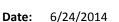| Meeting Name	Daily Change Coordination and Issue Review
Attendees:	Daniel Sapienza, Bob Vida, Brian Duffy, Bonnie Bradley, Christine Malia, Sangeetha Iyer, Andreas Kanon, Han Gu
Purpose:	Review, Communicate Business Impacting Incidents and Prioritize and Finalize the Change Plan for the current night.
Achieved Outcome:	Agreed upon implementation plan and issue follow up (Daily)

RECAP OF NOTABLE CHANGES FROM LAST NIGHT

- **Enhanced Spread Parameters:** The enable Spread Price Protections parameter was turned off pre-market due to a typo in the Min Calendar Spread Price Value Buffer parameter. The value was set to .02 when it should have been set to -.02. This value will be changed tonight and the enable Spread Price Protections parameter will be set to true. This functionality can be enabled or disabled on a matching engine level .The enable Spread Price Protections parameter can be turned off intraday but will need a matcher restart to be turned on intraday. This functionality has been tested by SQM. **(Medium Risk/Medium Impact)**

- **Release: GTS upgrade 9.0.70 - across the board via puppet:** The 9.0.70 release addresses the following SIRs: 1) SIR 270424: MDMDB cleanup for INST_PRIO table is taking too long and not working properly 2) SIR 272586: DNTT Opening: limited crossed DNTTs will not trade in the opening. This release will be installed across the board tonight. This release was installed on all matcher nodes and partition 1 primary and secondary node. Fallback will have to be performed on both primary and secondary Matcher and can be member impacting depending on what time of the day fallback is performed. **(Low risk/Med impact)**
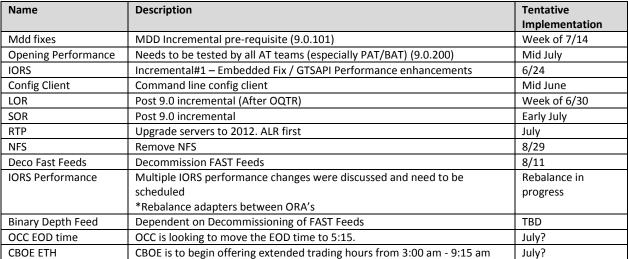
RECAP OF ISSUES FROM LAST NIGHT AND START OF DAY

- After the OFIDS restart job, the log for the Gemini primary process indicated "*Error occurred when handling query response*." As per standard procedure, this OFIDS process and the secondary were manually restarted, at approx. 04:02. Afterwards, the log did not indicate the error. **INC000000000360** was opened for this issue.

- At 05:53, Matcher server PC-ME08A went down. The backup process Matcher-82_001 (on PC-ME08B) took over as Leader. After escalation to On-call Support (M. Akbar) and Systems (A. Kogan), investigation indicated that a possible CPU or memory issue shut the server's power supplies to prevent further damage. The server could not be powered back on, even with a fuse reset. HP will troubleshoot, but the server will not be used today; we will run single sided on the backup. The MOPS team was informed that this issue led to the loss of 127 non-persistent orders on Partition 8. GitHub issue #6961 and **INC000000000361** was opened for this issue. Swapping hard drive into a PAT server.

NOTABLE CHANGE PLAN FOR TONIGHT (6/24)

- OQTR test with SIAC
- IORS Incr 1? – 1 BSI – not tonight

UPCOMING CHANGES / TESTS

Name	Description	Tentative Implementation
Mdd fixes	MDD Incremental pre-requisite (9.0.101)	Week of 7/14
Opening Performance	Needs to be tested by all AT teams (especially PAT/BAT) (9.0.200)	Mid July
IORS	Incremental#1 – Embedded Fix / GTSAPI Performance enhancements	6/24
Config Client	Command line config client	Mid June
LOR	Post 9.0 incremental (After OQTR)	Week of 6/30
SOR	Post 9.0 incremental	Early July
RTP	Upgrade servers to 2012. ALR first	July
NFS	Remove NFS	8/29
Deco Fast Feeds	Decommission FAST Feeds	8/11
IORS Performance	Multiple IORS performance changes were discussed and need to be scheduled *Rebalance adapters between ORA's	Rebalance in progress
Binary Depth Feed	Dependent on Decommissioning of FAST Feeds	TBD
OCC EOD time	OCC is looking to move the EOD time to 5:15.	July?
CBOE ETH	CBOE is to begin offering extended trading hours from 3:00 am - 9:15 am	July?

