logo

International Money Remittance Hub

PPM ID#204003

Solution Design Document

Version 1.5

CIT/IT Solution Architecture

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# Revision History

|  |  |  |  |
| --- | --- | --- | --- |
| **Version** | **Author** | **Date** | **Comment** |
| 1.0 | Waleed Ali | 11-4-2021 | Initial SDD version |
| 1.1 | Waleed Ali | 15-4-2021 | Update solution for MTO Commission |
| 1.2 | Waleed Ali | 18-4-2021 | Update IMT Support Portal section |
| 1.3 | Waleed Ali | 28-4-2021 | Latest Version |
| 1.4 | Waleed Ali | 03-6-2021 | Add IMT Hub Reports |
| 1.5 | Waleed Ali | 13-6-2021 | Re-plan project scope into 3 drops to exclude E// dependency from Drop 1 and make it as Drop 3 and start project planning and execution for Drop 1 and 2 |

Table 1 Revision History

**Stakeholders**

**Drop 1: IMT Hub Core**

|  |  |  |  |
| --- | --- | --- | --- |
| **SPOC Name** | **Impacted Systems** | **Effort Estimations** | **Dependency** |
| Niyas, Asif Naseer | EWP In-house Development | 1. EWP Configurations: 5 WDs |  |
| Shoaib and Mansour | e-Commerce Operations | 1. Configure IMT Hub back office users with profile “Sales BO L0”who can have access IMT Hub configuration screens on Dev, SIT and UAT Environments (1 days) 2. Configure IMT Hub back office users with profile “Sales BO L0”who can have access IMT Hub configuration screens on Production Environment (1 days) | 1. DFS to provide the list of back office users who can have access to IMT Hub configuration screens on production Environment before production deployment |
| Akbar and Faizali | VPN setup with partners (Western Union and Mastercard) | 1. VPN setup with Western Union Development/Testing Environment (10 WD) 2. VPN setup with Mastercard Development/Testing Environment (10 WD) 3. VPN setup with Western Union Production (10 WD) 4. VPN setup with Mastercard Production Environment (10 WD) | Pre-requisites:   1. Western Union to provide VPN access details to development/Testing Environment 2. Mastercard to provide VPN access details to development/Testing Environment 3. Western Union to provide VPN access details to Production Environment 4. Mastercard to provide VPN access details to Production Environment |
| Ahmed Waly | USP Hub | 1. IMT Hub Database Design (10 WD) 2. IMT Hub APIs Design (20 WD) 3. IMT Hub Integration with Partners (Western Union and Mastercard) (20 WD) 4. IMT Hub Core Development (20 WD) 5. IMT Hub MTO Commission (10 WD) | Pre-requisites for IMT Hub Integration with Partners (Western Union and Mastercard):   1. VPN setup with Western Union Development/Testing Environment 2. VPN setup with Mastercard Development/Testing Environment 3. Western Union to complete and share final configurations for Etisalat user 4. Mastercard to complete and share final configurations for Etisalat user |
| Faizalali | IMT Hub Database/ schema | 1. IMT Hub Database / schema Creation and Configurations on Development Environment (7 WD) 2. Prepare Database Script for Initial Data Upload on Development Environment ( 4 WD) 3. IMT Hub Database connection access to IMT Support Portal servers on Development Environment (1 WD) 4. IMT Hub Database / schema Creation and Configurations on Production Environment (4 WD) 5. IMT Hub Database Initial Data Upload on Production Environment (2 WD) 6. IMT Hub Database connection access to IMT Support Portal servers on Production Environment (1 WD) | Pre-requisites:   1. IMT Hub Database Design 2. DFS to provide Initial Data Upload 3. Security team to provide access to IMT Hub Database connection for IMT Support Portal servers |
| Srinibash Udayasingh | TIBCO | 1. SRS : 6 day 2. Design & Development : (6+16) – 22 days | Dependency for SRS:   1. USPH interface document and sample 2. Updated sample for transfer. 3. Sample request / response from EWP for customtransfer 4. customtransfer api needs to be whitelisted on USPH context before development start |
| Zahid | Mobile App | Design and Development: 25 days | Pre-requisites:   1. TIBCO ISD and SRS document and samples |
| Salman | IMT Support Portal | Design & Development: 30 WD | Pre-requisites:   1. IMT Hub Database Design ( Portal team to be involved during DB Design phase) 2. IMT Hub Database connection access to IMT Support Portal servers on Development Environment 3. Operations team to configure IMT Hub back office users with profile “Sales BO L0”who can have access IMT Hub configuration screens on Dev, SIT and UAT Environments 4. PM will support for IT-Security approvals, connectivity issues, DBA support, DB Access. |
| Alen Bob |  | 1. IT Security Audit Assessment (5 WDs) 2. Provide access to IMT Hub Database connection for IMT Support Portal servers (standard SD process will be followed) 3. Whitelist Western Union and Mastercard customer care portals for eWallet Contact centers staff (standard SD process will be followed) |  |
| Sher Mohammed Babul | QA | QA Sanity: 2 WDs  Test Execution: 16 WDs | Pre-requisites:  1.      Orientation session to be arranged for QA to understand the basic flows and navigation of IMT Hub  2.      The IMT Hub mobile app screens will be developed based on the current mobile app screens design  3.      Initial IMT Hub configurations shall be available before RFQA |

Table 2 Stakeholders

**Drop 2: IMT Hub Reports**

|  |  |  |  |
| --- | --- | --- | --- |
| **SPOC Name** | **Impacted Systems** | **Effort Estimations** | **Dependency** |
| Niyas | EWP RDS | Development: (5 days) | Pre-requisites:  IMT Hub database design readiness |
| Faizalali | IMT Hub Database/ schema | Provide access to BI reporting users to access both IMT Hub and RDS databases and run reports queries (3 days) | Pre-requisites:  IMT Hub database readiness |
| Muhammad Asif Ali | BI | Development: 7 WDs | Pre-requisites:   * IMT Hub database readiness for availability of required data for new report development and required customizations * EWP team to provide validated queries and accepted data set so that same can be used by the BI reporting team |

**Drop 3: E// Dependent Features:**

**Scope of Drop 3:**

Configure DFS Fees for each MTO per each corridor (country) - and it can be %age of transaction amount or fixed amount. Business team will provide the actual DFS fees for configuring in EWP before production deployment.

E// will modify quote APIs to add the country as a parameter on the header on the initial quote and final quote request to EWP. Hence, DFS fees for each MTO per country will be configured on EWP rating engine and returned according to the received country parameter.

|  |  |  |  |
| --- | --- | --- | --- |
| **SPOC Name** | **Impacted Systems** | **Effort Estimations** | **Dependency** |
| Swamy, Asif Nazeer | EWP E// | Design: 3 WDs  Development: 5 WDs | 1. Budget approval from DFS 2. Business team to provide DFS Fees for each MTO provider per each corridor (country) before production deployment |
| Srinibash Udayasingh | TIBCO | SRS : 2 day  Design & Development : (1+4) – 5 days | Dependency :   * Updated sample for transfer and quotation api from EWP |
| Zahid | Mobile App | Development: 2 days | Pre-requisites:   1. TIBCO ISD and SRS document and samples |
| Sher Mohammed Babul | QA | QA Sanity: 2 WDs  Test Execution: 6 WDs |  |

**References**

|  |  |
| --- | --- |
| **Reference Description** | **Attachment** |
| BRD | BRD - International Remittance Hub 27-Aug-20 |

Table 3 References

# Scope of Document

Scope of Solution Design Document (SDD) is to provide the end-to-end IT solution design for **International Money Remittance Hub** Business Requirements Document (BRD) with PPM ID#204003. Document also includes the technical feasibility of the business requirements, the impact on the existing systems and the analysis of how to fulfill the feasible requirements.

As part of this project to expand and improve the International Money Remittance services eWallet intends to introduce multiple Money Transfer Organizations (MTOs). This would allow eWallet offer its customers, the best International Money Remittance service by offering the most corridors, products and at the best rate while insuring that eWallet get the best revenues. To achieve this eWallet would need to create a Remittance Hub

