REQUEST FOR EXPRESSIONS OF INTEREST

CONSULTANCY SERVICES FOR DIGITAL CITIZEN SERVICES PLATFORM DEVELOPMENT

Reference No:
PK-MOITT-502483-CS-QCBS

DIGITAL ECONOMY ENHANCEMENT PROJECT (DEEP)

Aug 2025

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REQUEST FOR EXPRESSIONS OF INTEREST (CONSULTANCY SERVICES FOR DIGITAL CITIZEN SERVICES PLATFORM DEVELOPMENT)

[PAKISTAN]
[DIGITAL ECONOMY ENHANCEMENT PROJECT (DEEP)]

Credit No: 7514-PK

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The Ministry of Information Technology and Telecommunication in collaboration with the World Bank is implementing Digital Economy Enhancement Project (DEEP) worth USD $77.73 Million. The main objective of the Program is "to enhance the Government's capacity for digitally enabled public services delivery for citizens and businesses".

In this connection, DEEP intends to hire the consultancy services ("Services") for Provisioning of Super App & Web Portal Framework.

The detailed Terms of Reference (TOR) are attached to this Request for Expression of Interest OR can be found at the following website: (www. moitt.gov.pk & www.nitb.gov.pk) OR can be obtained at the address given below.

The attention of interested consulting firms is drawn to Section III, paragraphs, 3.14, 3.16, and 3.17 of the World Bank's "Procurement Regulations for IPF Borrowers" September 2023, setting forth theWorld Bank's policy on conflict of interest.

Consultants may associate with other firms to enhance their qualifications but should indicate clearly whether the association is in the form of a joint venture and/or a sub-consultancy. In the case of a joint venture, all the partners in the joint venture shall be jointly and severally liable for the entire contract, if selected.

A Consulting firm will be selected in accordance with the **Quality Cost Based Selection (QCBS)** method set out in the Procurement Regulations of the World Bank for IPF Borrower September 2023.

Further information can be obtained at the address below during office hours i.e. 08:30 to 16:30 hours.

Expressions of interest must be delivered (in person, or by mail, or by e-mail) not later than **1500 Hours PST on 5th September 2025.**

1. EXECUTIVE SUMMARY

The **National Super App & Web Portal** initiative under Pakistan's Digital Economy Enhancement Project (DEEP) seeks to engage a qualified consultancy firm to design, customize, and implement a cutting-edge **"Super App"** platform and accompanying web portal. This platform will serve as a one-stop gateway for citizens and businesses to access a wide range of government services at the federal and provincial levels. The selected firm will leverage a proven SuperApp framework to rapidly develop a modular, scalable super app ecosystem.

Key objectives include delivering a citizen-centric, secure, and interoperable system that integrates with Pakistan's national digital identity and data exchange layers and is capable of supporting future sustainability features (e.g. advertisements, subscriptions, partner services). The consultancy will be responsible for end-to-end delivery – from architectural design and development to deployment on a government-provided cloud environment – as well as knowledge transfer, training, and documentation to ensure sustainability. All procurement and implementation activities will align with World Bank guidelines and international best practices, ensuring transparency, fairness, and accountability throughout the project lifecycle.

In summary, this REOI invites experienced firms to propose comprehensive solutions and services to realize Pakistan's vision of a **national digital services platform**, with evaluation favouring those with strong e-government experience, robust technical expertise (especially in super-app frameworks), and a clear plan for delivering a secure, high-performance solution on time and within scope.

2. BACKGROUND AND OBJECTIVES

The Government of Pakistan, with support from the World Bank under the **Digital Economy Enhancement Project (DEEP)**, is embarking on an ambitious digital transformation agenda. DEEP adopts a "whole-of-government" approach to enhance access to and uptake of digital services nationwide. A cornerstone of this agenda is the development of a **National Digital Portal** – envisioned as a unified super app (mobile application) and web portal – through which citizens and businesses can seamlessly access a broad spectrum of public services and information. By transcending siloed departmental systems, this platform aims to **simplify service delivery, improve user experience, and increase transparency and efficiency in government operations**. For example, routine tasks such as renewing licenses, filing taxes, applying for permits, or accessing health and education services should be performable online in one place, reducing the need for in-person office visits.

Objectives: The Super App and Web Portal will serve as a **central hub for e-government services**, integrating offerings from federal ministries and provincial departments into a single, citizen-centric interface. Key objectives of the project include:

- **Citizen Convenience and Inclusion:** Provide 24/7 access to services from anywhere, on any device (mobile or web), in multiple languages, thereby improving inclusivity and convenience for users. Citizens and businesses should have a consistent, intuitive experience for transactions and information retrieval, facilitated by features like single sign-on with national ID and personalized dashboards.

- **Government Efficiency and Transparency:** Streamline and automate government-to-citizen (G2C) and government-to-business (G2B) processes to reduce turnaround times and manual effort. By digitizing workflows and enabling digital communication (notifications, status tracking, etc.), the platform will increase operational efficiency and transparency in service delivery. It is expected to lower processing costs and potentially enhance revenue collection (e.g., through better compliance and easier payment of fees/taxes).

- **Unified Digital Ecosystem:** Develop a **Pakistan Digital Government Enterprise Architecture** that unifies standards and principles across technology, business processes, information management, and service design. The super app will be a practical implementation of this architecture, breaking down silos between departments by using a shared platform and data exchange layer for interoperability.

- **Secure and Trustworthy Services:** Ensure the platform adheres to the highest standards of security, data protection, and user privacy to build trust. Integration with the **National Digital Identity (NDI)** system (e.g., NADRA's digital ID) will provide robust authentication (including biometrics) for secure access to services. All data handling must comply with Pakistan's emerging Personal Data Protection Bill and relevant international standards (such as GDPR).

- **Scalability and Future Growth:** Provide a modular foundation that can rapidly onboard new services and adapt to future needs. The super app should be capable of integrating third-party services and sustainability features (like in-app advertising, premium services, or service fees) over time, ensuring long-term sustainability and potential revenue generation for the government. Initially, the platform will launch as a free service for users, but it should be architected to support freemium models, subscriptions, and other revenue channels as the user base grows.

- **Alignment with National and International Initiatives:** The project will align with Pakistan's national digital policies (e.g., Cloud First policy, e-Government standards) and leverage global best practices and technologies. The decision to use a robust SuperApp Framework underscores a commitment to using a proven, global super app technology, adapted to local needs. The SuperApp framework is a mini-program-based architecture that shall offer quick integration of third-party services, high performance, and an open ecosystem. It can be deployed on any cloud infrastructure in a containerized model, ensuring no lock-in to proprietary hosting.

In summary, the project's objective is to deliver a **modern, secure, and scalable super app platform** that transforms the way citizens interact with their government, fostering greater digital adoption and ultimately contributing to social and economic development goals under DEEP.

3. DETAILED SCOPE OF WORK

The consultancy firm will provide **end-to-end services** to design, develop, and implement the Super App and Web Portal framework. The scope of work encompasses the following key components and tasks, aligned with Framework's capabilities and international best practices:

I. Platform Design and Architecture

a) **Architecture Framework:** Design a robust, scalable architecture for the Super App (mobile) and Web Portal that serves as a unified platform for diverse government services (both federal and provincial). This includes a **modular, service-oriented or microservices architecture** to ensure future scalability and ease of maintenance. The architecture must support high availability and fault tolerance to handle millions of users and high transaction volumes.

b) **SuperApp Framework Integration:** Leverage a SuperApp Framework as the core technology for the super app. The consultant will customize and integrate the framework into the national super app, enabling third-party mini-applications (for various services) to run within the main app. The architecture should take advantage of the capabilities such as a unified API gateway, container-based deployment, and security features (sandboxing, code scanning, etc.). The solution must be cloud-agnostic, running on the government-provided cloud infrastructure (which may be a national data center or public cloud) without dependency on vendor operated cloud services.

c) **Ecosystem and Module Design:** Develop an overall ecosystem design that supports a **"platform of platforms"** approach. Core government services (e.g., citizen ID services, licenses, tax filings) will be built-in, while a **miniProgram marketplace** or module will allow external service providers (banks, e-commerce, utility companies, etc.) to integrate their services into the super app in the future. Define how new mini-programs are onboarded, reviewed, and managed within the platform (including any needed developer portal or review mechanism for third-party contributions).

d) **Responsive Web Portal:** Alongside the mobile super app, design a web portal that mirrors the app's core functionalities. The web portal should have a responsive, user-friendly interface that can work across desktop and mobile browsers. It should integrate with the same backend services, databases, and identity system as the mobile app to ensure a consistent user experience and data synchronization.

