

EOI) for identifying Agency for development of Certification Platform/Solution for iUPI Testing - NPCI/EOI/2025-26/IT/01 dated 17th April 2025							
Sr. No.	Document Reference	Page No	Clause No	Description in RFP	Clarification Sought	Additional Remarks (if any)	NPCI Response
1	EOI for dev of Certification Solution	-	Chapter 2	Solution Objective and Scope of Work	What is the expected contract duration for this project, including the development phase and ongoing support/maintenance period?	The EOI does not specify project duration or support period expectations	Approximate 6 months
2	EOI for dev of Certification Solution	-	-	-	Does NPCI have an estimated budget range or expected total contract value (TCV) for this certification platform development and support?	No budget information is provided in the EOI document	Target counties as Nepal, US, UK, Mouritious, Bhutan
3	EOI for dev of Certification Solution	9	Chapter 2	"National Payments Corporation of India (NPCI) along with its subsidiaries aims to establish a global certification process and solution for its international UPI members in line with global best practices."	Which specific international markets/countries is NPCI targeting for iUPI expansion, and how should the certification platform prioritize these geographies?	The EOI mentions international expansion but doesn't specify target countries	Target countries will be basis Business expansion. There can be 1 or many countries at a time for certification. This platform can be given to International partner as well for Self on boarding and certification
4	EOI for dev of Certification Solution	-	-	-	What is the expected timeline for development, testing, and deployment of the certification platform?	No specific development timeline is mentioned in the EOI	Approximate 3 months.
5	EOI for dev of Certification Solution	09-Oct	Chapter 2	"Success Metrics & KPI's: Increase in the number of certified international UPI members."	How many international UPI members does NPCI expect to onboard within the first year of platform implementation, and what is the projected growth rate?	The EOI mentions increase in members as a KPI but doesn't specify targets	Approximately 5 to 8 international partners.
6	EOI for dev of Certification Solution	9	Chapter 2 - Section 2.1	"Provide a sandbox environment for testing and validation"	Will NPCI provide access to their existing systems and APIs for integration, or will the solution provider need to develop simulated environments?	The EOI mentions integration but doesn't clarify if access to existing systems will be provided	NPCI can provide access to existing systems and API's for integration
7	EOI for dev of Certification Solution	10	Chapter 2 - Section 2.4	"The platform will be hosted on a cloud-based infrastructure"	Does NPCI have a preference for cloud hosting (public, private, hybrid) or on-premises deployment for the certification platform?	The EOI mentions cloud-based infrastructure but doesn't specify the type	Private cloud based infrastructure
8	EOI for dev of Certification Solution	34-36	Annexure M	Technical Compliance requirements	Are there specific compliance requirements or international certifications that the platform must adhere to beyond the functional specifications mentioned?	The EOI provides technical requirements but doesn't detail specific international certifications	<b>Functional Coverage:</b> The tool must support end-to-end simulation of all required UPI/iUPI API workflows. It should allow users to configure and execute both positive and negative test cases. <b>User Management:</b> Role-based access control must be implemented (Admin, Tester, Partner, Viewer). Only authorized users can modify test configurations or initiate tests. <b>Log and Report Generation:</b> Real-time transaction logs must be captured and displayed in a simulator as well as in POC servers. Detailed execution logs and result reports should be downloadable. Logs should match expected field values as per certification requirements. <b>Error Simulation:</b> The tool must support simulation of delays, timeouts, invalid payloads, and server/client errors ( here can provide partner, bank enable / disable toggle to capture the test scenario ). <b>UI and Usability:</b> The interface should be responsive, intuitive, and accessible across major browsers. Role-based dashboards and scenario views should be correctly rendered. <b>Environment Management:</b> Users should be able to create, edit, and delete their test environments and test models. Configurations must persist across sessions and support version control if applicable. <b>Kafka Integration &amp; Settlement Logs:</b> Simulated transactions must be pushed to Kafka topics correctly. The backoffice or consumer service must generate the settlement reports based on these inputs. <b>Security:</b> MFA and secure login mechanisms must be implemented. All data transmissions must be encrypted. Activity logs and audit trails should be available for compliance. <b>Performance:</b> The tool must handle a defined number of concurrent users and transaction loads without performance degradation. Load testing results must demonstrate acceptable performance under peak conditions. <b>Documentation &amp; Support:</b> User guide and API documentation must be provided. Support plan for issue resolution post-deployment should be defined.
9	EOI for dev of Certification Solution	35	Annexure M - Item 24	"Implement parallel testing to execute multiple test plans simultaneously"	What is the expected volume of concurrent certification tests that the platform should handle at peak capacity?	The EOI mentions parallel testing but doesn't specify volume expectations	The platform should be scalable to accommodate a gradual increase in simultaneous test executions, ensuring optimal performance without compromising response times or test accuracy.
10	EOI for dev of Certification Solution	9	Chapter 2 - Section 2.1	"Allow users to create and manage test plans"	Will NPCI provide the test cases and certification criteria for different UPI implementations, or is the development of these test scenarios part of the scope of work?	The EOI mentions test plan management but doesn't clarify if test cases will be provided	Yes, NPCI will provide the required documentation outlining process flows and definitions for each onboarding stage.
11	EOI for dev of Certification Solution	32	Annexure K	"Details of technologies and tools used in the solution to be provided"	Will NPCI allow flexibility in selecting the technology stack and tools for developing the certification platform, or are there specific technologies or frameworks that must be used to align with NPCI's existing infrastructure?	The EOI requests details of technologies but doesn't specify required technologies	Yes
12	EOI for dev of Certification Solution	32	Annexure K	"List of the international standards including security standards available in the solution to be provided"	Does NPCI have a preference for open-source technologies versus proprietary solutions for the certification platform, and are there any specific security or compliance considerations that would impact this choice?	The EOI mentions standards but doesn't specify preferences for open-source vs proprietary	NPCI has no stated preference; selection should prioritize compliance, security, scalability, and maintainability regardless of technology being open-source or proprietary.
13	EOI for dev of Certification Solution	9	2.1	General Scope	What is the full form and scope of "iUPI"? Is it an international extension of India's UPI or a separate initiative?	Needed for clear business understanding.	International UPI switch.
14	EOI for dev of Certification Solution	9	2.1.A.1	Self-managed platform	What exactly does " <b>self-managed</b> " imply – configuration of environments, test plans, users, or infrastructure too?	Helps define platform autonomy levels.	Yes the simulator should be self managed platform where user can able to execute test cases and the executed txns logs and user dashboard should display. Please refer below Role based access control as well : Admin Role ( Full Access ) User and role management, Environment setup , API config changes, reports generation Tester ( Controlled Access ) Execute API tests, view logs , download test result logs, raise issues Partner Representative ( Limited Access ) : Initiate transactions, view txn logs, partner specific test case execution reports and dashboards Viewer ( Read only access ) : Access to logs, reports and dashboards without modification privileges Developer ( API Simulation and Environment Setup ) : Create / Edit test cases, Simulate workflows, access integration logs, delete or add payload fields.
