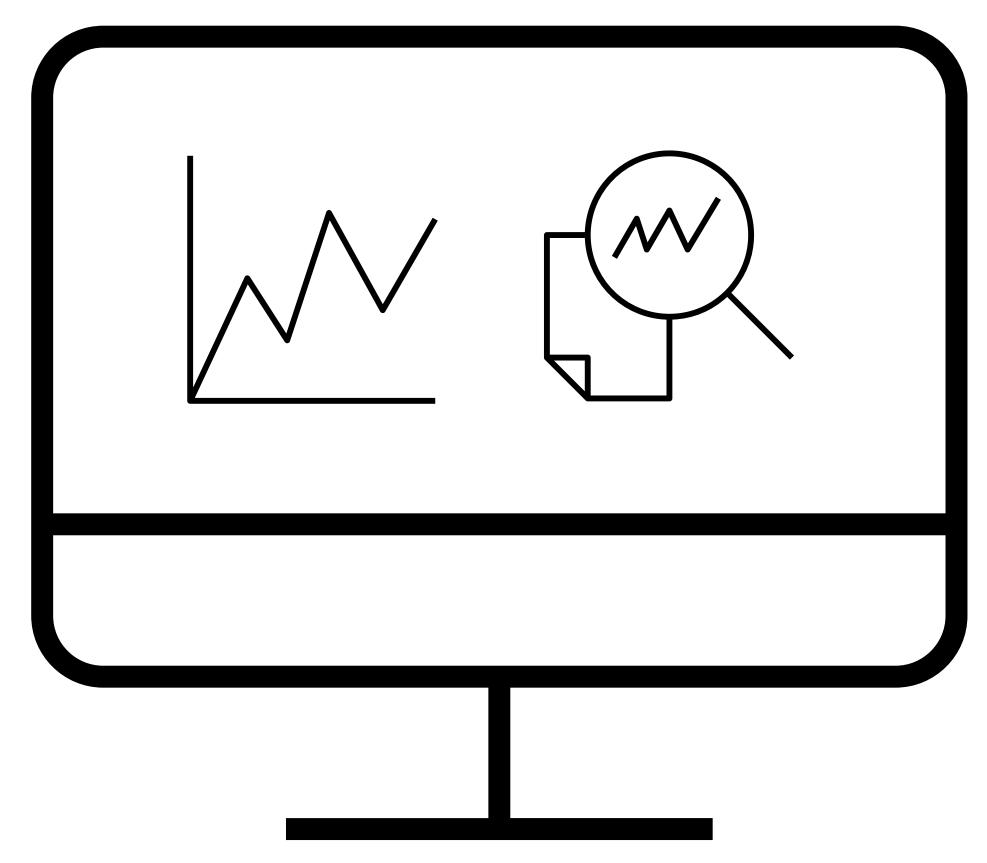
IBM Sterling Order Management

# Event Readiness 2024

Self Service Dashboard Demo



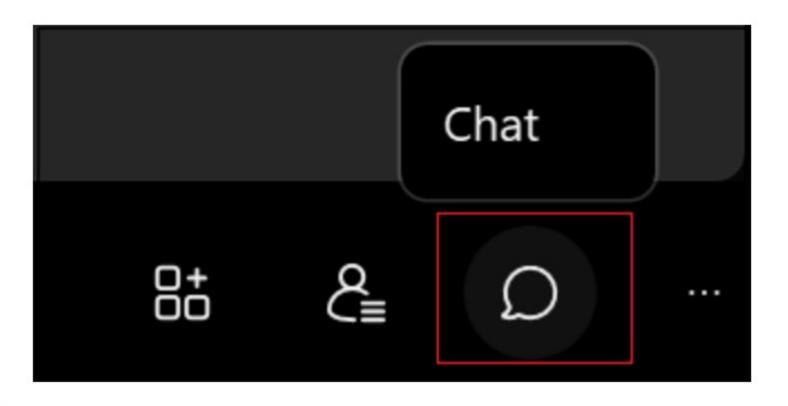


## Have a Question(s)?



2

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

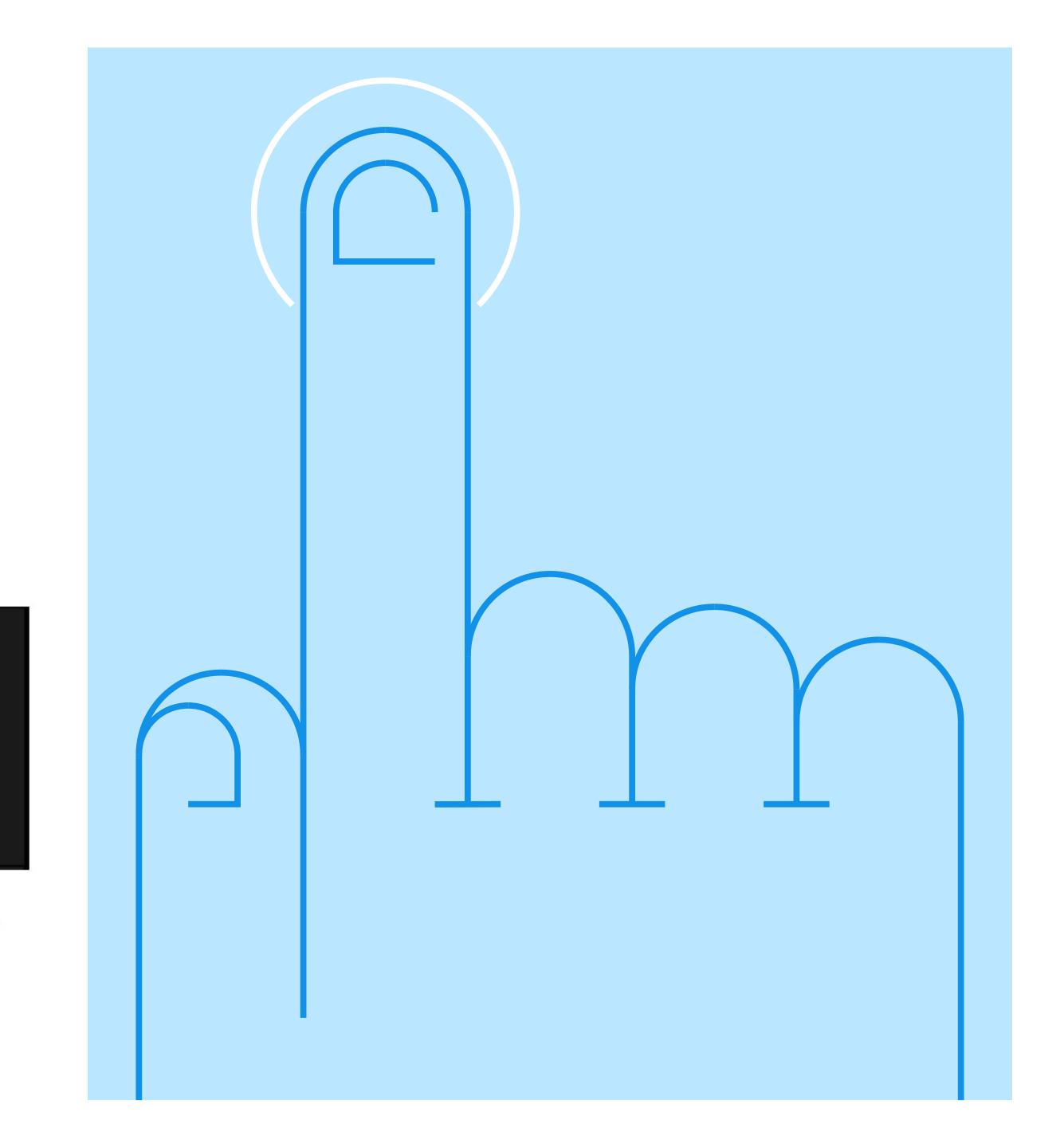


In the **To** drop-down list, select the recipient of the message.

~

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





# Your Event Readiness Team ... and today's speakers



**Chris Burgess** Manager – WW Support Experience Team



Mike Callaghan Program Director – WW Supply Chain Support



Shoeb Bihari Executive IT Specialist | SRE Architect | SWAT – Order Management Support



**Senthil Ponnusamy** Technical Lead / SRE Advisor – Order Management Support



**Jitendra Buge** Technical lead -Order Management Support



Abdul Shad Technical Lead – Order Management Support



**Bobby Thomas** Performance Architect, SRE – Sterling Order Management



**Shravan Varanasi** Performance Engineer, SRE – Sterling Order Management



# Agenda



SST Monitoring Dashboard Overview

Key Widgets & Metrics

Enhancements

Common Use Cases  $\rightarrow$ 

- -Timeouts for synchronous calls
- -High Error rate/count
- Queue Depth Alert
- -Orders not flowing into OMS
- -Not getting desired throughput (Agent/Int servers)
- Store or Call Center slowness

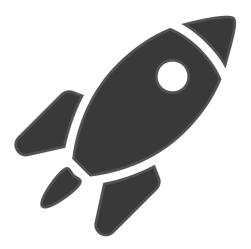
Alert Configuration – upcoming feature\*







What are your plans in 2024 for IBM Order Management?



