

NOVA PROJECT - "GO NO-GO" External Interfaces

Control Description

After GO_LIVE, data transfer is expected to occur regularly between CLEARWATER ("CW") and 5 AIG internal applications: (1) IDR (2) SAP (3) SMF (4) CIDR and (5) PPV . The external interface controls ensure the timely, accurate and complete processing of information between CW and AIG internal applications.

Purposes

In order to assess the readiness to go live with Clearwater, this document assesses whether adequate controls are in place for the implementation phase of the external interfaces between CW and AIG internal applications

TS-A : Determine whether the data is transferred securely between CW and AIG Internal Applications



TS-B : Determine whether the interface data and processes are restricted to the authorized resource

- B.1 : The data and processes are restricted in CW
- B.2 : The data and processes are restricted in AIG



TS-C : Determine whether the interface design/procedures ensure the information process be complete and accurate

- C.1 : (AIG to CW) The interface contains the total number of records (completeness)
- C.2 : (AIG to CW) The interface contains the total sum of key numeric data (accuracy)
- C.3 : (CW to AIG) The interface contains the total number of records (completeness)
- C.4 : (CW to AIG) The interface contains the total sum of key numeric data (accuracy)



TS-D : Determine whether the interface design/procedures ensure the errors be rejected and timely corrected

- D.1 : (AIG to CW) The interface errors are rejected
- D.2 : (AIG to CW) The interface errors are timely corrected
- D.3 : (CW to AIG) The interface errors are rejected
- D.4 : (CW to AIG) The interface errors are timely corrected



No relevant exceptions noted.

CLEARWATER to IDR

TS-A : Determine whether the data is transferred securely between CW and IDR

TS-B : Determine whether the interface data and processes are restricted to the authorized resource

- B.1 : The data and processes are restricted in CW
- B.2 : The data and processes are restricted in AIG

TS-C : Determine whether the interface design/procedures ensure the information process be complete and accurate

- C.1 : (IDR to CW) The interface contains the total number of records (completeness)
- C.2 : (IDR to CW) The interface contains the total sum of key numeric data (accuracy)
- C.3 : (CW to IDR) The interface contains the total number of records (completeness)
- C.4 : (CW to IDR) The interface contains the total sum of key numeric data (accuracy)

TS-D : Determine whether the interface design/procedures ensure the errors be rejected and timely corrected

- D.1 : (IDR to CW) The interface errors are rejected
- D.2 : (IDR to CW) The interface errors are timely corrected
- D.3 : (CW to IDR) The interface errors are rejected
- D.4 : (CW to IDR) The interface errors are timely corrected

Sl. No	Topic	Request Description
1	Interfaces - Clearwater > IDR	Please provide a list of all of the files being transmitted from Clearwater to IDR, as well as their corresponding Autosys jobs that will replace the existing PAM feed jobs.
2	Interfaces - Clearwater > IDR	Please provide a sample of each of the files transmitted to IDR from Clearwater.
3	Interfaces - Clearwater > IDR	Please provide screenshots showing that the Clearwater > IDR job is configured to include an error notification alert.
4	Interfaces - Clearwater > IDR	Please provide support of an example error notification/alert that was triggered by a failed job feed for Clearwater > IDR.

1. Please provide a list of all of the files being transmitted from Clearwater to IDR, as well as their corresponding Autosys jobs that will replace the existing PAM feed jobs.

Sl. No	Clearwater Files(Daily & Monthly)	Autosys Jobs
1	CLWTRHLD_LDAZZPD_20180409_20180409	IDR_CLWTRHLD_DLY_DS_JOB_C
2	CLWTRINC_LDAZZPD_20180409_20180409	IDR_CLWTRINC_DLY_DS_JOB_C
3	CLWTRTXN_LDAAFPD_20180409_20180409	IDR_CLWTRTXN_DLY_DS_JOB_C
	CLWTRTXN_LDAAGPD_20180409_20180409	
	CLWTRTXN_LDAAIPD_20180409_20180409	
	CLWTRTXN_LDAAMPD_20180409_20180409	
	CLWTRTXN_LDAASPD_20180409_20180409	
	CLWTRTXN_LDAATPD_20180409_20180409	
4	CLWTRHLD_LMAZZPM_20180228_20180408	CLWTR_IDR_HLD_MTH_DS_JOB_C
	CLWTRHLD_LMHZZPM_20180228_20180408	
5	CLWTRINC_LMAZZPM_20180228_20180408	CLWTR_IDR_INC_MTH_DS_JOB_C
	CLWTRINC_LMHZZPM_20180228_20180408	
6	CLWTRTXN_LMAAFFPM_20180228_20180408	CLWTR_IDR_TXN_MTH_DS_JOB_C
	CLWTRTXN_LMAAGPM_20180228_20180408	
	CLWTRTXN_LMAAIPM_20180228_20180408	
	CLWTRTXN_LMAAMPM_20180228_20180408	
	CLWTRTXN_LMAASPM_20180228_20180408	
	CLWTRTXN_LMAATPM_20180228_20180408	
	CLWTRTXN_LMHAFFPM_20180228_20180408	
	CLWTRTXN_LMHAGPM_20180228_20180408	
	CLWTRTXN_LMHAIPM_20180228_20180408	
	CLWTRTXN_LMHAMPM_20180228_20180408	
	CLWTRTXN_LMHASPM_20180228_20180408	
	CLWTRTXN_LMHATPM_20180228_20180408	

2. Please provide a sample of each of the files transmitted to IDR from Clearwater.

FEED_FILE_NAME	FEED_STATUS_CD	SRC_SYS_CD	PROCESS_NAME	LOAD_DATE
1 CLWTRTXN_LDAATPD_20180409_20180409	LOADED	CLWTR	TXN_LOADER	4/10/2018 1:46:37 AM
2 CLWTRTXN_LDAAFPD_20180409_20180409	LOADED	CLWTR	TXN_LOADER	4/10/2018 1:46:37 AM
3 CLWTRINC_LDAZZPD_20180409_20180409	LOADED	CLWTR	INC_LOADER	4/10/2018 1:45:32 AM
4 CLWTRTXN_LDAAIPD_20180409_20180409	LOADED	CLWTR	TXN_LOADER	4/10/2018 1:46:37 AM
5 CLWTRTXN_LDAAGPD_20180409_20180409	LOADED	CLWTR	TXN_LOADER	4/10/2018 1:46:37 AM
6 CLWTRTXN_LDAAMPD_20180409_20180409	LOADED	CLWTR	TXN_LOADER	4/10/2018 1:46:37 AM
7 CLWTRHLD_LDAZZPD_20180409_20180409	LOADED	CLWTR	HLD_LOADER	4/10/2018 1:31:10 AM
8 CLWTRTXN_LDAASPD_20180409_20180409	LOADED	CLWTR	TXN_LOADER	4/10/2018 1:46:37 AM

3. Please provide screenshots showing that the Clearwater > IDR job is configured to include an error notification alert.



WiltonPRD IDR
HLD_LOADER ERR



WiltonPRD IDR
HLD_LOADER ERR



WiltonPRD IDR
INC_LOADER ERR

4. Please provide support of an example error notification/alert that was triggered by a failed job feed for Clearwater > IDR.



AUTOSYS Alert
IDR_CLWTRHLD_DLY



AUTOSYS Alert
CLWTR_IDR_INC_MTI

Nguyen, Hoangvinh

From: WiltonPRDDataStage@aig.com
Sent: Monday, April 02, 2018 7:27 PM
To: IDR ETL Data Feeds Support; DQA_DataIntegrity; *Dublin - ISS Team; IT Recon Notify
Subject: WiltonPRD : [IDR] : [HLD_LOADER] : [ERROR] : CLWTRHLD_LMHZZPM_20180331_20180402 File already Exists

Nguyen, Hoangvinh

From: WiltonPRDDataStage@aig.com
Sent: Monday, March 26, 2018 10:39 AM
To: IDR ETL Data Feeds Support; DQA_DataIntegrity; *Dublin - ISS Team; IT Recon Notify
Subject: WiltonPRD : [IDR] : [HLD_LOADER] : [ERROR] : HLD Target Load failed. Please contact DataStage Support

WARNING - MISSING ATTACHMENT: Cannot open attachment file
'/data/IDR/Joblog/J3102_IDRLoadHoldingTgt_CLWTRHLDMTH.log'

Nguyen, Hoangvinh

From: WiltonPRDDataStage@aig.com
Sent: Monday, March 26, 2018 2:56 PM
To: IDR ETL Development
Subject: WiltonPRD : [IDR] : [INC_LOADER] : [ERROR] : INC Target Load failed. Please contact DataStage Support

WARNING - MISSING ATTACHMENT: Cannot open attachment file
'/data/IDR/Joblog/J3107_IDRLoadIncome_LoadTgt_CLWTRINCMTH.log'

Nguyen, Hoangvinh

From: AIGGIGPSSupport@aig.com
Sent: Thursday, April 05, 2018 11:32 PM
To: AIGGIG Production Support; IDR ETL Development; DQA_DataIntegrity;
 InvestmentAPPSUPPORT
Subject: AUTOSYS Alert: IDR_CLWTRHLD_DLY_DS_JOB_C => FAILED in Production Ticket#83849

Created Date	Problem	Resolved Date	Resolution	Issue No
05-APR-18	NEW			83849
28-MAR-18	Job failed	28-MAR-18	Restarted and completed.	83390
22-MAR-18	Job failed.	22-MAR-18	Success event issued per developer	83231
21-MAR-18	Job failed due to file not available	21-MAR-18	Restarted per Anil once file is available.	83180
19-MAR-18	NEW + echo 'Files are there to download. ' + echo 'Please FORCE_START the BOX'	20-MAR-18	FORCE_START the BOX and all jobs completed successfully	83061
01-MAR-18	Tickets cleared to catch up the latest failures	01-MAR-18	failure has been escalated and resolved.	81918

Nguyen, Hoangvinh

From: AIGGIGPSSupport@aig.com
Sent: Sunday, April 08, 2018 5:02 PM
To: AIGGIG Production Support; IDR ETL Development; InvestmentAPPSUPPORT
Subject: AUTOSYS Alert: CLWTR_IDR_INC_MTH_DS_JOB_C => FAILED in Production Ticket#84008

Created Date	Problem	Resolved Date	Resolution	Issue No
08-APR-18	NEW			84008
06-APR-18	Job failed	06-APR-18	Edwin taking care of it.	83911
03-APR-18	Job failed.	03-APR-18	Reran to success.	83728
03-APR-18	Job failed.	03-APR-18	Reran to success.	83725
03-APR-18	Job failed.	03-APR-18	Reran to success.	83724
03-APR-18	Job failed.	03-APR-18	Reran to success.	83723

CLEARWATER to SAP

TS-A : Determine whether the data is transferred securely between CW and SAP

TS-B : Determine whether the interface data and processes are restricted to the authorized resource

- B.1 : The data and processes are restricted in CW
- B.2 : The data and processes are restricted in AIG

TS-C : Determine whether the interface design/procedures ensure the information process be complete and accurate

- C.1 : (SAP to CW) The interface contains the total number of records (completeness)
- C.2 : (SAP to CW) The interface contains the total sum of key numeric data (accuracy)
- C.3 : (CW to SAP) The interface contains the total number of records (completeness)
- C.4 : (CW to SAP) The interface contains the total sum of key numeric data (accuracy)

TS-D : Determine whether the interface design/procedures ensure the errors be rejected and timely corrected

- D.1 : (SAP to CW) The interface errors are rejected
- D.2 : (SAP to CW) The interface errors are timely corrected
- D.3 : (CW to SAP) The interface errors are rejected
- D.4 : (CW to SAP) The interface errors are timely corrected

Key Interfaces CW to SAP and related owner

CW to SAP Interfaces

4/20/2018 10:20

ID	Item	Owner	CW to SAP	CW to SAP	CW to Non-SAP	CW to SAP	CW to SAP	CW to SAP	CW to SAP	Jawah to SAP	
			P&C	P&C RML	P&C Intl Other Entities	FP	Parent / MIP	L&R	L&R RML	L&R REPO/SL	Comments
1.01	SAP Team builds a process to accept CW files	SAP	100%	100%	NA	100%	100%	100%	100%	TBD	
1.02	Create CW sample file	CW	100%	100%	TBD	100%	100%	100%	100%	TBD	- filtering provided 01/22/18 - first sample file to be available on Friday 01/26
1.03	Review CW sample file format and rename file to PAM name	Frank	100%	100%	NA	100%	100%	100%	100%	TBD	- revised PC file expected on 02/02 - L&R file expected on 02/02
1.04	Load the CW sample file using the mock-close process	SAP/Frank	100%	100%	NA	100%	100%	100%	100%	TBD	
1.05	Review and ensure the mock-close error log is clear	Frank	100%	100%	NA	100%	100%	100%	100%	TBD	
1.06	Test SAP Interface Error Messaging	IA/Frank	100%	100%	NA	100%	100%	100%	100%	TBD	
1.07	Confirm user access to test environments	IA/SAP	100%	100%	NA	100%	100%	100%	100%	TBD	- LR users have access to QA already
1.08	Review and update transformation tables	IA	100%	100%	NA	NA	NA	100%	100%	TBD	
1.09	Define Interface Aggregate Filters (PC/FP/LR/etc.)	IA	100%	100%	100%	100%	100%	100%	100%	TBD	
1.10	Post CW scrubbed version of sample files	CW Frank	100%	100%	NA	100%	100%	100%	100%	TBD	
1.11	Create a complete CW file for all companies and accounts	CW	02/22/18	02/22/18	TBD	02/22/18	02/22/18	02/22/18	02/22/18	TBD	
1.12	IA signs off on Interface (technical format)	IA	02/23/18	02/23/18	TBD	02/23/18	02/23/18	02/23/18	02/23/18	TBD	
2.01	Review Detailed Journal Data in CW	IA	02/26/18	02/26/18	TBD	02/26/18	02/26/18	02/26/18	02/26/18	TBD	
2.02	Load the complete CW Interface file	Frank	02/26/18	02/26/18	TBD	02/26/18	02/26/18	02/26/18	02/26/18	TBD	UAT
2.03	Review and ensure the mock-close error log is clear	Frank / SAP	02/26/18	02/26/18	TBD	02/26/18	02/26/18	02/26/18	02/26/18	TBD	UAT
2.04	Compare CW to PAM journals	Frank	02/26/18	02/26/18	TBD	02/26/18	02/26/18	02/26/18	02/26/18	TBD	UAT
2.05	Reconcile SAP Journals	IA	02/27/18	02/27/18	TBD	02/27/18	02/27/18	02/27/18	02/27/18	TBD	UAT
2.06	IA Sign off	IA	02/28/18	02/28/18	TBD	02/28/18	02/28/18	02/28/18	02/28/18	02/28/18	UAT
2.07	SAP Prod Migration	SAP	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	
2.08	Ensure that all G/L accounts are extended to all companies	IA / SAP	03/31/18	03/31/18	TBD	03/31/18	03/31/18	03/31/18	03/31/18	03/31/18	