15	EOI for dev of Certification Solution	9	2.1.A.1	API testing platform	Will the platform support both REST and SOAP APIs or any other protocols?	Clarifies supported API technologies.	Platform should support REST APIs as a baseline; SOAP can be considered optional unless legacy systems exist that require it.

16	EOI for dev of Certification Solution	9	2.1.A.1	API testing	Should the platform validate JSON and XML payload structures automatically?	Important for schema validation engine.	POC servers on which we are currently doing the manual testing. Where the txn ID visible in a logs. So as per our requirement, if we are initiating a txn through this simulator tool then that Txn id and logs should also reflect to the POC original server as well as the logs should also present in simulator tool.
17	EOI for dev of Certification Solution	9	2.1.A.1	No-code testing	Will test cases involve conditional logic, looping, or multi-step workflows?	Affects complexity of no-code builder.	Multi step workflow
18	EOI for dev of Certification Solution	9	2.1.A.1	API test automation	Should the platform support test data injection (CSV, JSON files)?	Affects test execution configurability.	Yes, the platform should support test data injection using standard formats like CSV,XML, JSON to facilitate flexible and automated test executions.
19	EOI for dev of Certification Solution	9	2.1.A.1	Test case configuration	Should users be able to clone, export, or import test cases across members or environments?	Defines collaboration and reuse features.	Yes, enabling clone, export, and import functionality across environments/members is essential for reusability and efficient test management.
20	EOI for dev of Certification Solution	9	2.1.A.1	Configurable test cases	Are dynamic environment variables or token-based authorization expected for test execution?	Affects execution runtime and auth management.	Yes, the platform must support configurable environment variables and token-based authorization to ensure secure and isolated test execution.
21	EOI for dev of Certification Solution	9	2.1.A.1	Sandbox environment	Should sandbox simulate real transaction flows (request/response timing, UPI backend behavior)?	Affects fidelity of simulation engine.	Yes, the sandbox should mimic backend behavior to provide a realistic testing environment, including expected response timings and transaction flows.
22	EOI for dev of Certification Solution	9	2.1.A.1	Sandbox environment	Will there be separate sandbox environments per user/org or a shared setup with role-based access?	Determines multitenancy and environment provisioning.	Preferably, separate sandbox environments should be provided per organization to ensure isolation and security, supported by role-based access control.
23	EOI for dev of Certification Solution	9	2.1.A.1	Sandbox	Should sandbox support stateful transactions (e.g., balance deductions, reversals)?	Impacts backend simulation logic.	Yes, support for stateful transactions is required to simulate complete transaction cycles including balance updates, reversals, and refunds.
24	EOI for dev of Certification Solution	9	2.1.A.1	Logs	What level of detail is expected in the logs – full payload, headers, latency, retries?	Helps define logging schema and storage needs.	Detailed logs capturing full request/response payloads, headers, latency, retries, and status codes should be available for end-to-end traceability.
25	EOI for dev of Certification Solution	9	2.1.A.1	Logs	Should log retention be configurable (per user/region), and is any archiving needed?	Important for storage and compliance design.	Yes, log retention should be configurable based on organizational or regulatory needs, and archiving options should be supported.
26	EOI for dev of Certification Solution	9	2.1.A.1	Test execution	Will the platform support concurrent test executions across multiple users?	Determines scaling and concurrency requirements.	Yes, the platform must support parallel execution of multiple test plans by different users to ensure efficient test cycles and reduce bottlenecks.
27	EOI for dev of Certification Solution	9	2.1.A.1	Platform access	Will UPI members authenticate via NPCI identity systems or should the platform have standalone IAM?	Affects user management and SSO strategy.	Integration with NPCI's existing identity system is preferred. However, a standalone IAM with support for SSO and RBAC should also be available.
28	EOI for dev of Certification Solution	9	2.1.A.1	Test metrics	Should test analytics include pass/fail trends, execution durations, and API response distribution?	Defines scope of test insights and visualizations.	Yes, test analytics should offer detailed insights such as success/failure trends, execution timing, and response performance distributions.
29	EOI for dev of Certification Solution	9	2.1.A.1	Response handling	Will there be a requirement to mock or simulate responses for unavailable downstream systems?	Affects mocking service development.	Yes, the platform should support mocking to test scenarios when downstream systems are unavailable or unresponsive.
30	EOI for dev of Certification Solution	9	2.1.A.1	Security	Should the platform support IP whitelisting, access logs, and audit trail for each user action?	Important for compliance and monitoring.	Yes, to ensure security and accountability, the platform should support IP whitelisting, RBAC, and detailed audit logs.
31	EOI for dev of Certification Solution	9	2.1.A.1	Access control	Should the platform support fine-grained access (e.g., user A can only test sandbox X)?	Critical for security and tenant isolation.	Yes, granular access control is necessary to restrict users to specific modules like sandbox, reporting dashboard, or test case management.
32	EOI for dev of Certification Solution	9	2.1.A.2	Unified onboarding process	Can NPCI provide detailed definitions and flows for each of the onboarding stages: acceptance, reverse acceptance, FIR, FOR, ECOMM?	Needed for workflow design and process automation.	Yes, NPCI will provide the required documentation outlining process flows and definitions for each onboarding stage.
33	EOI for dev of Certification Solution	9	2.1.A.2	Unified onboarding process	Should the onboarding process include document management (e.g., uploading certificates, agreements)?	Determines document handling features.	Yes, the onboarding module should support secure document management, including uploading, reviewing, and approving relevant onboarding documents.
34	EOI for dev of Certification Solution	9	2.1.A.2	Unified onboarding process	Will each onboarding type (FIR, FOR, etc.) have a separate approval workflow, or will it be unified?	Helps in planning the workflow structure.	Each onboarding type should have the flexibility to define its own approval workflow based on the specific business requirements, but a unified workflow engine can be used to manage all flows centrally.
35	EOI for dev of Certification Solution	9	2.1.A.2	Unified onboarding process	Are there predefined SLA timelines for each onboarding milestone that need to be tracked?	Required for dashboard KPIs and alerts.	Yes, SLA timelines will be defined for each onboarding stage and should be tracked and reported through the platform to ensure timely processing.
36	EOI for dev of Certification Solution	9	2.1.A.2	Onboarding process	Will there be integration with NPCI's identity systems (e.g., single sign-on for banks)?	Determines SSO and access management scope.	Yes, the platform should integrate with NPCI's internal ticketing system and alerting mechanisms to facilitate tracking and issue resolution.
37	EOI for dev of Certification Solution	9	2.1.A.2	Onboarding process	Should the platform support maker-checker (dual approval) workflows during onboarding?	Helps build governance and audit trail.	Yes, The platform should support maker - checker approval . Multi-level validation and approval checkpoints are necessary to ensure thorough onboarding verification and regulatory compliance.
38	EOI for dev of Certification Solution	9	2.1.A.2	Onboarding process	Can users be onboarded via APIs, or is manual entry through portal the only expected mode?	Affects user provisioning APIs and automation.	The platform should support both options: onboarding through APIs for automation and manual workflows where needed.
39	EOI for dev of Certification Solution	9	2.1.A.2	Onboarding modules	Will there be roles/permissions required for each onboarding stage (e.g., onboarding manager, certifier)?	Needed for RBAC design and workflow access rules.	Yes, granular permissions and role configurations are essential to maintain control over who can view, edit, or approve at each onboarding stage.
