e-Dirham Training Slides

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e-Dirham Operation Team

Agenda

- Introduction
  - ➤E-Dirham Payment Gateway
  - ➤Features
  - ➤Gateway Structure
  - ➤Redirection Scheme
- e-Service Inquiry
- Payment Cycle
  - ▫ Sale
  - ▫ Capture
- Transaction Completion

Agenda

- Auto Update Function
- Refund
- Void
- Merchant Enrollment

Introduction … Cont.

- e-Dirham Payment Gateway
  - ➢ What is e-Dirham Gateway
  - ➢ e-Dirham Features
  - ➢ e-Dirham Structure

Introduction

➢ What is e-Dirham Payment Gateway

- ▫ Is an On-Line payment gateway owned by Ministry of Finance.
- ▫ Multi-channels Payment service provider:
  - • Ecommerce – Web Channel
  - • POS (Dialup, IP, GPRS)
  - • e-Direct
  - • e-Debit
- ▫ Supports Three types of payment Cards:
  - • e-Dirham G2-Card
  - • Visa Card
  - • MasterCard

e-Dirham Security

- Network Security

  ▫ Web Servers, Application Servers and Database Servers are separated in a deferent DMZs.
  ▫ Firewalls and network security components.

- Hardware Security

  ▫ Cisco Hardware Firewalls and IPSs are used to enhance the network security.
  ▫ E-Dirham Servers hosted in NBAD data center PR & DR sites.

e-Dirham Security

- Application Security
  - ▫ Web Servers support 128-bit SSL encryption

NATIONAL BANK OF ABU DHABI
The Number One Bank

Issue & Distribute Cards

NBAD Branches & e-Dirham Partners (e.g. Banks, Stores, Gas Stations, Exchange Shops, Post Office)

- Requests/Complains
- Business Rules
- Location of Gov (POS, Kiosks, CDMs,)
- Review of Costs

- Reports & Accounting Vouchers
- Financial File for Oracle System
- Settlement
- Complaints Resolution
- Review of Costs

United Arab Emirates
Ministry of Finance

e-Dirham G2 Card Holder

Get Card/Top-Up

Top-Up

Use "Shop"

Inquire Info

NBAD e-Dirham CDM

e-Direct "Top-Up from Banks' Accounts"

POS Merchants "Gov / Non Gov" (Accepting G2 & EIDA Cards)

Typing Canters & Companies (Accepting G2 & EIDA Cards)

e-Dirham/NBAD Web Inquiry System

e-Attestation, e-Registration & e-Guarantee (Accepting G2 & EIDA Cards)

IPG Merchants (Accept G2/EIDA Cards, Credit/Debit Cards, e-Debit)

Any Bank ATM (Cash Withdrawal from G2 Visa/MC Co-branded)

