

Unified Payment Interface: Security



About UPI :

The Unified Payment Interface (UPI) provides a single interface that allows seamless interoperability between different payment systems.

How it works

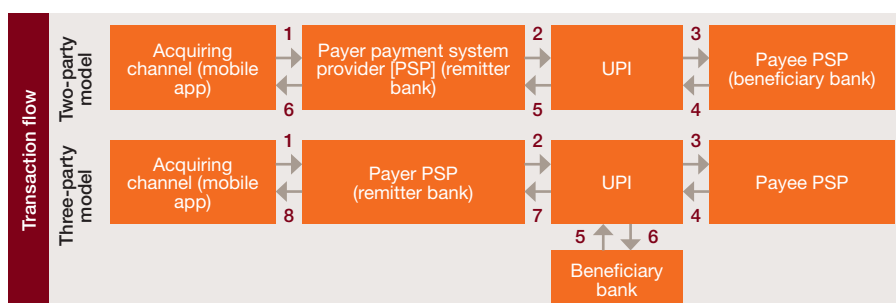
- UPI works on the concept of a virtual payment address.
- Bank accounts, cards and wallets can be mapped to a unique virtual payment address.
- Payments can be made using an account number, mobile number and Aadhaar number (virtual payment address).
- UPI leverages the existing infrastructure for authentication.

UPI's benefits

- The use of a virtual payment address affords interoperability and makes one-click payment possible.
- Funds transfer can be initiated by either the payee or the payer.
- UPI eliminates the need for exchanging sensitive information, such as bank account numbers, one-time passwords or phone numbers during a financial transaction.

UPI market success factors

- Game-changing electronic payment system that will facilitate the transition to a near cashless economy
- Provides a modern unique identifier for each individual
- Option for scheduling push and pull transactions



UPI transaction: Key stages

- Initiate transaction
- Debit payer account
- Send credit request to PSP through UPI
- Resolve address
- Credit beneficiary
- Intimate UPI and customer



What's at stake?

- Virtual payment addresses
- Digital identity of individuals
- UPI ecosystem built and integrated for provisioning services
- Security of the identity, transaction information and data over the network
- Time to respond—transaction speed is the highest
- Customer confidence in the service, market trust and faster adoption by the customer
- Regulatory compliance
- Financial and reputational aspects

What should you do?

- Ensure security of UPI environment and interfacing systems
- Ensure security of identity on the mobile device
- Introduce new security tools to protect the changing business model
- Perform advanced and smart analytics for effective monitoring of security risks
- Ensure compliance with regulatory requirements and adoption of industry standards
- Maintain logs and security to help in forensics
- Ensure you have appropriate response processes in place so that you are able to act quickly in the event of an incident being discovered
- Share periodic knowledge/security bulletins with customers

How can PwC help?

PwC's Cyber Security team can address your needs by offering:

- Vulnerability detection
- Technology controls
- Functional controls
- Process controls



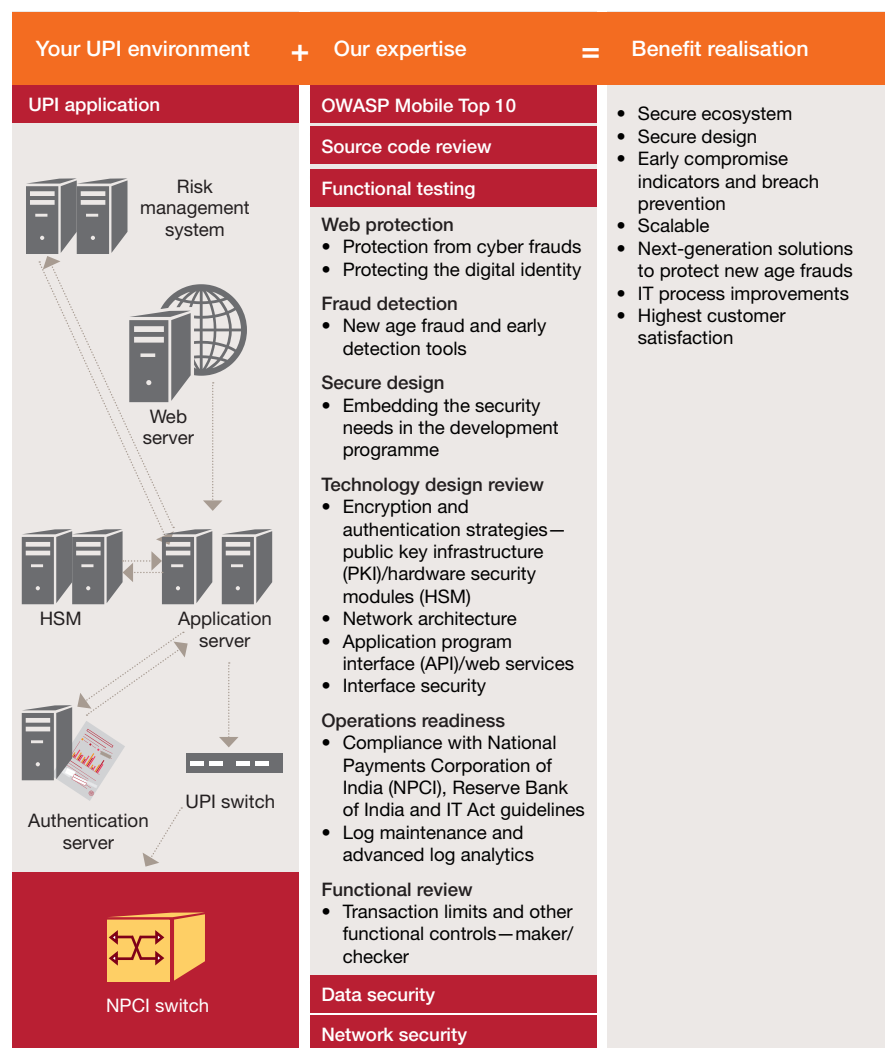
Protecting UPI

Measures to ensure security of the UPI platform

Banks and PSPs need to think through their security strategies, governance models and predictive controls to build a secure UPI environment that ensures a seamless user experience and at the same time balances security risks.

Security considerations

- Product and digital vision
- Consideration for digital identity and potential reuse
- Compliance—regulatory and the IT Act
- Secure design
- Embedding the learnings
- Incident and event monitoring
- IT general controls implementation
- Network segregation
- Training and awareness
- Adoption of industry best practices



PwC helps you answer following key questions:

- Given that a customer is no longer required to give his/her personal credentials like account details and security PINs, could there be a risk of higher security compromise?
- What are the key technology, security and process solutions to ensure a secure UPI ecosystem?
- Banks are scaling up the mobile banking infrastructure to handle the exponential growth of the customer base; however, connectivity plays a crucial role in mobile banking transactions. Could this be a hindrance?

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Data Classification: DCO

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