

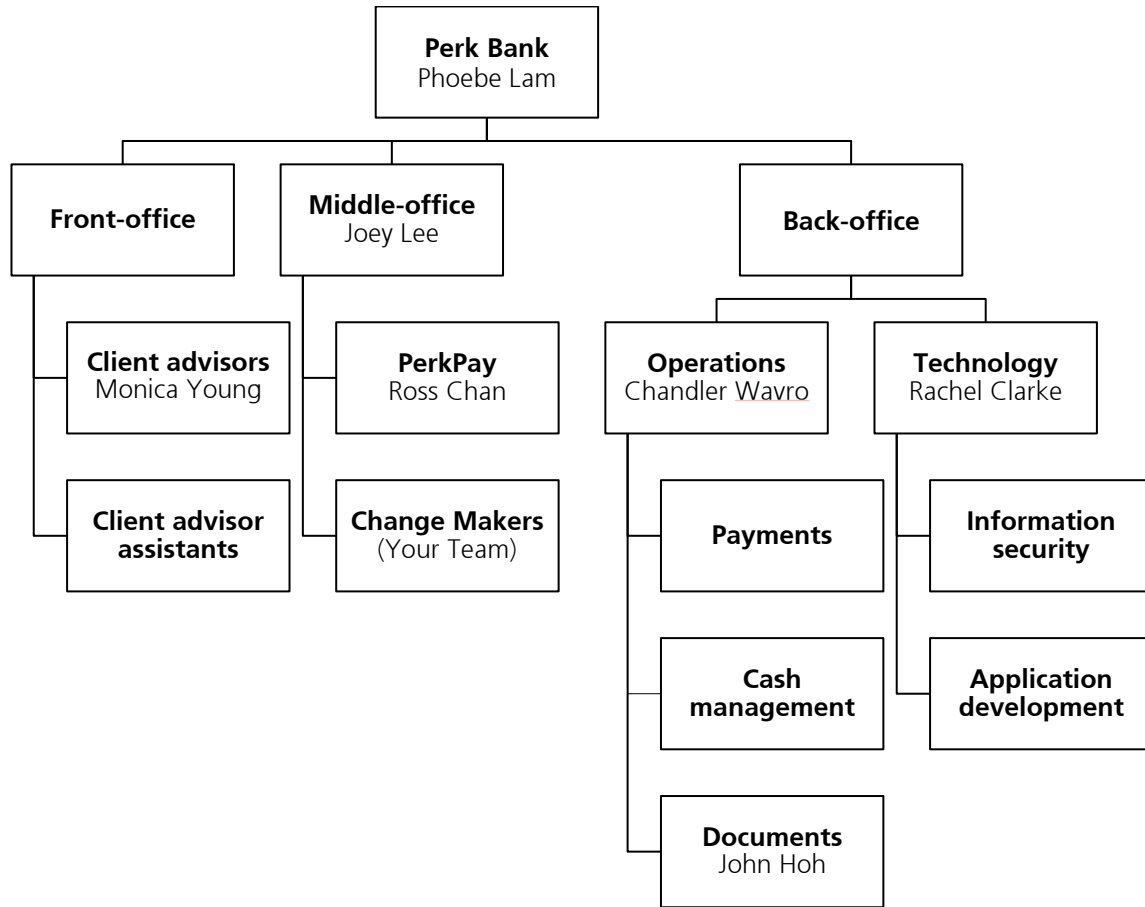
2019 UBS
Group Chief Operating Officer (GCOO)
Case Challenge

Case study - Appendix

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Appendix 1: Structure of Perk Bank

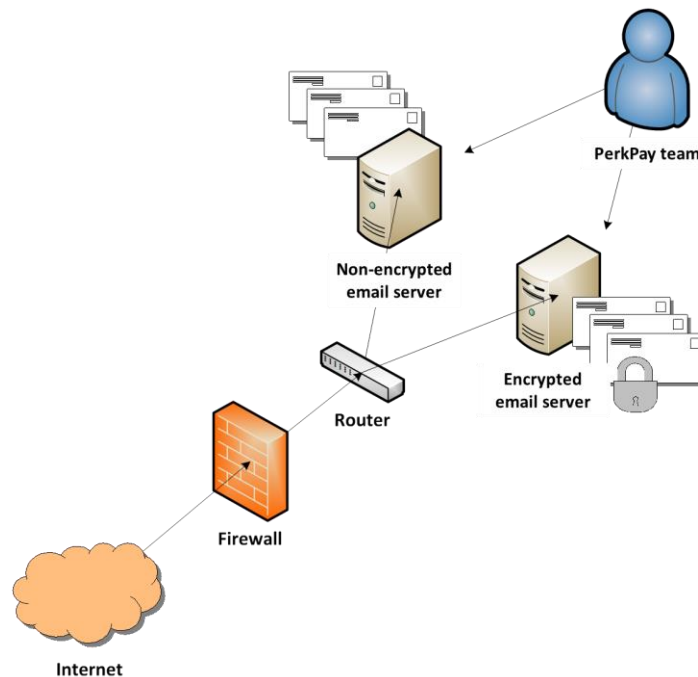


Disclaimer: This is a macro-perspective of Perk Bank's organizational structure, only departments relevant to the case are reflected.