First Go-live

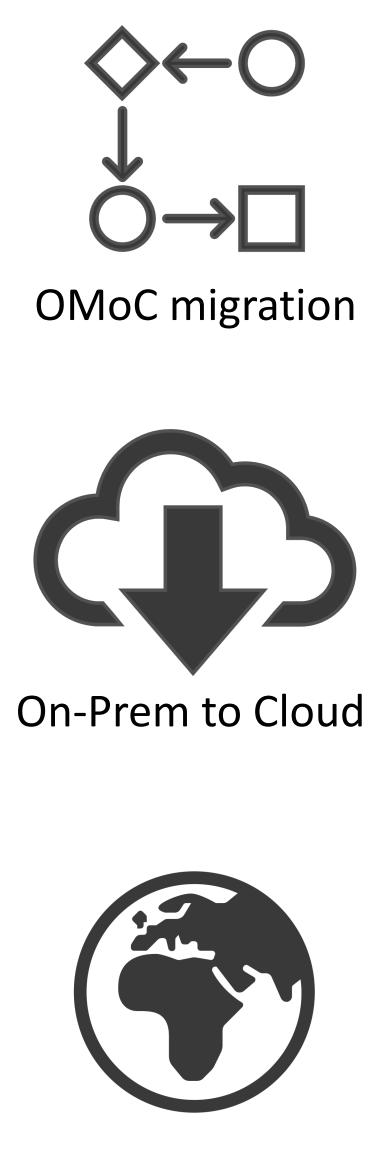


Stack upgrades

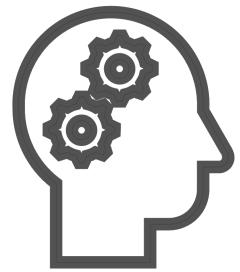


Container deployment

IBM Sterling / © 2024 IBM Corporation



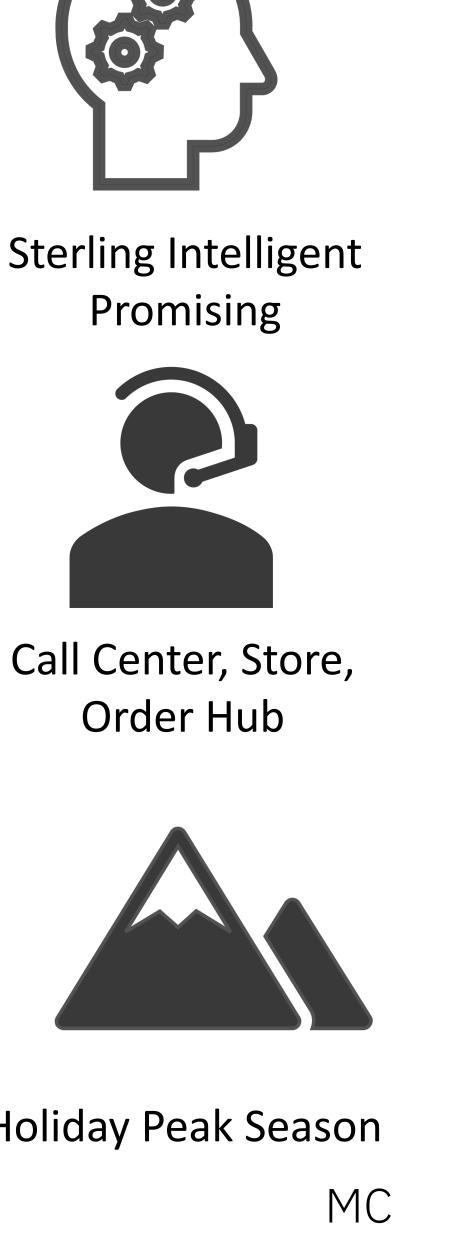
Expansion



Promising



Call Center, Store, Order Hub

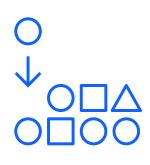


Holiday Peak Season

# IBM OMS Holiday Readiness Our Mission Statement

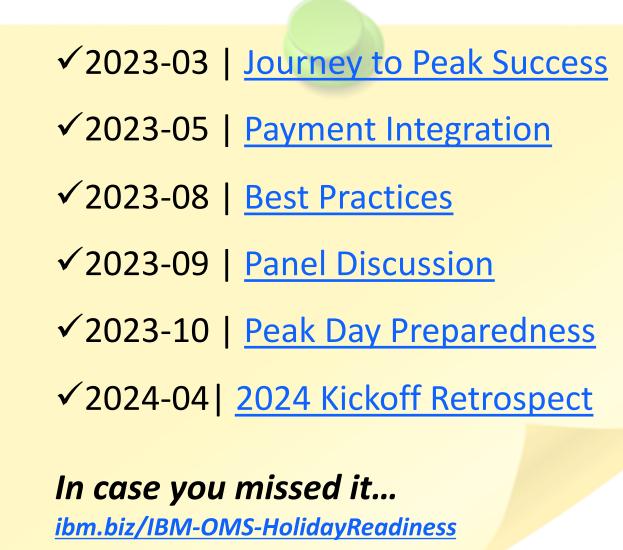
# Stable Platform

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

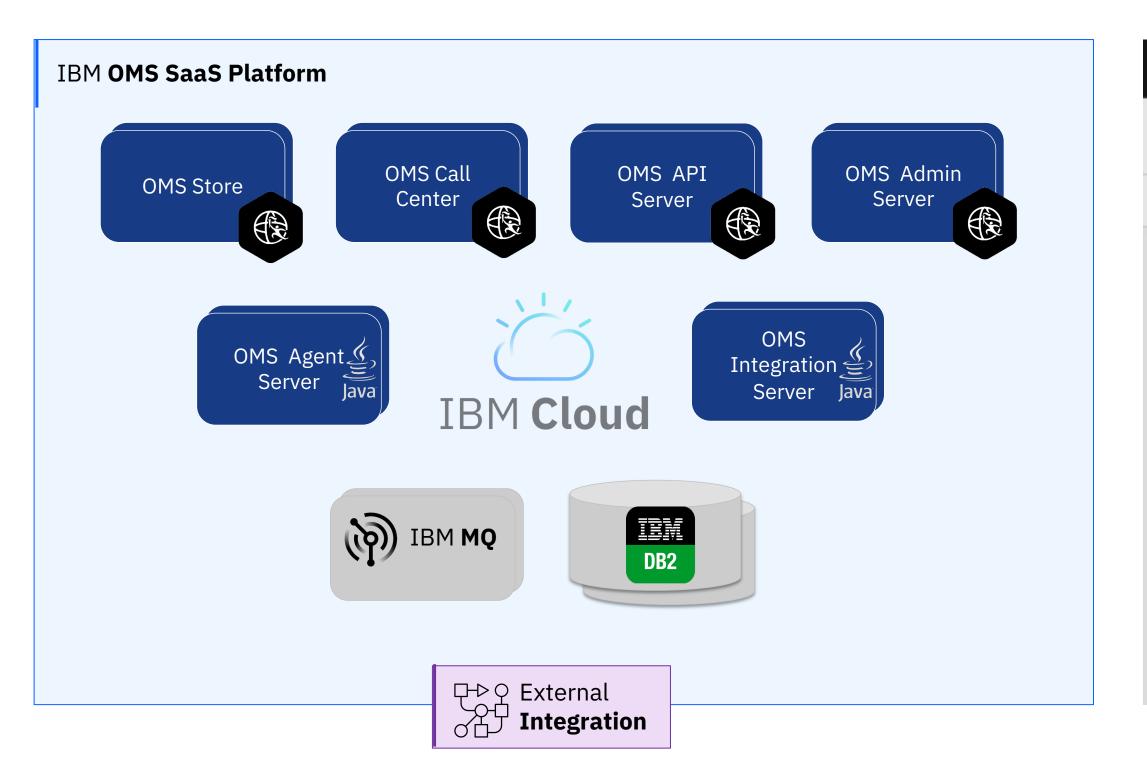
## Prescriptive Guidance

Deeper partnership with specific clients in need of direct analysis and prescriptive guidance via Advanced Support and Expertise Connect



# IBM Sterling Self Service – Order Management Full Stack Observability

The charts in the different dashboards provide information about the metrics, usage and performance of the application giving you complete visibility into performance of your production and preproduction environment.



Learn more about Self Service Dashboards here

≡ IBM Sterling S	elf Service - Order Manageme	ent SV1	r OMoC NextGei	n 🗸				
SVT OMoC NextGen	/ prod-4 /							
Environment deta	ils Monitoring (Legacy)	Monitoring	Processes	Customizations	Configuration	Certificates	Server configuration	
		Dashl	poard			Se	erver name	
		VA	gent and integr	ation server JVM me	trics		Select filter	
		A	gent and integr	ation server perform	ance	Se	elect relative time interval	
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		Π	usiness perforn MS performanc				1	



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The charts in the different dashboards provide information about the metrics, usage and performance of the application.

