NEURAL ARC

IPC System Implementation Proposal

Recovery, Completion & Deployment

RFQ 651105000156

Pioneering Generative AI Solutions for Enterprise Excellence

December 2025

About Neural Arc

Who We Are

Neural Arc is a specialized technology consultancy at the forefront of generative AI innovation, dedicated to delivering cutting-edge artificial intelligence solutions for businesses and enterprises worldwide. We are a team of expert AI engineers, data scientists, software architects, and domain specialists who share a common vision: to make advanced AI capabilities accessible, practical, and transformative for organizations of all sizes.

Founded on the principle that artificial intelligence should augment human capabilities rather than replace them, Neural Arc has established itself as a trusted partner for organizations seeking to leverage generative AI for operational excellence, innovation, and competitive advantage. Our expertise spans the full spectrum of AI technologies, from natural language processing and computer vision to predictive analytics and autonomous agents.

Our Generative AI Expertise

At Neural Arc, we specialize in generative AI—the transformative technology that enables machines to create, reason, and solve problems with human-like intelligence. Our work goes beyond traditional automation and rule-based systems. We design and implement AI solutions that can understand context, learn from data, generate insights, and execute complex workflows autonomously.

OUR GENERATIVE AI CAPABILITIES

Domain	Capabilities
Natural Language Processing	Conversational AI and chatbots, Document understanding and extraction, Multilingual content generation, Sentiment analysis and classification
Intelligent Automation	Workflow orchestration and optimization, Autonomous decision-making systems, Process mining and improvement, Robotic process automation (RPA)
Predictive Analytics	Demand forecasting and planning, Risk assessment and mitigation, Anomaly detection and alerting, Performance prediction and optimization
Computer Vision	Document and image analysis, Object detection and classification, Medical imaging interpretation, Quality inspection automation

Introducing Helium AI

At the heart of our generative AI capabilities is Helium AI, our proprietary autonomous deep agent platform that represents a breakthrough in intelligent automation. Helium is not just another AI tool—it's a full-spectrum autonomous agent capable of understanding complex requirements, planning multi-step workflows, and executing tasks across diverse domains with minimal human intervention.

What Makes Helium Unique

Helium AI combines advanced reasoning capabilities with practical execution power, enabling it to:

- **Understand Context:** Helium comprehends nuanced requirements, interprets ambiguous instructions, and asks clarifying questions when needed
- **Plan Intelligently:** It breaks down complex tasks into logical steps, identifies dependencies, and creates efficient execution plans
- **Execute Autonomously:** Helium can perform research, analyze data, generate content, write code, interact with systems, and deliver results—all without constant supervision
- **Learn and Adapt:** The platform continuously improves its performance based on feedback and outcomes
- **Integrate Seamlessly:** Helium connects with existing enterprise systems through APIs, databases, and standard protocols

Helium for Business & Enterprise

Helium AI is specifically designed for business and enterprise environments where reliability, security, and compliance are paramount. Unlike consumer-focused AI tools, Helium is built with enterprise requirements in mind:

Feature Category	Capabilities
Enterprise Security	End-to-end encryption, Role-based access control, Audit logging and compliance, Data sovereignty support
Scalability	Handle thousands of concurrent tasks, Cloud-native architecture, Horizontal scaling capabilities, High availability design
Integration	RESTful API interfaces, Webhook support, Database connectivity, Legacy system integration
Customization	Domain-specific training, Custom workflow templates, Branded interfaces, Configurable business rules

Helium for End Users

While Helium is powerful enough for complex enterprise workflows, it's also designed to be accessible to end users. Through natural language interfaces, users can interact with Helium conversationally, asking questions, requesting information, and delegating tasks without needing technical expertise. This dual capability—enterprise-grade power with consumer-grade simplicity—makes Helium uniquely valuable for organizations serving diverse

stakeholder groups.

Our Track Record

Neural Arc has successfully deployed generative AI solutions across multiple industries and geographies. Our experience spans healthcare, finance, government, manufacturing, and professional services, with implementations ranging from intelligent document processing to autonomous customer service agents.

5
Pilot Projects Deployed
4
Active Implementations
4
Global Markets
100%
Client Satisfaction

Why Neural Arc for the IPC System

Our unique combination of generative AI expertise, enterprise deployment experience, and proven track record makes Neural Arc the ideal partner for the Department of Health's IPC System project. We bring:

- **Deep AI Expertise:** Cutting-edge generative AI capabilities through Helium AI platform
- **Enterprise Focus:** Purpose-built solutions for business and government environments
- **Proven Delivery:** Five successful pilot projects and four active implementations
- **Global Experience:** Deployments across UK, Singapore, US, and India
- **Healthcare Domain Knowledge:** Specific experience in healthcare automation and patient care systems
- **Security & Compliance:** Deep understanding of regulatory requirements and data protection
- **OutSystems Expertise:** Certified architects and developers with government implementation experience
- **Innovation Mindset:** Continuous investment in R&D and emerging AI technologies

Our Commitment to Excellence

At Neural Arc, we don't just deliver technology—we deliver transformation. Every project is an opportunity to push the boundaries of what's possible with AI, while maintaining the highest standards of quality, security, and user experience. Our success is measured not by the sophistication of our technology, but by the tangible value we create for our clients and their stakeholders.

