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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.

BI Consulting Services LLC

_____
Legal Name of Proposing Firm

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Acknowledgment of Addenda (initial): #1 [signature] #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

Brief Statement of Understanding

2. A brief statement of the respondent's understanding of the work to be done or desired deliverables requested in the solicitation.

BI Consulting Services understands that the North Central Texas Council of Governments (NCTCOG) seeks to enhance its operational efficiency, decision-making, and service delivery through the implementation of Artificial Intelligence (AI) strategies and solutions. The desired deliverables outlined in the solicitation include:

1. **Process Assessment**: Evaluating current processes across various departments to identify opportunities for AI integration, and aligning AI solutions with NCTCOG's organizational functions such as public safety, citizen engagement, and infrastructure maintenance.
2. **Solution Recommendations**: Proposing AI tools and frameworks that address the challenges and opportunities identified during the assessment phase, ensuring that the solutions are customized to meet NCTCOG's specific needs.
3. **Data Strategy Development**: Developing a comprehensive data strategy that focuses on data quality, governance, privacy, and security while ensuring compliance with public sector standards.
4. **AI Strategy and Roadmap**: Collaborating with NCTCOG departments to create a long-term AI strategy, identifying feasible use cases, developing an implementation roadmap, and establishing milestones and KPIs for monitoring progress.
5. **Ethical AI and Governance**: Ensuring that AI strategies and solutions are aligned with ethical principles, legal requirements, and regulatory compliance, addressing issues such as fairness, accountability, and transparency.
6. **Training and Knowledge Transfer**: Providing training sessions for NCTCOG staff to ensure effective adoption of AI tools and to build internal capabilities for long-term AI management and innovation.
7. **Pilot Testing and Implementation Support**: Assisting in the implementation of pilot projects, troubleshooting challenges, and providing integration support to ensure a successful scaling of AI solutions across NCTCOG.

BI Consulting Services is committed to delivering these services through a structured, collaborative approach, ensuring that the outcomes align with NCTCOG's goals of improving service delivery and operational efficiency through the use of AI.

Key Personnel

If awarded, BI Consulting Services intends to use the following key persoonel for the management of delivering of services requested in this RFP.

Name: Nichole McKinney
Role: AI Consultant/Strategist
Expertise and Skills: Nichole McKinney is a seasoned project manager with over a decade of experience in leading large-scale data strategy and governance initiatives for Fortune 500 organizations, including Duke Energy. Her expertise aligns closely with NCTCOG's mission of enhancing regional collaboration through innovative data solutions. Nichole's work focuses on master data management, cloud-based strategies, and improving data quality by leveraging advanced technologies such as AI, machine learning, and process automation.

At Duke Energy, Nichole led the development of a comprehensive data strategy for the company's largest business unit, a project that parallels NCTCOG's efforts to streamline regional planning and decision-making. She conducted in-depth stakeholder engagement, including interviews and surveys with business units, IT leaders, and product owners, to identify operational pain points and opportunities for improvement. Nichole then transformed these findings into actionable insights using dashboards and reports, providing leadership with the tools needed for informed decision-making.

In a project highly relevant to NCTCOG's goals, Nichole designed a future-focused data governance approach to integrate AI and machine learning for smarter business decisions and improved operational efficiency. The initiative resulted in organizational realignment, improved resource allocation, and financial and operational benefits over two years.

Nichole has also led innovative projects integrating drones and machine learning algorithms to enhance data quality, a capability applicable to NCTCOG's focus on regional transportation and infrastructure monitoring. Additionally, she has successfully established and managed data governance boards, designed data cataloging frameworks, and implemented enterprise-wide data integration solutions, all of which support NCTCOG's need for efficient data sharing and regional collaboration.

Her ability to align technical solutions with strategic goals, coupled with her experience delivering measurable outcomes for complex organizations, makes Nichole well-suited to contribute to NCTCOG's data and analytics initiatives.

Name: Brandon Atkins
Role: Training and Change Management Specialist
Expertise and Skills: Brandon Atkins is an experienced Information Technology professional with a Bachelor of Science degree in Computer Information Systems from Florida A&M University. He has a variety of technical skills, including expertise in the data governance & data quality space. Working with Fortune 500 organizations helping them define their data strategies and data quality needs and delivering on those projects with an agile methodology. Business Intelligence stack, SAP Business Objects, HANA, BI, SQL, and other technologies such as Tableau, Power BI, Microsoft Office Suite, Snaplogic, JIRA, HPQC, Atscale, and Salesforce. He is also proficient in both Agile and Waterfall project methodologies.

As a Product Owner/Manager at Duke Energy, Brandon led the Image Analytics team through successful bi-weekly sprints of AI identification of assets on a pole. He was a liaison between the product team and management to ensure successful bi-weekly and monthly product releases. Brandon also presented and led product demos to customers for the understanding of enhancements being released. In addition, he enhanced the current sprint process to ensure more productive sprint planning through better breakdowns of the JIRA board. Brandon managed Grid Data+ Initiatives which took stock of the current landscape and planned for the grid of the future for the next 3-5 years. He also led stakeholder interviews and workshops to capture pain points of data and processes from team members in multiple organizations.

As a Visualization Consultant at Duke Energy, Brandon created and maintained KPI metrics via Power BI to further enhance benchmarking for Customer Experience leadership. He led visualization and modeling effort for building upon migrated data from SQL Server to AWS. Brandon was also a liaison between the business and IT to ensure reporting needs are met with satisfaction. He trained and onboarded new teammates based on the visualization standards of the Customer Experience Team. In addition, Brandon consolidated and automated multiple Power BI reports to further drive business processes.

As a Visualization Developer at Coke Consolidated Inc, Brandon created visual analytic dashboards and reports using Tableau that assisted with business cost savings initiatives. He automated and developed weekly KPI metrics that pulled data from various sources to be used by all of the sales organizations. Brandon also created and automated weekly KPI tracking for Executive Leadership to determine the progress of sales.

Brandon's expertise in data visualization and analytics, coupled with his proven track record of enhancing operational efficiency through automation and strategic planning, aligns directly with NCTCOG's focus on leveraging technology for regional planning and decision-making. His ability to bridge technical and business needs ensures impactful, data-driven solutions tailored to organizational goals.

Name: Tristen R. Caudle
Role: Project Manager
Expertise and Skills: Tristen R. Caudle is an experienced Project Manager and AI solutions expert with a proven background in delivering complex data-driven projects for organizations across multiple sectors. With certifications such as Microsoft Certified Solutions Associate and Domo Technical Certification, Tristen possesses a strong foundation in business intelligence, data integration, and advanced analytics, making him an ideal candidate for NCTCOG's AI consultancy needs. His expertise aligns directly with the objectives outlined in the RFP, including AI strategy development, solution design, data governance, and ethical AI implementation.

As Director of Project Management at Power BI Consulting Services, Tristen has led cross-functional teams to implement robust data management solutions and AI-driven strategies tailored to client specifications. His work includes overseeing projects that integrate data visualization, ETL processes, and API design to streamline data workflows and improve operational decision-making. This experience is critical to NCTCOG's need for process assessments and the integration of AI solutions for public sector functions such as infrastructure maintenance and citizen engagement.

Tristen's role as a Dashboard Engineer at Praxis Metrics highlights his experience in developing actionable data insights, a skill essential for NCTCOG's objectives of identifying AI use cases and designing feasible, high-impact solutions. He successfully designed ETL flows, implemented data transformations, and developed dashboards that empowered businesses to make informed, data-driven decisions. This hands-on experience in data strategy and solution design ensures Tristen can assist NCTCOG in creating a comprehensive AI implementation roadmap, defining use cases, and recommending suitable tools and frameworks.

His expertise in managing both onshore and offshore teams will also be beneficial for NCTCOG's requirement of effective project management, including providing regular updates, adhering to deadlines, and ensuring collaboration across departments. Tristen's experience in compliance and data governance ensures that all AI solutions adhere to public sector regulations, including legal, ethical, and security standards.

In addition, Tristen's expertise in knowledge transfer and training ensures that NCTCOG's internal teams can successfully adopt and manage AI tools in the long term. His ability to bridge technical and non-technical teams will help facilitate NCTCOG's ongoing commitment to transparency, accountability, and inclusivity in AI deployments.

With a track record of successfully delivering business intelligence and AI solutions across various sectors, Tristen R. Caudle is well-equipped to support NCTCOG in advancing its data-driven strategies and AI initiatives, ensuring successful outcomes in line with the five-year strategic vision outlined in the RFP.