# App, Agent & Integration Server

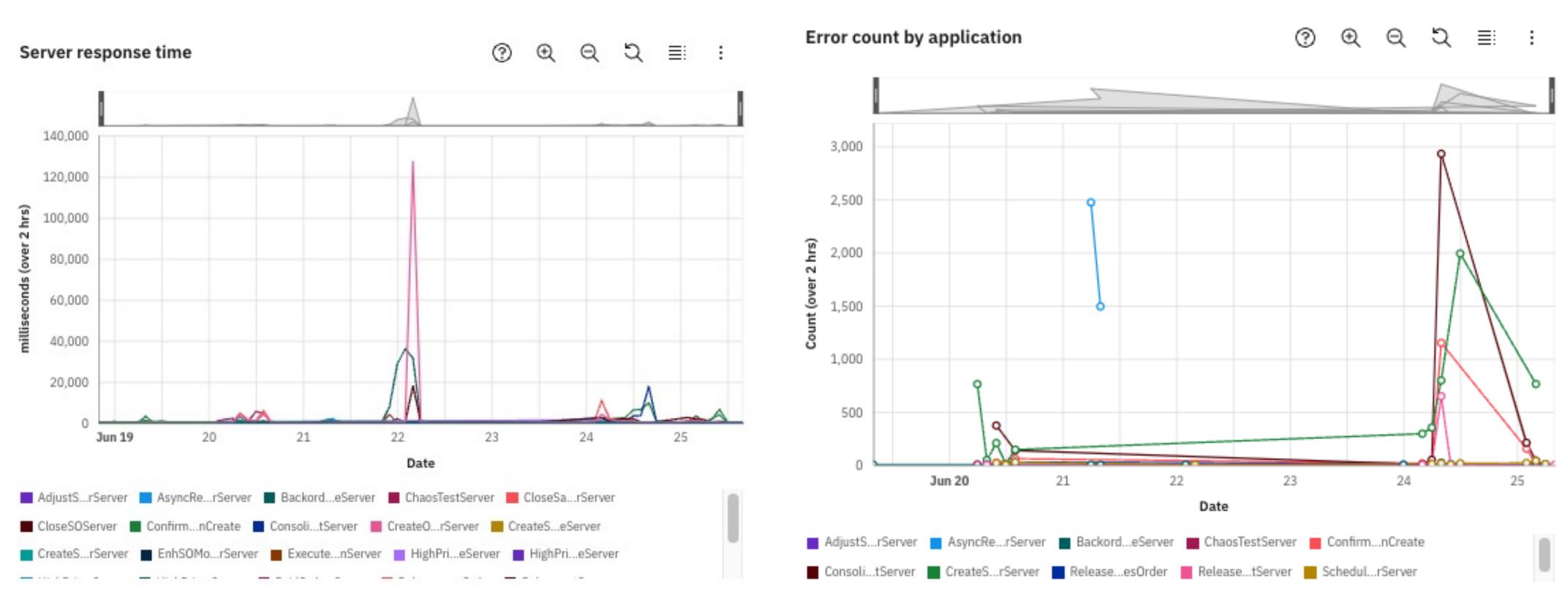




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The charts in the different dashboards provide information about the metrics, usage and performance of the application.

# App, Agent & Integration Server

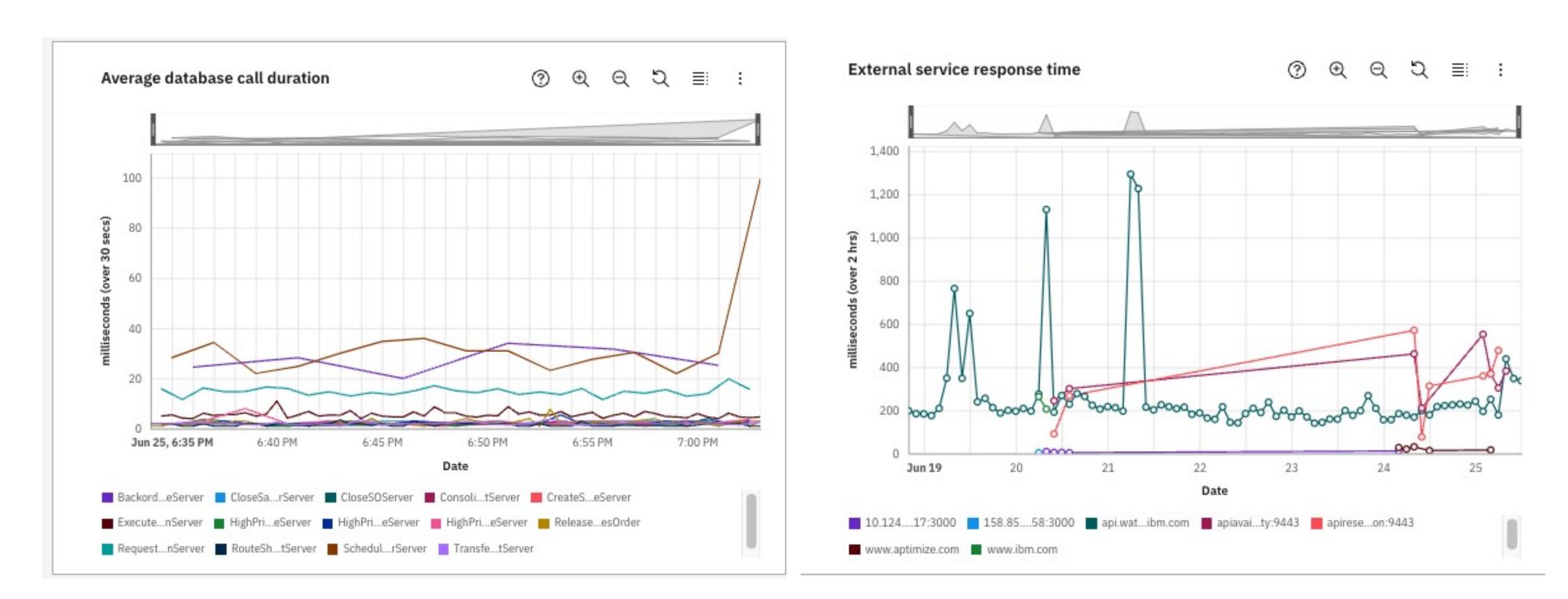




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The charts in the different dashboards provide information about the metrics, usage and performance of the application.

# App, Agent & Integration Server

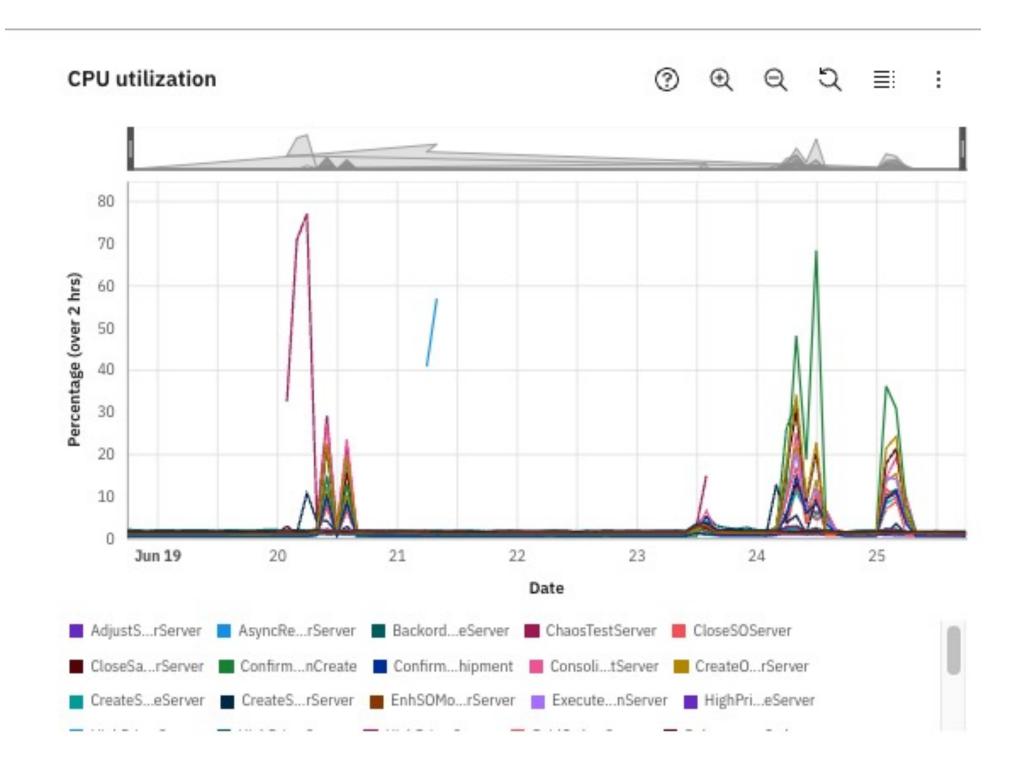






The charts in the different dashboards provide information about the metrics, usage and performance of the application.

