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Submitted to:





Submitted by: Ashley Christina De Sa, Administrator 22nd Century Technologies, Inc. 8251 Greensboro Drive, Suite #900, McLean, VA 22102 (866) 537-9191 Ext 2 | <u>sledproposals@tscti.com</u> Local Office: 700 Lavaca St., STE 1401 Austin, TX 78701

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This proposal includes data that shall not be disclosed outside the Government and shall not be duplicated, used, or disclosed -- in whole or in part -- for any purpose other than to evaluate this proposal. If, however, a task order is awarded to this Offeror as a result of -- or in connection with - the submission of this data, the Government shall have the right to duplicate, use, or disclose the data to the extent provided in the resulting task or delivery order. This restriction does not limit the Government's right to use information contained in this data if it is obtained from another source without restriction.

22nd Century Technologies, Inc.

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Certificate of Offeror and Statement of Understanding

The initial submission pages of your proposal will consist of:

1. Addenda acknowledgement and signature of authorized representative (page 1 of this solicitation document) 2. A brief statement of the respondent's understanding of the work to be done or desired deliverables requested in the solicitation.



REQUEST FOR PROPOSALS For Artificial Intelligence (AI) Consultancy Services RFP # 2025-023

Sealed proposals will be accepted until 2:00 PM CT, December 18, 2024, and then publicly opened and read aloud thereafter.

22nd Century Technologies, Inc.

Legal Name of Proposing Firm

Ashley Christina De Sa	Administrator	
Contact Person for This Proposal	Title	
(866) 537-9191 Ext 2	sledproposals@tscti.com	
Contact Person Telephone Number	Contact Person E-Mail Address	
8251 Greensboro Drive, Sui	ite 900 McLean, VA	22102
Street Address of Principal Place of Business	City/State	Zip
8251 Greensboro Drive, Sui	ite 900 McLean, VA	22102
Mailing Address of Principal Place of Business	City/State	Zip
Ashley Christina De Sa	Administrator	
Point of Contact for Contract Negotiations	Title	
(866) 537-9191 Ext 2	Sledproposals@tscti.com	
Point of Contact Telephone Number	Point of Contact Person E-Mail Address	
Acknowledgment of Addenda (initial): #1AS	#2 #3 #4 #5	

NOTE: Any confidential/proprietary information must be clearly labeled as "confidential/proprietary". All proposals are subject to the Texas Public Information Act.

COVER SHEET

22nd Century Technologies, Inc.

TSCTI's Brief Introduction and Understanding of SOW

22nd Century Technologies, Inc. (hereafter referred to as "TSCTI") is pleased to submit this proposal to the North Central Texas Council of Governments (hereafter referred to as "NCTCOG") for RFP#2025-023- Artificial Intelligence (AI) Consultancy Services. Incorporated in 1997 as an S-Corporation, TSCTI is a matured IT Consulting Services company, *appraised at CMMI Level 3, and certified as CMMI 2.2 Dev, ISO 9001:2015, ISO 20000-1:2018, and ISO 27001:2013* with over 27 years of experience providing similar services to various government agencies. TSCTI demonstrates a significant breadth of proprietary AI/NLP models, frameworks, and toolkit. We offer advanced, *GDPR and ISO/IEC 27001:2013* compliant AI solutions. We respect user's privacy and prioritize data protection right from design to development following the Secured Software Development Cycle (SSDLC) approach.

TSCTI is a leading IT services provider with a strong workforce of over 6,500 full-time employees (FTEs), enabling us to manage and execute complex projects efficiently. In 2023, our company was valued at an impressive \$480 million, reflecting our significant market presence and financial strength. With over 35+ offices strategically located across the United States, TSCTI is well-positioned to offer nationwide coverage and support to our clients. We currently manage more than 450+ IT contracts, with a cumulative award value exceeding \$2 billion+, of which 95% are government contracts. This demonstrates our deep expertise in the public sector,



where we have consistently delivered high-quality services. Our commitment to customer satisfaction is evident through our *D&B rating of 95%*, and our project performance is equally impressive, with *95% of our projects receiving "Very Good" and "Exceptional" ratings*.

TSCTI has successfully delivered services for more than 20 similar cooperative contracts, including over 9 TX-based co-operative contracts, such as the Buy Board Purchasing Cooperative, Allied States Cooperative Region 19, TX Goodbuy Purchasing Cooperative, Choice Partners, The Houston-Galveston Area Council, Education Service Center Region (14, 19, 20, 8), where TSCTI has provided a comprehensive range of services. These include AI Strategy Development, Feasibility Study and Use Case Identification, AI Solution Design and Roadmap, Pilot Testing and Implementation Support, Training, Adoption, and Capacity Building, Data Strategy and Management, Chatbots and Intelligent Digital Assistants, Ethical AI Framework Assurance, AI Governance and Policy Advisory, Intelligent Process Automation, and more. By leveraging extensive experience with similar cooperative contracts and the expertise gained from working with over 35 TX-based clients, where we have been providing similar services as a single vendor to 4 major clients like; Capital Metropolitan Transportation Authority, Dallas County, City of Dallas, Texas Department of Motor Vehicles, Dallas Area Rapid Transit, Teacher Retirement System, TSCTI has developed a deep understanding of the unique requirements of NCTCOG and TXShare members. Accordingly, this proposal has been carefully aligned with the scope of work and deliverables outlined in the solicitation, which calls for the design, development, implementation, and ongoing support of a robust, scalable, and secure Generative AI Consulting Service Portfolio.

TSCTI brings a *large pool (20,000+) of highly qualified, certified consultants* who are readily available to provide immediate support and services to NCTCOG and its member entities. Many of our consultants are *locally based in Texas*, ensuring timely, cost-effective, and on-the-ground service delivery. Our *TX-based account management team*, with extensive experience in supporting large-scale regional and local government initiatives, is well-equipped to manage and execute projects both statewide and across the nation. With a proven track record of working with *over 450 clients*, including *28 counties, 40 cities, 31 school districts, and 10+ special districts*, TSCTI has developed a deep understanding of the operational, regulatory, and governance needs of organizations similar to NCTCOG. Our experience includes delivering tailored solutions to multi-jurisdictional entities and cooperative groups, ensuring seamless coordination among diverse stakeholders. We utilize industry-standard *project management methodologies* such as *PMI's PMBOK framework and Agile practices*, which enable us to deliver projects on time, within budget, and

with a focus on collaboration, transparency, and mutual benefit. Our approach ensures effective **collaborative planning**, **inter-agency coordination**, and **mutual cooperation** to meet the unique goals of NCTCOG and its members.

Our objective is to collaborate closely with the client's teams to deliver a *customized generative AI strategy* that not only aligns with organizational goals but also ensures full compliance with all applicable *standards and regulations*.

The desired deliverables include but are not limited to:

- AI Strategy Development Formulating a clear roadmap for AI adoption, focusing on business transformation and long-term scalability.
- Custom Generative AI Model Development Designing and deploying generative AI solutions specific to the client's needs, including chatbots, virtual agents, AI copilots, and advanced analytics systems.
- Data Integration and Migration Seamless migration of existing data to new AI-driven systems with minimal disruption to operations.
- Cloud Infrastructure Solutions Providing scalable cloud environments (public, private, and hybrid) to support AI systems with high availability and performance.
- Compliance and Risk Management Ensuring adherence to federal, state, and local regulations, including data privacy and cybersecurity standards.
- Training and Knowledge Transfer Equipping client teams with the necessary skills and knowledge to sustain AIdriven solutions through tailored training programs.
- Post-Deployment Support and Maintenance Offering comprehensive maintenance services, system upgrades, and continuous performance optimization.

TSCTI's experienced pool of consultants—including AI architects, data scientists, machine learning engineers, and cloud infrastructure specialists—will ensure successful project execution, delivering measurable business value and operational efficiency improvements. Our approach focuses on innovation, seamless integration, and long-term support to ensure that the client fully realizes the potential of generative AI solutions.

We acknowledge and agree to solicitation's **rules**, **insurance requirements**, **procedures**, **terms**, **and conditions to perform the services**. TSCTI has assigned the below single point of contact as authorized to represent TSCTI regarding the proposal submitted in response to this RFP Contact as well as Contract Contact person authorized to make contractual obligations, sign a contract, receive and sign all formal notices and/or addendum regarding such Contract.

Sincerely,

ashley de de

Ashley Christina De Sa, Administrator 22nd Century Technologies, Inc. Tel.: (866) 537-9191 Ext 2 | Fax.: 732-537-0888 | E-Mail: sledproposals@tscti.com Mailing Address: 8251 Greensboro Drive, Suite 900, McLean, VA 22102 Local Address: 700 Lavaca St., STE 1401 Austin, TX 78701



Key Personnel

Attach statements of qualifications or resumes for all managers, supervisors, and other team members who will be involved in the management of the delivery of services under this RFP.

We have chosen this dedicated account management team considering their successful performance on similar accounts such as Education Service Cooperative, School Districts, K-12, College, University, etc. Leveraging their experience with the education environment, TSCTI's dedicated account management team is highly capable of managing the AI Consulting services for all the members of TXShare,



and NCTCOG with the education departments or common technologies unique to the standard service environment. They have proven experience in handling accounts for similar domains in TX and neighboring states, henceforth are familiar with and have knowledge of local requirements and expectations. TSCTI will deploy a highly skilled and experienced AI-Consulting service team as the account management team for serving NCTCOG with unparalleled IT solutions on *AI governance, data privacy, security, and ethical AI practices*. Our team comprises dedicated professionals who have extensive expertise in delivering top-notch IT services to clients across various industries including the cooperative contracts. Above we have demonstrated the communication flow and their respective roles and responsibilities to handle the account successfully.

TSCTI understands the importance of effective communication and collaboration for the success of any project. As such, we have carefully *designed an organizational chart* to ensure seamless communication and efficient management of the AI Consulting service contract with NCTCOG. Our *Account Director will serve as the secondary point of contact* and oversee the contracting process, while also acting as the manager for our Account Manager. The *Account Manager will be our primary point of contact* responsible for all communication with NCTCOG regarding the project and staff, will ensure that the services meet the expectations and requirements of NCTCOG and your stakeholders. Our experienced recruitment manager will handle the recruitment and placement of qualified IT Consulting staff, while our reach-back resources, including Staffing, HR, Contracts, Finance, Vendors, E-care, Accounts, security, and SMEs, will be managed by the Account Manager to ensure efficient and effective service delivery. Finally, our dedicated QA Manager will work closely with the Account Manager to monitor the quality of our services and ensure that they meet the highest standards. Together, our team is committed to providing NCTCOG with exceptional IT Consulting services and exceeding all expectations.

Our dedicated team of professionals is well-equipped to handle all the necessary training, supervision, and support needed to fulfill the co-operative contracts. Our dedicated local Account management team's experience spans across several reputable clients. With over 50 similar domain clients with similar SOW as NCTCOG, our team has gained substantial experience in handling the AI-Consulting Service contracts, with each member possessing over a decade of experience. Our corporate office support adds an additional layer of expertise, ensuring we can fulfill any requirement that NCTCOG may have. We have provided an overview of the qualifications and experience of our Account Management team in the following table, along with the supporting divisions that will be utilized to service NCTCOG. Our key staff is dedicated to delivering quality service to meet NCTCOG's unique needs.

Project Executive

Chitharanjan Billa – Project Executive

Brief Profile
With 25+ Years of experience in IT Industry Currently, key member of Technology/Architecture team in Directorate of Administrative
Programs at OSHA/U.S. Department of Labor, Washington DC. Leading large projects from scratch and executing program-management
efforts on multiple Federal (US Government) information-technology projects involving IT infrastructure upgrade, Cloud migrations to USDA
and modernization efforts. Expert in Enterprise Cloud Integrations and Deployments of Oracle Products, Hadoop/Big-Data Architecture

22nd Century Technologies, Inc.

Application Development and implementation. Senior officials of US Department of Labor oversee these projects. Earlier, implemented an Oracle Project successfully at U.S. Securities and Exchange Commission involving Oracle Database, complete fusion middleware stack including identity management components. Excellent working knowledge of Oracle Fusion Middleware, Identity Management, and all of its components like OIM, OAM, LDAP/OID, Content Management, WebCenter, Oracle Secure Search and Oracle WebLogic Server

Education

- Executive MBA, University of Technology Sydney, Australia (2013), Sponsored by Oracle Corp.
- Bachelor of Technology, Nagarjuna University, India (1988-1992) with First Class
- Member of AUSTRALIAN COMPUTER SOCIETY (ACS) Dec 2006 till date
- Oracle Cloud Infrastructure Foundations 2021 Associate
- Oracle Machine Learning using Autonomous Database 2021 Certified Specialist
- Oracle Certified Associate
- Oracle Database 10g: New features for Administrators Ed 1
- Oracle Database 10g: Real Application Clusters Ed 1
- Oracle Database 11g: New Features for Administrators Ed 1
- M102: MongoDB for DBAs

Tools & Technologies

- Languages: Oracle SQL*PLUS, PL/SQL, Perl, Python, JavaScript, PHP, REST Services, Java
- Application servers: Oracle WebLogic, WebCenter Spaces, WebSphere, OC4J, Jboss and Tomcat
- Databases: Oracle 12c, Oracle11i, Oracle 10g, Oracle 9i, DB2, MySQL
- Software Tools: Eclipse, Together, Oracle JDeveloper, IntelliJ, Toad, PL/SQL Developer, XML
- COTS: Oracle SOA suite, Oracle Fusion Middleware 12C, Oracle Service Bus, Oracle BPEL and BPM, Oracle Identity Management, Oracle APEX, Salesforce (low-code, no-code)
- Operating Systems: UNIX (HP, SUN Solaris, and DEC), Linux, Windows
- Bigdata technologies: Apache Hadoop, Spark, Storm (Event Processing), Solr (Search Engine),
- DevSecOPS tools: JIRA, GitLab, Jenkins, Artifactory, Ansible, Confluence, Kubernetes, Docker.

Experience

22nd Century Technologies Inc. (Working for Department of Labor), Washington DC. USA. date

September 2015 – till

Solutions Architect

- Oversee the overall execution and delivery of the AI Chatbot Solution Program in alignment with the project's objectives and timeline.
- Serve as the primary point of contact between TSCTI and client, ensuring effective communication and collaboration throughout the project lifecycle.
- Provide strategic guidance and direction to the project team, leveraging expertise in AI technologies and data modernization strategies.
- Manage project resources, including personnel, budget, and timelines, to ensure efficient and successful project delivery.
- Monitor project progress and performance, identifying and mitigating risks and issues as they arise.
- Foster a culture of excellence and innovation within the project team, encouraging creativity and continuous improvement.
- Ensure compliance with industry standards, regulations, and best practices in all project activities.
- Report regularly to key stakeholders on project status, achievements, and challenges, and facilitate decision-making as needed.
- Drive the adoption of agile methodologies and best practices in project management to optimize project outcomes.
- Facilitate knowledge transfer and documentation of project learnings for future reference and improvement.
- Currently serving as a Solutions Architect for diverse Oracle DB/Fusion MW/Cloud projects at the U.S. Department of Labor.
- Orchestrating environments on hosted cloud platforms for multiple Oracle projects within the organization.
- Employing AI/ML techniques to eliminate duplicates from the Salesforce Application (OSHA Safe & Sound).
- Leading the modernization of a legacy Software build System for CI/CD/CD DevOps implementation using Jenkins, GitLab, Oracle WLS, Oracle DB, and Splunk.
- Spearheading the login.gov projects to establish a unified Identity and Access management system for OSHA/DOL.
- Pioneering the Salesforce practice at OSHA and advancing the modernization of a pilot application (SPA).
- Successfully implementing Login.Gov for a mission-critical OSHA application Injury Tracking Application, recording 300,000 submissions for FY-2023.
- Making substantial contributions during the migration of a 40-year-old legacy data system to Oracle Database, leveraging AI-driven strategies.
- Analyzing and mitigating vulnerabilities through AI approaches, addressing issues like insecure deployments, cross-site scripting in Oracle ADF applications, and cookie security.
- Initiating the DevSecOPS practice at OSHA by harnessing AI capabilities through DOL shared services.
- Actively evaluating Al-driven products like JIRA, GitLab, Jenkins, Artifactory, Ansible, and Confluence for use and deployment.
- Exploring modern architecture and AI-driven technologies such as React, Oracle-JET, Angular, and RESTful Services to build cuttingedge dashboards.
- Leveraging Oracle OAM/LDAP with AI enhancements for LDAP and Single Sign-On Capabilities across systems.
- Engaged in Al-driven JVM performance tuning, developing ad-hoc Al-powered tools for troubleshooting, and documenting comprehensive install/configuration guides.