# BRD Feasibility Matrix

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **ID** | **Requirement Details** | **Feasibility** | **System** | **Limitations/ Assumptions** |
| **BRD1** | IMT Hub mobile app screens design  There are two versions of mobile app screens design for IMT Hub as follows:   1. Current mobile app screens design 2. New mobile app screens design for mobile app revamp project |  |  | The IMT Hub mobile app screens will be developed based on the current mobile app screens design. However the effort for developing the IMT Hub new mobile app screens will be considered and provided to be developed within the scope of mobile app revamp project  Current mobile app screens link : <https://scene.zeplin.io/project/5e26e44836436754bc859d15>  Mobile app revamp screens link: <https://scene.zeplin.io/project/5eb3fa8cefa3dc4a75de5456> |
| **BRD2** | IMT Hub would need to be able to support multiple MTOs where each MTO would provide:   * List of all the countries they send to   + List to include city breakdown if available * List of products offered   + List to be based products per country   All MTO will have to be onboarded onto the Hub without exception. The Hub can then split the MTOs into categories that can be configured to support preferential routing when required. These would include:   * MTOs who can bring new customers (not originally with eWallet) to the eWallet program * MTOs who have additional business with eWallet e.g WPS * MTOs who give eWallet cheaper transaction fees * MTOs who give eWallet a bigger potion (%) of the FX gain |  |  | The current scope of the Hub is to support only the following MTO partners:   1. MoneyGram 2. Western Union 3. Mastercard   Following are the limitations and assumptions as agreed with each MTO partner :  **MoneyGram:**  MoneyGram will return only one product/Agent ID for specific product type (ex: “Account Deposit”) for all countries. Hence consolidate the cases for some countries (such as Philippians) where there are multiple products with same type are returned by multiple agent/merchant IDs.  **Mastercard:**   * Get Payment Modes API, Country is mandatory parameter and City will be optional parameter * Etisalat IMT Hub will support only the “Cash Pickup”. All other products will be excluded from the current scope. “Bank deposit” and “Mobile Cash” will be assessed after completing get Required Fields API, “M-PESA”, “B-Cash” will be excluded until Mastercard consolidated it under “Mobile Cash”.   **Western Union:**   * product codes for all countries are the same except for Mexico the supported products for WU will be 500 DIRECT TO BANK , 000 Cash Pickup, 800 for Mobile Wallet. Hence, Etisalat shall exclude and not offer OTC to Mexico until WU fixe the product code for Mexico to be the same as the rest of the countries. * It was agreed in the contract that we will be displaying the exchange rate as received from WU; WU will incorporate the DFS FX-margins into the exchange rate with instructions from DFS * There is only one transaction fee for US, we can provide a fixed/default city for the purpose of fee inquiry and whereas the customer will provide the actual city at time of entering the receiver details. i.e. fees are flat for USA. * Regular expression for the receiver fields are not implemented and not returned on the API response. Hence validations on the data entered on the receiver fields cannot be validated on eWallet consumer mobile App. |
| **BRD3** | The IMT Hub to support the following MTO Partner Types:   1. **Standard MTO:**   these are the MTOs that will partner with DFS to offer only IMR services. Examples of these is MoneyGram and Western Union   1. **Preferential MTO:**   these are MTOs that will offer additional services and thus be accorded preferential routing. Additional services could include eWallet registrations and/or WPS services. Examples of these is WallStreet Exchange. These will have two categories to start with:   1. **Preferential MTOs with opt out option** 2. **Preferential MTOs without opt out option** | Feasible | Mobile App, TIBCO, EPG , EWP In-house development and Batch Transaction Service |  |
| **BRD4** | The IMT Hub to support the following MTO Customer Types:   1. **Standard Consumer:**   Consumer onboarded via the conventional route and not tied to a specific MTO. i.e. This is the default if customer is not linked to specific MTO   1. **Preferential MTO Consumer with Opt Out:**   Customers fall under this category if they have been attached to Preferential MTO. In this case the Preferential MTO’s rate will be shown to the customer and the customer will have to reject this rate so as to be able to view the standard MTO rates.   1. **Preferential MTO Consumer no Opt Out:**   Customers fall under this category if they have been attached to Preferential MTO but in this case with no opt out option. In this case only the Preferential MTO’s rate will be shown to the customer. | Feasible | Mobile App, TIBCO, EPG , EWP In-house development |  |
| **BRD5** | **Consumer Journey:**  The customer journey will be similar for all Consumer types. The key differences will be managed by the Hub and will be largely transparent to the Consumer. Some subtle differences will be visible to those consumers that fall under the category ‘**Preferential MTO Consumer with Opt Out’.** For these they would have the option to switch between their Preferential MTO’s offer and the best offer available eWallet platform to their destination. |  |  | * The destination city list will have all the cities configured for IMT Hub. The list will be initially uploaded into database and will updated manually by DFS team * The bank names list will have all the bank names configured for IMT Hub. The list will be initially uploaded into database and will updated manually by DFS team * The wallet names list will have all the wallet names configured for IMT Hub. The list will be initially uploaded into database and will updated manually by DFS team * Exchange rate received from the MTO partner will be used and displayed as is in the summary page * Fee on receiver returned from MTO partner API will be displayed * Tax on receiver returned from MTO partner API will be displayed |
| **BRD6** | **Standard Consumer:**  The customer journey for this group will be as follows:   * 1. Customer logs into the App and selects Transfers, then International Money Transfers   2. Customer will be prompted to select destination country.   3. Customer will be presented with the available product types      1. If customer selects OTC they will have an additional selection of destination city (where available)      2. If customer selects send to bank they will be shown the list bank accounts supported by all available MTOs      3. If customer selects the send wallet, list of all supported wallet partners by all MTOs should be shown   4. Once product type is selected the customer will be prompted to enter the amount with the option to enter in AED or the destination currency   5. Customer will be presented with the exchange rate and the amount required to complete the transaction including fees and taxes.   6. Customer will have to accept the rate shown.   7. Once accepted the customer will be required to accept terms & conditions plus the Fraud Warning. Fraud warning text should be displayed based on selected the MTO, exact text will be provided during the development.   8. Followed by entering the recipient details as prompted.      1. Recipient details are dependent on the destination counties’ regulations and will therefore vary and will be determined by the MTO.   9. Summary page will open with the following fields before finally authorize the transaction using their PIN:      1. Amount to deducted: AED xxxx      2. Amount to be received: {destination currency} XXXX      3. Exchange rate: AED 1 = {destination currency} xxxx      4. Fee: AED xxxx      5. VAT: AED xxxx      6. Fee on receiver: {destination currency} XXXX – Optional based on availability from MTO      7. Tax on receiver: {destination currency} XXXX – Optional based on availability from MTO      8. Destination country: {country name}      9. Product: {Product name}   10. Customer will enter the PIN and on successful authorization success screen will be shown.   11. Success screen will the following information:   **For OTC**   * + 1. Success notification     2. eWallet transaction ID     3. MTO Transaction ID     4. Share option   **For send to bank & send to wallet**   * + 1. Success notification     2. eWallet transaction ID     3. Share option   1. System should send SMS and email to customer as per provided text in the SMS/email section.   2. eWallet should perform the limits and threshold checks as already implemented. |  |  |  |
| **BRD7** | **Preferential MTO Consumer with Opt Out:**  The customer journey for this group will be as follows:   1. Customer logs into the App and selects Transfers, then International Money Transfers 2. Customer will be prompted to select destination country. All countries for all MTOs should be displayed. 3. Customer will be presented with the available product types    * 1. If customer selects OTC they will have an additional selection of destination city (where available)      2. If customer selects send to bank they will be shown the list bank accounts supported by all available MTOs      3. If customer selects the send wallet, list of all supported wallet partners by all MTOs should be shown 4. Once product type is selected the customer will be prompted to enter the amount with the option to enter in AED or the destination currency 5. Customer will be presented with the exchange rate and the amount required to complete the transaction including fees and taxes.    * 1. The customer will see a disclaimer   *“This exchange rate has been provided by <Preferential MTO Name> Click here to see eWallet rate”*   * + 1. If customer click on the here they will be shown best standard rate and will still have a disclaimer below the rate   *“Click here to go back to <Preferential MTO Name> exchange rates”*   1. Customer will have the option to accept the rate in either of the shown rates 2. Once accepted the customer will be required to accept terms & conditions plus the Fraud Warning. Fraud warning text should be displayed based on selected the MTO, exact text will be provided during the development. 3. Followed by entering the recipient details as prompted. 4. Recipient details are dependent on the destination counties’ regulations and will therefore vary and will be determined by the MTO. 5. Summary page will open with the following fields before finally authorize the transaction using their PIN: 6. Amount to deducted: AED xxxx 7. Amount to be received: {destination currency} XXXX 8. Exchange rate: AED 1 = {destination currency} xxxx 9. Fee: AED xxxx 10. VAT: AED xxxx 11. Fee on receiver: {destination currency} XXXX – Optional based on availability from MTO 12. Tax on receiver: {destination currency} XXXX – Optional based on availability from MTO 13. Destination country: {country name} 14. Service: {Product name} 15. Customer will enter the PIN and on successful authorization success screen will be shown. 16. Success screen will the following information:   **For OTC**   1. Success notification 2. eWallet transaction ID 3. MTO Transaction ID 4. Share option   **For send to bank & send to wallet**   1. Success notification 2. eWallet transaction ID 3. Share option 4. System should send SMS and email to customer as per provided text in the SMS/email section. 5. eWallet should perform the limits and threshold checks as already implemented. |  |  |  |
| **BRD8** | **Preferential MTO Consumer no Opt Out:**  The customer journey for this group will be as follows:   1. Customer logs into the App and selects Transfers, then International Money Transfers 2. Customer will be prompted to select destination country. All countries for all MTOs should displayed. 3. Customer will be presented with the available product types 4. If customer selects OTC they will have an additional selection of destination city (where available)    * 1. If customer selects send to bank they will be shown the list bank accounts supported by all available MTOs 5. If customer selects the send wallet, list of all supported wallet partners by all MTOs should be shown 6. Once product type is selected the customer will be prompted to enter the amount with the option to enter in AED or the destination currency 7. Customer will be presented with the exchange rate and the amount required to complete the transaction including fees and taxes. 8. Customer will be shown rate from the Preferential MTO by default 9. Customer will have to accept the rate shown. 10. Once accepted the customer will be required to accept terms & conditions plus the Fraud Warning. Fraud warning text should be displayed based on selected the MTO, exact text will be provided during the development. 11. Followed by entering the recipient details as prompted. 12. Recipient details are dependent on the destination counties’ regulations and will therefore vary and will be determined by the MTO. 13. Summary page will open with the following fields before finally authorize the transaction using their PIN:     * 1. Amount to deducted: AED xxxx       2. Amount to be received: {destination currency} XXXX       3. Exchange rate: AED 1 = {destination currency} xxxx       4. Fee: AED xxxx       5. VAT: AED xxxx       6. Fee on receiver: {destination currency} XXXX – Optional based on availability from MTO       7. Tax on receiver: {destination currency} XXXX – Optional based on availability from MTO       8. Destination country: {country name}       9. Product: {Product name} 14. Customer will enter the PIN and on successful authorization success screen will be shown. 15. Success screen will the following information:   **For OTC**   1. Success notification 2. eWallet transaction ID 3. MTO Transaction ID 4. Share option   **For send to bank & send to wallet**   1. Success notification 2. eWallet transaction ID 3. Share option 4. System should send SMS and email to customer as per provided text in the SMS/email section. 5. eWallet should perform the limits and threshold checks as already implemented. |  |  |  |
| **BRD9** | **IMT Hub MTO Partner Configuration for Routing Logic**  Only back office users with profile (“Sales BO L0”) users should access IMT Hub configurations   * 1. Each MTO will have to regularly share their complete payout network list; this list would include available cities and number of agents in the cities (for Over the Counter – OTC services).   2. DFS will need to have an interface to view and define the following in different tabs: **“MTO” tab** When user clicks on “MTO” tab, list of all MTOs should be visible. On clicking on each MTO, following fields to be shown with modify option:      + 1. **~~Fees to be charged to customer per corridor (country) - %age of transaction amount or fixed amount ( check the feasibility for this requirement with E//) only DFS Fee without MTO commission should be shown to customer.~~**        2. **~~MTO commission deducted from commission account and does not have relation to fees charged to customer~~**        3. DFS share of Forex Margin - %age **( just input to be used for routing logic**)        4. MTO share (commission from DFS) - %age **of transaction amount or fixed amount (configured on USP Hub)**        5. Transfer product available per corridor – List of products in drop down (Send to bank, send to wallet, Over the counter)        6. Transfer speed - Realtime or not-Realtime        7. List of countries – drop down list for all countries supported by particular MTO (to be used in app)        8. List of cites – Drop down list supported by particular MTO (to be used in app)        9. List of banks supported – Drop down list supported by particular MTO (to be used in app)        10. List of Wallet partner - Drop down list supported by particular MTO (to be used in app)        11. Number of agents in each city – Text field to put a number        12. Preferential MTOs with opt out option – Check box        13. Preferential MTOs without opt out option – Check box        14. MTO transaction ID label – Text field        15. ~~MTO logo – attachment. (Formats: JPEG, JPG, PNG, etc)~~ |  |  | The current IMT support portal will be extended to add new tab for IMT Hub configurations portal with a new login screen that will be accessible only for back office users with profile (“Sales BO L0”)  DFS Fees will not be configured on portal. It will be updated manually on EWP rating Engine, since there is no available APIs to update the Fees in EWP dynamically. Still DFS fees can be configured per country in EWP  SP partner commission account will be configured and pre-funded to be used for partner commissions  MTO commission will be triggered as a separate step and MTO commission will be deducted from SP partner commission account and credited to MTO commission account. Customer account will not be charged by MTO commission  DFS share of Forex Margin will be just an input for routing logic and will not used in any calculations related to transaction.  List of products, cities, bank names, and wallet names will be shared with DFS team for each MTO (MoneyGram, Western Union and Mastercard) and will be configured on portal to be used on the routing logic to filter/select MTO partner. |
| **BRD10** | **IMT Hub Customer Configuration for Routing Logic**  **“Consumer” tab**  There should be an option to enter MSISDN and following options should be visible:  **Single search**   1. MSISDN, attached with which preferential MTO (MTO name). 2. User should have the option to change or remove the preferential MTO 3. If MSISDN is not attached to any MTO then it should display the message. *“MSISDN is not attached to any MTO”* along with the option to attach an MTO. List of preferential MTOs should be shown and user should be able to select a preferential MTO.   **Bulk Search**   1. User should be able to extract the complete list in excel of MSISDNs and corresponding attached preferential MTOs 2. User should have an option to upload the file and system should update the data base accordingly. File format can be agreed during assessment stage.   If MTO is removed from the Preferential MTO database all the consumers in their list will automatically be removed from the Preferential MTO Consumer list. |  |  | The IMT Hub screens on IMT support portal should be only accessible to back office users who are assigned to profile “Sales BO L0” |
| **BRD11** | **IMT Hub Routing Logic**   1. When the consumer selects international remittance tab then app will show complete list of countries available from all MTOs regardless consumer is attached to any preferential MTO or no. 2. Display all products available to that country regardless of MTO 3. Routing logic will kick in once consumer selects Product (and destination city if OTC is selected as product). 4. Once Product is selected another filter will remove MTOs that do not offer that product 5. For OTC product, MTOs don’t supports that selected city should be filtered out 6. For bank, MTOs don’t supports that selected bank should be filtered out. 7. For send to wallet, MTOs don’t supports that selected wallet should be filtered out 8. Routing logic will kick in once consumer selects bank, city or wallet provider within the Product. 9. Customer MSISDN will be checked against the customer categories defined above. 10. When customer is not part of “**Preferential MTOs without opt out option**” then best rates will be presented using the below criteria: 11. Best exchange rate; best means the maximum amount in the destination currency compared to 1 AED. 12. If exchange rate is the same; lowest commission charged to DFS 13. If exchange rate and commission are the same; MTO with higher forex margin should be selected. Higher percentage value to be given priority. 14. Check Transfer speed - Realtime or not-Realtime, Realtime transfers will be given preference 15. If all factors are identical; MTOs will be selected sequentially one after the other in the order of first MTO on boarded |  |  |  |
| **BRD12** | **SMS/email text**  Dear customer, your transaction has been successfully processed. Country: PAKISTAN, Currency: PAKISTAN RUPEE, Product: Send to Bank, Amount to be deducted (AED): 4454.3, Amount to be received: PAKISTAN RUPEE: 200000, Transaction Fee (AED): 10.0, VAT (AED): 0.5, eWallet Transaction ID: 3258703, {Partner name} {partner transaction Id label}: 76104716. Please contact 800eWallet if you haven’t initiated this transaction. Thank you, eWallet team |  |  |  |
| **BRD13** | **Confirmation screen change**    Text needs to be updated as mentioned above in the customer journey section.  Share should be as follows:   1. Transaction Date and time: 2. Receiver name: 3. Amount to be received (Destination currency): 4. Product: 5. eWallet transaction ID: 6. {Partner name} {partner transaction Id label}: |  |  |  |
| **BRD14** | **Reporting requirements**  Attached is the new reporting requirement which should be developed as part of this project. This report will be developed with BI    Below report should remain the same but it should contain total number of transactions done by all MTOs  <https://eimcognos.etisalat.corp.ae/ibmcognos/bi/?pathRef=.public_folders%2FCognos+-+New+Environment%2FA+-+Marketing%E2%80%AC%2FProduction%2F6.+Projects%2FInternational+Money+Remittance%2FFailure+And+Sucess+Rate&format=HTML&Download=false&prompt=true>  Below both report should be discontinued:  1. <https://eimcognos.etisalat.corp.ae/ibmcognos/bi/?pathRef=.public_folders%2FCognos+-+New+Environment%2FA+-+Marketing%E2%80%AC%2FProduction%2F6.+Projects%2FInternational+Money+Remittance%2FSummary+of+Transaction&format=HTML&Download=false&prompt=true>  2. <https://eimcognos.etisalat.corp.ae/ibmcognos/bi/?pathRef=.public_folders%2FCognos+-+New+Environment%2FA+-+Marketing%E2%80%AC%2FProduction%2F6.+Projects%2FInternational+Money+Remittance%2FType+Of+Transactions&format=HTML&Download=false&prompt=true> |  |  | Reporting requirements is included in SDD as a second drop and will be implemented with the IMT Hub project plan. |
| **BRD15** | **Transaction history details**    “MoneyGram Reference No” will be updated as per {Partner name} {partner transaction Id label}. |  |  |  |
| **BRD16** | **Enhancement in support portal**  Support portal to updated in a way to accommodate searching the transaction status and the reversing the transaction. Similar to current setup that search should work with EWP transaction ID as well MTO’s transactions ID. Refund transaction should also work similar to the current baseline we have established for MG.  Review status for western union and mastercard. Hence Reversal on IMT support portal need to be revised on IMT support |  |  | Western Union and Mastercard customer care support portals will be used to launch IMT Hub early since the required enhancement to support portal will take long time to develop and will delay the launch of IMT Hub.  Enhancement requirement in support portal will be excluded from the IMT Hub scope and will be assessed and implemented in a second drop. |
|  | **Initiate IMT transaction from Saved Beneficiary and Re-send IMT Transaction from History** |  |  | The customer journey to initiate IMT transaction from saved beneficiary and resend IMT transaction from transaction history will be changed on follows:   1. Mobile app will Call USP Hub getIMTProvider API first before showing the screen to perform routing logic to check and return MTO provider that provides a better rate than the saved beneficiary MTO provider (if applicable) 2. If another MTO provider with better rate is returned other than the one saved then, the mobile app will display a warning message to customer that there is a better rate available and ask the customer to confirm if he wish to use the better rate MTO. The actual message and change on VD will be provided by design team 3. If customer confirm to use the better rate MTO provider then mobile app will send service provider Id returned from getIMTProvider to quotation API . Then the customer will go through the rest of the flow and enter the receiver details. In this case save beneficiary will be enabled on mobile app screen. If user select to save beneficiary then the saved beneficiary details will be overridden by new beneficiary details 4. If the customer did not confirm on using the better rate MTO and continue then the mobile app will use the saved beneficiary and current flow will remain the same on the mobile app where mobile app will continue with selected beneficiary Id. |

This section demonstrates solution overview in terms of architecture and integration details.