# Agent & Integration Server



### Performance profile distribution

Agent server profile	Count
Balanced	102
Compute	28
Memory	29



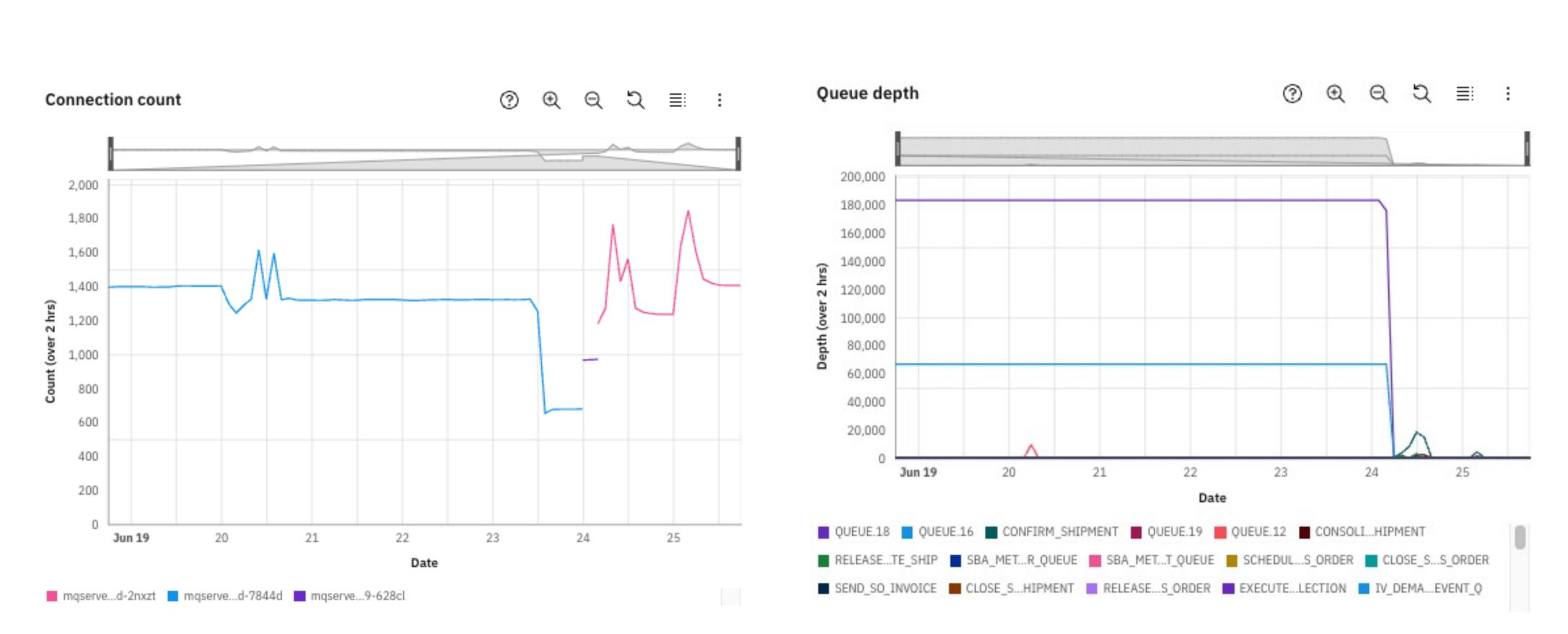
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3



The charts in the different dashboards provide information about the metrics, usage and performance of the application.

# IBM MQ (JMS Metrics)







The charts in the different dashboards provide information about the metrics, usage and performance of the application.

# Database Metrics

Queries with high elapsed time						
Elapsed Time	Statement	Client Application Name	Activity Type	Activity State		
24 sec	SELECT YFS_ORDER_HEADER.* FROM YFS_ORDER_HEADER YFS_ORDER_HEADER WHERE (YFS_ORDER_HEADER.ORDER_HEADER_KEY = ?) FOR UPDATE	INT&Consolidat eShipmentServe r&AgentServer	IDLE	READ_DML		
15.36 sec	SELECT YFS_ORDER_HEADER.* FROM YFS_ORDER_HEADER YFS_ORDER_HEADER WHERE (YFS_ORDER_HEADER.ORDER_HEADER_KEY = ?) FOR UPDATE	INT&ExecuteSO CollectionServe r&AgentServer	EXECUTING	READ_DML		
15 sec	SELECT * FROM SYSCAT.INDEXES WHERE INDSCHEMA = ? AND INDNAME = ? WITH UR	DBeaver 23.3.1 - Metadata	IDLE	READ_DML		
14.2 sec	SELECT YFS_ORDER_HEADER.* FROM YFS_ORDER_HEADER YFS_ORDER_HEADER WHERE (YFS_ORDER_HEADER.ORDER_HEADER_KEY = ?) FOR UPDATE	INT&RequestSO PaymentCollecti onServer&Agent Server	EXECUTING	READ_DML		
13.48 sec	SELECT YFS_ORDER_HEADER.* FROM YFS_ORDER_HEADER YFS_ORDER_HEADER WHERE (YFS_ORDER_HEADER.ORDER_HEADER_KEY = ?) FOR UPDATE	INT&Consolidat eShipmentServe r&AgentServer	EXECUTING	READ_DML		

Elapsed Time	Req. Client Statement	Req. Client Account	Req. Appl Handle	Hold Client Account	Hold Client Statement
56 sec	SELECT YFS_ORDER_HEADER.* FROM YFS_ORDER_HEADER YFS_ORDER_HEADER WHERE (YFS_ORDER_HEADER.ORDER_HEADER_KEY = ?) FOR UPDATE	AGT&DefaultAdapte r&ConsolidateShip mentRETAIL&Conso lidateShipmentServ er&ConsolidateShip mentRETAIL Thread 73 PID 27@oms- svtom-prod-4- consolidateshipmen tserver- 7795858cc5-9vfzv	27752	API&confirmShipm ent& &ConfirmShipment OnCreate&Confirm ShipmentOnCreate Thread 72 PID 85@oms-svtom- prod-4- confirmshipmento ncreate-c48b7cf7- pc7xn	-
55 sec	SELECT YFS_ORDER_HEADER.* FROM YFS_ORDER_HEADER YFS_ORDER_HEADER WHERE (YFS_ORDER_HEADER.ORDER_HEADER_KEY = ?) FOR UPDATE	AGT&DefaultAdapte r&ConsolidateShip mentRETAIL&Conso lidateShipmentServ er&ConsolidateShip mentRETAIL Thread 77 PID 27@oms- svtom-prod-4- consolidateshipmen tserver- 7795858cc5-9vfzv	27931	API&confirmShipm ent& &ConfirmShipment OnCreate&Confirm ShipmentOnCreate Thread 73 PID 27@oms-svtom- prod-4- confirmshipmento ncreate-c48b7cf7- b2jfn	-

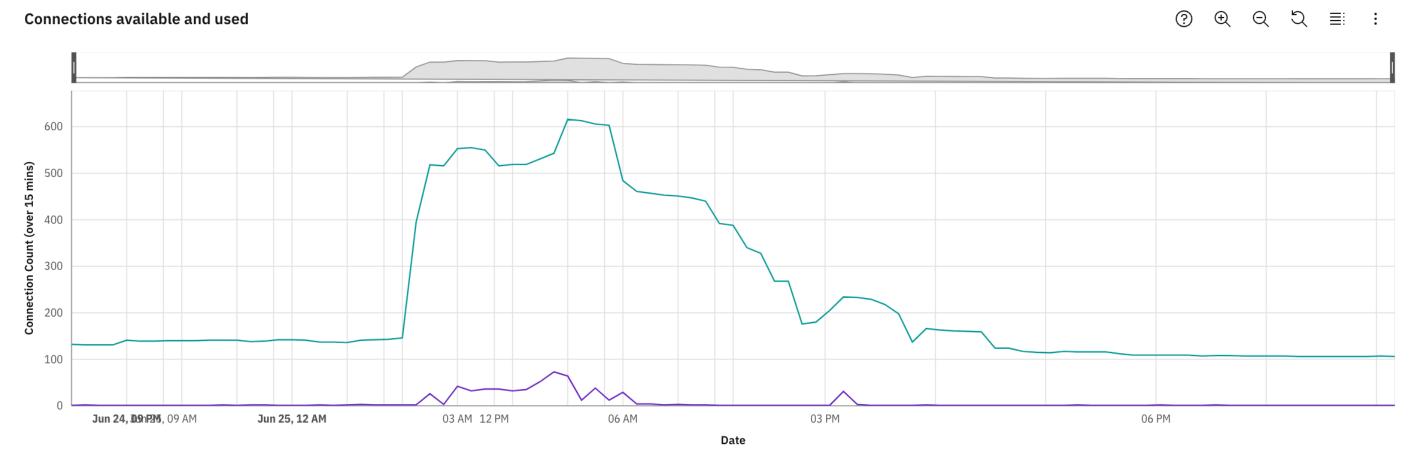
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The charts in the different dashboards provide information about the metrics, usage and performance of the application.

# Database Metrics



🧧 Connect...atabase 📒 Connect...atabase

### Tables with high size and cardinality

Statement	Table Size
YFS_ORDER_AUDIT_DETAIL	219,337,000 KB
YFS_ASYNC_REQ	150,934,000 KB
YFS_ORDER_RELEASE_STATUS	108,337,000 KB
YFS_AUDIT	107,712,000 KB
YFS_ORDER_LINE	89,310,200 KB
YFS_ORDER_LINE_SCHEDULE	68,199,300 KB
YFS_CHARGE_TRANSACTION	54,497,300 KB
YFS_SHIPMENT_LINE	44,904,700 KB
YFS_ORDER_AUDIT_LEVEL	42,247,200 KB
YPM_PRICELIST_LINE	29,218,400 KB



# IBM Sterling Self Service – Order Management Recent Enhancements

The charts in the different dashboards provide information about the metrics, usage and performance of the application.