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- Architecting and migrating 21 mod_PL/SQL to Oracle REST data services with AI-powered methodologies, prototyping initially on Oracle DB and later porting to WebLogic Server 12.2.1.x.
- Pioneering the migration of a legacy data system (Mainframe-ADABAS) to Oracle DB 12.1.0.2, employing AI-driven scripts in shell/python for efficient data ingestion.
- Key involvement in a Hadoop/Big-Data project, utilizing AI to build a centralized Data Mart for 40+ years of legacy data, setting up AIdriven Big Data products like MongoDB, Hadoop, Pig/Hive, and experimenting with Oracle NoSQL for optimized performance.
 - Deploying ADF 12c Applications on WebLogic Server-12c, incorporating AI methodologies for seamless integration.

Prior Experience			
Client Name	Position	Duration	
Apps Systems LLC. (US Securities and	Oracle Fusion Middleware	March 2015 - August 2015	
Exchange Commission)	Architect/Consultant		
Oracle Corporation Australia Pty Ltd.	Senior Applications Engineer	April 2006 – March 2015	
Oracle Corporation India Pty Ltd.	Senior Member of Technical Staff	Dec 2003 – March 2006	
HTC Global Services Inc.	Database Administrator/Consultant	Feb 2001 – Dec 2003	

Project Management Office Lead

Baskaran Kaliamourthy– Project Management Office Lead

Brief Profile With an extensive 18+ years in IT, he is a distinguished leader in Product & Service Delivery Management, specializing in multimillion-dollar Software Application Development and Maintenance (ADM) projects. His expertise encompasses Global Service Delivery, Product Development, and Customization/Integration engagements, with a unique focus on AI, cloud modernization, and cybersecurity. Proficient in Agile methodologies, including Scrum, SAFe, and Kanban, as well as traditional approaches like Waterfall, he excels in Program Management, Outsourcing, and Vendor Management, showcasing adeptness in Budget & Cost and Profit & Loss management. His leadership extends to Presales activities, demonstrating due diligence, risks assessment, and SOW management. With a strong foundation in Six-Sigma processes, CMM & CMMi, and ITIL Service Delivery, he stands out as a versatile leader skilled in driving continuous process improvements and delivering

strategic outcomes. Education

- Master of Technology Information Technology (P.G.D.P.I.T) Indian Institute of Information Technology Jan '02
- Bachelor of Technology Electrical and Electronics Engineering Pondicherry Engineering College May '99
- Certified SAFe® 6 Agilist Scaled Agile, Inc.
- Project Management Professional (PMP) PMI
- Microsoft Certified: Azure Fundamentals Microsoft
- Microsoft Certified: Azure AI Fundamentals Microsoft
- ITIL® Foundation Certificate in IT Service AXELOS
- Etom Business Process Framework TM FORUM
- Six Sigma Yellow Badge Motorola

Tools & Technologies

- Azure DevOps (ADO), Jira, MS Project, VersionOne, Visio, MS Office, Workzone, ServiceNow, ITSM Remedy, HP Service Manager, SAP
- Telcordia, Netcracker, Granite, Service Now, ITSM Remedy, CBIO, EMA, EMS, RMA, Buzzsaw, TEOCO
- Al Chatbot, Machine Learning, Data Analysis, Regression, Data Classification, Computer Vision, Categorization, Blockchain, RPA
- Cyber Security, Zero Trust Network Access ZTNA, IAM, PAM, IGA, ZTNA, SEIM, Cloud Security, Risk Management, SAST, DAST, Pen test.
- Azure Cloud Computing, Application Modernization, SAAS Solutions Implementation, Microservices
- C#, ASP.net, MS SQL Server, Python, Git, YOLO, TensorFlow Lite, ARKit, CoreML, ARCore, C, C++, Ubuntu, Linux Kernel, Yocto Linux, Tableau, SAP BO, Rabbit MQ, Oracle, My SQL, ClearCase, TestComplete, nUnit, Hyperledger Fabric Server, Fabric CA, Golang , Java, Java Spring Boot, Angular, NodeJS, React JS, JUnit, JMeter, Jest, MS Azure Cloud Computing, AWS, cloud services – CouchDB, S3, Kubernetes, Kafka, Jenkins, Ansible, Puppet, AWS EC2, AWS Lambda (Microservices), Virtualization, SPLUNK, ELK, Elasticsearch, Logstash, CyberArk Conjur, PCloud, AKS

Experience

McKesson (Randstad) | 12/2023 - Till Date

Senior Project Manager

- Managing delivery of McKesson Secrets Management platform, based on CyberArk Conjur, PCloud to manage secrets at enterprise level.
- Secrets Management platform is comprehensive solution that integrates Identity Access Management, Privileged Access Management and Identity Governance and Administration into single platform ensuring compliance across different standards like SOX, HIPAA etc.
- Leading continuous integration of 400+ applications into the new Secrets Management platform

Deloitte (Kanini)

Engagement Manager (Audit Portfolio Management) 01/2022 – 06/2023

- Audit DAS Application Development and Maintenance
- Spear headed delivery of one of the largest global transformation/modernization programs for Deloitte Audit organization directing a globally distributed team of 50+ engineers including 3 technical project managers.
- Led end to end Cloud Native Application Modernization (Rewrite) of key Audit applications to Azure Cloud on Microservices architecture.
- Led complete Lift and Shift Cloud Migration of 8 key applications to Azure Cloud environment as part of Application Modernization providing improved application maintenance, scalability, and cost savings.
- Managed end to end delivery from defining product strategy, establishing roadmap, prioritizing User stories, driving PI Planning, Aligning Delivery organizations with Vision, guiding solution design, collaborating with business, cadency, and synchronization with stakeholders.
- Streamlined delivery framework in collaboration with PMO organization ensuring efficient reporting, Budget & Cost management.

InfoVision (BlueArmor Extensible Trust System (XTS))

Director of Product Engineering (Product Management) 02/2020 – 06/2022

- Hired to establish a Delivery organization from scratch for a cybersecurity company that has gone through bankruptcy, successfully ensured back to market in record time of just four quarters under new brand. Built a strong delivery team of 50+ engineers from scratch.
- Crafted a product vision at BlueArmor by employing diverse strategies, including a customer-centric approach, market demand analysis, industry trend assessment, alignment with business objectives, and the identification of value-driven differentiators, establishing a distinctive position in the cybersecurity sector.
- Pioneered delivery of advanced features like IoT-based Transport Access Control, leveraging ARM Cortex A7 hardware with POE+ and patented First Packet authentication.
- Transformed hardware to cloud, supporting AWS and Azure, and extended the client to Android and iOS platforms.
- Successfully transformed hardware gateway to SAAS cloud solution supporting AWS, Azure. And extended end point client to mobile platforms, Android, and iOS.
- Spearheaded Vendor evaluation and streamlined the entire manufacturing process, ensuring excellence from POC to production.
- Successfully implemented end to end Cloud Infrastructure automation. Experience in dealing with Virtual Networks, VPN, Express Route, VMs (Virtual Machines), Cloud Services, Resource Groups, Auto Scaling, SQL Server, Network Security
- Established Onsite Datacenter with high end Dell Xenon Platinum processors to develop and validate high speed gateways.
- Established a top-tier PMO organization from scratch, setting high standards aligned with CMMi guidelines.
- Verizon 5G Home Self Installation AR Experience
- Revolutionized user experience by delivering innovative solutions:
- Introduced a cutting-edge AI Custom Vision Machine Learning Model generator platform (SAAS and PAAS versions). This auto-tagging solution, built upon YOLO families, significantly reduced manual tagging efforts by over 80% and streamlined iOS and Android model generation.
- Led an innovative Augmented Reality Custom Vision ML-based solution for 5G Home Router installation on top of My Verizon Mobile app.
- Successfully implemented Remote Assistance tools, empowering real-time support for iOS and Android users. Enabled features like screen sharing, live audio video streaming, real time annotations, remote tagging, and robust analytics.
- Verizon Wholesale Dispute Management A Blockchain initiative
- Revitalized a complex Blockchain Digital Transformation project, enhancing delivery KPIs and end-customer value. Strategically
 reorganized the legacy Dispute Management solution using Domain Driven Design principles for RESTAPI/microservices on Blockchain,
 propelling the program to a leading position within Verizon CSG organization.

Prior Experience			
Client Name	Position	Duration	
EdgeVerve (Infosys Ltd) Plano, TX, USA,	Senior Project Manager	07/17 – 02/20	
Ericsson Inc, Plano, TX, USA	Senior Service Delivery Manager	10/10 – 05/17	
Motorola India Private Limited,	Senior Software Engineer	03/06 - 10/10	
Hyderabad, India			
i7 Software Asia, Chennai, India	Software Engineer	01/05 – 03/06	

References

Include at least four (4) recent references for customers (preferably public agencies) for whom you have provided AI Consultancy services similar to those requested in this solicitation within the last five (5) years. Please include the organization's name (if applicable), contact person, phone number, and email address for each reference. NCTCOG reserves the right to contact or visit any of the respondents' current and/or past customers to evaluate the level of performance and customer satisfaction.

Customer Name	US Office of Personnel Management
Contact POC	Karim Alami Ouahabi, ITIL v3, HDI-DSM, Program Manager
Customer Address	1900 E Street NW, Washington, DC
Telephone Number	Help Desk: 202.606.4927 Toll Free: 866.631.3019 Phone: 202.987.3131

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Customer Email	karim.alami-ouahabi@opm.gov		
Address			
Duration	2022 - Ongoing		
Services Provided	TSCTI provides a comprehensive IT solution, anchored by a 24x7x365 IT Help Desk Call Centre. This externally		
	hosted centre serves as the primary contact for all IT and security service requests, offering on-site technical		
	support aligned with OPM's core hours. Utilizing a tiered support model, ranging from Tier 1 to Tier 4, TSCTI		
	ensures a structured approach to issue resolution. TSCTI provides end-to-end technical support for local, remote,		
	domestic, and OPM users primarily for OPM Government Employees and Contractors, covering computing		
	device, asset management, and access control services. Additionally, TSCTI enhanced user experience		
	incorporating self-serve capabilities, deploying an advanced chatbot used by deployed team with natural		
	language processing for swift issue resolution, automation of routine tasks, and optimization of the Help Desk		
	workflow. This implementation is currently being reviewed/sponsored by OPM for Fed-Ramp certification.		

Customer Name	Illinois Secretary of State's office		
Contact POC	Pukar Joshi - Project Manager		
Customer Address	213 State Capitol Springfield, IL 62756		
Telephone Number	773.661.7332		
Customer Email	pjoshi@ilsos.gov		
Address			
Duration	2023 – Present		
Duration 2023 – Present Services Provided Leveraging its expertise, TSCTI implemented the Calls.Care system for ILSOS, utilizing AWS to e center services. This included IVR self-service, strategic call routing, and scripted responses, manage of 35 agents handling 2,500 daily calls. To further boost productivity, TSCTI seamlessly integrated a c within Calls.Care, enhancing ACD capabilities and deploying an internal chatbot for streamlin processes. Achieving a remarkable 95% SLA compliance, calls were answered within 20 seconds a within 5 minutes. The Calls.Care platform enabled real-time monitoring, and detailed reports were ILSOS, highlighting key metrics and achievements. TSCTI's holistic approach not only optimize customer interactions but also showcased a commitment to comprehensive and integrated solutions ILSOS's expectations and establishing reliability in supporting critical functions			

Customer Name	Division of Motor Vehicle - VT		
Contact POC	Matthew Rousseau, Chief of Driver Improvement, Records, & Information		
Customer Address	120 State Street, Montpelier Vermont, 05603-0001		
Telephone Number	802-828-2066		
Customer Email	matthew.rousseau@vermont.gov		
Address			
Duration	2021 - Present		
Services Provided	TSCTI is providing call center support for a seamless customer experience integrating an intelligent internal chatbot and the chatbot was designed to:		
	 Schedule appointments for DMV services 		
	Confirm appointment details with callers.		
	Communicate updates, changes, and cancellations effectively.		
	 Provide instant information on appointment availability during calls 		

Customer Name	Cincinnati Metropolitan Housing Authority, OH		
Contact POC	Lisa Isham, Procurement Officer		
Customer Address	1635 Western Ave Cincinnati, Ohio 45214		
Telephone Number	513-977-5830		
Customer Email	Lisa.lsham@cintimha.com		
Address			
Duration	2023 - Present		
Services Provided TSCTI offers specialized AI Consulting Services to support Cincinnati Metropolitan Housing A optimizing operations, enhancing decision-making, and improving service delivery. Our AI solutions to streamline housing management, tenant services, and asset maintenance through advanced dat predictive modelling, and process automation. Our services include- Predictive Maintenance Solution Service Enhancement, Data-Driven Decision Making, Process Automation, Risk Management & Con			

Project-Related Experience and Qualifications

Proposals will be evaluated based on the respondents' demonstrated expertise and experience in providing AI consultancy services, particularly in the context of local government or similar public sector entities. Provide a



comprehensive overview of your organization's capabilities in AI technologies (e.g., machine learning, natural language processing), including your industry experience and any past AI implementations within the public sector. Highlight your understanding of public sector compliance, ethical standards, and regulations related to AI. Include a portfolio of successful AI strategies or implementations, especially those that align with the unique needs of local government. Include a brief statement of the respondent's background, including years in business. Clearly state any significant requirements from the Scope of Work that you are unable to meet.

If applicable, identify any subcontractors or third-party services that are utilized in the performance of fulfilling this RFP. Provide a general explanation and chart which specifies project leadership and reporting responsibilities, and how the team will interface with NCTCOG and Participating Entities' project management and team personnel.

Overview of TSCTI

Background: TSCTI is providing quality AI Consulting services for 27+ years and has gained an expertise in delivering a wide-range of end-to-end Artificial Intelligence to take our client's strategy development to full scale AIimplementation. From initial AI exploration to the deployment of advanced machine learning models, we guide our clients through each step of the journey. Our AI experts implement scalable, cutting-edge solutions that are designed not only to meet immediate business needs but also to evolve with the changing technological landscape. Our CMMI Level 3 appraisal and ISO 9001:2015, 20000-1:2018, and 27001:2013 certifications are a waterproof to our esteem ability to meet international standards for quality, service management, and information security. Our approach to providing exceptional AI consulting services includes adhering to industry best practices, such as PMI and Six Sigma for project management. TSCTI is proud to hold certified partnerships and collaborate with industry-leading technology providers, including Microsoft (Gold Partner), Oracle (Gold Partner), AWS, IBM, Snowflake, Salesforce, HP, Cisco, EMC, and Dell. These strategic alliances enable us to remain at the forefront of AI, cloud computing, and advanced IT solutions. Through these partnerships, we gain early access to cutting-edge technologies and preferred access to training and technical support, allowing us to offer services. premium-quality Leveraging the latest advancements in natural language processing and machine learning, we continually enhance our AI-consulting service solutions and deliver innovative technology-driven solutions to our clients

Why TSCTI?

- ✓ 27 years at the forefront of IT Transformation with core services like AI consultancy and implementation service: AI Strategy Development, Feasibility Study and Use Case Identification, AI Solution Design and Roadmap, Pilot Testing and Implementation Support, Training Adoption and Capacity Building, Data strategy and management, Chatbots and Intelligent Digital Assistants such as IDP bots, Intelligent Process Automation, Ethical AI framework, Project Management and Reporting, and many more.
- ✓ AI consultants and developers with 7–20+ years of relevant experience and competencies in major AI/ML technologies, frameworks, and libraries.
- ✓ Deep expertise in AI-associated services: since 2005 in business intelligence and data warehousing, since 2013 in big data and image analysis.
- ✓ Long-standing partners of Microsoft and AWS
- ✓ Domain experience in 30+ *industries*, including financial services, healthcare, manufacturing, retail, telecoms.
- ✓ Hold more than 15 similar Co-operative contracts same as size and complexity as NCTCOG and TXShare
- ✓ Hold more than 35 local government contracts in the state of Texas and serve as sole vendor to 4 government agencies.
- Expertise in *industry-specific standards* (HIPAA, GAMP, PCI DSS, GLBA, etc.) to create compliant AI solutions.
- ✓ ISO 9001 and ISO 27001-certified to ensure high quality of AI services and full security of the customers' data.
- ✓ DevSecOPS approach to create a strongly protected environment for data processing and storage.
- ✓ TSCTI offers: Best-in-class NLU, Intent detection, large language models, Unsupervised learning, Advanced analytics, AI-powered agent assist, Easy integration with existing systems, Consulting services, and more.