L:\SAC\2018\2018-Technology Projects\2018 - NOVA - Clearwater\Interfaces\SAP\Analysis\[CW to SAP Interfaces (003).xlsx]CW to SAP Plan

Nguyen, Hoangvinh

From: Barreroperalta, Omar E
Sent: Monday, April 09, 2018 10:44 AM
To: Abbate, Frank@80Pine Corp NY
Cc: Daniel, Edwin; Ng, William; Ogbeide, Amongin; Kratochvil, Peter; Lum, Allen B.; AIGBP Audit Relationship Mgmt; Rizzolo, Gene
Subject: RE: Project Nova - IAG IT Requests

Hi Frank,

Hope all is well. This is a friendly reminder in regards to the importance of us receiving the previously requested materials as the target go live for Clearwater is fast approaching (5/1). It is our understanding based on discussions with Chris Delaney that most of the development work should be almost completed. In order for us to proceed we need your assistance in obtaining the following items by **Thursday EoB (4/12):**

Topic	Request Description
Interfaces - Clearwater > SAP	Please provide screenshots showing that the configuration of the feed between Clearwater and SAP includes a secure transfer protocol (i.e., sFTP).
Interfaces - Clearwater > SAP	Please provide screenshots showing that the Clearwater > SAP job is configured to include an error notification alert.
Interfaces - Clearwater > SAP	Please provide support of an example error notification/alert that was triggered by a failed job feed for Clearwater > SAP.

- 1
- 2
- 3

If you have any questions surrounding our requests, please don't hesitate to reach out to me, Amongin Ogbeide , or William Ng.

Thanks in advance!

Omar Barrero

AIG

IT Auditor

Internal Audit Group | Technology Audit

Corporate Systems, Investments+, MIO, and Digital Information Technology Audit

80 Pine, 4th Floor, New York, NY 10005

T: 646-857-4323 C: 917-214-6027

omar.barreroperalta@aig.com | www.aig.com

From: Daly, Christopher

Sent: Monday, April 02, 2018 3:04 PM

To: Abbate, Frank@80Pine Corp NY; Tekula, Linga; Derosier, Aaron; Powers, Daniel; Gasparini, Susan; Delaney, Chris; Kilbey, Carol Ann; Bodapaty, Rajesh; Daniel, Edwin

Cc: AIGBP Audit Relationship Mgmt; Barreroperalta, Omar E; Ogbeide, Amongin; Ng, William; Rizzolo, Gene; Lum, Allen B.

Subject: RE: Project Nova - IAG IT Requests

Hi All,

I hope you had a nice weekend. For those of you that have not yet reviewed and responded to the below email, please take a look at the attached document and provide an update on the IT Audit requests aligned with your name. If the items requested require an additional meeting to walkthrough and provide, please let us know and we can set something up accordingly. If you anticipate being unable to respond before the EOD 4/3, please let us know – thanks in advance for your help, you can contact me if you have any questions.

Nguyen, Hoangvinh

From: Daniel, Edwin
Sent: Friday, April 13, 2018 5:24 PM
To: Barreroperalta, Omar E; Vijayaraghavan, Rajesh
Cc: Ng, William; Ogbeide, Amongin; Kratochvil, Peter; Lum, Allen B.; AIGBP Audit Relationship Mgmt; Rizzolo, Gene; Abbate, Frank@80Pine Corp NY
Subject: RE: RE: Project Nova - IAG IT Requests
Attachments: AUTOSYS Alert: CLW_GLSAP_INB_SFTP_DLY => FAILED in Production Ticket#84124

- Omar,
- 1) Transfer is secured
 - 2) Error Alert is automatic

Please find the evidence for email alert from Clearwater GL_SAP folder to AIG., autosys job.

```

 edaniel@wltvsdpstage2:~  

-bash-4.1$ autorep -j CLW_GLSAP_INB_SFTP_DLY -q  

/* ----- CLW_GLSAP_INB_SFTP_DLY ----- */  

insert_job: CLW_GLSAP_INB_SFTP_DLY    job_type: SCP  

box_name: CLW_GLSAP_INB_PROCESS_BX_DLY  

machine: DSVIRTUAL2  

owner: aig0717@sftp2.clearwateranalytics.com  

permission: gx,ge,mx  

date_conditions: 0  

alarm if fail: 1 Auto Error Alert  

scp_transfer_direction: DOWNLOAD  

scp_server_name: sftp2.clearwateranalytics.com  

scp_server_port: 22  

scp_remote_dir: "/toAIG/GL_SAP/"  

scp_remote_name: "*"  

scp_local_name: "/prd-apps/CLW/toAIG/GL_SAP/"  

scp_target_os: UNIX  

SCP protocol: SFTP Secured transfer SFTP  

scp_local_user: sysauto  

run_external: 0  

scp_delete_sourcedir: 0  

-bash-4.1$ 

```

Thanks,

Edwin Daniel

AIG Technology Services | Compute Hosting Services,
Cell 718 902 6645
Production Operations Grp. 973-533-3000 (6-2) | AutoSys Monitoring Support # 1-973-533-3000 (6-1-3)

From: Daniel, Edwin
Sent: Friday, April 13, 2018 5:19 PM
To: Barreroperalta, Omar E <Omar.Barreroperalta@aig.com>; Vijayaraghavan, Rajesh <Rajesh.Vijayaraghavan@aig.com>
Cc: Ng, William <William.Ng@aig.com>; Ogbeide, Amongin <Amongin.Ogbeide@aig.com>; Kratochvil, Peter <Peter.Kratochvil@aig.com>; Lum, Allen B. <Allen.Lum@aig.com>; AIGBP Audit Relationship Mgmt <AIGBAuditRelationshipMgmt@aig.com>; Rizzolo, Gene <Gene.Rizzolo@aig.com>; Abbate, Frank@80Pine Corp NY

Subject: RE: RE: Project Nova - IAG IT Requests

Since alarm_if_fail: 1 in both sftp jobs to SAP (one for L & R another for P & C), automated email alert will be triggered. So far, these jobs didn't fail

edaniel@wltvspdstage2:~

```
/* ----- CLW_GLSAP_OUT_LNRSFTP_DLY ----- */

insert_job: CLW_GLSAP_OUT_LNRSFTP_DLY    job_type: SCP
box_name: CLW_GLSAP_INB_PROCESS_BX_DLY
machine: DSVIRTUAL2
owner: sappamh1@10.97.89.78
permission: gx,ge,mx
date_conditions: 0
condition: s(CLW_GLSAP_INB_LNRFILEAVAIL_FW_DLY)
description: "Clearwater Files to L&R SAP"
alarm_if_fail: 1          ← Auto Error Alert
scp_transfer_direction: UPLOAD
scp_server_name: 10.97.89.78
scp_server_port: 22
scp_remote_dir: "/export/SAPtf/dlcinc/hou1"
scp_remote_name: "PH*"
scp_local_name: "/prd-apps/CLW/toAIG/GL_SAP/PH*"
scp_target_os: MVS
scp_protocol: SFTP          ← Secured transfer SFTP
scp_local_user: sysauto@wltvspdstage2.investments.aig.net
run_external: 0
scp_delete_sourcedir: 0
-bash-4.1$
```

edaniel@wltvspdstage2:~

```
/* ----- CLW_GLSAP_OUT_PNCSFTP_DLY ----- */

insert_job: CLW_GLSAP_OUT_PNCSFTP_DLY    job_type: SCP
box_name: CLW_GLSAP_INB_PROCESS_BX_DLY
machine: DSVIRTUAL2
owner: cfcorpip@s0pa.r1-core.r1.aig.net
permission: gx,ge,mx
date_conditions: 0
condition: s(CLW_GLSAP_INB_PNCFILEAVAIL_FW_DLY)
description: "Clearwater Files to P&C SAP"
alarm_if_fail: 1          ← Auto Error Alert
scp_transfer_direction: UPLOAD
scp_server_name: s0pa.r1-core.r1.aig.net
scp_server_port: 22
scp_remote_dir: "/prd/datastage/IISFTP/cfp/Inbound/PRD/CORPIN"
scp_remote_name: "i_CLR*.dat"
scp_local_name: "/prd-apps/CLW/toAIG/GL_SAP/i_CLR*.dat"
scp_target_os: MVS
scp_protocol: SFTP          ← Secured transfer SFTP
scp_local_user: sysauto@wltvspdstage2.investments.aig.net
run_external: 0
scp_delete_sourcedir: 0
-bash-4.1$
```

Nguyen, Hoangvinh

From: AIGGIGPSSupport
Sent: Thursday, April 12, 2018 9:53 PM
To: AIGGIG Production Support; Delaney, Chris; Vijayaraghavan, Rajesh
Subject: AUTOSYS Alert: CLW_GLSAP_INB_SFTP_DLY => FAILED in Production Ticket#84124

Created Date	Problem	Resolved Date	Resolution	Issue No
12-APR-18	NEW			84124



Automated error email

CLEARWATER to SMF

TS-A : Determine whether the data is transferred securely between CW and SMF

TS-B : Determine whether the interface data and processes are restricted to the authorized resource

- B.1 : The data and processes are restricted in CW
- B.2 : The data and processes are restricted in AIG

TS-C : Determine whether the interface design/procedures ensure the information process be complete and accurate

- C.1 : (SMF to CW) The interface contains the total number of records (completeness)
- C.2 : (SMF to CW) The interface contains the total sum of key numeric data (accuracy)
- C.3 : (CW to SMF) The interface contains the total number of records (completeness)
- C.4 : (CW to SMF) The interface contains the total sum of key numeric data (accuracy)

TS-D : Determine whether the interface design/procedures ensure the errors be rejected and timely corrected

- D.1 : (SMF to CW) The interface errors are rejected
- D.2 : (SMF to CW) The interface errors are timely corrected
- D.3 : (CW to SMF) The interface errors are rejected
- D.4 : (CW to SMF) The interface errors are timely corrected

Hi Carol,

Hope all is well. This is a friendly reminder in regards to the importance of us receiving the previously requested materials as the target go live for Clearwater is fast approaching (5/1). It is our understanding based on discussions with Chris Delaney that most of the development work should be almost completed. In order for us to proceed we need your assistance in obtaining the following items by Thursday EoB (4/12):

Topic	Request Description	
Interfaces - SMF hub	Please provide screenshots showing that the configuration of the feed between Clearwater and SMF Hub includes secure transfer protocol (i.e., sFTP).	1.1
Interfaces - SMF hub	Please provide screenshots showing that the job between Clearwater and SMF Hub is configured to include an error notification alert.	1.2
Interfaces - SMF hub	Please provide support of an example error notification/alert that was triggered by a failed job feed between Clearwater and SMF Hub.	1.3
Interfaces - SMF hub	Please provide a sample of the file(s) transmitted between SMF Hub and Clearwater as evidence that record counts are included in the header and/or trailer of the source file(s).	1.4
Interfaces - SMF data pub	Please provide screenshots showing that the configuration of the feed between the SMF Hub and the SMF Data Pub includes secure transfer protocol (i.e., sFTP).	2.1
Interfaces - SMF data pub	Please provide screenshots showing that the job between the SMF Hub and the SMF Data Pub is configured to include an error notification alert.	2.2
Interfaces - SMF data pub	Please provide support of an example error notification/alert that was triggered by a failed job feed between the SMF Hub and the SMF Data Pub.	2.3
Interfaces - SMF data pub	Please provide a sample of the file(s) transmitted between the SMF Hub and the SMF Data Pub as evidence that record counts are included in the header and/or trailer of the source file(s).	2.4

If you have any questions surrounding our requests, please don't hesitate to reach out to me, Amongin Ogbeide , or William Ng.

Thanks in advance!

Omar Barrero

AIG

IT Auditor

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omar.barreroperalta@aig.com | www.aig.com

From: Daly, Christopher

Sent: Monday, April 02, 2018 3:04 PM

To: Abbate, Frank@80Pine Corp NY; Tekula, Linga; Derosier, Aaron; Powers, Daniel; Gasparini, Susan; Delaney, Chris; Kilbey, Carol Ann; Bodapaty, Rajesh; Daniel, Edwin

Cc: AIGBP Audit Relationship Mgmt; Barreroperalta, Omar E; Ogbeide, Amongin; Ng, William; Rizzolo, Gene; Lum, Allen B.