40	EOI for dev of Certification Solution	9	2.1.A.2	Certification tools integration	Please specify the names of current certification tools in use at NPCI to be integrated.	Helps define technical connectors and compatibility.	Standard REST APIs, message queues (e.g., Kafka), and webhook-based interfaces should be supported to ensure smooth integration with NPCI's internal tools.
41	EOI for dev of Certification Solution	9	2.1.A.2	Certification tools integration	Will these tools provide APIs, or will file-based or manual uploads be expected?	Determines the method of data exchange.	The solution should provide both: APIs for system-to-system integration and a secure web-based portal for users to interact directly with the platform.
42	EOI for dev of Certification Solution	9	2.1.A.2	Certification tools integration	What types of data will be exchanged with the certification tools (e.g., results, logs, status flags)?	Important for API schema and integration design.	Include results, logs, timestamps, and status flags. JSON format preferred for consistency with modern APIs.
43	EOI for dev of Certification Solution	9	2.1.A.2	Certification tools integration	Will NPCI provide sandbox access to these tools for development and testing?	Needed for staging environment planning.	Yes NPCI will provide the required documentation outlining process flows and definitions for each onboarding stage.
44	EOI for dev of Certification Solution	9	2.1.A.2	Certification dashboard	What specific data points and KPIs should be shown in the centralized dashboard?	Helps design visual structure and database queries.	Should include pass/fail ratios, time to resolve, number of test cases run, and historical trends. Allow filter by build/test cycle.
45	EOI for dev of Certification Solution	9	2.1.A.2	Certification dashboard	Should dashboard support export of views as PDF/Excel/CSV?	Defines front-end reporting scope.	Yes dashboard should support export of views as PDF/EXCEL/ CSV
46	EOI for dev of Certification Solution	9	2.1.A.2	Certification dashboard	Should dashboard have drill-down capability to view test logs or plan status?	Defines level of interactivity and detail.	Yes
47	EOI for dev of Certification Solution	9	2.1.A.2	Certification dashboard	Should real-time notifications/alerts be displayed for failures, SLA breaches?	Helps in alerting mechanism implementation.	Yes
48	EOI for dev of Certification Solution	9	2.1.A.2	Certification dashboard	Will dashboard access vary by role (e.g., regulators vs. banks vs. internal team)?	Required for view segmentation and permission logic.	Yes
49	EOI for dev of Certification Solution	9	2.1.A.2	Global certification	Should the dashboard support filters by region, bank, certifier, test type, etc.?	Helps define search and filtering components.	Yes
50	EOI for dev of Certification Solution	9	2.1.A.2	Monitoring certification	Should the platform provide history logs or audit trails of all onboarding actions?	Affects compliance features and activity logging.	Yes
51	EOI for dev of Certification Solution	9	2.1.A.3	Test plan creation	Will test plans be template-based, dynamic, or both?	Determines whether to build a template engine.	It should support both template based and dynamic
52	EOI for dev of Certification Solution	9	2.1.A.3	Test plan management	Should users be able to create test suites (group of test cases) under a test plan?	Important for hierarchical structuring.	Yes
53	EOI for dev of Certification Solution	9	2.1.A.3	Test plan management	Should the platform support tagging or categorization of test plans (e.g., by API, country, bank)?	Affects metadata and search functionality.	Yes
54	EOI for dev of Certification Solution	9	2.1.A.3	Test plan collaboration	Should reviewers have comment-only and approval rights?	Important for role-based access and governance.	Yes
55	EOI for dev of Certification Solution	9	2.1.A.3	Test plan versioning	Should versioning include diff comparison and rollback functionality?	Defines version control capabilities.	Yes

56	EOI for dev of Certification Solution	9	2.1.A.3	Plan lifecycle	Should test plans follow a lifecycle (draft → in review → approved → archived)?	Helps define process flow.	Yes
57	EOI for dev of Certification Solution	9	2.1.A.3	Approval workflow	Should the platform support configurable approval stages and rules?	Needed for customizable workflows.	Yes
58	EOI for dev of Certification Solution	9	2.1.A.3	User actions	Will there be audit logging of who edited/approved which test plans?	Required for compliance tracking.	Yes
59	EOI for dev of Certification Solution	9	2.1.A.3	Sharing	Should test plans be sharable across organizations or restricted to the creator's org/team?	Defines collaboration boundaries.	It should be depends on the user if want to share with across organization or restricted within team
60	EOI for dev of Certification Solution	9	2.1.A.4	Reports	What metrics are expected in the test reports (e.g., pass rate, average response time, error types)?	Helps design test analytics engine.	Reports should capture benchmark criteria (pass %, test run duration, defect density). Export options in PDF/CSV.
61	EOI for dev of Certification Solution	9	2.1.A.4	Reports	Should the executive summary highlight compliance benchmarks (e.g., min/max latency thresholds)?	Needed for summary intelligence logic.	Support configurable dashboards with widget-based layout. Include APIs to fetch raw data for external BI tools.
62	EOI for dev of Certification Solution	9	2.1.A.4	Custom dashboards	Should users be able to configure their own widgets or use preset dashboards?	Determines dashboard design flexibility.	Yes
63	EOI for dev of Certification Solution	9	2.1.A.4	Errors	Should the error report contain steps to reproduce, links to logs, or API replay buttons?	Helps define actionable debugging reports.	Errors should be linked with step-by-step logs and highlighted in reports. Provide error codes and descriptions.
64	EOI for dev of Certification Solution	9	2.1.A.4	Analytics	Should reporting include predictive metrics, such as recurring failure trends or cert delays?	Indicates whether AI/ML analytics is expected.	Yes
65	EOI for dev of Certification Solution	9	2.1.A.4	KPIs	Are there NPCI-defined key performance indicators to be embedded in the report?	Required for compliance alignment.	Key KPIs: test case coverage, regression pass %, avg. defect age, time to certify. Customization per project should be supported.
66	EOI for dev of Certification Solution	9	2.1.A.4	Personalization	Should dashboards be role-based (e.g., admin, certifier, bank user)?	Defines view-level permissions.	Support role-based access with different views (e.g., developer, tester, auditor,reviewer, Admin). Users should be able to customize dashboards.
67	EOI for dev of Certification Solution	10	2.1.B.1	Secure communication	Is there a mandatory protocol for data transmission (e.g., HTTPS, TLS 1.2/1.3)?	Needed for compliance design.	Yes
68	EOI for dev of Certification Solution	10	2.1.B.1	Data handling	Should data at rest be encrypted using a specific standard (e.g., AES-256)?	Important for infrastructure and DB-level security.	All data at rest and in transit should be encrypted using industry standards
69	EOI for dev of Certification Solution	10	2.1.B.1	Encryption mechanisms	Should encryption keys be managed internally or integrate with an external KMS (e.g., AWS KMS, Azure Vault)?	Affects key lifecycle and compliance.	Yes, system should integrate with enterprise KMS solutions (e.g., AWS KMS, Azure Vault) for key management.
