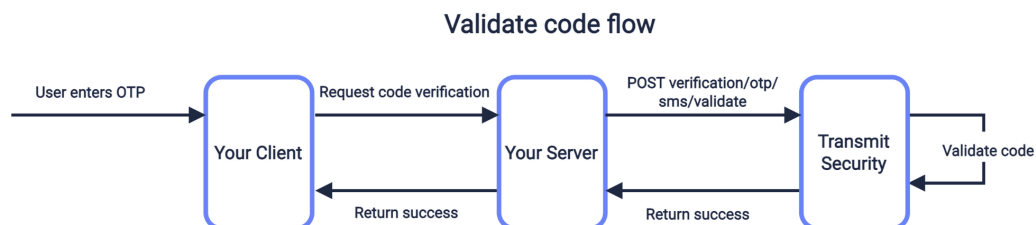
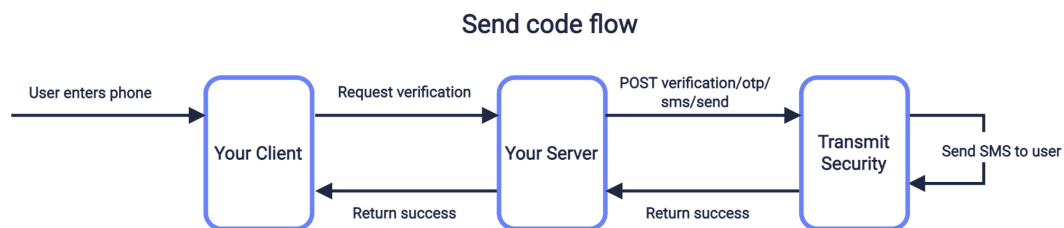


Kiosk Mode:

Kiosk Mode is a special operating mode where a **device is locked to a single app or limited set of apps**, restricting user access to system functions like:

- Home button
- Recent apps
- Notifications
- Status bar
- Navigation gestures
- Settings.

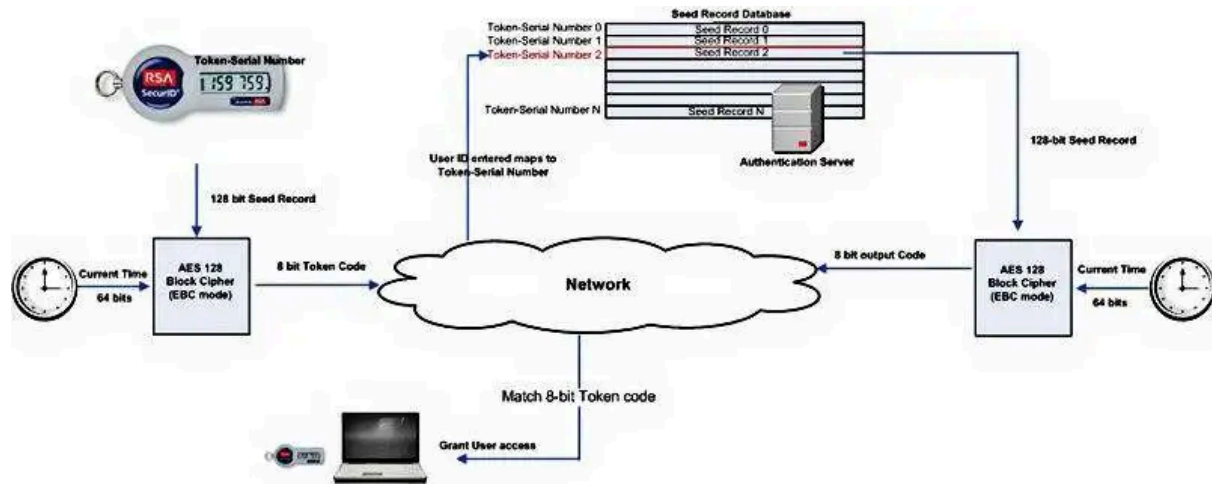
OTP Based authentication:



Authenticators:



RSA:



PALM Authentication:



How fingerprint works in our app?

How It Works – Step-by-Step

1. User Enrollment (Initial Setup)

- The user sets up biometric authentication on their phone (OS-level setup).
- The bank app then **requests permission** to use those OS-level biometrics via secure APIs.

2. Integration with Device Biometrics

- The bank app uses **biometric APIs provided by the OS**:
 - **Android**: `BiometricPrompt` or older `FingerprintManager`
 - **iOS**: `LocalAuthentication` framework
- The app doesn't directly access biometric data. Instead:
 - The OS handles authentication.
 - The OS tells the app whether the biometric matches or not (true/false response).

3. Authentication Flow

- User opens the banking app and chooses "Login with Fingerprint/Face."
- The app sends a request to the OS.
- OS shows the biometric prompt (fingerprint/face).
- Biometric match occurs **locally on the device** (never sent to a server).
- If successful, the OS sends a **token or success callback** to the banking app.

4. Secure Session Start

- Once authenticated, the app may:
 - **Decrypt a stored token or session key**
 - **Fetch new authentication tokens from the server** (e.g., OAuth token)
 - Continue into the secure session without asking for password.

STATS:

<https://www.perplexity.ai/search/in-us-how-many-people-are-usin-NCC6pIOZS62FJWw6PpMxaQ>

1. <https://meetanshi.com/blog/digital-payments-statistics/>

- The total transaction value of digital payments in the United States is estimated to be **\$3,073 billion** in 2024 and **\$3.15 trillion** in 2025.

