

# وثيقة متطلبات تطوير الخدمات التقنية لخدمات الدفع الإلكتروني

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# وثيقة متطلبات تطوير الخدمات التقنية لخدمات الدفع الإلكتروني :

## Bill/Statement Generation Service

- Bill Generation service aims to generate (produce) customer BILL as well as CUSTOMER STATEMENTS according the business rule set by the system administrator in each government agency for each customer government service produced by them.

## Bill/Statement Conversion Service

- This service will convert Bills/Statements to PDF, XML.

## Bill/Statement Persistence Service

- Bill/Statement can be stored (persisted) and forward to the customer.
- Bill/Statement can be stored (persisted) in the Payment Portal or back end system in object – relational database management system ORDBMS.

## Bill/Statement Presentment Service

- Bill/Statement can be presented in the designated portal (local) or other according to regulatory.
- Bill/Statement Presentment Service must support both push and pull technology in bulk scheduled, on-demand as well as single bill/statement.
- Bills must contain the MOF required information as minimum as specified in the circular distributed to government agencies ( تعميم رقم ( ٣ ) لسنة ٢٠٠٨ بشأن القواعد و الإجراءات المنظمة لتطبيق ( خدمات الدفع الإلكتروني في الجهات الحكومية ).
- Bills/presentment system in the payment portal via standard and secured protocol.

## Bill Payment Service

- **This service must have the following integration features**
  - Payment management service.
  - Dispute management service.
  - Reconciliation management service.
  - Payment transfer management service.

## Bill Dispute management service

- **This service must have the following dispute features**
  - Receive and register dispute.
  - Persist dispute.
  - Identify dispute parties.
  - Resolve dispute.
  - Use the Notify Service to notify dispute parties by the resolution events.

## Event Notification Service

### Event Notification Service NS consist of:-

- Notification event.
- Notification channel.
- Notification content.
- Notification persistence.
- Notification frequent.
- Event publisher.
- Notification service must allow customer notification at a bill/statement arrival event occurrence, (according the business rules applied) this event could be stored and managed by NS, this would then be sent to the subscriber.

### Notification events:-

- **Events to be notified could be :-**
  - Bill/Statement Generation and Persisted.
  - Bill Payment.
  - Bill Payment cancellation.
  - Bill Overdue.
  - Email alerts if a bill is about to go overdue.
  - Payment confirmations.
  - Pay in advance against balance due.
  - Pay anyone (pay for others with authorization) feature.
  - Automated recurring payments (customer arranges with bank).

### Notification channels:-

- Notification (alert), Via notification means such as :-
- E-mail, SMS, FAX, and IVR.

### **Notification contents:-**

**Information content of Notification must be clear and meaningful.**

### **Event publisher (Subscribe/Publish)**

- Notification service could allow notification event to be subscribed by the customer and could be published in both Arabic, and English as per subscriber preferred language.
- Notification service would allow the message to be sent by the event publisher and contain a reference to the event, as well as any additional set of parameter/value pairs can be added.
- Notification service could support both kinds of the notification Unreliable Notification, and Reliable (Granted Delivery) Notification.
- Notification service must support notification channel data of the subscriber (customer) be send to subscriber through:-
  - Fax-Fax number of the subscriber will be in his subscription information, SMS – short message to the subscriber mobile number.
  - E-Mail-Electronic mail to the subscriber mail box.
  - SMS, -Mobile phone number.
- Notification service can allow number of notification message to be sent to the subscriber.
- Notification service can allow un-subscription message to cancel an existing subscription.

## Payment Integration Service

- This service must have the following integration features:-
  - **Integration between Bill Generation Service and :-**
    - Agency Backend system.
    - Bill conversion service.
    - Bill Notification service.
    - Bill Presentment Service.
  - **Integration between Bill Presentment Service and :-**
    - Knet Payment service.
  - **Integration between Knet Bill Payment Service and:-**
    - Knet Payment service.
    - Bill Notification service.
    - Payment Receipt Generation Service.
    - Agency Backed system.
    - MOF financial System.