Understanding the RFQ

Project Context

The Department of Health (DoH) seeks a qualified technology partner to recover, complete, and deploy the partially developed International Patient Care (IPC) System built on the OutSystems platform. This is a critical system that manages the complete lifecycle of international patient treatment, from initial request through treatment completion and follow-up.

Current Situation

The IPC system is currently under development but has encountered delivery challenges that require additional expertise to bring the system to full completion. DoH requires a partner who can:

- Assess the current state of the partially developed system
- Identify salvageable components versus those requiring rework
- Complete remaining functional requirements
- Integrate with multiple internal and external systems
- Ensure security, compliance, and performance standards are met
- Deliver an MVP as quickly as possible
- Provide comprehensive training and knowledge transfer

Key Stakeholders

The IPC system serves multiple stakeholder groups, each with distinct needs:

Stakeholder Group	Key Needs
Patients & Families	Submit treatment requests online, Track application status in real-time, Access medical documents and approvals, Receive notifications and updates, Request certificates and support
DoH Staff	Medical committee evaluation, Case coordination and management, Travel and logistics coordination, Financial authorization and tracking, Performance monitoring and reporting
Healthcare Providers	Receive treatment referrals, Schedule appointments, Submit medical reports, Coordinate with DoH, Track patient progress
Service Providers	Travel agents for booking services, Insurance companies for coverage, Banking partners for payments, Government agencies for data exchange

Scope of Work - Our Understanding

Based on our comprehensive analysis of the RFQ document, we have mapped the requirements into the following scope of work:

1. System Recovery & Assessment

WHAT WE UNDERSTAND

- The IPC system is partially developed on OutSystems platform
- Business Requirements Documents (BRDs) are already prepared and validated
- Some components are functional while others require remediation or completion
- DoH resources are embedded in the project and will work alongside the vendor
- This is a co-delivery engagement, not a complete rebuild

OUR APPROACH

- Conduct comprehensive assessment within first 2 weeks
- Apply salvage vs. rebuild framework to each component
- Prioritize quick wins and accelerate MVP delivery
- Leverage existing BRDs and DoH business analysts
- Integrate seamlessly with DoH embedded resources

2. Core Functional Requirements

The IPC system must support the complete patient treatment journey with the following key capabilities:

PATIENT TREATMENT JOURNEY

1. **Registration & Authentication** - Multi-role access with UAE Pass, Active Directory, and OTP verification

2. **Treatment Request Submission** - Online forms with document upload, auto-population from government sources, multilingual support

3. **Medical Committee Evaluation** - Review by DoH medical experts, integration with Malaffi/DHA/MOHAP for medical history, approval/rejection workflow

4. **Case Coordination** - Assignment to coordinators, hospital appointment scheduling, document preparation

5. **Travel Coordination** - Visa processing, flight and hotel booking, transportation arrangements through approved agents

6. **Treatment & Support** - Per-diem management, prepaid card issuance, escort coordination, ongoing communication

7. **Post-Treatment** - Medical report collection, certificate generation, follow-up notifications, complaint handling

3. Integration Requirements

The IPC system must integrate with 10+ external systems to enable seamless data exchange and workflow automation:

Integration Category	Systems
Government Platforms	TAMM OS, UAE Pass, ICP, Tawtheeq, Family Book, Passport System
Healthcare Systems	Malaffi, DHA, MOHAP, International Hospitals, IPP Payment System
Support Services	Travel Agents, Banking Partners, Insurance Companies, Communication Services

4. Technical Requirements

Key technical requirements that shape our solution approach:

Category	Requirements
Platform & Infrastructure	OutSystems platform (existing), Microsoft Azure Sovereign Cloud, Microsoft SQL Server database, Power BI for analytics, TAMM OS frontend framework
Performance & Scalability	99.9% system uptime, High-volume data handling (4.7TB+), Real-time data synchronization, Horizontal and vertical scaling, 24/7 availability
Security & Compliance	UAE Sovereign requirements, MCAF compliance, End-to-end encryption, OWASP security standards, DoH security policies
User Experience	Multilingual (Arabic/English), Mobile-responsive design, Accessibility compliance, DoH UI/UX guidelines, 6-minute service completion target

5. Data Migration Support

The system contains over 4.7TB of historical patient data that must be migrated securely. Our understanding:

- DoH will lead the migration effort
- Neural Arc will provide technical support and expertise
- Data cleansing and mapping assistance required
- Validation and integrity checks throughout migration
- Secure handling with full auditability

6. Training & Knowledge Transfer

Comprehensive training programs required for multiple user groups:

- **DoH Technical Teams:** 5-day program covering OutSystems, architecture, development, and support
- **Business Users:** 3-day program covering workflows, case management, and reporting
- **System Administrators:** 3-day program covering user management, monitoring, and security
- **External Entities:** 1-day program covering provider portals and communication

Implementation Timeline & Approach

5-Month Delivery Plan

Neural Arc proposes a structured 5-month implementation timeline that balances speed with quality, delivering an MVP by Month 3 while ensuring comprehensive testing, training, and production readiness.