Testament of proposed services as Awards: We help our public sector clients to plan, govern and deliver ethical and secure AI projects that create better customer experiences. TSCTI is a pioneer in providing AI consulting services under the service range portfolio and have been recognized as one of the "Most Promising Managed IT Service Provider" and "Best Government Contracting Company of the Year" award in the category of \$50M+ at the ICON awards hosted by the Maryland Tech Council. TSCTI has been ranked as #86 for 2023 Solution Provider 500. We have been further awarded as America's Greatest Workplaces for Diversity, and NVTC Tech 100 Honoree. TSCTI's global reach was exemplified as it clinched victory in the Global Pith competition at TiECon Silicon Valley and received the prestigious "Jewels of Asia Power 30 Award" in the \$100+ million award category by the Asian American Chamber of Commerce. With over 02 decades of dedicated focus in this domain, we have emerged as a leading provider of advanced technology solutions tailored to the specific needs of Finance, Tax and Income Departments, Colleges, Universities, Transportation Departments, law enforcement agencies, fire departments, emergency medical services, and other public safety organizations.



Commitment to Innovation: Our core values centre around innovation, collaboration, and a relentless drive for excellence, which collectively creates an environment where creativity and technical expertise thrive. Adhering to industry best practices, including the Digital Services Playbook and Section 508 compliance, we ensure our solutions are inclusive and accessible. We allocate approximately 19% of our total annual revenue to Research and Development initiatives. This investment underscores our dedication to staying at the forefront of technological advancements and industry trends, ensuring that our solutions are innovative, efficient, and aligned with the evolving needs of our clients by leveraging industry analyses from Gartner and Forrester. To support our customers with better solutions, TSCTI has established a Center of Excellence (CoE) &



Digital Intake Center at our McLean, VA Office which is led by our CTO and CGO. Figure depicts that our CEO Anil Sharma hosts Treasury Secretary Janet Yellen and IRS Commissioner Danny Werfel at Digital Intake Center at our McLean, VA for a digital showcase that underscores the national commitment to modernizing government operations. This office supports all the clients with a) white papers on new trends b) solution prototyping with integration with new tools and c) SME support for the assessment of our customer services d) providing an excellent source for reaching back technical know-how for employees at client sites.

By integrating innovations such as artificial intelligence, machine learning, and blockchain into our services, we provide our clients with high-tech solutions that give them a competitive edge. Our CoE serves as the hubs of technical expertise, knowledge, and support that drive our solutions forward. Our CoEs foster employee growth, manage, and develop our strategic partnerships, and support teams training and project delivery. In the process, they develop the best practices that position us to serve our customers at the highest level. *These include but not limited to* -

- **Our Software Development CoE** integrates corporate expertise and strategic partnerships to drive innovation. By fostering collaboration and staying at the forefront of technology, we consistently deliver applications that maximize investment, enhance security, and create the right user experience at scale, through accelerated pipeline.
- Our Data & AI CoE is focused on scoping, prioritizing, governing, and integrating data and AI opportunities to align with customer needs. We are committed to advancing TSCTI's data & AI culture, practice, products, partnerships, and social influence.
- **Our Cloud CoE** shares critical information on cutting-edge cloud technologies and develops innovative and customizable cloud solutions. Our commitment is to strengthen 22nd Century's leadership in cloud computing and cultivate brilliant minds.
- **Our Cyber CoE** leads innovation, collaborates with industry, and builds a community both internally with our cyber practitioners and externally with partners, clients, and thought leaders. Together, we solve problems and share knowledge.
- Management CoE as a part of our CoE that helps drive 1) The direction and strategy of program/project management competency; 2) Ensure management competency development of all staff and the expansion of general knowledge across through various learning and development initiatives; 3) Act as a Central Hub for all management best practices, changing needs; and 5) Provide advisory and coaching support to all staff and stakeholders on the application of program/project management practices.

TSCTI's Service Portfolio: Our core offerings include AI consultancy and implementation services, data strategy development, and process optimization through AI integration. Additionally, we specialize in AI governance frameworks, predictive analytics, and customized AI-driven tools for public safety, citizen engagement, and infrastructure management. Our services extend to compliance management, ensuring adherence to federal, state, and local regulations, as well as training and knowledge transfer programs to empower client teams in adopting AI solutions. To support clients with sustainable AI solutions, TSCTI provides pilot program development, full-scale AI implementation, and long-term AI roadmaps for continuous innovation. Complementing these are our expertise in cloud infrastructure solutions, cybersecurity consulting, IoT integration, and enterprise-level IT consulting, making us a trusted partner for holistic digital transformation. As part of this, we ensure seamless integration into our client's existing workflows, providing the tools and frameworks required to accelerate digital transformation and stay competitive in an increasingly AI-driven world.



Our team at TSCTI is comprised of highly qualified professionals with extensive experience in artificial intelligence, natural language processing, and web integration. Our experts hold advanced degrees in computer science, engineering, and data analytics, and are certified in industry-leading technologies, including Microsoft Azure, Progress Sitefinity, and Office 365. With a deep understanding of the latest AI trends, best practices, and government centric experience, our team excels in designing, developing, and deploying AI-consulting service solutions that are both secure and user centric. Our technologists influence the benefits of leading AI technologies such as machine learning (ML), natural language processing (NLP), automatic speech recognition, visual search and image recognition, and text-to-speech to fuel the growth of our government clients. Our developers are proficient in creating scalable, mobile-responsive applications that comply with the highest standards of security and accessibility, including SOC2, WCAG 2.1 AA, and GDPR. TSCTI is committed to ensuring that all AI implementations fully comply with applicable legal standards, including FOIA, grant, state, and federal regulations. We achieve this by establishing a robust framework of technical, administrative, and policy controls that govern AI development, deployment, and usage. Our approach includes: Legal Compliance, Technical Controls, Administrative Controls, and Policy Controls.

100+	20+	50+	27+
AI	Software Products	AI	Years of
Experts	Delivered	Solutions	Experience

Our generative AI development services are your gateway to the boundless possibilities of AI-driven creativity and innovation



<u>TSCTI's Service Description and Competencies</u>: Drawing from a wealth of expertise in a wide range of AI technologies, including deep learning, machine learning, computer vision, reinforcement learning, and natural language processing, we engineer custom, domain-specific generative AI models and solutions. Below is TSCTI's service description and qualifications, including the generative AI services:

Service	Description	TSCTI's Technical Competency
Generative AI	TSCTI collaborates closely with the client's teams to design and	Expertise in generative AI model
Consulting Services	implement a tailored generative AI adoption strategy that aligns with their organizational goals. TSCTI offers expert consultancy services that help clients explore AI adoption opportunities across various departments, focusing on strategic AI deployment and scalability.	architectures, AI strategy formulation, cross-departmental AI integration, and scalable deployment solutions.
Data Analysis	TSCTI's data analysis services enable organizations to derive actionable insights from structured and unstructured data. Our data analysts bring domain-specific expertise, leveraging cutting-edge techniques to transform raw data into valuable business intelligence.	Advanced data extraction, ETL (Extract, Transform, Load) processes, big data frameworks (Hadoop, Spark), and data visualization tools (Power BI, Tableau).



Domain-Specific Generative Al Model Development	TSCTI develops customized generative AI models tailored to client industries, using detailed domain analysis, foundational model selection, fine-tuning, and rigorous testing to deliver high-performance solutions.	Expertise in foundational models (GPT, Llama, PaLM), transfer learning, model fine-tuning, and custom AI model deployment in industry-specific environments.
Generative Al Solutions Development	TSCTI offers end-to-end development of generative AI solutions such as chatbots, AI copilots, virtual agents, and recommendation systems, leveraging advanced foundational models for complex problem-solving.	Experience with GPT, Llama, PaLM, Gemini, Mistral, Claude, API development, and cloud-based AI solution deployment on AWS, Azure, and Google Cloud platforms.
Generative Al Integration	Seamless integration of AI-powered solutions into existing IT ecosystems, minimizing disruptions while optimizing workflows and systems.	Capability in API integration, middleware solutions, cloud-based architecture, and real-time data sync solutions.
Upgrade and Maintenance	TSCTI provides post-deployment support, including routine maintenance and timely upgrades, ensuring AI systems remain up-to- date and deliver consistent value.	Continuous delivery (CI/CD) pipelines, automated monitoring systems, and SLA- driven support services.
Data Strategy & Roadmap Development	TSCTI assists clients in formulating robust data strategies with a focus on data quality, governance, privacy, and compliance.	Proficiency in data governance frameworks, privacy standards (GDPR, CCPA), and secure data storage solutions.
Al Integration for Process Optimization	TSCTI integrates AI into key processes to enhance productivity and innovation, delivering measurable improvements across industries.	Specialization in process mining, automation (RPA), predictive analytics, and Al-driven optimization algorithms.
Training & Knowledge Transfer	Customized training programs tailored to the client's operational needs, including hands-on training, change management, and continuous support.	Expertise in knowledge transfer methodologies, training module development, and user adoption strategies.
Pilot & Full-Scale Implementation Support	End-to-end support for AI pilot programs and full-scale implementations, including pilot use case development, performance evaluations, and post-implementation support.	Competence in pilot development frameworks, KPI tracking, and post-deployment support systems.
Compliance & Risk Management	TSCTI ensures compliance with federal, state, and local regulations, implementing technical, administrative, and policy controls to mitigate risks.	Expertise in regulatory frameworks (FOIA, HIPAA, NIST), risk assessment methodologies, and secure IT governance practices.
Business Value Quantification	Quantification of AI investment value through detailed ROI analyses and long-term value projections, supporting sustained AI investment.	Capability in financial modeling, ROI analysis, and business impact assessments.
Cloud Infrastructure Solutions	TSCTI designs scalable cloud infrastructure solutions, offering public, private, and hybrid cloud environments tailored to the client's requirements.	Cloud platform expertise (AWS, Azure, GCP), Kubernetes, Docker, and hybrid cloud deployment models.
Cybersecurity & Risk Management	Comprehensive cybersecurity services focused on safeguarding AI and IT ecosystems against evolving threats, ensuring data integrity and privacy.	Expertise in cybersecurity frameworks (ISO 27001, NIST), threat detection, encryption techniques, and incident response management.
IoT Integration & Smart City Solutions	TSCTI develops smart city solutions by integrating IoT devices with Al- driven analytics, enabling predictive maintenance, real-time monitoring, and automated responses.	Proficiency in IoT protocols (MQTT, CoAP), real-time analytics platforms, and smart city infrastructure solutions.
Enterprise IT Consulting	Strategic advisory services for complex IT landscapes, including legacy system modernization and digital transformation initiatives.	Capability in enterprise architecture, IT strategy formulation, and legacy system migration.
Advanced Analytics & Machine Learning Models	TSCTI develops machine learning models tailored to specific business challenges, enabling data-driven decisions and predictive analytics.	Expertise in machine learning frameworks (TensorFlow, PyTorch), model development, and advanced analytics platforms.
Data Warehousing & Business Intelligence	TSCTI designs data warehousing solutions for efficient data storage and retrieval, empowering smarter decision-making through BI services.	Expertise in data warehouse platforms (Snowflake, Redshift), ETL processes, and BI tools (Power BI, Tableau).
UX/UI Design for Al Applications	Specialized UX/UI design services focused on creating intuitive interfaces for AI applications, enhancing user interaction and experience.	Proficiency in UX/UI design tools (Figma, Sketch), user-centric design principles, and usability testing frameworks.



TSCTI's Key Differentiators: TSCTI's key differentiators is our breadth and depth of work, with more than **50+ projects** underway today. Our experience equips us with unique knowledge and capabilities to take trusted AI solutions from the lab to accomplish mission requirements at unprecedented speeds, accelerating the time to AI impact. Our expertise spans generative AI, data science and machine learning, robotic process automation (RPA) and beyond. We have successfully implemented AI-driven solutions in diverse public sectors, helping clients automate routine tasks, gain insights from large datasets, and improve user experiences through intelligent virtual assistants and chatbots. Our customer-centric approach is based on industry best practices, including **ITIL (Information Technology Infrastructure Library)** for service management to tailor chatbot solutions to meet NCTCOG's specific needs, ensuring seamless integration and optimal performance. Additionally, we adhere to agile principles and enable iterative development cycles for rapid delivery and continuous improvement.

TSCTI's Qualifications: TSCTI also offers a well-qualified PMP-Certified TX-based, dedicated Account Management team that can provide 24*7 services support, including the federal holidays, to cater to NCTCOG's *needs* and is immediately available to serve NCTCOG and the members of TXShare when the request arises. TSCTI is a financially stable and rapidly growing company having annual revenue as \$50M+ for the year 2024 with total revenue of over \$600 Million. TSCTI has extensive experience working with various State and Local government authorities, having served over 450 contract with the support of 20,000+ on-call consulting staff on contracts with the State of Texas- Dallas County, City of Dallas, Texas Department of Motor Vehicles, Dallas Area Rapid Transit, Fort Worth Water Department, City of Houston, Dallas Independent School District, San Antonio Water System (SAWS), San Jacinto Community College District, Housing Authority of El Paso, El Paso Water Utilities, Richardson Independent School District, Texas Comptroller of Public Accounts, Arlington Independent School District, Harris County Toll Road Authority, Frisco Independent School District, Austin Transit Program, Houston Airports System, Houston Independent School District, Lower Colorado River Authority, The Houston-Galveston Area Council, Travis County Healthcare District, TX Goodbuy Purchasing Cooperative, Lewisville Independent School District, Fort Bend Independent School District, University of Texas at Austin, UNT Health Science Center, Houston Community College, and many more. Additionally, TSCTI has an extensive experience in serving cooperative contracts similar to NCTCOG's industry, size and service requirement. The contracts include but not limit to; Educational and Institutional Cooperative Services-NY, Eastern Suffolk Board, NY Education Service Center, Region 20 (Texas), Education Service Center, Region 8 (Texas), Education Service Center, Region 14 (Texas), Education Service Center, Region 19 (Texas), Goodbuy Purchasing Cooperative (Texas), Education Service Center, Region 10 (Texas), Department of Information Resources (Texas) (2 contracts), NASPO (2 contracts), Sourcewell, Ramsey County- MN, and many more. TSCTI has placed and managed over 2500+ on-call AI-consultants with an average TAT of 48 hours and a response time of one hour, holding vendor-level certifications and expertise in various IT transformation areas, including AI Strategy Development, Feasibility Study and Use Case Identification, AI Solution Design and Roadmap, Pilot Testing and Implementation Support, Training Adoption and Capacity Building, Data strategy and management, Chatbots and Intelligent Digital Assistants such as IDP bots, Intelligent Process Automation, Ethical AI framework, Project Management and Reporting and many more.

Financial Stability: TSCTI has experienced robust financial growth, positioning us as a stable and thriving company in the industry. As evidenced by our D&B open rating score of 93, we have a strong financial foundation. In 2023, our company was valued at an impressive \$480 million, reflecting our consistent expansion and success. Furthermore, with a credit line of \$10 million and over \$56 million in deposits at the bank, we possess the necessary financial capacity to effectively deliver the requested services. Our solid financial standing ensures our ability to invest in innovative technologies, recruit top talent, and maintain the resources required to meet NCTCOG's needs. TSCTI states that it has never filed bankruptcy, pending



litigation, planned office closures, or impending merger, and possesses the necessary financial capacity, working capital, and other resources to conduct the capital, operating, planning, and future maintenance activities listed in the solicitation, without assistance from an external source. *The graph above demonstrates our financial growth in the past 12 years*.