Phuoc Nguyen
Role: Data Scientist, Cost Analyst/Financial Specialist
Expertise and Skills: Phuoc Nguyen is an accomplished Data Architect and Business Intelligence Lead, with extensive experience in designing and implementing robust data solutions, data governance, and AI-driven analytics—skills directly aligned with the goals of NCTCOG's AI consultancy RFP. His educational background, including a Micro-Master in Data Science and Statistics from MIT, equips him with a deep understanding of data science, machine learning, and data architecture, ensuring that he can provide comprehensive solutions for NCTCOG's AI strategy development and implementation needs.

In his current role as Director of BI Reporting & Analytics at BICS Consulting Services, Phuoc has demonstrated leadership in designing scalable, high-performance data architectures that support complex business intelligence needs. This experience is particularly relevant to NCTCOG's requirement for a data strategy that addresses issues like data quality, governance, privacy, and security. Phuoc's ability to create tailored data solutions through a combination of ERP integration and cloud technologies makes him an ideal candidate to support NCTCOG in designing and implementing AI solutions that integrate seamlessly with the organization's existing infrastructure.

Phuoc's leadership in the creation of a Finance/Logistics Analytic Data Warehouse that integrates data from multiple ERP sources is a testament to his expertise in data integration, architecture, and advanced analytics. This experience directly aligns with NCTCOG's need to assess current processes, identify opportunities for AI integration, and build a strategy for leveraging data to enhance decision-making and service delivery across public safety, citizen engagement, and infrastructure maintenance.

Furthermore, Phuoc has a proven track record of working with cross-functional teams using agile methodologies, making him well-suited to manage complex, multi-phase AI projects for NCTCOG. His ability to lead teams, work closely with business stakeholders, and deliver data solutions on time and within budget will ensure that NCTCOG's AI strategy is implemented efficiently, meeting the project's objectives and timelines.

Phuoc's work in building advanced energy analytic solutions using Azure Cloud Platforms and Power BI highlights his ability to deliver sophisticated data visualizations and actionable insights. This experience will be invaluable in helping NCTCOG develop AI frameworks and models that can be used to monitor and enhance the effectiveness of public sector operations, particularly in areas such as infrastructure management and resource optimization.

His deep understanding of data governance and privacy concerns further aligns with NCTCOG's requirement for ensuring compliance with ethical and legal standards throughout the AI implementation process. Phuoc's ability to provide data security solutions and ensure

compliance with public sector regulations will be crucial for maintaining transparency and accountability throughout the AI lifecycle.

Phuoc Nguyen's expertise in data architecture, AI, and business intelligence makes him uniquely qualified to support NCTCOG's AI initiatives, from strategy development and use case identification to solution implementation and knowledge transfer. His leadership and technical proficiency will be instrumental in helping NCTCOG achieve its long-term goals for data-driven decision-making and AI-powered innovation.

Joseph Paquera

Role: Ethical AI and Governance Specialist, AI Implementation Specialist

Expertise and Skills: Joseph Paquera is a seasoned Software Architect and Data Analyst with over 16 years of experience in data architecture, analytics, and implementing scalable data solutions. His broad technical expertise and leadership in building data-driven strategies align directly with the goals outlined in NCTCOG's RFP for AI consultancy services. With a Bachelor of Technology in Electronics Communication Engineering and a solid background in data engineering, Joseph has developed an advanced skill set in data analysis, transformation, integration, and visualization—core competencies required to successfully assist NCTCOG in creating and executing its AI strategy.

Currently, as a Software Architect and Data Analyst at BI Consulting Services, Joseph leads the design and development of data solutions tailored to client needs. His work emphasizes building scalable, high-performance data architectures that support complex data operations and analysis. This experience positions him well to help NCTCOG in your process assessment and AI strategy development, particularly in identifying and integrating AI opportunities to enhance operational efficiency and service delivery in key areas like public safety, infrastructure management, and citizen engagement.

Joseph's proficiency in Power BI, SQL, and Azure technologies is particularly relevant to NCTCOG's need for AI solution design and roadmap creation. He has a proven track record of designing and architecting data pipelines and implementing efficient data transformation processes that ensure high-quality, accessible data for analysis. His deep understanding of cloud-based platforms like Azure, coupled with his experience in Power BI, will be instrumental in developing AI solutions for NCTCOG that not only meet technical requirements but also drive actionable insights through advanced data visualization and reporting.

During his previous tenure as a Technical Architect at Tata Consultancy Services Ltd, Joseph managed the design and implementation of large-scale data solutions across various platforms. This role required him to translate business requirements into technical specifications, a skill set that will be essential when working with NCTCOG to identify AI use cases and ensure alignment with organizational goals. His expertise in building robust data pipelines, integrating complex

datasets, and maintaining scalable infrastructure will be critical in supporting NCTCOG's AI implementations, particularly for ensuring data quality and governance throughout the project lifecycle.

Joseph's certifications in Microsoft Azure technologies, data engineering, and Power BI underscore his commitment to staying at the forefront of emerging technologies. His experience managing technical teams and delivering solutions on time and within budget further demonstrates his ability to lead AI projects for NCTCOG, ensuring that AI strategies are implemented with precision and efficiency.

Joseph Paquera's extensive experience in data architecture, analytics, and AI solution design makes him an ideal candidate for supporting NCTCOG's AI strategy development and implementation. His technical expertise, leadership, and focus on building scalable, secure, and compliant data solutions will ensure that NCTCOG's AI initiatives are executed successfully, driving organizational improvements and long-term value.

Fil Zjazel Villegas
Role: Data Engineer, Documentation Specialist
Expertise and Skills: Fil Zjazel Villegas is a highly skilled Software Engineer with a robust background in software development, automation, and data integration, making her an ideal candidate for NCTCOG's AI consultancy needs. With a Bachelor of Science in Computer Science, Fil brings a strong technical foundation and over several years of experience in creating innovative solutions that streamline operations and enhance decision-making. Her expertise in automation, data transformation, and dashboard creation directly aligns with the goals of NCTCOG, especially in the areas of process assessment, AI strategy development, and AI solution design.

At BI Consulting Services (BICS), Fil has excelled in developing tools and solutions that optimize business operations. She has designed report automation tools, KPI scorecard dashboards, and Robotic Process Automation (RPA) bots, utilizing cutting-edge technologies such as .NET, Python, and Google Cloud Platform (GCP). These solutions have significantly improved operational efficiency and decision-making, showcasing her ability to create automated systems that drive business outcomes..

Fil's technical expertise and experience will be pivotal in helping NCTCOG assess existing processes and identify opportunities for AI integration, particularly in areas such as citizen engagement, infrastructure maintenance, and public safety. Her background in designing and automating data flows, building robust data pipelines, and creating high-performance dashboards positions her well to contribute to NCTCOG's AI solution design. She has a proven track record of using her software engineering skills to deliver complex data integration projects,

which will be essential in supporting NCTCOG's AI implementations that require high-quality data and advanced analytics.

Fil's previous experience as a Software Engineering Analyst at Cardinal Health International Philippines further demonstrates her ability to translate business needs into efficient and scalable automation projects. She has successfully developed automated dashboards, scorecards, and reports that resulted in significant cost savings and improved operational efficiency for her previous employer, directly supporting the goals of NCTCOG to streamline decision-making and service delivery.

Her proficiency in programming languages such as C#, VB.NET, Python, and VBA ensures that she has the technical agility to develop and implement AI tools tailored to NCTCOG's needs. Additionally, her experience with cloud-based platforms like Google Cloud Platform will be crucial in ensuring that the AI solutions designed for NCTCOG are scalable, secure, and compliant with regulatory requirements.

Fil Zjazel Villegas's expertise in software development, automation, and data integration, combined with her experience in delivering high-impact solutions, positions her as an invaluable asset for NCTCOG's AI consultancy project. Her ability to design and implement data solutions that enhance operational efficiency and drive actionable insights will play a critical role in achieving the objectives of NCTCOG's AI strategy and ensuring the success of your long-term AI roadmap.

References

Reference #1	
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Project-Related Experience and Qualifications

BI Consulting Services, LLC (BICS) is a premier technology consulting firm headquartered in Mooresville, North Carolina. Since our founding in 2017 by Nichole McKinney, BICS has been dedicated to delivering impactful, innovative, and tailored technology solutions to a diverse range of clients. With over a decade of experience and a talented team of 25 full-time professionals, we are uniquely positioned to support the North Central Texas Council of Governments (NCTCOG) in its mission to harness the power of Artificial Intelligence (AI) for

transformative regional solutions. Our structured methodologies, expertise in advanced analytics, and proven success in delivering high-value technology services make us an ideal partner for NCTCOG's AI consultancy needs.

