



Role of Banque Du Liban in e-Payments Initiatives

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Role of BDL in e-payments initiatives

- Circulars addressing e-payments initiatives
- Secure Electronic Banking and Information for Lebanon – SeBIL
- Secure Information Technology infrastructure SITI
- Law for Electronic Signatures

Laws and circulars relating to electronic payment systems

- Law No. 133/99 of 26 October 1999, extended BDL's responsibilities vis-à-vis the issues and settlements of means of payment
- Circular no. 68 dated March 2000 requiring all banks operating in Lebanon to link their branches with the Head quarters via networks.
- Circular no. 69 dated March 2000 relating to electronic banking and financial transactions.
- Circular no. 92 dated January 2003 relating to Electronic Clearing House for Credit Cards and Payment Cards and Debit Cards Issued in the Lebanese Market and Used on ATM's.
- New Circular relating to Electronic Clearing House for Credit Cards and Payment Cards and Debit Cards Issued in the Lebanese Market and Used on POS.

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Role of BDL in relation with Payment Systems

- Assess the payment system according to the CPSS/IOSCO Recommendations for Securities Settlement Systems.
- Comply with the Core Principles and Basle II Recommendations.

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**Secure Electronic
Banking and
Information for
Lebanon**

SeBIL Major Players

- BDL
- Banks
- Public Sector
- Financial institutions
- Money Dealers
- ...




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SeBIL Vision

- SeBIL
 - Platform for secure payments (Banks, Financial Institutions, Public Sector).
 - Increased ability to manage market liquidity & risks.
 - Electronic end-to-end processing at all levels of interaction.
 - Assured reliability & integrity of strategic information.
 - Appropriate regulatory environment.
 - Web-based Application



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SEBIL Vision

- New Payment System
 - **Strategic Vision for SeBIL:**
 - As a critical initiative for Lebanon to modernize its financial sector, **SeBIL** is the mechanism to meet existing and future market needs in ways that provide market competitive positions, first inside Lebanon, and then extending out into other markets.
 - As a secure platform for e-banking and e-finance, **SeBIL** will initially connect BDL headquarters and its branches in Lebanon, then extend to the Lebanese financial and public sector relying on BDL services.
 - The Secure Information Technology Infrastructure (**SITI**) will provide the necessary support for BDL to achieve the strategic vision of **SeBIL**.



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SEBIL Strategy

- **A Project Roadmap to meet the strategy**

SeBIL will be the combined system of the SITI infrastructure and the applications that execute on or in conjunction with the secure computing base including.



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SEBIL Components

- Real Time Settlement System (RTGS)
- Government Payment Management (PAY)
- Banking Supervision System (BSS)
- Document Management System (DMS)
- Decision Support System
- Help Desk



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SEBIL Components

- Real Time Settlement System (RTGS)

SeBIL will be the combined system of the SITI infrastructure and the applications that execute on or in conjunction with the secure computing base including:

- The System would provide BDL with the tools to manage and reduce risks in the financial industry and would provide the platform for real-time and secure e-commerce, thus benefiting the entire economy.
- It would enables national financial systems to leapfrog into the electronic era, bypassing outdated payment technologies to participate in the global electronic marketplace.



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SEBIL Components

- Real Time Settlement System (RTGS)

Tangible benefits would manifest in the entire financial sector all the way from efficient high value payment and clearing between banks, through government payments, securities trading and business-to-business payments, to low value consumer-to-business and consumer-to-consumer payments.



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SEBIL Components

■ Government Payment Management (PAY)

It would be utilized by Government to make and receive payments via the RTGS application, while enabling the BDL to provide a comprehensive and automated electronic payment management service to the Government, thus implementing a real e-Government process.