Subject: RE: Project Nova - IAG IT Requests

Hi All,

AUTOSYS jobs that copy 3 SMF Files to SMF folder:

- 1) CLW_SMF_SFTP_DLY
- 2) CLW_INB_SMF_SFTP_DLY

1.1) CLW_SMF_SFTP_DLY (AIG to CW)

To ClearWater

```
edaniel@wltpspdstage2:~
```

```
/* ----- CLW_SMF_SFTP_DLY ----- */

insert_job: CLW_SMF_SFTP_DLY    job_type: SCP
machine: DSVIRTUAL2
owner: aig0717@sftp2.clearwateranalytics.com
permission:
date_conditions: 0
condition: s(CLW_SMF_FILES_DLY_F)
alarm_if_fail: 1
scp_transfer_direction: UPLOAD
scp_server_name: sftp2.clearwateranalytics.com
scp_server_port: 22
scp_remote_dir: "/toCW/SMF/"
scp_remote_name: "*"
scp_local_name: "/prd-apps/CLW/SMF/*.*"
scp_target_os: UNIX
scp_protocol: SFTP
```

Secured Transmission SFTP

```
scp_local_user: sysauto@wltpspdstage2.investments.aig.net
run_external: 0
scp_delete_sourcefile: 0
scp_delete_sourcedir: 0
scp_create_targetdir: 0
[edaniel@wltpspdstage2 ~]$
```

The screenshot shows the CA Workload Automation interface with the following details for the job CLW_SMF_SFTP_DLY:

- Search Results:** Server: lwvpsautosys01, Name: CLW_SMF_SFTP_DLY
- Job Details:**
 - Primary:** Name: CLW_SMF_SFTP_DLY, Send to machine: DSVIRTUAL2, Condition: s(CLW_SMF_FILES_DLY_F), Owner: aig0717@sftp2.clearwateranalytics.com
 - Server Copy:** Server name: sftp2.clearwateranalytics.com, Server port: 22, Transfer direction: Upload, Remote OS type: UNIX, Remote directory: "/toCW/SMF/", Remote file name: "*", Local user: sysauto@wltpspdstage2.investments.aig.net, Local file name: "/prd-apps/CLW/SMF/*.*"
 - Protocol:** SFTP
 - Notification:** Maximum run time (minutes): 0, Send alarm on failure: true
 - Alarms:** Do not notify
 - Notification Services:** None
 - Run Time:** Status Time: Apr 11, 2018 11:01:48 PM, Run Machine: wltpspdstage2.investments.aig.net

Annotations:

- A red box highlights the "Protocol" field with the value "SFTP", which is connected by a red arrow to a box labeled "Secured Transmission SFTP".
- A red box highlights the "Send alarm on failure" checkbox with the value "true", which is connected by a red arrow to a box labeled "Error Handling".

From ClearWater to AIG

1.2) CLW_INB_SMF_SFTP_DLY (CW to AIG)

```

edaniel@wlvtspdstage2:~ 
-bash-4.1$ autorep -j CLW_INB_SMF_SFTP_DLY -q

/* ----- CLW_INB_SMF_SFTP_DLY ----- */

insert_job: CLW_INB_SMF_SFTP_DLY    job_type: SCP
box_name: CLW_INB_SMF_PROCESS_BX_DLY
machine: DSVIRTUAL2
owner: aig0717@sftp2.clearwateranalytics.com
permission: gx,ge,mx
date_conditions: 0
alarm_if_fail: 1
scp_transfer_direction: DOWNLOAD
scp_server_name: sftp2.clearwateranalytics.com
scp_server_port: 22
scp_remote_dir: "/toAIG/SMF_SOI"
scp_remote_name: "*"
scp_local_name: "/prd-apps/CLW/toAIG/SMF_SOI/"
scp_target_os: UNIX
scp_protocol: SFTP
scp_local_user: sysauto
run_external: 0
scp_delete_sourcedir: 0
-bash-4.1$ 

```

Secured Transmission SFTP

The screenshot shows the CA Workload Automation interface. At the top, there's a navigation bar with links like Dashboard, Monitoring, Quick View, Enterprise Command Line, Reporting, Forecast, Quick Edit, Application Editor, Resources, Credentials, Configuration, etc. Below the navigation bar, a search bar is present with the query "View CLW_INB_SMF_SFTP_DLY on llvsvpausys01". The main area displays the job details for "CLW_INB_SMF_SFTP_DLY". The job is listed in the "Search Results" table with the following information:

Name	Box Name	Start Time	End Time	Status	Run	Priority	Exit Code
CLW_INB_SMF_SFTP_DLY	CLW_INB_SMF_PROCESS_BX_DLY	Apr 11, 2018 6:20:12 PM	Apr 11, 2018 6:20:28 PM		42997910	0	

Below the table, the "Job Details" section is expanded, showing various configuration parameters. A red box highlights the "Protocol" field, which is set to "SFTP". Another red box highlights the "Maximum run time (minutes)" field, which is set to "0".

Annotations with red arrows point from the highlighted fields to the text "Secured Transmission SFTP" and "Error Handling" respectively.

Nguyen, Hoangvinh**1.3) Sample: Error Notification AUTOSYS Alert: CLW_SMF_SFTP_DLY**

From: Sarangi, Jashobanta Hidden on 28-02-2018, 20:18:57
Sent: Wednesday, February 07, 2018 12:21 AM
To: AIGGIGPSSupport; Delaney, Chris; Vijayaraghavan, Rajesh; AIGGIG Production Support; Chen, James
Subject: RE: AUTOSYS Alert: CLW_SMF_SFTP_DLY => FAILED in Production Ticket#81299

Taken care.

Thanks & Regards,

Jashobanta Sarangi

DLF IT Park |Tower 10th Block , Level 6, 1/124,Mount Poonamalle Road | Chennai | 600 089 | [/ Production Batch Support number : +1 203-529-9062 and +1 203-529-9063](#)

From: AIGGIGPSSupport@aig.com [mailto:AIGGIGPSSupport@aig.com]
Sent: Wednesday, February 07, 2018 10:33 AM
To: Delaney, Chris; Vijayaraghavan, Rajesh; AIGGIG Production Support; Chen, James
Subject: AUTOSYS Alert: CLW_SMF_SFTP_DLY => FAILED in Production Ticket#81299

Created Date	Problem	Resolved Date	Resolution	Issue No
07-FEB-18	NEW			81299

SMF Hub <-> SMF Data Pub

1. Script setup

2.2) Error Handling

The screenshot displays two CA Workload Automation AE job definitions, labeled B and C, illustrating error handling configurations.

Job B Configuration:

Attribute Name	Attribute Value
Primary	Name: SMF_IMPORT_REFRESH_CLWTR_DLY_B Description: This job refreshes SMF for CLWTR Owner: sysauto@INVESTMENTS
Termination	Terminate on failure of containing box: true
Schedule	Average run time: 4 Use date/time conditions: true Time zone: EST5EDT
Days	Run days: mo,tu,we,th,fr
Time	Times of day: 18:00
Notification	

Job C Configuration:

Attribute Name	Attribute Value
Primary	Name: SMF_IMPORT_REFRESH_CLWTR_DLY_C Description: This command job refreshes SMF for CLWTR Send to machine: DSVIRTUAL2 Owner: sysauto Box: SMF_IMPORT_REFRESH_CLWTR_DLY_B
Command	Command: /data/IDR/script/SMF_Refresh.ksh \$\$IDR_LAST_BUS_DATE CLWTR DLY Standard output file: /data/IDR/work/SMF_IMPORT_REFRESH_CLWTR_DLY_C.OUT
Termination	Terminate containing box on job failure: true
Schedule	Average run time: 4
Notification	

Both job definitions include an "Error Handling" section highlighted by a red box and arrow, indicating where error handling logic is defined.

```

jnagendr@wltvsqdstage2:/data/IDR/script
CallSTGMatch "SMF.pk_security_master.pr_load_smf_sec" "$global_batch_id"

if [ $? -ne 0 ]; then
    echo "error calling pr_load_smf_sec"
    echo "error calling pr_load_smf_sec">>>$TmpLogFile

    SendEmail $DrJob $run_flag "FAIL" $global_batch_id $LogFile
    CallBatchStatus $global_batch_id "N"
    exit 1
fi

echo "SMF.pk_security_master.pr_load_smf_sec runs successfully"

#7.--This is the last step (I am planning to add one more) as of now.
#exec smf_pk_smf_utils.pr_smf_group_part(<<SMF_BATCH_ID>>); will update the status apply for BGCI and Polypath

if [ $run_flag = "DLY" ]:then
    echo "calling smf_pk_smf_utils.pr_smf_group_part"
    echo "calling smf_pk_smf_utils.pr_smf_group_part">>>$TmpLogFile

    CallSTGMatch "SMF.pk_smf_utils.pr_smf_group_part" "$global_batch_id"
    if [ $? -ne 0 ]; then
        echo "error calling pr_smf_group_part"
        echo "error calling pr_smf_group_part">>>$TmpLogFile

        SendEmail $DrJob $run_flag "FAIL" $global_batch_id $LogFile
        CallBatchStatus $global_batch_id "N"
        exit 1
    fi
fi

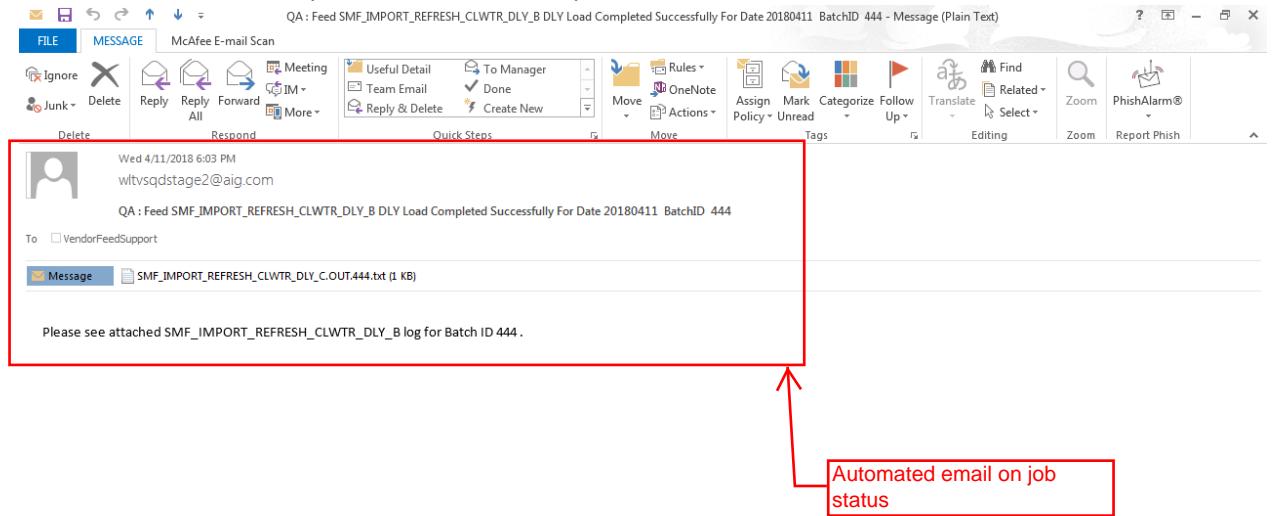
echo "completed for batch $global_batch_id"
echo "completed for batch $global_batch_id">>>$TmpLogFile

"SMF_Refresh.ksh" [readonly][noeol] 553L, 14662C

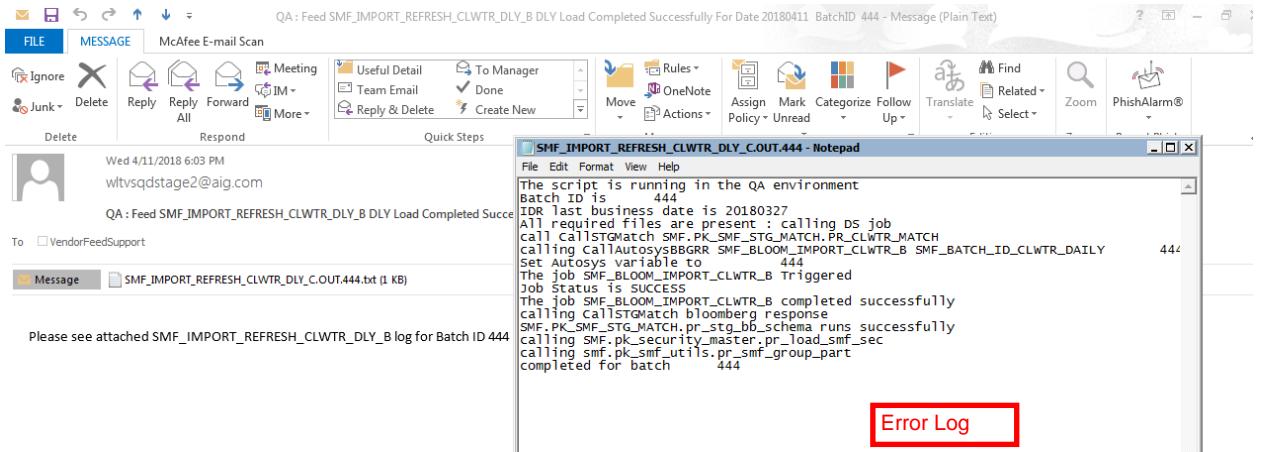
```

2.3) Error Notification Example

2. Email notification of file processed to smf datapub



wltvsqdstage2@aig.com



3. Sample of data loaded into SMF datapub.

2.4) Sample Data Files transmitted

SOI file load screenshot

AS_OF_DATE	BATCH_ID	SECURITY_ID	SECURITY_ID_TYPE	IDENTIFIER	SEC_ID_CINS	SEC_ID_CUSIP	SEC_ID_ISIN	SEC_ID_BB_GLOBAL_ID	SEC_ID_SEDOL	TICKER	SEC_ID_LOANX_ID	CORTLAND_ID	INVESCO
3/27/2018	444	1000055	CLWTR	452308AV1		452308AV1	XS1234953575	BBG008QSN239		ITW			
3/27/2018	444	1000075	CLWTR	X656KWRB3	X656KWRB3		XS1234804653	BBG008NWSVN2		OPBANK			
3/27/2018	444	1000089	CLWTR	F95094FW7	F95094FW7		XS1218319702	BBG008GBQ106		ULFP			
3/27/2018	444	1000092	CLWTR	G62893AG0	G62893AG0		XS1244539760	BBG0099V6BH3		MOTOPG			
3/27/2018	444	1000095	CLWTR	R8413JAM5	R8413JAM5		XS1190624111	BBG00837QV33		STLNU			
3/27/2018	444	1000097	CLWTR	N7S88MBT2	N7S88MBT2		XS1205680785	BBG0089578F0		RABOK			
3/27/2018	444	1000098	CLWTR	U94974EV7	U94974EV7		XS1221677472	BBG008HCOK39		WFC			
3/27/2018	444	1000100	CLWTR	F93777AZ7	F93777AZ7		XS1244160278	BBG009BPWP29		TOTAL			
3/27/2018	444	1000103	CLWTR	U89233UP0	U89233UP0		XS1171489393	BBG007X3K2R5		TOYOTA			
3/27/2018	444	1000596	CLWTR	3134A4MV3	3134A4MV3		US3134A4MV38	BBG000073642		FRESTR			