Division	Team	Team description and responsibilities
<u>Front-office:</u> Client-facing part of the firm focusing on working with and for clients.	Client advisors	Client's point-of-contact – helps to manage their wealth.
	Client advisor assistants	Provides administrative and documentation support to client advisors.
<u>Middle-office:</u> Touchpoint between front-office and back-office – reduces operational processes for front-office, and ensures efficient flow of information to back-office.	PerkPay	Ensures the client payment requests from front-office meet control requirements, and inputs payments into the system for back-office to process.
	Change Makers	Drives enhancement projects to increase process efficiency and ensure process sustainability.
<u>Back-office – Operations:</u> Offers a robust catalogue of operational services to the business divisions following a standardized structure for the processes that support these services.	Payments	Releases client payments upon receiving cash orders, and deals with exceptions and queries.
	Cash management	Ensures that the bank's daily cash position is healthy after taking into account incoming and outgoing payments.
	Documents	Archives physical documents (e.g. released payment orders) into DataWares.
<u>Back-office – Technology:</u> Provides technology solutions for the business which play a critical role in building, delivering and maintaining the functionality of the bank.	Information security	Protects the bank's network and infrastructure against cyber threats and secure information asset.
	Application development	Develops and delivers banking applications for Perk Bank.

Appendix 2: Transmission of payment instruction

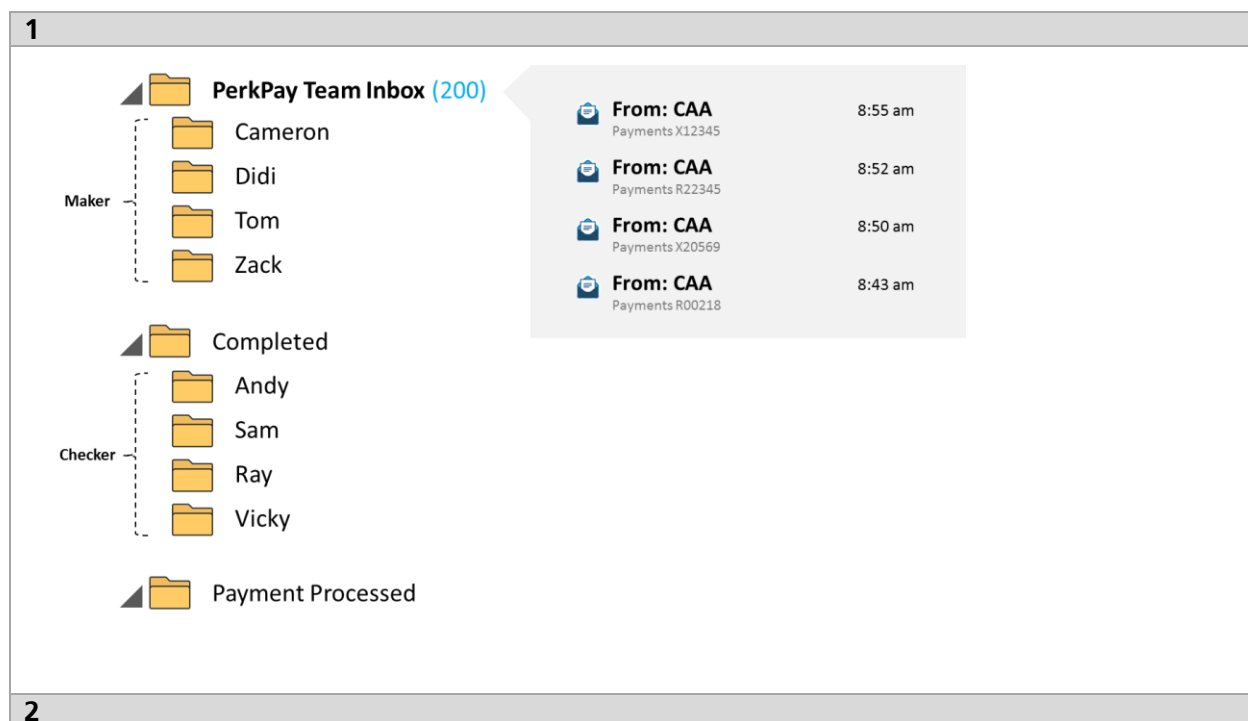
In the banking industry, safeguarding client information is extremely important. The information can be vulnerable especially during transmission via email. Perk Bank employs encrypted and non-encrypted email servers to achieve both efficiency and safety in transmission. All emails pertaining to payment process need to be encrypted since they contain client information. However, there have been questions on the sole dependency on email servers. If the encrypted email server fails, the PerkPay team may remain unaware of a payment instruction.