70	EOI for dev of Certification Solution	10	2.1.B.1	Authentication	Should the platform support SSO (e.g., OAuth2, SAML, NPCI IAM)?	Defines the user access architecture.	Yes
71	EOI for dev of Certification Solution	10	2.1.B.1	Authentication	Is multi-factor authentication (MFA) required for all users or just admin roles?	Clarifies auth hardening requirements.	MFA should be mandatory for all admin users. Strongly recommended for all users based on access level.
72	EOI for dev of Certification Solution	10	2.1.B.1	Data privacy	Are there data localization requirements (e.g., all data must be stored in India)?	Affects cloud storage and regional compliance.	Mask sensitive data in logs/reports. Comply with Indian data privacy regulations and any relevant global norms
73	EOI for dev of Certification Solution	10	2.1.B.1	Secure APIs	Are there security headers or specific OWASP Top 10 protections mandated for the API layer?	Needed to design secure APIs.	Follow OWASP Top 10 API security standards. Use authentication (OAuth2.0 or JWT) and authorization mechanisms.
74	EOI for dev of Certification Solution	10	2.1.B.2	Performance	What is the expected number of concurrent users and peak daily test executions?	Defines scalability benchmarks.	Platform should handle concurrent user sessions and test case execution without degradation. Define SLAs for response times.
75	EOI for dev of Certification Solution	10	2.1.B.2	Performance	Is horizontal scalability required (scale-out via containers, microservices)?	Affects infra design and deployment model.	Yes
76	EOI for dev of Certification Solution	10	2.1.B.2	Performance	Are there latency thresholds defined for test case execution and report generation?	Important for defining system responsiveness.	Archive reports for minimum of 2 years. Provide search and retrieval options, preferably indexed.
77	EOI for dev of Certification Solution	10	2.1.B.2	Performance	Should the platform include an auto-scaling mechanism (based on CPU/memory thresholds)?	Affects infra automation scope.	Capture CPU, memory, disk I/O, and network usage during test execution. Show resource trends per test suite.
78	EOI for dev of Certification Solution	10	2.1.B.2	Performance	Should caching be implemented (for dashboards, user sessions, test data)?	Determines architecture for performance optimization.	Yes
79	EOI for dev of Certification Solution	10	2.1.B.2	Load testing	Should platform load testing be part of UAT?	Impacts pre-deployment QA planning.	Yes
80	EOI for dev of Certification Solution	10	2.1.B.2	Efficiency	Should the platform support job queues or task schedulers for test executions?	Helps plan orchestration module.	Yes
81	EOI for dev of Certification Solution	10	2.1.B.2	Performance monitoring	Is real-time monitoring expected (CPU, memory, API latency)?	Affects APM or infra-monitoring tools integration.	Yes
82	EOI for dev of Certification Solution	10	2.1.B.3	Usability	Is there a preference for frontend frameworks (e.g., Angular, React, Vue)?	Affects UI/UX technology stack decision.	No preference.
83	EOI for dev of Certification Solution	10	2.1.B.3	Training	Will user training documentation and video walkthroughs be required as part of delivery?	Affects documentation and onboarding scope.	Deliver user manuals, system design documents, and onboarding guides. At least 2 training sessions post-deployment.
84	EOI for dev of Certification Solution	10	2.1.B.3	UI expectations	Is mobile or tablet support required for the portal interface?	Affects responsive design implementation.	No
85	EOI for dev of Certification Solution	10	2.1.B.3	Dashboard experience	Should the dashboard auto-refresh in real time or support manual refresh only?	Determines polling or WebSocket logic.	Auto-refresh should be supported with configurable intervals(e.g., every 5 minutes)
86	EOI for dev of Certification Solution	10	2.1.B.3	Usability testing	Is usability testing with actual users required before final rollout (eg: CUG)?	Clarifies UAT scope and schedule.	Yes, usability testing with a controlled UAT group
87	EOI for dev of Certification Solution	10	2.4	Cloud hosting	Is there a preferred cloud provider (e.g., AWS, Azure, GCP) mandated by NPCI?	Important for infrastructure planning and costing.	No strict mandate by NPCI, but solutions on AWS, Azure, or GCP are acceptable. Must ensure compliance with Indian data residency norms.
88	EOI for dev of Certification Solution	10	2.4	Cloud hosting	Will the platform be deployed in a single region or multi-region setup for failover and DR?	Affects deployment strategy.	Multi-tenant and single-tenant models should be supported. Multi-tenant by default, with option for single-tenant for critical clients.
89	EOI for dev of Certification Solution	10	2.4	Cloud hosting	Should the platform be containerized (e.g., Kubernetes, Docker) or VM-based?	Helps determine devops architecture.	Kubernetes or Docker-based containerization is preferred.
90	EOI for dev of Certification Solution	10	2.4	NPCI system integration	Please specify the list of NPCI systems/tools to be integrated (e.g., UPI switch, NACH, Aadhaar Vault)?	Required for defining integration effort.	UPI Switch, FRM, Analytics etc
91	EOI for dev of Certification Solution	10	2.4	NPCI tools	Will APIs be provided for integration, or is direct database or file-based exchange expected?	Determines integration mechanism.	Partner to develop it
92	EOI for dev of Certification Solution	10	2.4	Industry standards	Are there any specific frameworks NPCI prefers (e.g., Spring Boot, Angular, Python Flask)?	Helps decide tech stack and licensing.	Spring Boot, Angular/React, PostgreSQL preferred. If others are used, ensure justification and ease of integration with existing NPCI tools.
93	EOI for dev of Certification Solution	10	2.4	Assumptions	Is there an existing DevOps pipeline at NPCI for deployment, or should bidders set up CI/CD from scratch?	Affects automation strategy.	Existing pipeline usage is preferred if compatible, else use standard tools like Jenkins/GitLab CI/CD.
94	EOI for dev of Certification Solution	10	2.4	Dependencies	Will NPCI handle onboarding of international UPI members, or is that part of the bidder's scope?	Clarifies user onboarding responsibilities.	Yes
95	EOI for dev of Certification Solution	10	2.5	Certification time	What is the current average certification timeline?	Helps benchmark expected improvements.	45 Days per partner certification



96	EOI for dev of Certification Solution	10	2.5	Certification count	Is there a target number of international UPI members expected to be onboarded annually?	Helps forecast system scalability needs.	Yes, platform should allow multiple banks/partners to undergo certification in parallel without performance issues.
97	EOI for dev of Certification Solution	10	2.5	User satisfaction	Will there be a structured user feedback mechanism post-certification?	Clarifies how satisfaction will be measured.	Yes
98	EOI for dev of Certification Solution	10	2.5	Cost reduction	What operational cost components are expected to be reduced (e.g., manpower, paper-based workflow)?	Affects ROI calculations and platform automation focus.	Reduce manual interventions, allow remote access, automate reports, and enable self-service dashboards to reduce headcount effort.
99	EOI for dev of Certification Solution	10	2.5	KPI tracking	Should success KPIs be built into dashboards for ongoing tracking?	Clarifies analytics dashboard features.	Support drill-down KPIs such as avg. failure rate, avg. test cycle time, defect reopen % etc. Enable export and trend visualization.