II. User Experience (UX) and User Interface (UI) Design

a) **Citizen-Centric Design:** Develop an intuitive UX/UI for both the mobile app and web portal, prioritizing ease of use, accessibility, and consistency. The design should follow a **mobile-first approach** for the app, with simple navigation and clear interfaces for a non-technical audience. Key design principles include multilingual support (Urdu, English, and other regional languages), inclusive design for users with disabilities (compatibility with screen readers, high-contrast modes, etc.), and adherence to a unified style guide (consistent colour schemes, fonts, and branding across all government digital services).

b) **Visual Prototypes and Mockups:** Provide interactive mockups and wireframes early in the project to validate the design with stakeholders. These should cover main screens of the super app (home dashboard, service catalogs, forms, notifications) and the web portal pages, including any **admin or back-office interfaces** for government officials. The prototypes should illustrate user flows for key services (e.g., applying for a service, making a payment, tracking application status) and incorporate real-time feedback elements (like status updates, chat support if any, etc.).

c) **Personalized Dashboard and Features:** Design the app/portal to offer personalized experiences – for example, a user dashboard showing relevant services, pending tasks or reminders (e.g., "your vehicle registration is due"), and tailored content based on user profile. Include features like notifications (push notifications on mobile, email/SMS alerts on web), a **unified inbox** for government communications, and search functionality to quickly find services.

d) **Multichannel and Multi-platform Consistency:** Ensure the UI design is consistent across the mobile app and web portal, so users switching between platforms have a seamless experience. Also, consider integration points with other channels such as USSD or SMS for basic phones (if required in future) and social media integrations for login or sharing content, while maintaining a coherent design language.

III. System Integration and Interoperability

a) **Integration with National Systems:** The platform must integrate **seamlessly with Pakistan's National Digital Identity (NDI) system** for authentication and identity verification, and with the **National Data Exchange Layer** for inter-government data sharing. Single Sign-On (SSO) capabilities should allow users to authenticate once via NDI and then access multiple services without re-login. The consultant will work with relevant government agencies (e.g., NADRA for identity, NITB for data exchange) to implement secure APIs and middleware for these integrations.

b) **Government Services Onboarding:** Identify and integrate priority public services in Phase 1, as determined in consultation with the client and stakeholders. This may include services from agencies like NADRA (identity verification), FBR (tax filings), SECP (business registrations), Passport/Immigration, vehicle registration, utilities, etc. For each service, the consultancy will **map out integration requirements** (such as API endpoints, data formats, authentication/authorization needed) and then develop the connectors or adapters to interface the super app platform with the existing backend systems of those agencies.

c) **API and Microservices Development:** Develop a robust **API layer** that exposes government services in a standardized manner to the super app and web portal. Where legacy systems lack APIs, the consultancy may need to implement middleware or microservices that interface with databases or applications of those systems. All services should use modern RESTful (or GraphQL) APIs with JSON (or XML where required) data formats and adhere to the data exchange standards defined by the national enterprise architecture. The architecture should support both synchronous service calls and asynchronous messaging where appropriate (for long-running processes or event notifications).

d) **Third-Party Service Integration:** Ensure the framework can easily integrate third-party services beyond government. This includes payment gateways (for digital payments of fees and taxes), mapping services (for location-based features), notification services (SMS gateways, email servers), and potential private sector services that may be offered through the platform (e.g., bank services, e-commerce, transportation). The Super App's design should allow incorporation of third-party **mini programs** – for instance, a mini app for ride-sharing or bill payment – without compromising security. The consultant should architect a **plugin or module system** where such services can be added, subject to a governance process. All external integrations must be secured (using API keys, OAuth2, tokens, etc.) and sandboxed as needed.

e) **Data Exchange and Interoperability:** Leverage the national data exchange layer to avoid point-to-point integrations. The super app should call services via the data exchange where possible, which acts as a hub brokering requests between the app and various ministry databases. The consultancy will coordinate with the data exchange team to define data contracts, mapping, and transformation rules for each integrated service. Real-time data synchronization and consistency must be ensured – for example, if a user updates their address in one service, that update (with user consent) could be propagated to other services via the data exchange.

IV. Security, Privacy, and Compliance

a) **Secure Architecture by Design:** Implement state-of-the-art security measures throughout the solution. This includes **end-to-end encryption** for data in transit (using

TLS for all communications) and encryption at rest for sensitive data in databases. Enforce strong authentication mechanisms: integrate the **National Digital Identity** for user login, supplemented by **multi-factor authentication (MFA)** options (e.g., one-time passwords, biometric verification through device capabilities). Use **role-based access control (RBAC)** to restrict user privileges on both the citizen side (different user roles if needed, like citizen vs. business vs. official) and the administrative side (e.g., portal administrators, agency users).

b) **Zero-Trust and Threat Protection:** Adopt a **zero-trust security model**, where the system continuously verifies user and device identity and does not implicitly trust any network or component. Implement intrusion detection and prevention systems (IDS/IPS) and real-time threat monitoring on the platform infrastructure. All API calls and transactions should be logged and monitored for anomalies. Potential security threats (SQL injection, XSS, CSRF, etc.) must be mitigated via secure coding practices and use of security frameworks.

c) **Vulnerability Assessment and Penetration Testing (VAPT):** The consultancy must conduct regular security testing, including vulnerability scanning of the application and underlying infrastructure, and penetration testing by certified professionals. Any critical vulnerabilities found must be promptly addressed. Security testing should be done at iterative stages (after major modules are built) and a full VAPT must be completed before go-live, with a report submitted to the client.

d) **Data Privacy Compliance:** Ensure compliance with **Pakistan's Personal Data Protection Bill** (expected law) as well as relevant international regulations like GDPR. This entails implementing privacy-by-design principles: collect only necessary user data, inform users of data usage, obtain consent where required, and allow users to manage their data (view/download their data, delete account, etc.). Data residency requirements must be respected – all sensitive personal data should be stored within Government-approved data centers in Pakistan, with appropriate backup and disaster recovery plans that also ensure data remains in control of Pakistani authorities.

e) **Auditability and Accountability:** The system should maintain comprehensive **audit logs** for all transactions and user activities. Key events (login attempts, data changes, approvals, etc.) must be recorded with timestamps and user IDs for accountability. Consider using tamper-evident technologies (potentially blockchain-based record verification or checksums) for critical transactions to ensure the integrity of records. Regular security audits (perhaps annually or at major milestones) will be required to remain compliant with evolving policies and standards.

f) **Compliance Standards:** The delivered solution should align with international standards and best practices such as OWASP Top 10 (for web/app security), ISO 27001 (for information security management), and ITIL or ISO 20000 (for service

management, relevant to operations handover). Additionally, since this project is funded by the World Bank, the consultant must ensure that no tools or software used are on any sanctions lists and that all activities comply with World Bank Group guidelines on data security and procurement integrity.