OPEN ISSUES

Priority	Issue	Impact to Production
High **Owner** SIAC/ Dev / ASG / NOPS **Application** OQTR	On 6/12 and 6/13, OQTR stopped sending data to SIAC on individual lines causing queues to build. In order to recover, the OQTR instance was failed over and SIAC forced a failover to the backup port. **Updates (6/17):** • Issue has not occurred the last 2 days. **Actions Taken:** • New release deployed to OQTR instances. Allows ISE to failover to backup port without SIAC interaction **Next Steps:** • SIAC has fallen back off of a release for lines 35 – 48. • Attempting to setup test with SIAC.	Quotes and trades are not sent to the tape. If a failover is required, anything in the queue is lost.
Priority High **Owner** Dev **Application** Core	On 4/21 we experienced a failure of the primary P10 Matcher. After the failure, members and MOPS were unable to interact with orders that they still believed were live. It was confirmed the orders were not live, but the client did not receive the product reset message. SIR 268235 **Updates (5/22):** • A race condition was uncovered that caused the product reset message to not be received by the clients. • Issue with OrderWriter that caused discrepancies with MPT identified and recreated **Actions Taken:** • Replaced PC-ME10a. • Increased buffers on all Gateway instances • A rebalance of partition 10 was completed on 5/1 • KG delivered a fix for OrderWriter issues with 9.0 **Next Steps:** • VC took place and two takeaways will be looked into. Back porting a WLLM filtering library called Turbo Flow. This is used at Rapid and performs the task of dropping un-needed broadcast data at a lower level before hitting the application layer. Dev also discussed changes to the Product reset message to send at the BU level and also to combine two of the broadcasts. This change has a high work effort and is member impacting.	The race condition could occur on another failure, resulting in the same situation.
Priority	Recently the ODS LVC for partition 56 has disconnected from the Gemini Exegy ticker plant at	Data is slow to get to

Medium	the open. **Update (6/20):** • Issue occurred again on 6/19 • The addition of more products could make this more common **Actions Taken:** • Examined perf captures • Partitions are balanced at the moment. Can't rebalance any further right now. **Next Steps:** • Test ability to load data from RDCX instead of Exegy. Needs testing	front end while instance reconnects.
Owner		
SQM		
Application		
LVC		
Priority	Performance issues were found on all EFI hosts and the IDS servers. **Update (6/18):** • EFI servers are utilizing more CPU since 7.0 release. • GDS instances are using excessive CPU on the IDS servers **Actions Taken:** • Checked spec for GDS. 1 instance handles 90% of the data. **Next Steps:** • Dev has requested a test in DR to determine the cause of the EFI issues. Waiting on DR rebuild so servers are ready.	Performance issues on the server could impact the data being disseminated by these applications.
Medium		
Owner		
Capacity/ Dev		
Application		
EFI / GDS		
Priority	Timeouts have been seen by some LVC clients (IT servers, DCA instance) at various times. This behavior was first observed on 6/9. **Update (6/17):** • CPU spikes observed. High TCP activity • No changes to servers done recently **Actions Taken:** • Added IT servers to the SPAN • Analyzed Performance captures • LBM file was changes for GDS/ODS LVC. **Next Steps:** • Change in LBM config file	Data could be missing from the clients
close		
Owner		
ASG/ DEV/ NOPS/ Capacity		
Application		
Precise WS/LVC		
Priority	A race condition in the PIMs during the OFIDS LVC startup causes the PMM status to display incorrectly. This is caused when there are multiple requests to the PIM at the same time. **Update (5/29):** • Issues has reoccurred after schedule change **Actions Taken:** • Rearranged UC4 schedule • Added alert to Check_mk if issues triggers **Next Steps:** • SIR 272127 – need an update from Dev • Possibly deliver / test with upcoming Marketwatch release – fix mw issues first	FE applications show an incorrect status for the PMM for affected products.
Medium		
Owner		
Dev		
Application		
PIM/OFIDS		
Priority	Check_mk log monitoring is not available for multiple servers/applications. This is a result of having to rediscover multiple logs throughout the day. The result is the agent utilizes excessive CPU resources and becomes unresponsive. **Update (5/30):** • Currently Precise BSI, Ports and IORS BSI servers have been impacted. • Precise does write errors to the event viewer, which is being monitored by check_mk **Actions Taken:** • Upgraded agent to 64 bit. • Removed log monitoring from these servers so the agent would be responsive again.	ASG is unable to monitor the application logs for issues. Could result in a missed issue or delayed response to a problem.
Medium		
Owner		
Dev		
Application		

