World Bank Fast Payments Toolkit

Cast Study: Bahrain

Fawri+ | 2015

Payment Instruments

Credit Transfer

Use Cases / Services

Request to pay
### Glossary of terms

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>GDP</td>
<td>Gross Domestic Product at current price</td>
</tr>
<tr>
<td>2</td>
<td>Income Category</td>
<td>Classification as per World Bank based on Gross National Income (GNI) per capita</td>
</tr>
<tr>
<td>3</td>
<td>CPMI</td>
<td>Committee on Payments and Market Infrastructure</td>
</tr>
<tr>
<td>4</td>
<td>FPS</td>
<td>As per CPMI, fast payment System is defined as payments in which the transmission of the payment message and the availability of final funds to the payee occur in real time or near-real time and on as near to a 24-hour and 7-day (24/7) basis as possible</td>
</tr>
<tr>
<td>5</td>
<td>Oversight</td>
<td>Regulating or governing body supervising the payments system</td>
</tr>
<tr>
<td>6</td>
<td>Operator</td>
<td>Institutions responsible for the operation of the payment system</td>
</tr>
<tr>
<td>7</td>
<td>Alias</td>
<td>Alternative to bank account numbers for increased convenience of the customer. For e.g., mobile number, national identification number</td>
</tr>
<tr>
<td>8</td>
<td>Access Channels</td>
<td>Modes used by customer to initiate transaction on FPS. For e.g., branch, internet, mobile</td>
</tr>
<tr>
<td>9</td>
<td>Individual Payment Type</td>
<td>Person to person (P2P) – Payment between individuals for non-business purposes</td>
</tr>
<tr>
<td>10</td>
<td>Business Payment Type</td>
<td>Person to Business (P2B) – Payment from an individual to a business entity; Business to Person (B2P) – Payment from a business entity to an individual; Business to Business (B2B) – Payment between two business entities</td>
</tr>
<tr>
<td>11</td>
<td>Government Payment Type</td>
<td>Person/Business to Government (P/B2G) – Payment from person/business to a government institution; Government to Person/Business (G2P/B) – Payment from government institution to a person or business entity</td>
</tr>
<tr>
<td>12</td>
<td>Credit transfers</td>
<td>Credit transfers are payment instruments based on payment orders or possibly sequences of payment orders made for the purpose of placing funds at the disposal of the payee</td>
</tr>
<tr>
<td>13</td>
<td>Direct Debits</td>
<td>Direct debits are payment instruments in which the transaction is pre-authorized, and funds are blocked in account for a debit to be initiated at a future date. In direct debits, payer’s account is debited on execution of mandate by merchant or payee</td>
</tr>
<tr>
<td>14</td>
<td>E-money</td>
<td>E-money is a prepaid value stored electronically, which represents a liability of the e-money issuer (a bank, an e-money institution or any other entity authorized or allowed to issue e-money in the local jurisdiction), and which is denominated in a currency backed by an authority</td>
</tr>
<tr>
<td>S.No.</td>
<td>Term</td>
<td>Expanded form</td>
</tr>
<tr>
<td>-------</td>
<td>-------</td>
<td>---------------------------------------------------</td>
</tr>
<tr>
<td>1</td>
<td>BENEFIT</td>
<td>The BENEFIT Company</td>
</tr>
<tr>
<td>2</td>
<td>BHD</td>
<td>Bahrain Dinar</td>
</tr>
<tr>
<td>3</td>
<td>CBB</td>
<td>Central Bank of Bahrain</td>
</tr>
<tr>
<td>4</td>
<td>EFTS</td>
<td>Near Real Time Electronic Fund Transfer System</td>
</tr>
<tr>
<td>5</td>
<td>FPS</td>
<td>Fast Payments System</td>
</tr>
<tr>
<td>6</td>
<td>IBAN</td>
<td>International Bank Account Number</td>
</tr>
<tr>
<td>7</td>
<td>ITU</td>
<td>International Telecommunication Union</td>
</tr>
<tr>
<td>8</td>
<td>PLPD</td>
<td>Personal Data Protection Law</td>
</tr>
<tr>
<td>9</td>
<td>SWIPS</td>
<td>Systemwide Important Payment System</td>
</tr>
</tbody>
</table>
# Select parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GDP</strong></td>
<td>USD 38.57 billion</td>
</tr>
<tr>
<td><strong>Income Category</strong></td>
<td>High</td>
</tr>
<tr>
<td><strong>Population</strong></td>
<td>1.64 million</td>
</tr>
<tr>
<td><strong>Access to mobile phone</strong></td>
<td>99.19%</td>
</tr>
<tr>
<td><strong>Access to internet</strong></td>
<td>91.98%</td>
</tr>
<tr>
<td><strong>Bank account</strong></td>
<td>82.62%</td>
</tr>
<tr>
<td><strong>Branches per 100,000 adult</strong></td>
<td>Information not available</td>
</tr>
<tr>
<td><strong>Made or received digital payment in last 1 year</strong></td>
<td>77.64%</td>
</tr>
<tr>
<td><strong>Received government wages or transfer in account</strong></td>
<td>59.42%</td>
</tr>
</tbody>
</table>