We have demonstrated significant financial stability, with over 200% year-over-year growth, and we are a Microsoft Partner. As a trusted technology partner, we handle between 4 and 8 new contracts monthly and maintain a strong client retention rate, underscoring our commitment to client satisfaction. Our active presence on platforms like YouTube, with over 863,141 video views, reflects our thought leadership and dedication to sharing knowledge within the technology and analytics field.

Our extensive portfolio of services includes data-driven AI development, strategic consulting, and technology integration designed to solve complex organizational challenges. These capabilities, combined with our innovative approach, will enable NCTCOG to implement cutting-edge AI solutions that enhance decision-making, optimize operations, and drive regional progress.

We have had the privilege of working with notable clients such as Mars Confectionery (makers of M&M and Twix), Sandvik, Sodexo, Kennedy Wilson, JFCS, and various other organizations, showcasing our adaptability and expertise in managing complex projects. We are enthusiastic about the opportunity to apply our skills to support NCTCOG by providing AI Consultancy services.

Our experience with diverse clients underscores our capability to deliver the high-quality services detailed in the RFP. We look forward to collaborating with NCTCOG on this transformative project.

- Duke Energy Corporation
- Whitewater Center
- S&N Investment
- EEWP
- Xperi TIVO
- Kennedy Wilson
- Greater Louisville YMCA
- Goodwin Living
- Gartner
- North Carolina State University
- Athena Consulting Group
- Terencenet

- VA government-Veteran Affairs
- Winston Salem State University
- Association of Monterey Bay Area Governments (AMBAG)
- Malman Law
- Hayes Commercial Consulting
- Step Ahead ABA
- Terumo Medical Corporation
- EntryPoint
- Shepard Law
- Hermanson

To showcase the exceptional service we provide, we've put together a brief video featuring our clients' testimonials. Hear firsthand what they have to say about their experience with us! Check it out on YouTube by clicking [here](#).

In the following subsections, we provide experience and qualifications related to the project through similar project examples.

BICS

AI Implementation for PharmaLogic (RadioPharmacy)

Overview

The project leveraged Artificial Intelligence (AI) to automate and optimize PharmaLogic's document management and accounting workflows. It focused on developing advanced automation models to extract data from PDF documents, integrate that data into their accounting system, and streamline the invoicing process. The solution aimed to enhance operational efficiency, minimize errors, and significantly reduce manual workloads for the pharmacy and accounting teams.

About PharmaLogic

PharmaLogic, also known as RadioPharmacy, is a leading Contract Development and Manufacturing Organization (CDMO) specializing in nuclear medicine and radiopharmaceutical production. With a team of over 1,000 professionals and an extensive network of radiopharmacies, PharmaLogic delivers transformative diagnostic and therapeutic agents across North America. Its commitment to Trusted Quality Care and customer-centric solutions has positioned PharmaLogic as a key innovator in the nuclear medicine and theranostics market.

Key Deliverables

1. Automated Data Extraction and Accounting System Integration

PharmaLogic processes hundreds of records monthly, requiring precise and efficient data entry into their accounting system. To meet this need:

- **AI Models for Document Processing:**
  - Developed machine learning models to accurately extract structured data such as invoice numbers, dates, amounts, and vendor details from various PDF formats.
  - Employed advanced Natural Language Processing (NLP) techniques to handle different document layouts and ensure consistent data extraction.
- **Seamless System Integration:**
  - Designed an automated workflow to transfer extracted data into the accounting system while ensuring compliance and compatibility.
  - Implemented validation rules to flag discrepancies and alert users for manual review when necessary.
- **Streamlined Data Management:**
  - Reduced manual data entry by 85%, minimizing user errors and improving record accuracy.
  - Enabled real-time updates and audit trails to ensure traceability and regulatory compliance.

BICS

Outcome: This solution saved hundreds of hours monthly by automating repetitive tasks and ensuring reliable, error-free data management.

2. AI-Powered Automated Invoice Distribution

To optimize PharmaLogic's invoicing process, we developed an AI-powered system that automated the generation and distribution of invoices:

- **Data Extraction and Matching:**
  - AI models parsed PDF invoices to extract details such as customer numbers, invoice amounts, due dates, and vendor contact information.
  - Integrated extracted data with a SharePoint-based customer management system to ensure accurate invoice targeting.
- **Automated Delivery and Error Checking:**
  - Built workflows to generate and send invoices via email automatically.
  - Integrated error-checking mechanisms to validate data before sending and notify stakeholders of any issues.

Outcome: This solution reduced invoice processing time by 70%, eliminated manual errors, and ensured timely, accurate delivery.

3. Training and Documentation

To ensure a smooth transition to the new AI-powered workflows:

- **Comprehensive Training:**
  - Conducted workshops and hands-on sessions for pharmacists and accounting staff to familiarize them with the new systems.
  - Focused on troubleshooting and understanding the AI models' operation.
- **Detailed Documentation:**
  - Delivered user manuals and process guides with step-by-step instructions for using the automated workflows.
  - Provided technical documentation for IT teams to manage and maintain the systems.

Outcome: Staff quickly adapted to the new processes, reducing reliance on external support and ensuring long-term sustainability.

Key Achievements

- Processed and integrated data for hundreds of records monthly with high accuracy.
- Automated invoicing, saving significant time and resources.
- Enhanced operational efficiency across pharmacy and accounting functions.
- Delivered robust, scalable AI models for continued use and future expansion.
- Provided thorough training and documentation for seamless system adoption.

Conclusion

This project highlights the transformative impact of AI in automating complex, error-prone processes. By integrating AI-powered solutions, PharmaLogic achieved a streamlined, efficient workflow that reduced manual labor and enhanced accuracy, allowing the team to focus on higher-value tasks. This implementation serves as a scalable framework for future automation initiatives.

Comprehensive Maintenance and Ticketing System for S&N Investment Properties

Overview

We developed and implemented a robust maintenance and ticketing system for S&N Investment Properties, designed to streamline tenant interactions and optimize operational workflows. The solution empowers tenants to submit maintenance requests, complete check-in and check-out checklists, and communicate with maintenance technicians via a texting interface. It also leverages AI-driven responses, advanced reporting capabilities, and deep integrations with the company's website and other platforms to provide a unified property management solution.

Key Components

1. Tenant Portal

The tenant portal serves as the central hub for tenant interactions, offering:

- Tenants can submit detailed requests, upload photos or documents, and track real-time status updates.
- Digital checklists ensure transparency during move-in and move-out processes.
- Automated notifications inform tenants and property management staff upon task completion.

2. Texting Interface

A user-friendly texting interface was integrated to enhance communication efficiency:

- Tenants can communicate directly with maintenance staff via SMS for scheduling and updates.
- Technicians can provide live task progress updates to tenants.
- The system recommends optimal time slots for maintenance tasks based on technician availability and tenant preferences.

3. AI-Driven Assistance

The system incorporates AI to provide intelligent support for tenants and staff:

- AI models respond to tenant inquiries with contextually accurate and relevant information, reducing wait times.

- Messages are visible to both tenants and technicians, ensuring clarity and minimizing miscommunication.
- The AI improves its responses over time based on feedback, enhancing accuracy and reliability.

4. Management Oversight

Property management staff benefit from tools designed for operational control:
- Notifications keep staff informed of all communications, enabling prompt interventions when necessary.
- Managers can oversee ongoing tasks, reassign work, and track resolution times to ensure operational efficiency.

5. Comprehensive Reporting and Insights

Advanced reporting features empower data-driven decision-making:

- Generates detailed financial reports, including net profit analysis for individual properties.
- Identifies tenants with frequent maintenance requests, aiding targeted resource allocation.
- Tracks task durations, completion rates, and technician performance for operational optimization.

6. Seamless Integrations

The system ensures smooth functionality across platforms through deep integrations:
- Tenants can access the portal directly from the company's main website, enhancing accessibility.
- Enables end-to-end workflows for property management and maintenance teams, fostering collaboration and efficiency.

Outcomes

The implemented system has the following:
- Enhanced tenant satisfaction by streamlining communication and expediting responses.
- Reduced the manual workload for property management and maintenance teams.
- Provided actionable insights to improve decision-making and resource allocation.
- Delivered a scalable, unified platform to manage tenant interactions and operational workflows efficiently.