- 1. Ability to filter dashboard using one or more facets
- 2. Predefined / custom time picker across all widgets in the dashboard.
- 3. Granular zoom in, view specific points on a mouse over and make the widgets full screen.
- 4. Download raw metric data in CSV format
- 5. Additional dashboards with logically grouped widgets for ease of navigation and correlation.
- 6. Sort the metrics table on any column
- 7. Ordered result set for timeseries chart (JMS, Server Resource Utilization)

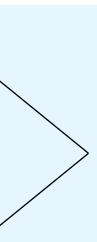
Learn more about Self Service Dashboards here

Dashboard		1	Server Name Service	e Name	Conte	ext Name	
OMS performance		~	Select filter 🗸 Sel	ect filter	✓ Se	elect filter	$\sim$
ervice Type							
Select filter 🗸 🗸							
Start date			Select relative time interval				
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nd date							
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12			CPU utilization	<b>date</b> 2024- 06-25 13:48	Ψ. e		raw
12			CPU utilization	date 2024- 06-25 13:48 UTC 2024- 06-25 13:48	rawDate	value	rawW 0.055
12 10			CPU utilization group AdjustSupplyOnBackorderServer	date 2024- 06-25 13:48 UTC 2024- 06-25	<b>rawDate</b> 1719323280000	<b>value</b> 5.80333	<b>raw\</b> 0.05



# Self Service Dashboard Demo – Use Cases

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# Time-out exceptions on the frontend

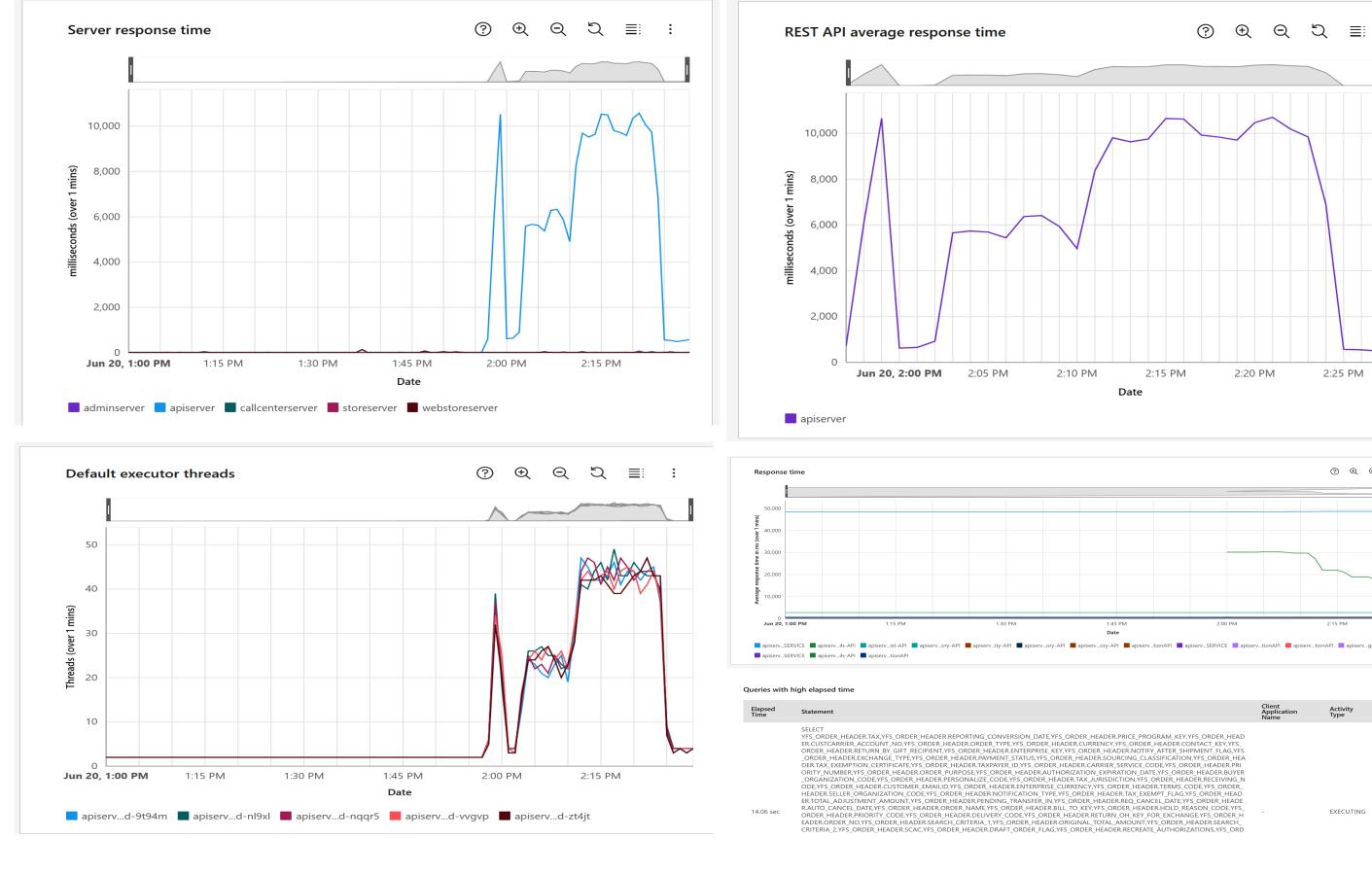
eCommerce frontend system product browsing/checkout pages are having extreme slowness

Frontend system calls to OMS are failing

OMS internal calls are noticing 'read timeout' error.

OMS apiserver response time is degraded causing further impact on other parts of system

## Issue symptoms and related SST dashboard widgets:



## Root cause:

PROGRAM KEY,YFS ORDER HEADER.CUSTCARRIER ACCOUNT NO,YFS ORDER HEADER.ORDER TYPE,YFS RDER HEADER CURRENCY YES ORDER HEADER CONTACT KEY YES ORDER HEADER RETURN BY GIET RECIP FICATION.YFS ORDER HEADER.TAX EXEMPTION CERTIFICATE.YFS ORDER HEADER.TAXPAYER ID.YFS ORDER \_HEADER.CARRIER\_SERVICE\_CODE,YFS\_ORDER\_HEADER.PRIORITY\_NUMBER,YFS\_ORDER\_HEADER.ORDER\_PU RPOSE,YFS\_ORDER\_HEADER.AUTHORIZATION\_EXPIRATION\_DATE,YFS\_ORDER\_HEADER.BUYER\_ORGANIZATIO RPOSE, YFS\_ORDER\_HEADER.AUTHORIZATION\_EXPIRATION\_DATE, YFS\_ORDER\_HEADER.BUYER\_ORGANIZATION\_CODE, YFS\_ORDER\_HEADER.PERSONALIZE\_CODE, YFS\_ORDER\_HEADER.TAX\_JURISDICTION, YFS\_ORDER\_HEADER.RECEIVING\_NODE, YFS\_ORDER\_HEADER.CUSTOMER\_EMAILID, YFS\_ORDER\_HEADER.ENTERPRISE\_CURRENCY, YFS\_ORDER\_HEADER.TERMS\_CODE, YFS\_ORDER\_HEADER.SELLER\_ORGANIZATION\_CODE, YFS\_ORDER\_HEADER.NCY, YFS\_ORDER\_HEADER.TAX\_EXEMPT\_FLAG, YFS\_ORDER\_HEADER.TOTAL\_ADJUSTMENT\_AMOUNT, YFS\_ORDER\_HEADER.PENDING\_TRANSFER\_IN, YFS\_ORDER\_HEADER.REQ\_CANCEL\_DATE, YFS\_ORDER\_HEADER.ORDER\_NAME, YFS\_ORDER\_HEADER.BILL\_TO\_KEY, YFS\_ORDER\_HEADER.HOLD\_REASON\_CODE, YFS\_ORDER\_HEADER.PRIORITY\_CODE, YFS\_ORDER\_HEADER.DELIVER, YFS\_ORDER\_HEADER.RETURN\_OH\_KEY\_FOR\_EXCHANGE, YFS\_ORDER\_HEADER.ORDER\_NAME, YFS\_ORDER\_HEADER.DELIVER, YFS\_ORDER\_HEADER.RETURN\_OH\_KEY\_FOR\_EXCHANGE, YFS\_ORDER\_HEADER.ORDER\_NAME, YFS\_ORDER\_HEADER.ORDER\_NO, YFS\_ORDER\_HEADER.DELIVER, YFS\_ORDER\_HEADER.RETURN\_OH\_KEY\_FOR\_EXCHANGE, YFS\_ORDER\_HEADER.ORDER\_NAME, YFS\_ORDER\_HEADER.ORDER\_NO, YFS\_ORDER\_HEADER.DELIVER\_NT\_AMOUNT, YFS\_ORDER\_HEADER.RETURN\_OH\_KEY\_FOR\_EXCHANGE, YFS\_ORDER\_HEADER.ORDER\_NO, YFS\_ORDER\_HEADER.DELIVER\_NT\_SORDER\_HEADER.RETURN\_OH\_KEY\_FOR\_EXCHANGE, YFS\_ORDER\_HEADER.ORDER\_NO, YFS\_ORDER\_HEADER\_ORDER\_NO, YFS\_ORDER\_HEADER\_NO, YFS\_ORDER\_HEADER\_YFS\_ORDER\_HEADER\_NO, YFS\_ORDER\_YFS\_ORDER\_HEADE 30 sec RE\_LEADER.SEARCH\_CRITERIA\_1,YFS\_ORDER\_HEADER.ORIGINAL\_TOTAL\_AMOUNT,YFS\_ORDER\_HEADER.SEARCH\_CRITERIA\_2,YFS\_ORDER\_HEADER.SCAC,YFS\_ORDER\_HEADER.DRAFT\_ORDER\_FLAG,YFS\_ORDER\_HEADER. RCH\_CRITERIA\_2,YFS\_ORDER\_HEADER.SCAC,YFS\_ORDER\_HEADER.DRAFT\_ORDER\_FLAG,YFS\_ORDER\_HEADER. RECREATE\_AUTHORIZATIONS,YFS\_ORDER\_HEADER.REQ\_SHIP\_DATE,YFS\_ORDER\_HEADER.DIVISION,YFS\_ORDER\_ ER HEADER SHIP TO ID.YFS ORDER HEADER ENTERED BY.YFS ORDER HEADER ORDER HEADER KEY.YFS O RDER\_HEADER.SHIP\_IO\_ID, YFS\_ORDER\_HEADER.EN IERED\_B1, YFS\_ORDER\_HEADER.ORDER\_HEADER\_NEADER\_YFS\_O RDER\_HEADER.REPORTING\_CONVERSION\_RATE, YFS\_ORDER\_HEADER.SHIP\_TO\_KEY, YFS\_ORDER\_HEADER.ORI GINAL TAX VFS\_ORDER\_HEADER\_VENDOR\_ID VFS\_ORDER\_HEADER\_REO\_DELIVERY\_DATE VFS\_ORDER\_HEADER