Currency Exchange Rate USD 1 = BD 0.38 <2019 Average, World Bank>
Others – World Bank 2017
* For age >15 years
How to read this report

• This deep dive report relates to Fawri+ in Bahrain
• It has been developed based on primary interviews with key stakeholders such as regulators, operators and participants in the system as well as by leveraging secondary sources
• Key secondary sources include CBB and BENEFIT website
• The table below presents a legend to assist readers as they navigate through different sections of the report

Legend

The first slide of every section includes a chapter summary to provide readers with an overview of the section contents

The green box with the adjacent icon indicates section/sub-section summary across the report. Reader may choose to read through this for a high-level overview on the selected topic
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A. Executive Summary
Upon the direction of the Central Bank of Bahrain (CBB), the BENEFIT company launched “Near Real Time Electronic Fund Transfer System” (EFTS) in 2015 to provide Fawri+, a near real time payments within 30 seconds up to a limit of BHD 1000 per account per day. EFTS also provides two other types of service:

- **Fawri**, a deferred settlement fund transfer service that allows customers/corporates to make a direct debit and/or direct credit transfer of any amount within a few hours in the business day

- **Fawateer**, electronic bill presentment and payment services to customers. This includes immediate and deferred processing of bill payments.

Fawri+ connected all the retail banks in Bahrain to provide real time payments to end users

EFTS is a national initiative and the CBB authorized the BENEFIT Company (BENEFIT) to undertake the implementation of the EFTS project. Implementation of Fawri+ took one and half years and was launched in 2015

Since 2018, customers can directly initiate Fawri+, Fawri and Fawateer through BenefitPay, in addition to other bank access channels

**Key features of Fawri+ are**

- Real time payments within 30 seconds
- BHD 1000 transaction limit per account per day
- Net Settlement twice on a business day
- Operates on a 24x7x365 basis with continuous high availability of 99.99%
- ISO 20022 messaging standard
- EFTS is considered to be a Systemwide Important Payments System (SWIPS).
B. Detailed Report
1. Overview

Chapter sections:
1.1. Background and Objectives
1.2. System Development
1.3. Key Timelines

Chapter Summary:

- The journey for real time payments was started with the implementation of the RTGS System in 2007
- Initially, it was envisaged that the RTGS system would provide a real time payments solution, but there were associated challenges in providing bank customers with real time payments on 24x7x365 basis
- Central Bank wished to have a countrywide development to provide real time payments to bank customers
- Gaps at that time were identified and one of them was the lack of standardized bank account numbers. Central bank first moved to put in place a standardized unique bank account number i.e. International Bank Account Number (IBAN) which requires for validating customer accounts in real time payments
- Implementation of the "Near Real Time Electronic Fund Transfer System" (EFTS) was mainly driven by the regulator, with a macro level focus
- Central Bank of Bahrain explored other options to provide real time payments and the solution was to develop EFTS (Fawri+, Fawri and Fawateer)
- The conceptualization of the system started in 2014 and the system was launched in November 2015. Central Bank gave clear direction and was flexible enough to consult with The BENEFIT Company (operator) and the participating banks throughout the development. A tender was circulated to shortlist vendor, and an independent consultant was hired to evaluate the capability of vendors
- CMA was given the mandate to develop the system
- In EFTS, a bank customer can make a Fawri+ Fawri and Fawateer anytime and anywhere using bank electronic access channels such as internet and mobile banking. A bank customer can also make a Fawri+ transfer at a branch during bank business hours. In 2018, the CBB allowed a third-party payment initiation service provider to extend a new electronic access channel i.e. BenefitPay mobile App for bank customers to initiate Fawri+, Fawri and Fawateer payments. BenefitPay helped EFTS to substantially increase transaction volumes
1.1. Background and Objective

- EFTS was a CBB payment system development initiative that came under national projects of Bahrain Economic Vision 2030. On the advice of the CBB, BENEFIT expressed its willingness to implement this project and included in its strategic roadmap.

- **Multiple services** are provided via the EFTS:
  - **Fawri+** for real time P2P payments
  - **Fawri** for deferred payments
  - **Fawateer** for electronic bill presentment and payment services

Before the launch of fast payment system, the non-cash payments comprised RTGS fund transfers, credit transfers, direct debits, cheque and card payments.

The journey for fast payments started in 2007 with the development of the Real Time Gross Settlement System. In subsequent years, the Central bank envisaged the need for real time Person to Person (P2P) payments and the need to develop a new system capable of allowing bank customers to directly make a fund transfer between accounts in different banks immediately, reliably and conveniently. The Central Bank authorized The BENEFIT Company, which serves as a technology partner for payments systems in Bahrain. The conceptualization of the system started in 2014 and the system was launched in November 2015. Central Bank gave clear direction and was flexible enough to consult with The BENEFIT Company (operator) and the participating banks throughout the development.