Conclusion

The maintenance and ticketing system for S&N Investment Properties represents a transformative step forward in modern property management. Combining AI-driven insights, seamless integrations, and advanced technology, the solution exceeds operational demands while elevating the tenant experience.

Advanced AI and Data Strategy Initiatives at Duke Energy

Overview

During my tenure at Duke Energy as a full-time employee, I played a pivotal role in advancing AI and analytics initiatives within the Customer Delivery Data Strategy Organization, under the leadership of Nichole McKinney. Nichole guided the organization's efforts to harness AI for operational excellence and safety enhancements. Alongside Brandon Atkins, a highly skilled Product Owner, I contributed to projects that revolutionized data utilization and system health monitoring across Duke Energy's operations.

Team Leaders

Nichole McKinney

As the Strategy Leader for Customer Delivery Data Strategy at Duke Energy, Nichole was instrumental in identifying high-impact initiatives, navigating approval processes with the Data Strategy Board, and allocating resources effectively. Her strategic oversight ensured projects aligned with corporate objectives and delivered measurable outcomes.

Brandon Atkins

Brandon served as a Product Owner, overseeing the execution of AI and data strategy projects. His expertise in product management and delivery drove successful implementations that significantly improved operational performance and efficiency.

Key Projects

1. AI-Driven Safety Monitoring Using Cameras

Vehicle-Based Camera Systems:

- Deployed cameras on fleet vehicles to capture images of safety-related concerns, such as damaged infrastructure, hazardous conditions, and encroaching vegetation.
- Developed AI models to analyze captured images, identifying potential safety risks with high accuracy.
- Incorporated a feedback loop to continuously improve model performance through tagged data from users.

Drone-Based Camera Systems:

- Expanded the project to include drone imagery, enabling broader area coverage and enhanced detection accuracy.
- Integrated drone data with AI models to proactively identify risks not visible from ground-level perspectives.

BICS

Outcome: Improved safety monitoring processes by reducing manual inspection efforts and increasing the precision of risk detection.

2. System Health and Performance Analysis

Data Modeling and Gap Analysis:

- Analyzed system performance data to evaluate operational health and reliability.
- Identified and addressed data gaps using AI-driven imputation techniques.
- Enhanced dataset quality through cleaning and enrichment processes, enabling more accurate insights.

Predictive Maintenance:

- Used AI insights to recommend maintenance actions and prioritize resources.
- Reduced system downtime and improved reliability through data-driven decision-making.

Outcome: Delivered actionable recommendations that enhanced operational efficiency and system reliability.

3. Robust Data Strategy and Intake Process

Strategic Framework Development:

- Designed a scalable data strategy framework to align team efforts with corporate objectives.
- Implemented a structured intake process for evaluating project proposals, streamlining approvals through the Data Strategy Board.

Funding and Resource Allocation:

- Supported funding initiatives with detailed project plans and ROI analyses.
- Secured resources for high-priority projects, ensuring their successful execution.

Outcome: Fostered cross-functional collaboration, optimized resource utilization, and maintained alignment with strategic goals.

Key Achievements

- Introduced AI-driven safety solutions that significantly enhanced hazard detection and risk mitigation.
- Improved data quality and system reliability through advanced analytics and gap resolution techniques.
- Established a comprehensive data strategy framework and intake process to ensure consistent project success and alignment with organizational goals.

- Collaborated with leaders like Nichole McKinney and Brandon Atkins to deliver transformative results for Duke Energy's operations.

Conclusion

The AI and data strategy initiatives at Duke Energy underscore the transformative power of advanced analytics in enhancing safety, reliability, and operational efficiency. These projects not only addressed immediate challenges but also laid a foundation for sustained innovation. Through the leadership of Nichole McKinney, the expertise of Brandon Atkins, and the collaborative efforts of the broader team, we delivered solutions that set new industry standards and positioned Duke Energy for continued success in the energy sector.

Athena Consulting

Description of Work

Our collaboration with Athena Consulting showcases our expertise in designing and implementing cutting-edge technology solutions tailored to meet the needs of dynamic operational environments. This project centered around creating innovative systems that leverage automation, real-time analytics, and intuitive interfaces to optimize decision-making, streamline operations, and deliver tangible results. By addressing Athena Consulting's unique challenges, we enabled them to elevate their service delivery and maintain a competitive edge in their field.

Airport Analytics Interface

As part of this engagement, we developed a comprehensive airport analytics platform that revolutionized the way operational data is captured, processed, and utilized. By integrating advanced AI-powered tools, the platform used image recognition to count passengers and luggage in real time, feeding data into machine learning models that improved accuracy and performance over time. This iterative AI training allowed the system to become smarter and more reliable with every data cycle.

The platform also included visually compelling heat maps and interactive reports that provided stakeholders with clear insights into passenger flow, bottlenecks, and other operational metrics. Additionally, we automated the onboarding process for hundreds of devices, such as cameras, using Python scripting and intuitive user interfaces. This ensured quick deployment and reduced the time required for manual setup, allowing Athena Consulting to scale their operations seamlessly.

Gate Management Optimization

Efficient gate allocation is critical to the smooth functioning of airport operations. To address this, we developed a hypothesis-driven gate management tool that utilized real-time data and predictive analytics to optimize gate assignments. This tool allowed teams to simulate various gate allocation scenarios, evaluate their impact, and select the most effective strategies to minimize delays and maximize throughput.

Key features included real-time visualizations, such as Gantt charts, and statistical comparison tools, enabling decision-makers to assess and implement solutions dynamically. By automating this traditionally manual process, we empowered airport staff to respond quickly to changing flight schedules and resource demands. The result was a more streamlined workflow, improved gate utilization, and enhanced passenger satisfaction.

Operational Enhancements and Real-Time Applications

Recognizing the need for agility in operations, we developed user-friendly applications that enabled airport staff to update and manage real-time flight and operational data. These tools were designed with accessibility in mind, ensuring that non-technical users could make critical updates without requiring advanced technical expertise.

For example, our Manual Data Update Application allowed staff to quickly address unexpected disruptions, such as weather delays or schedule changes, ensuring that the information provided to passengers and stakeholders remained accurate and up-to-date. This flexibility reduced operational delays and enhanced the overall reliability of the airport's data ecosystem.

Project Management and Automation

A major component of our work involved automating processes to minimize manual effort and improve system reliability. We implemented robust Continuous Integration and Continuous Deployment (CI/CD) pipelines to streamline the rollout of updates and new features. This approach not only reduced downtime but also ensured that all components of the system were consistently aligned with operational goals.

Our project management approach emphasized collaboration and transparency, with regular checkpoints to ensure alignment with Athena Consulting's objectives. By combining technical expertise with a structured methodology, we delivered a solution that was both high-performing and future-ready.

Results Achieved

The solutions implemented for Athena Consulting had a significant and measurable impact:

- Enhanced Efficiency: Automation reduced manual tasks, freeing up resources to focus on strategic priorities.
- Improved Decision-Making: Real-time analytics and predictive tools provided actionable insights, enabling faster and more informed decisions.
- Scalability: The modular architecture of the platform allowed for seamless integration of additional tools, ensuring the solution could grow alongside operational needs.
- Passenger Experience: Accurate, real-time updates and user-centric applications improved communication and minimized travel disruptions.
- Operational Resilience: The ability to quickly adapt to changing conditions, such as flight delays or increased passenger volume, ensured continuity and reliability.

Airport-Wide Applications and Ecosystem

In addition to specific tools, we created an ecosystem of interconnected applications and systems, all housed within Athena Consulting's Azure tenant. This centralized infrastructure

provided the airport with full control over its data and operations, eliminating reliance on third-party vendors and reducing long-term costs.

For passengers, the Arrivals and Departures Widget and Parking Widget became indispensable tools, providing real-time flight information and parking availability with seamless updates every 15 minutes. For airport staff, the tools provided the ability to manage data and updates effortlessly, ensuring operational consistency and accuracy.

Spot Allocation Hypothesis Tool

We also delivered a groundbreaking Spot Allocation Hypothesis Tool to optimize gate and spot allocation for arriving and departing flights. By combining advanced data visualization, real-time scheduling, and predictive modeling, this tool addressed one of the airport's most complex challenges: ensuring efficient resource utilization.

Through features like simulation testing, statistical analysis, and interactive dashboards, the tool enabled teams to make data-driven decisions that reduced delays and improved overall efficiency. This innovation provided long-term value by aligning operational decisions with strategic objectives.