			上
Req. Client Account	Req. Appl Handle	Hold Client Account	Hold Client Statement
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# High error rate for integration server

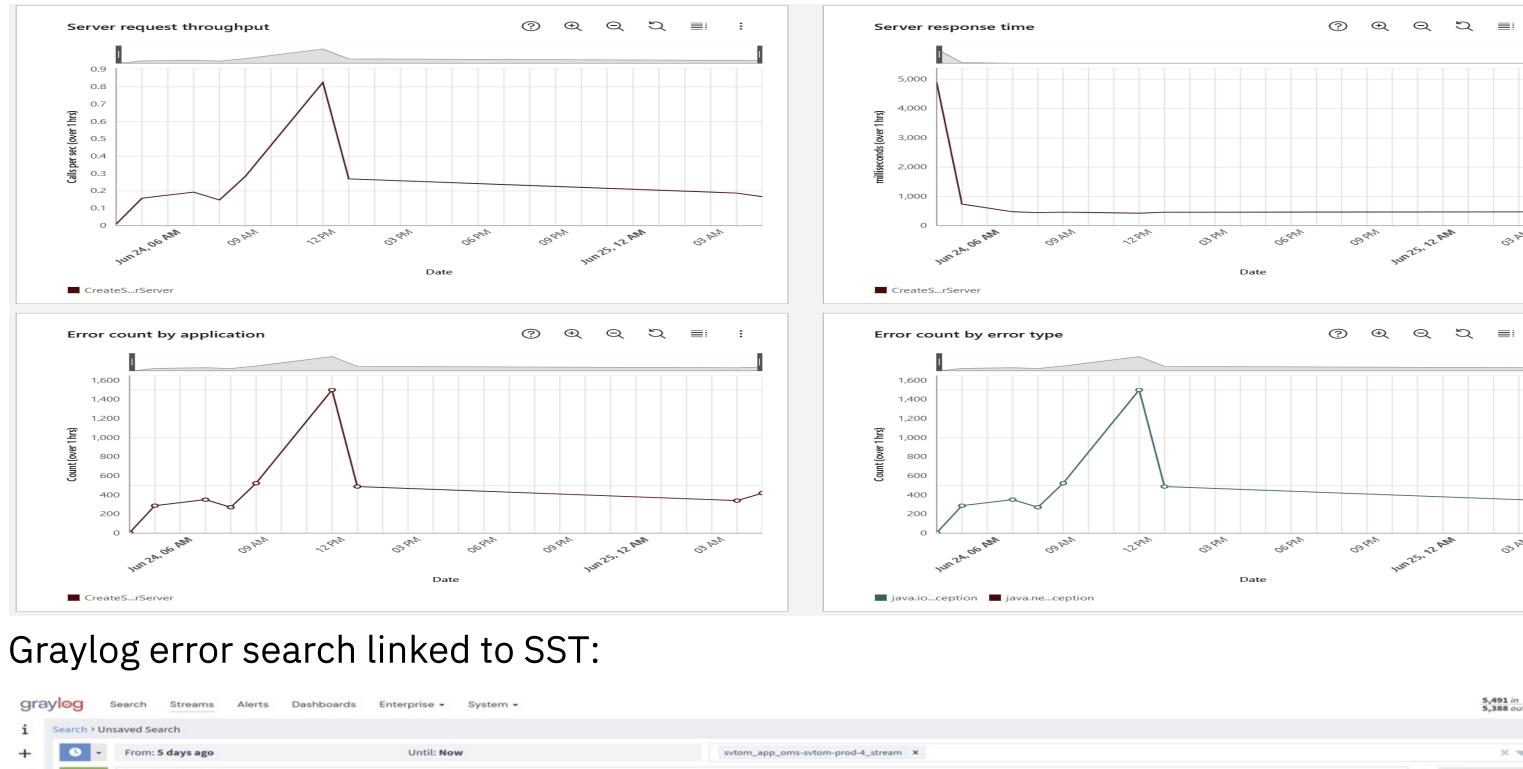
Application performance is slowed down

Error rate is high for one of the create store order integ server

Calls to external system is failing with IOException

External calls need to be fixed to mitigate the situation

## App/Agent-Integ server performance dashboard showing error count details:



C 2.000 1,000 0 12:00 00:00 Jun 21, 2024 Jun 22, 2024 All Messages timestamp ↓₹ 2024-06-25 05:19:30.756 Error ErrorC

×

5

**Recommendations:** 

Ensure to run <u>inbox</u> purge and <u>reprocess error</u> purge timely

Keep a close watch on error count widgets in performance dashboards 

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# Queue Depth High Alert

You received a proactive case notification from IBM that some of the queue/s are having high queue depth

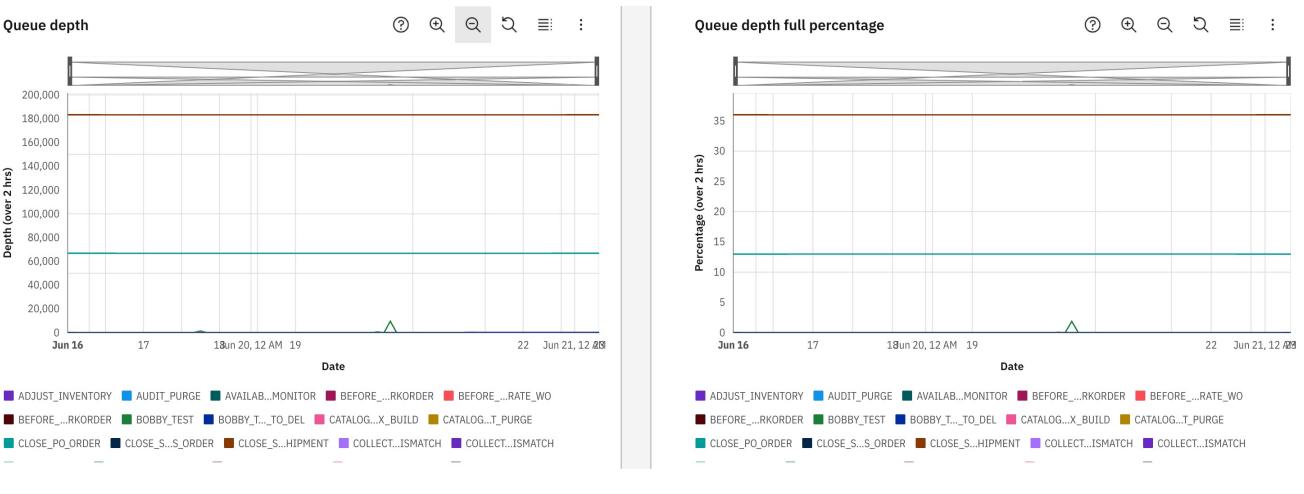
You got custom queue depth alert that the queue has breached the threshold

During your monitoring you found that some of the queues are having high queue depth

•

## Queue depth 200,000 180,000 160,000 140,000 120,000 100,000 80,000 60,000 40,000 20,000 Jun 16 17 **Oueue statistics** Queue QUEUE.18 QUEUE.16

## Queue Depth Metrics in JMS Dashboards



Queue depth	Oldest message	Queue full percentage	Open input count	Open output count	Max queue depth
183,277	-	36%	0	0	500,000
66,784	-	13%	0	0	500,000

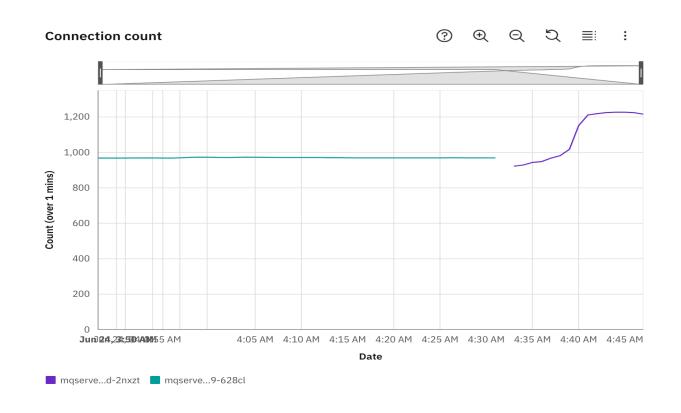
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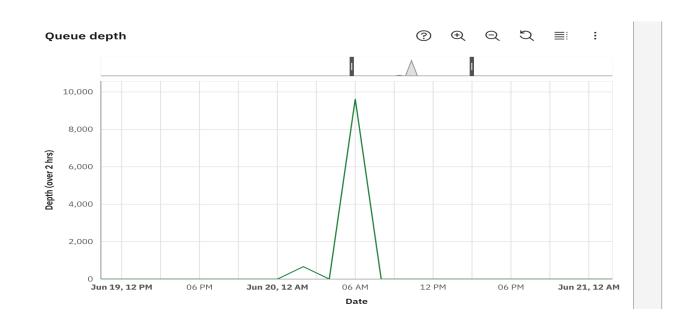
# Orders not flowing into OMS