Bank Loan file screenshot

Toad for Oracle - [JNAGENDR@IDWQA.AIG.COM (idwqa2:wlt6exa02) - Editor (New 4 *)]

File Edit Search Editor Session Database Debug View Team Coding Utilities Rerun Window Help

JNAGENDR@IDWPRD.AIG.COM [1] JNAGENDR@IDRHST.WORLD JNAGENDR@IDWQA.AIG.COM [2] JNAGENDR@IDWDEV.AIG.COM [1]

Editor Editor Editor Editor

Desktop: SQL JNAGENDR

New 1 * PKG_CPM_LOAD.pkb SQL Region_Specific.sql New 3 * New 4 * +

```
1 ► select * from SMF.STG_CLWTR_BANK_LOAN s where s.SMF_BATCH_ID=444;
```

Data Grid

Messages Data Grid Trace DBMS Output (disabled) Query Viewer Explain Plan Script Output

SECURITYID	IDENTIFIER	SECURITYTYPE	BASEMARKETVALUEACCRUED	ISSUEDATE	BANKLOANCONTRACTID	BANKLOANCONTRACTTYPE	SECIDBBGLOBALID	CALLABLE	BLCALLDISCRETEORCONTINUOUS	C
167260	605024AN8:6726123	BANK LOAN	32765.97	03/01/2018	Funded	BBG00H2MP637	N	U		N
167261	68404XAD8:6728605	BANK LOAN	38532.89	02/28/2018	Funded	BBG00JNLPR72	N	U		N
1673857	84763NAF7:6729331	BANK LOAN	19031.68	02/28/2018	Funded	BBG00JPH6XMR	N	U		N
1673841	948627AW4:6727232	BANK LOAN	2010.17	03/02/2018	Funded	BBG00JSM7ZG2	N	U		N
1673889	74274NAC7:6728839	BANK LOAN	25149.86	03/02/2018	Funded	BBG00JDZV1Z1	N	U		N
1674885	39479UAJ2:6729679	BANK LOAN	171077.65	03/01/2018	Funded	BBG00K4WTDM	N	U		N
1674886	44998LAC1:6729496	BANK LOAN	193891.02	03/05/2018	Funded	BBG00JPGR91	N	U		N
1674889	22207EBA1:6728948	BANK LOAN	271.16	03/05/2018	Funded	BBG00K88G412	N	U		N
1674880	256604BF5:6729955	BANK LOAN	191098.63	03/05/2018	Funded	BBG00GBV7GG3	N	U		N
1674879	39479UAJ2:6729678	BANK LOAN	399181.18	03/01/2018	Funded	BBG00K4WTDM	N	U		N

1: Prior page 29 msecs Row 1 of 3794 Total Rows JNAGENDR@IDWQA.AIG.COM Modified

Private file screenshot

Toad for Oracle - [JNAGENDR@IDWQA.AIG.COM (idwqa2:wlt6exa02) - Editor (New 4 *)]

File Edit Search Editor Session Database Debug View Team Coding Utilities Rerun Window Help

JNAGENDR@IDWPRD.AIG.COM [1] JNAGENDR@IDRHST.WORLD JNAGENDR@IDWQA.AIG.COM [2] JNAGENDR@IDWDEV.AIG.COM [1]

Editor Editor Editor Editor

Desktop: SQL JNAGENDR

New 1 * PKG_CPM_LOAD.pkb SQL Region_Specific.sql New 3 * New 4 * +

```
1 ► select * from SMF.STG_CLWTR_PRIVATES s where s.SMF_BATCH_ID=444;
```

Data Grid

Messages Data Grid Trace DBMS Output (disabled) Query Viewer Explain Plan Script Output

SECURITYID	IDENTIFIER	SECURITYTYPE	BASEMKTVAL_ACC	F13	QUALIFIED_14A	ACCRINTDATE	BANKQUALIFIED	CALLABLE	CALLEDFLAG	CONTRACTSIZE	COUNTRYOFHEADQUARTERS	COUNTRYOFINCORPO
1620606	48268@ALBAAIG	CORP	37124339.27	N	N	07/15/2015	N	Y	N	1	US	
1455913	48268@AN4AIG	CORP	28204225.00	N	N	10/26/2016	N	Y	N	1	US	
1576672	48268@AQ7AIG	CORP	16261897.78	N	N	10/30/2017	N	Y	N	1	US	
1620620	48503TA5AIG	MUNI	73519498.31	N	N	07/12/2010	N	Y	N	1	US	US
1394742	4866065#9AIG	PFRD STK	13300000.00	N	N		N	Y	N	1	US	
1360214	4866066#8AIG	PFRD STK	4000000.00	N	N	10/29/2014	N	Y	N	1	US	
1620656	4866061#4AIG	CORP	9832925.00	N	N	04/16/2013	N	Y	N	1	US	
854054	4866060#6AIG	CORP	4969587.50	N	Y	04/16/2013	N	Y	N	1	US	
1620657	486606K#2AIG	CORP	13266096.69	N	N	04/30/2014	N	Y	N	1	US	
1360215	486606L#3AIG	CORP	9832744.44	N	N	10/29/2014	N	Y	N	1	US	

1: 37 275 msecs Row 1 of 1034 Total Rows JNAGENDR@IDWQA.AIG.COM Modified

Environment is OFF | FIPS | NIM | THIS |

CLEARWATER to CIDR**TS-A** : Determine whether the data is transferred securely between CW and CIDR**TS-B** : Determine whether the interface data and processes are restricted to the authorized resource

- B.1 : The data and processes are restricted in CW
- B.2 : The data and processes are restricted in AIG

TS-C : Determine whether the interface design/procedures ensure the information process be complete and accurate

- C.1 : (CIDR to CW) The interface contains the total number of records (completeness)
- C.2 : (CIDR to CW) The interface contains the total sum of key numeric data (accuracy)
- C.3 : (CW to CIDR) The interface contains the total number of records (completeness)
- C.4 : (CW to CIDR) The interface contains the total sum of key numeric data (accuracy)

TS-D : Determine whether the interface design/procedures ensure the errors be rejected and timely corrected

- D.1 : (CIDR to CW) The interface errors are rejected
- D.2 : (CIDR to CW) The interface errors are timely corrected
- D.3 : (CW to CIDR) The interface errors are rejected
- D.4 : (CW to CIDR) The interface errors are timely corrected

From: Barreroperalta, Omar E
Sent: Monday, April 09, 2018 10:59 AM
To: Bodapaty, Rajesh <Rajesh.Bodapaty@aig.com>
Cc: Daniel, Edwin <Edwin.Daniel@aig.com>; Ng, William <William.Ng@aig.com>; Ogbeide, Amongin <Amongin.Ogbeide@aig.com>; Kratochvil, Peter <Peter.Kratochvil@aig.com>; Lum, Allen B. <Allen.Lum@aig.com>; AIGBP Audit Relationship Mgmt <AIGBAuditRelationshipMgmt@aig.com>; Rizzolo, Gene <Gene.Rizzolo@aig.com>; Delaney, Chris <Chris.Delaney@AIG.com>
Subject: RE: Project Nova - IAG IT Requests

Hi Rajesh,

Hope all is well. This is a friendly reminder in regards to the importance of us receiving the previously requested materials as the target go live for Clearwater is fast approaching (5/1). It is our understanding based on discussions with Chris Delaney that most of the development work should be almost completed. In order for us to proceed we need your assistance in obtaining the following items by Thursday EoB (4/12):

Topic	Request Description	
Interfaces - CIDR > Clearwater	Please provide screenshots showing that the configuration of the feeds between CIDR > Clearwater utilize a secure transfer protocol (i.e., sFTP).	1.1
Interfaces - CIDR > Clearwater	Please provide screenshots showing that the CIDR > Clearwater job is configured to include an error notification alert.	1.2
Interfaces - CIDR > Clearwater	Please provide support of an example error notification/alert that was triggered by a failed job feed for CIDR > Clearwater.	1.3
Interfaces - CIDR > Clearwater	Please provide a sample of the file(s) transmitted from CIDR to Clearwater as evidence that record counts are included in the header and/or trailer of the source file.	1.4
Interfaces - CIDR > Clearwater	Please provide screenshots showing that the configuration of the feeds between Clearwater > local AIG folder ("CLW\toAIG") utilize a secure transfer protocol (i.e., sFTP).	2.1
Interfaces - CIDR > Clearwater	Please provide screenshots showing that the Clearwater > local AIG folder ("CLW\toAIG") job is configured to include an error notification alert.	2.2
Interfaces - CIDR > Clearwater	Please provide support of an example error notification/alert that was triggered by a failed job feed for Clearwater > local AIG folder ("CLW\toAIG").	2.3
Interfaces - CIDR > Clearwater	Please provide a sample of the files transferred between the shared folder ("CLW\RML_Cenlar"), the local AIG folder ("CLW\toAIG"), and file imported into CIDR.	2.4
Interfaces - CIDR > Clearwater	Please provide support evidencing the two-step private/public key encryption utilized for the PII information coming from the CIDR system.	3.1

If you have any questions surrounding our requests, please don't hesitate to reach out to me, Amongin Ogbeide , or William Ng.

Thanks in advance!

Omar Barrero
AIG

IT Auditor
Internal Audit Group | Technology Audit
Corporate Systems, Investments+, MIO, and Digital Information Technology Audit

80 Pine, 4th Floor, New York, NY 10005
T: 646-857-4323 C: 917-214-6027

omar.barreroperalta@aig.com | www.aig.com

1.1) CIDR to CW: Secured Transfer

Alarm_if_fail: 1 to send the failure alert. Scp_protocol: SFTP

```
edaniel@wlvspsdstage2:~$ vim CLW_RML_CENLAR_SFTP_DLY
/*
----- CLW_RML_CENLAR_SFTP_DLY -----
insert_job: CLW_RML_CENLAR_SFTP_DLY job_type: SCP
machine: DSVIRTUAL2
owner: sig0717@sftp2.clearwateranalytics.com
permission:
date_conditions: 0
condition: s(CLW_RML_CENLAR_FILES_DLY_F)
alarm_if_fail: 1
scp_transfer_direction: UPLOAD
scp_server_name: sftp2.clearwateranalytics.com
scp_server_port: 22
scp_remote_dir: "/toCW/RML_Cenlar/"
scp_remote_name: ""
scp_local_name: "/prod-apps/CLW/RML_Cenlar/*.*"
scp_target_os: UNIX
scp_protocol: SFTP
scp_local_west: sysauto@wlvspsdstage2.investments.sig.net
run_external: 0
scp_delete_sourcefile: 0
scp_delete_targetdir: 0
batch:-1;E
```

1.2) CIDR to CW: Error Handling

View CLW_RML_CENLAR_SFTP_DLY on wlvspsdstage01

Required

Search | Search Results | Job Details | Job Flow | Dependent Jobs | Starting Conditions | Job Runs

Last Updated: Apr 11, 2018 2:05:26 PM

Server: wlvspsdstage01 | Name: CLW_RML_CENLAR_SFTP_DLY

Search Results

Name	Box Name	Start Time	End Time	Status	Run	Priority	Exit Code
CLW_RML_CENLAR_SFTP_DLY		Apr 11, 2018 9:04:41 AM	Apr 11, 2018 9:04:43 AM		42979442	0	

Job Details

Attribute Name	Attribute Value
Primary	
Name	CLW_RML_CENLAR_SFTP_DLY
Send to machine	DSVIRTUAL2
Condition	s(CLW_RML_CENLAR_FILES_DLY_F)
Owner	sig0717@sftp2.clearwateranalytics.com
Server	sftp2.clearwateranalytics.com
Server name	sftp2.clearwateranalytics.com
Server port	22
Transfer direction	Upload
Remote OS type	UNIX
Remote directory	/toCW/RML_Cenlar/
Remote file name	*
Local user	sysauto@wlvspsdstage2.investments.sig.net
Local file name	/prod-apps/CLW/RML_Cenlar/*.*
Protocol	SFTP
Alarms	
Maximum run time (minutes)	0
Send alarm on failure	true
Notification Services	
Notification	Do not notify
Run Time	
Status Time	Apr 11, 2018 9:04:44 AM
Run Machine	wlvspsdstage2.investments.sig.net

Secure transmission SFTP

Error Handling

Nguyen, Hoangvinh

From: Vijayaraghavan, Rajesh
Sent: Thursday, October 26, 2017 10:12 AM
To: Bodapaty, Rajesh; Kim, Yehyeon
Cc: Rath, Sarojkanta Hidden on 26-12-2017, 12:47:53; AIGGIGPSSupport; ERMS OPS Monitoring; Delaney, Chris
Subject: RE: AUTOSYS Alert: CLW_RML_CENLAR_SFTP_DLY => FAILED in Production Ticket#77175

Including Rajesh Bodapaty and Kim

Rajesh Vijayaraghavan
AIG
Corporate Systems – Information Technology

200 South College Street, Charlotte, NC 28277
Office: +1 704-338-7594 | Personal Cell +1 559-313-5516

rajesh.vijayaraghavan@aig.com | www.aig.com

From: Rath, Sarojkanta
Sent: Thursday, October 26, 2017 9:49 AM
To: AIGGIGPSSupport; ERMS OPS Monitoring; Delaney, Chris; Vijayaraghavan, Rajesh
Subject: RE: AUTOSYS Alert: CLW_RML_CENLAR_SFTP_DLY => FAILED in Production Ticket#77175

Job failed with below error, Unlocked the file and re-ran the job to success.

Files uploaded to /toCW/RML_Cenlar/.

