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Document 1: Technical Proposal

Submitted by: Orbital Nexus Advisors
UNGM Vendor #: VN-7742-2023

Executive Summary

Orbital Nexus Advisors proposes a comprehensive market assessment to identify optimal satellite-based solutions for connecting 7,400+ schools in Kazakhstan, with a focus on cost-effective NGSO (LEO/MEO) constellations. Our approach combines advanced geospatial analytics, partnership with 12 global satellite operators, and localized economic modeling to deliver actionable insights for UNICEF's Giga initiative.

Key Differentiators:

- Proprietary Giga Readiness Index™ assessing schools' terrain, energy access, and digital literacy
- Dynamic Pricing Simulator projecting 5-year TCO for 5 satellite technologies
- Case Study Library with 18 validated school connectivity models from Mongolia, Chile, and Brazil

Methodology

Component 1: Desk Review

1. Global Benchmarking
 - Analyze 15 case studies (5 GEO, 5 MEO, 5 LEO deployments)
 - Focus on latency performance: $\leq 150\text{ms}$ for LEO vs. 600ms GEO
 - Cost comparison: $\$3.21\text{--}\$8.74/\text{GB}$ range across technologies
2. Regulatory Analysis
 - Map spectrum allocation policies in Central Asia
 - Review Kazakhstan's 2024 *Digital Infrastructure Act*

Component 2: Market Assessment

Phase	Activity	Tools
1. Provider Mapping	Catalog 28 satellite operators	SATSCAN v4.1
2. Capacity Analysis	Project 2025–2030 bandwidth demand	GIGA-ML Forecasting
3. Vendor Viability	Financial health check of 12 shortlisted vendors	Moody's ESG Scores

Innovative Deliverables:

- Satellite Performance Dashboard with real-time coverage maps
- AI-Powered Recommendation Engine matching schools to optimal solutions

Document 2: Financial Proposal

(Following Annex A Template)

<u>Cost Component</u>	Unit Price (USD)	Quantity	Total (USD)
<u>Service Area 1</u> : Desk Review			
Lead Researcher (Daily Rate)	\$880	15 days	\$13,200
Data Analyst	\$650	10 days	\$6,500
<u>Service Area 2</u> : Market Assessment			
Field Surveys (Kazakhstan)	\$1,200/day	8 days	\$9,600
Stakeholder Workshops	\$2,500/event	3 events	\$7,500
<u>Ancillary Costs</u>			

Satellite Imagery Licensing	\$4,200	1	\$4,200
<u>TOTAL</u>			\$4

Notes:

- Rates include all taxes/fees per RFP requirements
- 10% discount offered for advance payment

Document 3: Bidder Profile

(Annex B Compliance)

General Information

- ☒ Private Company | ☒ International Bidder
- Year Established: 2015
- Employees: 47 (32 technical staff)

Main Services

- Satellite connectivity feasibility studies
- Last-mile infrastructure design

Geographic Presence

- Central Asia: Kazakhstan (2020–present), Uzbekistan
- Global: 12 countries across Africa/South America

Certifications:

- ITU-approved spectrum consultant
- ISO 9001:2018 (Education Technology)

Relevant Projects:

1. Mongolia School Connectivity (2022)
 - Deployed 214 LEO terminals in Gobi Desert
 - Achieved 98.4% uptime at -40°C

Document 4: Completed Bid Form

Currency of Offer: USD

Validity: 120 days from submission

Declaration:

"Orbital Nexus Advisors confirms compliance with all RFP terms and UNICEF General Conditions. We have no conflicts of interest with participating vendors."

Signature:

![E-Signature]

Date: 27 Feb 2025

Company Name: Orbital Nexus Advisors

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Compliance Cross-Check

<u>RFP Requirement</u>	<u>Our Response</u>	<u>Page Reference</u>
NGSO focus	Technical analysis of OneWeb/Starlink vs GEO	Sec 2.1
5-15% rural coverage	Proposed 12.8% pilot deployment	Appendix C
Cost modeling	TCO simulator (CapEx/OpEx breakdown)	Financial Doc
Local partnerships	MoU with KazSat Academy	Annex D

Value-Adds Exceeding RFP:

1. Teacher Training Module on satellite tech (15hr curriculum)

2. Green Energy Calculator for solar-powered VSAT sites

Submission Package:

1. Technical Proposal
2. Financial Proposal (Annex A)
3. Bidder Profile (Annex B)
4. Signed Bid Form
5. Supporting Docs (ISO certs, project samples)

Deliverables align with UNICEF's 2025 Education Outcome targets and Giga Initiative KPIs.