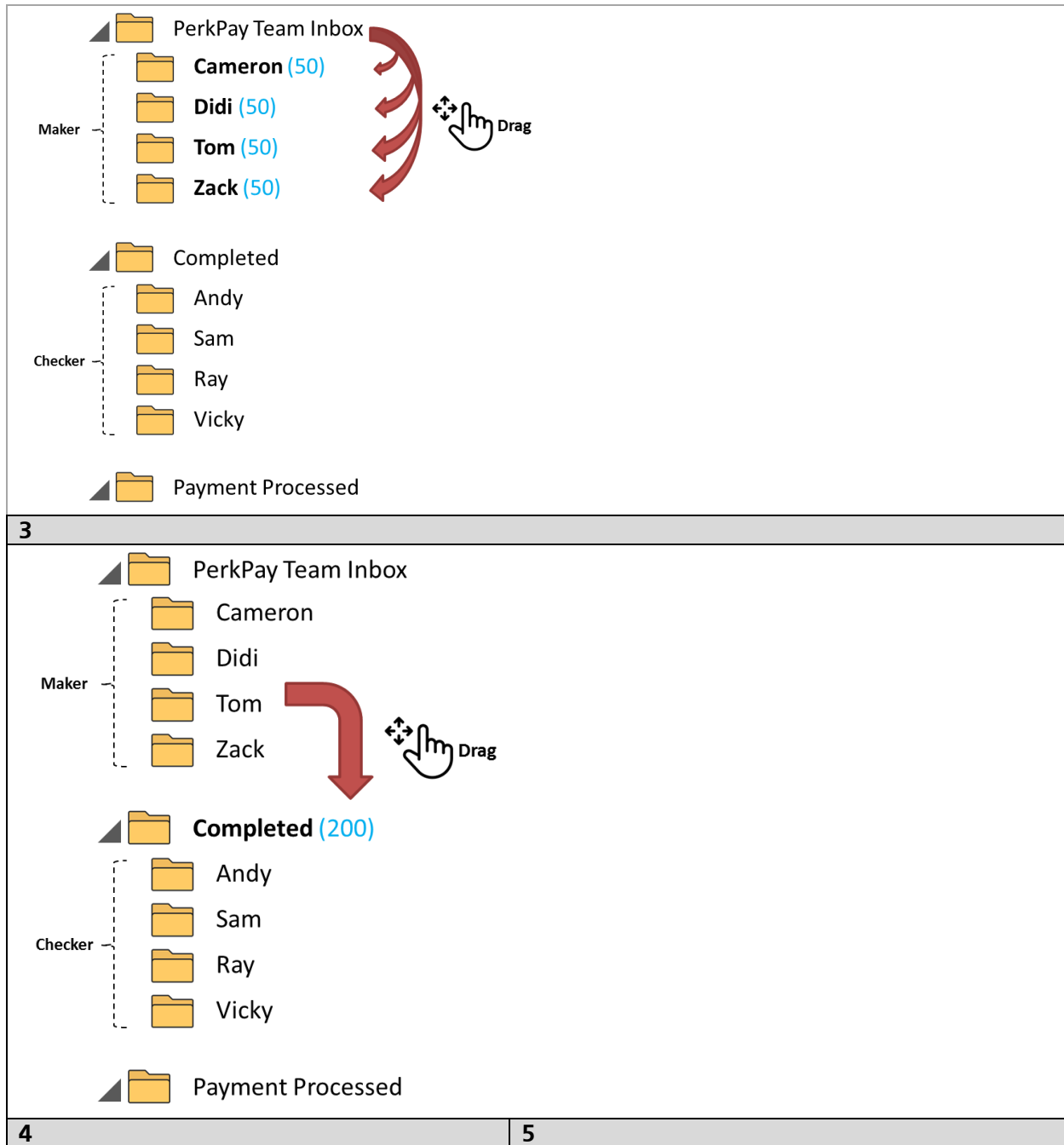


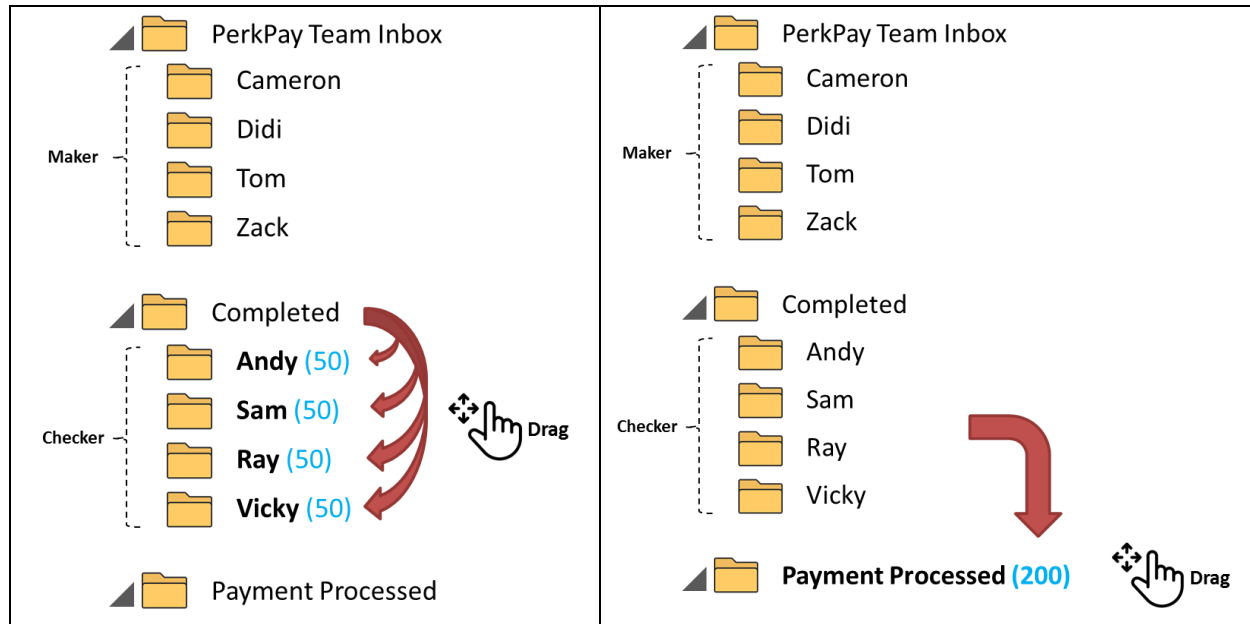
Appendix 3: Outlook workflow

Since Outlook is proprietary software built by Microsoft so there is limited scope for it to be modified to better meet Perk Bank's needs. PerkPay monitors its request queue through Outlook folders. Email requests from the CA/CAAs are dragged to the makers' individual folders to work on. After inputting the payment request, the maker will drag it to the completed folder. From there, the checkers' will drag it to their individual folders to process. Upon releasing the payment, the checkers will drag the email to the "Payment Processed" folder. The process has the potential to overlook or duplicate payments. Furthermore, it is difficult to reconcile what has been received and what has been completed.

The CashOut system tracks the status of the payments upon entering (e.g. inputted, released, and rejected). However, it does not track email requests from the CA/CAAs.







Appendix 4: Interview with the payment process stakeholders

Focus group interview with client advisor (CA), document team officer, and PerkPay team lead

As part of a firm-wide initiative to increase the efficiency and effectiveness of the payment process, a number of employees involved in the process were interviewed.

Interviewer: What is the major challenge in processing payment instructions from a client?

CA Monica Young: It is extremely important to ensure the correct and complete execution of the instructions as it directly involves client assets. Typically, payment instructions involve the client's agreement with a third-party to pay out. Therefore, it is also important for the timely execution. I remember there was an incident in which an instruction was not executed. The client got extremely frustrated due to this mishap. I later learned that there were some technical and manual process issues. But still, I wish that the payment process to be more efficient and effective.

PerkPay team lead, Ross Chan: I also remember the incident that Monica mentioned. There was a technical issue that emails from CA/CAAs were not delivered to the PerkPay Team. We were not aware of the issue since we had no other way to find out that the CA/CAAs had sent emails to us. When the issue got resolved, our mailbox was flooded with the pending instructions. During processing, one instruction email was inadvertently dragged and into the "Completed" folder in Outlook. In the end, the instruction was not processed. As we have multiple Makers to create payment orders, it is easy to duplicate or omit payments.

Interviewer: It sounds like all instructions and reconciliations are communicated through Outlook. I suppose it would be a lengthy process.