FAILURE 10/26/2017 09:34:15 1 PD 10/26/2017 09:34:16
</prd-apps/CLW/RML_Cenlar/20171026_254_AIG_Daily_Extract.txt (Text file busy)>

CLW_RML_CENLAR_SFTP_DLY	10/26/2017 09:42:40 10/26/2017 09:44:05 SU 35481592/1 0
-------------------------	---

Thanks & Regards,

Sarojkanta Rath
DLF IT Park | Tower 10th Block , Level 6, 1/124, Mount Poonamalle Road | Chennai | 600 089 | Production Batch Support number : +1 203-529-9062 and +1 203-529-9063

From: Rath, Sarojkanta
Sent: Thursday, October 26, 2017 9:44 AM
To: AIGGIGPSSupport <AIGGIGPSSupport@aig.com>; ERMS OPS Monitoring <erm_ops@aig.com>; Delaney, Chris <Chris.Delaney@AIG.com>; Vijayaraghavan, Rajesh <Rajesh.Vijayaraghavan@aig.com>
Subject: RE: AUTOSYS Alert: CLW_RML_CENLAR_SFTP_DLY => FAILED in Production Ticket#77175

Checking..

Thanks & Regards,

Sarojkanta Rath

From: AIGGIGPSSupport@aig.com [mailto:AIGGIGPSSupport@aig.com]

Sent: Thursday, October 26, 2017 9:35 AM

To: ERMS OPS Monitoring <erm_ops@aig.com>; Delaney, Chris <Chris.Delaney@AIG.com>; Vijayaraghavan, Rajesh <Rajesh.Vijayaraghavan@aig.com>

Subject: AUTOSYS Alert: CLW_RML_CENLAR_SFTP_DLY => FAILED in Production Ticket#77175

Created Date	Problem	Resolved Date	Resolution	Issue No
26-OCT-17	NEW			77175



Automated error message

1.4) CIDR to CW: About the format of transmitted file including Header/Trailer with information on record counts.

.

(IT)

Not applicable. However, AIG has a reconciliation procedures to compare CIDR input (what was loaded into CIDR) against CW output for the same asset class

- There is no direct load from CW into CIDR. Also IDR is used for accounting metrics

(FCU)

a) Business Confirmation that AIG reconciliation of CIDR input against CW output satisfactorily remediated the risk for data integrity of AIG data in CW system - considering the time lag between the data upload and the data reconciliation

.

b) Project team should discuss/consider additional compensating controls, including:

(i) AIG ensures that CW has adequate monitoring procedures for uploading external interfaces

(ii) AIG ensures that CW incident/problem management procedures are well understood and integrated with AIG own procedures for handling external interfaces

2.1) Transmission Clearwater to Local AIG folder ("CLW\toAIG") is secured (sFTP).

```
edaniel@wltvspdstage2:~  
-bash-4.1$ autorep -j CLW_INB_IDR_SFTP_DLY -q  
  
/* ----- CLW_INB_IDR_SFTP_DLY ----- */  
  
insert_job: CLW_INB_IDR_SFTP_DLY job_type: CMD  
box_name: CLW_INB_IDR_PROCESS_BX_DLY  
command: /export/home/sysauto/scripts/fastnetget.ksh IDR  
machine: DSVIRUAL2  
owner: sysauto  
permission:  
date_conditions: 0  
err_out_file: "/autosys-logs/${AUTO_JOB_NAME}_$({AUTORUN}).err"  
std_err_file: "/autosys-logs/${AUTO_JOB_NAME}_$({AUTORUN}).out"  
alarm_if_fail: 1  
-bash-4.1$
```

```
edaniel@wltsprdstage2:~  
#!/bin/ksh  
set -x  
rm /prd-apps/CLW/toAIG/$1/*.*  
CONN="sftp aig0717@sftp2.clearwateranalytics.com << END  
cd /toAIG/s1  
lcd /prd-apps/CLW/toAIG/$1  
mget *  
bye'  
#END  
  
ls /prd-apps/CLW/toAIG/$1 | grep -v "Archive" | sort > /tmp/$1_del  
  
sed -i 's/^rm \/toAIG\//IDR\//g' /tmp/$1_del  
  
sftp aig0717@sftp2.clearwateranalytics.com < /tmp/$1_del  
  
-  
-  
-  
-  
-  
  
"/scripts/fastmget.ksh" [readonly] 16L, 349C
```

2.2) Transmission Clearwater to Local AIG folder ("CLW\toAIG") - Error Configuration

CA http://livvpsidstage2.investments.aig.net:8080/wiz/u/Launcher.html

CA Workload Automation (..)

Convert Select

Protect PTA Login Parkland shooter: Don... AIG Suggested Sites

CA Workload Automation AE

Dashboard Monitoring Quick View Enterprise Command Line Reporting Forecast Quick Edit Application Editor Resources Credentials Configuration +

View CLW_INB_IDR_SFTP_DLW on livvpsautosys01

Required

Search Results

Server: livvpsautosys01 Name: CLW_INB_IDR_SFTP_DLW

Go

Search Results

Select and: Start Go

Name	Box Name	Start Time	End Time	Status	Ran	Priority	Exit Code
CLW_INB_IDR_SFTP_DLW	CLW_INB_IDR_PROCESS_BX_DLW	Apr 12, 2018 3:01:08 AM	Apr 12, 2018 3:01:11 AM		43014818	0	

Job Details

Expand All Collapse All

Back to Top Quick Edit Show JDL

Attribute Name	Attribute Value
<input checked="" type="checkbox"/> Primary	
Name	CLW_INB_IDR_SFTP_DLW
Send to machine	DS90T01AL2
Owner	sysauto
Box	CLW_INB_IDR_PROCESS_BX_DLW
<input checked="" type="checkbox"/> Command	
Command	/export/home/sysauto/scripts/fastmgmt.ksh IDR
Standard output file	/autosys-logs/\${AUTO_JOB_NAME}_\$(AUTORUN).err
Standard error file	/autosys-logs/\${AUTO_JOB_NAME}_\$(AUTORUN).out
<input checked="" type="checkbox"/> Schedule	
Average run time	4
<input checked="" type="checkbox"/> Notifications	
Alarms	
Maximum run time (minutes)	0
Send alarm on failure	true
<input checked="" type="checkbox"/> Notification Services	
Notification	Do not notify
<input checked="" type="checkbox"/> Run Time	
Status Time	Apr 12, 2018 3:02:53 AM
Run Machine	livvpsidstage2.investments.aig.net

Error output

9:05:27 AM

Bassi, Sandeep S
RE: copy file
Verified, Thanks!
From: Jaiswal, Subham
Sent: Thursday, April 12, 2018 9:03 AM
Microsoft.Office.OUTLOOK.EXE.16

Nguyen, Hoangvinh

From: Bodapaty, Rajesh
Sent: Monday, December 18, 2017 5:07 PM
To: Venkatachalam, Arun; Hidden on 28-02-2018, 19:17:03; AIGGIGPSSupport; ERMS OPS Monitoring; Delaney, Chris; Vijayaraghavan, Rajesh
Subject: RE: AUTOSYS Alert: CLW_INB_IDR_SFTP_DLY => FAILED in Production Ticket#79026

It says there is no file. Lets see in its next run.

From: Venkatachalam, Arun
 Sent: Monday, December 18, 2017 5:06 PM
 To: AIGGIGPSSupport <AIGGIGPSSupport@aig.com>; ERMS OPS Monitoring <erm_ops@aig.com>; Delaney, Chris <Chris.Delaney@AIG.com>; Vijayaraghavan, Rajesh <Rajesh.Vijayaraghavan@aig.com>; Bodapaty, Rajesh <Rajesh.Bodapaty@aig.com>
 Subject: RE: AUTOSYS Alert: CLW_INB_IDR_SFTP_DLY => FAILED in Production Ticket#79026

Job failed with below error. Please advise.

This

warning: has much more security than supplying the password in the clear

warning: on the command line.

Remote system type is POSIX.

Error: No such file

Warning: 1 non-fatal error.

Thanks & regards

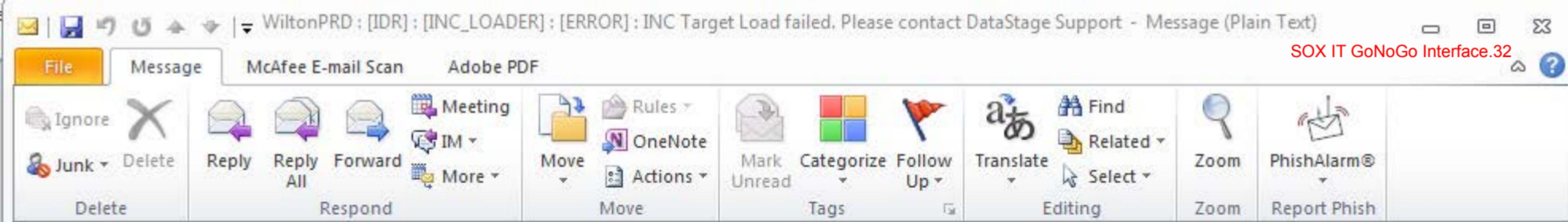
Arun Venkatachalam

DLF IT Park | Tower 10th Block , Level 6, 1/124, Mount Poonamalle Road | Chennai | 600 089 | | Production Batch Support number : +1 203-529-9062 and +1 203-529-9063

From: AIGGIGPSSupport@aig.com [mailto:AIGGIGPSSupport@aig.com]
 Sent: Monday, December 18, 2017 5:02 PM
 To: ERMS OPS Monitoring <erm_ops@aig.com>; Delaney, Chris <Chris.Delaney@AIG.com>; Vijayaraghavan, Rajesh <Rajesh.Vijayaraghavan@aig.com>
 Subject: AUTOSYS Alert: CLW_INB_IDR_SFTP_DLY => FAILED in Production Ticket#79026

Created Date	Problem	Resolved Date	Resolution	Issue No
18-DEC-17	NEW	79026		
12-DEC-17	Network error	12-DEC-17	Completed on its next run	78899
23-NOV-17	job failed	23-NOV-17	job completed on its next run	78357
22-NOV-17	job failed	22-NOV-17	completed on its next run	78343
22-NOV-17	job failed	22-NOV-17	completed on its next run	78342
22-NOV-17	job failed	22-NOV-17	completed on its next run	78341

Automated error message



From: WiltonPRDDataStage@aig.com Sent: Mon 3/26/2018 2:56 PM
To: IDR ETL Development
Cc:
Subject: WiltonPRD : [IDR] : [INC_LOADER] : [ERROR] : INC Target Load failed. Please contact DataStage Support

Error notification/alert triggered by a failed job feed of CW data transfer from the folder / prd-apps/CLW/RML_Cenlar/ into CIDR

SOX IT GoNoGo Interface.33					
2.3) Samples file transfers between shared folder "CLWRML_Centar", local AIG folder ("CLW\toAIG") and imported files into CIDR					
	Name	Date modified	Type	Size	
ites	Files archived after transfer to CLW				
ktop					
ARWATER					
1					
L					
_Reports					
V_Drop					
tal					
_REM					
 ClearWater_Data_04-11-2018.csv_20180411-221741  rml_commitments_041018.xlsx_20180411-090444  20180411_AIG_Payment_Transaction_Daily.txt_20180411-083059  20180411_254_AIG_Daily_Extract.txt_20180411-083059  20180411_AIG_P181.xls_20180411-080552  mTrade_LoanExtract_20180410203501_D.txt_20180410-223100 33  ClearWater_Data_04-10-2018.csv_20180410-221723  rml_commitments_040918.xlsx_20180410-090111	4/11/2018 10:16 PM	CSV_20180411-221...	23 KB		

