

Payment Gateway Registration & Regulatory Framework Guide



Foreword

Digital payments are on the rise in India. The country is witnessing more and more consumers shifting to online channels of payment, and successfully propelling the Indian Government's dream of 'Cashless India'. This increasing demand has also led to more online marketplaces and merchants relying on a digital system to make payments easier and omnichannel for their customers.

Payment Gateways provide the medium for this. As readymade and easily integrateable payment facilitators, they allow merchants to receive payments from their customers securely and instantaneously.

In this presentation, we're looking into the concept of Payment Gateways in India, the Registration process and the Regulatory Framework applicable to them.

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What Payment Gateway Means

Payment Gateways are the entities that provide technology infrastructure to route and facilitate the processing of an online payment transaction. However, Payment Gateways are not involved in the handling of funds that are part of a payment transaction.

Payment Gateways play a key role in enabling smooth and secure online payments for consumers and merchants. The gateway securely validates the customer's payment details, confirms the fund availability and allows the merchant to receive the payment.

Types of Payment Gateways

HOSTED PAYMENT GATEWAY

Directs customer away from the Merchant's Checkout Page to the Payment Service Provider (PSP) Page. Redirects customer to Merchant Website after Payment. E.g., PayPal



API HOSTED PAYMENT GATEWAY

Customer's Payment information is processed on Merchant's Checkout Page using an API or HTTPS Queries. Merchants responsible for PCI DSS compliance and SSL certification. E.g., Razorpay



SELF-HOSTED PAYMENT GATEWAY

Payment Details collected from customer within the Merchant's Website. Data collected is sent to PG's URL. E.g., Shopify powered by Stripe



LOCAL BANK INTEGRATION

Redirects customer to PG (Bank) Website and back to Merchant's Website after payment.