Proven Experience

TSCTI has about three decades of experience in delivering advanced technology solutions, with a specific focus on implementing chatbot systems and virtual assistants for various government agencies. We have consistently provided solutions that meet the needs of public sector clients, ensuring robust functionality, compliance with industry standards, and seamless integration with existing systems. Our long-standing relationships with government clients are a testament to our ability to deliver reliable and effective solutions that meet the stringent requirements of the public sector. *Below we have detailed our relevant case studies;*

Office of Personnel Management

Client: Office of Personnel Management

Contract Title: Information Technology Help Contract Duration: 2020 - Ongoing Desk

Solution & Services Provided: TSCTI, the selected sole contractor for the Office of Personnel Management (OPM) Office of the Chief Information Officer (OCIO), offers an extensive and adaptive solution tailored to meet the evolving IT needs of OPM. The core of TSCTI's approach revolves around an externally hosted 24x7x365 IT Help Desk Call Center, functioning as the primary contact point for all IT and security service requests. This includes on-site technical support services aligned with OPM's core hours and requirements, ensuring a responsive and adaptive support system. The tiered support model, ranging from Tier 1 to Tier 4, ensures a structured approach to addressing issues. Tier 1 focuses on first-call resolution, with skilled staff handling initial requests. Tier 2 involves in-depth troubleshooting and technical analysis by experts familiar with OPM's core products, while Tier 3 engages top subject matter experts for expert-level support. Tier 4 brings in external support teams for specialized services not covered by the IT Help Desk. On-site technical staffing is provided in accordance with OPM's hours, covering computing device, asset management, and access control technical services. TSCTI's commitment extends to end-to-end technical support for local, remote, domestic, and international OPM system users. The contractor supports OPM IT assets both centrally located and remotely, ensuring a comprehensive approach to technical support. Integration with OPM's existing IT Service Management System (ITSM), BMC Remedy, is a critical component. TSCTI ensures seamless tracking and visibility of all Help Desk requests, with a commitment to providing a two-way real-time interface and data exchange if a different ITSM solution is employed. This emphasizes the contractor's adaptability and commitment to aligning with OPM's established processes.

To further enhance user experience, TSCTI implemented self-service features, including the deployment of a chatbot. Users interacted with the chatbot to create tickets for resolution, and our team efficiently used this virtual assistant. The chatbot, which is equipped with advanced natural language processing skills, exhibited its talents by responding quickly and accurately, resulting in a seamless and human-like encounter. This smart chatbot proved beneficial in automating regular operations, easing issue tracking, and improving the overall efficiency of the Help Desk workflow. It served as a virtual assistant, not only answering customer questions and troubleshooting issues, but also offering advice on common problems. TSCTI enhanced this foundational model by integrating several advanced tools and customizations. AWS Kendra was used to create a dynamic knowledge base, allowing the chatbot to access and deliver accurate information from a repository of over 10,000+ IT support documents. The user interface for the chatbot was developed with ReactJS, ensuring a responsive and intuitive experience across both web and mobile platforms. The chatbot, deployed with AWS Lex, was designed to handle up to 2,000 simultaneous user interactions and automated over 60% of routine support tasks, such as ticket creation and initial issue diagnosis. This customization significantly improved the speed and accuracy of issue resolution, contributing to a reduction in average ticket resolution time by 35% and enhancing overall help desk efficiency. Integrated with a knowledge base, the chatbot quickly accessed and communicated relevant information, dramatically improving ticket resolution.

TSCTI also provides a strong AI governance framework, assuring responsible AI practices, data protection, and security, as well as avoiding possible hazards like AI model bias. We created an AI policy for OPM that was consistent with its strategic objectives, concentrating on complete risk assessment and ethical compliance. Furthermore, our monitoring and evaluation system was integrated to track the efficacy of AI implementation across multiple processes. TSCTI, dedicated to our service delivery processes, developed a comprehensive AI training curriculum for OPM workers that covered AI basics, data analysis, and machine learning. Hands-on experience with AI tools, as well as ethical issues, were critical in ensuring that employees could effectively implement AI solutions. This training program promoted a data-driven culture by allowing staff to identify process improvements and better leverage AI in daily operations.

Louisiana Department of Education (EDLink)

Client: Louisiana Department of Education
(EDLINK)Contract Title: Development of a Statewide
Birth-12th Grade Data System - EDLINKContract Duration: 2020 - Ongoing

Solution & Services Provided: TSCTI uses Agile approaches, notably Scrum and Kanban, to create a smooth process for application development and technical support. This method fosters a cohesive early childhood network. Aid in the development process, TSCTI employs innovative tools such as Jira for project management and version control, enabling collaboration and transparency among teammates. Jenkins efficiently manages continuous integration and deployment by establishing an automated build and deployment pipeline, hence increasing overall efficiency. In terms of development environments, TSCTI facilitates the transition from development to various testing phases, such as System Integration Testing (SIT), User Acceptance Testing (UAT), and Production enabled by tools such as Docker for containerization and Kubernetes for orchestration. Code reviews, which are critical for preserving code quality, are conducted effortlessly utilizing collaborative tools connected with version control systems such as Git. TSCTI, as part of the Agile methodology, not only helps with testing phases but also guides state-managed resources through defect triage and resolution. This is accomplished with automated testing technologies like Selenium for web application testing and JUnit for Java-based testing.

Additionally, recognizing the importance of efficient communication and knowledge access, TSCTI deployed an internal chatbot for the EdLink project. This intelligent chatbot served as a virtual assistant, providing quick access to documentation, FAQs, and other relevant information.

Team members could inquire about project details, coding standards, or any information related to the development process, enhancing overall productivity. The chatbot's integration with code analysis tools proved invaluable, offering developers quick suggestions, code examples, and troubleshooting tips. From coding queries to syntax errors and debugging assistance, the chatbot became an indispensable tool in the development toolkit. Key Features of the Chatbot:

- Knowledge Base Access: Instant access to documentation, FAQs, and project details.
- Code Analysis Tools Integration: Quick suggestions, code examples, and troubleshooting for developers.
- Task Automation: Streamlining repetitive tasks for increased efficiency.
- Project Management Integration: Seamlessly integrating with project planning tools for enhanced collaboration.
- Collaboration and Communication: Facilitating communication within the team.
- Feedback Collection: Gathering valuable feedback for continuous improvement.

We ensured that all Al-related activities adhered to strict data privacy, security, and ethical standards. Our Al governance framework included thorough risk assessments to identify potential issues and opportunities, aligning with best practices and relevant standards such as ISO/IEC 27001 for information security management. Our policy implementation involved defining clear roles and responsibilities, establishing timelines, and integrating a monitoring and evaluation system to ensure continuous compliance and effectiveness. Additionally, TSCTI provided comprehensive training support for LDOE staff involved in the EdLink project. This training covered Al fundamentals, data analysis, machine learning basics, and the use of specific Al tools. We designed a flexible curriculum tailored to the diverse needs of the state's educational staff, ensuring they were well-equipped to leverage Al tools effectively. Training included hands-on experience with relevant platforms, fostering a data-driven culture and enabling staff to identify opportunities for process improvement and innovation.

Internal Revenue Services Client: Internal Revenue Services

Contract Title: AI and ML Services

Contract Duration: 2023 - Ongoing

Solution & Services Provided: The delivery of the project involves the development and deployment of a comprehensive solution named "IDPBot" to automate various aspects of mail processing. This includes sorting, opening, extracting contents, identifying remittance, digitizing envelopes and content, and integrating with IRS systems. The solution utilizes advanced machine learning models tailored to IRS data characteristics, OCR tools for converting scanned forms into machine-readable text, and frameworks like Flask or Django for deployment in IRS production environments. The delivery also includes providing a user-friendly interface for human review and correction of data as well as continuous monitoring of model performance. With a proven track record of delivering innovative solutions for large-scale data processing challenges, TSCTI is well-positioned to meet the unique requirements of the IRS Submission Processing Modernization initiative. The team at TSCTI comprises highly skilled data scientists, engineers, and software developers who possess deep domain knowledge in machine learning, OCR technologies, and data analytics. TSCTI's advanced machine learning models are specifically tailored to address the complexities of IRS data, ensuring high accuracy and efficiency in document processing. The utilization of cutting-edge OCR tools, such as AWS Textract, demonstrates TSCTI's commitment to leveraging the latest technologies to enhance document digitization capabilities. Additionally, TSCTI's expertise in deploying solutions in production environments, using frameworks like Flask or Django, ensures seamless integration with existing IRS systems. Furthermore, TSCTI's proactive approach to monitoring model performance, utilizing tools like TensorBoard and the ELK Stack, underscores its dedication to delivering reliable and robust solutions. By continuously optimizing algorithms and workflows, TSCTI ensures that the project remains aligned with IRS policies and timelines while driving continuous improvement in

The project is aligned with the IRS Submission Processing Modernization (SPM) Scanning and Enterprise Digitalization Initiative, with the goal of achieving paperless processing by 2025 in support of initiatives related to the IRS Inflation Reduction Act (IRA). The timeline for the project involves the development, testing, and deployment phases, with regular milestones to track progress. The schedule also includes compliance with IRS policies and timelines for processing mail and ensuring that the solution meets the specified accuracy requirements. The project requires a multidisciplinary team with expertise in machine learning, data extraction, OCR technologies, software development, and cybersecurity. Resources include data scientists, engineers, software developers, cybersecurity specialists, and project managers. Additionally, the project may involve collaboration with external vendors for specialized technologies or expertise. The team will leverage tools such as Apache Hadoop, Apache Spark, TensorBoard, and the ELK Stack for data processing, monitoring, and analysis.

Results: The expected results of the project include significant improvements in accuracy, speed, and efficiency in mail processing for the IRS. This includes achieving 98%+ accuracy in identifying typed, printed, and handwritten text from complex documents and forms. The project aims to reduce data entry errors, streamline document processing workflows, and provide valuable insights for decision-making. Ultimately, the goal is to enhance taxpayer service, comply with IRS policies, and support IRS initiatives for modernization and efficiency.

Illinois Secretary of State's Office (ILSOS)

Client: Illinois Secretary of State's Office Contract Title: Call Center Services Contract Duration: 2023 - Ongoing

Solution & Services Provided: TSCTI, leveraging its expertise, implemented an AWS-based system called Calls.Care to revolutionize call center services for ILSOS. The system incorporated Interactive Voice Response (IVR) self-service, strategic call routing, and scripted responses to address various inquiries. A team of 35 call center agents was deployed to manage an average of 2,500 daily calls, covering a spectrum of services such as Driving Licenses, Vehicle Registrations, and Corporate Filings.

To further elevate productivity, TSCTI seamlessly integrated a chat solution within the Calls.Care framework, enhancing the Automated Call Distributor (ACD) capabilities. This innovative addition facilitated automated session routing, synchronizing seamlessly with call routing based on the skill sets of our dedicated call center agents. In a dual role, an internal chatbot was strategically deployed, serving the internal team to

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provide requested deliverables and streamline communication processes. This holistic approach not only optimized external customer interactions but also bolstered internal operational efficiency, showcasing TSCTI's commitment to a comprehensive and integrated solution.

Experienced and trained agents ensured a remarkable 95% Service Level Agreement (SLA) compliance, answering calls within 20 seconds and providing resolutions within 5 minutes. The Calls.Care platform enabled real-time monitoring of call quality, information accuracy, and overall performance metrics. Daily and weekly status reports, showcasing key metrics and achievements, were generated, and shared with ILSOS management, fostering transparency and effective communication. The implementation of Calls.Care not only met but exceeded ILSOS's expectations, demonstrating a commitment to efficiency and customer-centric service. The 95% SLA compliance showcased quick response time, enhancing the overall caller experience. TSCTI's daily and weekly reports provided valuable insights, establishing the company as a reliable partner in supporting the critical functions of the ILSOS.

Technical Proposal

This section should constitute the major portion of the submittal. The Technical Proposal should include a proposed methodology for meeting the Objectives, Scope of Work, Requirements, and Deliverables outlined in Section 5.

With a proven track record of three decade in delivering advanced AIdriven solutions across public sector and enterprise environments including the major sectors similar to TXShare members like: cities. counties, independent school districts, and more, TSCTI brings a combination of deep technical expertise, innovative methodologies, and industry leading technology to ensure the successful implementation of this engagement.

We establish our solution on a solid foundation of AI and machine learning development experience,



leveraging a diverse and progressive technology stack that includes industry-leading frameworks, algorithms, cloud providers, and specialized toolkits. Our end-to-end AI solution framework is designed to ensure seamless integration, high-quality outcomes, adherence to ethical principles, and sustainability of solutions over time.

<u>AI Development Technology Stack</u>: TSCTI's AI Development Technology Stack features tools and frameworks for every stage of the AI lifecycle, from data preparation and model development to deployment, monitoring, and maintenance. Our technology ecosystem includes:

- Cloud Platforms: Azure for scalable infrastructure and AI model deployment.
- **Deep Learning Frameworks**: TensorFlow, PyTorch, Keras for model development, including specialized models such as CNNs and RNNs.
- Image Classification Models: Pretrained architectures such as VGG-16, ResNet50, Inceptionv3, and EfficientNet for high-accuracy image processing tasks.
- **Embedding Models**: OpenAI models, as well as bge-large, bge-base, and Vertex AI's textembedding-gecko for advanced natural language understanding and representation learning.
- Algorithms: A comprehensive suite of machine learning algorithms, including supervised and unsupervised learning, clustering, metric learning, and few-shot learning, ensuring flexibility in addressing various problem domains.
- Neural Networks: Specialized architectures such as Variational Autoencoders (VAEs), Bayesian Networks, and Autoregressive Networks for complex AI model development.

Technical Framework and Solution Pillars: By applying this technology stack, TSCTI will implement solutions tailored to the client's requirements, with a focus on the following key pillars:

1. Data Strategy and Management – Ensuring high-quality data handling through stringent data governance, privacy assurance, and security protocols.

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- 2. Ethical AI Development Adopting transparent, fair, and accountable AI practices by incorporating bias mitigation, audit mechanisms, and ethical impact assessments.
- 3. Seamless Integration and Scalability Utilizing modular, cloud-ready architectures to ensure ease of integration with existing systems and scalability for future expansion.
- 4. Advanced Analytics and Decision Support Leveraging advanced analytical models and visualization tools to enable actionable insights and data-driven decision-making.

Methodology to meet the objective: TSCTI's methodology for assessing organizational processes and identifying AI integration opportunities is built on a foundation of structured analysis and advanced analytics. We conduct detailed audits across departments to uncover inefficiencies and areas where AI can deliver immediate impact. This includes the use of industry-leading tools such as **Celonis Process Mining and Power BI**, which help analyse workflows and identify bottlenecks. By applying AI-driven techniques such as **pattern recognition and anomaly detection**, we provide tailored AI solutions for diverse use cases. For instance, in similar requirement of City of Dallas, TSCTI has implemented AI models for predictive crime analysis using geospatial data and historical crime patterns to enhance real-time resource allocation. In citizen engagement, we have **deployed multilingual conversational AI bots using Microsoft Bot Framework** and **Dialogflow to facilitate seamless 24**/7 **interaction and service support**. Furthermore, for predictive infrastructure maintenance, TSCTI has **utilized IoT data streams and machine learning models on platforms such as AWS IoT Analytics** to enable early detection of infrastructure degradation, ensuring timely maintenance and improved asset longevity.

Project Approach to the requirement: Our AI consultancy approach is driven by the use of industry-standard frameworks, platforms, and advanced algorithms. The solutions we provide are built on scalable cloud-native architectures utilizing services like *Microsoft Azure AI, AWS SageMaker, and Google Cloud AI Platform, ensuring flexibility and high availability*. Our selection of machine learning models is based on client-specific needs, employing supervised learning models for classification and regression, unsupervised models for clustering and dimensionality reduction, and deep learning architectures like convolutional *neural networks (CNNs) for image recognition and transformers for natural language processing (NLP)*. To manage the entire lifecycle of AI models, we adopt *MLOps (Machine Learning Operations)* frameworks that facilitate continuous integration, delivery, and monitoring, ensuring the models remain accurate and reliable over time.





Strategy: TSCTI's data strategy emphasizes data governance, quality, and security, which are essential for successful AI implementation. Our data governance framework ensures data accuracy, integrity, and compliance with regulatory requirements. We utilize automated ETL pipelines and data validation frameworks such as Apache NiFi and Talend to maintain high data quality. Privacy and security controls are integral to our approach, with advanced encryption standards like AES-256 used for data at rest and in transit, along with role-based access controls (RBAC) to limit unauthorized access. To support real-time data analytics and AI model training, we design scalable data lakes and warehouses using Azure Data Lake and Amazon Redshift. Our comprehensive AI roadmap integrates strategic milestones, KPIs, and performance metrics aligned with organizational goals. The roadmap incorporates continuous feedback loops and iterative enhancements, ensuring that AI initiatives remain aligned with evolving business needs.

TSCTI's Compliance and Capability: TSCTI's experience in regulatory compliance is unparalleled, with a deep understanding of local, state, and federal regulations governing AI implementations. Our compliance framework includes periodic audits using automated tools like Symantec Control Compliance Suite to ensure adherence to **FOIA**, **GDPR**, and **NIST 800-53** standards. We establish robust risk mitigation strategies by developing AI governance models that oversee ethical AI usage, mitigate algorithmic bias, and ensure transparency in decision-making processes. Moreover, we create detailed policy frameworks that include technical, administrative, and operational controls for internal AI use, ensuring that our clients maintain control over their AI systems while minimizing risks.