LN	PMT_TRANS_D	PMT_SEQ_ND	PMT_AH_IN_S	PMT_ACTION_CD	PMT_BATCH_NO	PMT_ESCROW_AM	PMT_FEE_A_M	PMT_FEE_CD	PMT_HUD_AM	PMT_INTEREST_A_M	PMT_LIFE_INC_A_M	PMT_MISC_AM	PMT_PRINCIPAL_AM	PMT_REP_RES_AM	PMT_RES_ESC_A_M	PMT_SVC_CHRG_AM	PMT_SUSPENSE_A_M	PMT_AM	PMT_TRANS_CD	PMT_DUE_D	PMT_EFFECTIVE_D	PMT_HY	PMT_MPL_PLAN	CNTL_CLIENT	AUTO_ADJUST_IND_C	PMT_PREV_POSTED_AM	PMT_UPD_DATE	PMT_UPD_BY	PMT_UPD_BY_DESC				
48407670	4/10/2018	1	0	0	610	567.6	0	0	1060.5	0	0	637.06	0	0	0	0	0	0	0	2265.16	172	4/10/2018	4/10/2018	1	GLBL	P300	0	0	0	0	0	SOX IT GoNoGo Inter	
48407671	4/10/2018	1	0	0	910	691.72	0	0	1013.65	0	0	583.7	0	0	0	0	0	0	0	2265.16	172	4/10/2018	4/10/2018	1	GLBL	P300	0	0	0	0	0		
48407672	4/10/2018	2	0	0	910	0	0	0	0	0	0	200	0	0	0	0	0	0	0	2265.16	172	4/10/2018	4/10/2018	1	GLBL	P300	0	0	0	0	0		
48410870	4/10/2018	1	0	0	475	144.55	0	0	0	1133.71	0	0	549.39	0	0	0	0	0	0	2120.65	173	4/10/2018	4/10/2018	1	GLBL	P300	0	0	0	0	0		
48411058	4/10/2018	1	0	0	475	267.07	0	0	0	685.33	0	0	304.39	0	0	0	0	0	0	1256.79	172	4/10/2018	4/10/2018	1	GLBL	P300	0	0	0	0	0		
48411167	4/10/2018	1	0	0	475	0	0	0	0	0	0	18.3	0	0	0	0	0	0	0	1256.79	172	4/10/2018	4/10/2018	1	GLBL	P300	0	0	0	0	0		
48411672	4/10/2018	1	0	0	475	1606.06	0	0	0	0	0	1858.34	0	0	848.74	0	0	0	0	0	4313.14	172	4/10/2018	4/10/2018	1	GLBL	P300	0	0	0	0	0	
48411673	4/10/2018	2	0	0	475	0	0	0	0	0	0	25.37	0	0	0	0	0	0	0	25.37	173	4/10/2018	4/10/2018	1	GLBL	P300	0	0	0	0	0		
48412349	4/10/2018	1	0	0	475	1541.29	0	0	0	0	0	1384.58	0	0	593.34	0	0	0	0	0	3519.21	172	4/10/2018	4/10/2018	1	GLBL	P300	0	0	0	0	0	
48420526	4/10/2018	1	0	0	475	555.5	0	0	0	729.56	0	0	329.41	0	0	0	0	0	0	1614.47	172	4/10/2018	4/10/2018	1	GLBL	P300	0	0	0	0	0		
48420810	4/10/2018	2	0	0	475	258.82	0	0	0	764.19	0	0	319.04	0	0	0	0	0	0	2265.16	172	4/10/2018	4/10/2018	1	GLBL	P300	0	0	0	0	0		
48420811	4/10/2018	1	0	0	475	0	0	0	0	0	0	5.09	0	0	0	0	0	0	0	5.09	173	4/10/2018	4/10/2018	1	GLBL	P300	0	0	0	0	0		
48430186	4/10/2018	1	0	0	910	303.81	0	0	0	631.49	0	0	272.11	0	0	0	0	0	0	1207.41	171	4/10/2018	4/10/2018	1	GLBL	P300	0	0	0	0	0		
48430187	4/10/2018	1	0	0	910	99.46	0	0	0	1252.18	0	0	590.56	0	0	0	0	0	0	2836.2	171	4/10/2018	4/10/2018	1	GLBL	P300	0	0	0	0	0		
48430188	4/10/2018	1	0	0	910	144.68	0	0	0	1278.66	0	0	733.07	0	0	0	0	0	0	2336.1	171	4/10/2018	4/10/2018	1	GLBL	P300	0	0	0	0	0		
48430189	4/10/2018	1	0	0	910	62.31	0	0	0	1124.73	0	0	510.56	0	0	0	0	0	0	2143.35	171	4/10/2018	4/10/2018	1	GLBL	P300	0	0	0	0	0		
48430190	4/10/2018	1	0	0	910	144.68	0	0	0	1451.28	0	0	713.26	0	0	0	0	0	0	2304.51	171	4/10/2018	4/10/2018	1	GLBL	P300	0	0	0	0	0		
48430191	4/10/2018	1	0	0	910	62.31	0	0	0	1265.45	0	0	803.26	0	0	0	0	0	0	2001.09	172	5/10/2018	4/10/2018	1	GLBL	P300	0	0	0	0	0		
48430192	4/10/2018	1	0	0	910	144.68	0	0	0	1491.79	0	0	729.32	0	0	0	0	0	0	3159.6	171	4/10/2018	4/10/2018	1	GLBL	P300	0	0	0	0	0		
48430193	4/10/2018	1	0	0	475	1517.32	0	0	0	1445.51	0	0	710.66	0	0	0	0	0	0	3673.49	172	4/10/2018	4/10/2018	1	GLBL	P300	0	0	0	0	0		
48430194	4/10/2018	2	0	0	475	0	0	0	0	0	0	5.11	0	0	0	0	0	0	0	2771.7	172	4/10/2018	4/10/2018	1	GLBL	P300	0	0	0	0	0		
48430195	4/10/2018	1	0	0	475	856.95	0	0	0	1280.51	0	0	607.07	0	0	0	0	0	0	0.04	0.04	172	5/10/2018	4/10/2018	1	GLBL	P300	0	0	0	0	0	
48430196	4/10/2018	1	0	0	475	655	0	0	0	1045.68	0	0	485.02	0	0	0	0	0	0	1951.17	173	4/10/2018	4/10/2018	1	GLBL	P300	0	0	0	0	0		
48430197	4/10/2018	1	0	0	910	420.47	0	0	0	1045.68	0	0	485.02	0	0	0	0	0	0	0	0	172	4/10/2018	4/10/2018	1	GLBL	P300	0	0	0	0	0	
48430198	4/10/2018	1	0	0	910	144.68	0	0	0	1178.66	0	0	733.07	0	0	0	0	0	0	0	0	172	4/10/2018	4/10/2018	1	GLBL	P300	0	0	0	0	0	
48430199	4/10/2018	1	0	0	910	62.31	0	0	0	1124.73	0	0	510.56	0	0	0	0	0	0	0	0	172	4/10/2018	4/10/2018	1	GLBL	P300	0	0	0	0	0	
48430200	4/10/2018	1	0	0	910	144.68	0	0	0	1451.28	0	0	713.26	0	0	0	0	0	0	2756.23	171	4/10/2018	4/10/2018	1	GLBL	P300	0	0	0	0	0		
48430201	4/10/2018	1	0	0	910	62.31	0	0	0	1045.68	0	0	485.02	0	0	0	0	0	0	0	0	172	4/10/2018	4/10/2018	1	GLBL	P300	0	0	0	0	0	
48430202	4/10/2018	1	0	0	475	144.68	0	0	0	1265.45	0	0	729.32	0	0	0	0	0	0	0	0	172	4/10/2018	4/10/2018	1	GLBL	P300	0	0	0	0	0	
48430203	4/10/2018	1	0	0	475	655	0	0	0	1265.45	0	0	729.32	0	0	0	0	0	0	0	0	172	4/10/2018	4/10/2018	1	GLBL	P300	0	0	0	0	0	
48430204	4/10/2018	1	0	0	475	0	0	0	0	0	0	5.09	0	0	0	0	0	0	0	0	172	4/10/2018	4/10/2018	1	GLBL	P300	0	0	0	0	0		
48430205	4/10/2018	1	0	0	475	144.68	0	0	0	1451.28	0	0	713.26	0	0	0	0	0	0	0	0	172	4/10/2018	4/10/2018	1	GLBL	P300	0	0	0	0	0	
48430206	4/10/2018	1	0	0	910	144.68	0	0	0	1265.45	0	0	729.32	0	0	0	0	0	0	0	0	172	4/10/2018	4/10/2018	1	GLBL	P300	0	0	0	0	0	
48430207	4/10/2018	1	0	0	475	655	0	0	0	1265.45	0	0	729.32	0	0	0	0	0	0	0	0	172	4/10/2018	4/10/2018	1	GLBL	P300	0	0	0	0	0	
48430208	4/10/2018	1	0	0	475	0	0	0	0	0	0	5.09	0	0	0	0	0	0	0	0	172	4/10/2018	4/10/2018	1	GLBL	P300	0	0	0	0	0		
48430209	4/10/2018	1	0	0	475	144.68	0	0	0	1451.28	0	0	713.26	0	0	0	0	0	0	0	0	172	4/10/2018	4/10/2018	1	GLBL	P300	0	0	0	0	0	
48430210	4/10/2018	1	0	0	910	144.68	0	0	0	1265.45	0	0	729.32	0	0	0	0	0	0	0	0	172	4/10/2018	4/10/2018	1	GLBL	P300	0	0	0	0	0	
48430211	4/10/2018	1	0	0	475	655	0	0	0	1265.45	0	0	729.32	0	0	0	0	0	0	0	0	172	4/10/2018	4/10/2018	1	GLBL	P300	0	0	0	0	0	
48430212	4/10/2018	1	0	0	475	0	0	0	0	0	0	5.09	0	0	0	0	0	0	0	0	172	4/10/2018	4/10/2018	1	GLBL	P300	0	0	0	0	0		
48430213	4/10/2018	1	0	0	475	144.68	0	0	0	1451.28	0	0	713.26	0	0	0	0	0	0	0	0	172	4/10/2018	4/10/2018	1	GLBL	P300	0	0	0	0	0	
48430214	4/10/2018	1	0	0	910	144.68	0	0	0	1265.45	0	0	729.32	0	0	0	0	0	0	0	0	172	4/10/2018	4/10/2018	1	GLBL	P300	0	0	0	0	0	
48430215	4/10/2018	1	0	0	475	655	0	0	0	1265.45	0	0	729.32	0	0	0	0	0	0	0	0	172	4/10/2018	4/10/2018	1	GLBL	P300	0	0	0	0	0	
48430216	4/10/2018	1	0	0	475	0	0	0	0	0	0	5.09	0	0	0	0	0	0	0	0	172	4/10/2018	4/10/2018	1	GLBL	P300	0	0	0	0	0		
48430217	4/10/2018	1	0	0	475	144.68	0	0	0	1451.28	0	0	713.26	0	0	0	0	0	0	0	0	172	4/10/2018	4/10/2018	1	GLBL	P300	0	0	0	0	0	
48430218	4/10/2018	1	0	0	910	144.68	0	0	0	1265.45	0	0	729.32																				

2.3) Samples file transfers between shared folder "CLW\RML_Centar", local AIG folder ("CLW\toAIG") and imported files into CIDR -- "20180411_AIG_Payment_Transaction_Daily.txt"

LN_ND	PMT_TRANS_D	PMT_SEQ_ND	PMT_AH_INS_A	PMT_ACTION_CD	PMT_BATCH_ND	PMT_ESCROW_AM	PMT_FEE_A_M	PMT_FEE_CD	PMT_HUD_AM	PMT_INTEREST_A_M	PMT_LIFE_INS_A_M	PMT_MISC_AM	PMT_PRINCIPAL_AM	PMT_REPL_RESV_AM	PMT_BES_ESC_A_M	PMT_SVC_CHRG_AM	PMT_SUSPENSE_A_M	PMT_AM	PMT_TRANS_CD	PMT_DUE_D	PMT_EFFECTIVE_D	PMT_HI_D	PMT_MPL_PLAN_D	CLIENT_NO	AUTO_ADJUST_IND_C	PMT_PREV_POSTED_AM	PMT_INT_DUR_SP	AMMSSOR_IDNT	
69367860	4/10/2018	1	0	0	910	350.67	0	0	1366.89	0	0	690.77	0	0	0	0	0	0	2408.33	171	4/10/2018	4/10/2018	1	P300	0	0	0	0	0
71537383	4/10/2018	1	0	0	680	887.71	0	0	1520	0	0	722.0	0	0	0	0	0	0	3135.43	171	4/10/2018	4/10/2018	1	P300	0	0	0	0	0
71537384	4/10/2018	1	0	0	848	32.31	0	0	0	0	0	0	0	0	0	0	0	0	32.58	171	4/10/2018	4/10/2018	1	P300	0	0	0	0	0
69368579	4/10/2018	1	0	0	910	440.09	0	0	1288.32	0	0	689.03	0	0	0	0	0	0	2417.44	171	4/10/2018	4/10/2018	1	P300	0	0	0	0	0
69368777	4/10/2018	1	0	0	910	795.2	0	0	2233.38	0	0	967.05	0	0	0	0	0	0	3895.63	171	4/10/2018	4/10/2018	1	P300	0	0	0	0	0
69368903	4/10/2018	1	0	0	910	149.02	0	0	2554.76	0	0	1200	0	0	0	0	0	0	562.03	171	4/10/2018	4/10/2018	1	P300	0	0	0	0	0
71532117	4/10/2018	1	0	1	IMPS	610	0	0	0	0	0	1204	0	0	0	0	0	0	200	172	5/10/2018	4/10/2018	1	GBL_P300	0	0	0	0	0
71538381	4/10/2018	1	0	0	475	0	0	0	1893.74	0	0	861.12	0	0	0	0	0	0	2754.86	172	4/10/2018	4/10/2018	1	GBL_P300	0	0	0	0	0
69385431	4/10/2018	1	0	0	910	537.7	0	0	2185.17	0	0	1162.59	0	0	0	0	0	0	3885.29	171	4/10/2018	4/10/2018	1	P300	0	0	0	0	0
71538431	4/10/2018	2	0	0	910	867.74	0	0	2019.6	0	0	300	0	0	0	0	0	0	3886.17	173	4/10/2018	4/10/2018	1	P300	0	0	0	0	0
71538431	4/10/2018	2	0	0	910	0	0	0	1708.01	0	0	962.94	0	0	0	0	0	0	4032.36	173	4/10/2018	4/10/2018	1	P300	0	0	0	0	0
71538306	4/10/2018	1	0	0	0	2102	(i)	0	1361.41	0	0	1200	0	0	0	0	0	0	110.19	171	4/10/2018	4/10/2018	1	P300	0	0	0	0	0
71538306	4/10/2018	1	0	0	0	2102	(i)	0	1379.19	0	0	747.22	0	0	0	0	0	0	3594.53	171	4/10/2018	4/10/2018	1	P300	0	0	0	0	0
71533383	4/10/2018	1	0	0	910	1468.12	0	0	2424.56	0	0	1118.13	0	0	0	0	0	0	4279.74	171	4/10/2018	4/10/2018	1	P300	0	0	0	0	0
71533424	4/10/2018	1	0	0	910	1076.87	0	0	2046.23	0	0	982.83	0	0	0	0	0	0	3029.06	171	4/10/2018	4/10/2018	1	P300	0	0	0	0	0
71533424	4/10/2018	1	0	0	910	1076.87	0	0	1999.46	0	0	996.98	0	0	0	0	0	0	374.96	171	4/10/2018	4/10/2018	1	P300	0	0	0	0	0
71534218	4/10/2018	1	0	0	910	734.42	0	0	2046.23	0	0	1020.2	0	0	0	0	0	0	374.82	175	5/10/2018	4/10/2018	1	P300	0	0	0	0	0
71534218	4/10/2018	1	0	0	910	734.42	0	0	2046.23	0	0	1020.2	0	0	0	0	0	0	374.82	175	5/10/2018	4/10/2018	1	P300	0	0	0	0	0
71537391	4/10/2018	1	0	0	910	480.83	0	0	1426.33	0	0	717.21	0	0	0	0	0	0	88.15	171	4/10/2018	4/10/2018	1	P300	0	0	0	0	0
71537375	4/10/2018	1	0	0	0	2100	(i)	0	1600.73	0	0	2646.87	0	0	1146	0	0	0	485.3	173	4/10/2018	4/10/2018	1	P300	0	0	0	0	0
71537375	4/10/2018	1	0	0	0	2100	(i)	0	1600.73	0	0	2646.87	0	0	1146	0	0	0	485.3	173	4/10/2018	4/10/2018	1	P300	0	0	0	0	0
71537388	4/10/2018	1	0	0	0	126.15	0	0	2238.04	0	0	917.6	0	0	0	0	0	0	4417.79	171	4/10/2018	4/10/2018	1	P300	0	0	0	0	0
71538670	4/10/2018	1	0	0	910	182.39	0	0	2272.54	0	0	1171.89	0	0	0	0	0	0	5176.82	173	4/10/2018	4/10/2018	1	P300	0	0	0	0	0
71538670	4/10/2018	1	0	0	910	182.39	0	0	2272.54	0	0	1155.57	0	0	0	0	0	0	4174.95	173	4/10/2018	4/10/2018	1	P300	0	0	0	0	0
71537239	4/10/2018	1	0	0	910	3076.09	0	0	2024.99	0	0	1073.87	0	0	0	0	0	0	355.95	171	4/10/2018	4/10/2018	1	P300	0	0	0	0	0
71522099	4/10/2018	2	0	0	910	0	0	0	0	0	0	0	0	0	0	0	0	0	3600.74	171	4/10/2018	4/10/2018	1	P300	0	0	0	0	0
71522099	4/10/2018	2	0	0	910	0	0	0	0	0	0	0	0	0	0	0	0	0	353.05	171	4/10/2018	4/10/2018	1	P300	0	0	0	0	0
71522040	4/10/2018	2	0	0	910	0	0	0	0	0	0	0	0	0	0	0	0	0	374.82	175	5/10/2018	4/10/2018	1	P300	0	0	0	0	0
71522040	4/10/2018	2	0	0	910	0	0	0	0	0	0	0	0	0	0	0	0	0	374.82	175	5/10/2018	4/10/2018	1	P300	0	0	0	0	0
71522040	4/10/2018	2	0	0	910	0	0	0	0	0	0	0	0	0	0	0	0	0	374.82	175	5/10/2018	4/10/2018	1	P300	0	0	0	0	0
71522040	4/10/2018	2	0	0	910	0	0	0	0	0	0	0	0	0	0	0	0	0	374.82	175	5/10/2018	4/10/2018	1	P300	0	0	0	0	0
71522040	4/10/2018	2	0	0	910	0	0	0	0	0	0	0	0	0	0	0	0	0	374.82	175	5/10/2018	4/10/2018	1	P300	0	0	0	0	0
71522040	4/10/2018	2	0	0	910	0	0	0	0	0	0	0	0	0	0	0	0	0	374.82	175	5/10/2018	4/10/2018	1	P300	0	0	0	0	0
71522040	4/10/2018	2	0	0	910	0	0	0	0	0	0	0	0	0	0	0	0	0	374.82	175	5/10/2018	4/10/2018	1	P300	0	0	0	0	0
71522040	4/10/2018	2	0	0	910	0	0	0	0	0	0	0	0	0	0	0	0	0	374.82	175	5/10/2018	4/10/2018	1	P300	0	0	0	0	0
71522040	4/10/2018	2	0	0	910	0	0	0	0	0	0	0	0	0	0	0	0	0	374.82	175	5/10/2018	4/10/2018	1	P300	0	0	0	0	0
71522040	4/10/2018	2	0	0	910	0	0	0	0	0	0	0	0	0	0	0	0	0	374.82	175	5/10/2018	4/10/2018	1	P300	0	0	0	0	0
71522040	4/10/2018	2	0	0	910	0	0	0	0	0	0	0	0	0	0	0	0	0	374.82	175	5/10/2018	4/10/2018	1	P300	0	0	0	0	0
71522040	4/10/2018	2	0	0	910	0	0	0	0	0	0	0	0	0	0	0	0	0	374.82	175	5/10/2018	4/10/2018	1	P300	0	0	0	0	0
71522040	4/10/2018	2	0	0	910	0	0	0	0	0	0	0	0	0	0	0	0	0	374.82	175	5/10/2018	4/10/2018	1	P300	0	0	0	0	0
71522040	4/10/2018	2	0	0	910	0	0	0	0	0	0	0	0	0	0	0	0	0	374.82	175	5/10/2018	4/10/2018	1	P300	0	0	0	0	0
71522040	4/10/2018	2	0	0	910	0	0	0	0	0	0	0	0	0	0	0	0	0	374.82	175	5/10/2018	4/10/2018	1	P300	0	0	0	0	0
71522040	4/10/2018	2	0	0	910	0	0	0	0	0	0	0	0	0	0	0	0	0	374.82	175	5/10/2018	4/10/2018	1	P300	0	0	0	0	0
71522040	4/10/2018	2	0	0	910	0	0	0	0	0	0	0	0	0	0	0	0	0	374.82	175	5/10/2018	4/10/2018	1	P300	0	0	0	0	0
71522040	4/10/2018	2	0	0	910	0	0	0	0	0	0	0	0	0	0	0	0	0	374.82	175	5/10/2018	4/10/2018	1	P300	0	0	0	0	0
71522040	4/10/2018	2</td																											