## Solution Architecture Overview

Below is the overview for mWallet platform integration with various internal and external systems.

|  |  |  |  |
| --- | --- | --- | --- |
| **System** | **Functionality** | **Owner** | **In-house** |
| EWP | Ericsson Wallet Platform is out of the box mobile wallet platform that shall handle all mobile money financial transaction. This shall be the central platform, which shall hold consumer and partner wallet accounts and financial details.  Ericsson Wallet Platform is consists of following different modules:   * Mobile Money Manager (M3) * Access Module (AM) * Security Module (HSM) * Core Database * Syslog * Reporting Data Service (RDS) * CC Portal * Admin GUI | E// | E// |
| mWallet Consumer mobile App | mWallet Consumer mobile App (iOS and Android) shall be developed in-house by Etisalat. This app shall be used by mWallet customers to perform various self-service operations and transactions like below:   * Registration * Cash-in * Cash-out * Payments * Transfers * Transaction Inquiry * PIN Management   For complete list of features, please refer mWallet Mobile App section. | Etisalat | in-house |
| Partner Portal (Agent and Merchant) | Partner Portal shall be an interface for mWallet Partners i.e. for Agents, Merchants and Service providers to perform following operations:   * Registration * Cash-in * Cash-out * Payments * Transfers * Transaction Inquiry * PIN Management   For complete list of features, please refer Partner Portal section. | Etisalat | in-house |
| Bank | Noor Bank shall be financial switch that shall be an interface to mWallet platform for performing following:   * Core banking transactions, * anti-money laundering checks and * re-conciliations/settlement | Noor Bank | Noor Bank |
| EPG | Etisalat Payment Gateway shall be responsible for performing all credit card transactions initiated from mWallet platform. | Etisalat | in-house |
| Unified Service Provider Hub | Unified Service Provider Hub (easyPay) shall be an interface between mWallet platform and third party billers and service providers including Etisalat. | Etisalat | in-house |
| Unified Layer | Unified Layer shall be a layer on top of E// mWallet platform. This layer shall provide access to all EWP APIs required for consumer mobile app and partner portals. | Etisalat | Vendor Based |
| ESB | Enterprise Service Bus shall extend mWallet interfaces to third party systems (partners) over internet. | Etisalat | Vendor Based |
| mKYC SDK | This module shall be built in house to perform mobile KYC actions on mWallet consumer mobile app i.e. to scan front and back of customer emirates ID, take selfie of customer and verify customer selfie photo against the photo on the scanned Emirates ID. | Etisalat | in-house |
| Smiles | Smiles is loyalty platform of Etisalat where Etisalat customers are rewarded for using Etisalat services and customers can redeem their reward points to purchase any Etisalat or Third party services. This platform shall be extended to perform following transactions from mWallet platform:   * To inquire membership details * To reward points * To redeem points | Etisalat | Vendor Based |
| EDMS | EDMS is an existing Etisalat document management system that shall be used to store all customer and partner identity documents. | Etisalat | Vendor Based |
| EPM/SSK | Etisalat Electronic Payment Machines and Self-Service Kiosks shall be enabled for following transactions by mWallet customers:   * To cash-in mWallet and * To use mWallet as payment method to pay for Etisalat and third party services. | Etisalat | Vendor Based |
| Win cash | Win cash is Etisalat’s point of sale (PoS) system that is used across its retail stores by cashiers and agents to accept payments from customers. This system shall be enabled for following transactions by mWallet customers:   * To cash-in mWallet and * To use mWallet as payment method to pay for Etisalat services. | Etisalat | Vendor Based |
| CIM | CIM is Customer Interaction Management system used by Etisalat’s back-office team for customer inquiries and complaint management. This system shall be enhanced to handle complaints from mWallet customers. | Etisalat | in-house |
| AIC | Etisalat uses Avaya Interaction Center for managing customer inquiries/complaints via various channels like email and chat. This system shall be enhanced to enable mWallet consumer mobile app to implement chat functionality to interact with back-office team. | Etisalat | Vendor Based |
| SMSC | SMS Center access shall be provided to mWallet platform to send SMS notifications to the mWallet customers from a dedicated short code like OTPs, transaction notifications etc. | Etisalat | Vendor Based |
| SMTP | SMTP access shall be provided to mWallet platform to send email notifications to the mWallet customers from a dedicated email address like OTPs, transaction notifications etc. | Etisalat | Vendor Based |
| EIDA SDK | EIDA SDK shall be used to read customer information from Emirates ID card from the agent portals. | Etisalat | Vendor Based |
| Card Readers | Card Readers shall be used to read/retrieve customer information from Emirates ID electronically. | Etisalat | Vendor Based |
| CRM GW | CRM GW is an interface to Etisalat’s CRM. This interface shall be extended to mWallet platform to check if the customer registering to mWallet service is an Etisalat customer or no. | Etisalat | in-house |
| WRRS | WRRS is Web Based Reconciliation and Reporting System which shall be enhanced to reconcile transactions between Etisalat Payment Gateway, mWallet Platform and Etisalat channels Win Cash and EPM/SSK). | Etisalat | in-house |
| IVR | Set-up new 800 IVR call flow for mWallet consumer/partner and agent support. | Etisalat | Vendor Based |
| UCMS/ URMS | Enable Etisalat complaint and request management systems (UCMS/URMS) to create complaints/requests against wallet accounts (consumer, partners and agents). | Etisalat | Vendor Based |
| IN/CS | Etisalat Online Charging System shall whitelist mobile data access tariff to zero rate and it will be integrated with mWallet platform to perform top-up transactions on Etisalat mobile accounts. | Etisalat | Vendor Based |
| ECE/ ENE | ECE (Ericson Composition Engine) shall be an interface to register/de-register mWallet customer for recharge monitoring in ENE (Ericsson Notification Engine). | Etisalat | Vendor Based |
| DWH/BI | Etisalat Data Warehouse and Reporting system shall be enhanced to report Mobile data usage for accessing mWallet Consumer Mobile App. | Etisalat | Vendor Based |
| NTP Server | **Network Time Protocol** (**NTP**) is a protocol used to synchronize network time with E// Wallet Platform. | TBD | TBD |
| ODM | Oracle rule engine to configure and manage the business rules for rewards for wallet transactions. | Etisalat | Vendor Based |
| PSP | Payment Service Provider shall be responsible to process external payment instruments like Credit Card, Debit Card, Loyalty accounts. | Etisalat | In-house |

### 2.10.1 Solution Overview Diagrams

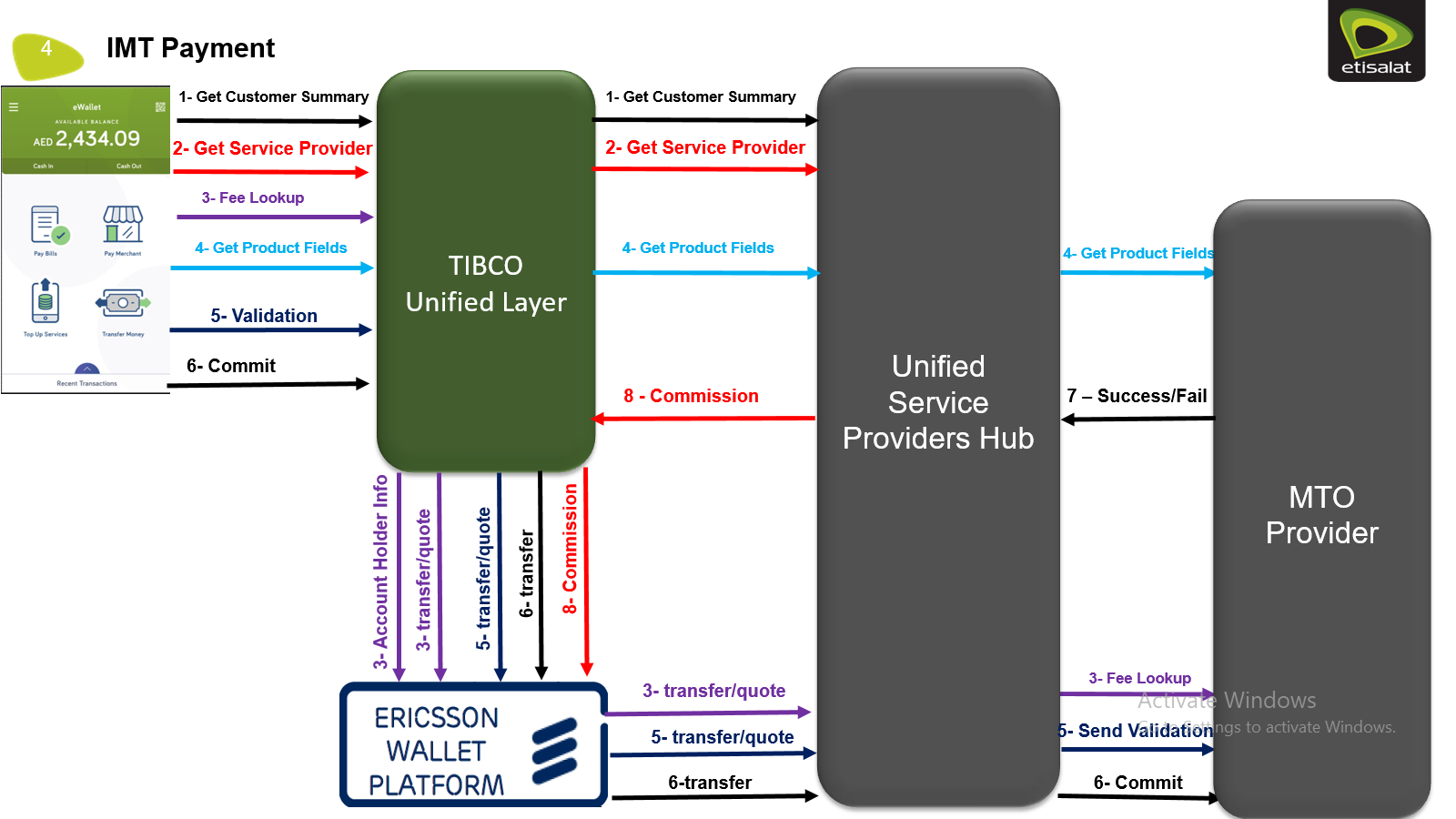
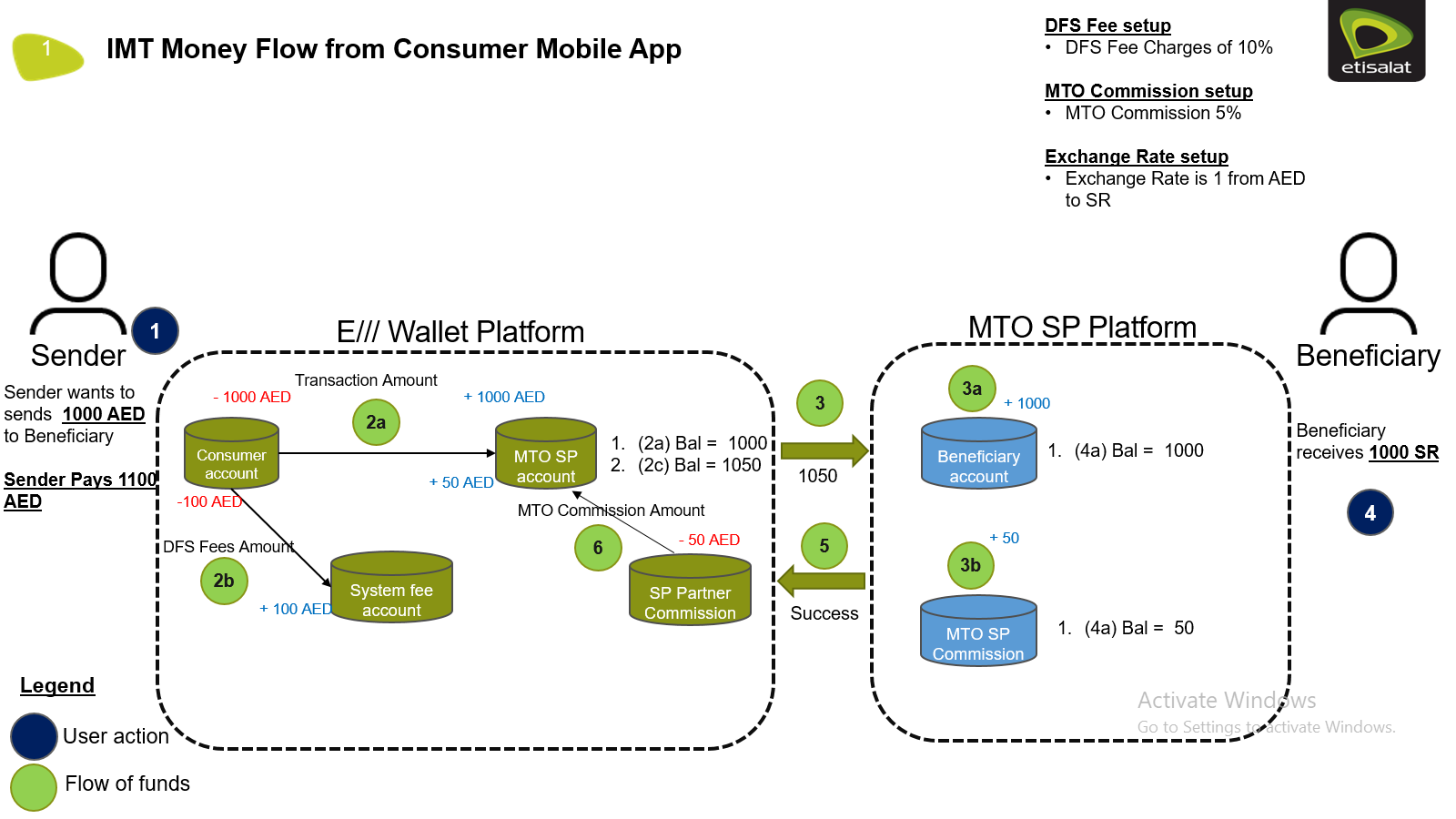