e-Dirham/NBAD Call Centre / IVR System
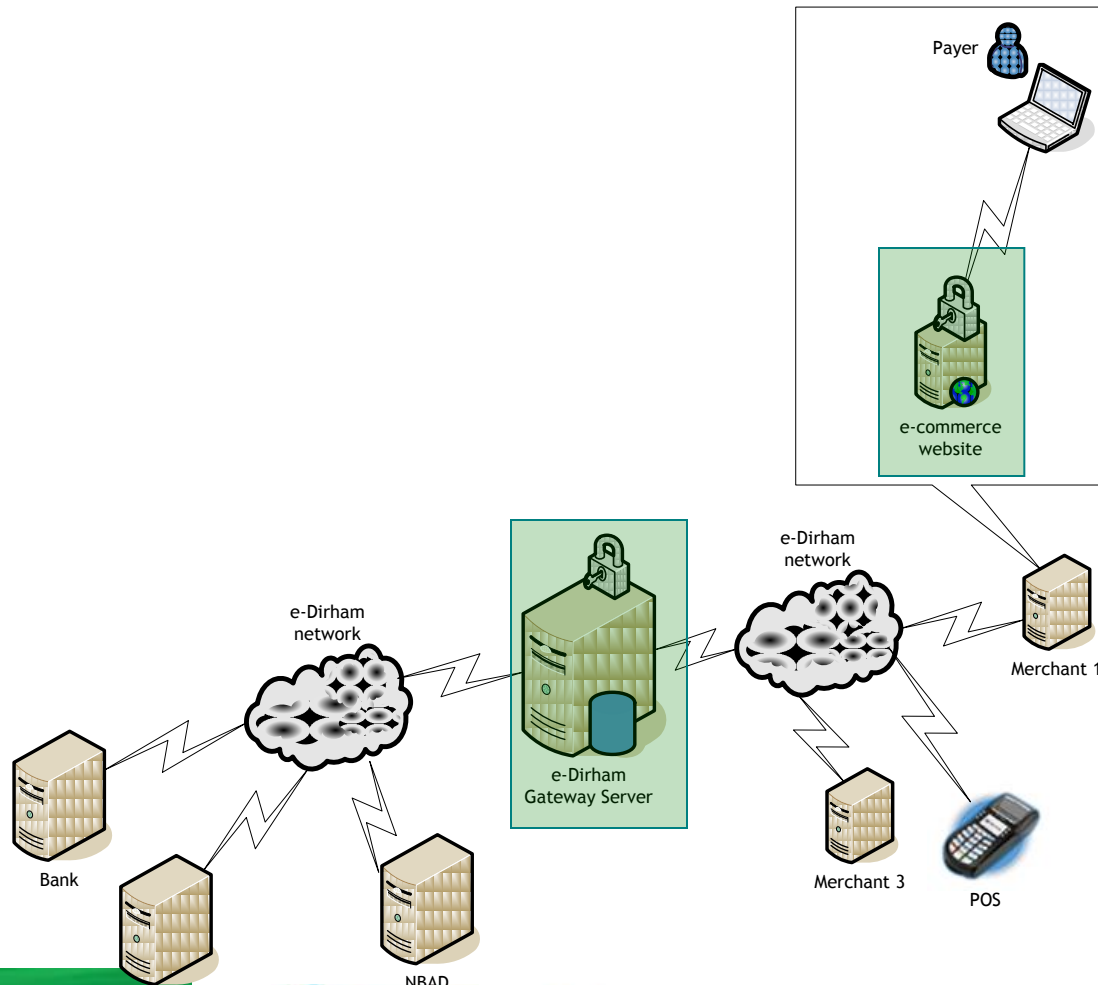
NBAD ATM (with PIN Set/Change)

➢e-Dirham Structure

* e-Dirham Gateway Layout

E-Service Inquiry

- The merchant inquires e-Dirham PG to get transaction amount and fees (view them to customer and store them in database).

- e-Dirham PG determines calculates amount and fees for all e-services.

- The e-service inquiry request sent from merchant site to e-Dirham PG to get amount and fees for any e-service before performing payment transaction.

E-Service Inquiry (Cont.)

1. Merchant site collects the payment transactions details
2. send an e-service inquiry request to the payment gateway
3. the payment gateway will respond by the transaction amount
4. the amount includes the transaction fees.
5. The merchant site shows the transaction details to customer including the total amount
6. if the customer confirmed the transaction, he will be redirected to the payment gateway after the merchant site builds the payment transaction request.

Payment Cycle.

- e-Dirham PG supports two types of payment transaction:

  ➢ Sale
  ➢ Capture/Authorize

Sale:

- Transaction flow originates at merchant's pay page.
- All data collected from merchant after getting e-Service inquiry sent to e-Dirham PG as encrypted data over SSL channel.

Payment Cycle … Cont.

- e-Dirham PG decrypts merchant data and displays payment information along with merchant information with the pre-selected payment method (G2-Card, VISA or MasterCard).

- Customer enters card information and submits transaction request.

- e-Dirham PG encrypts and sends transaction request as per back-end system requirements to be processed.

Payment Cycle … Cont.

- Back-end system sends back the result of processing request to e-Dirham PG.

- e-Dirham PG redirects transaction result to merchant site.

- If transaction is successful; transaction amount directly debited from customer account. So, merchant can deliver the service to customer directly.

- Sale transaction type is valid for all Cards types; G2, VISA and MasterCard.

Payment Cycle … Cont.

Capture:

- Capture transaction is similar to Sale transaction.
- Capture transaction doesn't directly debit the amount from customer account: only blocks it.
- Amount is debited from customer account only when a Completion request is sent from merchant site to e-Dirham payment gateway referring to same capture request.
- This transaction type is valid for G2-Card only.