LN_ND	PMT_TRANS_D	PMT_SEQ_ND	PMT_AH_INS_A	M	PMT_ACTION_CD	PMT_BATCH_CD	PMT_NO_PMT_ESCROW_AM	PMT_FEE_AM	PMT_FEE_CD	PMT_HUD_AM	PMT_INTEREST_AM	PMT_LIFE_INS_AM	PMT_MSC_AM	PMT_PRINCIPAL_AM	PMT_REPL_RES_AM	PMT_BES_ESC_A	M	PMT_SVC_CHRG_AM	PMT_SUSPENSE_AM	PMT_SUB_CD	PMT_TRANS_CD	PMT_DUE_D	PMT_EFFECTIVE_D	PMT_HI_D	PMT_MPL_PLAN_D	CLIENT_ND	AUTO_ADJUST_IND_C	PMT_PREV_POSTED_AM	PMT_INT_DUE_D	PMT_ISSUOR_IDNT	PMT_IN_DUE_D					
9749674	4/10/2018	1	0	0	910	434.95	0	0	1592.31	0	0	732.7	0	0	99.52	0	2759.96	171	4/10/2018	4/10/2018	1	P300	0	O AGS	0	0	0	0	0	3						
97496426	4/10/2018	1	0	0	910	1399.59	0	0	3335.27	0	0	1024.49	0	0	190.62	0	6037.95	171	4/10/2018	4/10/2018	1	P300	0	O AGS	0	0	0	0	0	3						
9749649	4/10/2018	1	0	0	910	784.41	0	0	2106.97	0	0	709.46	0	0	8.86	0	3402.91	171	4/10/2018	4/10/2018	1	P300	0	O AGS	0	0	0	0	0	3						
97497479	4/10/2018	1	0	0	910	910.77	0	0	0	0	0	7.71	0	0	0	0	0	0	0	0	0	0	0	0	O IJL	1	P300	0	O AGS	0	0	0	0	0	3	
9749550	4/10/2018	2	0	0	910	0	0	0	1219.03	0	0	2009.43	0	0	500	0	0	122.89	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
97495578	4/10/2018	1	0	0	910	0	0	0	3368.16	0	0	1478.34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3		
97495568	4/10/2018	1	0	0	910	794.8	0	0	0	0	0	1880.26	0	0	776.22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3		
97495841	4/10/2018	1	0	0	910	0	0	0	180	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3		
97495941	4/10/2018	1	0	0	910	514	0	5 E	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3			
97495953	4/10/2018	1	0	0	910	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3		
97495941	4/10/2018	3	0	0	910	51K	0	344.46	0	0	2731.84	0	0	54860.97	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3				
97495712	4/10/2018	1	0	0	910	709.36	0	0	0	0	0	2431.75	0	0	1744.31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3			
97495841	4/10/2018	1	0	0	910	0	0	0	2425.21	0	0	2327.21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3			
97501464	4/10/2018	1	0	0	910	0	0	0	517.22	0	0	3164.42	0	0	1225.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3			
97501464	4/10/2018	2	0	0	910	0	0	0	0	0	0	53.06	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3		
97501464	4/10/2018	2	0	0	910	0	0	0	294.53	0	0	2472.38	0	0	98.36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3			
97501639	4/10/2018	1	0	0	910	0	0	0	475	0	0	1233.14	0	0	2657.81	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3			
97495058	4/10/2018	1	0	0	910	0	0	0	0	0	0	1607.75	0	0	780.11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3			
97495993	4/10/2018	1	0	0	910	894	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3			
97502122	4/10/2018	1	0	0	910	0	0	0	0	0	0	2327.21	0	0	996.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3			
97502090	4/10/2018	1	0	0	910	133.52	0	0	0	0	0	1707.52	0	0	812.85	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3			
97502108	4/10/2018	1	0	0	910	0	0	0	0	0	0	2115.11	0	0	1006.89	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3			
97502108	4/10/2018	1	0	0	910	0	0	0	0	0	0	1705.92	0	0	105.92	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3			
97502751	4/10/2018	1	0	0	910	0	0	0	0	0	0	3024.76	0	0	1169.24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3			
97502751	4/10/2018	2	0	0	910	0	0	0	0	0	0	2203.4	0	0	1.24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3			
97502751	4/10/2018	2	0	0	910	0	0	0	0	0	0	2084.31	0	0	935.16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3			
97502751	4/10/2018	2	0	0	910	0	0	0	0	0	0	1655.22	0	0	503.74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3			
97495058	4/10/2018	1	0	0	910	0	0	0	0	0	0	2435.94	0	0	892.98	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3			
97502751	4/10/2018	2	0	0	910	0	0	0	0	0	0	180	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3		
97502751	4/10/2018	2	0	0	910	0	0	0	0	0	0	180	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3		
97502751	4/10/2018	2	0	0	910	0	0	0	0	0	0	180	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3		
97502751	4/10/2018	2	0	0	910	0	0	0	0	0	0	180	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3		
97502751	4/10/2018	2	0	0	910	0	0	0	0	0	0	180	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3		
97502751	4/10/2018	2	0	0	910	0	0	0	0	0	0	180	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3		
97502751	4/10/2018	2	0	0	910	0	0	0	0	0	0	180	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3		
97502751	4/10/2018	2	0	0	910	0	0	0	0	0	0	180	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3		
97502751	4/10/2018	2	0	0	910	0	0	0	0	0	0	180	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3		
97502751	4/10/2018	2	0	0	910	0	0	0	0	0	0	180	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3		
97502751	4/10/2018	2	0	0	910	0	0	0	0	0	0	180	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3		
97502751	4/10/2018	2	0	0	910	0	0	0	0	0	0	180	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3		
97502751	4/10/2018	2	0	0	910	0	0	0	0	0	0	180	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3		
97502751	4/10/2018	2	0	0	910	0	0	0	0	0	0	180	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3		
97502751	4/10/2018	2	0	0	910	0	0	0	0	0	0	180	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3		
97502751	4/10/2018	2	0	0	910	0	0	0	0	0	0	180	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3		
97502751	4/10/2018	2	0	0	9																															

PMT_TRANS_D_T	PMT_SEQ_NO	PMT_AH_INS_A_M	PMT_ACTION_CD	PMT_BATCH_NO	PMT_ESCROW_AM	PMT_FEE_A_M	PMT_FEE_CD	PMT_HUD_AM	PMT_INTEREST_A_M	PMT_LIFE_INS_A_M	PMT_MISC_AM	PMT_PRINCIPAL_AM	PMT_REPL_RESV_AM	PMT_RES_ESC_A_M	PMT_SVC_CHRG_AM	PMT_SUSPENSE_A_M	PMT_AM	PMT_TRANS_CD	PMT_DUE_D	PMT_EFFECTIVE_D	PMT_HI_TY	PMT_MPL_PLAN_I_D	CLIENT_NO	AUTO_ADJUST_IND_C	PMT_PREV_POSTED_AM	PMT_INT_DIB_BY_A	PROCESSOR_IDENITI	PMT_IN_DIB_BY_A		
97521843	4/10/2018	1	0	0	910	948.17	0	0	2803.48	0	0	953.37	0	0	0	0	0	4205.02	171	4/1/2018	4/10/2018	1	P300	0	0	0	H1.1	1		
97521918	4/10/2018	1	0	0	475	828.08	0	0	2809.77	0	0	1164.36	0	0	0	0	0	4802.21	171	4/1/2018	4/10/2018	1	GLBL	P300	0	0	0	H1.4	1	
97521933	4/10/2018	1	0	0	475	0	0	0	0	0	0	1279.79	0	0	0	0	0	4802.21	171	4/1/2018	4/10/2018	1	GLBL	P300	0	0	0	H1.4	1	
97521983	4/10/2018	1	0 01TD	(i)	382	0	0	0	1628.02	0	0	639.82	0	0	0	0	0	2649.84	173	4/1/2018	4/10/2018	1	P300	0	0	0	H1.5	1		
97521991	4/10/2018	1	0	0	910	654.65	0	0	1554.03	0	0	610.51	0	0	0	0	0	2819.19	171	4/1/2018	4/10/2018	1	P300	0	0	0	H4.4	1		
97522020	4/10/2018	1	0 01TD	(i)	0	0	0	0	220.4	0	0	583.07	0	0	0	0	0	310.41	171	4/1/2018	4/10/2018	1	P300	0	0	0	H4.5	1		
97522171	4/10/2018	1	0	0	0	910	875.11	0	0	2655.11	0	0	1154.66	0	0	0	0	0	4684.88	173	4/1/2018	4/10/2018	1	P300	0	0	0	H1.3	1	
97522171	4/10/2018	2	0	0	0	910	0	0	0	0	0	316	0	0	0	0	0	316	173	5/1/2018	4/10/2018	1	P300	0	0	0	H1.3	1		
97522625	4/10/2018	1	0	0	0	450	0	0	1934.48	0	0	757.76	0	0	0	0	0	2692.24	171	4/1/2018	4/10/2018	1	GLBL	P300	0	0	0	H1.5	1	
97522625	4/10/2018	1	0	0	0	510	0	0	0	0	0	388.76	0	0	0	0	0	310.41	171	4/1/2018	4/10/2018	1	GLBL	P300	0	0	0	H1.5	1	
97522626	4/10/2018	1	0	0	0	910	869.39	0	0	3076.05	0	0	1147.9	0	0	0	0	0	5093.34	171	4/1/2018	4/10/2018	1	P300	0	0	0	H1.2	1	
97523353	4/10/2018	1	0	0	0	690	900.63	0	0	2113.68	0	0	922.48	0	0	0	0	0	3936.99	173	4/1/2018	4/9/2018	1	P300	0	0	0	H4.2	1	
97523353	4/10/2018	1	0	0	0	210	239.25	0	0	1259	0	0	703.25	0	0	0	0	0	210.41	171	4/1/2018	4/10/2018	1	P300	0	0	0	H4.3	1	
97523392	4/10/2018	1	0	0	0	475	430.36	0	0	1902.6	0	0	872.08	0	0	0	0	0	3205.04	172	4/1/2018	4/10/2018	1	GLBL	P300	0	0	0	H1.2	1
97523393	4/10/2018	1	0	0	1930	4C3	0	0	0	0	0	0	0	0	0	0	0	2438.76	173	4/1/2018	4/6/2018	1	P300	0	0	0	H4.5	1		
97523478	4/10/2018	1	0	0	0	210	759.42	0	0	1759.49	0	0	724.52	0	0	0	0	0	2745.23	171	4/1/2018	4/10/2018	1	P300	0	0	0	H4.2	1	
97524789	4/10/2018	1	0	0	0	811	676.73	0	0	1876.72	0	0	776.74	0	0	0	0	0	3330.19	173	4/1/2018	4/10/2018	1	P300	0	0	0	H4.3	1	
97525562	4/10/2018	1	0 01TD	TV1	1263.69	0	0	0	2346.67	0	0	1014.33	0	0	0	0	0	4624.69	172	4/1/2018	4/10/2018	1	GLBL	P300	0	0	0	H1.2	1	
97526180	4/10/2018	1	0	0	0	881	0	0	2140.94	0	0	976.73	0	0	0	0	0	3117.67	173	4/1/2018	4/10/2018	1	P300	0	0	0	H3.3	1		
97526180	4/10/2018	1	0	0	0	882	0	0	0	0	0	128.31	0	0	0	0	0	3117.67	173	4/1/2018	4/10/2018	1	P300	0	0	0	H4.3	1		
97526339	4/10/2018	1	0	0	0	883	320.89	0	0	1526.28	0	0	659.74	0	0	0	0	0	2506.91	173	4/1/2018	4/9/2018	1	P300	0	0	0	H4.1	1	
97526339	4/10/2018	2	0	0	0	883	0	0	0	0	0	993.09	0	0	0	0	0	993.09	175	5/1/2018	4/9/2018	1	P300	0	0	0	H1.1	1		
97527045	4/10/2018	1	0	0	0	813	694.23	0	0	0	0	0	0	0	0	0	0	319.09	173	4/1/2018	4/10/2018	1	P300	0	0	0	H4.2	1		
97527907	4/10/2018	1	0	0	0	0	AIG	4578.57	0	0	0	0	0	0	0	0	0	4578.57	170	5/1/2018	1	P300	0	0	0	H1.2	1			
97527915	4/10/2018	1	0	0	0	0	AIG	2132	0	0	0	0	0	0	0	0	0	2132	170	5/1/2018	1	P300	0	0	0	H1.2	1			
97527915	4/10/2018	1	0	0	0	0	AIG	824.41	0	0	0	0	0	0	0	0	0	824.41	170	5/1/2018	1	P300	0	0	0	H1.2	1			
97527931	4/10/2018	1	0	0	0	0	AIG	5915.76	0	0	0	0	0	0	0	0	0	5915.76	170	5/1/2018	1	P300	0	0	0	H1.2	1			