Check_mk	• Updated the eif file for PC-BSI02J so that IORS reports errors to the dashboard **Next Steps:** • Change the way the ISEApps rotate logs so that the most recent log keeps the same name. • Release delivered. Issues were found so a new version is needed • Test scenario in PAT	
Priority Medium **Owner** ASG / Dev **Application** RTP	RTP delays have been seen after the open. Most common on Partition 3. **Update (6/3):** • Dev believes the delay is caused by the RealTimeIndexer Plugin. • Slowness when transferring Surv data needs to be resolved before addressing the RTP slowness **Actions Taken:** • Additional Perf counters have been added • Installed SP1 and enabled auto-tuning on Surv and PIM hosts • STM for partition 3 was moved to a different server. Haven't seen gaps since. • Changed transfer for P51. Improved time from 45 mins – 11 mins • Rebalanced all streamer instances **Next Steps:** • Change transfer mode for Surv files • Enable Binary encoding for the PIMs • KG/Min to provide a more resilient script for ISEE data	MOPS does not have access to data in the FE's until RTP catches up. ISEE data is also impacted.
Priority Medium **Owner** Dev / AK **Application** OQTR	We have seen gaps at the open for OQTR instance 51p multiple times over the past few weeks. Other instances have also seen gaps, but not as frequently. **Update (5/14):** • NOPS does not see any issues • Gaps are continually seen and are now affecting both OQTR and MDS LVC. • Possibly due to garbage collection on servers. Other options being explored. • A rebalance of products may not help • Gaps reported by members. Needs escalation **Actions Taken:** • Systems updated 1 adapter setting on pc-qtrp51. • Additional counters have been setup on the server to monitor the performance of the application and the network adapter • Verify adapter settings on other servers • Increased NtvIocpNumQueuedDgrams from 18000 to 24000 • Network changes applied on w/e of 5/17. **Next Steps:** • A code fix will be designed in the future. SIRs 262636, 268344	Gaps are recovered. Could delay trade data sent to OPRA.
Priority Medium **Owner** Linux / NOPS **Application** ActiveMQ	On 2/18 there were memory issues with pc-amq01a, causing queues to build up in the application. The server was rebooted intraday in order to resolve the issue. **Update (5/30):** • Errors still seen in the morning (3 – 4 am) • Workaround is in place if the memory issues are seen **Actions Taken:** • Updated the firmware of the hba • Checks and monitoring added to alert if issue occurs • Linux support and Network Engineering have resolved port issues • New ActiveMQ cluster built in DR without using qdisk. ISEApps have been configured too **Next Steps:** • Testing in DR.	Could impact complex instrument creation. Workaround is in place.

Test Environment Status

DR

Status:	Environment rebuild underway; ActiveMQ testing; OQTR
Current Core Version:	9.0.050
ISEApps Status:	
Environment Issues:	
Comments:	

OAT

Status:	Core testing done
Current Core Version:	9.0.070
ISEApps Status:	IORS Incr 1 – testing completed
Environment Issues:	
Comments:	Config Client testing underway

MAT

Status:	Go to 9.0.100
Current Core Version:	MT2 – 9.0.060
ISEApps Status:	IORS (9.0) using MT2 environment
Environment Issues:	

Status:	Go to 9.0.070 when ready
Current Core Version:	MT1 – 9.0
ISEApps Status:	
Environment Issues:	

BAT

Status:	BAT1	**Status:**	BAT3 (automation)
Current Core Version:	9.0.101	**Current Core Version:**	9.0.200
ISEApps Status:		**ISEApps Status:**	
Environment Issues:		**Environment Issues:**	
Comments:		**Comments:**	

Status:	BAT2
Current Core Version:	9.0.200 (unofficial)
ISEApps Status:	
Environment Issues:	
Comments:	

PAT

Status:	MDD test with pre-open/open feeds
Current Core Version:	9.0.070

ISEApps Status: IORS testing – results sent to Development for analysis
Environment Issues:
Comments:

All dates are of implementation unless otherwise noted
**Only notable changes are listed

June 2014 Notable Work

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
2 Solactive Live	3	4	5 RDS event for 4:15 products	6	7 Test with SIAC	8
9	10 Add 66 ISE products	11	12 Add 36 ISE products	13 Core 9.0.070 – pc-me01a OQTR v8.1.0.4 – 1 instance LBM Config change PD-MD01 module	14 EMC work (rescheduled)	15
16 OQTR v8.1.0.4 – across the board Core 9.0.070 – pc-me01b	17 Core 9.0.070 – all Matchers	18	19	20 Expiration Combo price protection launch	21 UC4 migration Migrate IC-SUR01D to new cluster	22

23 Core 9.0.070 – all servers	24 IORS Incr 1 rollout (1 BSI)	25 Cross Market Speedbump Launch	26 IORS Incr 1 rollout (1 server) Add 197 Gemini products	27	28	29
30 IORS Incr 1 rollout (all)	July 1st New Liquidity Indicators Launch	July 2nd	July 3rd	July 4th ISE Closed	July 5th	July 6th