Benefits of the System

- Autonomy and Flexibility: By housing the platform within its Azure infrastructure, Athena Consulting maintained full control over its operations, allowing for quick updates and customizations without reliance on external vendors.
- Real-Time Insights: Frequent data refresh intervals ensured that both staff and passengers received timely, accurate information, improving operational responsiveness.
- User-Friendly Interfaces: Intuitive application designs allowed non-technical users to perform updates and manage workflows with ease, reducing errors and boosting productivity.
- Scalability: The modular design of the platform allowed for seamless expansion and integration, ensuring the system could adapt to evolving needs.
- Enhanced Collaboration: A centralized system encouraged collaboration across departments, breaking down silos and fostering innovation.

Conclusion

This project demonstrated our ability to address complex operational challenges with innovative and scalable solutions. By leveraging advanced analytics, automation, and user-focused design, we delivered a platform that not only met immediate needs but also positioned Athena Consulting for long-term success. The systems we implemented improved operational efficiency, enhanced decision-making capabilities, and elevated the passenger experience, showcasing the transformative impact of technology when strategically applied.

Technical Proposal

Discovery & Needs Assessment

The Discovery & Needs Assessment phase is the foundation of the AI implementation strategy, where we begin to understand the specific challenges, needs, and objectives of NCTCOG. This stage is critical to ensuring that any AI solutions we propose are aligned with NCTCOG's goals and capabilities, setting the stage for a successful and impactful deployment. Our approach in this phase involves a combination of stakeholder engagement, technology evaluation, and gap analysis to ensure that the AI solutions we recommend are both practical and transformative for the organization.

Stakeholder Engagement and Interviews

To start, we will initiate direct engagement with key stakeholders across various departments and functions within NCTCOG. This will include discussions with leadership, program managers, IT staff, and end-users who interact with the systems that AI could potentially enhance. These interviews are not only to capture the strategic objectives of the organization but also to uncover the operational pain points and inefficiencies that AI could address.

During these interviews, we will delve into several core areas:

- The current challenges and bottlenecks experienced by different departments
- The primary goals NCTCOG has for adopting AI, whether that's improving decision-making, enhancing service delivery, or streamlining internal processes
- Expectations about the outcomes AI should deliver, such as cost savings, increased operational efficiency, or predictive insights
- Organizational readiness for AI adoption, including cultural factors and change management considerations
- The existing technologies and systems in place and how they could potentially integrate with AI solutions

The insights from these conversations will shape our understanding of the organization's needs and will guide the AI solutions we propose.

Current System and Data Review

Next, we will conduct a thorough review of NCTCOG's existing technology infrastructure and data systems. This involves analyzing the tools and platforms currently in use across the organization, from project management software to GIS systems and other critical applications. We will evaluate the availability and quality of data across various departments to determine whether it is structured, clean, and ready for integration into AI models.

Key areas of focus during this review will include:

- The current state of data availability, quality, and accessibility. We will assess whether NCTCOG's data is siloed or centralized and whether there are gaps or inconsistencies that might affect the performance of AI models.
- Existing software platforms and systems that could be leveraged for AI implementation. This includes understanding the compatibility of current tools with AI technologies and identifying opportunities for seamless integration.

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- The organization's technology stack, including hardware, cloud infrastructure, and software solutions, and evaluating whether it is suitable for scaling AI solutions.

- Data governance practices, security policies, and privacy regulations, ensuring that any AI implementation aligns with NCTCOG's compliance and security requirements.

This review will not only help us understand the readiness of NCTCOG's current systems but will also reveal where improvements or additional investments are necessary.

Needs and Capability Assessment

At the same time, we will assess NCTCOG's internal capabilities to implement and sustain AI solutions. This assessment involves understanding the organization's current level of expertise in AI and data science, as well as the resources available to support ongoing AI initiatives. We will focus on several areas:

- AI Readiness: This includes assessing the organizational culture's openness to adopting AI and its alignment with NCTCOG's strategic vision. It also involves gauging the internal appetite for change and innovation, which is critical for AI success.

- Skills and Training Needs: We will evaluate the existing skill sets within the organization and identify areas where further training or hiring may be needed. For instance, does NCTCOG have the necessary data science expertise in-house, or will there be a need for external training to develop these capabilities?

- Resource Availability: This includes evaluating the infrastructure, both in terms of human resources and technological investments, needed to implement and maintain AI models. We will assess whether NCTCOG has the staff, budget, and tools required for AI development, testing, deployment, and long-term sustainability.

By evaluating these factors, we will identify both strengths and gaps in NCTCOG's AI readiness and provide recommendations for addressing them.

AI Use Case Identification and Prioritization

Based on the feedback gathered from stakeholders and the insights from our system and capability review, we will work with NCTCOG to identify potential AI use cases that could deliver the most value. These use cases may span a range of areas, such as:

- Predictive Analytics: For example, AI could help NCTCOG anticipate transportation trends, population growth, or environmental changes, enabling better planning and resource allocation.

- Process Automation: AI could streamline manual tasks such as data entry, document processing, or scheduling, freeing up staff time for higher-value activities.

- Natural Language Processing (NLP): AI-driven chatbots or voice assistants could improve customer service and public engagement, automating responses to common queries or requests for information.

- Decision Support: AI-powered tools could assist decision-makers by analyzing complex datasets and providing actionable insights to guide strategic initiatives.

Once these use cases are identified, we will prioritize them in collaboration with NCTCOG. Factors such as impact, feasibility, resource requirements, and alignment with NCTCOG's broader mission will help us determine which AI initiatives should be pursued first. By focusing on high-value and high-impact use cases, we ensure that the AI deployment delivers tangible results in the shortest time possible.

Gap Analysis and Risk Assessment

In parallel with the identification of AI use cases, we will conduct a detailed gap analysis to assess any gaps in NCTCOG's current capabilities that could hinder the successful implementation of AI. This analysis will focus on several areas:

- Data Gaps: We will identify if there are missing or incomplete datasets that are necessary for AI models. For instance, if predictive analytics requires time-series data or demographic information, we will evaluate whether this data is available and of sufficient quality.

- Technological Gaps: We will assess NCTCOG's technology stack to ensure that it is capable of supporting the development and deployment of AI solutions. If additional infrastructure is needed, such as cloud storage or processing power, we will highlight these requirements.

- Skills Gaps: We will evaluate the expertise of NCTCOG's staff to ensure that they have the necessary capabilities in AI, data science, and machine learning to support implementation. We will also identify any training needs to fill these gaps.

- Risk Identification: We will conduct a risk assessment to identify any potential challenges or barriers to successful AI adoption, such as data privacy concerns, regulatory compliance issues, or organizational resistance to change. We will outline strategies to mitigate these risks and ensure smooth implementation.

Outcomes of the Discovery & Needs Assessment Phase:

By the end of this phase, NCTCOG will have a clear understanding of:

- The AI opportunities available to improve operations, service delivery, and decision-making.
- The current state of readiness for AI adoption, including potential gaps in technology, data, and skills.
- A prioritized list of AI use cases that can deliver measurable impact aligned with organizational goals.
- A roadmap for addressing the identified gaps and overcoming barriers to successful AI implementation.

AI Strategy Development

The AI Strategy Development phase is designed to translate the insights gathered during the Discovery & Needs Assessment into a comprehensive and actionable AI strategy. This strategy will guide NCTCOG in leveraging AI technologies to meet its organizational objectives, enhance decision-making, and drive innovation. Our goal is to create a clear roadmap that aligns AI initiatives with the agency's mission, prioritizes high-impact solutions, and ensures successful implementation.

Aligning AI with Organizational Objectives

The first step in developing a successful AI strategy is ensuring alignment with NCTCOG's overall mission and objectives. We will work closely with NCTCOG's leadership and stakeholders to understand their strategic goals, particularly in areas such as regional planning, transportation, and sustainability. By reviewing these goals, we will ensure that the AI initiatives we propose will address critical challenges and support long-term vision.

Once we have a clear understanding of NCTCOG's objectives, we will prioritize AI use cases based on their potential to create value. This prioritization will take into account the feasibility of implementation, expected outcomes, and the resources available. A key component of this phase is establishing clear Key Performance Indicators (KPIs) that will measure the success of each AI initiative, allowing us to track progress and adjust strategies as needed.

Technology Selection and Integration Planning

Following the alignment with organizational goals, we will evaluate and select the most appropriate AI technologies. This step involves understanding NCTCOG's existing technology infrastructure, data capabilities, and systems, such as Geographic Information Systems (GIS) and other tools currently in use.