2.4) About two-step Private-Public key encryption for PII information from CIDR
 (IT) Not applicable. No PII is kept local in AIG and is not shared with CW

CLEARWATER to PPV**TS-A** : Determine whether the data is transferred securely between CW and PPV**TS-B** : Determine whether the interface data and processes are restricted to the authorized resource

- B.1 : The data and processes are restricted in CW
- B.2 : The data and processes are restricted in AIG

TS-C : Determine whether the interface design/procedures ensure the information process be complete and accurate

- C.1 : (PPV to CW) The interface contains the total number of records (completeness)
- C.2 : (PPV to CW) The interface contains the total sum of key numeric data (accuracy)
- C.3 : (CW to PPV) The interface contains the total number of records (completeness)
- C.4 : (CW to PPV) The interface contains the total sum of key numeric data (accuracy)

TS-D : Determine whether the interface design/procedures ensure the errors be rejected and timely corrected

- D.1 : (PPV to CW) The interface errors are rejected
- D.2 : (PPV to CW) The interface errors are timely corrected
- D.3 : (CW to PPV) The interface errors are rejected
- D.4 : (CW to PPVR) The interface errors are timely corrected

Nguyen, Hoangvinh

From: Barreroperalta, Omar E
Sent: Monday, April 09, 2018 10:53 AM
To: Derosier, Aaron
Cc: Powers, Daniel; Delaney, Chris; Ng, William; Ogbeide, Amongin; Kratochvil, Peter; Lum, Allen B.; AIGBP Audit Relationship Mgmt; Rizzolo, Gene
Subject: RE: Project Nova - IAG IT Requests

Hi Aaron,

Hope all is well. This is a friendly reminder in regards to the importance of us receiving the previously requested materials as the target go live for Clearwater is fast approaching (5/1). It is our understanding based on discussions with Chris Delaney that most of the development work should be almost completed. In order for us to proceed we need your assistance in obtaining the following items by **Thursday EoB (4/12):**

Topic	Request Description
Interfaces - PPV > Clearwater	Please provide screenshots showing that the configuration of the feed between PPV and Clearwater includes a secure transfer protocol (i.e., sFTP).
Interfaces - PPV > Clearwater	Please provide screenshots showing that the PPV > Clearwater job is configured to include an error notification alert.
Interfaces - PPV > Clearwater	Please provide support of an example error notification/alert that was triggered by a failed job feed for PPV > Clearwater.
Interfaces - PPV > Clearwater	Please provide an example of the final M/E price file to be transmitted from PPV to Clearwater on a monthly basis.
Interfaces - PPV > Clearwater	Please provide the HTTP request file(s) that facilitate(s) the data transmission between PPV and Clearwater.

1
2
3
4
5

If you have any questions surrounding our requests, please don't hesitate to reach out to me, Amongin Ogbeide , or William Ng.

Thanks in advance!

Omar Barrero

AIG

IT Auditor

Internal Audit Group | Technology Audit

Corporate Systems, Investments+, MIO, and Digital Information Technology Audit

80 Pine, 4th Floor, New York, NY 10005

T: 646-857-4323 C: 917-214-6027

omar.barreroperalta@aig.com | www.aig.com

From: Daly, Christopher

Sent: Monday, April 02, 2018 3:04 PM

To: Abbate, Frank@80Pine Corp NY; Tekula, Linga; Derosier, Aaron; Powers, Daniel; Gasparini, Susan; Delaney, Chris; Kilbey, Carol Ann; Bodapaty, Rajesh; Daniel, Edwin

Cc: AIGBP Audit Relationship Mgmt; Barreroperalta, Omar E; Ogbeide, Amongin; Ng, William; Rizzolo, Gene; Lum, Allen B.

Subject: RE: Project Nova - IAG IT Requests

Hi All,

I hope you had a nice weekend. For those of you that have not yet reviewed and responded to the below email, please take a look at the attached document and provide an update on the IT Audit requests aligned with your name. If the items requested

CA Workload Automation (dlgsaswcc01) - Internet Explorer

https://dlgsaswcc01.r1-core.r1.aig.net:8080/wcc/ui/Launcher.html

CA Workload Automation (dl...)

SOX IT GoNoGo Interface.41

WCC DEV: DV1/CD1

1) Configuration of feed includes secure transfer SFTP
2) Configuration of feed ensures auto error alert

Dashboard Monitoring Quick View Enterprise Command Line Reporting Forecast Quick Edit Application Editor Resources Credentials Configuration +

View CLW_PPV_SFTP SCP_MTH on CD1

= Required Last Updated: Apr 12, 2018 5:02:03 PM

Search | Search Results | Job Details | Job Flow | Dependent Jobs | Starting Conditions | Job Runs

Select and: Start Go

Name	Box Name	Start Time	End Time	Status	Run	Priority	Exit Code
CLW_PPV_SFTP SCP_MTH	CLW_PPV_PROCESS_BX_MTH				0		

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Job Details

Expand All | Collapse All

Attribute Name Attribute Value

Primary	
Name	CLW_PPV_SFTP SCP_MTH
Send to machine	CLWCLIENTVIRTUAL
Condition	s(CLW_PPV_SFTP CP_MTH)
Owner	aig0717@sftp2.clearwateranalytics.com
Box	CLW_PPV_PROCESS_BX_MTH
Secure Copy	
Server name	sftp2.clearwateranalytics.com
Server port	22
Transfer direction	Upload
Remote OS type	UNIX
Remote directory	/toCW/AIG_PPV_Pricing
Remote file name	*
Local user	SYSAUTOQA@INVESTMENTS
Local file name	S:\CLW\PPV*
Protocol	SFTP
Notification	
Alarms	
Maximum run time (minutes)	0
Send alarm on failure	true
Notification Services	
Notification	Do not notify
Run Time	
Status Time	Mar 29, 2018 2:23:30 PM

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Job Flow

5:02:07 PM

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3) Example of error message

```
84334 03/23/2018 03:16:17 - Output: [ErrorCode=0] [ErrorMessage=Success] [ExtractError=0] [Price=98.5695856290767] [Yield=4.01] [Spread=]
84335 03/23/2018 03:16:17 - ..Completed publishing messages..
84336 03/23/2018 03:16:17 - Client Request Received.. Starting to Process..
84337 03/23/2018 03:16:17 - ..Starting to publish messages..
84338 03/23/2018 03:16:17 - {"1456217":{"securityId":1456217,"evalDate":"01/31/2018","cleanPrice":null,"yieldToWorkout":4.04}}
84339 03/23/2018 03:16:17 -
84340 03/23/2018 03:16:17 - Output: [ErrorCode=0] [ErrorMessage=Success] [ExtractError=0] [Price=98.6253106966626] [Yield=4.04] [Spread=]
84341 03/23/2018 03:16:17 - ..Completed publishing messages..
84342 03/23/2018 03:16:17 - Client Request Received.. Starting to Process..
84343 03/23/2018 03:16:17 - ..Starting to publish messages..
84344 03/23/2018 03:16:18 - {"1456284":{"securityId":1456284,"evalDate":"01/31/2018","cleanPrice":null,"yieldToWorkout":4.06}}
84345 03/23/2018 03:16:18 -
84346 03/23/2018 03:16:18 - Output: [ErrorCode=0] [ErrorMessage=Success] [ExtractError=0] [Price=98.7947217623469] [Yield=4.06] [Spread=]
84347 03/23/2018 03:16:18 - ..Completed publishing messages..
84348 03/23/2018 03:16:18 - Client Request Received.. Starting to Process..
84349 03/23/2018 03:16:18 - ..Starting to publish messages..
84350 03/23/2018 03:16:18 - {"1360119":{"securityId":1360119,"evalDate":"01/31/2018","cleanPrice":null,"yieldToWorkout":3.88}}
84351 03/23/2018 03:16:18 -
84352 03/23/2018 03:16:18 - Output: [ErrorCode=0] [ErrorMessage=Error: Price in response is null. Check input yield. ] [ExtractError=-1] [Price=] [Yield=3.88] [Spread=]
84353 03/23/2018 03:16:18 - ..Completed publishing messages..
84354 03/23/2018 03:16:01 - Client Request Received.. Starting to Process..
84355 03/23/2018 03:16:01 - ..Starting to publish messages..
84356 03/23/2018 03:16:18 - {"1620605":{"securityId":1620605,"evalDate":"01/31/2018","cleanPrice":null,"yieldToWorkout":3.77}}
84357 03/23/2018 03:16:18 -
```

Example error
message



Please provide an example of the final M/E price file to be transmitted from PPV to Clearwater on a monthly basis

There has not been a full set of data for a month end test yet – this is a sample file that I mocked up while testing the formats

(*= Nullable column)

ClearWaterSecurityId,ClearWaterInternalId,PriceStartDate,PriceEndDate*,Price,PriceSource

File Sample:

```
ClearWaterSecurityId,ClearWaterInternalId,PriceStartDate,PriceEndDate,Price,PriceSource
1593103,00095@AC8:097778,2/31/2018,,101.50,PPPBROKER
1600125,00115@AA8,2/31/2018,,102.50,PPPVENDOR
1594438,00118@AA5:156028,2/31/2018,,103.50,PPPMATRIX
...
```

Sample File

4) Example of monthly M/E price file from PPV to CW

Headers TextView WebForms HexView Auth Cookies Raw JSON XML

```
POST https://www2.clearwateranalytics.com/analytics-ws/custom/clients/simplePriceAndYieldRequest/v1/beta/getPriceAndYield HTTP/1.1
authToken: c0cbc0b4-beb8-46ea-8b56-7910a9f1f46d
Content-Type: application/json
cache-control: no-cache
Postman-Token: 70dd9d7c-cdb3-4b0b-8b22-c1e313cadaaf
User-Agent: PostmanRuntime/7.1.1
Accept: */*
Host: www2.clearwateranalytics.com
cookie: __cfduid=dazf1a036657908c70ea0125be6d428661520614726
accept-encoding: gzip, deflate
content-length: 98
Connection: close

{"1600125":{"securityId":737839,"evalDate":"01/31/2018","cleanPrice":98.62,"yieldToWorkout":null}}
```

HTTP Request

5) HTTP request for data transmission

Find... (press Ctrl+Enter to highlight all)

Get SyntaxView Transformer Headers TextView ImageView HexView WebView Auth Caching Cookies Raw JSON XML

```
HTTP/1.1 200 OK
Date: Thu, 12 Apr 2018 20:38:00 GMT
Content-Type: application/json
Connection: close
Strict-Transport-Security: max-age=31536000; includeSubDomains
P3P: CP="UNI"
Expect-CT: max-age=604800, report-uri="https://report-uri.cloudflare.com/cdn-cgi/beacon/expect-ct"
Server: cloudflare
CF-RAY: 40a87e796c16470a-EWR
Content-Length: 133
```

```
{"737839":{"cleanPrice":98.62,"evalDate":"01/31/2018","securityId":737839,"statusMessage":"Good","yieldToWorkout":4.254546182743084}}
```