Objectives of EFTS:

- Provide fast, reliable, convenient and efficient fund transfers powered to speed up the pace of transactions between different stakeholders, throughout the day.
- Automate **fund transfers and payments** in the Kingdom, which will improve competence and cash flow.
- Provide banks, government, businesses and individuals a healthy economy and empower payments tools to develop further.
- Accelerate the flow of money between different sectors and stakeholders and minimize possibilities of inefficiencies in handling funds or their transfer.

Source: BENEFIT website | Primary Interview
1.3. Key Milestones

The journey for faster payments started in 2007 with the introduction of RTGS system in the Kingdom of Bahrain, following a series of advancements and collaborations with various stakeholders.

- **2007**: Introduction of International Bank Account Number (IBAN) to standardize all bank account numbers.
- **2012**: Launch of the RTGS system.
- **2014**: Central Bank authorized BENEFIT to undertake the implementation of the EFTS project.
- **2014**: Initiation of the development of the Electronic Fund Transfer System (EFTS) to develop Fawri+, Fawri and Fawateer.
- **2015**: Launch of Fawri+ and Fawri as part of EFTS system.
- **2016**: Launch of Fawateer.
- **2018**: The CBB advised BENEFIT to implement BenefitPay - Phase 2 for EFTS payments.

Source: BENEFIT website | Primary Interview
2. Business and Operating Model

Chapter sections:
2.1. FPS Structure
2.2. Participants
2.3. Payment Instruments and Transaction Types
2.4. Aliases and Access Channels
2.5. Use Cases

Chapter Summary:
• The BENEFIT Company is licensed as a specialized licensee - an ancillary service provider was authorized by the CBB in 2014 to operate EFTS, subject to its directives, regulations, terms and conditions. Regulatory requirements of licensees are provided in the CBB Rulebook.

• All the banks in the Kingdom were mandated to receive EFTS payments and also provide at least one bank access channel to provide end users to make EFTS payments

• Fawri+ transactions are processed and credited to the account of the beneficiary within 30 seconds, while banks obligations are settled in Central Bank RTGS System through net settlement in 2 cycles daily

• Fawri+ transactions are initiated either through access channels (branch, mobile banking and internet banking) or through BenefitPay

• End user charges for a Fawri+ transaction varies as: A Fawri+ transaction up to BD 100 is free of charge and a transaction between BD 101-1000 is charged 100 fils

• Different use cases are supported by Fawri+ such as P2P payments
2.1. FPS Structure

Central Bank of Bahrain is the **regulator and overseer** of the system; Fawri+ is operated by **The BENEFIT Company**

- **Fawri+ transaction** can be initiated in 2 ways
  - **Channels** (Branch, internet or mobile banking)
  - **BenefitPay mobile app**
- **Funds are credited to beneficiary account within 30 seconds**
- **The banks net clearing obligations relating to Fawri+ transactions are settled at the RTGS system of the Central Bank**

According to the CBB directive, BENEFIT and participating banks should ensure end-to-end continuous high availability of 99.99% of EFTS 24x7x365 services to avoid undue rejections of Fawri+ payments. BENEFIT is ISO 22301 certified which gives the comfort that EFTS adopts the best business continuity practices that manage and mitigate any risk.

Fawri+ transactions initiated, processed and credited to the account of the beneficiary within 30 seconds, while banks obligations are settled through net settlement in the CBB RTGS system in 2 cycles at 9 am and 1:30 pm every business day.

A customer can initiate a Fawri+ transaction through a bank access channel or BenefitPay. Once the transfer is completed, both payee and beneficiary receive confirmation of transaction from the respective banks as well as the access channel.

Source: Primary Interview
2.2. Participants (1/2)

- Participation for Fawri+ can be classified into direct and indirect.
- Indirect participants don’t have a settlement account at CBB RTGS system.

Presently all the retail banks in Bahrain are direct participants in EFTS, which support Fawri+. CBB has mandated all banks to accept inward Fawri+ payments and provide at least one bank access channel to make outward Fawri+ transactions. PSPs participate under the online biller category in Fawateer to provide payment transactions services to their customers, using a sub-position account under a direct participating bank that holds its clients’ money accounts.

Participant Statistics (as on Apr-2020)

- 27 banks (Direct participant)
- 5 PSPs

PSPs participating in EFTS under biller category: 1 (3 PSPs are in active testing and certification stage to roll out their service)
2.2. Participants (2/2)

Regulatory Considerations

CBB EFTS directives on retail banks

Provides the eligibility criteria for licensed retail banks and PSPs to participate in the EFTS

- Direct participating bank: a bank having direct technical access to the EFTS and is a member of the RTGS System at the CBB to directly settle its EFTS net clearing obligations.

- Online indirect participating bank: a bank having direct technical access with the EFTS and has a sponsoring arrangement with a direct participating bank to settle its EFTS clearing obligations.

- Offline indirect participating bank: a bank that avail payment services only in the deferred Fawri payments.