We will assess various AI platforms and solutions to determine which ones best meet NCTCOG's needs, ensuring they integrate seamlessly with existing systems. Additionally, we will evaluate whether a cloud-based or on-premise solution is more suitable, taking into consideration factors such as scalability, security, and cost-effectiveness. This careful selection process ensures that the technologies chosen will not only address current needs but also scale as NCTCOG's requirements evolve.

Roadmap for Implementation

With selected use cases and technologies, we will create a detailed AI implementation roadmap. This roadmap will serve as the blueprint for executing the AI strategy, outlining the necessary steps and timeline for each phase of the project. Key elements of the roadmap will include project milestones, expected deliverables, and timelines for each stage.

Resource allocation is another critical aspect of the roadmap. We will identify the necessary human, technological, and financial resources to implement the AI strategy successfully. This includes identifying key staff members, data scientists, and AI specialists required to carry out the project, as well as estimating costs for technology procurement, training, and infrastructure.

Additionally, we will address change management in the roadmap. This means developing a plan to train staff, introduce new technologies, and ensure smooth transitions throughout the

implementation process. We will also include a risk management strategy to identify potential roadblocks and mitigate them proactively.

Establishing Governance and Ethical Guidelines

To ensure the responsible and effective use of AI, we will establish a governance framework that includes ethical considerations and data governance policies. This will ensure that the AI solutions are transparent, fair, and accountable, with clear guidelines for their use and oversight.

Data governance will be a cornerstone of this framework, ensuring that data used in AI applications is accurate, secure, and compliant with relevant regulations. We will also establish a process for ongoing monitoring and optimization of AI models, ensuring that they continue to provide value and improve over time.

Deliverables

The deliverables for the AI Strategy Development phase will include:

- A comprehensive document outlining the AI strategy, key use cases, selected technologies, implementation roadmap, and governance framework.
- A visual presentation to communicate the strategy to stakeholders, detailing the timeline, resource allocation, budget estimates, and governance approach.

3. AI Model Development & Customization

The AI Model Development & Customization phase is where we begin to transform the strategic vision from the previous phase into tangible AI solutions. This phase involves designing, developing, and refining AI models tailored specifically to NCTCOG's needs. By leveraging the data and insights gathered during the Discovery & Needs Assessment and AI Strategy Development phases, we will ensure that the AI models are not only technically sound but also highly aligned with the organization's goals.

Defining Model Requirements and Customization

To create the right AI models, we first need to define the specific requirements for each model. This involves working closely with NCTCOG's stakeholders to understand the unique data challenges, business processes, and objectives that the AI models will address. For example, for transportation planning, we might develop predictive models that can forecast traffic patterns, while for regional planning, we could create models to predict population growth and environmental changes.

Once we understand these requirements, we will focus on customizing the AI models to meet the precise needs of NCTCOG. This includes selecting the right machine learning algorithms, frameworks, and techniques. Whether we are developing supervised learning models, unsupervised learning models, or deep learning networks, the key is to tailor these solutions for maximum impact and usability.

Data Collection and Preparation

Successful AI model development relies on high-quality data, and this is where NCTCOG's existing datasets will play a crucial role. During this stage, we will begin the process of gathering and cleaning relevant data from internal and external sources. This includes data on transportation, regional development, environmental factors, and more.

The data preparation process involves ensuring that the data is clean, complete, and formatted correctly for use in AI modeling. This step may include data normalization, handling missing values, and feature engineering. Given the complexity of the datasets, special attention will be paid to ensuring that the data is representative, accurate, and aligned with the needs of the AI models.

Model Development and Iterative Testing

With data in hand, we will begin developing the AI models. This stage will involve selecting the appropriate algorithms based on the specific use cases. We will utilize various techniques such as regression analysis, classification models, time-series forecasting, or reinforcement learning, depending on the problem at hand.

Our development approach will be iterative, ensuring that the models are refined and improved over time based on feedback and performance metrics. We will initially build prototypes and run them through test cases to assess their accuracy and performance. If any issues or gaps are identified, we will fine-tune the models, retrain them with new data, and continuously test them until the desired outcomes are achieved.

Collaboration with NCTCOG's teams will be critical during this stage to ensure that the models are not only accurate but also practical and usable. We will ensure that the models' outputs are presented in a user-friendly format, with clear insights and actionable recommendations.

Customization and Integration with Existing Systems

A key aspect of model development is the integration of AI models into NCTCOG's existing systems. We will ensure that the models we develop can be seamlessly incorporated into NCTCOG's operational workflows and digital platforms. This integration could involve embedding the AI models into dashboards, GIS systems, or other software tools that NCTCOG uses for planning and decision-making.

Customizing the models also includes ensuring that the models are scalable and flexible, capable of handling future changes in data or additional use cases. We will provide NCTCOG with a robust framework for scaling the models as the organization's needs evolve and new data becomes available.

Training and User Enablement

Once the models are developed and integrated, we will conduct training sessions for NCTCOG staff to ensure they are equipped to use the new tools effectively. These training sessions will be

tailored to different user groups within NCTCOG, from technical staff who will maintain the models to decision-makers who will use the insights generated by the models.

In addition to training, we will provide user manuals, documentation, and ongoing support to ensure a smooth transition and encourage the adoption of AI tools throughout the organization. We will also provide NCTCOG with the knowledge and best practices necessary to maintain, refine, and expand the AI models in the future.

Deliverables

The key deliverables for the AI Model Development & Customization phase will include:

- Tailored AI models developed for specific use cases, ready for deployment and integration.
- Detailed documentation on model accuracy, performance metrics, and improvements made during the iterative development process.
- A comprehensive plan outlining how the AI models will be integrated into NCTCOG's existing systems and workflows.
- Customized training sessions for NCTCOG staff, including user manuals and documentation to ensure smooth adoption.

4. AI Implementation & Integration

The AI Implementation & Integration phase marks the transition from development to real-world application, ensuring that the AI models we've built are deployed effectively within NCTCOG's existing infrastructure. During this phase, the focus shifts to making the AI models functional, accessible, and seamlessly integrated into the organization's operational environment. This process involves collaboration with NCTCOG's technical teams, ensuring that the AI solutions not only work as intended but also align with the organization's broader goals and workflows.

Deployment Planning and Execution

Before implementing the AI models, we begin with a detailed deployment plan, which outlines the specific steps and timelines necessary for a successful rollout. This includes deciding whether the models will be deployed on-premises or in the cloud, and ensuring the infrastructure supports the operational demands of the AI system. Key considerations at this stage include data storage, computational power, and ensuring that the models can run efficiently in NCTCOG's operational environment.

Once the deployment plan is in place, we proceed with the execution. Our team works closely with NCTCOG's IT and data teams to deploy the models, ensuring that all necessary hardware, software, and network configurations are in place. Whether we are deploying the models on a cloud platform, on-premises, or through hybrid architectures, we ensure that the system is fully optimized for speed, reliability, and scalability.

System Integration and Workflow Alignment

A critical aspect of AI implementation is ensuring that the models integrate seamlessly into NCTCOG's existing workflows and systems. During this stage, we collaborate with NCTCOG's technical teams to integrate the AI models into the various systems the organization uses, such as Geographic Information Systems (GIS), decision support tools, and data management platforms.

This integration involves ensuring that the models can easily interface with databases, API services, and other software tools, providing users with actionable insights. We prioritize making the AI system user-friendly, ensuring that the models' outputs are accessible and easily interpretable by NCTCOG staff. This may involve the creation of dashboards, visualizations, and other tools to make the results of AI analysis actionable in day-to-day operations.

Furthermore, we ensure that the AI solutions work harmoniously with NCTCOG's data pipelines, allowing for smooth data transfer, processing, and analysis. The goal is to create a seamless flow of information between the AI system and the organization's other platforms, ensuring that the AI models are integrated as an integral part of NCTCOG's operations.

Testing and Validation

Before full-scale adoption, thorough testing and validation of the integrated AI models are essential to ensure they perform as expected in real-world scenarios. We conduct several rounds of testing, including functional testing, performance testing, and end-to-end validation. This step ensures that the models are delivering the correct outputs and that there are no issues related to data integration, computational load, or system compatibility.

During this phase, we also verify that the models meet the original requirements outlined in the AI Strategy Development phase. This includes assessing the accuracy of predictions, the usability of the interfaces, and ensuring that the system is capable of handling the expected data volume and user activity. Any issues identified during testing are addressed, and models are iteratively refined to ensure smooth operation.

Training and Knowledge Transfer

For successful AI adoption, it is essential that NCTCOG's team is fully equipped to use the new AI systems. We provide comprehensive training to all relevant stakeholders, ensuring that both technical staff and decision-makers understand how to interact with the AI models and use the generated insights effectively.