TSCTI recognizes that successful AI adoption requires not only the deployment of advanced technologies but also a well-trained workforce capable of leveraging these technologies effectively. Our training programs are tailored to meet the specific needs of different stakeholders, ranging from executive leadership to technical teams. These programs include executive briefings and AI awareness workshops aimed at educating leadership on AI strategy, governance, and long-term ROI. Additionally, we offer hands-on technical training for data scientists and IT teams on AI model development using platforms such as *Jupyter Notebooks, PyTorch, and TensorFlow*. To ensure smooth user adoption, we conduct personalized, role-based training sessions and provide continuous support. Our knowledge transfer methodology follows a phased approach, culminating in the handover of complete documentation, source code, and operational playbooks, empowering clients to sustain and scale their AI initiatives independently.

Quantifying the long-term value of AI investments is a critical component of TSCTI's consultancy services. We build robust business cases by conducting detailed cost-benefit analyses that demonstrate the tangible and intangible value of AI initiatives. Our analyses focus on operational efficiency gains, such as reduced manual effort through *AI automation, improved service delivery leading to enhanced citizen satisfaction, and new revenue streams* generated by leveraging AI for innovative services. Furthermore, we provide clear financial projections for AI investments, detailing initial capital expenditure, operational costs, and expected returns over time, thereby supporting sustained AI investment and adoption.

TSCTI's expertise in pilot implementations and scalable rollouts ensures that AI solutions are rigorously tested and validated before full-scale deployment. Our implementation process involves the design of small-scale pilots with well-defined success criteria and measurable outcomes. Successful pilots are then scaled across the organization using containerization technologies like *Docker and orchestration platforms such as Kubernetes*. Post-implementation support is a key aspect of our service, with continuous monitoring and optimization of AI systems to ensure sustained performance and maximum ROI.

TSCTI's Proposed Solution for the SOW and Deliverables offered

AI Strategy Development: TSCTI is a trusted leader in AI consulting, with over 50 successful engagements across government agencies, public sector organizations, and enterprises. We have delivered tailored AI solutions that enhance business processes, operational efficiencies, and data-driven decisionmaking. Our team comprises 20+ AI strategy consultants, 15+ data scientists, and 10+ AI solutions architects, all holding advanced certifications in AI technologies and cloud platforms, including: Certified AI & Machine Learning Specialists (AWS, Azure,



Google Cloud), Certified Data Governance Professionals (CDGP), Certified Ethical AI Practitioners. We maintain partnerships with leading AI technology providers, such as *Microsoft Azure, Google Cloud*, and *AWS*, giving us access to state-of-the-art tools and practices. Our experience includes working with state-level and co-operative contract member public agencies, delivering AI solutions that comply with *GDPR*, *HIPAA*, and other regulatory standards. With a global network of over 200 AI professionals, TSCTI brings unparalleled expertise to every engagement.

Our consulting methodology emphasizes collaboration, strategic alignment, and measurable results. The primary focus is to assess current processes, identify opportunities for AI integration, develop an AI roadmap, ensure compliance, and provide long-term support for sustainable AI adoption. Below we have provided technical aspects;

Category	Details
Methodology	Phase 1: Discovery & Assessment - Conduct stakeholder interviews to understand processes, challenges, and goals.
	- Identify potential AI use cases (public safety, infrastructure maintenance, citizen engagement) Perform a gap analysis of current AI readiness.

	 Phase 2: Strategy Development - Create an AI roadmap with timelines, milestones, and deliverables Develop a data strategy focused on quality, governance, privacy, and security Formulate governance and ethical AI frameworks to meet regulatory requirements. Phase 3: Tool & Framework Recommendation - Recommend AI frameworks/tools (TensorFlow, Azure ML, AWS SageMaker, H2O.ai) based on environment suitability Ensure tools are scalable, cost-effective, and legally compliant. Phase 4: Implementation & Training - Pilot AI solutions, assess performance, and optimize Provide hands-on training for knowledge transfer Support the scaling of AI solutions across departments.
Framework	Data Governance : Ensuring data privacy, security, and regulatory compliance. AI Governance : Establishing policies and controls for AI usage and monitoring. Change Management : Facilitating adoption through structured training and support.
Tools & Technologies	Data Processing & Analysis: Python, R, Apache Spark Machine Learning Platforms: Azure ML, AWS SageMaker, Google Cloud Al Data Visualization: Power BI, Tableau Collaboration & Project Management: Jira, Confluence, MS Teams

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TSCTI's *structured approach* ensures *strategic alignment, measurable outcomes*, and *sustainable AI adoption* tailored to NCTCOG's specific needs. The engagement begins with a thorough *Assessment and Current State Analysis* to evaluate existing processes and identify opportunities for AI-driven improvements. Following this, we employ a proprietary framework for *Opportunity Identification and Prioritization*, ensuring that selected use cases align with NCTCOG's strategic goals and deliver high ROI. A collaborative effort results in the development of a detailed *AI Roadmap*, specifying timelines, resource allocation, compliance requirements, and key performance indicators (KPIs). Throughout the process, TSCTI emphasizes *Compliance and Risk Mitigation* by integrating regulatory standards, governance frameworks, and *ethical AI practices* to promote fairness and transparency. Lastly, we ensure *Sustainable AI Adoption* by providing ongoing support for pilot projects, full-scale implementation, and long-term scalability, driving enduring value for NCTCOG.

Our proposed services comprehensively address the *objectives* outlined in the solicitation, including:

- We will conduct a detailed assessment of current processes and identify AI opportunities in key areas like public safety and infrastructure.
- TSCTI will recommend specific AI tools and frameworks tailored to NCTCOG's operational environment.
- A robust data strategy will be developed alongside the AI roadmap to ensure data governance, privacy, and security.
- Our long-term AI roadmap will include detailed timelines, governance structures, and key milestones.
- We will ensure compliance with legal standards, including FOIA and federal/state regulations, and establish the necessary controls for AI usage.
- Comprehensive training programs will be provided to internal teams to ensure they can effectively adopt and utilize AI solutions.
- We will quantify AI's long-term value, creating business cases to support sustained investment and adoption.
- Our team will support both pilot and full-scale AI implementations, ensuring smooth operations and in-house sustainability.
- A 5-year AI roadmap will be developed to guide NCTCOG's AI initiatives, ensuring long-term strategic alignment and growth.

Feasibility Study and Use Case identification: TSCTI will apply robust and comprehensive approach to conducting a Feasibility Study and Use Case Identification for AI initiatives at NCTCOG. Our approach is designed to ensure that only the most impactful and feasible AI opportunities are prioritized and implemented. By leveraging our expertise in AI consulting and strategy, we provide detailed evaluations of potential AI use cases, ensuring alignment with NCTCOG's goals, regulatory requirements, and operational environment. Below, we outline the technical aspects of our approach:

Category	Details
Methodology	Phase 1: Use Case Identification & Feasibility Analysis
	- Collaborate with key stakeholders to gather input on potential AI use cases.
	- Conduct a detailed analysis of each use case, including value proposition and strategic fit.
	- Assess technical and operational feasibility for each identified use case.
	Phase 2: Compliance and Risk Assessment - Identify external and internal compliance requirements for each use case (e.g., FOIA, data privacy regulations). - Perform a risk-benefit analysis, documenting risks, mitigations, and expected benefits of each use case.
	Phase 3: Data Strategy Assessment
	 Evaluate data readiness, including data quality, governance, and integration requirements.

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	- Recommend improvements for data governance and ensure data security and privacy compliance.	
	Dhane A. Line Cone Drivitization	
	Phase 4: Use Case Phonization	
	- Prioritize use cases based on impact, scalability, and ease of deployment.	
	- Develop a roadmap to implement high-priority use cases with timelines and key milestones.	
Framework	Risk-Benefit Analysis: Detailed documentation of pros, cons, and mitigation strategies for each AI use case.	
	Compliance Framework: Ensure adherence to applicable legal and regulatory standards.	
	Data Governance: Address data quality, privacy, and integration readiness to support each use case.	
Tools &	Data Processing & Analysis: Python, R, Apache Spark	
Technologies	AI Feasibility Tools: Azure ML, AWS SageMaker, TensorFlow	
	Compliance & Risk Tools: GRC tools (Governance, Risk, and Compliance), Power BI for risk-benefit visualization	
	Collaboration & Documentation: Jira, Confluence, MS Teams	

Our proposed services directly address the key objectives of the Feasibility Study and Use Case Identification, including:

- We will identify potential AI use cases in key areas such as public safety, infrastructure, and citizen engagement, conducting a detailed analysis of their feasibility and expected value.
- TSCTI will ensure that each identified use case meets regulatory and compliance requirements, providing detailed documentation for both internal and external standards.
- A comprehensive data strategy will be developed, focusing on data quality, governance, and integration readiness for each use case.
- We will provide a prioritization framework to help NCTCOG focus on high-impact, low-effort use cases, ensuring quick wins and long-term success.
- Each use case will undergo a rigorous risk-benefit analysis, ensuring informed decision-making and proper resource allocation.
- A clear roadmap will be developed for prioritized use cases, including timelines, milestones, and resource requirements.
- Our approach ensures compliance with legal standards, including FOIA, federal, and state regulations.
- We will ensure that the identified AI use cases are aligned with NCTCOG's long-term strategic vision, facilitating sustainable AI adoption over the next five years.

AI Solution Design and Roadmap: TSCTI proposes a structured and well-defined approach to AI Solution Design and Roadmap Development, ensuring compliance with regulatory requirements, alignment with ethical standards, and delivery of value-driven AI solutions. TSCTI proposes a structured and well-defined approach to AI Solution Design and Roadmap Development, ensuring strict compliance with regulatory requirements, alignment with ethical AI standards, and delivery of value-driven solutions tailored to NCTCOG's objectives. Our methodology includes compliance research to ensure adherence to relevant regulations and industry guidelines, followed by a meticulous AI model design process that emphasizes performance, fairness, and transparency. Next, we focus on Roadmap Creation, which outlines clear milestones, resource allocation, and deployment timelines, ensuring a smooth and phased rollout of AI solutions. Additionally, we conduct a detailed Cost Analysis, offering insights into budget requirements and long-term investment value. By integrating these steps, TSCTI ensures that NCTCOG receives a comprehensive and actionable AI strategy, enabling efficient, compliant, and sustainable AI deployment. Our methodology encompasses compliance research, AI model design, roadmap creation, and cost analysis. This approach guarantees that NCTCOG receives a comprehensive, actionable strategy for AI deployment. Below, we outline the technical aspects:

Category	Details
Methodology	Phase 1: Compliance Research - Document external compliance requirements, including FOIA, grant requirements, and
	relevant local, state, and federal regulations Identify internal compliance needs, such as technical controls (encryption,
	access control), administrative policies, and governance frameworks for ethical AI usage. Phase 2: AI Solution Design -
	Design AI models, frameworks, and tools for selected use cases, ensuring scalability and performance Ensure AI models
	are interpretable, explainable, and aligned with ethical guidelines. Phase 3: Roadmap Development - Develop a
	comprehensive AI implementation roadmap, detailing project timelines, milestones, governance structures, and KPIs for
	tracking progress Specify resource requirements (personnel, infrastructure, software) for each phase of the roadmap.
	Phase 4: Cost Analysis - Provide a detailed cost breakdown, including development, cloud infrastructure, licensing,
	subscriptions, and ongoing maintenance Include projections for cloud storage and backup costs.
Framework	Compliance & Governance: Ensuring alignment with external regulations and internal policies for AI usage. AI Model
	Design: Building scalable, ethical, and high-performance AI solutions. Cost Optimization: Minimizing development and
	operational costs while maximizing solution value.

Tools & Technologies

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Al Development: TensorFlow, PyTorch, Azure ML, AWS SageMaker Data Governance & Compliance: Data cataloging tools, GRC platforms (Governance, Risk, Compliance) Project Management: Jira, MS Project, Confluence Cost Estimation Tools: Cloud cost calculators (Azure, AWS, Google Cloud)

Our proposed services address the critical objectives outlined for AI Solution Design and Roadmap, including:

- We will research and document all relevant external and internal compliance requirements to ensure that AI solutions adhere to applicable laws and regulations, including FOIA, grant requirements, and GDPR (if applicable).
- TSCTI will design AI models and recommend appropriate frameworks or tools tailored to the selected use cases, ensuring that solutions are ethical, interpretable, and aligned with public sector needs.
- A detailed roadmap will be provided, including governance structures, project timelines, milestones, and KPIs, ensuring effective tracking and management of AI initiatives.
- We will offer a comprehensive cost analysis covering development, cloud infrastructure, licensing, and maintenance, enabling NCTCOG to plan its budget effectively.
- Our solutions will align with ethical guidelines and public sector regulations, ensuring data privacy, transparency, and compliance with internal data protection policies.
- TSCTI will ensure that the roadmap is aligned with NCTCOG's strategic goals, facilitating sustainable AI adoption and long-term value realization.

<u>Pilot Testing and Implementation Support</u>: TSCTI offers a comprehensive approach to Pilot Testing and Implementation Support, ensuring smooth deployment, evaluation, troubleshooting, and scaling of AI solutions. Our phased methodology guarantees that pilot AI solutions are thoroughly tested, optimized, and successfully integrated into NCTCOG's operational environment. Below, we provide detailed technical aspects:

Category	Details	
Methodology	Phase 1: Pilot Implementation - Collaborate with stakeholders to implement selected AI pilot solutions Provide detailed	
	implementation guidance, including environment setup, system configuration, and data integration. Phase 2: Pilot	
	Evaluation - Work closely with stakeholders to evaluate the performance of pilot solutions against predefined KPIs	
	Gather feedback from users and key stakeholders to assess usability, effectiveness, and alignment with business goals.	
	Phase 3: Troubleshooting & Refinement - Identify and troubleshoot issues encountered during the pilot phase Refine	
	and optimize the AI solutions based on performance data and feedback. Phase 4: Post-Implementation Support - Offer	
	ongoing support for system integration, ensuring seamless adoption of AI solutions across different departments Provide	
	assistance in scaling the solutions organization-wide, including additional customizations as needed.	
Framework	Implementation Support: Ensuring seamless pilot deployment through structured guidance and environment setup	
	Continuous Improvement: Incorporating stakeholder feedback to refine and optimize solutions. Scaling & Integration:	
	Supporting the organization in expanding AI solutions across departments.	
Tools &	Implementation Tools: CI/CD pipelines, containerization platforms (Docker, Kubernetes) Monitoring &	
Technologies	Troubleshooting: Azure Monitor, AWS CloudWatch, Elastic Stack Collaboration & Feedback: Jira, MS Teams,	
	Confluence Integration Support: APIs, middleware platforms, and enterprise integration tools (MuleSoft, Apache Nifi)	

Our proposed services ensure that NCTCOG receives comprehensive support during the pilot and implementation phases, including:

- TSCTI will guide the organization through the implementation of pilot AI solutions by setting up the environment, integrating data sources, and configuring the AI models.
- We will work with stakeholders to evaluate pilot solutions against KPIs, ensuring they deliver measurable benefits and meet intended objectives.
- Our team will troubleshoot any issues encountered during the pilot phase and refine solutions to enhance their performance and usability.
- After successful pilot testing, TSCTI will provide ongoing support to ensure smooth system integration and assist in scaling AI solutions across the organization, enabling broader adoption.
- Throughout the process, we will engage with NCTCOG stakeholders to ensure their needs are addressed and provide knowledge transfer sessions to facilitate internal ownership of the AI solutions.
- Our approach focuses on scalability, ensuring that the pilot solutions can be easily expanded across multiple departments without significant rework or additional costs.



Training, Adoption, and Capacity Building: TSCTI is

highly qualified to deliver a comprehensive AI training program for the NCTCOG. Our team includes seasoned AI practitioners and educators with deep expertise in AI fundamentals, data analysis, machine learning, and ethical AI practices, all of which align perfectly with the NCTCOG's requirements. We have successfully delivered similar AI training programs to government agencies, equipping their employees with the tools to harness AI for improved operational efficiency and decision-making. We leverage industry best practices, including ISO/IEC 23894 for AI management and IEEE standards for ethically aligned design, to ensure our training programs are robust, relevant,

Professional Development Plan

- Our internal training budget exceeded \$3 million in 2024.
- Tuition and training reimbursement are provided for up to \$7,000 per year per employee and participation is encouraged in professional associations and conferences.
- Conduct 3 "boot camps" per year with 15+ training sessions to bring our new staff members up to speed with Team/Project specific processes.
- The leadership development program, available to project staff with high potential
- Organizational Training Plan (OTP) based on the project, organizational, and individual training needs.

and aligned with both technical and ethical considerations. Our trainers are experienced in designing curricula that incorporate hands-on learning, real-world case studies, and the latest AI tools and platforms, ensuring City staff are well-prepared to apply AI concepts to enhance municipal operations. Additionally, our training programs focus on fostering a data-driven culture, empowering employees to drive innovation and process improvements through AI.