CBB EFTS directives on PSPs

Provides the eligibility criteria of PSPs to participate in the EFTS. A PSP should have:

- An ancillary service provider license from the CBB to carry out activities of a PSP

- A technical link to the Fawateer module in the EFTS infrastructure

- A contractual arrangement with a direct participating bank that holds its clients’ money account and availing payment services

CBB Rulebook provides the overall regulatory requirements, conditions and process of licensing, regulation and supervision of licensees that provide regulated service in the Kingdom. The license application must be in the prescribed form and include the following:

- A business plan specifying the type of activities to be conducted

- Application forms for all controllers

- Application forms for all controlled functions

Onboarding Process

For participation in EFTS system, participants need to fulfill technical requirements and testing is done prior to onboarding.

- **Documentation** (Participants need to enter a contract with BENEFIT) and technical requirement documents are provided.

- Participants also need to adopt to the standard **ISO20022** messaging format.

- Prior to going live with the system, participants must complete the **certification cycle**. Such includes initial testing with EFTS simulators as per pre-defined test scripts.

License for operator

- The BENEFIT Company is a specialized licensee - an ancillary service provider

- The company is owned by the banks; it provides the core payments infrastructure in Bahrain.

Source: CBB website | Primary Interviews
2.3. Payment Instruments and Payment Types

- Fawri+ allows fund transfers between accounts.
- It supports transactions in Bahrain Dinar to individual accounts.
- Fawri+ allows transactions between accounts. A customer can make multiple transactions up to a limit of BHD 1,000 per account per day.

**Payment Instruments Supported**

- Credit Transfer
- Direct Debit
- E-wallet

**Interoperability**

- Account to account interoperability supported.
- Currently, there are discussions to allow PSPs to provide Fawri+ service.

**Transactions Supported**

- Individual
- Business
- Government
- Non-Financial

**Transaction Limit**

Customers can make multiple Fawri+ transactions till the limit of BHD 1,000 per account per day.

**Transaction Currency**

- Bahrain Dinar

Source: BENEFIT website | Primary Interviews
## 2.4. Aliases, Access Channels and Scheme Pricing

Fawri+ uses customer’s International Bank Account Number (IBAN) to complete the transaction, and the payments can be made through internet banking, mobile banking, bank branch and BenefitPay. BenefitPay allows customers to make transactions through QR code as well.

<table>
<thead>
<tr>
<th>Aliases</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Initially, Fawri+ transactions were processed only through International Bank Account Number of the customer. IBAN contains 22 alphanumeric character standardized for all the banks in Bahrain.</td>
</tr>
<tr>
<td>• Since 2018, user of BenefitPay can carry out Fawri+ transactions by entering the mobile number of the receiver.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Access Channels</th>
</tr>
</thead>
<tbody>
<tr>
<td>• During the launch of EFTS, CBB mandated all banks to provide access through, at a minimum one of the three bank channels (branch, internet banking and mobile banking) to customers to make EFTS payments.</td>
</tr>
<tr>
<td>• Introduction of BenefitPay, a mobile App, enabled users to transfer money using the mobile number of the beneficiary in addition to IBAN and QR code. This led to an increase in adoption of Fawri+ transactions through BenefitPay.</td>
</tr>
<tr>
<td>• Additionally, BenefitPay supports payments through QR code. The QR code complies with the directive on Standardization of QR code specifications for payment systems, issued by the CBB in accordance with the requirements specified in EMV® QR Code Specification for Payment Systems.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>End user charges</th>
</tr>
</thead>
<tbody>
<tr>
<td>• For Fawri+ transactions up to BD 100 there are no customer charges, for charges between BD 101-1000 customers are charged.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fee charged for participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>• There are no joining, testing or certification fee for the participants.</td>
</tr>
<tr>
<td>• Annual subscription fee is charged based on the banks’ operations.</td>
</tr>
</tbody>
</table>

Source: BENEFIT website | Primary Interviews
2.5. Use Cases/Services

Fawri+ primarily supports real time P2P use case

### P2P payments / Request to Pay (through BenefitPay)

- Fawri+ Real time Person-to-Person (P2P) payments, is the primary use case via bank access channels and BenefitPay
- Request to Pay and splitting of bills in Fawri+ through BenefitPay
- Fawri supports P2B, B2B, B2P, P2G and G2P deferred payment service (via bank access channels and BenefitPay) for individual customers as well as entities (corporates & government) to make same day or future dated small or large value payments: Single credit transfer, Multiple credit transfer, Future dated transaction, Regular payment, standing order, Direct debit, salaries

### Payment Instruments
- Credit transfer

### Access Channels
- Internet
- Mobile
- QR Codes

### Bill Payments (for Fawateer)

- Bill Payments can be made in Fawateer (via bank access channels and BenefitPay)
- Billers can collect their bills on their due dates by directly debiting the bank accounts of their customers as per the direct debit mandate given by the customer.
- Customers can also enquire their bills online and initiate a single immediately processing Fawateer payment to settle their single or multiple bill payments directly from their accounts to one or more online billers
- Customers can make non-real time bill payments to offline billers