Training will include hands-on sessions with the AI tools, as well as the creation of documentation, user manuals, and troubleshooting guides. We also provide knowledge transfer to NCTCOG's internal teams so they can maintain, adjust, and update the models as needed. This ensures that NCTCOG's staff can fully utilize the AI systems over the long term, fostering self-sufficiency in managing and evolving the AI solutions.

Ongoing Support and Maintenance

Post-deployment support is critical for the continued success of AI integration. We offer ongoing maintenance and monitoring to ensure that the AI models continue to operate effectively and adapt to any changes in data, technology, or organizational requirements. Regular updates will be provided to improve model performance, address emerging needs, and refine the system based on user feedback.

Additionally, we will set up a system for monitoring the performance of the AI models in real-time. This includes tracking key performance indicators (KPIs), system health metrics, and user engagement. Through this monitoring, we can quickly identify and resolve any issues, ensuring that NCTCOG's AI solutions remain operational and continue to provide value.

Deliverables

The deliverables for the AI Implementation & Integration phase will include:

- A comprehensive roadmap outlining the steps and timelines for deploying the AI models into NCTCOG's systems.
- Fully deployed and integrated AI models, working seamlessly within NCTCOG's infrastructure and workflows.
- Detailed documentation of the testing and validation processes, including any issues identified and their resolutions.
- Customized training resources, including user manuals, video tutorials, and FAQs, to ensure NCTCOG's team is well-equipped to use the AI systems.
- A structured plan for providing post-deployment maintenance, monitoring, and troubleshooting.

5. Continuous Monitoring & Optimization

The Continuous Monitoring & Optimization phase focuses on ensuring that the deployed AI models continue to perform effectively and adapt to any changes in data, technology, or organizational requirements. Unlike the previous phases, which are primarily focused on development and implementation, this phase emphasizes the long-term performance and value of the AI system. The goal is to ensure that the AI models remain accurate, efficient, and aligned with NCTCOG's evolving objectives.

Performance Monitoring

Effective AI systems require ongoing oversight to ensure they are functioning at peak efficiency. In this phase, we will implement real-time monitoring systems to track the performance of the AI models. These systems will continuously assess key performance indicators (KPIs), such as the accuracy of model predictions, system uptime, and response times. Monitoring will also include tracking resource usage, such as CPU and memory consumption, to ensure that the models run smoothly without overburdening the organization's infrastructure.

The data collected from performance monitoring will be used to identify potential issues early, allowing for prompt intervention. This monitoring will provide transparency into how well the models are serving the organization's needs, highlighting areas for improvement or adjustment.

Model Calibration & Adjustment

Over time, as new data becomes available or organizational needs evolve, the AI models may require recalibration. We will establish a system for periodic model assessments and fine-tuning, ensuring that they continue to meet NCTCOG's requirements. This could involve updating training data, refining algorithms, or adjusting model parameters to optimize performance.

Our team will work closely with NCTCOG to determine the frequency and extent of model updates. Whether it's adjusting the models to accommodate new types of data or improving their efficiency, the goal is to ensure the AI systems stay relevant and continue to add value.

User Feedback Integration

In addition to automated performance tracking, we will gather feedback from users within NCTCOG who interact with the AI system on a regular basis. This feedback will help identify pain points, opportunities for improvement, and additional features that could enhance the system's functionality. Regular user engagement is critical to ensuring the AI models remain aligned with NCTCOG's operational goals and that users are able to maximize the benefits of the system.

We will facilitate a feedback loop, allowing users to report issues, suggest improvements, and provide insights into how the AI models are impacting their workflows. This feedback will be integrated into the optimization process to ensure the system continues to evolve in line with user needs.

Performance Reporting & Analytics

To keep stakeholders informed about the health of the AI system, we will generate regular performance reports. These reports will detail the models' accuracy, reliability, and overall performance metrics, providing NCTCOG with clear insights into how the system is contributing to its objectives.

The reports will include key findings from performance monitoring, as well as any actions taken to address issues or optimize the system. These reports can be used by NCTCOG's leadership to assess the impact of the AI system, make informed decisions about future AI projects, and allocate resources for continued optimization.

Scaling and Adaptation

As NCTCOG's needs grow, the AI system will need to scale to accommodate larger datasets, more complex models, or additional users. We will work with NCTCOG to identify opportunities for scaling the AI infrastructure, ensuring the system remains responsive as the volume of data or user engagement increases.

Scaling may also involve expanding the AI models' capabilities, such as incorporating additional features or extending the models to new areas of operation. Whether it's adding new data sources, enhancing analytical capabilities, or supporting new decision-making processes, we will ensure that the AI system evolves to meet the organization's changing requirements.

Long-Term Maintenance and Support

The Continuous Monitoring & Optimization phase includes long-term maintenance to ensure the AI models stay updated, secure, and in optimal working condition. We will provide ongoing technical support to address any issues that arise, from performance slowdowns to technical glitches. This support ensures that the AI system continues to deliver value to NCTCOG, even as technology and organizational needs evolve.

Deliverables

The deliverables for the Continuous Monitoring & Optimization phase will include:

- A real-time dashboard that tracks key performance metrics of the AI models, including system health and resource usage.
- Documentation detailing any changes made to the AI models, including recalibrations, algorithm improvements, and data updates.
- A summary of user feedback and the actions taken to incorporate suggestions or resolve issues.
- Regular reports summarizing the AI system's performance, including accuracy, reliability, and any optimization actions.
- A roadmap for scaling the AI system as NCTCOG's needs grow, including infrastructure adjustments and potential feature expansions.
- Documentation outlining the long-term maintenance, technical support, and troubleshooting services that will be provided to NCTCOG.

Pricing

Please refer to the pricing proposal attached herewith our proposal.

HUB Bonus

Please refer to our MBE certificate attached to this proposal.

Required Attachments

We have provided the filled-in versions of the following attachments and have included them with our proposal. Please refer to the following:

- Attachment I: Instructions for Proposals Compliance and Submittal
- Attachment II: Certification of Offeror
- Attachment III: Certification Regarding Debarment

- Attachment IV: Restrictions on Lobbying
- Attachment V: Drug-Free Workplace Certification
- Attachment VI: Certification Regarding Disclosure of Conflict of Interest
- Attachment VII: Certification of Fair Business Practices
- Attachment VIII: Certification of Good Standing Texas Corporate Franchise Tax Certification
- Attachment IX: Historically Underutilized Businesses
- Attachment X: Federal and State of Texas Required Procurement Provisions
- Exhibit 1: Service Designation Areas

<u>REQUIRED ATTACHMENT CHECKLIST</u>

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

[X] Page 1 - Cover Sheet

[X] Page 20 - Attachment I: Instructions for Proposals Compliance and Submittal

[X] Page 21 - Attachment II: Certification of Offeror

[X] Page 22 - Attachment III: Certification Regarding Debarment

[X] Page 23 - Attachment IV: Restrictions on Lobbying

[X] Page 25 - Attachment V: Drug-Free Workplace Certification

[X] Page 26 - Attachment VI: Certification Regarding Disclosure of Conflict of Interest

[X] Page 29 - Attachment VII: Certification of Fair Business Practices

[X] Page 30 - Attachment VIII: Certification of Good Standing Texas Corporate Franchise Tax Certification

[X] Page 31 - Attachment IX: Historically Underutilized Businesses

[X] Page 32 - Attachment X: Federal and State of Texas Required Procurement Provisions

[X] Page 35 - Exhibit 1: Service Designation Areas

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

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):
BI Consulting Services LLC

Signature of Authorized Representative:

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12/19/2025
Date:

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, Nichole McKinney   (typed or printed name) certify that I am the Founder/CEO   (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):

BI Consulting Services LLC

Signature of Authorized Representative:

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Date: 12/19/2024

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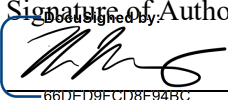
The undersigned certifies, to the best of his or her knowledge and belief, that both it and its principals:

1. 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;

3. 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,

4. 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):
BI Consulting Services LLC

Signature of Authorized Representative:

66DED9FCD8F94BC...

12/19/2024
Date:

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 include profits from any federal action), which would be prohibited if paid for with appropriated funds.

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 sub-awards at all tiers and that all sub-recipients shall certify accordingly.

Name of Organization/Contractor(s):
BI Consulting Services LLC

Signature of Authorized Representative:

66DED9FCD8F94BC...

