

Date: 7/22/2014



<b>Meeting Name</b>	<b>Daily Change Coordination and Issue Review</b>
<b>Attendees:</b>	Daniel Sapienza, Daniel Belanger, Brian Duffy, Mike Jin, Bonnie Bradley, Han Gu, Christine Malia, Bob Vida
<b>Purpose:</b>	Review, Communicate Business Impacting Incidents and Prioritize and Finalize the Change Plan for the current night.
<b>Achieved Outcome:</b>	Agreed upon implementation plan and issue follow up (Daily)

#### RECAP OF NOTABLE CHANGES FROM LAST NIGHT

- **Release: LOR upgrade to v1.0.0.41 – Across the board:** The 1.0.0.41 release addresses several SIRS, including: 1) 269892: Bug fix to prevent LOR from releasing an order twice 2) 246568: New configuration parameters added to handle disabling exchanges 3) 246567: An update for LOR to ignore cancel messages that come in for an order that has been trade reported or released in full. This release was rolled out for the GEMINI LOR instance last Friday and ran successfully today in production with no issues encountered. Tonight we will install this release across the board via puppet. To fall off this release, we will roll back to the previous version 1.0.0.37 via puppet and restart the application. **(Med risk/Low impact)**
- **Migrate RTP ATLR instances 54-56 to Windows 2012 (PC-ALR52B):** To address an OFI disconnect issue with RTP ATLR, the capacity team has requested RTP ATLR be migrated from Windows 2008 (PC-ALR51B) to Windows 2012 (PC-ALR52B), which will minimize the risk of ATLR consumption congestion and allow the load to be spread over multiple cores. The migration will also allow us to introduce the RegisteredIO receiver library to further improve the burst receive rate. This RFC constitutes the second phase of the migration where only the instances running on PC-ALR51B will be moved to PC-ALR52B. This change was completed for RTP ATLR instances 57-60 last Friday and ran successfully today in production with no issues encountered. To fallback to Windows 2008, RTP ATLR instances 54-56 will need to be reconfigured to use SAN disks on the current Windows 2008 PC-ALR51 cluster and the application will be shut down on PC-ALR52B and started up on PC-ALR51B. **(Low risk/Low impact)**

#### RECAP OF ISSUES FROM LAST NIGHT AND START OF DAY

- At market open, ODS LVC 54p disconnected from both the primary and secondary Exegy ticket plants. MOPS reported higher than normal activity for product CMG in partition 54. The instances was failed to the backup and successfully subscribed. The primary was restarted as backup in the event of another failure.
- Module 1 on IC-DI02 went down. This creates a single point of failure for ESX VM's in the INF network. Replacement will be installed tonight
- KCG Fix session disconnected. KCG needed to bring down their connection but it is back up and we are connected. A restart of the KCG Cameron session was required



## NOTABLE CHANGE PLAN FOR TONIGHT (7/18)

- MDD/POPE Buffer Changes for partition 2
- Market watch Post 9.0 incremental (MW Client Citrix and OBEWCF)
- PMM Control Plugin will go tomorrow
- ALR 51A Migration

## UPCOMING CHANGES / TESTS

Name	Description	Tentative Implementation
MDD	Buffer changes after crash on 7/9	7/22
IORS	Incremental#2	Last week of July
Config Client	Command line config client - SIRS logged – estimated delivery by late July	July
MW	Post 9.0 incremental	7/22
RTP	Upgrade servers to 2012. ALR first	In-progress
NFS	Remove NFS	TBD
Deco Fast Feeds	Decommission FAST Feeds for (Top, Pre-Open, Trade for SI)	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. Active in BAT. Follow up on OCC handshake (UC4 Jobs)	8/1
CBOE ETH	CBOE is to begin offering extended trading hours from 3:00 am - 9:15 am	July?
RTP	Enable binary encoding for the PIM's	7/29
ActiveMQ	Rebuild ActiveMQ servers to RHEL 6.5	8/23 (or 9/13)
OQTR	Decision to go with multiple fixes. 8.1.0.5 delivered unofficially on the staging server. Capture at the open for 10 minutes (APPLE)	8/8
Product Adds	44 ISE products; 21 Alt PMM; 101 Gemini	8/1; 8/5; 8/11
LVC	LVC to use RDCX to load data instead of Exegy. Configured in QA. Need additional details on the priority	TBD