CA, Monica Young: Indeed. One of the main difficulties is that the number of required documents is so huge and that we need to use those documents to match with the payment instruction being given. In some cases the client may not have provided all documents to the CA in the first place. It could also be because the document was invalid; either mismatch with the instructions or unclear contents. Only recently, we almost sent out the payment late only because the client's instruction scan was so unclear that we could not read it. When we told the CA about it, the CA contacted the client but only received feedback the following afternoon. Only then, could the CA resend the scanned page to allow us to proceed with the payment. Payments could only be valid for the day if we send it before 16:00 local time.

Interviewer: What other challenges do you face?

CA, Monica Young: Some clients come to us saying that "this payment instruction is urgent, can you do it now?" Though we do have cut-off time for the payment instruction, we cannot always say no given the importance of maintaining goodwill with clients. Any improvement in the resilience of process would be welcome.

Document team officer, John Hoh: As a team which archives hard copies of documents, we process tons of paper each day. To process a single payment order, a lot of hard copies are needed: Payment instruction letter from the client; the CA's callback note; the CA's approval letter; and other supporting documents. Manually scanning the documents and attaching them to payment

instructions in the system is not an easy task. Also, we are bridging CAs and PerkPay team. When we receive urgent or missed documents, we need to hold whatever process we were working on, handle the priority works, and resume the halted process. Such switch-overs are quite frequent and many overheads are occurred.

Interviewer: Thank you for the answer. In WM, providing a high quality of service and maintaining good relationships with clients seems to be the end goal.

CA, Monica Young: Exactly! That is what CA/CAAs are trying to achieve. However, on occasion, I find that CA/CAAs have too much work to do in the payment process. When a client sends a payment instruction, we need to call back to verify the instruction. Afterwards, we spend considerable time on non-client-facing work, such as verifying the client's signature, drafting physical documents to approve the payment, and entering the system to create instruction orders. While this is important work, we would prefer to focus on better serving client needs.

Interviewer: That sounds like quite a lot of work. What is the process that follows after Monica?

PerkPay team lead, Ross Chan: The hard copies of the documents are sent to the Document team. After they scan and attach them to the system, we start the process. We first verify the completeness of documents. If all documents are prepared, a Maker creates the payment orders and moves the instruction email to the Checker folder. Multiple checkers verify the payment orders in the system. If everything is fine, we send out request emails to the Cash Release team. After the release, the Document team archives the documents.