Third-party application team complaining that they are not able to post message to queue

Application team complaining that orders are not getting created in OMS



## Queue depth chart for specific queue



## JMS consumers and producers for specific queue

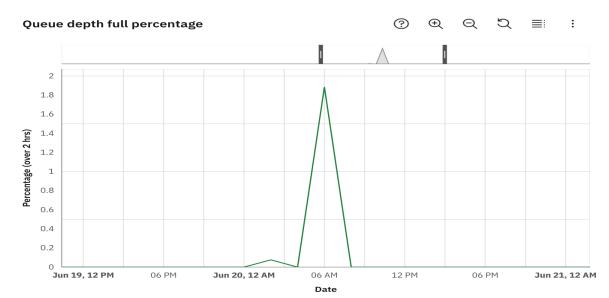
**Queue statistics** 

Queue QUEUE.12

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•

### Queue connection count



						⊻ ③
Queue depth	$\uparrow$	Oldest message	Queue full percentage	Open input count	Open output count	Max queue depth
123		-	0.02%	4	0	500,000



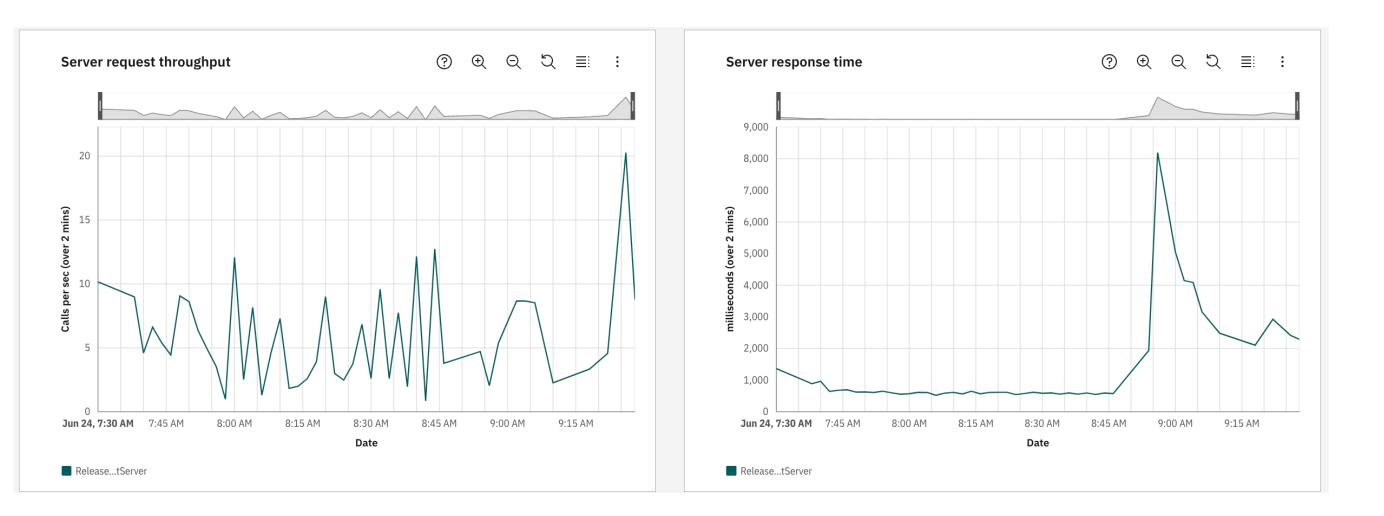
# Not getting desired throughput

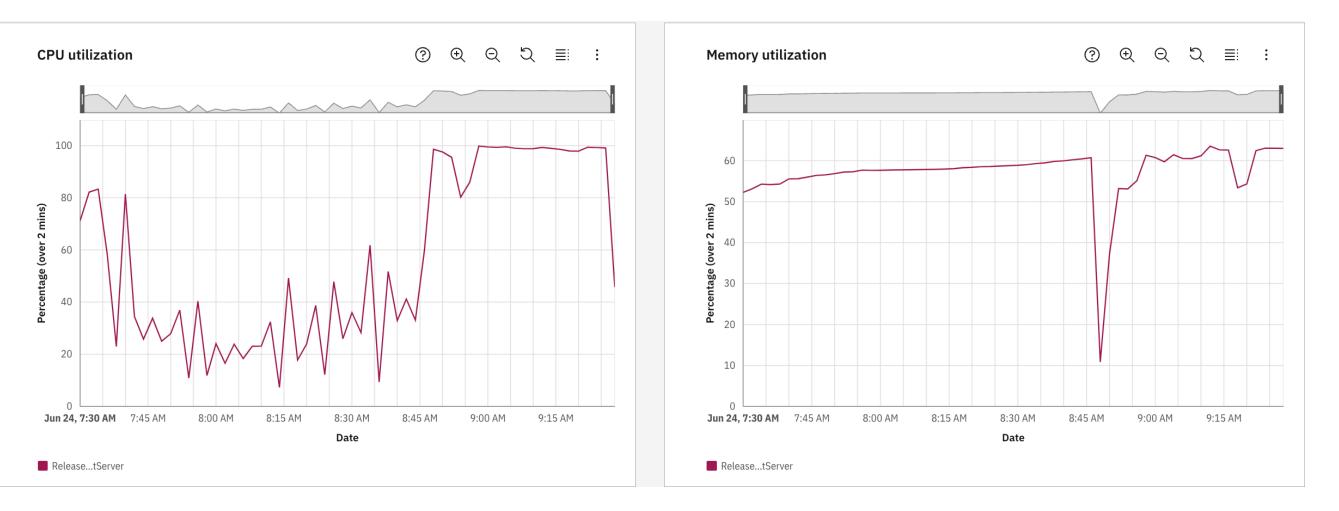
Shoppers not able to pick up their orders in store on time.

Store pickup (click to collect) orders are not getting processed by OMS within the expected time window.

Orders are not moving fast enough during release phase in OMS

Release server is noticing a performance and throughput degradation.





Performance profile distribution			
Agent server profile	Count		
Balanced	10		





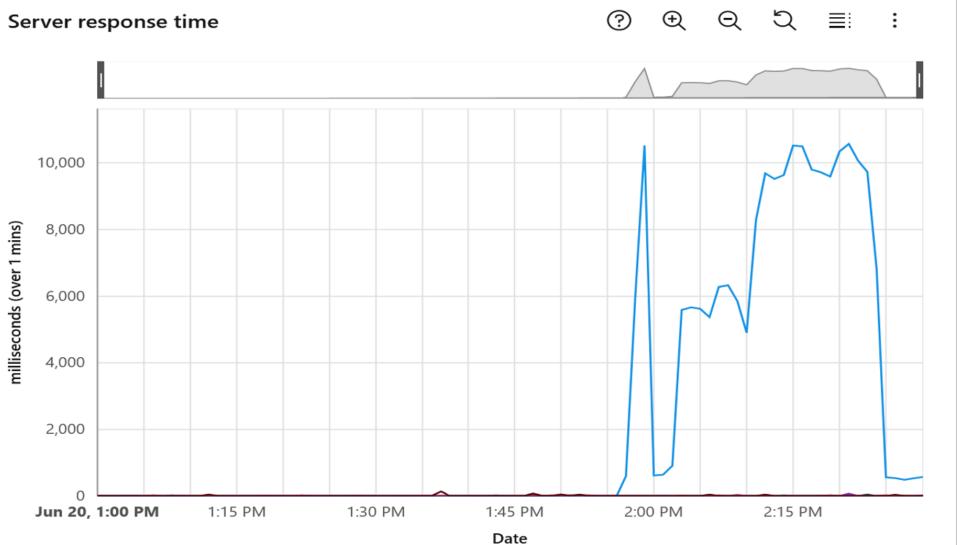
# Store or Call Center slowness

Store home page is loading very slow or not loading at all sometimes

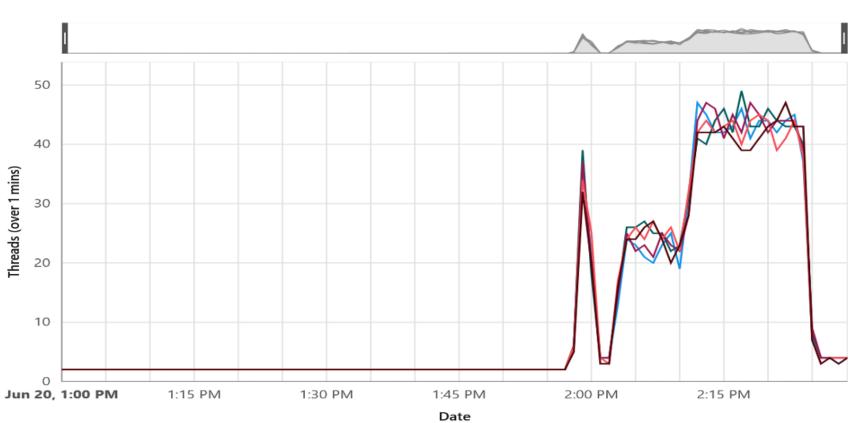
Home screen widgets like shipment counts, Order / Customer search screens are not loading quickly

And, backend calls are timing out intermittently

OMS store server response time degraded and couldn't handle the load.