Diagram 3: mWallet Overview



### IMT Money Flow



### 2.10.1 Integration Matrix

The current version of APIs used for IMT solution will remain since it is used by other channels/apps such as GoChat. Hence, new version of IMT APIs (similar to existing APIs with some modifications on request/response that will be decided during the design phase) will be introduced for IMT Hub to be used by eWallet consumer mobile app without having any impact on other apps currently integrating with IMT existing APIs.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Source** | **MW** | **Dest.** | **Integration Description** | **Interface / API Name** | **Existing/ New** | **Modifications** |
| Consumer mobile App | TIBCO | USP Hub | Retrieve IMT code tables (countries, states, currencies, delivery options, and other important information required to perform money remittance transactions) | codeTable | New Version | Fetch code tables for all MTO partners (MG, Western Union, and Mastcard) and IMT Hub configured cities, bank names and mobile wallet names. |
| Consumer mobile App | TIBCO | USP Hub | Retrieve customer main page details (countries with delivery options and currencies, IMT transactions history and saved beneficiary list). | getCustomerSummary | New Version | Extension parameter will be updated |
| Consumer mobile App | TIBCO | USP Hub | Get IMT Provider: Return MTO provider details that will be used in quotation call to get the exchange rate for the customer based on the customer type Provider | getIMTProvider | New | 1. When the consumer selects international remittance tab then app will show complete list of countries available from all MTOs regardless consumer is attached to any preferential MTO or no. 2. Display all products available to that country regardless of MTO 3. Once consumer selects Product, destination city (if OTC is selected as product) or Bank name (if Bank deposit is selected as product) or wallet name (Mobile Wallet is selected as product) then the mobile app should call getIMTProvider API 4. Customer MSISDN, destination country, selected product, selected currency, city , bank name , wallet name should be sent on the extension parameter of the getIMTProviderAPI request to perform the routing logic 5. If the customer type is preferential with opt out option, then the response will contain the service provider details for the preferential MTO linked to the customer as well as the service provider details for the eWallet best rate logic (if applicable) |
| Consumer mobile App | TIBCO | EWP | Inquire the initial remittance fees and exchange rate | feeLookup | New Version | Send IMT provider Id and receiving country on the request header  Extension parameter will be updated |
| Consumer mobile App | TIBCO | USP Hub | Fetch the fields required to submit remittance transaction | getFieldsForProduct | New Version | Extension parameter will be updated |
| Consumer mobile App | TIBCO | EWP | Send Validation to validate money remittance transaction and get final remittance fees and exchange rate | quotation | New Version | Send provider Id and receiving country on the request header  Extension parameter will be updated |
| Consumer mobile App | TIBCO | EWP | Commit Transaction to commit money remittance transaction and get final remittance fees and exchange rate | transfer | New Version | Extension parameter will be updated |
| Consumer mobile App | TIBCO | USP Hub | to inquire money remittance transaction status / details | remittanceStatusInquiry | New Version | Extension parameter will be updated |
| Consumer mobile App | TIBCO | USP Hub | Get Beneficiary List to Retrieve list of saved beneficiaries | getBeneficiaryList | New Version | Extension parameter will be updated |
| Consumer mobile App | TIBCO | USP Hub | Delete saved beneficiary | deleteBeneficiary | New Version | Extension parameter will be updated |

# Impacted Systems

## Consumer Mobile App

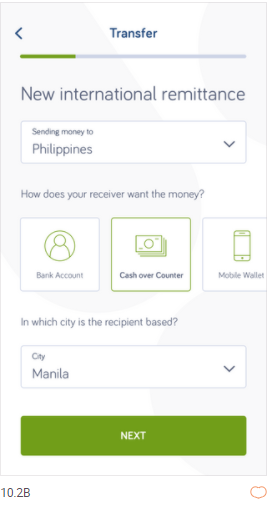
* **Integration API Matrix**

New version of IMT APIs (similar to existing APIs with some modifications on request/response that will be decided during the design phase) will be introduced for IMT Hub to be used by eWallet consumer mobile app,

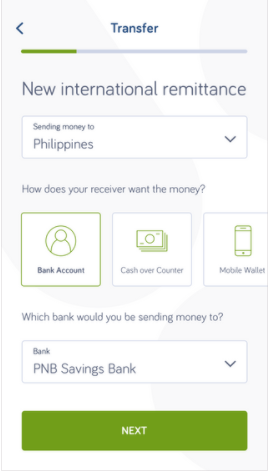
Following is consumer Mobile app APIs that will be used for IMT Remittance Hub:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Source** | **MW** | **Dest.** | **Integration Description** | **Interface / API Name** | **Exiting/ New** | **Modifications** |
| Consumer mobile App | TIBCO | USP Hub | Retrieve IMT code tables (countries, states, currencies, delivery options, and other important information required to perform money remittance transactions) | codeTable | New | Fetch code tables for all MTO partners (MG, Western Union, and Mastcard) and IMT Hub configured cities, bank names and mobile wallet names. |
| Consumer mobile App | TIBCO | USP Hub | Retrieve customer main page details (countries with delivery options and currencies, IMT transactions history and saved beneficiary list). | getCustomerSummary | New | Retrieve customer main page details for all MTOs |
| Consumer mobile App | TIBCO | USP Hub | Get IMT Provider: Return MTO provider details that will be used in quotation call to get the exchange rate for the customer based on the customer type Provider | getIMTProvider | New | 1. Customer MSISDN, destination country, selected product, selected currency, city , bank name , wallet name should sent on the extension parameter of the request to perform the routing logic 2. If the customer type is preferential with opt out option, then the response will contain the service provider details for the preferential MTO linked to the customer as well as the service provider details for the eWallet best rate logic (if applicable) |
| Consumer mobile App | TIBCO | EWP | Inquire the initial remittance fees and exchange rate | feeLookup | New | Send provider Id and receiving country on the request header  Extension parameter will be updated |
| Consumer mobile App | TIBCO | USP Hub | Fetch the fields required to submit remittance transaction | getFieldsForProduct | New | Fetch the fields required for all MTOs |
| Consumer mobile App | TIBCO | EWP | Send Validation to validate money remittance transaction and get final remittance fees and exchange rate | quotation | New | Send provider Id and receiving country on the request header  Extension parameter will be updated |
| Consumer mobile App | TIBCO | EWP | Commit Transaction to commit money remittance transaction and get final remittance fees and exchange rate | transfer | New | Extension parameter will be updated |
| Consumer mobile App | TIBCO | USP Hub | to inquire money remittance transaction status / details | remittanceStatusInquiry | New | inquire money remittance transaction status / details for all MTOs |
| Consumer mobile App | TIBCO | USP Hub | Get Beneficiary List to Retrieve list of saved beneficiaries | getBeneficiaryList | New | Get Beneficiary List to Retrieve list of saved beneficiaries for all MTOs |
| Consumer mobile App | TIBCO | USP Hub | Delete saved beneficiary | deleteBeneficiary | New |  |

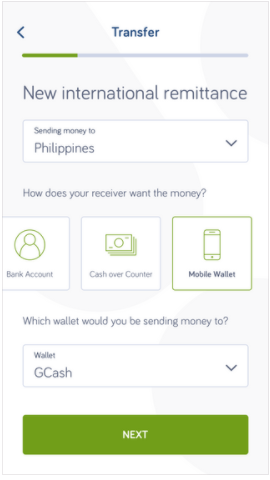
* **If “Cash over Counter” product is selected by consumer then the city list should be displayed to consumer to select the city**



* **If “Bank Account” product is selected by consumer then the bank names list should be displayed to consumer to select the city**



* **If “Mobile Wallet” product is selected by consumer then the Wallet names list should be displayed to consumer to select the city**



# 

* **Get IMT Provider using IMT Hub Routing Logic**

1. Once consumer selects Product, destination city (if OTC is selected as product) or Bank name (if Bank deposit is selected as product) or wallet name (Mobile Wallet is selected as product) then the mobile app should call getIMTProvider API
2. Customer MSISDN, destination country, selected product, selected currency, city , bank name , wallet name should be sent on the extension parameter of the getIMTProviderAPI request to perform the routing logic
3. If the customer type is preferential with opt out option, then the response will contain the service provider details for the preferential MTO linked to the customer as well as the service provider details for the eWallet best rate logic (if applicable). Hence the customer can switch between the two providers, otherwise the response will contain the service provider details for eWallet best rate logic (if applicable) only. The service provider Id returned on the response will be used for calling initial fee Lockup and final quotation APIs.

* **Change to display initial exchange rate “quotation” screen**

The customer journey will be similar for all Consumer types. The key difference will be managed seamlessly by the IMT Hub backend and will be largely transparent to the Consumer. Some subtle difference will be only visible to those consumers that fall under the category ‘Preferential MTO with Opt Out option’. For these they would have the option to switch between their Preferential MTO’s rate and the best rate offer available in eWallet platform.

Following is the key difference on consumer journey and screens design based on the consumer type:

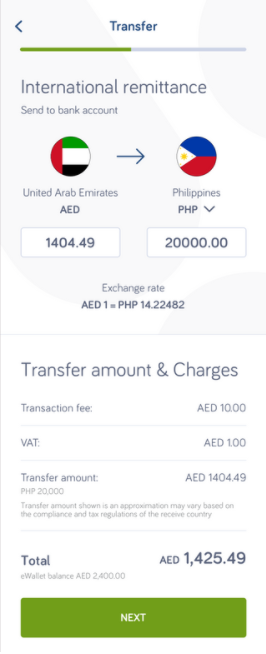
1. **Standard Consumer:**

In this case the IMT Hub will present to consumer the eWallet rate only (according to IMT Hub best rate selection algorithm/logic) and the consumer will not have the option to see MTO names or switch to other MTO rates.

|  |
| --- |
|  |

1. **Preferential MTO Consumer with no Opt Out:**

In this case only the rate for Preferential MTO attached to consumer will be presented and the consumer will not have the option to see MTO names or switch to other MTO rates.