Payment Gateway Market in India



**Total Payment Value (TPV)
INR 9.5 Trillion**

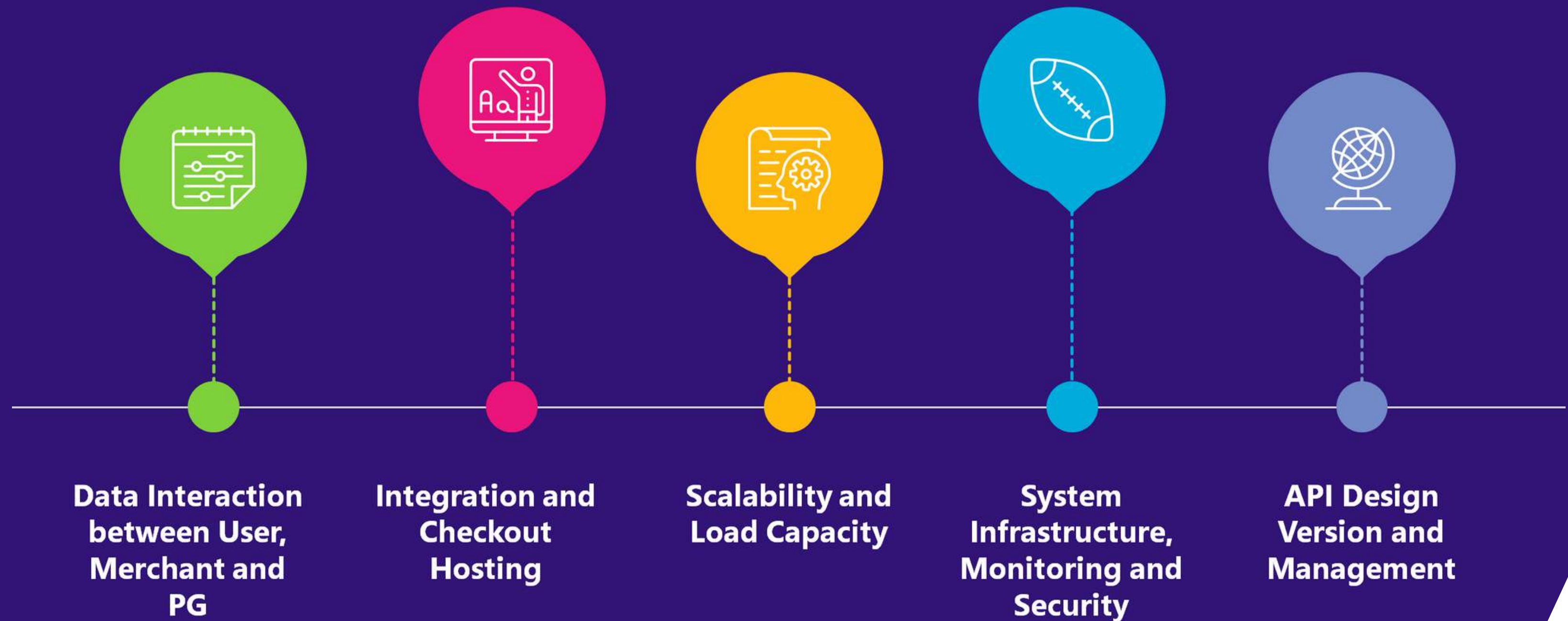


**CAGR of 15%
in FY 2020-2025**

What a Good Payment Gateway Offers



Aspects of Payment Gateway Development



Payment Gateway Stages

1 **ENCRYPTION**

When user enters their details, the gateway encrypts the information from others.