## OPEN ISSUES

Priority	Issue	Impact to Production
High	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.	Quotes and trades are not sent to the tape. If a failover is required, anything in the queue is lost.
Owner	SIAC/ Dev / ASG / NOPS	
Application	<b>Updates (7/17):</b> <ul style="list-style-type: none"> <li>• Issue occurred on 6/30 (on SIAC fallback version).</li> </ul> <b>Actions Taken:</b> <ul style="list-style-type: none"> <li>• New release deployed to OQTR instances. Allows ISE to failover to backup port without SIAC interaction</li> <li>• SIAC has fallen back off of a release for lines 37 – 48.</li> <li>• Test performed with SIAC from DR to their prod lines</li> <li>• Scaling turned on for all servers</li> <li>• SIAC fall forward on lines 37 - 48</li> </ul> <b>Next Steps:</b> <ul style="list-style-type: none"> <li>• Continue to monitor behavior</li> </ul>	
Priority	Instruments for 3 index products did not rotate to open. After falling off the latest IDS release	With the latest version,



Medium	for the SNP instance, MOPS was able to open these instruments. <b>Update (7/18):</b>	MOPS is unable to rotate the SNP instruments indexes manually.
<b>Owner</b>	<ul style="list-style-type: none"> <li>SQM verified that the secondary instance needs to be on the old version with DualConfig disabled</li> </ul>	
Dev	<b>Actions Taken:</b>	
<b>Application</b>	<ul style="list-style-type: none"> <li>Fellback the secondary SNP instance to the previous version.</li> </ul>	
IDS	<b>Next Steps:</b>	
	<ul style="list-style-type: none"> <li>SIR 276199 was opened for this issue</li> <li>Fix will be delivered with next release. Est 7/31. Mid August expected turnover</li> </ul>	
<b>Priority</b>	Performance issues were found on all EFI hosts and the IDS servers.	Performance issues on the server could impact the data being disseminated by these applications.
Medium	<b>Update (7/8):</b>	
<b>Owner</b>	<ul style="list-style-type: none"> <li>EFI servers are utilizing less CPU since 7.0 release. (not using active spin loop)</li> <li>GDS instances are using excessive CPU on the IDS servers</li> </ul>	
Capacity/Dev	<b>Actions Taken:</b>	
	<ul style="list-style-type: none"> <li>Checked spec for GDS. 1 instance handles 90% of the data.</li> </ul>	
<b>Application</b>	<b>Next Steps:</b>	
EFI / GDS	<ul style="list-style-type: none"> <li>DR EFI rebuilt. Issue doesn't currently exist in DR.</li> <li>Andreas working with Slava on next steps</li> </ul>	
<b>Priority</b>	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.	ASG is unable to monitor the application logs for issues. Could result in a missed issue or delayed response to a problem.
Medium	<b>Update (7/2):</b>	
<b>Owner</b>	<ul style="list-style-type: none"> <li>Currently Precise BSI, Ports and IORS BSI servers have been impacted.</li> <li>Precise does write errors to the event viewer, which is being monitored by check_mk</li> </ul>	
Dev	<b>Actions Taken:</b>	
	<ul style="list-style-type: none"> <li>Upgraded agent to 64 bit.</li> </ul>	
<b>Application</b>	<ul style="list-style-type: none"> <li>Removed log monitoring from these servers so the agent would be responsive again.</li> <li>Updated the eif file for PC-BSIO2J so that IORS reports errors to the dashboard</li> </ul>	
Check_mk	<b>Next Steps:</b>	
	<ul style="list-style-type: none"> <li>Change the way the ISEApps rotate logs so that the most recent log keeps the same name.</li> <li>ORS will take changes in R10</li> <li>Test scenario in PAT</li> <li>Possible workaround using symbolic links has been setup. Testing in progress</li> </ul>	
<b>Priority</b>	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.	Gaps are recovered. Could delay trade data sent to OPRA.
Medium	<b>Update (5/14):</b>	
<b>Owner</b>	<ul style="list-style-type: none"> <li>NOPS does not see any issues</li> </ul>	
Dev / AK	<ul style="list-style-type: none"> <li>Gaps are continually seen and are now affecting both OQTR and MDS LVC.</li> <li>Possibly due to garbage collection on servers. Other options being explored.</li> </ul>	
<b>Application</b>	<ul style="list-style-type: none"> <li>A rebalance of products may not help</li> </ul>	
OQTR	<ul style="list-style-type: none"> <li>Gaps reported by members. Needs escalation</li> </ul>	
	<b>Actions Taken:</b>	
	<ul style="list-style-type: none"> <li>Systems updated 1 adapter setting on pc-qtrp51.</li> <li>Additional counters have been setup on the server to monitor the performance of the application and the network adapter</li> <li>Verify adapter settings on other servers</li> <li>Increased NtvlopcNumQueuedDgrams from 18000 to 24000</li> <li>Network changes applied on w/e of 5/17.</li> </ul>	