V. Development, Testing, and Deployment

a) **Agile Development Methodology:** Employ an **Agile or iterative development approach** (e.g., Scrum) to allow for flexibility and continuous feedback. The project should be structured in **multiple sprints or phases**, each delivering certain modules or features for review. This approach will enable stakeholder feedback (including from end-users through focus groups or a beta testing program) to be incorporated on an ongoing basis, thereby improving the final product.

b) **Release and Deployment Planning:** Develop a detailed **implementation plan and roadmap** for the Super App & Portal, outlining key phases: Inception, Design, Development, Testing, Pilot Launch, and Full Deployment. Include milestones and quality gates (e.g., architecture design sign-off, completion of integration of X services, UAT completion) in the timeline. The plan should also consider a **phased rollout** strategy – for instance, deploying an initial set of high-impact services as a pilot, then gradually onboarding more services and users (Phase 1, Phase 2, etc.). This phased approach will help manage risk and change effectively.

c) **Cloud Deployment and Environment Setup:** Set up the required cloud infrastructure (provided by the government) for development, testing, and production environments. The solution should be containerized (using Docker/Kubernetes or similar) for portability and scalability. Configure continuous integration/continuous deployment (CI/CD) pipelines for automated build, testing, and deployment processes. The consultancy should also provide guidance on the sizing of servers, network requirements, and storage based on expected loads (with the ability to scale up).

d) **Performance Optimization:** Ensure the system is optimized for high performance and responsiveness. This includes implementing load balancing across application servers, using caching strategies (in-memory caches or CDNs for static content) to reduce latency, and optimizing database queries. The system should be stress-tested for peak loads (simulating millions of users or transactions) to verify it meets performance targets. Key metrics include average response time, transactions per second, and concurrency supported. Any bottlenecks identified must be addressed via code or infrastructure changes.

e) **Functional Testing:** Conduct comprehensive testing at multiple levels – unit tests for individual functions, integration tests for service interactions (especially across the data exchange and external systems), and **system testing** for end-to-end scenarios. The consultant will prepare detailed test cases covering all functional requirements (e.g.,

user registration, service application submission, payment processing, etc.) and log results of test execution.

f) **User Acceptance Testing (UAT):** Support the client in carrying out UAT with selected users (could include government staff and a group of citizens). The consultancy should fix any defects identified during UAT and fine-tune the application per user feedback. A formal UAT report and sign-off will be a prerequisite to proceeding to production launch.

g) **Pilot Launch:** Implement a pilot deployment of the Super App & Portal with a limited user group or limited set of services in a controlled environment. The goal is to gather real-world feedback and ensure system stability before nationwide rollout. The consultant will monitor the pilot closely, collect metrics and user input, and perform any necessary optimizations or bug fixes.

h) **Full Deployment and Handover:** Upon successful pilot, assist in rolling out the platform to the general public. This includes publishing the mobile app to relevant app stores (Google Play, Apple App Store) and making the web portal live for all users. Deployment must be coordinated with a public awareness campaign (handled by others) to drive adoption. During the initial post-launch period, the consultant should closely monitor system performance and be on standby to address any urgent issues.

VI. Stakeholder Collaboration and Business Process Reengineering

a) **Stakeholder Engagement:** Work closely with a broad range of stakeholders throughout the project. Key stakeholders include NITB (National IT Board) as the client/owner, the assessment consultancy (conducting service inventory and gap analysis under a separate DEEP component), the project management/oversight firm, and representatives from various government agencies whose services will be integrated. The consultancy must establish **regular communication channels** (e.g., weekly project meetings, monthly steering committee meetings) to keep all parties aligned. Frequent workshops and design sessions should be held with agency stakeholders to capture requirements and validate that the Super App meets their needs.

b) **Alignment with Assessment Findings:** The DEEP project includes a prior assessment of government services and digital readiness. The implementation consultancy is expected to review outputs from that assessment (e.g., lists of services, gap analysis) and use them to prioritize which services are onboarded first and what process changes are needed. Any recommendations on business process reengineering (BPR) from the assessment should be incorporated. For example, if the current process for a certain permit is overly complex, the consultancy will propose a reengineered, simplified digital process in the Super App, in coordination with that agency.

c) **Business Process Reengineering (BPR):** For each service being digitized, analyze the

current workflow and design an optimized digital workflow. This may involve eliminating redundant steps, adding automation (such as automated notifications or approvals), and ensuring that the process can be completed online without offline follow-ups. Document the reengineered processes and get sign-off from the respective department. If policy or regulatory changes are needed to enable full digitization (for instance, accepting digital signatures instead of physical ones), highlight these to the government early.

d) **Change Management:** Provide support for change management and adoption of the new platform. While not directly responsible for outreach campaigns, the consultancy should contribute to **awareness and training events** for stakeholders as needed (e.g., presenting the platform at workshops or helping create content for public awareness). Internally, for government staff, ensure they are prepared to use the new system (admin portals, dashboards) and adjust to new processes. The REOI expects the firm to help conduct seminars, roadshows, or training sessions for stakeholder engagement and awareness (in collaboration with NITB and possibly the project management firm).

VII. Training, Knowledge Transfer and Documentation

a) **Comprehensive Documentation:** Develop complete documentation for the Super App & Portal. This includes technical documentation (architecture design, API specifications, database schemas, deployment guides), user manuals for both end-users and administrators, and maintenance guides for future developers. All code should be well-commented, and an up-to-date **System Design Document** and **Operations Manual** must be delivered. Documentation should be clear enough that a competent IT team could maintain or extend the system in the future without the original developers.

b) **Source Code Handover:** All developed source code, configuration scripts, and related assets will be the property of the client (government). The consultancy must hand over the complete source code repository (with proper version history if using version control like Git) upon project completion or as per milestones. A code review session should be conducted to walk the client's technical team through the code structure and build/deployment process.

c) **Technical Training for IT Staff:** Conduct in-depth training for NITB's technical team or any designated government IT personnel. The training should cover the architecture, codebase, deployment process, how to onboard new services or mini-apps, how to monitor the system, and how to troubleshoot common issues. The aim is to enable the government's team to take over day-to-day operations and minor enhancements post-project. This may involve a series of workshops and hands-on sessions. Training materials (presentations, exercises, examples) should be provided.

d) **User Training and Support:** Provide training to government end-users who will manage content or processes via the new system (for example, ministry staff who will

use an admin portal to process applications). Also, assist in creating end-user guidance for citizens – this could include FAQ documents, quick start guides, or even video tutorials demonstrating how to use the super app for various services. While user adoption at scale will be supported by the government's outreach efforts, the consultancy should ensure the platform's design is straightforward and may participate in initial user training sessions if needed.

e) **Ongoing Support During Transition:** After launch, provide a period of hypercare support (e.g., first 3-6 months) where the consultancy's experts are available to quickly address any issues, mentor the client's IT staff in real scenarios, and ensure a smooth transition. This might be formalized as part of the contract (e.g., an initial operations support period before final acceptance).

4. TECHNOLOGY ARCHITECTURE EXPECTATIONS

This section outlines the expected technological underpinnings and standards for the Super App & Web Portal solution:

- **The SuperApp Platform:** The solution will be built on **a robust SuperApp framework**. provides an open **mini-program container** architecture proven in WeChat's super app ecosystem, allowing multiple mini-apps (small service-specific applications) to run within a single host app. The architecture must exploit framework's strengths: it is cloud-agnostic, supports containerized deployment on any infrastructure, and enables rapid integration of new services with minimal changes to the core app. The bidder is expected to have or acquire a deep understanding of the framrwork to customize it effectively for Pakistan's context.

- **Modular and Microservice Architecture:** The system should follow a loosely coupled design. Use **microservices or modular services** for different domains (e.g., user management, payments, notifications, each as separate service) that communicate over secure APIs. This improves scalability and maintainability – new modules can be added without affecting existing ones, and parts of the system can be scaled independently based on load (for example, the payments module might need more resources around tax filing deadlines).