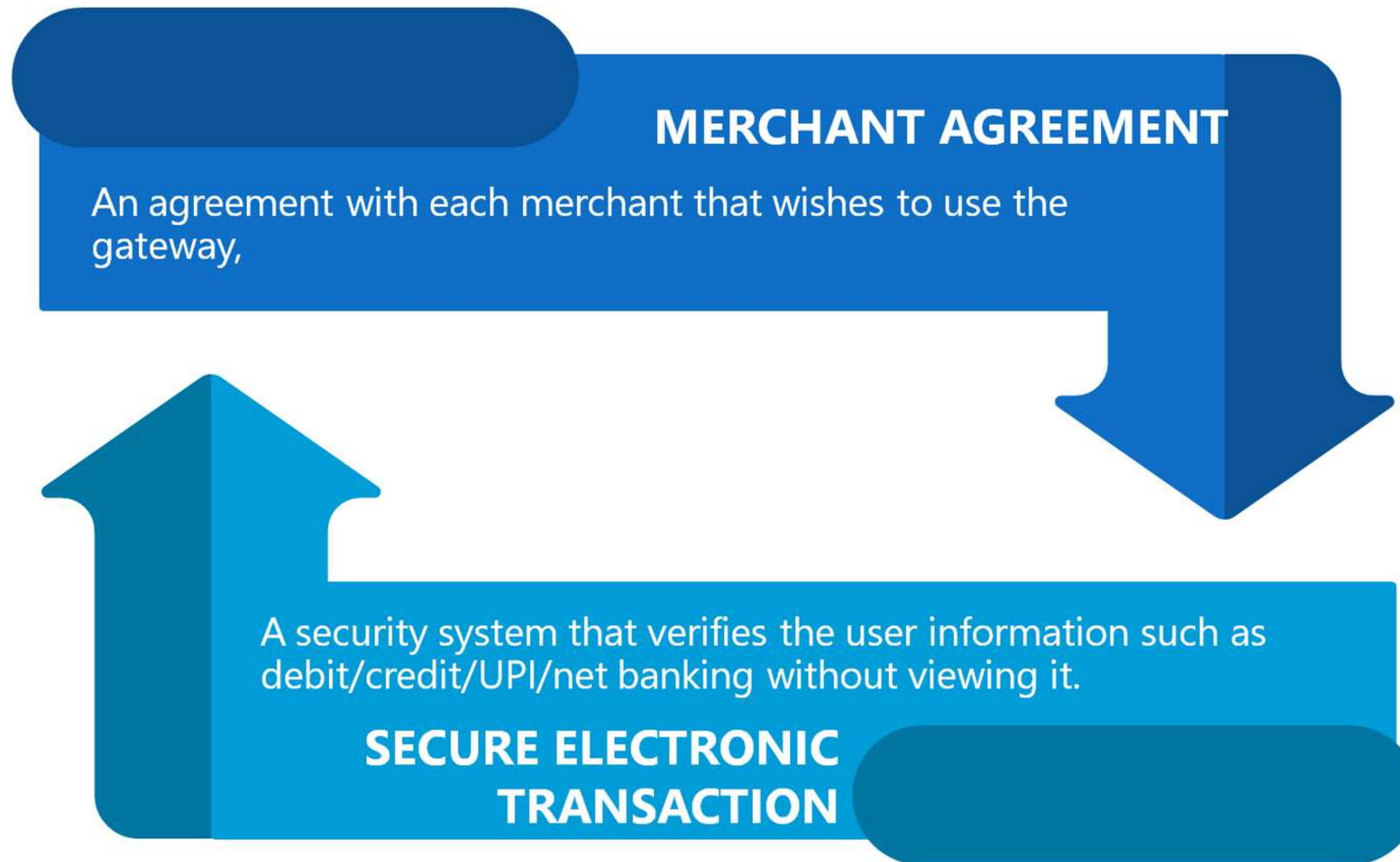
2 **AUTHORISATION**

When the encrypted data is forwarded to the banks, which then decrypts this information with their private key, and verifies the details.

3 **FINALISATION**

When the details are verified as correct, the transaction begins through the payment gateway.