### Payment Instruments
- Credit transfer, Direct debit

### Access Channels
- Internet
- Mobile
- QR Codes

Source: BENEFIT website | Primary Interview
3. User Adoption

Chapter Summary:
- Volume and value growth for Fawri+ has seen a steady increase in the last 3 years
- **Four-fifths of total Fawri+ transactions** were processed through BenefitPay in 2019
3. User Adoption

Fawri+ has witnessed steady growth since it was launched. A major driver for its increased volume is the **real time transaction speed** and **digital impetus** given by CBB. Additionally, all retail banks in the Kingdom are participants of the system. The **low cost** of transactions (0-0.1 BHD) also increased customer adoption.

- **Introduction of BenefitPay** enabled customers to initiate Fawri+ transactions through mobile number, which increased the transaction value and volume significantly.
- **In 2019, BD 321 million** transactions of Fawri+ (**~60% by value**) were done using BenefitPay.
- **Additionally**, transactions through Fawateer has also witnessed growth in recent years with volume of almost 2 million transaction in 2019, up from 1.7 million, while the value grew to BD 281 million up from BD 133 million during the same period.
- CBB mandated all participating banks allow their customers to use BenefitPay.
- By the end of 2019, the number of BenefitPay App downloads were around 359,000. Additionally, BENEFIT worked on national promotional campaigns to raise the awareness and adoption of BenefitPay transactions.
- BENEFIT undergoes **continuous analysis** of the **service scalability** as per the volumes on regular basis to assure it’s processing along with the members are able to support the volumes adopted.

**Fawri+ Transaction Volume (in ‘000s)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Volume</th>
<th>Growth%</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>131</td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td>371</td>
<td>183%</td>
</tr>
<tr>
<td>2018</td>
<td>960</td>
<td>159%</td>
</tr>
<tr>
<td>2019</td>
<td>6,309</td>
<td>557%</td>
</tr>
</tbody>
</table>

**Fawri+ Transaction Value (in BD millions)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Volume</th>
<th>Growth%</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>35</td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td>88</td>
<td>153%</td>
</tr>
<tr>
<td>2018</td>
<td>175</td>
<td>99%</td>
</tr>
<tr>
<td>2019</td>
<td>542</td>
<td>210%</td>
</tr>
</tbody>
</table>

Source: BENEFIT | Primary Interviews
4. Technical Details and Payment Process

Chapter sections:
4.1. Technical Details | Messaging Format, QR Codes and Customer Authentication
4.2. Payment Process (Customer Registration, Transaction Fulfilment, Liquidity Management and Settlement)

Chapter Summary:
- Fawri+ uses ISO20022 messaging standard and “EMVCo ® QR Code Specification for Payment Systems” for QR payments through BenefitPay
- Fawri+ follows 3 factor strong customer authentication standard
- BenefitPay facilitates payments through mobile number in addition to IBAN and QR code. Users can download the BenefitPay App and link their bank account with mobile number and use EFTS for transfers
- Fawri+ transactions are processed within 30 seconds and credited to the account of the beneficiary while banks obligations are settled in CBB RTGS in 2 daily cycles through net settlement mechanism
4.1. Technical Details | Messaging Format, QR Code and Customer Authentication

Below are the technical details of Fawri+ covering the messaging format and QR standards.

Messaging Format

ISO 20022

- Fawri+ has adopted ISO20022 messaging standard. The rationale for this was that it is a widely used messaging format for faster payments and systems in various countries were using this messaging standard.
- It is a flexible messaging standard and a common language for internal and foreign transfers.

QR Code

EMV® QR Code Specification for Payment Systems

- Fawri+ transfers are also available via QR code in BenefitPay.
- It enables QR payments to individual accounts.
- The QR code has been built using complying with the directive on Standardization of QR code specifications for payment systems, issued by the CBB in accordance with the requirements specified in EMV® QR Code Specification for Payment Systems.

Customer Authentication

Strong Customer Authentication

- CBB has mandated banks to have strong customer authentication and authorization.
- Customers need to login to their mobile or internet banking access channel and enter the beneficiary IBAN that contains 22 alphanumeric characters to complete the transaction process.
- Additionally, transaction through BenefitPay is processed through multi factor authentication.

Source: BENEFIT | Primary Interviews
4.2. Payment Process

Various steps in the payment process include **one-time customer registration, payer-payee transaction fulfilment and inter-participant settlement**. Subsequently, various aspects related to these areas are covered.

1. **Customer transaction**
   - One-time
     - Customer login a bank access channel or BenefitPay
     - Payment fulfillment

2. **Transaction Fulfilment**
   - Transaction Basis
     - Transaction Flow
     - Connectivity between participants

3. **Inter-Participant Settlement**
   - Defined Intervals
     - Approach for settlement and liquidity management
Customers need to download BenefitPay App and register themselves to avail EFTS transactions. BenefitPay is a national electronic wallet. Any customer of a participating bank can use the service to initiate EFTS transactions.