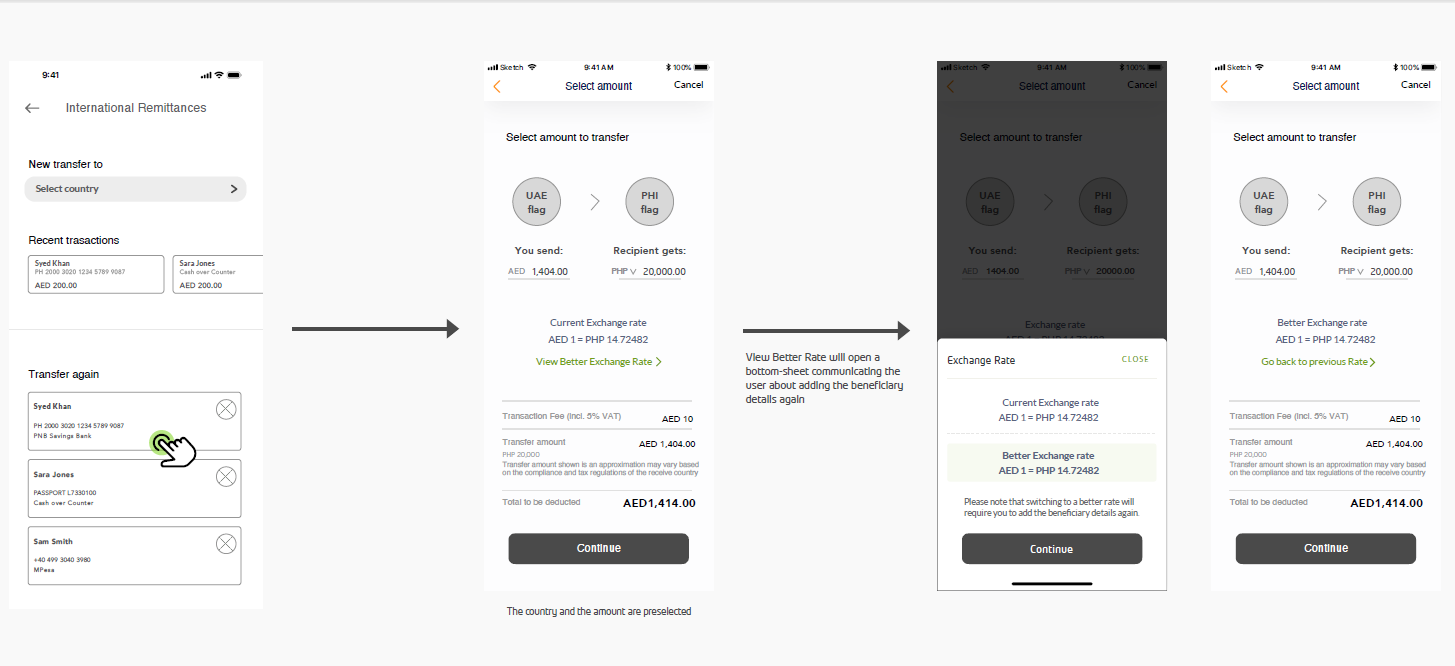
1. **Preferential MTO Consumer with Opt Out:**

In this case the preferential MTO’s name and rate attached to consumer will be presented and the consumer will have the option to switch to the eWallet rate (provided to standard consumer).

The consumer will have the option to switch between their Preferential MTO’s rate and the best rate offer available in eWallet platform as shown on below screens,

|  |  |
| --- | --- |
|  |  |

* **Initiate IMT transaction from Saved Beneficiary and Re-send IMT Transaction History**

****

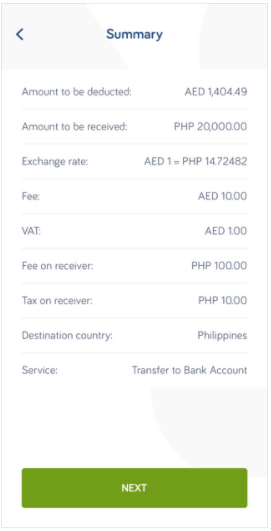
The customer journey to initiate IMT transaction from saved beneficiary and resend IMT transaction from transaction history will be changed on mobile app as follows:

1. Mobile app will Call USP Hub getIMTProvider API first before showing the screen to perform routing logic to check and return MTO provider that provides a better rate than the saved beneficiary MTO provider (if applicable)
2. If another MTO provider with better rate is returned other than the one saved with beneficiary then, the mobile app will display a warning message to customer that there is a better rate available and ask the customer to confirm if he wish to use the better rate MTO. The actual message and change on VD will be provided by design team
3. If customer confirm to use the better rate MTO provider then mobile app will send service provider Id returned from getIMTProvider to quotation API . Then the customer will go through the rest of the flow and enter the receiver details. In this case save beneficiary checkbox will be enabled on mobile app screen. If user select to save beneficiary then the saved beneficiary details will be overridden by new beneficiary details. Hence only the last saved beneficiary will be only saved on USP Hub and displayed on the mobile.
4. If the customer did not confirm on using the better rate MTO and continue then the mobile app will use the saved beneficiary and current flow will remain the same on the mobile app where mobile app will continue with selected beneficiary Id.

* **Display Fraud Warning and Terms & Conditions Messages for each MTO Partner**

The mobile app should display different fraud warning and terms & conditions messages for each MTO partner (MoneyGram, Western Union and Mastercard). Business team will provide the actual text messages for Western Union and Mastercard.

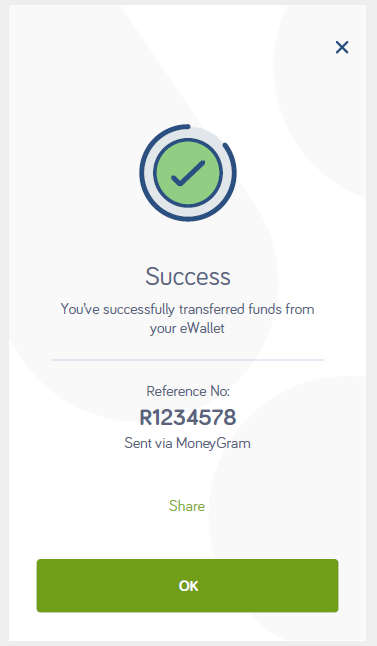
* **Summary screen change**

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Summary page will open with the following fields before finally authorize the transaction using their PIN:

1. Amount to deducted: AED xxxx
2. Amount to be received: {destination currency} XXXX
3. Exchange rate: AED 1 = {destination currency} xxxx
4. Fee: AED xxxx
5. VAT: AED xxxx
6. Fee on receiver: {destination currency} XXXX – Optional based on availability from MTO
7. Tax on receiver: {destination currency} XXXX – Optional based on availability from MTO
8. Destination country: {country name}
9. Product: {Product name}

* **Confirmation screen change**

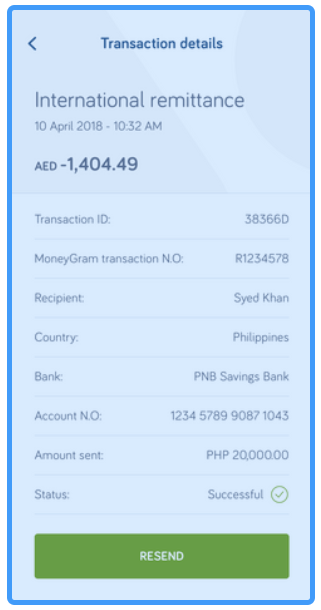


Text needs to be updated as mentioned above in the customer journey section.

Share should be as follows:

1. Transaction Date and time:
2. Receiver name:
3. Amount to be received (Destination currency):
4. Product:
5. eWallet transaction ID:
6. {Partner name} {partner transaction Id label}:

* **Transaction history details**



“MoneyGram Reference No” will be updated as per {Partner name} {partner transaction Id label}.

## TIBCO

* **Integration API Matrix**

1.       USPH will continue existing interfaces to avoid impact on GoChat APP.

2.     New version of api will be applicable for subject project.

3.    After receiving new version document from USPH, TIBCO will decide whether existing version will continue with back end modification or new version of api will be provided. This will be decided during srs phase.

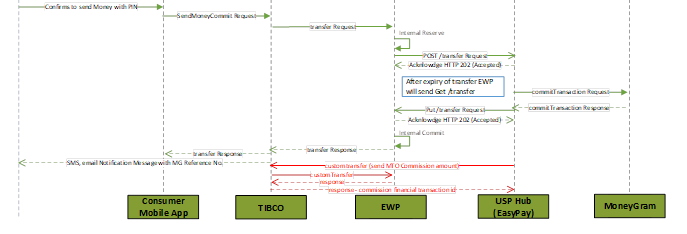
4.   There is no requirement GoChat to migrate to new IMT flow, so Gochat will continue using existing tibco interfaces.

Following is TIBCO APIs that will be used for IMT Remittance Hub

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Source** | **MW** | **Dest.** | **Integration Description** | **Interface / API Name** | **Existing/ New** | **Modifications** |
| Consumer mobile App | TIBCO | USP Hub | Retrieve IMT code tables (countries, states, currencies, delivery options, and other important information required to perform money remittance transactions) | codeTable | New Version | Fetch code tables for all MTO partners (MG, Western Union, and Mastcard) and IMT Hub configured cities, bank names and mobile wallet names. |
| Consumer mobile App | TIBCO | USP Hub | Retrieve customer main page details (countries with delivery options and currencies, IMT transactions history and saved beneficiary list). | getCustomerSummary | New Version | Retrieve customer main page details for all MTOs MG, Western Union, and Mastcard) |
| Consumer mobile App | TIBCO | USP Hub | Get IMT Provider: Return MTO provider details that will be used in quotation call to get the exchange rate for the customer based on the customer type Provider | getIMTProvider | New | 1. Customer MSISDN, destination country, selected product, selected currency, city , bank name , wallet name should sent on the extension parameter of the request to perform the routing logic 2. If the customer type is preferential with opt out option, then the response will contain the service provider details for the preferential MTO linked to the customer as well as the service provider details for the eWallet best rate logic (if applicable) |
| Consumer mobile App | TIBCO | EWP | Inquire the initial remittance fees and exchange rate | feeLookup | New Version | Send provider Id and receiving country on the request header  Extension parameter will be updated |
| Consumer mobile App | TIBCO | USP Hub | Fetch the fields required to submit remittance transaction | getFieldsForProduct | New Version | Fetch the fields required for all MTOs (MG, Western Union, and Mastcard) |
| Consumer mobile App | TIBCO | EWP | Send Validation to validate money remittance transaction and get final remittance fees and exchange rate | Quotation | New Version | Send provider Id and receiving country on the request header  Extension parameter will be updated |
| Consumer mobile App | TIBCO | EWP | Commit Transaction to commit money remittance transaction and get final remittance fees and exchange rate | Transfer | New Version | Extension parameter will be updated |
| USP Hub | TIBCO | EWP | Deduct MTO commission from SP commission account and credit MTO account | customTransfer | Existing  (Should be implemented on Merchant Tax Invoice-Phase2 project scope) |  |
| Consumer mobile App | TIBCO | USP Hub | to inquire money remittance transaction status / details | remittanceStatusInquiry | New Version | Inquire money remittance transaction status / details for all MTOs ( MG, Western Union, and Mastcard) |
| Consumer mobile App | TIBCO | USP Hub | Get Beneficiary List to Retrieve list of saved beneficiaries | getBeneficiaryList | New Version | Get Beneficiary List to Retrieve list of saved beneficiaries for all MTOs ( MG, Western Union, and Mastcard) |
| Consumer mobile App | TIBCO | USP Hub | Delete saved beneficiary | deleteBeneficiary | New Version |  |

* Whitelisting for all above mobile app initiated APIs to consumer mobile app context

**IMT Hub MTO Commission**

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* Whitelisting for customTransfer API to USP Hub context to be accessed by USP Hub admin user credentials
* **Notification SMS and email Text**

TIBCO to configure the below notification message on the notification framework to be sent to the customer over SMS and email:

Dear customer, your transaction has been successfully processed. Country: PAKISTAN, Currency: PAKISTAN RUPEE, Product: Send to Bank, Amount to be deducted (AED): 4454.3, Amount to be received: PAKISTAN RUPEE: 200000, Transaction Fee (AED): 10.0, VAT (AED): 0.5, eWallet Transaction ID: 3258703, {Partner name} {partner transaction Id label}: 76104716. Please contact 800eWallet if you haven’t initiated this transaction. Thank you, eWallet team