- **API-First Approach and Gateway:** Adhere to an **API-first design** – all functionalities of the platform (even those used internally) should be exposed via secure APIs. Implement a centralized **API Gateway** to manage all incoming and outgoing API calls, enforce throttling/rate-limiting, and handle authentication and authorization for services. The API gateway will also simplify integration with external developers or third parties by providing a single-entry point. Use of an **open API standard** (such as OpenAPIs/Swagger) is encouraged to document and publish the APIs for any third-party developers who may build mini-apps or integrate services in the future.

- **Cloud-Native and Containerized Deployment:** The solution must be architected for a cloud environment (either government's private cloud or public cloud as provided). Use containerization (Docker) and orchestration (Kubernetes or equivalent) to deploy microservices and the platform components. This ensures portability and efficient resource usage. Leverage cloud services where appropriate (e.g., managed database services, load balancers, messaging queues) provided they meet data residency and security requirements. The architecture should support horizontal scaling – i.e., adding more instances to handle increased load – without significant rework.

- **High Performance and Resilience:** Design for high performance from the ground up. Key expectations include support for **real-time interactions** where needed (for instance, status updates or chat-based support within the app), **low latency** API calls (optimizing network and processing), and use of CDNs for static content delivery on the web portal. Implement **caching layers** (in-memory caches like Redis) to reduce load on databases for frequently accessed data. For resilience, incorporate fallback mechanisms – e.g., if one microservice fails, the system should degrade gracefully and not crash the entire app. Use of circuit breakers and retry logic for service calls is expected.

- **Development Tools and Environments:** The consultancy should utilize modern development tools compatible with the framework. This might include the framework provider's own IDE or toolkit for miniProgram development and standard frameworks for mobile app development (if parts of the app are native/hybrid outside the miniProgram container). Version control (Git), project management tools (JIRA or similar), and CI/CD pipelines should be part of the development process. Ensure code quality through automated linting, code reviews, and adherence to coding standards.

- **Compatibility and Accessibility:** The mobile super app should be built for both Android and iOS platforms (either natively for each or using a cross-platform framework, as long as performance is not compromised). The web portal should support all modern browsers and degrade gracefully on older versions. Ensure the platform is **WCAG 2.1** compliant for accessibility – providing text alternatives for images, keyboard navigation support, and other accommodations.

- **Logging and Monitoring:** Incorporate comprehensive logging at application and server levels. Each microservice should log important events and errors. Implement a centralized logging and monitoring solution (such as ELK stack, or cloud-native monitoring tools) to enable real-time monitoring of system health. Set up dashboards for key metrics (CPU/memory usage, API response times, error rates, user analytics) and configure alerts for critical conditions (e.g., server down, high error rate). This will facilitate proactive maintenance and quick issue resolution.

5. DELIVERABLES AND TIMELINES

The project is expected to span an overall duration of approximately **36 months** (3 years), including all phases from inception to full rollout and initial support. Bidders should propose a detailed timeline with milestones; below is an outline of major deliverables and their indicative sequencing:

Phases	Deliverables/Outputs
Phase 1: Inception and Planning (Months 1-3)	**Inception Report & Work Plan:** A detailed project plan including methodology, team mobilization, risk management plan, and refined timeline. This should be submitted within the first few weeks for approval.
	Needs Assessment & Architecture Design: Review of existing documentation (service inventory, user requirements from the assessment phase) and preparation of a **Super App & Web Portal Architecture Blueprint**. This document will cover system architecture, module designs, integration approach, security architecture, and technology stack choices. It should also map out how the SuperApp framrwork's components will be utilized. The architecture and design must be approved by the client's technical committee.
	Implementation Plan: A comprehensive implementation plan and schedule for the build phase, including a release management strategy. It should outline phased delivery of features and a pilot plan. (Deliverable: *Super App & Portal Implementation Plan* – covering timeline, milestones, release strategy – **Output 1**).
Phase 2: Design and Prototype (Months 2-6)	**UX/UI Design Kit:** Delivery of the complete UX/UI design prototypes for the mobile app and web portal, including screen designs, user flows, and a clickable prototype for key use cases. This should be validated with user groups and approved by the client. (Deliverable: *UI/UX Design Mockups and Prototype* – **Output 1**).
	Technical Architecture & Environment Setup: Standing up development and testing environments and delivering the detailed technical architecture documentation (covering database schemas, microservice designs, and API specifications). (Deliverable: *Technical Architecture Document & Environment Setup Completion* – **Output 1**).
Phase 3: Development and Integration (Months 4-18)	**Service Module Development:** Customization or development of miniProgram modules for the prioritized services (the exact number and names of services will be agreed in Phase 1). This will be iterative – e.g., every few months a batch of services is completed.
	Integration with Identity & Data Exchange: Full integration and testing with the National Digital Identity for SSO, and with the data exchange layer for at least one end-to-end service flow. (Deliverables: *Integration Report* documenting APIs integrated, *Working SSO and Data Exchange Integration* – **Output 2**).

	Progress Demonstrations: Regular demos to the client (possibly at end of each sprint or monthly) to showcase completed features. By around Month 12, the aim is to have a **Minimum Viable Product (MVP)** version of the app/portal with several key services functional.
Phase 4: Testing and Quality Assurance (Months 12-24)	**Test Plans:** Delivery of comprehensive **Test Strategy and Test Case suite** (covering functional, integration, security, performance tests).
	System Testing & Bug Fixing: Completion of system integration testing (all modules working together) and fixing of issues.
	Security Testing: Conducting VAPT (Vulnerability Assessment & Penetration Testing) and addressing any findings. Also implement advanced security measures (MFA, IDS/IPS, etc.) and verify their effectiveness. (Deliverables: *Security Implementation Report* confirming encryption, MFA, IDS/IPS setup – **Output 3**; *Penetration Test Report and Mitigation* – **Output 3**).
	Performance Testing: Executing load and stress tests and tuning the system for performance (adding load balancing, caching, etc.). (Deliverable: *Performance Test Report and Optimization Summary* – **Output 3**).
	User Acceptance Testing (UAT): Coordinate UAT with selected users; collect feedback and ensure all critical issues are resolved. (Deliverable: *UAT Report and Sign-off* – **Output 3**).
Phase 5: Pilot Launch (Month 24)	**Pilot Deployment:** Launch the platform with a subset of services to a limited audience (could be internal or specific region). Monitor usage, gather feedback, ensure stability.
	Pilot Evaluation Report: Document the outcome of the pilot, including user satisfaction, issues encountered, and improvements made as a result. Get approval from the client to proceed to full launch. (Deliverable: *Pilot Launch Report* – **Output 3**, part of UAT completion).
Phase 6: Full Launch and Handover (Months 25-36)	**Nationwide Rollout:** Deploy the final version of the Super App on app stores and open the web portal to the public (with all Phase 1 services). Provide on-ground/remote support during the initial launch period to quickly resolve any unexpected problems.
	Training Sessions: Conduct all required training for government staff and administrators (technical team, support team, and departmental users). Also assist in creating user educational materials as described earlier. (Deliverables: *Training Manuals & User Guides* – **Output 5**; *Video Tutorials Library* – **Output 5**; *Completion of Training Workshops* – **Output 5**).
	Knowledge Transfer: Formally hand over the system – this includes the source code repository, all documentation, and a series of knowledge transfer workshops to ensure the client's IT team is fully capable of operating and maintaining the system. (Deliverables: *Source Code*

	Repositories, Technical Documentation Set, Knowledge Transfer Report – **Output 4**).
	Project Completion Report: A final report summarizing the project outcomes, deliverables achieved, system details, and recommendations for future enhancements or Phase 2 services onboarding. After this, the consultancy's active engagement ends, though a warranty/support period may continue as per contract.