**Process for users to make Fawri+ transactions through BenefitPay**

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>User needs to click on “Fawri+” on BenefitPay App</td>
</tr>
<tr>
<td>2</td>
<td>User needs to click on “Add Bank Account” and select the bank he/she is having an account</td>
</tr>
<tr>
<td>3</td>
<td>Enter the bank details and wait for approval from the bank</td>
</tr>
<tr>
<td>4</td>
<td>Once the bank approves the request, service can be used in one of 3 ways</td>
</tr>
</tbody>
</table>
| 5    | (1) Enter the International Bank Account Number (IBAN) of a beneficiary and amount of transaction  
     (2) By using a mobile number of the beneficiary that is registered with BenefitPay  
     (3) By clicking on QR code and scanning it from receiver’s phone |

Once the payment is successful customer receives a confirmation in BenefitPay on his/her mobile.
4.2. Payment Process | Transaction Fulfilment

Fawri+ allows customers to make transactions to the payee IBAN number. The funds are available immediately to the payee.

The transaction process is completed within 30 seconds from the initiation to crediting the amount in the payee’s account.

Source: Primary Interview
4.2. Payment Process | Liquidity Management and Settlement

Banks’ net clearing obligations on Fawri+ transactions are settled through net settlement in 2 cycles at the RTGS of the Central Bank on business days.

**Direct Member Settlement**

<table>
<thead>
<tr>
<th>Approach</th>
<th>Hub</th>
<th>Type</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Net Settlement</td>
<td>2 cycles at 9 am and 1:30 pm</td>
</tr>
</tbody>
</table>

- Fawri+ provides real time payments processing to customers, payments get credited **within 30 seconds**
- Banks net clearing obligations on Fawri+ transactions are settled at the RTGS of CBB in 2 cycles (9 in the morning and 1:30 in the afternoon on business days) using the net settlement mechanism
- Initially, the transactions were settled in a single cycle but later it was extended to two cycles. The BENEFIT Company is in discussion with the Central Bank to extend it to 3 settlement cycles. Transactions during the weekend are settled during the first cycle of the next business day
- Daily Fawri+ transaction limit for customers has been capped to BHD 1,000 per account per day by CBB to minimize liquidity risk. At the same time, Banks can monitor the real time incoming and outgoing transactions, so that they can ensure intraday funds
- BENEFIT and participants should have a robust operational risk-management for EFTS related operations and end-to-end continuous high availability (99.99%) of EFTS system in order to reduce the operational risk
- Banks have also put in full DR plan to ensure business continuity during downtime. Participants also need to report any event which has the potential to adversely affect its EFTS related operations immediately to CBB

Source: CBB| Primary Interviews
Chapter sections:
5.1. Legal and Regulatory Aspects
5.2. Risk Management
5.3. Dispute Resolution and Customer Complaints

Chapter Summary:
- The CBB authorized BENEFIT to operate the EFTS, subject to the directives, regulations, terms and conditions imposed by the CBB, under the CBB Law, 2006. BENEFIT is a specialized licensee - an ancillary service provider.
- Operations of BENEFIT as well as banks in the EFTS are subject to monitoring, oversight and supervision of the CBB in accordance with CBB directives.
- CBB Rulebook provides regulatory requirements for licensing of BENEFIT, participating banks and PSPs.
- CBB has deployed risk mitigating measures such as capping transaction limit to BHD 1,000 per account per day to mitigate liquidity risks. Banks can monitor real time incoming and outgoing transactions, which provides banks with their intraday liquidity position. Banks can get collateralized intraday liquidity in the RTGS System.
- CBB EFTS Directives and RTGS Operating Guidelines require banks to ensure that sufficient funds are available in their account in the RTGS System for settlement of EFTS net clearing obligations. Settlement of a net settlement file of Fawri+ is given the highest priority level in the RTGS System.
5.1. Legal and Regulatory Aspects (1/3)

Directives issued by the CBB under the CBB Law, 2006 governs the operation, participation (including eligibility criteria for participants, suspension, termination), payment services (Fawri+, Fawri and Fawateer), finality, responsibilities of BENEFIT & participants, clearing, settlement, continuous high availability, business continuity, security, monitoring, oversight, supervision, fees, charges, penalties.

As per the Red Book "Payments, clearing and settlement systems in the Kingdom of Bahrain" published by the BIS, CBB Law, 2006 is the main law that forms the legal framework.

The CBB Law mandates CBB to play multiple roles in payment, clearing and settlement area, with the aim of meeting the statutory objectives:

- Article 32 of the CBB Law empowers the Central Bank to own and operate payment, clearing and settlement systems; outsource the management of such systems to a third party; and issue regulations on payment, clearing and settlement systems. Some of the financial institutions included are:
  - Retail Banks
  - Financing companies
- Under Article 4(4) and 10, the duties and powers of CBB related to regulating service which includes:
  - Regulating, developing and licensing the provision of services
  - Supervising and exercising regulatory control over any licensee providing services

CBB Rulebook forms the regulatory provision for licensee.