## USP IMT Hub

**IMT Hub New Partners Integration APIs:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| # | Step Name | Description | Western Union API | Master Card API |
| 1 | Select Destination Country | Retrieve a list of all countries supported by IMT Hub for all MTO partners | GetDestinationCountries API | Get Countries (Service: GET api/catalogs/ countries) |
| 2 | Select Product | Retrieve a list of all products supported by IMT Hub for all MTO partners | GetDeliveryServices API  Notes:   * Destination country and currency are mandatory fields for GetDeliveryServices API. Hence Etisalat have to call GetCountriesCurrencies to get all destination currencies and then call getDeliveryServices for each destination currency * Note: for Western Union product codes for all countries are the same except for Mexico the supported products for WU will be 500 DIRECT TO BANK , 000 Cash Pickup, 800 for Mobile Wallet. Hence, Etisalat shall exclude and not offer OTC to Mexico until WU fixe the product code for Mexico to be the same as the rest of the countries. | Get Payment Modes (Service: GET api/catalogs/ payment modes) ,  Notes:   * Country is mandatory parameter * City will be optional parameter * Etisalat IMT Hub will support only the “Cash Pickup”. All other products will be excluded from the current scope. “Bank deposit” and “Mobile Cash” will be assessed after completing get Required Fields API, “M-PESA”, “B-Cash” will be excluded until Mastercard consolidated it under “Mobile Cash”. |
| 3 | Select City for Cash Pickup Product | Retrieve a list of all cities supported by IMT Hub for all MTO partners | * City list will be retrieved from the IMT Hub configurations * No API to get to get the state and cities for all countries except for Mexico and USA there are available APIs to get state and cities getMexicoCityStateList and getStateList * There is only one transaction fee for US, we can provide a fixed/default city for the purpose of fee inquiry and whereas the customer will provide the actual city at time of entering the receiver details. | * City list will be retrieved from the IMT Hub configurations * Get Cities (Service: GET api/catalogs/ cities) |
| 4 | Select Destination Currency | Retrieve a list of all selected country currencies supported by IMT Hub for all MTO partners | GetDestinationCurrencies API | Get Receive Currencies (Service: GET api/transaction/receivercurrencies  Description: Retrieve a list of destination currencies for a given country.) |
| 5 | Initial Fee Lookup | Retrieve the service fee, exchange rate and total amount of the transaction | FeeInquiry  Notes:   1. Etisalat should set the transaction type to “WMN" since source currency will be always sent to WU in “AED”, "WMF" is used when using destination currency.      1. ​It was agreed in the contract with WU that Etisalat will be displaying the exchange rate as received from WU; WU will incorporate the DFS FX-margins into the exchange rate with instructions from DFS. | Calculator (Service: GET api/transaction/transactioninfo  Description: Retrieve the service fee, exchange rate and total amount of the transaction that will be created. This is useful to get the amount values before committing to the creation of the transaction.) |
| 6 | Get Receiver Details | retrieve the meta data for the dynamic parameters required for receiver details | GetDeliveryservice API to get template ID then call GetDeliveryOptionTemplate API to get receiver fields dynamically  Note: regular expression for the receiver fields are not implemented and not returned on the API response. Hence validations on the data entered on the receiver fields cannot be validated on eWallet consumer mobile App. | * Etisalat IMT Hub will support only the “Cash Pickup”. All other products will be excluded from the current scope. “Bank deposit” and “Mobile Cash” will be assessed after completing Get Required Fields API. Hence the provided receiver required fields for “Cash Pickup” product only will be maintained at IMT Hub. Following is the list of the receiver required fields for Cash Pickup:   + First Name   + Last Name   + Phone number   + Nationality * Get Required Fields (Service: GET api/requiredfields/postinvoice) This API is still under development and it returns the required fields names only and will be enhanced to return the metadata (Max length, validations, valid values, etc.) for the dynamic parameters required for receiver details. |
| 7 | Get Sender /Compliance Details | retrieve the meta data for the dynamic parameters required for the sender compliance details based on selected country, product, etc. | * No API. Static List for sender required fields are provided on compliance data sheet * Following is the list of the sender required fields:   + Sender’s first name   + Sender’s last name   + Sender’s address (building number and street name)   + Sender’s City   + Sender’s Country (UAE)   + Sender’s Phone number   + Sender’s Date of birth   + Sender’s ID type   + Sender’s ID number   + Sender’s ID issuing country. * Wallet account information is required in addition to KYC and includes:   + Partner name (Etisalat)   + Unique Wallet Account number/Mobile number. | * No API. Static List for compliance parameters are provided on compliance data sheet * Following is the list of the sender required fields:   + First Name   + Last Name   + Address (string [60]) = “DUBAI”   + City = “90047”   + Country (SenderCountryIsoCode: Sting[5])   + Phone number (string [15])   + ID Type (string [2])   + ID# (string [15])   + ID Expiry (Date Time)   + DOB (Date Time)   + Nationality (SenderNationalityIsoCode: String[5]) * Following is the list of the compliance required fields for Cash Pickup:   + Mode of Payment   + Payout Currency   + Purpose of Remittance (string [60]) (provide valid values)   + Source of Fund (string [60]) (provide valid values) |
| 8 | Send Validation | Send validation request with IMT transaction details to partner | Send Money Validate API | Create Transaction (Service: POST api/transaction/invoice Description: Send a valid transaction to Transfast. The input will be validated, and the service will return corresponding response (reject or not) )  If there is no response received from Create transaction then we need to call Get Transaction By Reference Number (passing IMT Hub reference number) and check the status and based on the status if the transaction is not created then Create Transaction request will be send again |
| 9 | Commit / Store Transaction | Commit/Store IMT transaction details to partner | Send Money Store API  The following is the retry mechanize in case no response is received from API until timeout:   * ETISALAT can find status of transaction using Transaction Inquiry API by supplying last 10 digit of the temporary MTCN (temp\_transaction\_id) obtained from the send-money-validation-reply. * The transaction-inquiry-reply will show the status of the transaction which will help to determine if the MTCN created or not. * If MTCN created, the transaction-inquiry-reply will populate the transaction\_status as AVAILABLE. So no need to retry send-money-store-request(SMS). * In case, MTCN created but the beneficiary name not a match or incorrect (transaction-inquiry-reply will display error E0203 TRANSACTION DOES NOT EXIST OR ACCOUNT NOT VALID.) so no need to retry SMS instead correct the receiver name in transaction-inquiry to find the actual status as AVAILABLE. * In case, MTCN not created (transaction-inquiry-reply will display error U0186 - NO MATCH FOUND. REFINE INPUT PARAMETERS). Retry by submitting SMS again with same reference number. * In cases where the ETISALAT session locked or hung, the following procedures is recommended to inquire the status of the transaction and get a closure on the store: * Close the locked session or connection after waiting for 120 sec although most of the transactions (99.999%) are completing in 2 to 4 seconds. * Use the Transaction Inquiry Service to lookup the status of the store by supplying last 10 digit of the temporary MTCN. * If the initial SMS call was a failure.. this means WU is responding with some error message (Failure is not timeout or no response). There will be no MTCN and only error message which drive further action. If it’s a notification means transaction not possible due to limit, etc then it’s the end point. If it’s an error like missing valid ID Issuer, etc. then a retry with correct data is possible with same transaction ID, and Message Digest. * If two request coming consecutively: This is possible as WU may have not issued timeout (wu timeout is 120 seconds) however ETISALAT already attempted retry. WU system if notice the same details (customer, receiver, originating and destination currency, amount, transaction ID, compliance details, etc. then yes WU will issue a possible duplicate message as U9014 - POSSIBLE DUPLICATE RETRIEVE & EXAMINE. This means WU has already completed this transaction and a successful response provided to ETISALAT. It is very rare but possible that a final SMS successful response send by WU not reached to ETISALAT and ETISALAT attempted retry and got this duplicate message. ETISALAT should do transaction inquiry to check the transaction status. | Release Transaction API  Service: PUT api/transaction/release Description: Approve transaction given a TfPin (transaction number). Only approve transaction that is pending for approval. Approval right to the user is required.  If there is no response received from Release Transaction then we need to call Get Transaction By TFPIN (passing master card reference number) and check the status and based on the status if the transaction is not created then Release Transaction request will be retried again according to configured number of retries |
| 10 | Remittance Status Inquiry | Retrieve money remittance transaction status / details | Transaction Inquiry API | Get Transaction By TFPIN API  Service: GET api/transaction/bytfpin Description: Retrieve transaction details given a TfPin (transaction number). |

**IMT Hub Interface Exposed APIs**

The current version of APIs used for IMT solution will remain since it is used by other channels/apps such as GoChat. Hence, new version of IMT APIs (similar to existing APIs with some modifications on request/response that will be decided during the design phase) will be introduced for IMT Hub to be used by eWallet consumer mobile app without having any impact on other apps currently integrating with IMT existing APIs.

1.       USPH will continue existing interfaces to avoid impact on GoChat APP.

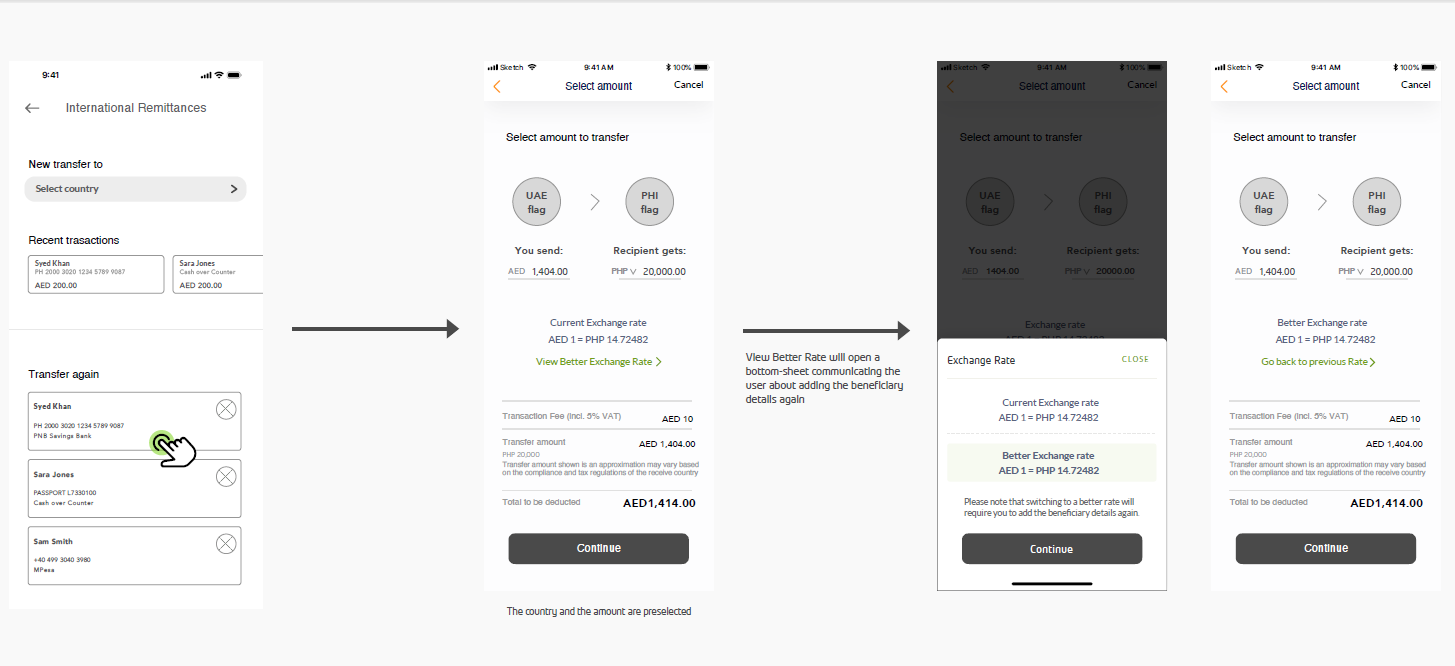
2.     New version of API will be applicable for subject project.

3.    After receiving new version document from USPH, TIBCO will decide whether existing version will continue with back end modification or new version of api will be provided. This will be decided during SRS phase.

4.   There is no requirement GoChat to migrate to new IMT flow, so Gochat will continue using existing TIBCO interfaces.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| # | API Name | Description | Existing/New | Modifications |
| 1 | CodeTable | Fetch list of the code tables’ data for all supported MTO partners (MoneyGram, Western Union, and Mastcard). The following data need to be fetched for each MTO provider:   1. List of countries allowed as remittance destination country for all MTO partners. 2. List of allowed receiving currencies for all MTO partners. 3. List of allowed delivery options for all MTO partners configured on IMT Hub. 4. List of state/provinces list for selected country for all MTO partners. 5. List of IMT Hub saved cities 6. List of IMT Hub saved bank names 7. List of IMT Hub saved wallet names | New Version | Fetch code tables for all MTO partners (MG, Western Union, and Mastcard) and IMT Hub configured cities, bank names and mobile wallet names. |
| 2 | Get Customer Summary | Retrieve customer main page details (countries with delivery options and currencies, IMT transactions history and saved beneficiary list). | New Version | Fetch customer main page details for all MTO partners (MG, Western Union, and Mastcard) and unify the response for all MTOs |
| 3 | Get Customer Provider | Perform IMT Hub routing logic and return MTO provider details (Id, Name, Category, etc.) that will be used in quotation call to get the exchange rate for the customer based on the customer type | New Version | 1. Customer MSISDN, destination country, selected product, selected currency, city , bank name , wallet name should sent on the extension parameter of the request to perform the routing logic 2. In case if IMT transaction is initiated from saved beneficiary/saved transaction, Beneficiary details will be optional parameter that can be sent on the request and IMT Hub will perform routing logic to return other service provider Id that provide a better rate (if applicable) 3. For fresh transactions, If the customer type is preferential with opt out option, then the response will contain the service provider details for the preferential MTO linked to the customer as well as the service provider details for the eWallet best rate logic (if applicable) |
| 4 | Fee Look up  (Initial Quote) | Inquire the remittance fees and exchange rate from requested MTO provider using MTO integration API | New Version | * Inquire the remittance fees and exchange rate for new MTO partners (Western Union, and Mastcard) * Send IMT provider Id and receiving country on the request header * Extension parameter will be updated |
| 5 | Get fields for product | Fetch the required fields for selected MTO provider to submit IMT transaction through MTO provider integration API | New Version | * Fetch the receiver required fields for Western Union through integration API * Fetch sender compliance required fields for Western Union from Western Union compliance fields list * Fetch the receiver required fields for Mastercard from Mastercard receiver fields list * Fetch sender compliance required fields for mastercard from Mastercard compliance fields list |
| 6 | Send Validation  (Final Quote) | Validate IMT transaction through MTO provider integration API | New Version | Validate money remittance transaction for new MTO partners (Western Union, and Mastcard)  Extension parameter will be updated |
| 7 | Commit Transaction | Commit IMT transaction through MTO provider integration API | New Version | Commit money remittance transaction for new MTO partners (Western Union, and Mastcard)  Extension parameter will be updated |
| 8 | Remittance Status Inquiry | Retrieve IMT transaction status / details through MTO provider integration API | New Version | Retrieve money remittance transaction status / details for new MTO partners (Western Union, and Mastcard)  Review and unify status for all MTO partners (MG, Union, and Mastcard) |
| 9 | Get Beneficiary List | Retrieve list of saved beneficiaries | New Version | Fetch beneficiary list for all MTO partners (MG, Western Union, and Mastcard) and unify the response for all MTOs |
| 10 | Delete Beneficiary | Delete saved beneficiary | New Version |  |

* **Initiate IMT transaction from Saved Beneficiary and Re-send IMT Transaction History**

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The customer journey to initiate IMT transaction from saved beneficiary and resend IMT transaction from transaction history will be changed on mobile app as follows:

1. Mobile app will Call USP Hub getIMTProvider API first before showing the screen to perform routing logic to check and return MTO provider that provides a better rate than the saved beneficiary MTO provider (if applicable)
2. If another MTO provider with better rate is returned other than the one saved with beneficiary then, the mobile app will display a warning message to customer that there is a better rate available and ask the customer to confirm if he wish to use the better rate MTO. The actual message and change on VD will be provided by design team
3. If customer confirm to use the better rate MTO provider then mobile app will send service provider Id returned from getIMTProvider to quotation API . Then the customer will go through the rest of the flow and enter the receiver details. In this case save beneficiary checkbox will be enabled on mobile app screen. If user select to save beneficiary then the saved beneficiary details will be overridden by new beneficiary details. Hence only the last saved beneficiary will be only saved on USP Hub and displayed on the mobile.
4. If the customer did not confirm on using the better rate MTO and continue then the mobile app will use the saved beneficiary and current flow will remain the same on the mobile app where mobile app will continue with selected beneficiary Id.