Interviewer: Would there be any caution we need to take when we are releasing the cash?

PerkPay team lead, Ross Chan: Some currencies and beneficiary banks require more information to be put in the payment instructions. We currently own a SharePoint link that we share with CA/CAAs containing all the additional requirements for payment with special currencies. However, these are all based on scenarios that we record based on our own experiences when we encountered payment returns or issues. If on occasion we miss it, then returned payments are inevitable and payment processes could be delayed, which means clients will be dissatisfied. It would be so much easier if we could reduce the unnecessary steps so that delayed payments could be avoided. You can see one of the events in the e-mail chain below.

Interviewer: I see. It seems that every stage has a different challenge. I believe our discussion today would be extremely useful to the project team. Thank you so much for your time.

Email Chain – Returned SWIFT Payments due to missing beneficiary bank's address

From: perkpay-apac@perkbank.com
Sent: Wednesday, Apr 03, 2019 3:53 PM
To: payments-london@perkbank.com
Subject: RE: Returned SWIFT Payments <SWIFTCADXXXXXX>

Hi London Payments Team,

We have run 4-eye-check and resubmitted the payment to Royal Bank of Canada including the beneficiary bank's address. Please let us know if there is any further issue. We will take this into consideration for future payments to include bank addresses for payments in CAD. Thank you very much.

Regards,

Julie Mak
APAC PerkPay Team
Perk Bank
Hong Kong

From: perkpay-apac@perkbank.com
Sent: Wednesday, Apr 03, 2019 3:45 PM
To: CAAGroup1.hk@perkbank.com
Subject: RE: Returned SWIFT Payments <SWIFTCADXXXXXX>

Hi Emily,

Thank you for your response. Please ensure that from now on, any payments to Canadian bank needs to include the beneficiary bank's address to avoid payments being rejected.

CAD

✚ *Outward remittance:* Most banks located domestically in Canada require the beneficiary's address. To prevent delay, it is encouraged to provide this information in the payment details.

For the rest of the currencies, I have updated them in our shared document under the currency exception handling segment. Please help to share this with your whole team.

Regards,

Julie Mak
APAC PerkPay Team
Perk Bank
Hong Kong

From: CAAGroup1.hk@perkbank.com
Sent: Wednesday, Apr 03, 2019 3:35 PM
To: perkpay-apac@perkbank.com
Subject: RE: Returned SWIFT Payments <SWIFTCADXXXXXX>

Hi APAC PerkPay Team,

Please find below the beneficiary bank address :

200 Bay Street, 22nd Floor, South Tower
Toronto, ON M5J 2J5
Canada

Attached is also DH Approval for your reference.

Thank you very much.

Regards,

Emily Cheung
CAA HK Team 1
Perk Bank
Hong Kong

From: perkpay-apac@perkbank.com
Sent: Wednesday, Apr 03, 2019 2:50 PM
To: CAAGroup1.hk@perkbank.com
Subject: RE: Returned SWIFT Payments <SWIFTCADXXXXXX>

Hi Client Advisor/Client Advisor Assistant,

We had a SWIFT payment returned for CAD 4,000,000 by beneficiary bank Royal Bank of Canada because the beneficiary bank's address was not present. Since we received this payment instruction yesterday from you, could you help us to assist? Please help to send us the document immediately as our last payment should be at 16.00 Hong Kong time. Thank you.

Regards,

Julie Mak
APAC PerkPay Team
Perk Bank
Hong Kong

From: payments-london@perkbank.com
Sent: Wednesday, Apr 03, 2019 2:23 PM
To: perkpay-apac@perkbank.com
Subject: RE: Returned SWIFT Payments <SWIFTCADXXXXXX>

Dear Julie,

There has been a stricter regulation in Canada that every payment should only be transferred and can only be withdrawn in the city of receiver's domicile. This regulation was just added to increase the security of incoming/outgoing payments in Canada. Hope this clarifies.

Thank you very much.

Warmest regards,

Robert Wright

London Payments Team
Perk Bank
London, United Kingdom

From: perkpay-apac@perkbank.com
Sent: Wednesday, Apr 03, 2019 2:13 PM
To: CAAGroup1.hk@perkbank.com
Subject: RE: Returned SWIFT Payments <SWIFTCADXXXXXX>

Hi London Payments Team,

Beneficiary bank address has never been a compulsory field when entering a SWIFT payment. Why do we need to include it this time? Thank you.

Regards,

Julie Mak
APAC PerkPay Team
Perk Bank
Hong Kong

From: payments-london@perkbank.com
Sent: Wednesday, Apr 03, 2019 2:08 PM
To: perkpay-apac@perkbank.com
Subject: Returned SWIFT Payments <SWIFTCADXXXXXX>

Dear HK Payments Team,

We just received a return from SWIFT on a payment to Royal Bank of Canada from sent by your team for payment with value date April 4th, 2019. It was returned with a reason that you did not put the beneficiary bank's address. Could you check? Please find the attachment.

Thank you very much.