The CBB Rulebook is issued by CBB pursuant to the CBB Law and applies to licensees of a particular category or area of activity and to individuals (approved persons) undertaking key functions in those licensees.

- The CBB Rulebook comprises seven volumes, each addressing regulatory requirements relating to licensing, regulation and supervision of licensees, and covering areas such as licensing requirements, capital adequacy, risk management, business conduct, reporting and disclosure requirements, as well as enforcement actions.
As per the Red Book “Payments, clearing and settlement systems in the Kingdom of Bahrain” published by the BIS,

The statutory role of CBB in the payment, clearing and settlement area include:

- Developing, regulating, licensing/authorizing, overseeing and supervising payment, clearing and settlement systems
- Owning and operating payment, clearing and settlement systems
- Enforcing the provisions of the CBB Law

All the roles are designed to achieve the broad objectives of the CBB as per Article 3 of the CBB Law, namely to:

- Set and implement the monetary, credit and other financial sector policies
- Provide effective central banking services to the government and the financial sector
- Develop the financial sector and enhance confidence therein
- Protect the interests of depositors and customers of financial institutions and enhance Bahrain’s credibility as an international financial centre

Payment System Oversight:

CBB is responsible for payment system oversight. It regulates, oversee and supervises the regulated financial services including:

- Payment, clearing and settlement system
- Securities trading, clearing and settlement systems, including central depositories
- Licensed exchanges and licensed market operators
- Payment instruments

The CBB directives and regulations issued on interbank payment, clearing and settlement systems aim at making such systems safe, sound and efficient, while facilitating conventional as well as Islamic financial institutions in transacting and settling Shari’a-compliant payment and securities transactions. The broader objectives of CBB payment system oversight cover:

- Ensuring the smooth, sound and safe operation of regulated payment, clearing and settlement systems to minimize risks, particularly systemic risks to ensure financial system stability
- Increasing efficiency of payment, clearing and settlement systems
- Protecting the interests of customers of licensed payment service providers against risks
- Facilitating development and encouraging innovation
As per BENEFIT Website,

**Background and Governance**

- The BENEFIT Company was established in November 1997 by **17 commercial banks** as the National ATM and Point of Sale switch of Kingdom of Bahrain. It was initially licensed by the Central Bank of Bahrain (CBB) to be ‘the provider of ancillary services for the financial sector,’ and soon expanded to cover markets outside Bahrain. The company mandate was to improve, enhance, add value and to enable the local and regional financial industry to thrive on a global scale.

- The company is focused on **cutting edge technology, strategic planning and initiatives in financial services**

- The BENEFIT Company is currently owned by 14 retail banks and administered by the Board of Directors who are represented by the **shareholding banks**. The Board has also established an Audit & Corporate Governance Committee, Executive Committee, and a Nomination and Remuneration Committee. The company has a paid up capital of BD 3.1 million at the end of 2019.

- It is licensed by the Central Bank of Bahrain to be a specialized license- **a provider of ancillary services** for the financial sector.

**Vision and Mission**

- **Vision:** Lead and provide an **effective, innovative, and value adding shared platform services** to stakeholders of the financial and other sectors in the Kingdom of Bahrain and the region.

- **Mission:** To provide and **invest in innovative payment capabilities**, information management solutions, business process outsourcing services, and build key business alliance that add value through the financial/banking and other sectors’ stakeholders.
## 5.2. Risk Management

Following are some of the risk mitigating steps adopted by CBB and The BENEFIT Company

### Liquidity Risk
- CBB has included a cap on the maximum transaction amount that can be transferred in a single day. Consumers can make multiple transfers up to a limit of BHD 1,000 per account per day ensuring banks with enough liquidity for the intraday Fawri+ transfers.
- The BENEFIT Company provides real time monitoring of transactions to all the banks. This provides banks with the information of the number of inward and outward transactions, which helps banks with liquidity position at any point of time.
- For PSPs, linking the debits and credits to the Client Money Account directly with bank of the participating PSP assures that the PSP’s account always maintains sufficient balance to support the settlement obligation.
- EFTS is capable of configuring debit and credit caps if CBB advises BENEFIT to do so.

### Credit Risk
- The Fawri+ transactions are real time transfers, once the payment is credited it is irrevocable thereby reducing the credit risk.
- CBB EFTS Directives and RTGS Operating Guidelines require banks to ensure that sufficient funds are available in their account in the RTGS System for settlement of EFTS net clearing obligations. Settlement of a net settlement file of Fawri+ is given the highest priority level in the RTGS System.

### Operational Risk
- BENEFIT and participants should have a robust operational risk-management (including frauds and cyber risk) for EFTS related operations and end-to-end continuous high availability (99.99%) under the CBB EFTS Directive to reduces the operational risk.
- CBB directive and BENEFIT’s policies put in place numerous contingency and business continuity measures over system’s management and operations. It includes daily and immediate reporting to CBB in case of any service outages/system failure (caused by a fault, malfunction, an error or cyber-attack etc.). Additionally, BENEFIT conducts regular checkups to assure the system robustness and scalability.