**IMT Hub Routing Logic**

The customer type will be one of the below categories:

1. **Standard Consumer:**

If consumer is on boarded via the conventional route and not attached to any MTO supported partner. i.e. This is the default type if the customer is not attached to any specific MTO configured on the IMT Hub.

1. **Preferential MTO Consumer with no Opt Out:**

If consumer is attached to Preferential MTO with no opt out option.

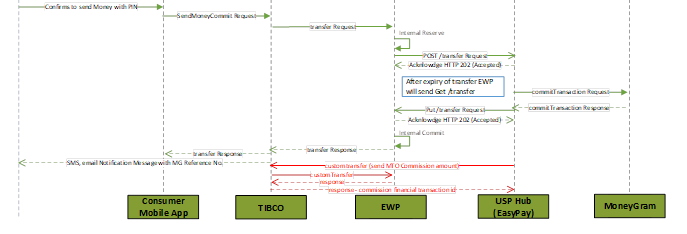
1. **Preferential MTO Consumer with Opt Out:**

If consumer is attached to Preferential MTO with opt out option.

The below routing logic will be performed and return the selected IMT provider accordingly,

1. Routing logic will kick in once consumer selects Product (and destination city if OTC is selected as product, or Bank name if Deposit to Bank is selected as product, or Wallet name if Mobile Wallet is selected as product).
2. Routing logic will kick in once consumer selects bank, city or wallet provider within the Product.
3. Routing logic will filter and remove MTOs that do not offer that product
4. For OTC product, MTOs don’t supports that selected city should be filtered out
5. For bank, MTOs don’t supports that selected bank should be filtered out.
6. For send to wallet, MTOs don’t supports that selected wallet should be filtered out
7. Customer MSISDN will be checked against the customer categories defined above.
8. When customer is not part of “Preferential MTOs without opt out option” then best rates will be presented using the below criteria:
9. Best exchange rate; best means the maximum amount in the destination currency compared to 1 AED.
10. If exchange rate is the same; lowest commission charged to DFS
11. If exchange rate and commission are the same; MTO with higher forex margin should be selected. Higher percentage value to be given priority.
12. Check Transfer speed - Realtime or not-Realtime, Realtime transfers will be given preference
13. If all factors are identical; MTOs will be selected sequentially one after the other in the order of first MTO on boarded
14. If the customer type is preferential with opt out option, then the response will contain the IMT provider details for the preferential MTO linked to the customer as well as the IMT provider details with best rate calculated using routing logic above (if applicable)

**IMT Hub MTO Commission**

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1. DFS Fees only without MTO Commission will be charged from customer account (i.e. MTO Commission will be sent from USP Hub as zero)
2. MTO commission will be triggered from PSP to TIBCO as a separate custom transfer, as follows,

Once commit transaction response received from MTO and IMT transaction is successful then, The USP Hub should retrieve and calculate MTO commission from IMT Hub configuration database then USP Hub will call a new microservice that will call TIBCO customTransfer API to deduct the MTO commission from SP commission account and credit MTO commission account. Please refer to sequence diagram and TIBCO customTransfer “Merchant Tax Invoice Project” API documentation. After receiving successful response from customTransfer API, The new microservice should update IMT Correlation IDs table in RDS with the financial transaction IDs for IMT main transaction and commission transaction for each IMT transaction,

The following configurations required to call customTransfer API should be saved on the IMT Hub configurations database:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Partner ID | MTO Partner Name | Commission Transaction Type | SP Source Commission Account FRI | MTO Commission Account FRI |
| 1 | MoneyGram | Transfer | SP Source Commission Account FRI configured in eWallet | MoneyGram Commission Account FRI |
| 2 | Western Union | Transfer | SP Source Commission Account FRI configured in eWallet | Western Union Commission Account FRI |
| 3 | Mastercard | transfer | SP Source Commission Account FRI configured in eWallet | Mastercard Commission Account FRI |

|  |  |
| --- | --- |
| IMT Financial Transaction ID | Commission Transaction ID |
| Financial Transaction ID received from EWP call POST /transfer Request | Financial Transaction ID returned from customTransfer API response |

## IMT Support Portal

The IMT support portal should provide the below IMT Hub Configurations screens that should be assessable only to back office users who are assigned to profile “Sales BO L0” the below screens should be implemented to maintain IMT Hub required configurations by accessing/connecting to IMT Hub configuration database reside within Etisalat network.

The following 3 Tabs/Menus will be add and implemented on the IMT Hub configurations portal:

1. **IMT Hub Global Configurations**

**Configure IMT Hub Product Names**

This screen will be implemented on IMT Hub configurations to allow back office users who are assigned to profile “Sales BO L0” to configure the IMT Hub products that will be enabled and displayed for IMT customers.

1. IMT Hub configurations portal will check the logged in user profile name is “Sales BO L0”
2. If the user has permission then the user will be able to display a table/list of IMT Hub products configured on IMT Hub configuration database, The following fields should be displayed on the screen:

|  |  |  |  |
| --- | --- | --- | --- |
| SI# | Column Name | Display Control | Description |
| 1 | Enable Product | checkbox | Checked if the product is enabled and configured to be used for IMT Hub |
| 2 | Product Name | Textbox | Product name description that will be displayed on IMT screens |
| The below functions will be available on screen | | | |
| 3 | Save | Button | Save data on IMT Hub configuration database |

1. The user will have the option to enable/disable a product and edit/modify a product name.

**Configure IMT Hub Countries**

This screen will be implemented on IMT Hub configurations portal to allow users to configure the IMT Hub countries that will be enabled and displayed for IMT customers.

1. IMT Hub configurations portal will check the logged in user profile name is “Sales BO L0”
2. If the user has permission then the user will be able to display a table/list of IMT Hub countries configured on IMT Hub configuration database, The following fields should be displayed on the screen:

|  |  |  |  |
| --- | --- | --- | --- |
| SI# | Column Name | Display Control | Description |
| Display a table/list of IMT Hub countries. Each record will have the below 2 columns | | | |
| 1 | Enable Country | Checkbox | Checked if the country is enabled and configured to be used for IMT Hub |
| 2 | Country Name | Textbox | country name |
| The user can select a country from the list to perform the below functions on screen | | | |
| 3 | Save | Button | Save data on IMT Hub configuration database |
| 4 | Configure  Cities | Button/Link | Display Configure Cites screen to allow the user to configure Cites for IMT Hub selected country. Please refer to the screen details in below section. |
| 5 | Configure Banks | Button/Link | Display Configure Banks screen to allow the user to configure Banks for IMT Hub selected country. Please refer to the screen details in below section. |
| 6 | Configure Wallets | Button/Link | Display Configure Wallets screen to allow the user to configure Wallets for IMT Hub selected country. Please refer to the screen details in below section. |

**Configure IMT Hub Cities**

This screen will be implemented on IMT Hub configurations portal to allow users to configure the list of cities for each country that will be used by IMT Hub.

1. IMT Hub configurations portal will check the logged in user profile name is “Sales BO L0”
2. If the user has permission then the user will be able to select country a display the list of cities configured for the selected country, The following fields should be displayed on the screen:

|  |  |  |  |
| --- | --- | --- | --- |
| SI# | Column Name | Display Control | Description |
| 1 | Country Name | Dropdown list | Retrieve IMT Hub configured countries and display selected country name |
| Table to display list of cities configured for the selected country. Each record will have the below 2 columns | | | |
| 2 | Enable City | Checkbox | Checked if the city is enabled and configured to be used for IMT Hub |
| 3 | City Name | Textbox | City name |
| The below functions will be available on screen | | | |
| 4 | Save | Button | Save data on IMT Hub configuration database |
| 5 | Add | Button | Add a new city |
| 6 | Delete | Button | Delete existing city |

1. The user will have the option to add/edit/delete a city name under the selected country.

**Configure IMT Hub Bank Names**

This screen will be implemented on IMT Hub configurations portal to allow users to configure the list of bank names for each country that will be used by IMT Hub.

1. IMT Hub configurations portal will check the logged in user profile name is “Sales BO L0”
2. If the user has permission then the user will be able to select country a display the list of bank names configured for the selected country, The following fields should be displayed on the screen:

|  |  |  |  |
| --- | --- | --- | --- |
| SI# | Column Name | Display Control | Description |
| 1 | Country Name | Dropdown list | Retrieve IMT Hub configured countries and display selected country name |
| Table to display list of Banks configured for the selected country | | | |
| 2 | Bank Name | Textbox | Bank name |
| The below functions will be available on screen | | | |
| 3 | Save | Button | Save data on IMT Hub configuration database |
| 4 | Add | Button | Add a new bank name |
| 5 | Delete | Button | Delete existing bank name |

1. The user will have the option to add/edit/delete a bank name under the selected country.

**Configure IMT Hub Wallet Names**

This screen will be implemented on IMT Hub configurations portal to allow users to configure the list of wallet names for each country that will be used by IMT Hub.

1. IMT Hub configurations portal will check the logged in user profile name is “Sales BO L0”
2. If the user has permission then the user will be able to select country a display the list of wallet names configured for the selected country, The following fields should be displayed on the screen:

|  |  |  |  |
| --- | --- | --- | --- |
| SI# | Column Name | Display Control | Description |
| 1 | Country Name | Dropdown list | Retrieve IMT Hub configured countries and display selected country name |
| Table to display list of Wallets configured for the selected country | | | |
| 2 | Wallet Name | Textbox | Wallet Name |
| The below functions will be available on screen | | | |
| 3 | Save | Button | Save data on IMT Hub configuration database |
| 4 | Add | Button | Add a new wallet |
| 5 | Delete | Button | Delete existing wallet |

1. The user will have the option to add/edit/delete a wallet name under the selected country.
2. **MTO Partner Configurations**

This screen will be implemented on IMT Hub configurations portal to allow users to configure the MTO partner supported by IMT Hub.