Components of a Payment Gateway



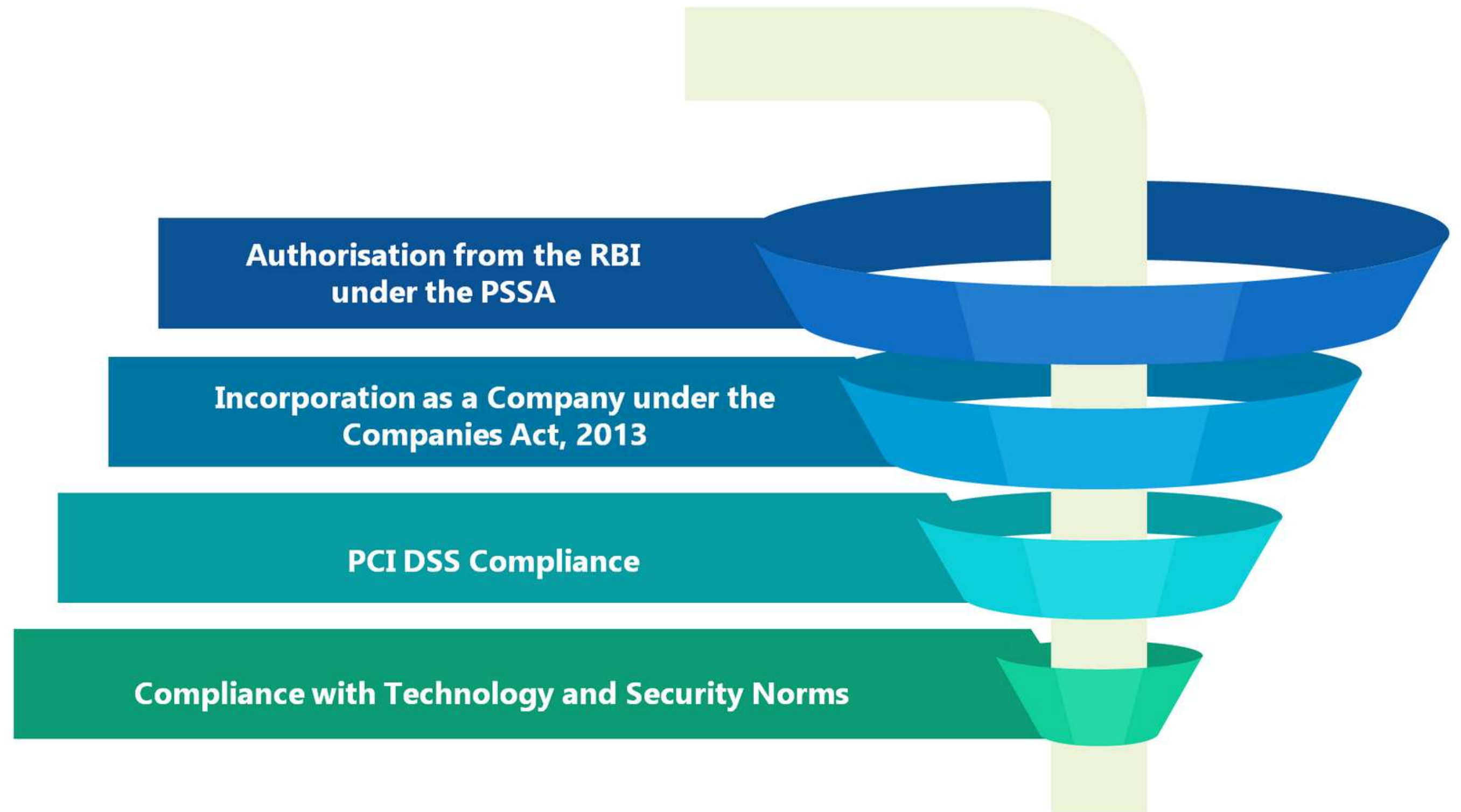
Governing Laws



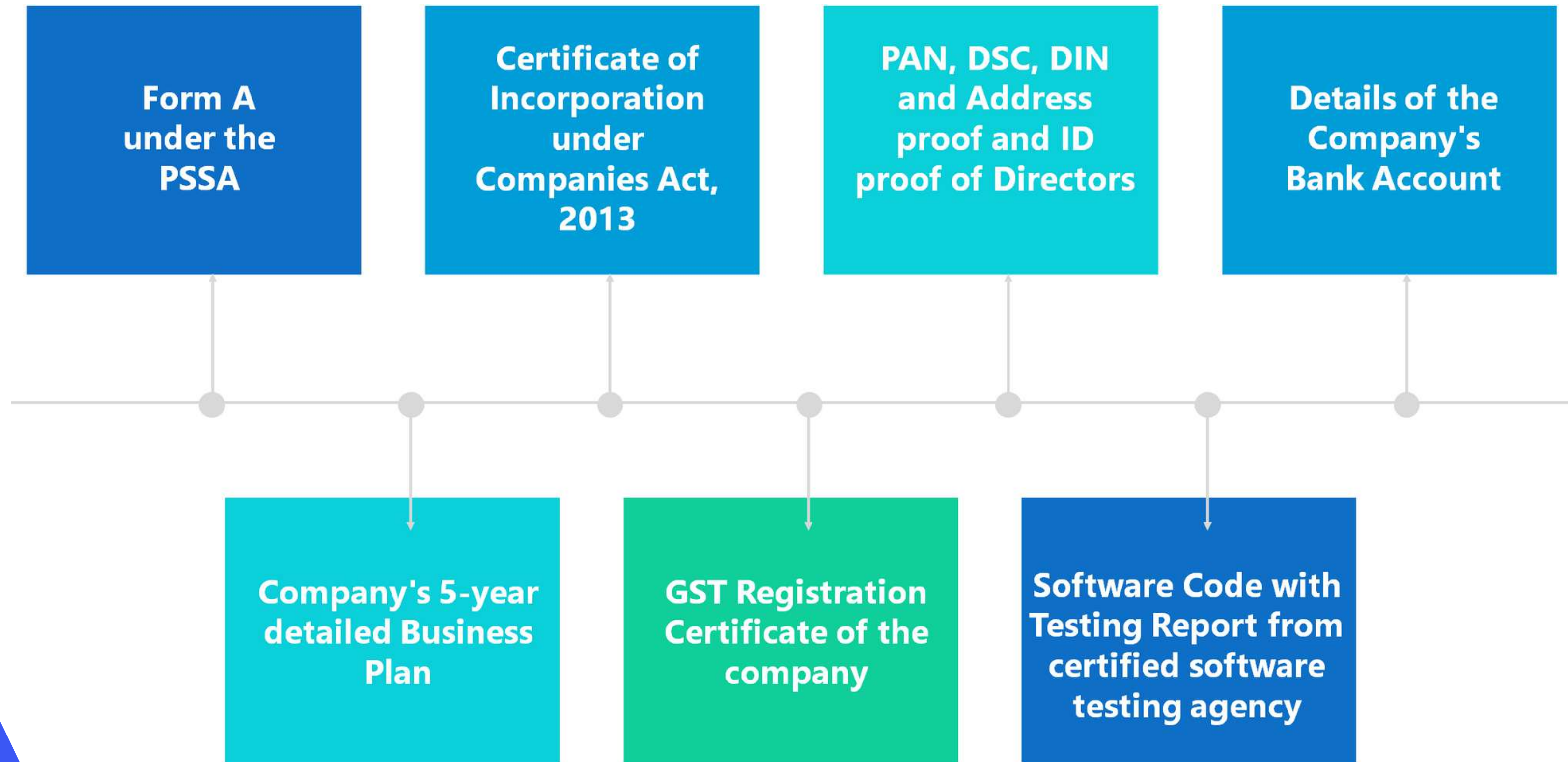
The Payment and Settlement Systems
Act, 2007