### Data Protection
- CBB Directives on EFTS require BENEFIT and participating banks to have comprehensive information security policies, standards, practices, measures and controls to ensure confidentiality, integrity and availability of information/data processed or held to deliver EFTS services to customers.
- The personal data protection law (PLDP) of 2018, provides guidelines for data protection.

Source: CBB | BIS | Primary interview
5.3. Cyber resilience and dispute resolution

The Kingdom of Bahrain has put a strong cyber security framework into place to safeguard and minimize frauds

Cyber Resilience

- CBB Directives on EFTS require BENEFIT and participating banks to have risk management framework having a holistic approach to ensure cyber resilience.
- Cyber Security is a fundamental pillar of the national ICT framework in the Kingdom of Bahrain. The Kingdom has a well-defined national cybersecurity framework governed by the General Directorate of Anti-Corruption and Economic and Electronic Security at the Ministry of Interior (MOI) for the cybersecurity in different sectors including finance.
- The Kingdom of Bahrain has achieved a "Mature Stage" of Cyber Security readiness as per the assessment of the International Telecommunications Union’s (ITU) published by Global Cyber Security Index 2018.
- In order to address the current cyber-threats and the rising cyber-risks, the National Cybersecurity Strategy is a commitment to protect the Kingdom’s interests in cyberspace. The objectives are:
  - Safeguard Critical National Infrastructure (CNI)
  - Respond decisively to cyber-threats
  - Establish a legislative and regulatory framework
  - Develop a vibrant, Cybersecurity ecosystem
  - Create a safer cyber-space
- In-line with the Kingdom’s efforts towards regulating and organizing the cyber security framework in Bahrain, the government has issued several laws and legislations related to Cyber Security and Personal Data Protection.
  - Law No. 30 of 2018 regarding Issuing the Protecting Personal Data law
  - Law No. 16 of 2014 regarding the Protection of Information and State Documents

Anti Money Laundering

- In order to ensure effective compliance with relevant standards and to preserve Bahrain’s strong reputation as a well-regulated financial center, the CBB maintains a Compliance Directorate, which is tasked with leading the CBB’s AML/CFT efforts.
- The objective of the compliance directorate includes: undertaking AML/CFT examination of licensees; analyzing financial crime trends and development; issuing AML/CFT guidelines etc.

Dispute resolution

- Directive from Central Bank mandates that Fawri+ transactions are real time and irrevocable, thus there are no specific guidelines for dispute resolution.
- BENEFIT as an operator has customer service and call center to register customer complaints.
- From Banks perspective, any disputes are handled through case-on-case basis through interaction between both the banks.

Source: Bahrain e-government
6. Annexure

Chapter Summary:
6.1. Key Features
## 6.1. Key Features

### Key Highlights

<table>
<thead>
<tr>
<th>Feature</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating hours</td>
<td>24<em>7</em>365</td>
</tr>
<tr>
<td>Payment speed</td>
<td>Fawri+ : 0-30 seconds</td>
</tr>
<tr>
<td>Transaction limit</td>
<td>Fawri+: Daily maximum limit of BD 1,000 per account per day</td>
</tr>
<tr>
<td>Alias</td>
<td>Fawri+: Mobile Number (through BenefitPay)</td>
</tr>
<tr>
<td>Channel</td>
<td>Fawri+: Branch, mobile and internet banking and BenefitPay*</td>
</tr>
<tr>
<td>User charges</td>
<td>A Fawri+ transaction up to BD 100 is free of charge and a transaction between BD 101-1000 is charged 100 fils</td>
</tr>
<tr>
<td>Infrastructure setup</td>
<td>New System</td>
</tr>
<tr>
<td>Messaging format</td>
<td>ISO 20022</td>
</tr>
<tr>
<td>Use of Open APIs</td>
<td>Open API not available</td>
</tr>
<tr>
<td>Authentication</td>
<td>Fawri+: 3 factor strong customer authentication</td>
</tr>
</tbody>
</table>

### Payment Types & Use Cases/Services

<table>
<thead>
<tr>
<th>Type</th>
<th>Time</th>
<th>Settlement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual</td>
<td>Business</td>
<td>Government</td>
</tr>
<tr>
<td>Merchant (BenefitPay)</td>
<td>Bulk / Batch Payment</td>
<td></td>
</tr>
<tr>
<td>Cross-border payments</td>
<td>Request to Pay</td>
<td></td>
</tr>
<tr>
<td>Schedule future payments</td>
<td>Bill payments</td>
<td></td>
</tr>
<tr>
<td>Direct Debits</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deferred Net Settlement</td>
<td>2 Cycle Per Day</td>
<td></td>
</tr>
</tbody>
</table>


*This information is pertaining to all Near Real Time EFTS system i.e., Fawri+, Fawri and Fawateer*