Note: Bidders should propose a realistic timeline with these, or additional deliverables as needed. The above sequence can be adjusted based on the firm's methodology, but **Output-based milestones** are preferred for payment. Payments will be tied to acceptance of key deliverables/milestones, and bidders should include a payment schedule aligned with the deliverables (e.g., percentages on completion of each phase or output).

6. REQUIRED TEAM COMPOSITION AND QUALIFICATIONS

The bidding firm (or consortium/JV) must demonstrate that it has the necessary team and expertise to carry out the project successfully. Below are the required qualifications for the firm and its key personnel:

I. Consulting Firm Qualifications:

a) **Relevant Experience:** At least **10 years of experience** in IT consulting and systems integration, with substantial work in the public sector and digital government services. The firm should have successfully delivered projects involving **digital service platforms, e-government portals, or large-scale mobile applications** serving millions of users. International experience or multi-country projects in digital transformation will be an asset.

b) **Domain Knowledge:** Strong understanding of government processes and e-services. Familiarity with Pakistan's administrative landscape and prior work with Pakistani government entities is a plus. If international, the firm should demonstrate how it will quickly acquire local domain knowledge (e.g., by partnering with local firms or hiring local experts).

c) **Technical Expertise:** Proven capability in modern software architectures (cloud, microservices, mobile frameworks). Specific expertise in or knowledge of **super app frameworks** and **mini-program platforms** is highly desirable – e.g., experience with WeChat, Alipay, Grab, or similar super apps, or having built an app that aggregates third-party services. The firm must show expertise in secure development practices and interoperability (experience building APIs for varied systems).

d) **Project Management and Delivery:** Demonstrated capacity to manage complex projects with multiple stakeholders. The firm should have quality assurance processes

(CMMI level or ISO certifications would be a plus) to ensure deliverables meet high standards. Experience working under World Bank or other IFI-funded projects, with adherence to their procurement and reporting standards, is advantageous.

II. Key Team Positions and Qualifications: (The proposal should include CVs for these key experts, at minimum.)

S#	Title	Experience
1	**Project Director/Project Manager**	Overall lead for the project, responsible for planning, execution, and liaison with the client. Requires at least a bachelor's degree in computer science/engineering or related field (Master's preferred) and 10+ years of project management experience. Should have managed at least two projects of similar scale (national-level, multi-year, multi-stakeholder). PMP or PRINCE2 certification is recommended. Strong communication and leadership skills are a must.
2	**Solution Architect**	In charge of the technical design of the system. Requires 8+ years of experience in software architecture. Should be proficient in cloud-native architectures, microservices, and integration patterns. Experience with mobile platforms and mini-program frameworks is highly desirable. Should have designed at least one large-scale system with high performance requirements. A solid understanding of cybersecurity principles is expected.
3	**Lead Software Engineers (Frontend and Backend)**	a) *Mobile Lead:* Expert in mobile application development (Android and iOS). 5+ years experience, including knowledge of native development (Java/Kotlin, Swift) or cross-platform tools (React Native, Flutter) as appropriate. Experience with integrating SDKs and creating frameworks for mini apps will be a plus. b) *Web/Backend Lead:* Expert in web technologies (HTML5, CSS3, JavaScript frameworks) for the portal, and backend development (Java, Node.js, Python, or relevant tech stack). 5+ years' experience building robust APIs and web services. Familiar with DevOps and CI/CD.
4	**Integration Specialist**	At least 5 years of experience in system integration. Skilled in API design, web services, ESB or middleware technologies. Familiar with common standards (REST, SOAP, JSON/XML). Experience connecting to identity management systems (OAuth, SSO) and developing adapters

		for legacy systems is required.
5	**UI/UX Designer**	5+ years in user interface design, with a strong portfolio of designing intuitive mobile apps and web interfaces. Ideally has experience designing citizen-facing or mass-user applications. Knowledge of usability testing and tools like Figma/Adobe XD. Should be able to create design systems/style guides.
6	**Cybersecurity Specialist**	5+ years of experience in application and infrastructure security. Should hold relevant certifications (CEH, CISSP, or equivalent). Experience in securing web/mobile applications (knowledge of OWASP Top 10 mitigations), conducting penetration tests, and implementing security monitoring. Familiarity with data protection laws (Pakistan's PDPA, GDPR) to ensure compliance.
7	**DevOps Engineer/IT Infrastructure Specialist**	5+ years in managing cloud infrastructure and CI/CD pipelines. Should be experienced with containerization (Docker) and orchestration (Kubernetes). Able to set up automated deployment pipelines and monitoring solutions. Knowledge of backup, recovery, and scaling strategies in cloud environments.
8	**Business Analyst/Service Process Expert**	5+ years in business process analysis, preferably in public sector services. Capable of mapping existing processes and designing improved digital processes. Understanding of change management and stakeholder coordination. This role will ensure the tech solution aligns with business needs and will liaise between technical and non-technical stakeholders.
9	**Training and Knowledge Transfer Lead**	Experience in developing and delivering IT training programs. Should have excellent documentation skills and possibly experience in developing e-learning content. This person will coordinate the creation of manuals, guides, and training sessions to ensure capacity building of client staff.

Team Composition Note: A single person may cover more than one role if qualified (for example, the Solution Architect might also serve as the Integration Specialist if they have the relevant skills), but the proposal must convincingly show that all areas of expertise are covered. Conversely, additional roles can be proposed if the bidder feels they are necessary (e.g., QA Lead, Data Analyst for any data components, etc.). The team structure should also indicate support staff (e.g., junior developers, QA testers) who will work under the key experts to deliver the work – while CVs for every junior member are not needed, the proposal should

clarify the total team size and how the work will be organized.

All key team members must be fully available for the project and any substitutions during execution must be approved by the client, with equal or better qualified personnel, as per standard World Bank contract conditions.

7. COMPLIANCE, SECURITY, AND DATA PROTECTION REQUIREMENTS

Given the sensitive nature of government and citizen data, compliance with security and data protection standards is non-negotiable. The bidder must ensure the solution adheres to the following requirements:

- **Legal and Regulatory Compliance:** All project activities and the final system must comply with relevant Pakistani laws and regulations, including but not limited to the **Personal Data Protection Bill (once enacted)**, PECA (Prevention of Electronic Crimes Act) for cybersecurity, and any sector-specific regulations for data (e.g., health data privacy rules, if health services are included). Additionally, compliance with international standards like **EU GDPR** is expected, as Pakistani law is likely to harmonize with it to some degree. The firm should incorporate mechanisms for user consent, data anonymization where appropriate, and data retention policies that meet legal requirements.

- **Data Residency:** All personal data collected and generated by the system (e.g., user profiles, transaction records) must reside on servers within Pakistan, under the custody of the Government or its nominated providers. If cloud services are used, they should be local or otherwise contractually ensure data remains in-country and is not accessed by foreign entities. Backups and disaster recovery sites should also ideally be within the country or in neutral jurisdictions as approved by the government.

- **Security Standards:** The system must follow **best-in-class security standards**. Key expectations include:
    - OWASP Top 10 and SANS Top 25 vulnerabilities fully addressed in the application code.
    - Encryption: Use of AES-256 or equivalent strong encryption for data at rest (databases, file storage) for sensitive information, and TLS 1.2+ for data in transit. No sensitive data (like passwords or personal info) should ever be transmitted or stored in plain text.
    - Authentication & Session Security: Integration with the national ID ensures high trust login; in addition, enforce strong password policies for any non-SSO accounts, implement MFA for admin users, and use secure session management (short session timeouts for inactivity, secure cookies, etc.).
    - Audit Trails: Every administrative action and key user action must be logged. Logs should be tamper-proof and archived as per retention policy.
    - Regular Updates: The firm must commit to using up-to-date software libraries and promptly applying security patches during the project. Any use of third-

party components must be vetted for known vulnerabilities.