Transaction Completion

- Based on merchant business logic, A decision is made to give or deny a service for customer that already a capture transaction processed against his/her account.
- A completion request sent to e-Dirham PG referencing the captured transaction.

- Only valid for G2-Card Only.

Auto Update Function

- Auto update responsible for synchronizing final status of a transaction between merchant site and e-Dirham PG.

- Auto Update cycle starts from Merchant side by calling AutoUpdate service.

- AutoUpdate service fetches transactions in sequence and sends each transaction back-to-back to e-Dirham PG to confirm.

Auto Update Function … Cont.

- E-Dirham PG in turn sends transaction information to back-end system to synchronize it and sends it back to e-Dirham PG. Finally, Transaction response and status of AutoUpdate to Merchant.

- AutoUpdate uses HTTPS to send transaction to e-Dirham PG: important for Merchant developer to overcome any network setup along the way (like proxy server).

- AutoUpdate Function call must be Scheduled with e-Dirham PG Operation Team. Typically, transactions should be AutoUpdated, on daily-basis.

Refund

- Refund used to return money back to customer after s/he performed completed successful transaction while for some reason, merchant was not able to provide service to customer.

- Refund can be performed for full amount of original transaction or partial amount.

- Service fees will not be refunded in all cases.

- Total refunded amount cannot exceed the original transaction amount.

- Only confirmed successful payment transaction can be refunded.

Refund ... Cont.

- Initiator of refund transaction should be a privileged merchant administrator aware of refund reason and valid cases for refunding transactions.

- In some merchant implementations, decision of making refund is taken by merchant web application automatically (no human interaction) where web application is aware of any service delivery failure to customer after performing successful payment transaction.

Voiding Transaction

- Void sale is used to discard any payment action such as (Sale/Authorize/Completion).

- Original transaction will be voided completely.

- Initiator of void transaction should be a privileged merchant administrator aware of void reason and valid cases for voiding transactions.

Merchant Enrollment*

- ## Pre-Certification Process
  - ➤ Organization details
  - ➤ Technical Data [Sharing Between e-Dirham PG & Merchant]
  - ➤ System Requirement. (SSL certificate, logo, theme, …etc.)
  - ➤ Defining Merchant Profile on e-Dirham PG
  - ➤ Merchant Sends CSR file to e-Dirham PG Operation Team. To process and Reply By:
    - ✓ Staging Merchant Signed Certificate file
    - ✓ Staging e-Dirham certificate file and e-Dirham Staging Certificate Authority file.

Merchant Enrollment … Cont.

➢ Merchant Sends Formal E-mail to e-Dirham PG Operation Team confirming that Merchant is Ready to be moved to e-Dirham PG Production Environment after being Certified by e-Dirham PG Operation Team.

- ## Certification Process
  ➢ E-Dirham Operation Team Verifies the Following:
    ✓ Payment Methods
    ✓ Currencies
    ✓ HTTPS Redirection
    ✓ Auto Update Automatically Scheduling

Merchant Enrollment … Cont.

✓Run Successful transaction using all supported currencies and payment methods

✓Run all transactions as per Merchant Test Cases Document

✓Run Auto Update for all above transactions and verify the transaction extract status at PG Side

✓Run all other functionalities like: capture, completion refund and void.

✓Merchant verifies that the transactions processed and closed successfully at Merchant Side

✓E-Dirham Operation Team sends a formal email to merchant confirming that merchant is now certified and ready to be moved to e-Dirham PG production environment

Merchant Enrollment

- ## Post Certification Process
  - ➢ Merchant purges all logs and testing data from merchant E-E-Commerce Application System.
  - ➢ Merchant receives the production technical details sheet

Merchant Enrollment … Cont.

➢E-Dirham/Merchant co-ordinate to run a soft-launch full payment cycle testing covering at least canceled/failed payment cycle.

➢E-Dirham sends a formal email to merchant confirming that the merchant is now enabled on e-Dirham PG production environment and merchant can announce merchant online e-payment service go-live.

e-Dirham Support

- All technical communications should be done between the Merchant and e-Dirham PG Operation Team through below e-Dirham contact details:

- E-mail: support@edirhamg2.ae
- Mobile: +971 50 100 2667