100	EOI for dev of Certification Solution	10	2.6.1	QA	Will NPCI mandate automated regression testing as part of QA cycles?	Clarifies test automation responsibilities.	vendor is expected to automate regression testing and integrate results into CI/CD pipeline. NPCI will verify test scope.
101	EOI for dev of Certification Solution	10	2.6.1	Tech risk mitigation	Should a staging environment be provided for UAT, distinct from production and sandbox?	Needed for quality assurance strategy.	Yes
102	EOI for dev of Certification Solution	10	2.6.3	Operational risks	Should bidder conduct regular trainings for NPCI users post-implementation?	Defines support and knowledge transfer obligations.	Deliver user manuals, system design documents, and onboarding guides. At least 2 training sessions post-deployment.
103	EOI for dev of Certification Solution	10	2.6.3	Training	What is the expected frequency and format of user training (live, LMS, documentation)?	Helps scope training deliverables.	Deliver user manuals, system design documents, and onboarding guides. At least 2 training sessions post-deployment.
104	EOI for dev of Certification Solution	10	2.6	Mitigation	Should a DR (Disaster Recovery) strategy and drill schedule be proposed as part of the solution?	Affects infrastructure continuity planning.	Yes
105	EOI for dev of Certification Solution	9	2.1	General	Should the platform include a helpdesk/ticketing module for users during testing?	Affects decision on integration or custom support modules.	Okay.
106	EOI for dev of Certification Solution	9	2.1	General	Will NPCI provide access to historical certification data for migration/reference?	Affects data import and legacy system integration.	NPCI will provide TSD, sample data and Specific test cases.
107	EOI for dev of Certification Solution	33	Annexure L Team Profile	Team Profile	Why is Team Profile required		Team profile is needed to understand the quality of resources and the Accountability as per project parameters
108	EOI for dev of Certification Solution	34	Annexure M Technical Compliance	User-Friendly Interface: Provide an intuitive and responsive UI. Ensure cross-browser and cross-device compatibility. Create a simple, easy-to-navigate portal. Provide role-based dashboards and personalized views.	What types of devices are expected to be supported?		Yes needs to integrate with the POC servers.
109	EOI for dev of Certification Solution	34	Annexure M Technical Compliance	Sandbox Environment: Provide a dedicated testing environment to simulate real-time UPI scenarios. Allow configuration of multiple test environments for different models.	Could you please share the real-time UPI scenarios that need to be supported, including any relevant specifications if available?		<p>IUPI certification process involves multiple stage, starting from partner onboarding to transaction validation and settlement reporting. The following outlines end to end flow :</p> <ol style="list-style-type: none"> <li><b>Partner onboarding</b> (unique org id, Currency code etc) 2. Bank onboarding for roles such as payee psp, beneficiary, Settlement, compliance ( endpoint url, org id , bank name etc)</li> <li><b>txn initiation</b> : Once the onboarding is complete, a user initiates a txn by scanning a UPI QR code. Upon txn initiation, the transaction flow adheres to the defined test model flowchart.</li> <li><b>Transaction logging and display</b> : Transaction logs are captured and displayed on both UPI and IUPI portals as per the flow model. The logs provide visibility into each stage of the transaction lifecycle, aiding in validation and troubleshooting.</li> <li><b>Gateway logs validation</b> : The txn id is used to search and retrieve logs from the gateway system. These logs are reviewed to validate all transaction fields and corresponding values, ensuring compliance with the certification test scenarios.</li> <li><b>Kafka integration and backoffice processing</b> : Post validation transaction data is pushed into a designated kafka topic. The backoffice server consumes JSON from the kafka topic for further processing .</li> <li><b>Settlement Report generation</b> : The backoffice system processes the transaction data and generates the corresponding settlement reports.</li> </ol> <p>-----</p> <p><b>Real Time Scenario :</b>  Example 1: International merchant payment at merchant location using dynamic QR.  User- Mary who is on a one-month trip to a foreign country  Need- To make a payment at the grocery store in the foreign country  1)Mary asks the vendor to initiate the payment through UPI  2)She uses her bank provided UPI application installed on her smartphone to scan the dynamic QR code generated by the international grocery POS application  3)The dynamic QR carries information about the UPI link of the merchant and the amount of transaction  4)UPI application takes her straight to pay screen with all values pre-populated from the QR.  5)UPI application display info containing foreign currency, FX rate &amp; payable INR value to Mary. Mary verify the information and click pay to complete the payment.  6)Both merchant and Mary get confirmation instantly</p>
110	EOI for dev of Certification Solution	34	Annexure M Technical Compliance	Unified Onboarding Process: User should be able to onboard banks with Create, modify , delete feature. Also provide option to upload SSL and Signer certificates.	Could you please clarify what is meant by the 'delete' feature in this context? What exactly needs to be deleted – users, projects, test plans, or potentially all of these? Please note that, in some cases, national or local regulations may prohibit permanent data deletion. Instead, deactivating or disabling entity records might be the appropriate approach.		In IUPI simulator tool , we will onboard partner, banks for different roles such as beneficiary, payee psp, settlement and compliance with unique org id. We need delete feature in the various context like to delete partner, banks, test cases, test plans, workflows, payloads specific fields, API skeleton, test data etc. Sure the deactivating and disabling approach also will work in applicable scenarios.
111	EOI for dev of Certification Solution	35	Annexure M Technical Compliance	After the test case execution the txn Id logs should be visible in tool as well as in a POC servers.	What is a POC Server in this context? Could you please clarify the question ?		We do certification on POC servers. In POC online portal we onbaord the partner and banks and then after initiating txn the logs displayed in POC servers.
112	EOI for dev of Certification Solution	36	Annexure M Technical Compliance	High Availability: Ensure 99.9% uptime with failover and backup systems. Implement disaster recovery with data redundancy.	What are the expectations regarding disaster recovery timelines – specifically Recovery Time Objective (RTO) and Recovery Point Objective (RPO)?		2 Hours
113	EOI for dev of Certification Solution	36	Annexure M Technical Compliance	Scalability: Ensure the platform handles a large volume of concurrent tests and users. Implement load balancing and auto-scaling mechanisms.	How many average and peak concurrent users and user sessions is the tool expected to support?		Yes, platform should allow multiple banks/partners to undergo certification in parallel without performance issues.

114	EOI for dev of Certification Solution	9	Chapter 2 Solution Objective 2.1 General terms of scope of work	A. Functional Requirement " API test platform " Provide a self managed API testing platform for international UPI members	What does self managed mean in this context ? Do you want to allow members to manage their own API environment ?		Yes the simulator should be self managed platform where user can able to execute test cases and the executed txns logs and user dashboard should display.  Please refer below Role based access control as well : Admin Role ( Full Access ) User and role management, Environment setup , API config changes, reports generation Tester ( Controlled Access ) Execute API tests, view logs , download test result logs, raise issues Partner Representative ( Limited Access ) : Initiate transactions, view txn logs, partner specific test case execution reports and dashboards Viewer ( Read only access ) : Access to logs, reports and dashboards without modification privileges Developer ( API Simulation and Environment Setup ) : Create / Edit test cases, Simulate workflows, access integration logs, delete or add payload fields.