- The United States Digital payments market is expected to grow at 14.66% CAGR and **reach \$4,620 billion by 2028.**
- **7 out of 10 US customers** surveyed agreed using a mobile app for making payments
- **.42%** of the US customers by Feb 2025 surveyed felt comfortable leaving their wallets at home and relying on mobile phones for payments.

2. <https://www.atlantafed.org/blogs/take-on-payments/2024/06/03/mobile-payment-juggernaut-rolls-on>

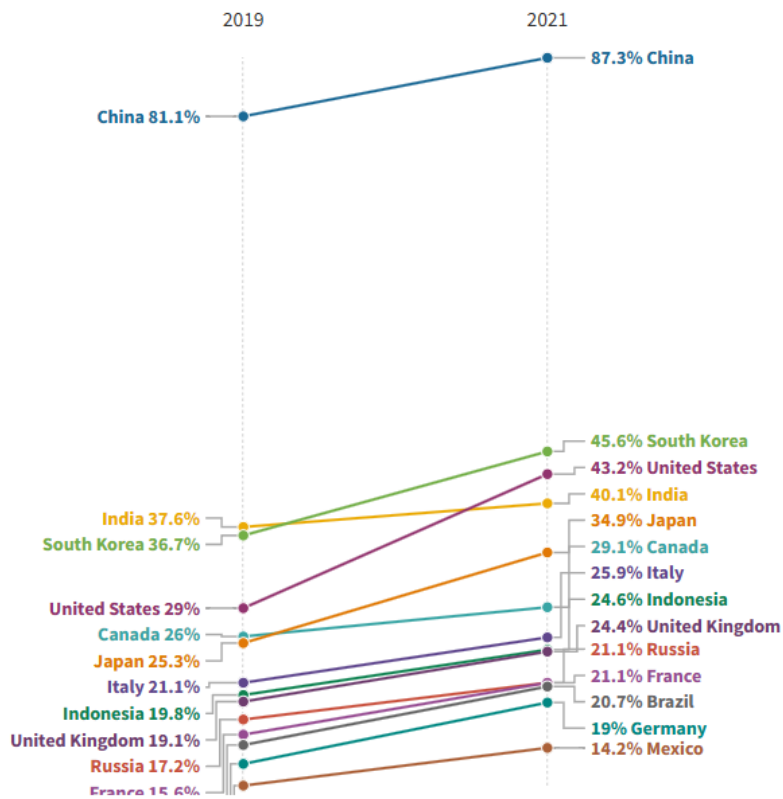
the Survey and Diary of Consumer Payment Choice has reported on mobile payments since 2010, when 1 percent of US consumers reported that they had made a contactless mobile payment at least once in the past year. Fast forward 13 years, and mobile pay has won over 70 percent of US consumers.

As of October 2023, 70 percent of US consumers made a mobile payment at least once in the prior 12 months. In addition, 29 percent of payments made by US consumers used a mobile device; five years earlier in 2018, just 8 percent of consumer payments were executed via mobile.

3. <https://www.merchantsavvy.co.uk/mobile-payment-stats-trends/>

Adoption of mobile contactless/tap to pay (2019 and 2021)

Chart by MerchantSavvy.co.uk | Data Source: Emarketer.com



Source emarketer.com, Chart: Merchant Savvy

* A Flourish slope chart

The total number of mobile proximity payments users in the US exceeded 100 million in 2021. This number is expected to continue growing to a projected 125 million by 2025, account for over 50% of smartphone users in the country.

Summary Table: Mobile Payments vs. Card Usage (2010–2025)

Year	% Using Mobile Payments	Estimated Users (millions)	Card Usage (as % of adults)
2010	<5%	<15	~95%
2015	~10%	~25	~95%
2018	56% (used at least once)	~143	95%
2020	21.5% (of transactions)	~160	90–95%
2021	>40% (used at least once)	>100	~90%
2023	70% (used at least once)	~182	~90%
2025	43.2% (regular users)	~125 (proximity payments)	~85–90%



Key insights:

- Mobile payment adoption has grown from negligible in 2010 to 70% of adults trying it at least once by 2023, and 43% using it regularly by 2025.
- Cards remain the dominant payment method, but the share of mobile payments is rising steadily.
- The shift from cards to mobile is gradual, driven by younger generations and accelerated by the pandemic, but most Americans still rely on cards for the majority of transactions ¹ ² ³.

- **North America:** While slower to adopt compared to Asia, QR payments are gaining traction in the United States. According to a report in QR Statistics and Trends QR code scans reached 41.77 million in 2024 – a 433% increase over the past two years. In the United States of America, 38% of payments were made using QR payments⁽²⁾.
[https://www.mindgate.solutions/qr-payments-around-the-world-trends-and-adoption-rates/#:~:text=North%20America:%20While%20slower%20to,using%20QR%20payments\(2\).](https://www.mindgate.solutions/qr-payments-around-the-world-trends-and-adoption-rates/#:~:text=North%20America:%20While%20slower%20to,using%20QR%20payments(2).)
- .In 2023, failed payment transactions cost businesses over \$118 billion globally, including losses from abandoned purchases.

- Mobile payment platforms experienced a 7% failure rate in emerging markets, often due to unreliable internet connectivity.

<https://coinlaw.io/global-payment-network-statistics/>

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