12/19/2024
Date:

ATTACHMENT V: DRUG-FREE WORKPLACE CERTIFICATION

The BI Consulting Services LLC   (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
 BI Consulting Services LLC   (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):

 BI Consulting Services

Signature of Authorized Representative:

66DED9FCD8F94BC...

Date: 12/19/2024

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):
BI Consulting Services LLC

Signature of Authorized Representative:

66DED9FCD8F94BC...
12/19/2024

Date:

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):
BI Consulting Services LLC

Signature of Authorized Representative:
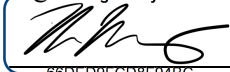
66DED9FCD8F94BC...

12/19/2024
Date:

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.

Type of Business (if not corporation):   ☐ Sole Proprietor
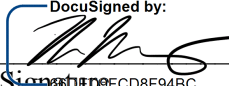
☐ Partnership

☒ Other

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.

Nichole McKinney, Founder/CEO
_____
(Printed/Typed Name and Title of Authorized Representative)

_____
Signature

Date: 12/19/2024

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

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

Vendor to Sign Below to Attest to Validity of Certification:

BI Consulting Services LLC

_____
Vendor Name

_____
Authorized Signature

Nichole McKinney   12/19/2024

_____   _____
Typed Name   Date

☐ **Not applicable.**

THIS CERTIFIES THAT

BI Consulting Services

NMSDC
National Minority Supplier
Development Council

* Nationally certified by the: **CAROLINAS-VIRGINIA MINORITY SUPPLIER DEVELOPMENT COUNCIL**

*NAICS Code(s): 541512

* Description of their product/services as defined by the North American Industry Classification System (NAICS)

02/05/2024

Issued Date

CA05767

Certificate Number

Ying McGuire
Ying McGuire
NMSDC CEO and President

02/28/2025

Expiration Date

Dominique Milton, President & CEO

By using your password (NMSDC issued only), authorized users may log into NMSDC Central to view the entire profile: http://nmsdc.org

Certify, Develop, Connect, Advocate.

* MBEs certified by an Affiliate of the National Minority Supplier Development Council, Inc.®

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.

[X] **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: _Nichole McKinney_ (66DED9FCD8F94BC...)

NAME OF AUTHORIZED PERSON: Nichole McKinney

NAME OF COMPANY: BI Consulting Services LLC

DATE: 12/19/24

-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: _____

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:
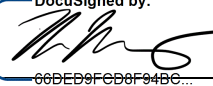
A) means, with respect to the entity or association, to:
  I. refuse to engage in the trade of any goods or services with the entity or association based solely on its status as a firearm entity or firearm trade association; and
  II. refrain from continuing an existing business relationship with the 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.

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

SIGNATURE OF AUTHORIZED PERSON:	DocuSigned by: *[signature]* 66DED9FCD8F94BC...
NAME OF AUTHORIZED PERSON:	Nichole McKinney
NAME OF COMPANY:	BI Consulting Services LLC
DATE:	12/19/24

-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:	

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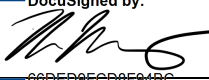
TLGC chapter Code chapter 809, Subtitle A, Title 8, identifies that "boycott energy company" means, without an ordinary business purpose, refusing to deal with, terminating business activities with, or otherwise taking any action that is intended to penalize, inflict economic harm on, or limit commercial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

  I.   engages in the exploration, production, utilization, transportation, sale, or manufacturing of fossil fuel-based 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: _____

NAME OF AUTHORIZED PERSON: Nichole McKinney

NAME OF COMPANY: BI Consulting Services LLC

DATE: 12/19/24

-OR-

☐ 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: _____

EXHIBIT 1: SERVICE DESIGNATION AREAS

<table>
<tr><td colspan="4" align="center">Texas Service Area Designation or Identification</td></tr>
<tr><td>Proposing Firm Name:</td><td colspan="3">BI Consulting Services</td></tr>
<tr><td>Notes:</td><td colspan="3">Indicate in the appropriate box whether you are proposing to service the entire state of Texas</td></tr>
<tr><td></td><td colspan="2">Will service the entire state of Texas</td><td>Will not service the entire state of Texas</td></tr>
<tr><td></td><td colspan="2" align="center">X</td><td align="center">☐</td></tr>
<tr><td></td><td colspan="3"></td></tr>
<tr><td></td><td colspan="3">If you are not proposing to service the entire state of Texas, designate on the form below the regions that you are proposing to provide goods and/or services to. By designating a region or regions, you are certifying that you are willing and able to provide the proposed goods and services.</td></tr>
<tr><td>Item</td><td align="center">Region</td><td>Metropolitan Statistical Areas</td><td>Designated Service Area</td></tr>
<tr><td>1.</td><td>North Central Texas</td><td>16 counties in the Dallas-Fort Worth Metropolitan area</td><td></td></tr>
<tr><td>2.</td><td>High Plains</td><td>Amarillo
Lubbock</td><td></td></tr>
<tr><td>3.</td><td>Northwest</td><td>Abilene
Wichita Falls</td><td></td></tr>
<tr><td>4.</td><td>Upper East</td><td>Longview
Texarkana, TX-AR Metro Area
Tyler</td><td></td></tr>
<tr><td>5.</td><td>Southeast</td><td>Beaumont-Port Arthur</td><td></td></tr>
<tr><td>6.</td><td>Gulf Coast</td><td>Houston-The Woodlands-Sugar Land</td><td></td></tr>
<tr><td>7.</td><td>Central Texas</td><td>College Station-Bryan
Killeen-Temple
Waco</td><td></td></tr>
<tr><td>8.</td><td>Capital Texas</td><td>Austin-Round Rock</td><td></td></tr>
<tr><td>9.</td><td>Alamo</td><td>San Antonio-New Braunfels
Victoria</td><td></td></tr>
<tr><td>10.</td><td>South Texas</td><td>Brownsville-Harlingen
Corpus Christi
Laredo
McAllen-Edinburg-Mission</td><td></td></tr>
<tr><td>11.</td><td>West Texas</td><td>Midland
Odessa
San Angelo</td><td></td></tr>
<tr><td>12.</td><td>Upper Rio Grande</td><td>El Paso</td><td></td></tr>
</table>

(Exhibit 1 continued on next page)

<div align="center">(Exhibit 1 continued)</div>

<table>
<tr><td colspan="4" align="center">Nationwide Service Area Designation or Identification Form</td></tr>
<tr><td>Proposing Firm Name:</td><td colspan="3">BI Consulting Services</td></tr>
<tr><td>Notes:</td><td colspan="3">Indicate in the appropriate box whether you are proposing to provide service to all Fifty (50) States.</td></tr>
<tr><td></td><td colspan="2">Will service all fifty (50) states</td><td>Will not service fifty (50) states</td></tr>
<tr><td></td><td colspan="2">X</td><td></td></tr>
<tr><td></td><td colspan="3">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.</td></tr>
<tr><td>Item</td><td>State</td><td>Region/MSA/City (write "ALL" if proposing to service entire state)</td><td>Designated as a Service Area</td></tr>
<tr><td>1.</td><td>Alabama</td><td></td><td></td></tr>
<tr><td>2.</td><td>Alaska</td><td></td><td></td></tr>
<tr><td>3.</td><td>Arizona</td><td></td><td></td></tr>
<tr><td>4.</td><td>Arkansas</td><td></td><td></td></tr>
<tr><td>5.</td><td>California</td><td></td><td></td></tr>
<tr><td>6.</td><td>Colorado</td><td></td><td></td></tr>
<tr><td>7.</td><td>Connecticut</td><td></td><td></td></tr>
<tr><td>8.</td><td>Delaware</td><td></td><td></td></tr>
<tr><td>9.</td><td>Florida</td><td></td><td></td></tr>
<tr><td>10.</td><td>Georgia</td><td></td><td></td></tr>
<tr><td>11.</td><td>Hawaii</td><td></td><td></td></tr>
<tr><td>12.</td><td>Idaho</td><td></td><td></td></tr>
<tr><td>13.</td><td>Illinois</td><td></td><td></td></tr>
<tr><td>14.</td><td>Indiana</td><td></td><td></td></tr>
<tr><td>15.</td><td>Iowa</td><td></td><td></td></tr>
<tr><td>16.</td><td>Kansas</td><td></td><td></td></tr>
<tr><td>17.</td><td>Kentucky</td><td></td><td></td></tr>
<tr><td>18.</td><td>Louisiana</td><td></td><td></td></tr>
<tr><td>19.</td><td>Maine</td><td></td><td></td></tr>
<tr><td>20.</td><td>Maryland</td><td></td><td></td></tr>
</table>

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

End of Exhibit 1