- Successfully conducted over 250 ÅI training programs, covering topics from ÅI fundamentals to advanced machine learning and data ethics.
- ✓ Trained more than 15,000 professionals across various industries, helping them enhance their AI skills and capabilities.
- ✓ Delivered 100+ customized AI training solutions tailored to the specific needs of organizations, including government bodies and Fortune 500 companies.
- ✓ Achieved a 98% completion rate across all AI training courses, ensuring participants gain full competency in AI technologies and applications.
- ✓ Helped over 5,000 professionals earn globally recognized AI certifications, including TensorFlow, AWS AI, and Microsoft AI certifications.
- ✓ Delivered intensive training programs with an average duration of 2-4 weeks, providing comprehensive AI knowledge in a short timeframe.
- Maintained a 95% satisfaction rate among training participants, demonstrating the effectiveness and quality of our AI education services.

TSCTI has the infrastructure, resources, and expertise required to deliver a customized AI training program that meets the NCTCOG's and TXShare member's unique needs. We have a large, scalable team of AI experts and educators, supported by our advanced iHub, which serves as a testing ground for AI tools and solutions. This allows us to tailor training content to the NCTCOG's specific use cases, ensuring relevance and maximum impact. Our ability to quickly scale and adapt training programs is bolstered by our nationwide presence and a pool of over 150+ certified trainers and SMEs across 35+ offices, giving us the flexibility to allocate resources as needed. We also have the capacity to provide ongoing support post-training, ensuring that participants can continually apply their new skills. Moreover, our comprehensive digital learning platforms provide flexibility, allowing employees to access course materials, participate in interactive training sessions, and engage in self-paced learning that accommodates their diverse schedules and responsibilities.

We will start by conducting a needs assessment to understand the specific AI knowledge gaps and objectives of the selected NCTCOG's employees. Based on this, we will design a customized curriculum that covers AI fundamentals, machine learning basics, data analysis, AI tool proficiency, and ethical AI considerations, using examples relevant to city governance. The training will be delivered through a combination of in-person workshops, virtual sessions, and hands-on labs where employees can practice using AI-powered software and platforms. To ensure retention and real-world applicability, the training will feature interactive case studies, practical exercises, and assessments. Our AI experts will lead the sessions, providing continuous support, answering queries, and adjusting the content to ensure it meets the learning pace and needs of the NCTCOG's staff. After the training, we will provide post-session resources, including tutorials and access to a digital platform for continued learning and reference. We will also establish feedback mechanisms to measure the program's effectiveness and refine future training sessions accordingly.

<u>Resource Management</u>: TSCTI takes a strategic approach to resource management by ensuring that we have the right mix of skills and personnel tailored to each project's needs. Initially, we conduct a comprehensive assessment of the project requirements, focusing on technical specifications, industry expertise, and overall project complexity. We then



align our team members' skill sets with these requirements through a meticulous skill mapping process. This approach ensures that we deploy personnel who possess the exact expertise needed for each phase of the project. Additionally, our dynamic talent pool includes AI developers, data scientists, project managers, and compliance experts who are continuously updated through cross-training and professional development. This ensures that our team remains adept at handling the latest technologies and methodologies. To manage projects efficiently, TSCTI employs a suite of advanced tools and methodologies. We use *Jira for task tracking, Asana for project planning, and Microsoft Project for detailed scheduling and resource allocation*. Resource management software which enables us to monitor availability, track utilization rates, and manage workload distribution effectively. Our commitment to Agile methodologies, including Scrum and Kanban, facilitates iterative development and allows us to adapt swiftly to project changes. Additionally, AIdriven tools predict project needs and help dynamically allocate resources based on real-time data and progress.

TSCTI's resource management strategy is inherently flexible and scalable, allowing us to adjust to changes in project scope or requirements seamlessly. We maintain a core team of skilled professionals who can rapidly expand, or contract based on the project's needs. This includes leveraging a network of subcontractors and partners for additional support when necessary. Our structured change management protocols ensure that scope adjustments are handled efficiently, including impact assessments, resource reallocation, and revised project timelines. Regular project reviews and status meetings are conducted to identify potential changes and proactively adjust resource allocation and project plans accordingly. Our bench resources possess extensive hands-on experience with a wide range of industry-standard matrix tools. Their expertise spans across various platforms, ensuring they can effectively manage and analyse complex project data. *Below mentioned matrix demonstrates capability and capacity of TSCTI's resources that would assign on the NCTCOG's project*.

Title	Tools and Technologies	# On Bench Local
		Resources
Lead AI Consultant	TensorFlow, PyTorch, Azure AI, AWS AI, MLflow, Git, Docker, Kubernetes	15+
AI Strategy Consultant	Power BI, Tableau, Python, R, MS Teams, Confluence, Jira	10+
Business Transformation	BPMN, Lean Six Sigma, Change Management, MS Office Suite, Jira,	12+
Consultant	Confluence	
Data Scientist	Python, R, Scikit-Learn, TensorFlow, PyTorch, Jupyter, Pandas, NumPy, Spark MLlib	25+
Data Analyst	SQL, Excel, Power BI, Tableau, Python, R, QlikView	20+
Data Visualization Specialist	Power BI, Tableau, D3.js, QlikView, MS PowerPoint, Looker	10+
Machine Learning Engineer	TensorFlow, Keras, PyTorch, Scikit-Learn, SageMaker, Databricks, MLflow, Apache Spark	18+
AI Model Architect	TensorFlow, PyTorch, Keras, ONNX, XGBoost, LightGBM, CatBoost, FastAl	8+
AI Solutions Architect	Azure AI, AWS AI, GCP AI, Kubernetes, Docker, MLflow, Databricks, Terraform	10+
Full-Stack Al Developer	Python, Flask, Django, React.js, Node.js, FastAPI, Docker, MongoDB, PostgreSQL	15+
Cloud Solutions Architect	AWS, Azure, GCP, Terraform, Kubernetes, Docker, OpenStack	9+
IT Infrastructure Consultant	VMware, Citrix, AWS, Azure, Cisco, Linux, Windows Server, SAN/NAS, Hyper-V	12+
Pilot Program Coordinator	MS Project, Jira, Confluence, Slack, Trello, Asana	6+
ROI Specialist	MS Excel, R, Python, Power BI, Tableau, ROI Analysis Frameworks	5+
Data Integration Specialist	Apache Nifi, MuleSoft, Talend, Informatica, Dell Boomi, RESTful APIs, SQL Server, Oracle	10+
Project Manager	PMP, Prince2, Jira, MS Project, Slack, Trello, Asana	20+
UX/UI Designer	Figma, Adobe XD, Sketch, InVision, Axure RP, Balsamiq	7+
AI System Architect	TensorFlow, PyTorch, AWS AI, Azure AI, Databricks, Docker, Kubernetes, MLflow	9+
Quality Assurance Analyst	Selenium, JIRA, TestRail, Postman, Jenkins, Cucumber, JUnit	12+
Support and Maintenance Specialist	ServiceNow, BMC Remedy, Zendesk, Freshservice, Jira Service Desk	18+
Compliance Specialist	NIST, ISO 27001, GDPR, HIPAA, SOC 2, PCI DSS, FedRAMP	6+
Human-Centered Design	Design Thinking, HCD Frameworks, Figma, Adobe XD, Miro	5+
Enterprise IT Consultant	TOGAE ITIL COBIT MS Azure AWS GCP VMware Citrix	8+
Threat Intelligence Specialist	SIEM Tools (Splunk, IBM QRadar), Threat Intelligence Platforms, OSINT, MITRE ATT&CK	6+



Cloud Infrastructure Consultant	AWS, Azure, GCP, OpenStack, Kubernetes, Docker, Terraform	10+
DevOps Engineer	Jenkins, Docker, Kubernetes, Terraform, GitLab CI/CD, Ansible, Chef, Puppet	12+
Digital Transformation Specialist	Agile, Lean, Change Management, Jira, Confluence, Power BI, Tableau	10+
Advanced Analytics Consultant	Python, R, SAS, SQL, Apache Spark, Power BI, Tableau	9+
ML Model Engineer	TensorFlow, PyTorch, Scikit-Learn, Keras, ONNX, MLflow, Databricks	15+
Predictive Analytics Specialist	Python, R, Scikit-Learn, TensorFlow, PyTorch, Apache Spark	8+
Al Policy Developer	AI Governance Frameworks, NIST AI RMF, IEEE 7000, OpenAI, BERT, GPT, AI Ethics Policies	4+
AI Ethics Specialist	IEEE 7000, NIST AI RMF, GDPR, Ethical AI Frameworks, Explainable AI	5+
AI Training Specialist	TensorFlow, PyTorch, Keras, Jupyter, Git, Docker, Kubernetes, MS Teams, LMS Platforms	10+
Chatbot Developer	Rasa, Dialogflow, Microsoft Bot Framework, IBM Watson Assistant, Amazon Lex	8+

Data Strategy and Management: TSCTI ensure that all AI solutions developed under this engagement adhere to best practices in data strategy and management. This is essential for maintaining data quality, governance, privacy, and security throughout the AI development lifecycle.

Data Quality Controls: Ensuring the integrity and accuracy of data utilized in AI models is a critical component of a robust data strategy. TSCTI will implement a multi-layered approach to uphold data quality. This will involve establishing rigorous data validation processes to identify and address

Approach
Automated validation checks, anomaly detection
Rule-based and statistical validation methods
Integration of external datasets and derived features
Continuous data quality monitoring via dashboards

inaccuracies or inconsistencies in datasets. Data validation procedures will be designed to detect errors early in the pipeline, preventing flawed data from propagating into AI models. Additionally, data enrichment procedures will be defined to enhance dataset quality. This includes supplementing raw data with additional context or derived features that improve model performance. Automated quality control checks will be integrated into the data pipeline to continuously monitor data accuracy and completeness.

Data Governance Framework: A comprehensive data governance framework is necessary to ensure clarity in data ownership, usage rights, and stewardship roles. TSCTI will design a governance strategy that outlines roles and responsibilities, including data stewards and

Governance Element	Description
Data Ownership	Definition of roles responsible for data stewardship
Usage Rights	Policy outlining access and usage permissions
Version Control	Processes for managing data versions and updates
Data Lineage Tracking	Mechanisms for tracing the origin and flow of data

owners who are accountable for different datasets. Policies will be documented to facilitate compliance with public sector regulations. This documentation will cover data handling protocols, acceptable usage policies, and guidelines for cross-departmental data sharing. In addition, TSCTI will define processes for version control and data lineage tracking, ensuring transparency in how data is managed and used across the organization. Governance practices will include:

- Clear assignment of data ownership.
- Detailed usage rights for internal and external stakeholders.
- Guidelines for maintaining a centralized data catalog with lineage information.

Data Privacy Assurance: Adhering to data privacy laws is a key responsibility in AI solution development. TSCTI will ensure compliance with regulations such as GDPR or relevant local legislation. This involves

Privacy Measure	Approach
Legal Compliance	Alignment with GDPR, CCPA, and local privacy regulations
Data Anonymization	Use of anonymization and pseudonymization techniques
Consent Management	Establishment of clear consent protocols

implementing methodologies for anonymizing sensitive data to prevent unauthorized access or disclosure. Protocols will be established for obtaining and managing data consent where necessary, ensuring that data collection practices remain ethical and transparent. Additionally, the TSCTI will propose methods for pseudonymization and encryption to protect personally identifiable information (PII) throughout the AI model lifecycle.



Data Security Protocols: Robust data security measures are vital to safeguarding the organization's information assets. The TSCTI will recommend and implement best-in-class security practices, including encryption, role-based access controls, and regular risk assessments. A data h

Security Protocol	Details
Encryption	End-to-end encryption for data at rest and in transit
Access Control	Role-based access with multi-factor authentication
Risk Assessment	Periodic risk and vulnerability assessments
Incident Response Plan	Defined protocol for breach management

controls, and regular risk assessments. A data breach response plan will be developed, specifying the TSCTI's responsibilities and detailing immediate actions to be taken in case of an incident. Secure data storage and backup practices will also be implemented. This will include the use of encrypted cloud storage solutions and regular data backups to protect against accidental loss or corruption.

Ongoing Data Strategy Evaluation: Given the dynamic nature of regulatory landscapes and technological advancements, TSCTI will develop a plan for the periodic evaluation and update of the

Evaluation Component	Approach
Periodic Review	Scheduled bi-annual reviews and updates
Training	Workshops on governance, privacy, and security
Continuous Improvement	Feedback-driven enhancements to data policies

data strategy. This will involve scheduled reviews to ensure continued alignment with emerging best practices and regulations. The training sessions will cover critical aspects of data management, including maintaining data quality, governance policies, and compliance requirements. The goal is to equip the organization with the necessary knowledge and skills to manage and uphold the data strategy post-consultation.

Ethical AI Requirements: TSCTI recognizes the critical importance of ensuring that all AI solutions developed under this engagement adhere to robust ethical standards. Our approach is designed to promote fairness, transparency, accountability, and proactive bias mitigation throughout the AI lifecycle. By aligning AI solutions with both industry best practices and the organization's specific ethical principles, TSCTI will help foster responsible AI adoption. Below is a detailed outline of the methodology, technical aspects, and objectives satisfied for Ethical AI requirements:

- Phase 1: Ethical Framework Alignment- TSCTI will begin by understanding the organization's existing ethical guidelines and relevant industry standards, such as those established by IEEE, the European Commission, and the U.S. AI Bill of Rights. We will ensure that all AI solutions are designed to reflect fairness and inclusiveness. Special emphasis will be placed on mitigating potential risks of discrimination, ensuring that AI systems produce unbiased outputs while fostering equitable outcomes for all stakeholders.
- Phase 2: Bias Detection and Mitigation- Our experts will implement a rigorous bias detection and mitigation process. This will involve evaluating training data for representational imbalances, analyzing model outputs for patterns of bias, and applying fairness-aware machine learning techniques. TSCTI will also establish a monitoring framework to continuously track and address bias throughout the AI system's lifecycle.
- Phase 3: Transparency Protocol Development- To ensure stakeholder trust, TSCTI will develop clear transparency protocols for all AI models. This will include documenting the logic behind AI decision-making processes, data sources, and model outputs in an accessible format. We will also create explainer interfaces where applicable, allowing non-technical users to understand how critical AI-driven decisions are made.
- Phase 4: Accountability and Auditing- Accountability will be embedded into the development and operational phases of AI deployment. TSCTI will define clear roles and responsibilities for AI use, including protocols for tracking actions and changes to AI models. Regular internal audits will be conducted to verify continued compliance with ethical guidelines. A structured mechanism for external audits will also be proposed to ensure independent verification of AI integrity.
- Phase 5: Ethical Impact Assessments- TSCTI will incorporate periodic ethical impact assessments to evaluate the societal, cultural, and operational impacts of AI solutions. These assessments will identify any emerging risks and provide actionable recommendations for improvement. A remediation framework will be established to ensure prompt corrective action whenever issues are identified.

Category	Details	
Framework	Al solutions will be aligned with ethical guidelines such as IEEE P7003 for algorithmic bias considerations, ensuring	
Alignment	fairness, inclusiveness, and transparency.	
Bias Mitigation	Advanced techniques like re-sampling, re-weighting, adversarial debiasing, and fairness metrics (e.g., equal	
	opportunity, disparate impact) will be utilized.	
Transparency	Documentation will include data sources, preprocessing methods, model architecture, decision logic, and output	
Protocols	explanations.	
Accountability	Change logs, traceability systems, and role-based accountability models will be implemented to track model usage	
Measures	and modifications.	
Auditing Mechanisms	Both internal and external audit frameworks will be designed, including checklists for ethical compliance and fairness	
	evaluations.	



Ethical impact assessments will consider societal, cultural, and operational impacts, incorporating methods like stakeholder analysis and risk-benefit evaluation.