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SEBIL Components

■ Government Payment Management (PAY)

This type of solution can offers the following benefits to BDL:

- Full utilization of RTGS real-time payment environment to offer an electronic payment service to Government departments.
- Increased circulation of money where Government is party to a transaction that can result in improved liquidity optimisation and reduced need for Government financing.
- Reduction in manual, paper based instruments like cheques and payment vouchers.
- Automation of current Government salary disbursement processes to employees through banking accounts direct crediting.
- Reduction of fraud related to payment instruments



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SEBIL Components

■ Banking Supervision System (BSS)

Banque du Liban, as well as any other Central Bank, in its mission to monitor and improve behaviors of the Lebanese Banking system, needs modern and advanced technologies to support both its daily regulatory functions and statistical activities.

A BSS management system would provide BDL with the capacity of:

- evaluating Key Performance Indicators of the banking system in order to benchmark the performance of individual banking institutions,
- providing statistics, trends and highlights.
- creating a unique point of collection of meaningful data to provide a complete and effective environment for analysis and reporting.
- Beign a valid support for BDL decision makers



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SEBIL Components

■ Banking Supervision System (BSS)

Such environment will guarantee an optimized access to data by sub-systems and external systems through specific and authorized interfaces.



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SEBIL Components

- Document Management System (DMS)

A DMS would provide BDL with an electronic mail register based on a content management platform (controlled through a sophisticated workflow engine) capable of managing incoming, outgoing and internal correspondence.



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SEBIL Components

- Document Management System (DMS)

The adoption of the above system will support the achievement of many goals, such as:

- Increased efficiency of business processes and cut down information delivery time by automatic routing of electronic documents
- Improved productivity by providing easier and faster on-line access to scanned documents for a larger audience in a secure manner.
- Increased security by eliminating transfer of paper files and adopting electronic tools
- Facilitated customer services and relationships with suppliers and business partners
- Improved performance monitoring and process control in the Organization



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SITI Project

To support Secure Electronic Banking and Information for Lebanon (SeBIL), BDL developed a Secure IT Infrastructure (SITI)

■ SITI Objectives:

- Provides BDL with the strongest possible protection of Lebanese banking information in terms of information security and information assurance such as:
 - ✓ Electronic services
 - ✓ Solutions embodying:
 - Confidentiality
 - Authenticity
 - Integrity
 - Non-repudiation
 - Availability
- Enable BDL to offer a wide range of electronic banking services securely to Lebanese member banks
- Allow the flexibility of SeBIL to evolve in the future as Lebanon's banking and financial sector develops



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SITI Components

- Access Control (Authorization – Authentication – Boundary)
- Encryption (Cryptographic – PKI)
- Secure Communications (Physical Infrastructure)
- Management (Enterprise System & Security)
- Systems and Network Services (software validation)
- Business Continuity Management (disaster recovery)
- Potential Future Expansion (Future application support)



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SITI Project - Numbers

To support Secure Electronic Banking and Information for Lebanon (SeBIL), BDL developed a Secure IT Infrastructure (SITI)

- SITI Project in Numbers:

SITI project was related to the planning, supply, installation, configuration, integration, verification and validation of:

- More than 100 equipments among Servers, Storage, Network
- 2 Mainframe
- 2500 Smart Card reader
- 5000 smart cards
- 2 HSM device for the cryptography

A modern and complete Data Centre has been created with biometrical access system that insure the highest level of physical security



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SITI Project - Services

- SITI Project Services :

Several Commercial Application as well as Open Sources have been installed to provide a wide service range:

- | | |
|--|--|
| <ul style="list-style-type: none"> □ Secured Internet Services for both internal and external Users □ Connectivity with external Network such as Bank, Financial Institution, Leasing Company, Brokerage Company, Reuters, Swift, Bloomberg □ Authentication Centralized Service, Single Sign-on and User Profile Management □ Email Management □ Issuing Digital Certificates □ Information traffic Verification & Validation Services to prevent any attack or unauthorized access tempt □ Business continuity services | <ul style="list-style-type: none"> □ Inventory and cataloguing of the overall equipment □ hardware & software inventory information, monitoring servers and network devices □ Maintain system function or system security in the event of enterprise or component failure, fault, or penetration □ Authentication Centralized Service, Single Sign-on and User Profile Management □ Others... |
|--|--|