- **Security Testing and Audits:** Beyond the development phase testing, the project will be subject to independent security audits possibly arranged by the client or World Bank. The consultancy is expected to cooperate in such audits, provide access to code and systems as needed, and rectify any issues found. Prior to final acceptance, a thorough penetration test must result in no high-severity findings outstanding.

- **Privacy by Design:** The system should implement privacy controls by design. For example, minimize data collection (only what's necessary for a service), categorize data by sensitivity, and protect each category appropriately. Users' data visibility should be limited to themselves and authorized officials – e.g., a citizen should only see their own records; an official sees data of citizens only for the services under their purview. If the system uses any analytics or logging of user activities, it should be clearly disclosed in a privacy policy and should allow opt-outs for anything beyond essential service provision.

- **Consent and User Control:** Where applicable, build features for users to give and withdraw consent for data sharing. For instance, if one service needs to fetch data from another (via the data exchange) about the user, ensure that the user consents to this exchange (unless mandated by law). Provide user-accessible settings to control what communications they receive (notifications, newsletters, etc.) and allow account deletion (with appropriate safeguards and warnings).

- **Accessibility and Inclusivity Compliance:** While not security-related, compliance extends to user accessibility. The web portal must meet **Web Content Accessibility Guidelines (WCAG) 2.1 Level AA** at minimum, ensuring the platform is usable by people with disabilities. The mobile app should similarly incorporate accessibility features (labels for screen readers, support for enlarge text settings, etc.). This is in line with international best practices and any Pakistan ICT accessibility guidelines if they exist.

- **Open Standards and Interoperability:** To avoid vendor lock-in and ensure long-term sustainability, the solution should use open standards for data and interfaces. All APIs should be documented in a publicly recognized format (e.g., Swagger/OpenAPI). Data stored should be retrievable in common formats (JSON, CSV, etc.) so that in future, if needed, the government can migrate or integrate with other systems. Compliance with enterprise architecture standards being developed under DEEP (if any) is required – for example, if the Pakistan Digital Government Enterprise Architecture defines certain protocols or data schemas, the system should adhere to them.

- **Intellectual Property and Licensing:** The solution will be owned by the Government of Pakistan. Any software components used must either be open-source with permissive

licenses or properly licensed to the government. The bidder must disclose any third-party licenses or dependencies. Custom-developed code must not include any encumbrances that prevent the government from using it freely. If the framework requires a license or support agreement, this should be clarified. The firm must ensure that by project end, the government has full rights to run, modify, and extend the system without further licensing fees (except for third-party components that might have recurring costs, which should be identified in the proposal).

The bidder should include a section in their technical proposal explaining how each of the above compliance and security requirements will be addressed, referencing any frameworks or standards they adhere to. During implementation, the consultancy will be required to produce a **Security and Privacy Assurance Plan** and keep it updated, demonstrating compliance at each stage (design, development, testing, deployment).

8. PROJECT GOVERNANCE, REPORTING, AND COMMUNICATION

Effective project management and communication are crucial for this multi-stakeholder initiative. The consultancy will be expected to adhere to robust reporting and governance mechanisms:

- **Project Governance Structure:** The project will be overseen by a steering committee likely composed of representatives from the Ministry of IT, NITB, provincial IT boards, and the World Bank (as observer). The consultancy's Project Manager will interface with this committee at regular intervals (e.g., quarterly or at major milestones) to report progress, discuss risks, and get strategic guidance. Separately, a **Technical Oversight and Program Management firm** (hired under another component of DEEP) will monitor day-to-day progress. The consultancy must collaborate with this oversight firm, providing them necessary information and access to ensure transparency and alignment with project objectives.

- **Kick-off Meeting:** Shortly after contract award, a formal kick-off meeting will be held to review the scope, introduce key team members, finalize the work plan, and agree on communication protocols. The bidder's key team is expected to attend (in person if possible).

- **Progress Reporting:** The consultancy will submit **monthly progress reports** detailing activities completed, progress against schedule, deliverables achieved, plans for next period, and any issues/risks identified. These reports should also highlight any support needed from the client or blockers encountered. In addition to written reports, brief weekly check-in calls/meetings should be conducted with the client's project lead to maintain momentum and quickly resolve minor issues.

- **Milestone Reports and Reviews:** At the end of each major phase or milestone (e.g., completion of design, completion of development sprint X, completion of UAT), the

consultancy will prepare a milestone report. This report will summarize what has been accomplished, include relevant deliverables or their executive summaries, and provide evidence that acceptance criteria for that milestone are met. A review meeting will then be held with client representatives (and the oversight firm) to formally accept the milestone. Payment releases (if tied to that milestone) will depend on satisfactory acceptance.

- **Issue/Risk Management:** The consultancy should maintain an **Issue and Risk Register** throughout the project, updated regularly and shared with the client. Significant risks (such as delays in integration due to third-party readiness, or technical challenges with the framework's adoption) should have mitigation strategies defined and communicated. If any risk requires client intervention (e.g., a policy decision or inter-agency negotiation), it should be escalated in a timely manner. The oversight firm will likely also track this, so close cooperation is needed.

- **Quality Assurance and Testing Reports:** As part of reporting, the consultant will provide results of testing (QA) phases – e.g., test summary reports after system testing, security test reports, etc. These can be annexes to the monthly or milestone reports when applicable. Particularly, a **UAT report** and a **Pilot evaluation report** will be critical documents before moving to the final deployment.

- **Communication Protocols:** Define clear communication channels. Day-to-day coordination will likely be through a project management tool and emails/instant messaging groups for quick queries. For official communications, letters or emails to the designated client's project manager will be used. All significant decisions or change requests must be documented in writing. The proposal should outline how the firm plans to manage communications and ensure all stakeholders (including provincial ones) are kept in the loop (for example, using tools like Slack/MS Teams for team collaboration, shared document repositories, etc., while ensuring security of information).

- **Change Control Mechanism:** Given the evolving nature of such projects, a formal change control process will be instituted for any changes in scope, requirements, or timelines. The consultancy is expected to proactively identify if any requested feature or external dependency change constitutes a change in scope, and work with the client to document the change, impact on time/cost, and seek approval through the governance mechanism (likely the steering committee).

- **Adherence to World Bank Guidelines:** The firm must comply with the reporting requirements as per World Bank guidelines for project monitoring. This includes contributing to any project progress reports that the government must submit to the World Bank, providing input on results achieved (e.g., number of services digitized, number of users onboarded in pilot, etc., as part of project results framework), and

facilitating any independent reviews or audits the Bank may conduct (such as Implementation Support Missions).

- **Coordination with Other Firms:** As noted, there are other consultancies involved (assessment firm, cybersecurity firm possibly, etc.). The Super App consultancy must be willing to share information and coordinate schedules with them. For instance, if a cybersecurity firm is to perform an audit, the development team should accommodate that in their schedule. If an independent quality assurance is in place, the team should provide them access to code and environments. All collaboration should be done in a spirit of achieving the overall DEEP program objectives.

In summary, the consultancy must implement a **strong project management discipline**, with regular reporting and open communication. The client places high importance on transparency and proactive management, ensuring that problems are caught early, and successes are documented. The proposal should affirm the firm's commitment to these practices and mention any project management standards or tools they will use.

9. KNOWLEDGE TRANSFER AND SUSTAINABILITY

A core requirement of this project is that the government's own teams are enabled to take over the system after the consultancy's work is completed. To that end, the consultancy must carry out comprehensive **knowledge transfer and capacity building** activities:

- **Knowledge Transfer Plan:** Early in the project (during inception phase), the consultancy should develop a *Knowledge Transfer Plan* outlining how skills and system knowledge will be imparted to the client's personnel over the course of the project. This plan should identify the target groups (e.g., NITB technical team, IT focal persons in ministries, system administrators) and tailor knowledge transfer activities for them. It should also schedule these activities to align with project milestones (for example, training on administration module when that part of the system is ready).