Warmest regards,

Robert Wright
London Payments Team
Perk Bank
London, United Kingdom

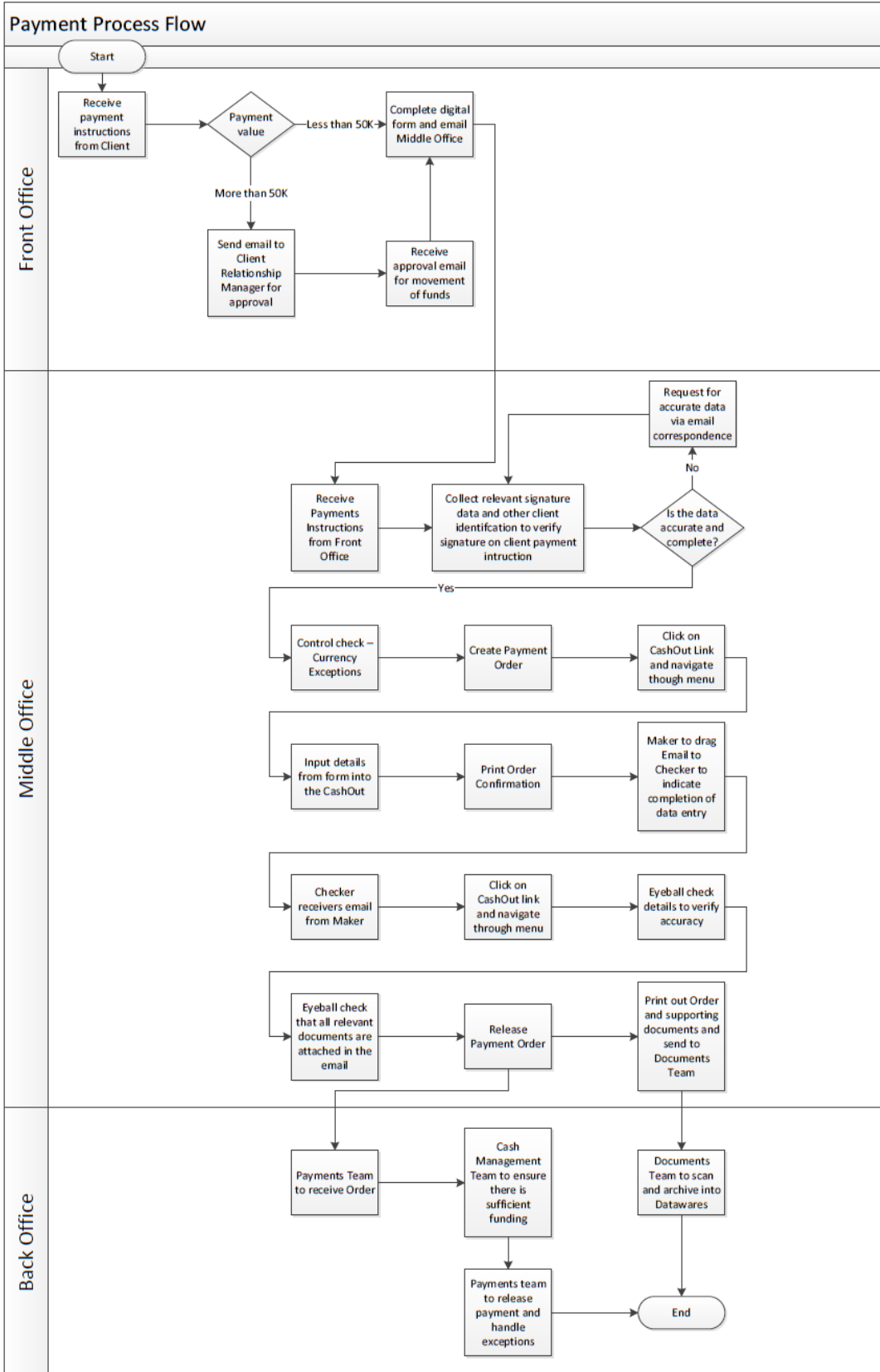
Appendix 5: Current payment process description and flow

The current payments process is complex. Throughout the payment lifecycle, client instructions have to go through multiple applications before pay-out.

All communication is centralised on MS Outlook, the bank's main application for both directing workflow and information. This is the preferred platform for the bank because it allows encrypted data to be sent and received and due to the large amount of CID that is being used on a day-to-day basis. Client instructions flow in via email and all the internal checks are also being done over the email exchange. This is prevalent in the middle-office sector, where the Maker-Checker process is maintained via an MS Outlook folder.

The middle-office also goes to DataWares to retrieve relevant client information to verify the details. DataWares is an internally-built application that contains all information that each client provides to the bank, including their authorised signatories, account setup details, and other relevant information. This is a keystone in the verification of all client instructions.

CashOut is the bank's internal payment system, and this is where the client instructions will be entered. All information regarding each payment can be manually entered into the system, and then visually verified in a 4 eyed-check process. Depending on the payment currency, specific email approvals will need to be retrieved before the client's account can be funded. There is no other way of accessing the payment information except through CashOut, and because it is an old system, it is prone to crashing and has a relatively slow processing speed. Payments are only reflected on the clients' account statement after specific batch runs throughout the day, rather than instantaneously.