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Secure IT Infrastructure

SITI Core Public Key Infrastructure (PKI)



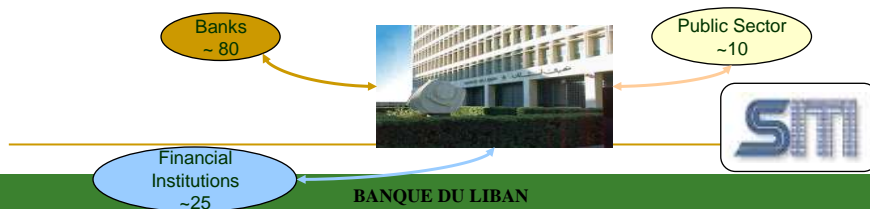
SITI PKI Core Solution

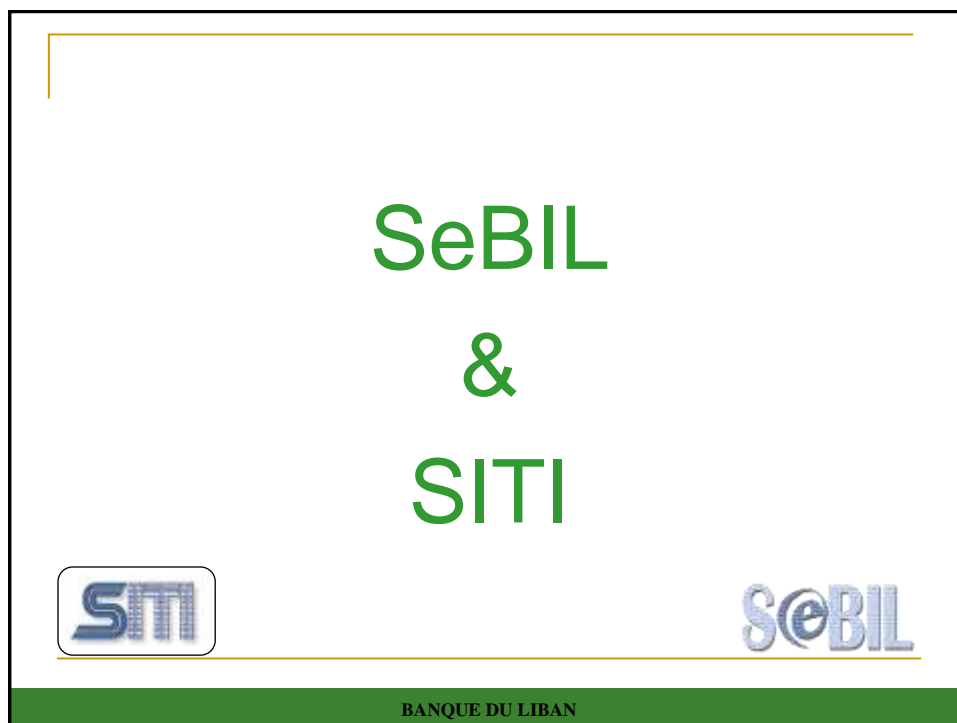
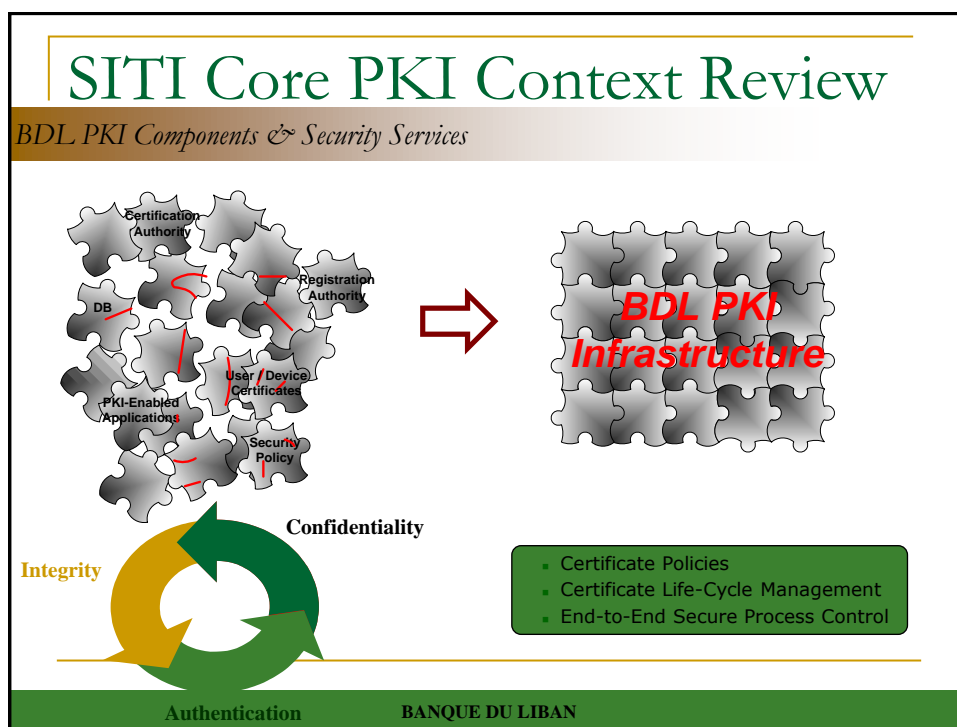
BDL E-Banking Applications PKI-Enabled