115	EOI for dev of Certification Solution	18	6.3 Technical Bid Evaluation	As a part of the presentation, which would be evaluated by a NPCI evaluation Committee, the bidder would be required to showcase details proposed based on Functional details, Technical details, Team profile, Technical compliance, Business & Technical SLA, and innovativeness (to be submitted in the format provided in ANNEXURE J, K, L M, N, and O.	Apart from the Annexure Submission , are there any other supporting documents required to be given as well ?		Apart from the Annexures, the bidder may submit their Technical proposal of the Solution proposed separately.
116	EOI for dev of Certification Solution	30	Annexure I	Reference Details	Annexure I is not mentioned in either Folder A or B , where does it go ?		Annexure I needs to be included in Folder B
117	EOI for dev of Certification Solution	5	5. General Terms and Conditions	The Bidder for this EOI can only submit one bid. The shortlisted Bidders cannot change their proposed solution, architecture during the period of the shortlisting and subsequent RFP.	Post the EOI , when will the RFP come out ?		The same will be notified to the qualified bidders
118	EOI for dev of Certification Solution	Page 25	Annexure G - Format Power of Attorney	Power of Attorney	Can we provide the BR instead of POA		Yes, assumingThat the question refers to Board Resolution (BR)
119	EOI for dev of Certification Solution	Page 9	2.1 A.1	API Test Platform with no-code, automation & sandbox support	Will NPCI provide sample APIs or test data for sandbox setup during development & POC stages?	To assess effort needed for mock/test data design	NPCI will provide TSD, sample data and Specific test cases.
120	EOI for dev of Certification Solution	Page 9	2.1 A.2	Unified onboarding for acceptance, FIR, FOR, ECOMM, etc.	Kindly clarify if existing systems/tools (from NPCI Nfinite or GST certification processes) will be reused/integrated?	For possible reuse of integration connectors	Yes POC server should be integrated
121	EOI for dev of Certification Solution	Page 9	B.1	Security - encryption/decryption and authentication	Is there a preferred security framework or certificate authority expected (e.g. PKI, SSL, OAuth)?	Compliance and architectural planning	Yes, SSL and Signer
122	EOI for dev of Certification Solution	Page 10	2.4 Assumptions	Platform hosted on cloud infra	Can you confirm if NPCI will provide cloud infra or the bidder is expected to provision and manage the hosting?	Impacts infra cost, effort & compliance setup	It should be deploy in NPCI DC
123	EOI for dev of Certification Solution	Page 34-36	Multiple rows	Drag-drop no-code test case builder	Is there any preferred tech stack or UI library (e.g. Angular/React) NPCI wants for the test case builder?	To align with existing UI frameworks used by NPCI	No preference
124	EOI for dev of Certification Solution	Page 11	3.2.6	□ Two similar implementations	Can we showcase our work done for NPCI's Nfinite and GST Portal project as reference implementations?	Adds weight to our eligibility criteria	Yes Sure please
125	EOI for dev of Certification Solution	Page 9	2.1 A.4	Executive summaries and dashboards	Are there any specific dashboarding tools NPCI prefers (Power BI, Grafana, Kibana, etc.)?	Avoids rework in reporting tool selection	No preference
126	EOI for dev of Certification Solution	Page 37	-	Business and Technical SLA	Could NPCI provide expected SLA metrics (e.g., uptime, issue resolution TAT, incident priority matrix) to be complied with?	Needed for proper planning and proposal drafting	Business and Technical SLA already specified in EOI
127	EOI for dev of Certification Solution	Page 6	Point 7	Email size limit 10MB	□ Can we use file-sharing links (e.g., OneDrive/Google Drive) for submitting large files like solution architecture diagrams or UI prototypes?	Practical for technical documentation submission	NPCI does not have the option of file sharing facility on account of security restrictions. Hence, any and all documents to be shared needs to be vide email by adhering to the size limitation as prescribed.
128	EOI for dev of Certification Solution	Page 38	-	Expected innovation in solution	Does NPCI have preference for using GenAI/LLMs or cloud-native AI for test case suggestion, data generation, or anomaly detection?	Leverage prior AI innovations if allowed	No preference
129	EOI for dev of Certification Solution				For iUPI the certification portal will be new or it will merge into existing Certification portal?		Requirement for implementing New IUPI Simulator platform and the generated txn through simulator should integrate with POC exting servers.
130	EOI for dev of Certification Solution				Are there any preferred technology stacks or frameworks NPCI expects (e.g., Java, Node.js, React)?		No preferred technologies
131	EOI for dev of Certification Solution				NPCI to confirm the Deployment environments will be provided, also for development.		Yes
132	EOI for dev of Certification Solution				What is expected load on the portal?		200-300 TPS
133	EOI for dev of Certification Solution				How many internal tools need to be connected from this portal?		POC Servers UPI and IUPI
134	EOI for dev of Certification Solution				NPCI to confirm, the portal will be the interface for the testing, the main tool will be connected from this portal, users can select and test cases from the interface portal which will be developed.		An end to end simulator is require to facilitate sandbox testing and eliminate dependencies on partners and banks for scenario testing. Transactions initiated through simulator should be routed to the POC servers, with logs being available both within the simulator interface and on the POC servers for verification and analysis.
135	EOI for dev of Certification Solution	Page 9	2.1 A.1	API Test Platform with no-code, automation & sandbox support	Will NPCI provide sample APIs or test data for sandbox setup during development & POC stages?	To assess effort needed for mock/test data design	NPCI will provide TSD, sample data and Specific test cases.
136	EOI for dev of Certification Solution	Page 9	2.1 A.2	Unified onboarding for acceptance, FIR, FOR, ECOMM, etc.	Kindly clarify if existing systems/tools (from NPCI Nfinite or GST certification processes) will be reused/integrated?	For possible reuse of integration connectors	Yes POC server should be integrated
137	EOI for dev of Certification Solution	Page 9	B.1	Security - encryption/decryption and authentication	Is there a preferred security framework or certificate authority expected (e.g. PKI, SSL, OAuth)?	Compliance and architectural planning	Yes, SSL and Signer
138	EOI for dev of Certification Solution	Page 10	2.4 Assumptions	Platform hosted on cloud infra	Can you confirm if NPCI will provide cloud infra or the bidder is expected to provision and manage the hosting?	Impacts infra cost, effort & compliance setup	It should be deploy in NPCI DC
139	EOI for dev of Certification Solution	Page 34-36	Multiple rows	Drag-drop no-code test case builder	Is there any preferred tech stack or UI library (e.g. Angular/React) NPCI wants for the test case builder?	To align with existing UI frameworks used by NPCI	No preference

140	EOI for dev of Certification Solution	Page 11	3.2.6	Two similar implementations	Can we showcase our work done for NPCI's Nfinite and GST Portal project as reference implementations?	Adds weight to our eligibility criteria	Yes Sure please
141	EOI for dev of Certification Solution	Page 9	2.1 A.4	Executive summaries and dashboards	Are there any specific dashboarding tools NPCI prefers (Power BI, Grafana, Kibana, etc.)?	Avoids rework in reporting tool selection	No preference
142	EOI for dev of Certification Solution	Page 37	-	Business and Technical SLA	Could NPCI provide expected SLA metrics (e.g., uptime, issue resolution TAT, incident priority matrix) to be complied with?	Needed for proper planning and proposal drafting	Business and Technical SLA already specified in EOI
143	EOI for dev of Certification Solution	Page 6	Point 7	Email size limit 10MB	Can we use file-sharing links (e.g., OneDrive/Google Drive) for submitting large files like solution architecture diagrams or UI prototypes?	Practical for technical documentation submission	NPCI does not have the option of file sharing facility on account of security restrictions. Hence, any and all documents to be shared needs to be vide email by adhering to the size limitation as prescribed.