Each MTO will have to regularly share their complete configuration parameters list with DFS users to be configured for MTO partner using MTO partner configuration screen;

1. IMT Hub configurations portal will check the logged in user profile name is “Sales BO L0”
2. If the user has permission then the user will be able to display the list of configured MTO partners and select an MTO partner to display the list of configuration parameters for the selected MTO partner, The following fields should be displayed on the screen:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| SI# | Column Name | Display Control | Description | Validation/ Rules |
| 1 | MTO Partner Name | Drop down list | Drop down list to retrieve and display the available MTO partners’ names configured on IMT Hub |  |
| The Following parameters will be retrieved and displayed for the selected MTO where the user can edit/modify it | | | | |
| 2 | Enable / Disable MTO | Checkbox | Enable/Disable MTO. If MTO is disabled then it will not be used by IMT Hub routing selection logic. (i.e. MTO has to be enabled to be used by IMT Hub routing selection logic) |  |
| 3 | Preference Order | Text[1] | Provide an order for MTO to be used to give a priority and preference to select MTO in IMT Hub routing logic based on the order | Value should be integer value |
| 4 | DFS share of Forex Margin | * Option/radio button to choose %age or Fixed value * Text box to enter %age or Fixed value based on the selected option | DFS share of Forex Margin - %age ( just input to be used for routing logic) | * If %age option is selected then value entered should be on this format (00.00%) * If Fixed option is selected then value entered should be on this format (00.00) |
| 5 | MTO Share | * Option/radio button to choose %age or Fixed value * Text box to enter %age or Fixed value based on the selected option | MTO share (commission from DFS) - %age of transaction amount or fixed amount (configured on USP Hub) | * If %age option is selected then value entered should be on this format (00.00%) * If Fixed option is selected then value entered should be on this format (00.00) |
| 6 | Transfer speed | * Option/radio button to choose Realtime or not- Realtime | Transfer speed - Realtime or not-Realtime |  |
| 7 | MTO Category | Option/radio button to choose Preferential MTOs with opt out or Preferential MTOs without opt out | Preferential MTOs with opt out option – Check box |  |
| 8 | MTO transaction ID label | Textbox[40] | MTO transaction ID label – Text field |  |
| The following actions/functions need to be provided for the selected MTO Partner | | | | |
| 9 | Save | Button | Update above MTO configurations parameters for selected MTO in IMT Hub configuration database |  |
| 10 | Delete | Button | Delete the selected MTO and all linked customers attached/linked to MTO from IMT Hub configuration database |  |
| 11 | Configure MTO Countries | Button/Link | Display Configure MTO Countries screen to allow the user to configure countries for selected MTO. Please refer to the screen details in below section. |  |

**Configure MTO Countries**

1. IMT Hub configurations portal will check the logged in user profile name is “Sales BO L0”
2. If the user has permission then the user will be able to display the list of configured countries for selected MTO partner, The following fields should be displayed on the screen:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| SI# | Column Name | Display Control | Description | Validation/ Rules |
| Display a list/table of countries’ names configured for the selected MTO partner | | | | |
| 1 | Country Name | Label | Country Name |  |
| The below functions will be available on screen | | | | |
| 2 | Add | Button | Display the list of countries configured for IMT Hub to select a country to be added on the selected partner configured countries | Countries added to MTO should be unique. i.e. same country cannot be added twice to MTO partner |
| 3 | Delete | Button | Delete a selected country and remove it from the country list configured for the selected MTO partner |  |
| 4 | Configure Cites | Button/Link | Display Configure MTO Cites screen to allow the user to configure Cites for selected MTO partner and country. Please refer to the screen details in below section. |  |
| 5 | Configure Products | Button/Link | Display Configure MTO Products screen to allow the user to configure Products for selected MTO partner and country. Please refer to the screen details in below section. |  |
| 6 | Configure Banks | Button/Link | Display Configure MTO Banks screen to allow the user to configure Banks for selected MTO partner and country. Please refer to the screen details in below section. |  |
| 7 | Configure Wallets | Button/Link | Display Configure MTO Wallets screen to allow the user to configure Wallets for selected MTO partner and country. Please refer to the screen details in below section. |  |

**Configure MTO Cities**

1. IMT Hub configurations portal will check the logged in user profile name is “Sales BO L0”
2. If the user has permission then the user will be able to display the list of configured cities for selected MTO partner and country, The following fields should be displayed on the screen:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| SI# | Column Name | Display Control | Description | Validation/ Rules |
| 1 | MTO Name | Label | Display selected MTO name |  |
| 2 | Country Name | Dropdown list | Retrieve a dropdown list of countries’ names configured for the selected MTO partner and display selected country. |  |
| Display a list of cities’ names configured for the selected MTO partner | | | | |
| 3 | City Name | Label | City Name |  |
| The below functions will be available on screen | | | | |
| 4 | Add | Button | Display the list of cities configured for IMT Hub under selected country to select a city to be added on the selected partner configured countries | Cities added to MTO should be unique. i.e. same city cannot be added twice to MTO partner |
| 5 | Delete | Button | Delete a selected city and remove it from the city list configured for the selected MTO partner |  |

**Configure MTO Products**

1. IMT Hub configurations portal will check the logged in user profile name is “Sales BO L0”
2. If the user has permission then the user will be able to display the list of configured products for selected MTO partner and country, The following fields should be displayed on the screen:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| SI# | Column Name | Display Control | Description | Validation/ Rules |
| 1 | MTO Name | Label | Display selected MTO name |  |
| 2 | Country Name | Dropdown list | Retrieve a dropdown list of countries’ names configured for the selected MTO partner and display selected country. The country list should have an item “ALL” to enable the user to select “ALL” option if the user would like to enable/disable products or update the product names for all countries. |  |
| Display table/list of products’ names configured for IMT Hub | | | | |
| 3 | Enable Product | checkbox | Enabled if product is enables for MTO |  |
| 4 | Product Name | Label | Display product name as configured on IMT Hub |  |
| The below functions will be available on screen | | | | |
| 7 | Save | Button | Save data on IMT Hub configurations database. If the user select “ALL” option from the country name dropdown list then the above enable/disable products and product names will be updated for all countries. |  |

**Configure MTO Banks**

1. IMT Hub configurations portal will check the logged in user profile name is “Sales BO L0”
2. If the user has permission then the user will be able to display the list of configured Banks for selected MTO partner and country, The following fields should be displayed on the screen:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| SI# | Column Name | Display Control | Description | Validation/ Rules |
| 1 | MTO Name | Label | Display selected MTO name |  |
| 2 | Country Name | Dropdown list | Retrieve a dropdown list of countries’ names configured for the selected MTO partner and display selected country. |  |
| Display a list of Banks’ names configured for the selected MTO partner and country | | | | |
| 3 | Bank Name | Label | Bank Name |  |
| The below functions will be available on screen | | | | |
| 4 | Add | Button | Display the list of Banks configured for IMT Hub country to select a Bank name to be added on the selected partner configured banks | banks added to MTO should be unique. i.e. same bank cannot be added twice to MTO partner |
| 5 | Delete | Button | Delete a selected product and remove it from the banks list configured for the selected MTO partner |  |

**Configure MTO Wallets**

1. IMT Hub configurations portal will check the logged in user profile name is “Sales BO L0”
2. If the user has permission then the user will be able to display the list of configured Wallets for selected MTO partner and country, The following fields should be displayed on the screen:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| SI# | Column Name | Display Control | Description | Validation/ Rules |
| 1 | MTO Name | Label | Display selected MTO name |  |
| 2 | Country Name | Dropdown list | Retrieve a dropdown list of countries’ names configured for the selected MTO partner and display selected country. |  |
| Display a list of Wallets’ names configured for the selected MTO partner and country | | | | |
| 3 | Wallet Name | Label | Wallet Name |  |
| The below functions will be available on screen | | | | |
| 4 | Add | Button | Display the list of Wallets configured for IMT Hub country to select a Wallet name to be added on the selected partner configured Wallets | Wallets added to MTO should be unique. i.e. same wallet cannot be added twice to MTO partner |
| 5 | Delete | Button | Delete a selected product and remove it from the wallets list configured for the selected MTO partner |  |

1. **Customers Configurations**

This screen will be implemented on IMT Hub configurations portal to allow users to link IMT customers to MTO partners configured on IMT Hub.

1. IMT Hub configurations portal will check the logged in user profile name is “Sales BO L0”
2. If the user has permission then the user will be able to display a table/list of IMT Hub countries configured on IMT Hub configuration database, The following fields should be displayed on the screen:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| SI# | Column Name | Display Control | Description | Validations/Rules |
| 1 | Customer MSISDN | Textbox | User to enter customer MSISDN to search | Valid MSISDN number format |
| 2 | Search | Button | Search customers and display MTO partner linked to customer MSISDN |  |
| 3 | MTO Partner Linked to Customer | Dropdown list | Dropdown list to retrieve preferential MTO partners configured on IMT Hub and select the preferential MTO linked to customer MSISDN. If MSISDN is not attached to any MTO then it should display the message. *“MSISDN is not attached to any MTO”* along with the option to select preferential MTO from the dropdown list to attach customer MSISDN to selected MTO. List of preferential MTOs should be shown and user should be able to select a preferential MTO. |  |
| 4 | Export All | Button | Extract the complete list in excel of MSISDNs and corresponding attached preferential MTOs | The File will have the following two columns:   1. MSISDN 2. Preferential MTO ID configured on IMT Hub 3. Preferential MTO Name configured on IMT Hub |
| 5 | Upload All | Button | Upload excel file of MSISDNs and corresponding attached preferential MTOs to update IMT Hub configurations database. All MSISDNs will be removed and the records in the file will be inserted in IMT Hub configuration database, Hence file should have the complete list of customers’ MSISDNs. Incremental update will not be implemented. | The File will have the following two columns:   1. MSISDN 2. Preferential MTO ID configured on IMT Hub   Customer MSISDN should be unique on the file and linked to only one preferential MTO |

## E-Commerce Operations

1. Configure IMT Hub back office users with profile “Sales BO L0”who can have access IMT Hub configuration screens on Dev, SIT and UAT Environments
2. Configure IMT Hub back office users with profile “Sales BO L0”who can have access IMT Hub configuration screens on Production Environment

## IMT Hub Database

The following tasks need to be performed by e-Commerce database administrator:

1. Creation of IMT Hub database
2. Create synonyms for IMT Hub configuration tables required for IMT reports in RDS database
3. Provide access to IMT Support portal servers to connect to IMT Hub database
4. Provide script to upload IMT Hub initial data configurations on IMT Hub database based on initial data provided by DFS team in excel file formats. Following is the initial data configurations that need to be provided by DFS and uploaded on IMT Hub database:
5. Configure IMT Hub Countries
6. Configure IMT Hub Cities
7. Configure IMT Hub Product Names
8. Configure IMT Hub Bank Names
9. Configure IMT Hub Wallet Names
10. Configure MTO Partners
11. Configure MTO Countries
12. Configure MTO Cities
13. Configure MTO Products
14. Configure MTO Banks
15. Configure MTO Wallets

## EWP E// (Drop 3)

Configure DFS Fees for each MTO per each corridor (country) - and it can be %age of transaction amount or fixed amount. Business team will provide the actual DFS fees for configuring in EWP before production deployment.

E// will modify quote APIs to add the country as a parameter on the header on the initial quote and final quote request to EWP. Hence, DFS fees for each MTO per country will be configured on EWP rating engine and returned according to the received country parameter.

## EWP In-house Development

**Drop 1: IMT Hub Core EWP Configurations**

1. Configure all MTO partners (MG, Western Union, and Mastercard ) as Remittance Service Providers.
2. MTO FC user should only be able to perform fund out operations.
3. Transaction history details should be accessible to Master Admin and FC user.
4. Configure commission sponsor SP account
5. Configure commission account for each MTO (MG, Western Union, and Mastercard )
6. Configure rating logic for IMT transactions for each MTO (MG, Western Union, and Mastercard )
7. Whitelisting for all above mobile app initiated APIs to consumer mobile app context
8. Whitelisting for EWP customTransfer API to USP Hub context to be accessed by admin user credentials

**Drop 2: IMT Hub Reports**

1. Niyas to develop the query for the attached new report and provide the query to BI team



1. Niyas to review existing IMT reports to check the impact of changing commission account from system commission account to a new SP Partner commission account
2. Niyas to update the query for the below report to contain total number of transactions done by all MTOs (MoneyGram , Western Union and Mastercard)

<https://eimcognos.etisalat.corp.ae/ibmcognos/bi/?pathRef=.public_folders%2FCognos+-+New+Environment%2FA+-+Marketing%E2%80%AC%2FProduction%2F6.+Projects%2FInternational+Money+Remittance%2FFailure+And+Sucess+Rate&format=HTML&Download=false&prompt=true>

## BI

1. Develop the report for the attached new report in BI based on the provided query by Niyas



1. Update the below report to contain total number of transactions done by all MTOs (MoneyGram , Western Union and Mastercard)

<https://eimcognos.etisalat.corp.ae/ibmcognos/bi/?pathRef=.public_folders%2FCognos+-+New+Environment%2FA+-+Marketing%E2%80%AC%2FProduction%2F6.+Projects%2FInternational+Money+Remittance%2FFailure+And+Sucess+Rate&format=HTML&Download=false&prompt=true>

1. Below both reports should be discontinued:

1. <https://eimcognos.etisalat.corp.ae/ibmcognos/bi/?pathRef=.public_folders%2FCognos+-+New+Environment%2FA+-+Marketing%E2%80%AC%2FProduction%2F6.+Projects%2FInternational+Money+Remittance%2FSummary+of+Transaction&format=HTML&Download=false&prompt=true>

2. <https://eimcognos.etisalat.corp.ae/ibmcognos/bi/?pathRef=.public_folders%2FCognos+-+New+Environment%2FA+-+Marketing%E2%80%AC%2FProduction%2F6.+Projects%2FInternational+Money+Remittance%2FType+Of+Transactions&format=HTML&Download=false&prompt=true>

# Pre-requisites and Data Requirements

# Data Requirements

DFS team to provide MTOs initial data upload for IMT Hub configuration database

# Logging Requirements

EWP and Unified SP Hub (easypay) have to retain complete logs for IMT transactions with all MTOs

# Monitoring Requirements

All IMT transactions steps have must be logged and can be represented in a dashboard to be able to identify the status of any IMT transaction.

# Contact Centers Support

* Western Union and Mastercard needs to provide access of their customer care portals to eWallet contact centers users which should have relevant transaction details so customer complaints and inquiries can be addressed. Transaction IDs, and reasons should be available specifically for failed transactions.
* Whitelist Western Union and Mastercard portals for eWallet Contact centers staff so they can access it in their office premises.

# ANNEXURE A: MTO Partners APIs

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# ANNEXURE B: App Screen Journey

Current mobile app screens link : <https://scene.zeplin.io/project/5e26e44836436754bc859d15>

Mobile app revamp screens link: <https://scene.zeplin.io/project/5eb3fa8cefa3dc4a75de5456>