- **Technical Training Workshops:** Conduct practical training workshops for the client's technical staff on key aspects of the system:

    - **Architecture and Code Deep-Dive:** explaining how the system is structured, how modules interact, and guiding through the codebase and configuration. This could be done in phases (e.g., once a significant portion of the system is built, do a walkthrough).

    - **MiniProgram Development:** specific training on how to create or modify mini-programs within the super app. If the government wishes to onboard additional services later with their own developers, they need to understand the framework. This might involve training on the development environment (which the consultancy should be familiar with and able to teach).

- **System Administration:** training on deployment procedures, scaling the system, monitoring dashboards, backup/restore procedures, user management in the system, etc.
- **Support and Maintenance Processes:** how to handle common support issues, read logs, troubleshoot errors, and apply future patches or upgrades. If an issue arises after go-live, the government team should be capable of first-level diagnosis.

- **User and Administrator Guides:** Develop easy-to-follow guides:
  - **Citizen User Guide:** a manual (and/or in-app help sections) that explains how to use the app and portal, how to access services, account recovery, etc. Should be in both English and Urdu (possibly other languages as needed). This can include a FAQ section.
  - **Administrator Manual:** for those managing the system (e.g., how to add a new service to the app, how to manage content on the portal, reviewing logs, etc.).
  - **API Documentation:** if the system provides APIs for third parties (e.g., if external developers will create mini-programs), provide a comprehensive API/documentation portal.
  - **Training Videos:** as part of deliverables, create short video tutorials demonstrating common tasks (for both end-users and admins). These can be used for broader training and user onboarding.

- **Pilot Knowledge Sharing:** Involve the client's technical staff actively during the pilot launch. This hands-on involvement acts as a practical training ground. For instance, during pilot support, let the client's IT staff shadow the consultancy's support team, gradually taking on responsibilities.

- **Post-Project Support Period:** Although the REOI scope is design and implementation (and not long-term operations), include a transition support period (for example, 6-12 months after launch) where the consultancy remains available (with a lighter support team) to answer questions, assist the client's team in complex issues, and ensure they feel confident. This can be structured as part-time support or an on-call arrangement and should be included in the proposal. The aim is to **gradually reduce dependency** on the vendor.

- **Local Partnerships:** If the bidder is an international firm, it is encouraged to partner with local IT firms or to utilize local experts as part of the team. This not only builds local capacity but also ensures smoother knowledge transfer due to no language or cultural barriers. In the long term, local team members could be retained by the government or continue to provide support. Bidders should elaborate on how they would ensure skills remain within Pakistan after project completion (e.g., through train-the-trainer approaches or hiring from local market and then transitioning those hires).

- **Acceptance of Knowledge Transfer:** The contract will include a requirement that all documentation and training must be completed to the client's satisfaction. Before final closure, the client's team will verify they have received all necessary knowledge. This may involve interviews or tests of the trained personnel, so the consultancy should ensure the training is effective. A *Knowledge Transfer Completion Report* will be prepared jointly, confirming that the client's team can operate the system and listing any remaining gaps (if any) and plans to address them.

By the end of the engagement, the client expects to have a fully empowered team, and all the tools needed to continue operating and expanding the platform without dependency on the vendor. Bidders should treat knowledge transfer not as an afterthought but as an integral part of the project deliverables, dedicating adequate resources for it.

10.SUSTAINABILITY STRATEGY ENABLEMENT

While the primary mandate of this project is to deliver public services, the platform is envisioned to support **future sustainability opportunities** to ensure financial sustainability and incentivize innovation. The consultancy is expected to design and develop the Super App & Portal with built-in capabilities or provisions to enable the following sustainability strategies (to be activated in the future at the government's discretion):

- **In-App Advertising:** The platform should accommodate non-intrusive advertising placements, such as banner ads or promoted content sections within the app/portal interface. This includes having modules that can pull ad content from an ad server, display targeted ads based on user segments or interests (complying with privacy settings), and track impressions/clicks for reporting. Initially, the app will launch without ads (to encourage adoption), but the architecture must allow ads to be turned on later without major redesign. Ads might include government public service messages initially, then possibly paid ads from private sector partners.

- **Premium Services / Subscription Model:** Design the system to allow a **"freemium"** approach in the future. For example, basic services remain free for all, but enhanced features or bundles of services could be offered via a subscription. This could range from faster processing, personalized assistance, or exclusive value-added services. The platform should be able to manage subscriber accounts, handle payments for subscriptions, and enforce access control so that premium features are accessible only to paying users. Even if this is not implemented on day one, ensuring the user management and payment components are extensible for this is important.

- **Transaction Fees and Revenue Sharing:** For certain services that involve transactions (e.g., online payments for licenses, booking of government facilities, or transactions via third-party mini apps like ticketing), the system should have the capability to calculate and record commissions or service fees. For instance, if the super app integrates an e-commerce mini app or a utility bill payment service, it could take a small commission per transaction. The consultancy should incorporate a **payment module** that not only

processes payments securely but can also handle fee logic (configurable rates, splitting of payments between stakeholders, etc.). Integration with an e-wallet or digital payment gateway provided by the government or State Bank's systems is expected for seamless payments.

- **Partner Services and Marketplace:** Enable a framework for **third-party service providers** to offer services through the super app. This is both a service delivery and a sustainability feature. The super app could act as a marketplace where private or semi-private services (e.g., an insurance product, an e-learning service) are accessible. Revenue can come from these partners through listing fees or profit-sharing. The platform should thus support onboarding external partners, managing their mini-programs or web plugins, and potentially **charging them fees** (either a flat fee for integration or a revenue share model tracked by the system).

- **Data Analytics and Insights:** While individual personal data must be protected, aggregate data and usage trends could be valuable (for policy or even commercial insights). The platform should include analytics capabilities that track usage patterns across services. In the future, the government might monetize some non-personal data insights (for example, transport usage statistics from the app to businesses planning services). The architecture should ensure data is organized and collected in a way that such analytics can be performed (with proper anonymization). Any such sustainability will strictly follow privacy laws, but the capability to generate reports or APIs for data sharing (with approval) could be considered.

- **App Marketplace Transactions:** If the super app includes an **app store-like marketplace** for mini programs (like how WeChat has a mini app store), there could be potential to charge for listings or for premium placement (advertising for the app developers). The consultancy can propose how the governance of the miniProgram marketplace might work and how sustainability features like promoted listings could be technically enabled.

- **Scalability of Sustainability Features:** It is critical that any sustainability features, once introduced, do not degrade user experience or trust. The consultancy should ensure that advertisements can be frequency-capped and user experience tested, that subscription paywalls (if any) are clear and fair, and that transaction fees are transparent. The system's notification and communication mechanisms should be capable of informing users about new premium offerings or promotions in a user-friendly way (e.g., occasional pop-ups or messages, not spam).

The REOI does not necessarily require the consultancy to implement all sustainability features immediately, but the **design must be "sustainability -ready."** Bidders should demonstrate in their proposal an understanding of these potential revenue models and explain how their solution can accommodate them. This could include referencing features that support

sustainability – for example, ability to handle in-app purchases or advertising integration.

Finally, any sustainability must align with public sector norms. Revenue generation is intended to support the platform's sustainability, not to profit at the expense of citizens' access to basic services. The government will control if and when to activate these features. The consultancy's role is to build a flexible foundation that can incorporate sustainability features in a responsible way when desired. The proposal could include a brief discussion of successful case studies or benchmarks from other countries' super apps regarding sustainability to show the bidder's insight in this area.