	<b>Next Steps:</b> <ul style="list-style-type: none"> <li>• A code fix will be designed in the future. SIRs 262636, 268344 (10.0)</li> <li>• Mdd receiver library</li> <li>• Combining feeds</li> </ul>	
<b>Priority</b>	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. <b>Update (5/30):</b> <ul style="list-style-type: none"> <li>• Errors still seen in the morning (3 – 4 am)</li> <li>• Workaround is in place if the memory issues are seen</li> </ul> <b>Actions Taken:</b> <ul style="list-style-type: none"> <li>• Updated the firmware of the hba</li> <li>• Checks and monitoring added to alert if issue occurs</li> <li>• Linux support and Network Engineering have resolved port issues</li> <li>• New ActiveMQ cluster built in DR without using qdisk. ISEApps have been configured too</li> </ul> <b>Next Steps:</b> <ul style="list-style-type: none"> <li>• Testing in DR.</li> </ul>	Could impact complex instrument creation. Workaround is in place.
Medium		
<b>Owner</b>		
Linux / NOPS		
<b>Application</b>	ActiveMQ	
ActiveMQ		

## Test Environment Status

### DR

**Status:** ActiveMQ testing; OQTR; EFI; Check\_mk log file monitoring  
**Current Core Version:** 9.0.050  
**ISEApps Status:**  
**Environment Issues:**  
**Comments:** Need to upgrade to latest Core release

### OAT

**Status:** Running regression  
**Current Core Version:** 9.0.110  
**ISEApps Status:** Testing incr 2 (certify on 9.0)  
**Environment Issues:**  
**Comments:** Backup db's; rhel upgrades complete. Application rebuild is done. Testing is back in progress

### MAT

**Status:**  
**Current Core Version:** MT2 – 9.0.110  
**ISEApps Status:** IORS (9.0) using MT2 environment  
**Environment Issues:**

**Status:** Upgrade to R10  
**Current Core Version:** MT1 – 9.0  
**ISEApps Status:**  
**Environment Issues:** Using the Production schedule. (Check with Dan and Tom Z)

### BAT



**Status:** BAT1  
**Current Core Version:** 9.0.110  
**ISEApps Status:**  
**Environment Issues:**  
**Comments:**

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

**Status:** BAT2  
**Current Core Version:** 10.0 (beta)  
**ISEApps Status:** Requests coming in  
**Environment Issues:** Disable some ISEapps  
**Comments:** 10.0 unofficial coming today

PAT

**Status:** MDD test with pre-open/open feeds  
**Current Core Version:** 9.0.110  
**ISEApps Status:** IORS incr 2  
**Environment Issues:**  
**Comments:** IORS upgrade in progress.

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

## July 2014 Notable Work

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
June 30 New Liquidity Indicators	1 IORS Incr 1 rollout (1 BSI)	2 OQTR scaling (1 server)	3 Early Close  OQTR scaling (1 server)	4 ISE Closed	5	6
7 OQTR scaling (all servers)	8 New SOR venue	9 IORS Incr 1 rollout (1 BSI)  IDS v1.9.1.0 for SIX instance	10 Enable PIM Binary Encoding	11	12	13



14 Core 9.0.110 (partition 1 primary)	15 Core 9.0.110 fallback  IORS Incr 1 fallback	16 Core 9.0.110 (partition 1 primary)  OQTR ISE fallback	17	18 - Expiration Core 9.0.110 (partition 1 secondary)  LOR v1.0.0.41 – Gemini only  Upgrade Citrix Gateway  RTP ALR 2012 server	19	20
21 MDD buffer changes – 1 partition  LOR v1.0.0.41 – ISE instance	22 MDD buffer changes –all partitions  Precise DB Cleanup – DBK04E	23	24 Marketwatch  Precise DB Cleanup – All BU's	25	26	27
28	29 Binary Encoding for PIM	30	31	August 1 <sup>st</sup> Add 44 ISE products  Move up OCC EOD time	August 2 <sup>nd</sup>	August 3 <sup>rd</sup>