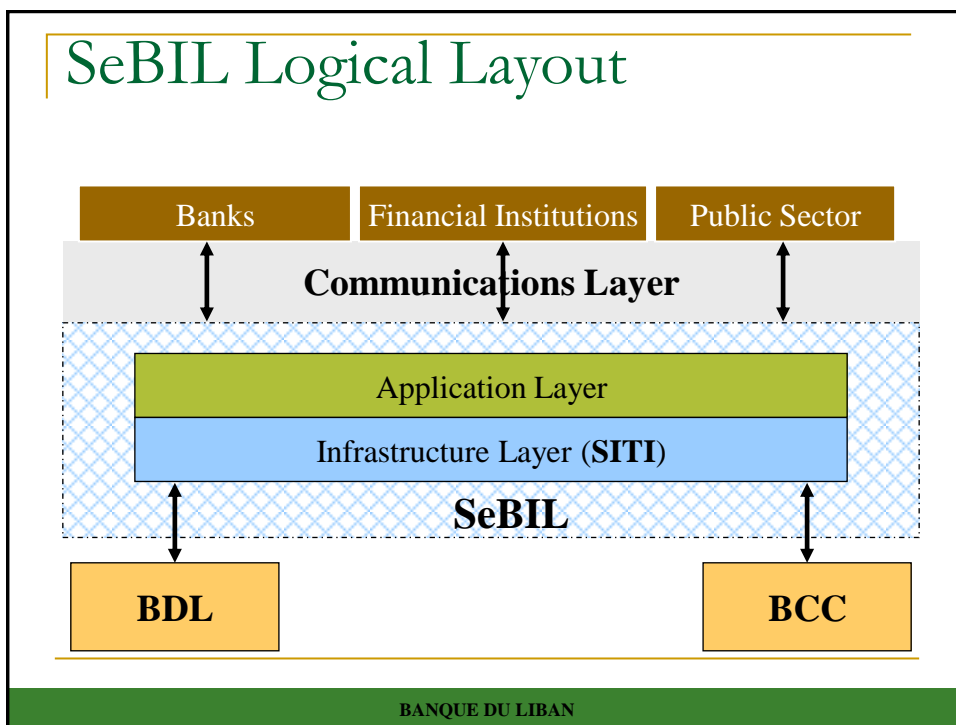
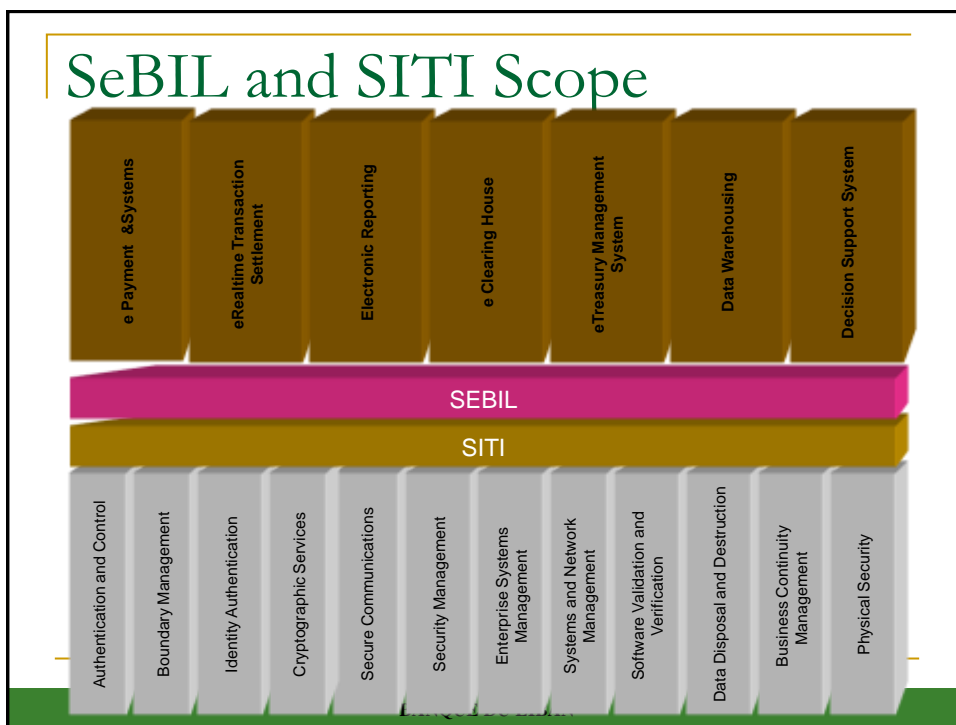
- Communication between web servers and browsers
- Email and file encryption and signature
- Electronic Data Interchange (EDI)
- Application-based electronic transactions signing
- Virtual Private Network (VPN)
- Client and server strong authentication (SSL or IPSec)
- Smart Card Logon
- Time Stamping and Non Repudiation Services