Month	Phase	Key Activities	Deliverables
Month 1	Project Initiation & System Assessment	Project kickoff, Comprehensive assessment, Requirements validation, Architecture review, Development environment setup, Security onboarding	Assessment Report, Recovery Plan, Architecture Design, Project Charter
Month 2	Core Development - Sprint 1	Remediation of existing components, Core patient journey workflows, User authentication, Treatment request submission, Medical committee interface, Basic integrations	Core workflows, Authentication system, Basic integrations, Demo environment
Month 3	Core Development - Sprint 2 & MVP	Case coordinator workflows, Travel coordination module, Document management, Provider management, Basic dashboards, TAMM OS frontend, MVP deployment	Functional MVP, TAMM OS frontend, Integration layer, UAT report
Month 4	Enhancement & Complete Integration	Escort management, Per-diem calculation, Complaint handling, Quality monitoring, Advanced dashboards, Complete integrations, Business Rules Engine, Enhanced AI features	Complete feature set, All integrations, BRE, Enhanced AI capabilities
Month 5	Testing, Training & Go-Live	Security testing, Performance testing, Final UAT, Defect resolution, Training programs, Documentation, Knowledge transfer, Production deployment	Production-ready system, Training materials, Documentation, Go-live support

Commercial Proposal

Pricing Philosophy

Neural Arc's pricing is based on a transparent, value-driven model that reflects the actual effort required to deliver a high-quality IPC system. We believe in fair pricing that aligns our success with yours—when you succeed, we succeed.

Rate Structure

- **Base Development Cost:** $35/hour per resource (as specified)
- **Overhead & Management:** 40% (covers project management, quality assurance, infrastructure)
- **Profit Margin:** 20% (ensures sustainability and continued innovation)
- **Effective Billing Rate:** $58.80/hour per resource

Total Project Investment

INVESTMENT SUMMARY

Approximately AED 3,195,000

(at current exchange rate)

Payment Schedule

We propose a milestone-based payment structure that aligns payments with tangible deliverables:

Milestone	Deliverable	Payment %
Milestone 1	Assessment completion and recovery plan approval	25%
Milestone 2	MVP delivery and UAT sign-off	30%
Milestone 3	Feature completion and integration testing	25%
Milestone 4	Go-live and knowledge transfer completion	20%

Conclusion & Next Steps

Why Neural Arc is Your Ideal Partner

Neural Arc brings a unique combination of capabilities that make us the ideal partner for the IPC System recovery and implementation:

- **Generative AI Leadership:** Cutting-edge capabilities that transform the IPC system into an intelligent, self-improving platform
- **Proven Track Record:** 5 completed pilot projects and 4 active implementations across global markets
- **Enterprise Focus:** Purpose-built for enterprise and government environments with security and compliance as core principles
- **OutSystems Expertise:** Certified architects and developers with government healthcare implementation experience
- **Global Experience:** Deployments across UK, Singapore, US, and India
- **Transparent Approach:** Clear pricing, realistic timelines, and honest communication

Our Commitment to DoH

Neural Arc commits to:

- **Accelerated Delivery:** MVP in Month 3, full system in Month 5
- **Senior Resources:** Experienced team members from day one
- **Quality Excellence:** Rigorous testing and quality assurance throughout
- **Security Compliance:** Full adherence to UAE Sovereign and DoH requirements
- **Knowledge Transfer:** Comprehensive training enabling DoH self-sufficiency
- **Transparent Communication:** Regular updates and proactive issue escalation
- **Partnership Mindset:** Collaborative approach with DoH embedded resources

Expected Outcomes

Upon successful completion of this project, the Department of Health will have:

Stakeholder	Benefits
For Patients	Streamlined online request submission, Real-time status tracking, Secure document access, Faster processing times, Improved communication
For DoH Staff	30-40% reduction in manual work, AI-powered decision support, Comprehensive dashboards, Automated workflows, Better resource utilization
For Healthcare Providers	Simplified coordination with DoH, Faster approval turnaround, Streamlined documentation, Better communication, Improved scheduling
For DoH Organization	99.9% system availability, Full regulatory compliance, Real-time analytics and insights, Scalable infrastructure, Reduced operational costs

FOR QUESTIONS OR CLARIFICATIONS

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Thank You

We appreciate the opportunity to submit this proposal and look forward to partnering with the Department of Health to deliver a world-class International Patient Care system that serves the citizens of Abu Dhabi with excellence.