144	EOI for dev of Certification Solution	Page 38	-	Expected innovation in solution	Does NPCI have preference for using GenAI/LLMs or cloud-native AI for test case suggestion, data generation, or anomaly detection?	Leverage prior AI innovations if allowed	No preference
145	EOI for dev of Certification Solution	9	Chapter 2	2.1 General terms of the scope of work: The successful bidder needs to develop, install and support a Certification Platform/Solution for iUPI Testing with the following modules	Explain IUPI certification flow in detail?		IUPI certification process involves multiple stage, starting from partner onboarding to transaction validation and settlement reporting. The following outlines end to end flow : 1. Partner onboarding (unique org id, Currency code etc) 2. Bank onboarding for roles such as payee psp, beneficiary, Settlement, compliance ( endpoint url, org id , bank name etc) 2. txn initiation : Once the onboarding is complete, a user initiates a txn by scanning a UPI QR code. Upon txn initiation, the transaction flow adheres to the defined test model flowchart. 3. Transaction logging and display : Transaction logs are captured and displayed on both UPI and IUPI portals as per the flow model. The logs provide visibility into each stage of the transaction lifecycle, aiding in validation and troubleshooting. 4. Gateway logs validation : The txn id is used to search and retrieve logs from the gateway system. These logs are reviewed to validate all transaction fields and corresponding values, ensuring compliance with the certification test scenarios. 5. Kafka integration and backoffice processing : Post validation transaction data is pushed into a designated kafka topic. The backoffice server consumes JSON from the kafka topic for further processing . 6. Settlement Report generation : The backoffice system processes the transaction data and generates the corresponding settlement reports.
146	EOI for dev of Certification Solution	34	ANNEXURE M - Technical Compliance	Sandbox Environment: Provide a dedicated testing environment to simulate real-time UPI scenarios. Allow configuration of multiple test environments for different models	Please explain that NPCI End point is only Sandbox or any other envirnment to be integrated?		Yes needs to integrate with the POC servers.
147	EOI for dev of Certification Solution	34	ANNEXURE M - Technical Compliance	Integration with Certification Test Tools: Integrate global certification tools to streamline certification and compliance processes.	Explain Global certification flow ? Is it same as IUPI flow? What is the level of integration of GP with IUPI test tool has to be done? Please explain the use case?		Global certification has different models of testing such as acceptance, reverse acceptance, FIR, FOR, ECOMM, FX testing etc. As per the testing model flowchart the txn logs should be float in UPI and IUPI servers. We will provide TSD for different test certification models.
148	EOI for dev of Certification Solution	34,36	ANNEXURE M - Technical Compliance	<b>#1:</b> Core Objectives: Simulate end-to-end API workflows between partners and banks. Provide a secure platform to test, validate, and analyze API requests and responses. Enable tracking and reporting of API testing progress with detailed logs. Offer role-based access control to limit functionality based on user types. <b>#2:</b> User-Friendly Interface: Provide an intuitive and responsive UI. Ensure cross-browser and cross-device compatibility. Create a simple, easy-to-navigate portal. Provide role-based dashboards and personalized views. <b>#4:</b> Self-Managed API Platform: Allow UPI members to create and manage their own API test environments. Enable role-based access control to ensure only authorized users can modify configurations. Manage user roles and permissions.	Provide Role based access matrix to be followed in certification flow & API access flow?		Admin Role ( Full Access ) User and role management, Environment setup , API config changes, reports generation Tester ( Controlled Access ) Execute API tests, view logs , download test result logs, raise issues Partner Representative ( Limited Access ) : Initiate transactions, view txn logs, partner specific test case execution reports and dashboards Viewer ( Read only access ) : Access to logs, reports and dashboards without modification privileges Developer ( API Simulation and Environment Setup ) : Create / Edit test cases, Simulate workflows, access integration logs, delete or add payload fields.
149	EOI for dev of Certification Solution	10	Chapter 2	The platform will integrate with existing NPCI systems and tools	Provide the list of NPCI systems & tools to be integrated?		Global certification tools means POC server, the txn logs should be display in POC sever as well along with simulator tool. Post validation transaction data is pushed into a designated kafka topic. The backoffice server consumes JSON from the kafka topic for further processing .
150	EOI for dev of Certification Solution	10	Chapter 2	Reduction in certification time for international UPI members.	What is the current timeline for international UPI member certification process?		45 Days

151	EOI for dev of Certification Solution				What is the acceptance criteria of PH tool delivery?		<p>Acceptance Criteria - PH Tool Delivery</p> <p><b>Functional Coverage:</b> The tool must support end-to-end simulation of all required UPI/IUPI API workflows. It should allow users to configure and execute both positive and negative test cases.</p> <p><b>User Management:</b> Role-based access control must be implemented (Admin, Tester, Partner, Viewer). Only authorized users can modify test configurations or initiate tests.</p> <p><b>Log and Report Generation:</b> Real-time transaction logs must be captured and displayed in a simulator as well as in POC servers. Detailed execution logs and result reports should be downloadable. Logs should match expected field values as per certification requirements.</p> <p><b>Error Simulation:</b> The tool must support simulation of delays, timeouts, invalid payloads, and server/client errors ( here can provide partner, bank enable / disable toggle to capture the test scenario ).</p> <p><b>UI and Usability:</b> The interface should be responsive, intuitive, and accessible across major browsers. Role-based dashboards and scenario views should be correctly rendered.</p> <p><b>Environment Management:</b> Users should be able to create, edit, and delete their test environments and test models. Configurations must persist across sessions and support version control if applicable.</p> <p><b>Kafka Integration &amp; Settlement Logs:</b> Simulated transactions must be pushed to Kafka topics correctly. The backoffice or consumer service must generate the settlement reports based on these inputs.</p> <p><b>Security:</b> MFA and secure login mechanisms must be implemented. All data transmissions must be encrypted. Activity logs and audit trails should be available for compliance.</p> <p><b>Performance:</b> The tool must handle a defined number of concurrent users and transaction loads without performance degradation. Load testing results must demonstrate acceptable performance under peak conditions.</p> <p><b>Documentation &amp; Support:</b> User guide and API documentation must be provided. Support plan for issue resolution post-deployment should be defined.</p>
152	EOI for dev of Certification Solution	34	ANNEXURE M - Technical Compliance	Self-Managed API Platform: Allow UPI members to create and manage their own API test environments. Enable role-based access control to ensure only authorized users can modify configurations. Manage user roles and permissions. Monitor platform activity and ensure compliance. Add, modify, and remove test scenarios/models	What is NPCI's own test environment for API? And Excel template will be provided to add / update the test scenarios.		<p>NPCI own test environment for API here we are referring to IUPI Automated simulator.</p> <p>Yes we can able to provide TSD and Few test cases.</p> <p>But in future if any Payloads filed removed or added so we need access to update the API payload accordingly. And to make any filed mandatory or optional.</p>