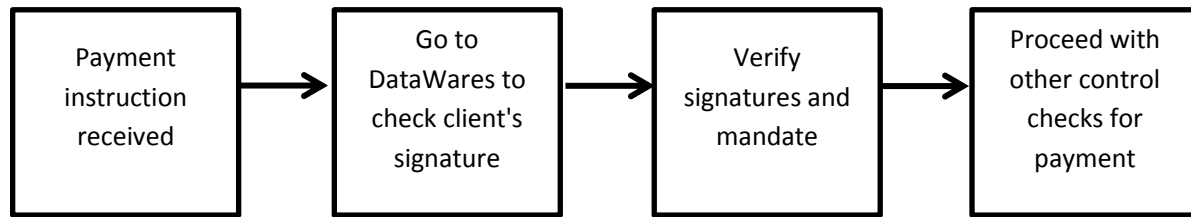


S N	Description	Platform	Responsible BU
1	Receive payment instructions from clients	MS Outlook	Front-office
2a	Verify value of instructions: IF payment value < 50K THEN complete digital form and email to Middle-office for further processing in payment systems, move to step 3 ELSE IF payment value > 50K THEN send email to Client Advisors to approve movement of funds	MS Outlook	Front-office
2b	WHEN approval email for movement of funds is received THEN complete digital form and email to Middle-office for further processing in payment systems	MS Outlook	Front-office
3	Receive payment instructions from Front-office	MS Outlook	Middle-office
4	Collect relevant signature data and other client identification to verify signature on the client payment instruction: IF data is accurate and complete THEN move to next step ELSE request for accurate data via email correspondence	DataWares MS Outlook	Middle-office
4a	Control check - Currency exceptions (For e.g. payments to UAE beneficiaries need to have the purpose of payment code in the SWIFT; CAD to Canadian banks need to include the beneficiary address; MYR can only be transferred to same-name beneficiaries.)	MS Outlook	Middle-office
5	Create payment order Click on CashOut link and navigate through menu Input details from form into the CashOut Print out order confirmation Maker to drags Email to Checker to indicate completion of data entry (include original instructions, order confirmation, additional documentation that may be required to justify the validity of instructions)	CashOut MS Outlook	Middle-office
6	Verify and release payment order Checker receives email from Maker Click on CashOut link and navigate through menu Eyeball check details to verify that the right details are entered Eyeball checks that all relevant documents are attached	CashOut MS Outlook	Middle-office

	to the email Release the payment order		
7	Print out payment order <ul style="list-style-type: none"> - Email correspondence and attachments - Send to Documents Team for scanning and archiving into DataWares. 	MS Outlook CashOut DataWares	Middle-office Back-office
8	Receive payment order IF Funding is sufficient THEN move to next step ELSE Contact front-office to get funding	CashOut	Back-office
9	Release payment		Back-office

Appendix 6: Signature verification process

Each payment has to go through a signature verification process:



Two major problems are identified in particular during the signature verification process:

Problems	Descriptions
Multiple signature documents in DataWares	There are plenty of documents in DataWares that could contain the authorized signatures and mandates e.g. account opening form, on-boarding form, authorized signatures, board resolution, corporate card, signature card. It is time consuming and manual to go into DataWares to pull out the right document to verify the signature.
Signature updates	There can be changes to the signatures and account mandate and there might be multiple updates and documents in DataWares that might take time for the PerkPay team to verify the signatures.

The team then has to go through different documents in the DataWares, until they identify the signature which matches with the payment instruction signature. This tedious and time-consuming process for checking and verifying signatures has frustrated the team. With awareness that the internal policy regarding client verification for payment instructions [Appendix 12] has been updated recently to embrace digitalization, the team understands that any improvements must adhere to the latest policy.

Appendix 7: Payment instructions

Inputting payment instructions / orders is tedious and can often lead to manual errors. Additionally, there might be multiple iterations between the CA/CAAs and the PerkPay team when the payment request has incorrect or insufficient approvals and information.

Client Instruction

Date: 16 May 2019

Perk Bank Singapore
52/F Central Perk
Singapore
Attention: Monica Young

RE: Account 1-6082-018.F – Phalange Family Trust

Please debit the above account and arrange the following fund transfer:

Value Date: 16 May 2019

Amount: USD 10,000.00

Account Name: Regina Phalange

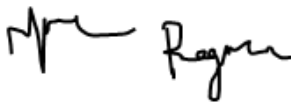
Account Number: 006-091-993

Beneficiary Bank: Geller Bank, Singapore Branch

Reference: Personal expenses

Thank you.

For and on behalf of,



Phalange Family Trust

PERK BANK

Banking relationship

2-9051-990.F**PAYMENT ORDER
REMITTANCE**

Account details

Gunther Chan

2-9051-990.F

Account name

Account number

USD

400,000.00

17 May 2019

Currency

Amount

Value date

Charges☐ Costs borne by beneficiary☐ Costs borne by payer☒ Shared costs

Beneficiary

GB13 GREE 1234 5600 6543 21

Account no.