**Default executor threads** 



⊕ Q ጚ ≣∷ : ?



# IBM Sterling Self Service – Order Management Alert Configuration\*

1. The alert configuration feature will allow users to create and manage alerts.

- 2. Users can define standalone alert email recipients that's separate from users in SST
- 3. Users can add custom label to each alerts that will be included in the notification.
- 4. Alerts can be duplicated to allow easy creation of similar alerts.
- 5. Robust search option to filter based on different alert attributes.
- 6. Ability to multiselect the alerts and manage them.
- 7. Auto merges similar type of alerts to avoid duplicates

Learn more about this feature from recent OMS demo days recordings <u>here</u>

Environment details Proc	esses Customizations	Configuration	Certificates	Server configuration	Queue configuration	OIDC configuration	Log configuration	Alerts configuration	_	
Q Search for alert by na	me, metric or notification em	ail						G	Create ale	ert
Name	Alert type		Thr	eshold	Time threshold	Resource			Stat	te
Q depth alert	MQ Curren	t queue depth	Ave	rage > 100	5 min	TEST_QUEUE_1, TE	EST_QUEUE_2		Disa	abled
Q depth percentage a	lert MQ Queue	full percentage	Ave	rage >= 65%	30 min	TEST_QUEUE_1, TE	EST_QUEUE_2		Disa	abled
Q message in alert	MQ Queue	messages in	Sum	n <= 5	90 min	111, newQ, test3, T	EST_QUEUE_1, TEST_G	UEUE_2	Disa	abled
ltems per page: 10 ∨	1-3 of 3 items							1 ~	of 1 page	•

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Select type		
lame		
Alert name		
Description		
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	old operator     Image: Constraint of the shold value     Image: Constraint of the shold value	
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Aggregation Threshold: When do you want to Evaluation granularity 5 min	bld operator I Threshold value I	
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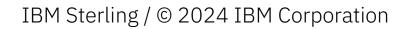
Journey to Peak Success

# How to Succeed

# Plan



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



# Prepare



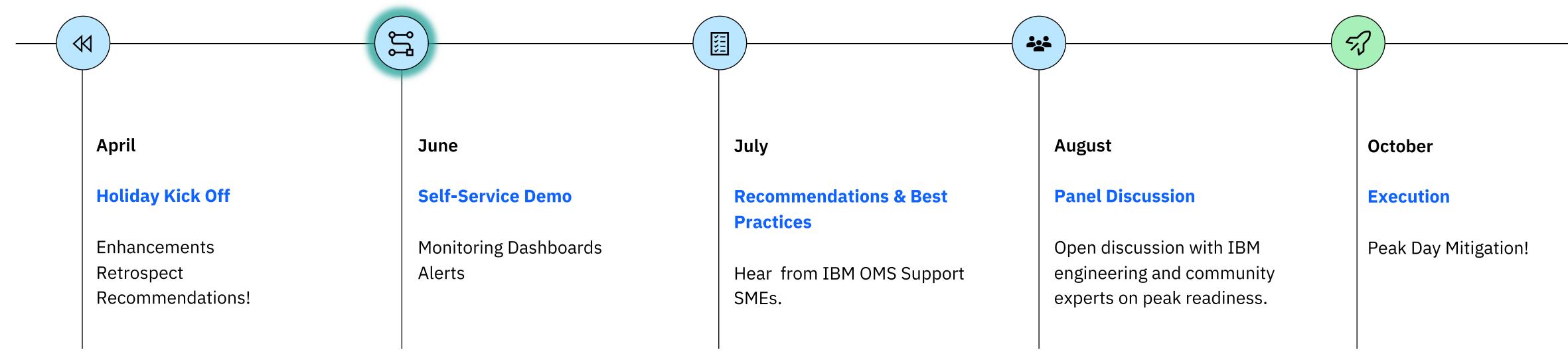
- Align to IBM schedule
- Representative testing
- Proactive housekeeping
- Clean up the noise
- Track risks

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



# 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!

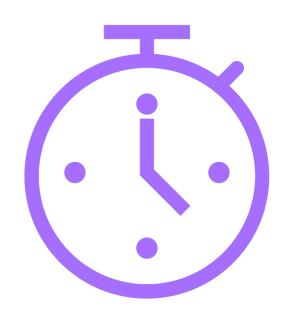




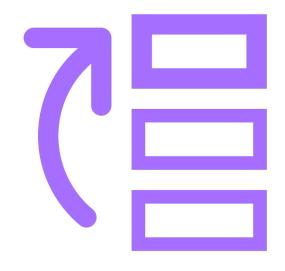
# IBM Support Offering – NEW in **Advanced Support** 2Q23!

An enhanced support experience on top of your active IBM support subscription, providing prioritized case handling and shorter response time objectives

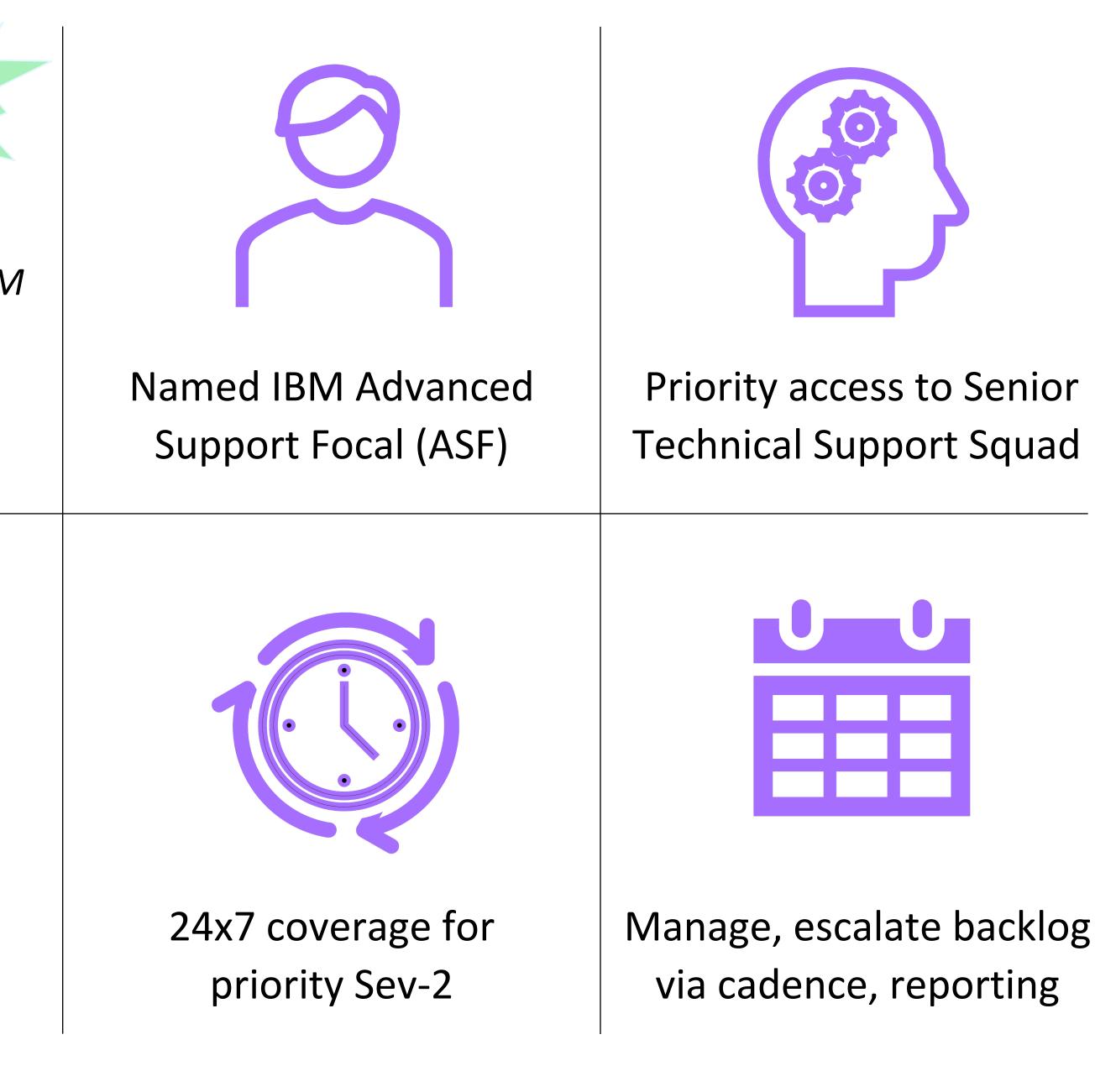
> www.ibm.com/support/pages/ibm-advanced-support-offering



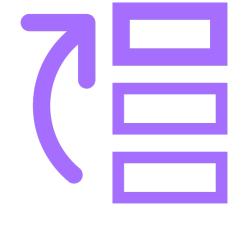
# Enhanced initial, ongoing response SLOs



Higher ongoing case prioritization



# Next Steps



# IBM Advanced Support offering

Contact your IBM Client Success Manager, Account representative, or Mike Callaghan(mcallagh@ca.ibm.com)



Sterling OMS Support 101 www.ibm.com/community/101/sterling/oms/



**Technical Best Practices** Start with the new Performance Guide

www.ibm.com/support/pages/ibm-advanced-support-



# Are you ready?

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**Technical Best Practices** 





# Thank you

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