153	EOI for dev of Certification Solution	35	ANNEXURE M - Technical Compliance	Error Simulation & Edge Case Testing: Introduce latency, simulate errors, and test failure scenarios. Handle timeout, invalid payload, and response delays	Please explain the details of each sceanrio interms of error Simulation & Edge case testing?		<p>Test timeout handling at both client and API gateway levels. Validate that appropriate error messages or retries are triggerd.Timeout after partial response sent.</p> <p>Simulate invalid payloads ( request errors ) : Submit malformed or incorrect data formats (missing mandatory fields, wrong data types )</p> <p>Ensure clear and consistent error messages are returned.</p> <p>Example : Missing required fields ( amount in a financial API ) , Invalid purpose code, Incorrect format ( invalid date )</p> <p><b>Edge cases</b> : Correct field name but wrong nesting structure , extra fields not allowed by schema.</p> <p><b>Simulate server side errors</b> : Force internal server errors to simulate backend failures.</p> <p>Simulate when Partern is not responding or bank is not responding the error logs should be display with correct error code.</p>
154	EOI for dev of Certification Solution	35	ANNEXURE M - Technical Compliance	<p><b>#17:</b> Allow creation of API skeleton, with the type of payload like XML, JSON etc. Provide option to select Meta, Financial API template creation</p> <p><b>#18:</b> Allow user to add data details in a developed API skeleton.</p> <p><b>#19:</b> Allow user toggle option to make a developed API skeleton and with the data set details API as a private or global. If its private then only logged in user can able to see the API . Global then any registered team member can able to access the developed API.</p>	Please provide details on the requirement? What is the use case for this requirement?		<p><b>#17: API Skeleton Creation with Payload Type</b> Detailed Requirement: Users should be able to generate a basic "skeleton" or structure of an API, including request/response placeholders. The payload types supported must include XML, JSON, and possibly others in future (e.g., YAML, CSV). The system should provide predefined templates based on use case types: Meta APIs: Used for transaction related date such as QR scanning Financial APIs: Used for transaction-related data, such as payments, balances, or settlements.</p> <p>User Flow: 1. User clicks “Create API Skeleton.” 2. Selects payload type (e.g., XML). 3. Chooses a template (e.g., Financial API). 4. System generates a basic API structure (endpoints, sample request/response, headers).</p> <p><b>#18: Add Data Details in Developed API Skeleton</b> Detailed Requirement: Users must be able to input actual test data and modify the structure within the skeleton. Fields may include: Request parameters (path, query, body) Response formats Header tokens or authentication details Error scenarios and sample error responses</p> <p>User Flow: 1. Open an existing API skeleton. 2. Click “Edit” to add request fields (e.g., account number, transaction type). 3. Add mock responses for different scenarios. 4. Save or publish for testing or other team use.</p>

155	EOI for dev of Certification Solution	35	ANNEXURE M - Technical Compliance	After the test case execution the txn Id logs should be visible in tool as well as in a POC servers.	What is POC servers? Provide use case for this requirement?		POC servers referring to the current servers on which we do manual certification testing with international partners and Domestic Banks. Where we can able to see the transaction logs.  User Flow: 1. Open an existing API skeleton. 2. Click “Edit” to add request fields (e.g., account number, transaction type). 3. Add mock responses for different scenarios. 4. Save or publish for testing or other team use. 5. Select the API's arrange in a workflow and save to create a test case 6. Execute test case : The txn logs should be display in IUPI Simulator tool as well as in a POC server. IUPI simulator tool : Here user should be able to view and download the report. POC Server : User should need to go in Gateway logs path, grep to serach with txn id. and then it should display the logs for the transaction that we have initiated through simulator.
156	EOI for dev of Certification Solution	34	ANNEXURE M - Technical Compliance	Predefined flows which could be selected from a dropdown. Another option should be made available to create new dynamic flows using no code/drag and drop. The new created flows can be saved and later selected from the dropdown itself.	Please explain the requirement in detail? What is the use case?		Once we have done with the API with required data values in a empty API skeleton. Then to create a test case, we will require Req and Response from Partner and Banks hence provide an option to arrange API and then the save option as per that the work flow gets created. Later to create test case we will simply selects the workflow and provide its name TC1 Execute option to implement test case . As per the test case requirements logs should be display in Simulator tool as well as should route to the POC servers.
157	EOI for dev of Certification Solution	34	ANNEXURE M - Technical Compliance	Integration with Certification Test Tools: Integrate global certification tools to streamline certification and compliance processes	Please explain the details of global certification tools to be integrated? What is the use case?		Global certification tools means POC server, the txn logs should be display in POC sever as well along with simulator tool. After that we will take take txn id to generate URCS settlement reports.
158	EOI for dev of Certification Solution	34	ANNEXURE M - Technical Compliance	Customizable Reports: Allow users to create custom report templates. Offer advanced filtering and sorting capabilities.	NPCI to provide the fields for customized reports? What is the use case? What is boundary of having of customizable fields?		generate test execution reports for a particular API set, test run, status ( PASS/Fail ) , data range. Filter results by module or test case severity. Example : 1. Pull reports showing only failed transactions or exceptions for regulatory purposes. 2. Filter by partner, API type or timeframe. 3. Field selection : choose which data fields to include 4. Sorting : Sort by date, status, name etc 5. Export options : PDF, EXCEL, JSon, dashboard view , TXT 6. Save templates : Reuse the same report settins regularly.
159	EOI for dev of Certification Solution	10	2.4 Assumptions & Dependencies	Cloud-based infrastructure hosting and platform integration	Please confirm if NPCI mandates any specific cloud provider and security certifications (e.g., ISO 27001, PCI DSS)? Who will own the infrastructure?		Solution must be compliant with NPCI mandates. Audit logs, encryption, access control, and security patches are mandatory.
160	EOI for dev of Certification Solution	9	2.1 Functional Requirement	Sandbox environment for testing and validation	Please confirm whether NPCI will provide dummy/test data or the bidder should simulate.		NPCI user to provide test data for API payloads. And we will provide TSD for reference.
161	EOI for dev of Certification Solution	9	2.1 Functional Requirement	Unified onboarding process for international UPI members	Please share expected concurrent users and regional compliance needs (e.g., GDPR, PDP Bill).		100-200 users
162	EOI for dev of Certification Solution	9	2.1 Functional Requirement	Detailed Reporting and Customizable Dashboards	Is there any preference for embedding BI tools like Tableau/PowerBI, or a custom dashboard is acceptable?		No preference.
163	EOI for dev of Certification Solution	9	2.1 Functional Requirement	No-code API test automation and Configurable test cases	Should the no-code builder support importing external API definitions like Swagger, Postman?		Yes, importing Swagger/OpenAPI definitions should be supported to rapidly build test workflows or simulate APIs.