Hannigan Film Academy

Beneficiary name

Beneficiary's bank

GREGGB2LXXX

BIC code

Green Bank, London Branch

Name

Intermediary bank (optional)

GREEUS33XXX

BIC code

Green Bank, New York Branch

Name

PERK BANK**Banking relationship**2-9051-990.F**PAYMENT ORDER
REMITTANCE**

Payment details (optional)

Invoice no.: IV040693

Signature(s)

16 May 2019

Signature of account holder

Date

Gunther Chan

Name of account holder

Payment Instruction received through Outlook

FW: PerkPay, [1] x [USD 400,000.00][16May][2-9051-990.F]

Sent: None

To: perkpay-apac@perkbank.com

Cc: monica-young@perkbank.com

Message Client Instruction.pdf (46 KB) Callback Report.pdf (46 KB)

Hi PerkPay team,

Please process the payment below – attached the client instruction and call-back report for your reference, thanks!

Regards,
Emily Gosling
CAA, SEA Desk 2
Perk Bank
Singapore

From: Young, Monica

Sent: Thursday, May 16, 2019 09:06 AM

To: Badar, Emily

Cc:

Subject: RE: PerkPay, [1] x [USD 400,000.00][16May][2-9051-990.F]

Approved, thanks Emily!

From: Gosling, Emily

Sent: Thursday, May 16, 2019 08:16 AM

To: Young, Monica

Cc:

Subject: PerkPay, [1] x [USD 400,000.00][16May][2-9051-990.F]

Dear Monica,

Please approve the outgoing payment ≥50k USD. Attached the client instruction and call-back report for your reference, thanks!

Mandatory Fields

Payment Type	Outgoing
Order channel	Fax
Costs	SHA
Fees	Waived
Account to debit	2-9051-990.F

Optional Fields

The below section is only used to enrich the payment order lest there are missing/incorrect details in the original client instruction.

Beneficiary Name	Hannigan Film Academy
Account Number	GB13 GREE 1234 5600 6543 21
Beneficiary Bank	Green Bank, London Branch
Transaction Currency	USD
Amount	400,000.00
Payment Purpose	
Message to Operation	

Regards,
Emily Gosling
CAA, SEA Desk 2
Perk Bank
Singapore

Payment Order in CashOut

SWIFT Payment					
Method of Payment:	Swift	Order of:		Order issued with:	
Callback performed:		Name of person(s) instructing:			
Who was called back:		Name of person called back:			
Client			Beneficiary: Customer/ Bank		
Debit account:			Account No:		
Payment			Name:		
Currency/Amount:			Address:		
Value date of debt:					
Payment purpose:			Bank of the Beneficiary		
			Bankcode:		
			Name:		
Message to Operations			Address:		

Appendix 8: Glossary/Abbreviations

Terms	Description
BU	Business Unit
CA	Client Advisor – please refer to appendix 1 for description
CAA	Client Advisor Assistant – please refer to appendix 1 for description
CID	Client Identifying Data – information that allows the identification of a client or his relation to a financial institution
DataWares	A data archiving point where you can find all the documents for a client's account, e.g. account opening forms, signature cards, and mandates, etc.
DH Approval	Desk Head approval
HW	Hardware
Lifecycle	Payment Lifecycle – the sequence of stages from receiving client order to releasing the payment
Maker-Checker/ 4-eyed	A Maker-Checker/ 4-Eyed Process – for each transaction, there must be at least two individuals necessary for its completion
MC	Management Committee – a group of directors who establish policies for corporate management and make decisions on major issues.
MO	Middle-office – please refer to appendix 1 for description
MS Outlook	Microsoft Outlook – mainly an email application
SWIFT	The Society for Worldwide Interbank Financial Telecommunication – provides a network that enables financial institutions to send and receive financial transaction information in a secure environment
WM	Wealth Management
2FA	2 Factor Authentication

Appendix 9: Confidential data-related policies – Excerpts from Perk Bank's internal policies

Protection requirements for strictly confidential data:

- A. All strictly confidential data (especially CID) at rest must be stored in Perk Bank's in-house data centers, in the country of origin. (E.g. Payments information regarding an account opened in Hong Kong can only be stored in Perk Bank's Hong Kong Data Center)
- B. Strictly confidential data (especially CID) must be encrypted in transfer, unless transfer remains within a secure area (e.g. server A to server B within the same data center and within a network segment which is not accessible from outside the data center) entirely controlled and operated by Perk Bank staff.
- C. Remote access to CID from offshore locations is not allowed, and access can only occur from the country of origin.
- D. Strictly confidential data can be processed outside of in-house servers, but must be encrypted throughout its lifecycle and can only be decrypted in Perk Bank's in-house servers.

Appendix 10: Security-related regulations

"Financial Institutions should continually evolve and improve their ability to anticipate, withstand, detect, and respond to cyber-attacks. Financial Institutions should regularly perform gap analysis and risk assessments to determine whether their controls remain holistic and adequate, and that their response and recovery plans stay effective. Financial Institutions should also put in place a roadmap to promptly address any gaps that are found."

Appendix 11: Client verification policy – Excerpts from Perk Bank's internal policies

Client Identification requirements:

- A. In the case of payment instructions, uniquely identifiable information need only be obtained at the time of instruction execution to verify that the instruction is given by a valid customer.