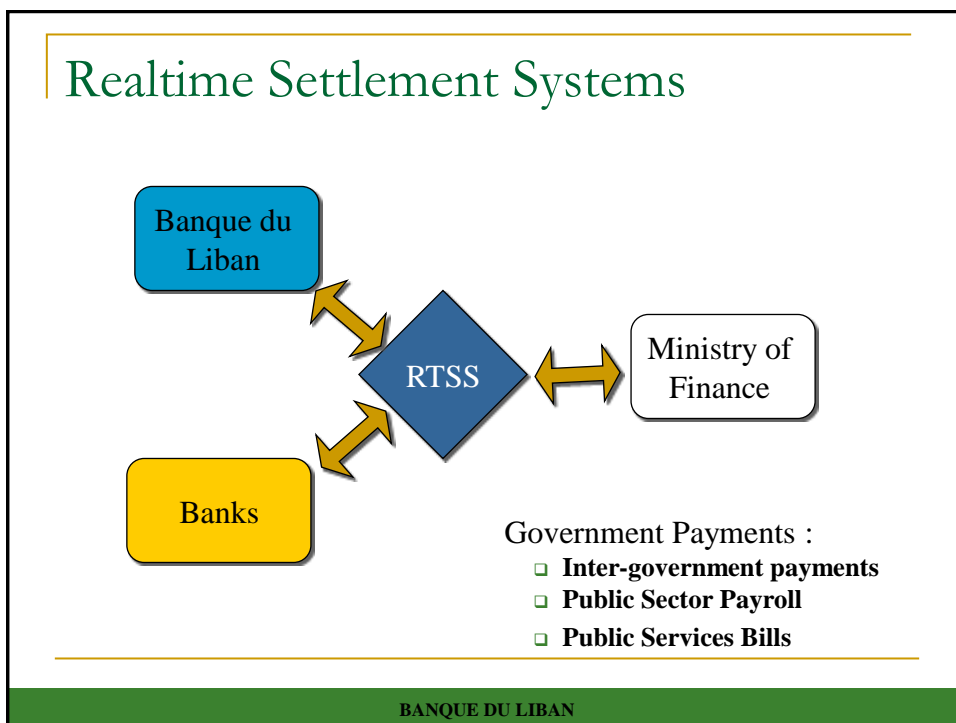
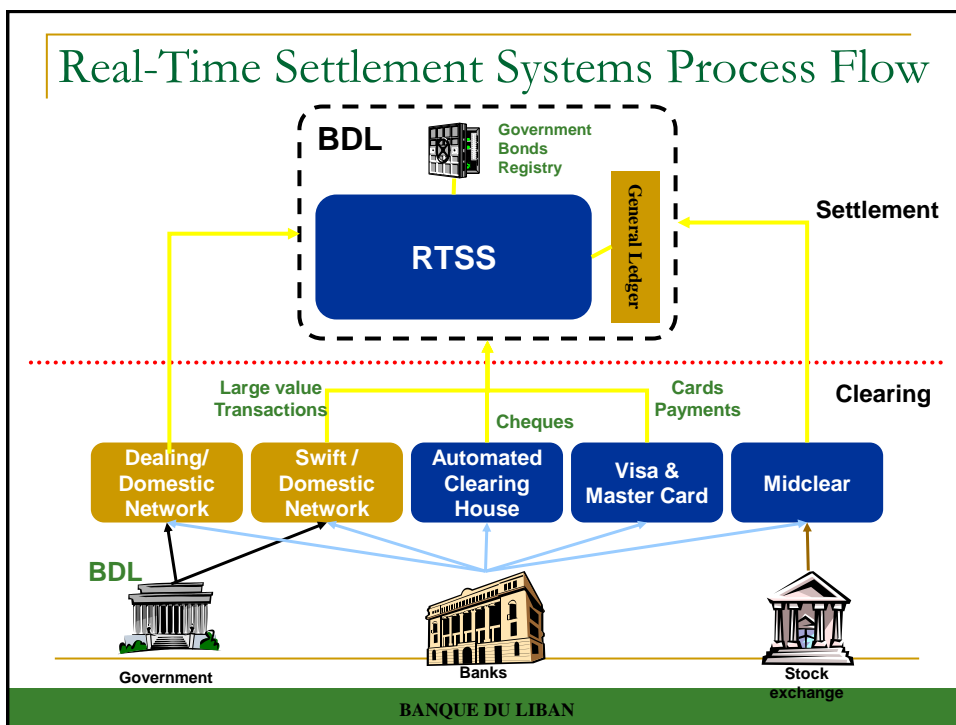
The Real Challenges:

- PKI on line with business
- PKI Integration with applications
- End-to-End Security Processing
- PKI Documentation to deliver trust
- Management and Reliability – Easy to use
- Planning and Deployment
- Managing migration and scalability

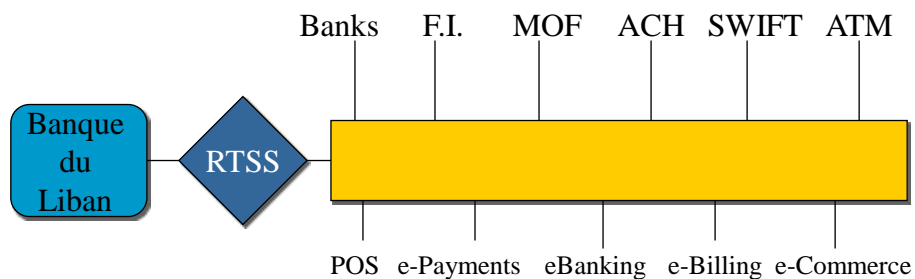








Realtime Settlement Systems



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قانون تكنولوجيا المعلومات

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End of Presentation

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