Guidelines on Regulations of Payment
Aggregators and Payment Gateways,
March 2020

Registration Requirements



Documents Required



PCI DSS Compliance

1

**Using and
Maintaining
Firewalls**

2

**Password
Protection**

3

**Cardholder
Data Protection**

4

**Encryption in
Data Transmission**

8

**Unique IDs for
Data Access**

7

**Restricted Data
Access**

6

**Updating
Software
Timely**

5

**Using and
Maintaining
Anti-Virus**

9

**Restricted
Physical Access
of Cardholder
Data**

10

**Creating and
Maintaining
Access Logs**

11

**Scanning and
Testing for
Vulnerabilities**

12

**Drafting Policies
relating to Access**

Baseline Technology-related Recommendations

Information Security Governance

Security risk assessment of people, IT, business process environment, etc. to identify risks; Independent internal or annual audit by independent security auditor or CERT-In empanelled auditor; Report on risk assessment, security compliance, security audit reports and security incidents to Board

Security Incident Reporting

Report on security incidents/ cardholder data breaches to RBI; Monthly cybersecurity incident reports with root cause analysis and preventive actions undertaken

Data Security Standards

PCI-DSS, PA-DSS, latest encryption standards, transport channel security, etc.

Merchant Onboarding

Detailed security assessment during merchant onboarding process

Cyber Security Audit & Report

IT Committee quarterly internal and annual external audit reports; bi-annual VAPT reports; PCI-DSS, Attestation of Compliance (AOC) and Report of Compliance (ROC) report; Inventory of data-storing applications; PA-DSS compliance status

Information Security

Annual review of information security policy

IT Governance

IT policy for regular management of IT functions, reviewed annually

Enterprise Data Dictionary

A data dictionary listing down the company's data syntax rules

Payment Application Security

Develop payment application as per PA-DSS guidelines

Risk Assessment

Assessment of scope, threat/vulnerability, impact on confidentiality, availability or integrity of assets

Access to Application

Procedures/ standards to administer application system; access to the application on the principle of least privilege and need to know basis

Staff Competency

Periodic assessment of need for staff with IT skills; assessment of training needs for human resources

Vendor Risk Management

Clause of regulatory access in Service Level Agreement for technology support, including BCP-DR and data management

Maturity and Roadmap

Assessment of IT maturity level; designing and implementation of action plan to reach target maturity level

Cryptographic Requirements

Select encryption algorithms as per international standards by cryptographers, security vendors or government agencies

Forensic Readiness

Collect, investigate and analyse security events like servers, middleware, endpoint, network, authentication events, database, log files, etc.