Objectives Satisfied

Impact Assessment

- 1. TSCTI will ensure AI solutions are developed using balanced datasets and fairness-aware models, minimizing risks of biased outcomes.
- 2. By implementing robust transparency protocols and accountability measures, TSCTI will enable stakeholders to trust AI-driven decisions and ensure responsible AI use.
- 3. Our ethical AI framework will align with regulatory and industry standards, ensuring compliance with relevant laws such as GDPR, FOIA, and applicable public sector guidelines.
- 4. TSCTI's comprehensive approach will provide the organization with a sustainable ethical AI framework that includes ongoing monitoring, auditing, and impact assessment mechanisms.
- 5. Through regular ethical impact assessments and a well-defined remediation process, TSCTI will proactively address ethical risks, ensuring AI solutions continue to align with organizational values and societal expectations.



Pricing

Respondents should furnish a detailed hourly rate card for all staff members who would be involved in delivering AI Consultancy Services, as required, throughout the duration of the Contract. Include roles, associated hourly rates, and any applicable conditions, pricing models and any optional services. See attached Pricing Example. Using as many pages as necessary, label your pricing proposal as "Proposal Pricing."

Table 1: Proposal Pricing

Proposed Pricing RFP No. 2025-023			
Pricing Format Request Example			
Respondent Name:	22nd Century Technologies, Inc.		
Respondent Name: 22nd Century recimologies, inc. 1. This pricing sheet is an EXAMPLE of how pricing should be submitted for RFP 2025-023. 2. Please provide a detailed hourly rate card for all staff members who would be involved in delivering AI Consultancy Services, as required, throughout the duration of the Contract. Include roles, associated hourly rates, and any applicable conditions or additional costs. 3. Use as many lines as necessary. 4. Detail any additional information. 5. Proposers are encouraged to offer optional features and supplemental functions or services to be offered as a catalog option. Please provide any options with 'list less' or 'cost plus's percentages for pricing			
	Artificial Intelligence (AI) Consultancy Se	rvices	
Item	Description	Price	Conditions
1	Lead Al Consultant	\$145.56	
2	AI Strategy Consultant	\$179.66	
3	Business Transformation Consultant	\$139.87	
4	Data Scientist	\$107.50	
5	5 Data Analyst \$89.20		
6	Data Visualization Specialist	\$93.45	
7	7 Machine Learning Engineer \$119.80		
8	8 Al Model Architect \$163.20		
9	9 AI Solutions Architect \$165.43		
10	Full-Stack AI Developer	\$119.50	
11	Cloud Solutions Architect	\$142.30	
12	IT Infrastructure Consultant	\$137.76	
13Pilot Program Coordinator\$89.98			
14	ROI Specialist	\$95.43	
15	Data Integration Specialist	\$109.50	
16	Project Manager	\$138.87	
17	UX/UI Designer	#REF!	
18	AI System Architect	\$163.22	
19	Quality Assurance Analyst	\$110.70	
20	20 Support and Maintenance Specialist #REF!		
21	Compliance Specialist	\$87.65	
22	Human centred Design Consultant	\$83.45	
23	Enterprise IT Consultant	\$139.70	
24	24Threat Intelligence Specialist\$145.40		
25	Cloud Infrastructure Consultant	\$149.87	



26	DevOps Engineer	\$113.40	
27	Digital Transformation Specialist	\$132.34	
28	Advanced Analytics Consultant	\$138.76	
29	ML Model Engineer	\$135.40	
30	Predictive Analytics Specialist	\$129.70	
31	AI Policy Developer	\$118.98	
32	AI Ethics Specialist	\$119.70	
33	AI Training Specialist	\$136.50	
34	Chatbot Developer	\$129.80	
Contractors shall provide additional related services at catalogue price less:			



HUB Bonus

5 additional points will be awarded upon submission of proof of certification as a Historically Underutilized Business (HUB), Minority, Women-Owned or Disadvantaged Business Enterprise.

TSCTI has thoroughly reviewed and understood the stated requirements. While we are not currently certified as a HUB, we are fully committed to meeting the HUB participation goals. Should NCTCOG or TXShare permit the use of subcontracting to fulfil the HUB requirement, we will promptly engage qualified HUB-certified subcontractors and submit the necessary documentation to ensure compliance.



Required Attachments

Please include signed copies of all ATTACHMENTS (beginning with ATTACHMENT I) appended to the back of this solicitation document. All attachments must be submitted with the proposal, or the proposal may be disqualified as nonresponsive. If an attachment does not apply, please mark as "Not Applicable" and submit with the proposal.

REQUIRED ATTACHMENT CHECKLIST

Please utilize this checklist to ensure that all required attachments are included with your proposal. IF AN ATTACHMENT DOES NOT APPLY, PLEASE MARK AS "**NOT APPLICABLE**" AND SUBMIT WITH THE PROPOSAL. FAILURE TO SUBMIT **ALL REQUIRED DOCUMENTS** MAY NEGATIVELY IMPACT YOUR EVALUATION SCORE.

✓	Page 1 - Cover Sheet
✓	Page 20 - Attachment I: Instructions for Proposals Compliance and Submittal
✓	Page 21 - Attachment II: Certification of Offeror
✓	Page 22 - Attachment III: Certification Regarding Debarment
✓	Page 23 - Attachment IV: Restrictions on Lobbying
✓	Page 25 - Attachment V: Drug-Free Workplace Certification
✓	Page 26 - Attachment VI: Certification Regarding Disclosure of Conflict of Interest
√	Page 29 - Attachment VII: Certification of Fair Business Practices
✓	Page 30 - Attachment VIII: Certification of Good Standing Texas Corporate Franchise Tax Certification
✓	Page 31 - Attachment IX: Historically Underutilized Businesses
✓	Page 32 - Attachment X: Federal and State of Texas Required Procurement Provisions
✓	Page 35 - Exhibit 1: Service Designation Areas

Respondent recognizes that all proposals must be submitted electronically through <u>Public Purchase</u> by the RFP due date and time. All other forms of submissions will be deemed nonresponsive and will not be opened or considered.

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ATTACHMENT I: INSTRUCTIONS FOR PROPOSALS COMPLIANCE AND SUBMITTAL

Compliance with the Solicitation

Submissions must be in strict compliance with this solicitation. Failure to comply with all provisions of the solicitation may result in disqualification.

Compliance with the NCTCOG Standard Terms and Conditions

By signing its submission, Offeror acknowledges that it has read, understands and agrees to comply with the NCTCOG standard terms and conditions.

Acknowledgment of Insurance Requirements

By signing its submission, Offeror acknowledges that it has read and understands the insurance requirements for the submission. Offeror also understands that the evidence of required insurance must be submitted within ten (10) working days following notification of its offer being accepted; otherwise, NCTCOG may rescind its acceptance of the Offeror's proposals. The insurance requirements are outlined in Section 2.2 - General Terms and Conditions.

Name of Organization/Contractor(s): 22nd Century Technologies, Inc.

Signature of Authorized Representative: Ashley Christina De Sa Digitally signed by Ashley Christina De Sa Date: 2025.01.09 16:43:21 -05'00'

_{Date:} Jan 13, 2025

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ATTACHMENT II: CERTIFICATIONS OF OFFEROR

I hereby certify that the information contained in this proposal and any attachments is true and correct and may be viewed as an accurate representation of proposed services to be provided by this organization. I certify that no employee, board member, or agent of the North Central Texas Council of Governments has assisted in the preparation of this proposal. I acknowledge that I have read and understand the requirements and provisions of the solicitation and that the organization will comply with the regulations and other applicable local, state, and federal regulations and directives in the implementation of this contract.

I also certify that I have read and understood all sections of this solicitation and will comply with all the terms and conditions as stated; and furthermore that I, <u>Ashley Christina De Sa</u> (typed or printed name) certify that I am the <u>Administrator</u> (title) of the corporation, partnership, or sole proprietorship, or other eligible entity named as offeror and respondent herein and that I am legally authorized to sign this offer and to submit it to the North Central Texas Council of Governments, on behalf of said offeror by authority of its governing body.

Name of Organization/Contractor(s):

22nd Century Technologies, Inc.

Signature of Authorized Representative:

Ashley Christina De Sa

Date: Jan 13, 2025

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ATTACHMENT III: CERTIFICATION REGARDING DEBARMENT, SUSPENSION AND OTHER RESPONSIBILITY MATTERS

This certification is required by the Federal Regulations Implementing Executive Order 12549, Debarment and Suspension, 45 CFR Part 93, Government-wide Debarment and Suspension, for the Department of Agriculture (7 CFR Part 3017), Department of Labor (29 CFR Part 98), Department of Education (34 CFR Parts 85, 668, 682), Department of Health and Human Services (45 CFR Part 76).

The undersigned certifies, to the best of his or her knowledge and belief, that both it and its principals:

- Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any federal department or agency;
- 2. Have not within a three-year period preceding this contract been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or Local) transaction or contract under a public transaction, violation of federal or State antitrust statues or commission of embezzlement, theft, forgery, bribery, falsification, or destruction of records, making false Proposals, or receiving stolen property;
- Are not presently indicated for or otherwise criminally or civilly charged by a government entity with commission of any of the offense enumerated in Paragraph (2) of this certification; and,
- Have not within a three-year period preceding this contract had one or more public transactions terminated for cause or default.

Where the prospective recipient of federal assistance funds is unable to certify to any of the qualifications in this certification, such prospective recipient shall attach an explanation to this certification form.

Name of Organization/Contractor(s): 22nd Century Technologies, Inc.

Signature of Authorized Representative: Ashley Christina De Sa Digitally signed by Ashley Christina De Sa Date: 2025.01.09 16:44:53 -05'00'

_{Date:} Jan 13, 2025

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ATTACHMENT IV: RESTRICTIONS ON LOBBYING

Section 319 of Public Law 101-121 prohibits recipients of federal contracts, grants, and loans exceeding \$100,000 at any tier under a federal contract from using appropriated funds for lobbying the Executive or Legislative Branches of the federal government in connection with a specific contract, grant, or loan. Section 319 also requires each person who requests or receives a federal contract or grant in excess of \$100,000 to disclose lobbying.

No appropriated funds may be expended by the recipient of a federal contract, loan, or cooperative agreement to pay any person for influencing or attempting to influence an officer or employee of any federal executive department or agency as well as any independent regulatory commission or government corporation, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with any of the following covered federal actions: the awarding of any federal contract, the making of any federal grant, the making of any federal loan the entering into of any cooperative agreement and the extension, continuation, renewal, amendment, or modification of any federal contract, grant, loan, or cooperative agreement.

As a recipient of a federal grant exceeding \$100,000, NCTCOG requires its subcontractors of that grant to file a certification, set forth in Appendix B.1, that neither the agency nor its employees have made, or will make, any payment prohibited by the preceding paragraph.

Subcontractors are also required to file with NCTCOG a disclosure form, set forth in Appendix B.2, if the subcontractor or its employees have made or have agreed to make any payment using nonappropriated funds (to <u>include</u> profits from any federal action), which would be prohibited if paid for with appropriated funds.

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LOBBYING CERTIFICATION FOR CONTRACTS, GRANTS, LOANS, AND COOPERATIVE AGREEMENTS

The undersigned certifies, to the best of his or her knowledge or belief, that:

- 1. No federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an officer or employee of a Member of Congress in connection with the awarding of any federal contract, the making of any federal loan, the entering into of any cooperative Contract, and the extension, continuation, renewal, amendment, or modification or any federal contract, grant, loan, or cooperative contract; and
- 2. If any funds other than federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this federal contract, grant, loan, and or cooperative contract, the undersigned shall complete and submit Standard Form LLL, "Disclosure Form to Report Lobbying", in accordance with the instructions.
- 3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers and that all sub-recipients shall certify accordingly.

Name of Organization/Contractor(s): 22nd Century Technologies, Inc.

Signature of Authorized Representative: Ashley Christina De Sa Digitally signed by Ashley Christina De Sa Date: 2025.01.09 16:45:25 -05'00'

_{Date:} Jan 13, 2025

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ATTACHMENT V: DRUG-FREE WORKPLACE CERTIFICATION

The <u>22nd Century Technologies</u>, Inc. (company name) will provide a Drug Free Work Place in compliance with the Drug Free Work Place Act of 1988. The unlawful manufacture, distribution, dispensing, possession or use of a controlled substance is prohibited on the premises of the

22nd Century Technologies, Inc. (company name) or any of its facilities. Any employee who violates this prohibition will be subject to disciplinary action up to and including termination. All employees, as a condition of employment, will comply with this policy.

CERTIFICATION REGARDING DRUG-FREE WORKPLACE

This certification is required by the Federal Regulations Implementing Sections 5151-5160 of the Drug-Free Workplace Act, 41 U.S.C. 701, for the Department of Agriculture (7 CFR Part 3017), Department of Labor (29 CFR Part 98), Department of Education (34 CFR Parts 85, 668 and 682), Department of Health and Human Services (45 CFR Part 76).

The undersigned subcontractor certifies it will provide a drug-free workplace by:

Publishing a policy Proposal notifying employees that the unlawful manufacture, distribution, dispensing, possession or use of a controlled substance is prohibited in the workplace and specifying the consequences of any such action by an employee;

Establishing an ongoing drug-free awareness program to inform employees of the dangers of drug abuse in the workplace, the subcontractor's policy of maintaining a drug-free workplace, the availability of counseling, rehabilitation and employee assistance programs, and the penalties that may be imposed on employees for drug violations in the workplace;

Providing each employee with a copy of the subcontractor's policy Proposal;

Notifying the employees in the subcontractor's policy Proposal that as a condition of employment under this subcontract, employees shall abide by the terms of the policy Proposal and notifying the subcontractor in writing within five days after any conviction for a violation by the employee of a criminal drug abuse statue in the workplace;

Notifying the Board within ten (10) days of the subcontractor's receipt of a notice of a conviction of any employee; and,

Taking appropriate personnel action against an employee convicted of violating a criminal drug statue or requires such employee to participate in a drug abuse assistance or rehabilitation program.

Name of Organization/Contractor(s):

22nd Century Technologies, Inc.

Signature of Authorized Representative:

Ashley Christina De Sa

Digitally signed by Ashley Christina De Sa Date: 2025.01.09 16:46:20 -05'00'

Date: Jan 13, 2025

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ATTACHMENT VI: DISCLOSURE OF CONFLICT OF INTEREST CERTIFICATION REGARDING DISCLOSURE OF CONFLICT OF INTEREST

The undersigned certifies that, to the best of his or her knowledge or belief, that:

"No employee of the contractor, no member of the contractor's governing board or body, and no person who exercises any functions or responsibilities in the review or approval of the undertaking or carrying out of this contract shall participate in any decision relating to this contract which affects his/her personal pecuniary interest.

Executives and employees of contractor shall be particularly aware of the varying degrees of influence that can be exerted by personal friends and associates and, in administering the contract, shall exercise due diligence to avoid situations which give rise to an assertion that favorable treatment is being granted to friends and associates. When it is in the public interest for the contractor to conduct business with a friend or associate of an executive or employee of the contractor, an elected official in the area or a member of the North Central Texas Council of Governments, a permanent record of the transaction shall be retained.

Any executive or employee of the contractor, an elected official in the area or a member of the NCTCOG, shall not solicit or accept money or any other consideration from a third person, for the performance of an act reimbursed in whole or part by contractor or Department. Supplies, tools, materials, equipment or services purchased with contract funds shall be used solely for purposes allowed under this contract. No member of the NCTCOG shall cast a vote on the provision of services by that member (or any organization which that member represents) or vote on any matter which would provide a direct or indirect financial benefit to the member or any business or organization which the member directly represents".

No officer, employee or paid consultant of the contractor is a member of the NCTCOG.

No officer, manager or paid consultant of the contractor is married to a member of the NCTCOG.

No member of NCTCOG directly owns, controls or has interest in the contractor.

The contractor has disclosed any interest, fact, or circumstance that does or may present a potential conflict of interest.

No member of the NCTCOG receives compensation from the contractor for lobbying activities as defined in Chapter 305 of the Texas Government Code.

Should the contractor fail to abide by the foregoing covenants and affirmations regarding conflict of interest, the contractor shall not be entitled to the recovery of any costs or expenses incurred in relation to the contract and shall immediately refund to the North Central Texas Council of Governments any fees or expenses that may have been paid under this contract and shall further be liable for any other costs incurred or damages sustained by the NCTCOG as it relates to this contract.

Name of Organization/Contractor(s):

22nd Century Technologies, Inc.