11. STRUCTURE AND FORMAT (COMPLIANCE WITH WORLD BANK REQUIREMENTS)

Bidders must ensure their proposals conform to the structure and content requirements commonly expected in World Bank-financed projects. This section provides guidance on format and submission, although the exact details will be provided in the official bidding documents:

- **Proposal Format:** The REOI will likely follow a standard structure:
  - *Letter of Proposal:* A cover letter with a declaration of intent, project understanding, and summary of qualifications.
  - *Technical Proposal:* This should be structured with sections such as: Approach and Methodology, Work Plan/Timeline, Team Composition & Task Assignments, Firm Experience, Project Organization and Staffing, and any other requested information (like quality control measures, risk management approach, etc.).
  - *Curricula Vitae (CVs):* Detailed CVs of all key proposed experts, signed by the individuals and the firm's authorized representative.
  - *Financial Proposal:* (submitted separately in a prescribed format) including a cost summary, breakdown of costs by phase, remuneration for staff, reimbursable expenses, etc., as per the REOI's instruction. (Financials are not part of the technical evaluation but must be prepared as per World Bank standard forms). Financial proposal will be submitted at RFP stage.

- **Language:** The proposal and all correspondence must be in **English**. If any supporting documents (like certificates) are in another language, an official translation should be provided.

- **World Bank Procurement Compliance:** Bidders should note:
  - *Conflicts of Interest:* Firms must certify they have no conflict of interest in participating (e.g., they weren't involved in preparing the project or have no close business or family relationship with those who did).
  - *Eligibility:* The procurement is open to firms from eligible countries as per World Bank rules. No sanctioned or debarred firms can participate. Bidders should ensure they are not on any World Bank debarment list.

- *Joint Ventures:* Joint ventures are allowed (often up to a maximum of 3 partners), but a JV agreement or intent letter should be included, identifying the lead partner. All partners will be jointly and severally responsible. The qualifications will be combined to assess the JV as a whole.
- *Subcontracting:* If parts of the work will be subcontracted, details must be provided. However, the proposal should clearly state which portions are subcontracted and to whom, and those subcontractors should not be changed without client approval.
- *Validity and Timeline:* Proposals must be valid for a certain period (often 90 or 120 days). The REOI timeline will include dates for proposal submission, likely a pre-proposal meeting (where bidders can seek clarifications), and the expected date of contract award. Bidders should adhere strictly to these deadlines and format requirements (such as page limits if any for certain sections, font size, etc., often specified in the REOI Data Sheet).

- **Evaluation Process:** The evaluation will be carried out as described in the earlier section. Bidders are reminded to ensure their technical proposal is self-contained and doesn't reference the financial proposal, to avoid any hints of pricing in the technical part (which could lead to disqualification).

- **Clarifications:** Any requests for clarification on this REOI should be sent in writing to the designated contact person before the deadline (as specified by the REOI, likely a couple of weeks before proposal submission). Responses to all clarifications will be shared with all prospective bidders to ensure fairness.

- **Proposal Submission:** The REOI may allow electronic submission or require physical sealed envelopes. Bidders should prepare to submit one original and several copies of the technical proposal, and a separate sealed envelope for the financial proposal, or use the online portal as instructed. Late submissions will not be considered, as per standard rules.

- **World Bank Standard Forms:** The consultancy contract will be under World Bank conditions. Bidders can expect that the contract will be a time-based or lump-sum consultancy contract (to be defined; given the nature, it could be lump-sum outputs or time-based). They should familiarize themselves with the World Bank's standard contract clauses (like limitation of liability, dispute resolution, etc.). Any exceptions or deviations a bidder wants to propose to the contract terms should be clearly identified in their proposal (though too many deviations may make the proposal non-compliant).

- **Deliverable Acceptance and Payment:** The structure of deliverables and outputs described will form the basis of the payment schedule. The World Bank procurement format often requires clear linkage between deliverables and payment tranches. Bidders should be prepared to work with a payment schedule that is output-driven (for example,

X% on completion of design, Y% on deployment, etc., as will be detailed in the contract).

By adhering to the above format and guidelines, bidders will ensure their proposals meet the formal requirements of this internationally funded project. The Government of Pakistan and the World Bank are committed to a fair, competitive, and transparent selection process. Firms are encouraged to put forward their best effort in demonstrating technical excellence, contextual understanding, and value for money in their proposals.

12. KEY FEATURES OF THE SUPER APP & WEB PORTAL BUT NOT LIMITED TO:

Bidders are expected to explain how their solution will meet each of these requirements, including details on how the features will work, the user experience, and any additional value they can provide:

I. Unified Digital Identity & Authentication

- Single Sign-On (SSO) Integration with Pakistan's National Digital Identity System.
- Biometric Authentication (Fingerprint, Facial Recognition).
- Multi-Factor Authentication (MFA) for enhanced security.
- Role-Based Access Control (RBAC) for different user categories (citizens, businesses, government officials).

II. Centralized Government Services Access

- One-Stop Government Service Portal integrating federal and provincial services.
- Online Application Submission & Processing for taxation, licensing, business registration, permits, and other government services.
- Real-Time Application Status Tracking & Notifications.
- Digital Document Vault for e-certificates, licenses, and permits.

III. AI-Powered Assistance & Smart Services

- AI-Driven Virtual Assistant & Chatbot for instant query resolution.
- Smart Service Recommendations based on user history and preferences.
- Automated Document Verification using AI and OCR technology.
- AI-Powered Fraud Detection & Security Alerts.

IV. Seamless Multi-Channel Accessibility

- Mobile App (iOS & Android) & Web Portal with responsive design.
- Offline Access & Syncing Capabilities for key services.
- Multi-Language Support including Urdu, English, and regional languages.
- Dark Mode & Accessibility Features (voice commands, screen readers, high-contrast mode).

V. Secure Digital Payments & Financial Integration

- Integrated Digital Payment Gateway supporting debit/credit cards, mobile wallets, and bank transfers.
- Bill Payments, Fines, and Government Fee Transactions.

- Blockchain-Based Verification for Secure Transactions.
- Integration with Financial Institutions & Payment Gateways.

VI. Smart Governance & Data Insights

- Real-Time Government Dashboard & Analytics for service performance monitoring.
- Automated Compliance Tracking & Reporting.
- Citizen Feedback & Satisfaction Surveys for continuous service improvement.
- Open Data & Transparency Initiatives for public accountability.

VII. System Integration & Interoperability

- API-Driven Architecture for Seamless Integration with existing government systems for example (FBR, SECP, HEC, NADRA, etc.).
- Real-Time Data Exchange & Synchronization across departments.
- Microservices-Based Infrastructure for Scalability & Future Expansions.
- Interoperability with Third-Party Service Providers (Banks, Telecom, Private Sector).

VIII. Security, Privacy, & Compliance

- End-to-End Encryption & Secure Data Transmission (TLS 1.3, HTTPS).
- Zero-Trust Security Model & Intrusion Detection Systems (IDS/IPS).
- Regular Cybersecurity Audits & Penetration Testing.
- **Compliance with Pakistan's Personal Data Protection Bill & GDPR.

IX. Service Automation & Business Process Reengineering

- Automated Workflows & Digital Approvals for faster service delivery.
- Electronic Signature & Smart Contract Integration.
- Rule-Based & Event-Driven Automation for Processing Requests.
- Cross-Departmental Collaboration for Streamlined Public Services.

X. Real-Time Notifications & Citizen Engagement

- Push Notifications, SMS, and Email Alerts for service updates.
- Two-Way Communication Between Citizens & Government Officials.
- Emergency & Disaster Management Alerts.
- Integrated social media & Community Feedback Mechanisms.

XI. Future-Ready & Scalable Digital Platform

- IoT & Smart City Integration for real-time monitoring.
- Machine Learning-Based Predictive Analysis for better governance.
- Support for Private Sector Services (E-Commerce, Insurance, Healthcare, etc.).
- Customizable & Scalable for Future Expansions.