Data Sovereignty

Take preventive measures to restrict unauthorised access and storage in external jurisdiction

Data Security in Outsourcing

Outsourcing agreement with a 'right to audit' clause; third parties to submit annual independent security audit report

Board Level IT Governance Framework

Approval of information security policies and setting up of company's processes



Board Involvement

IT steering committee to assist the Executive Management in implementing IT strategy



IT Steering Committee

Enterprise information model to enable application development and decision-supporting activities



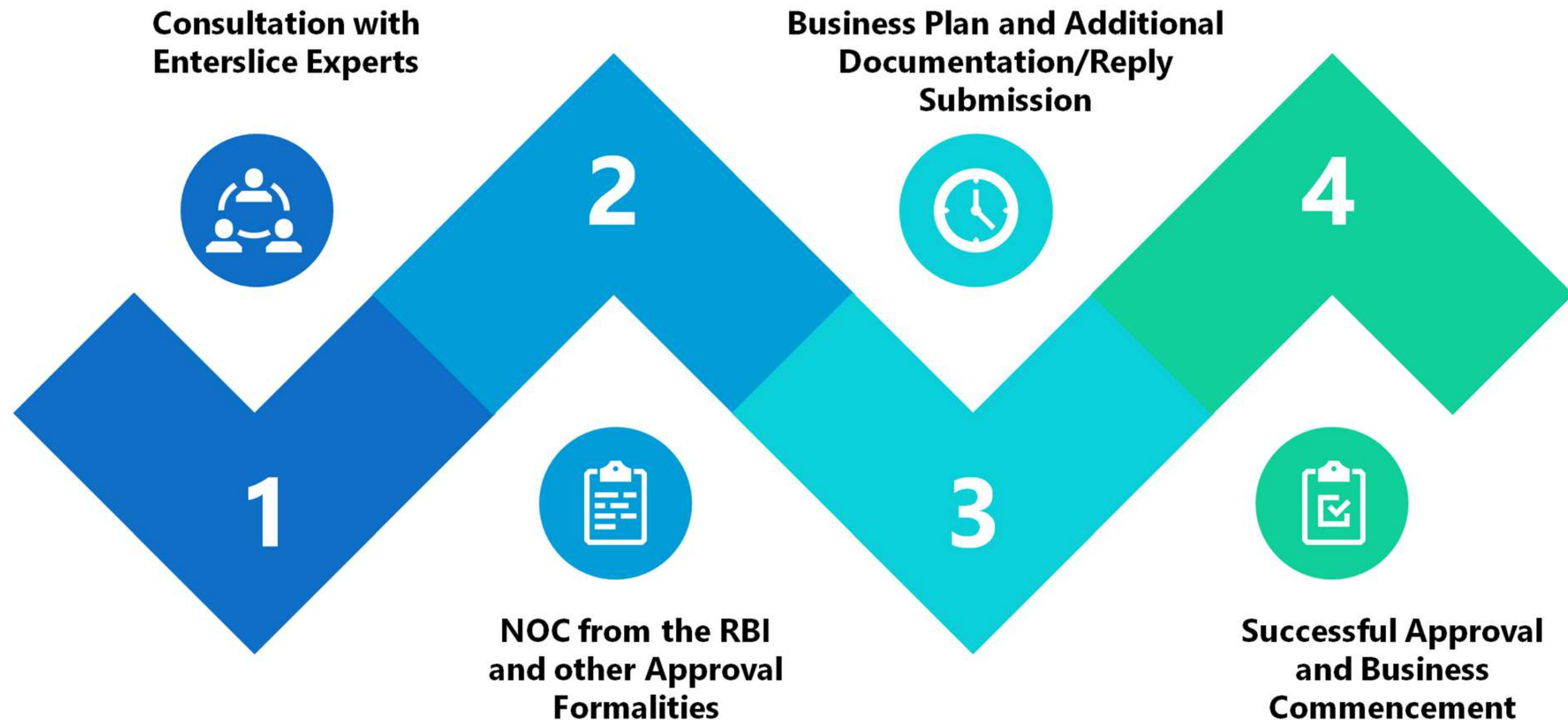
Enterprise Information Model

Detailed Cyber Crisis Management Plan approved by IT Strategic Committee



Cyber Crisis Management Plan

Start your Payment Gateway Business with Enterslice



Main Branch Address

B-78, Sector 60, Noida 201301
Uttar Pradesh

Phone Number

9870310368

Email Address

info@enterslice.com



OUR CONTACT DETAILS



Noida | Mumbai | Bengaluru | Chennai

Let's Talk



Prepared By:

Shivi Gupta
Legal Content Strategist