Signature of Authorized Representative: Ashley Christina De Sa Date: 2025.01.09 16:46:46 -05'00'

_{Date:} Jan 13, 2025

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CONFLICT OF INTEREST QUESTIONNAIRE For vendor doing business with local governmental entity	FORM CIQ
This questionnaire reflects changes made to the law by H.B. 23, 84th Leg., Regular Session.	OFFICE USE ONLY
This questionnaire is being filed in accordance with Chapter 176, Local Government Code, by a vendor who has a business relationship as defined by Section 176.001(1-a) with a local governmental entity and the vendor meets requirements under Section 176.006(a).	Date Received
By law this questionnaire must be filed with the records administrator of the local governmental entity not later than the 7th business day after the date the vendor becomes aware of facts that require the statement to be filed. See Section 176.006(a-1), Local Government Code.	
A vendor commits an offense if the vendor knowingly violates Section 176.006, Local Government Code. An offense under this section is a misdemeanor.	
 Name of vendor who has a business relationship with local governmental entity. 	
None	
 Check this box if you are filing an update to a previously filed questionnaire. (The law re completed questionnaire with the appropriate filing authority not later than the 7th busines you became aware that the originally filed questionnaire was incomplete or inaccurate.) Name of local government officer about whom the information is being disclosed. 	quires that you file an updated s day after the date on which
None	
Name of Officer	
A. Is the local government officer or a family member of the officer receiving or li other than investment income, from the vendor? Yes Ves Ves No B. Is the vendor receiving or likely to receive taxable income, other than investment of the local government officer or a family member of the officer AND the taxable i local governmental entity? Yes Ves Ves Ves No	kely to receive taxable income, income, from or at the direction income is not received from the
Describe each employment or business relationship that the vendor named in Section 1 m other business entity with respect to which the local government officer serves as an o ownership interest of one percent or more.	aintains with a corporation or fficer or director, or holds an
Check this box if the vendor has given the local government officer or a family member as described in Section 176.003(a)(2)(B), excluding gifts described in Section 176.0	of the officer one or more gifts)03(a-1).
7 Ashley Christina De Sa Digitally signed by Ashley Christina De Sa De Sa De Sa Date: 2025.01.09 16:48:06 -05'00' 1/13/25	late
Form provided by Texas Ethics Commission www.ethics.state.tx.us	Revised 1/1/2021

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Form provided by Texas Ethics Commission

www.ethics.state.tx.us

Revised 1/1/2021

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ATTACHMENT VII: CERTIFICATION OF FAIR BUSINESS PRACTICES

That the submitter has not been found guilty of unfair business practices in a judicial or state agency administrative proceeding during the preceding year. The submitter further affirms that no officer of the submitter has served as an officer of any company found guilty of unfair business practices in a judicial or state agency administrative during the preceding year.

Name of Organization/Contractor(s):

22nd Century Technologies, Inc.

Signature of Authorized Representative: Ashley Christina De Sa Date: 2025.01.09 16:48:34 -05'00'

_{Date:} Jan 13, 2025

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ATTACHMENT VIII: CERTIFICATION OF GOOD STANDING TEXAS CORPORATE FRANCHISE TAX CERTIFICATION

Pursuant to Article 2.45, Texas Business Corporation Act, state agencies may not contract with for profit corporations that are delinquent in making state franchise tax payments. The following certification that the corporation entering into this offer is current in its franchise taxes must be signed by the individual authorized on Form 2031, Corporate Board of Directors Resolution, to sign the contract for the corporation.

The undersigned authorized representative of the corporation making the offer herein certified that the following indicated Proposal is true and correct and that the undersigned understands that making a false Proposal is a material breach of contract and is grounds for contract cancellation.

Indicate the certification that applies to your corporation:



The Corporation is a for-profit corporation and certifies that it is not delinquent in its franchise tax payments to the State of Texas.



The Corporation is a non-profit corporation or is otherwise not subject to payment of franchise taxes to the State of Texas.



Pursuant to Article 2.45, Texas Business Corporation Act, the North Central Texas Council of Governments reserves the right to request information regarding state franchise tax payments.

Ashley Christina De Sa Title

(Printed/Typed Name and Title of Authorized Representative)

Signature

Date: Jan 13. 2025

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ATTACHMENT IX: HISTORICALLY UNDERUTILIZED BUSINESSES, MINORITY OR WOMEN-OWNED OR DISADVANTAGED BUSINESS ENTERPRISES

Historically Underutilized Businesses (HUBs), minority or women-owned or disadvantaged businesses enterprises (M/W/DBE) are encouraged to participate in the solicitation process.

NCTCOG recognizes the certifications of most agencies. HUB vendors <u>must</u> submit a copy of their certification for consideration during the evaluation of their proposal. Please attach the copy to this form. This applies only to the Offeror and not a subcontractor.

Texas vendors who are not currently certified are encouraged to contact either the Texas United Certification Program, State of Texas HUB Program, or the North Central Texas Regional Certification Agency, among others. Contact:

State of Texas HUB Program Texas Comptroller of Public Accounts Lyndon B. Johnson State Office Building 111 East 17th Street Austin, Texas 78774 (512) 463-6958 http://www.window.state.tx.us/procurement/prog/hub/

North Central Texas Regional Certification Agency 624 Six Flags Drive, Suite 100 Arlington, TX 76011 (817) 640-0606 http://www.nctrca.org/certification.html

Texas United Certification Program USDOT website at https://www.transportation.gov/DBE

You must include a copy of your certification document as part of this solicitation to receive points in the evaluation.

Vendor to Sign Below to Attest to Validity of Certification:

22nd Century Technologies, Inc.

Vendor Name Ashley Christina De Sa Date: 2025.01.09 16:51:17 -05'00'

Authorized Signature

Ashley Christina De Sa

Jan 13, 2025

Typed Name

Date

✔ Not applicable.

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ATTACHMENT X: NCTCOG FEDERAL AND STATE OF TEXAS REQUIRED PROCUREMENT PROVISIONS

The following provisions are mandated by Federal and/or State of Texas law. Failure to certify to the following will result in disqualification of consideration for contract. Entities or agencies that are not able to comply with the following will be ineligible for consideration of contract award.

PROHIBITED TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES OR EQUIPMENT CERTIFICATION

This Contract is subject to the Public Law 115-232, Section 889, and 2 Code of Federal Regulations (CFR) Part 200, including §200.216 and §200.471, for prohibition on certain telecommunications and video surveillance or equipment. Public Law 115-232, Section 889, identifies that restricted telecommunications and video surveillance equipment or services (e.g., phones, internet, video surveillance, cloud servers) include the following:

- A) Telecommunications equipment that is produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliates of such entities).
- B) Video surveillance and telecommunications equipment produced by Hytera Communications Corporations, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliates of such entities).
- C) Telecommunications or video surveillance services used by such entities or using such equipment.
- D) Telecommunications or video surveillance equipment or services produced or provided by an entity that the Secretary of Defense, Director of the National Intelligence, or the Director of the Federal Bureau of Investigation reasonably believes to be an entity owned or controlled by the government of a covered foreign country. The entity identified below, through its authorized representative, hereby certifies that no funds under this Contract will be obligated or expended to procure or obtain telecommunication or video surveillance services or equipment or systems that use covered telecommunications equipment or services as a substantial or essential component of any system, or as a critical technology as part of any system prohibited by 2 CFR §200.216 and §200.471, or applicable provisions in Public Law 115-232 Section 889.

The Contractor or Subrecipient hereby certifies that it does comply with the requirements of 2 CFR §200.216 and §200.471, or applicable regulations in Public Law 115-232 Section 889.

SIGNATURE OF AUTHORIZED PERSON:	Ashley Christina De Sa Date: 2025.01.09 16:51:57 -05'00'	
NAME OF AUTHORIZED PERSON:	Ashley Christina De Sa	
NAME OF COMPANY:	22nd Century Technologies, Inc.	
DATE:	Jan 13, 2025	

-OR-

The Contractor or Subrecipient hereby certifies that it cannot comply with the requirements of 2 CFR §200.216 and §200.471, or applicable regulations in Public Law 115-232 Section 889.

SIGNATURE OF AUTHORIZED PERSON:

NAME OF AUTHORIZED PERSON:

NAME OF COMPANY:

DATE:

Page 32 of 37



DISCRIMINATION AGAINST FIREARMS ENTITIES OR FIREARMS TRADE ASSOCIATIONS

This contract is subject to the Texas Local Government Code chapter 2274, Subtitle F, Title 10, prohibiting contracts with companies who discriminate against firearm and ammunition industries.

TLGC chapter 2274, Subtitle F, Title 10, identifies that "discrimination against a firearm entity or firearm trade association" includes the following:

A) means, with respect to the entity or association, to:

- refuse to engage in the trade of any goods or services with the entity or association based solely on its status as a firearm entity or firearm trade association; and
- II. refrain from continuing an existing business relationship with the entity or association based solely on its status as a firearm entity or firearm trade association; or
- III. terminate an existing business relationship with the entity or association based solely on its status as a firearm entity or firearm trade association.
- B) An exception to this provision excludes the following:
 - I. contracts with a sole-source provider; or
 - II. the government entity does not receive bids from companies who can provide written verification.

The entity identified below, through its authorized representative, hereby certifies that they have no practice, policy, guidance, or directive that discriminates against a firearm entity or firearm trade association; and that they will not discriminate during the term of the contract against a firearm entity or firearm trade association as prohibited by Chapter 2274, Subtitle F, Title 10 of the Texas Local Government Code.

The Contractor or Subrecipient hereby certifies that it does comply with the requirements of Chapter 2274, Subtitle F, Title 10.

SIGNATURE OF AUTHORIZED PERSON:	Ashley Christina De Sa Digitally signed by Ashley Christina De Sa Date: 2025.01.09 16:52:42 -05'00'	
NAME OF AUTHORIZED PERSON:	Ashley Christina De Sa	
NAME OF COMPANY:	22nd Century Technologies, Inc.	
DATE:	1/13/25	

-OR-

The Contractor or Subrecipient hereby certifies that it cannot comply with the requirements of Chapter 2274, Subtitle F, Title 10.

SIGNATURE OF AUTHORIZED PERSON:	
NAME OF AUTHORIZED PERSON:	
NAME OF COMPANY:	
DATE:	

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BOYCOTTING OF CERTAIN ENERGY COMPANIES

This contract is subject to the Texas Local Government Code chapter 809, Subtitle A, Title 8, prohibiting contracts with companies who boycott certain energy companies.

TLGC chapter Code chapter 809, Subtitle A, Title 8, identifies that "boycott energy company" means, without an ordinary business purpose, refusing to deal with, terminating business activities with, or otherwise taking any action that is intended to penalize, inflict economic harm on, or limit commercial relations with a company because the company:

- I. engages in the exploration, production, utilization, transportation, sale, or manufacturing of fossil fuelbased energy and does not commit or pledge to meet environmental standards beyond applicable federal and state law; and
- II. does business with a company described by paragraph (I).

The entity identified below, through its authorized representative, hereby certifies that they do not boycott energy companies, and that they will not boycott energy companies during the term of the contract as prohibited by Chapter 809, Subtitle A, Title 8 of the Texas Local Government Code.

The Contractor or Subrecipient hereby certifies that it does comply with the requirements of Chapter 809, Subtitle A, Title 8.

SIGNATURE OF AUTHORIZED PERSON:	Ashley Christina De Sa Digitally signed by Ashley Christina De Sa Date: 2025.01.09 16:53:26 -05	j'00'
NAME OF AUTHORIZED PERSON:	Ashley Christina De Sa	
NAME OF COMPANY:	22nd Century Technologies, Inc.	
DATE:	1/13/25	

-OR-

 \Box The Contractor or Subrecipient hereby certifies that it cannot comply with the requirements of Chapter 809, Subtitle A, Title 8.

SIGNATURE OF AUTHORIZED PERSON:

NAME OF AUTHORIZED PERSON:

NAME OF COMPANY:

DATE:

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EXHIBIT 1: SERVICE DESIGNATION AREAS

	Texas Service Area Designation or Identification			
Proposing Firm Name:	22nd Century Technologies, Inc.			
Notes:	Indicate in the appropriate box whether you are proposing to service the entire state of Texas			
	Will service the entire state of Texas	Will service the entire state of Texas Will not service the entire		
	\checkmark			
	If you are not proposing to service the that you are proposing to provide ge are certifying that you are willing and the that you are willing and the	ne entire state of Texas, designate on bods and/or services to. By designati ad able to provide the proposed goo	the form below the regions ing a region or regions, you ds and services.	
Item	Region	Metropolitan Statistical Areas	Designated Service Area	
1.	North Central Texas	16 counties in the Dallas-Fort Worth Metropolitan area	TSCTI will be willing and	
2.	High Plains	Amarillo Lubbock	TSCTI will be willing and be able to provide the proposed goods and se	
3.	Northwest	Abilene Wichita Falls	TSCTI will be willing and be able to provide the proposed goods and se	
4.	Upper East	Longview Texarkana, TX-AR Metro Area Tyler	TSCTI will be willing and be able to provide the proposed goods and services	
5.	Southeast	Beaumont-Port Arthur	TBCTI will be willing and be able to provide the proposed goods and se	
6.	Gulf Coast	Houston-The Woodlands- Sugar Land	TBCTI will be willing and be able to provide the proposed goods and se	
7.	Central Texas	College Station-Bryan Killeen-Temple Waco	TSCTI will be willing and be able to provide the proposed goods and services	
8.	Capital Texas	Austin-Round Rock	TSCTI will be willing and be able to provide the proposed goods and se	
9.	Alamo	San Antonio-New Braunfels Victoria	TBCTI will be willing and be able to provide the proposed goods and se	
10.	South Texas	Brownsville-Harlingen Corpus Christi Laredo McAllen-Edinburg-Mission	TSCTI will be willing and be able to provide the proposed goods and services	
11.	West Texas	Midland Odessa San Angelo	TSCTI will be willing and be able to provide the proposed goods and services	
12.	Upper Rio Grande	El Paso	TSCTI will be willing and be able to provide the proposed goods and se	

(Exhibit 1 continued on next page)

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(Exhibit 1 continued)

	Nationwide Service Area Designation or Identification Form			
Proposing Firm Name:	22nd Century Technologies, Inc.			
Notes:	Indicate in the appropriate box whether you are proposing to provide service to all Fifty (50) States.			
	Will service all fif	ty (50) states Will not service fifty (50) states		
	If you are not proposing to service to all fifty (50) states, then designate on the form below the states that you will provide service to. By designating a state or states, you are certifying that you are willing and able to provide the proposed goods and services in those states. If you are only proposing to service a specific region, metropolitan statistical area (MSA), or City in a State, then indicate as such in the appropriate column box.			
Item	State	Region/MSA/City	Designated	
		(write "ALL" if proposing to service entire state)	as a Service Area	
1.	Alabama	ALL	ALL	
2.	Alaska	ALL	ALL	
3.	Arizona	ALL	ALL	
4.	Arkansas	ALL	ALL	
5.	California	ALL	ALL	
6.	Colorado	ALL	ALL	
7.	Connecticut	ALL	ALL	
8.	Delaware	ALL	ALL	
9.	Florida	ALL	ALL	
10.	Georgia	ALL	ALL	
11.	Hawaii	ALL	ALL	
12.	Idaho	ALL	ALL	
13.	Illinois	ALL	ALL	
14.	Indiana	ALL	ALL	
15.	Iowa	ALL	ALL	
16.	Kansas	ALL	ALL	
17.	Kentucky	ALL	ALL	
18.	Louisiana	ALL	ALL	
19.	Maine	ALL	ALL	
20.	Maryland	ALL	ALL	

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21.	Massachusetts	ALL	
22.	Michigan	ALL	
23.	Minnesota	ALL	
24.	Mississippi	ALL	
25.	Missouri	ALL	
26.	Montana	ALL	
27.	Nebraska	ALL	
28.	Nevada	ALL	
29.	New Hampshire	ALL	
30.	New Jersey	ALL	
31.	New Mexico	ALL	
32.	New York	ALL	
33.	North Carolina	ALL	
34.	North Dakota	ALL	
35.	Ohio	ALL	
36.	Oregon	ALL	
37.	Oklahoma	ALL	
38.	Pennsylvania	ALL	
39.	Rhode Island	ALL	
40.	South Carolina	ALL	
41.	South Dakota	ALL	
42.	Tennessee	ALL	
43.	Texas	ALL	
44.	Utah	ALL	
45.	Vermont	ALL	
46.	Virginia	ALL	
47.	Washington	ALL	
48.	West Virginia	ALL	
49.	Wisconsin	ALL	
50.	Wyoming	ALL	

End of Exhibit 1

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