

ORDER OF COMMISSIONERS COURT  
Authorizing the expenditure of funds

The Commissioners Court of Harris County, Texas, convened at a meeting of said Court at the Harris County Administration Building in the City of Houston, Texas, on the \_\_\_\_ day of \_\_\_\_\_, 2024 with all members present except \_\_\_\_\_.

A quorum was present. Among other business, the following was transacted:

**ORDER AUTHORIZING THE EXPENDITURE OF FUNDS FOR CONSULTING  
SERVICES UNDER JOB NO. 21-0317 WITH ERNST & YOUNG LLP**

**THE AGREEMENT WITH ERNST & YOUNG LLP WAS APPROVED AT  
COMMISSIONERS COURT ON MARCH 22, 2022, ITEM 22-2097**

Commissioner \_\_\_\_\_ introduced an order and made a motion that the same be adopted. Commissioner \_\_\_\_\_ seconded the motion for adoption of the order. The motion, carrying with it the adoption of the order, prevailed by the following vote:

Vote of the Court	<u>Yes</u>	<u>No</u>	<u>Abstain</u>
Judge Hidalgo	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comm. Ellis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comm. Garcia	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comm. Ramsey, P.E.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comm. Briones	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The County Judge thereupon announced that the motion had duly and lawfully carried and that the order had been duly and lawfully adopted. The order thus adopted follows:

**IT IS ORDERED** the Harris County Judge is authorized to approve for and on behalf of Harris County the expenditure of \$500,000.00 in funds under Job No. 21-0317 for the Agreement between Harris County and Ernst & Young LLP. The expenditure will provide business and technology consulting services to assist Harris County Public Health with designing and developing a case management system (“Services”). The Request For Proposal: Proposal to Serve: Harris County Case Management and the Agreement are incorporated herein as though fully set forth word-for-word.

The Services provided under this Order will meet 13% MWBE participation through the use of MPACT Strategic Consulting LLC.

All Harris County officials and employees are authorized to do any and all things necessary or convenient to accomplish the purpose of this Order.



Proposal to serve

# Harris County

## Case Management

October 5, 2023



Building a better  
working world



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Information in these materials relating to our approach, methodologies or pricing is confidential and proprietary to Ernst & Young LLP and/or EY and may not be disclosed to third parties without our prior written consent.

Ernst & Young LLP (EY US or the Firm) is submitting this proposal. EY US is part of the global organization of member firms (collectively, EY) of Ernst & Young Global Limited, separate legal entities that perform professional services under the EY name worldwide.



Section I  
Transmittal letter



# 1. Company information

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Company name and address; name, title, email, telephone and fax number of person(s) to be contacted for clarifications or additional information regarding proposal;

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**Company Name:** Ernst and Young LLP (EY)

**Company Address:** 1401 McKinney Street, Suite 2400, Houston, TX 77010

**Bidder DUNS Number:** 05-836-8562

**Point of Contact for clarifications or additional information:**

Subhankar Sarkar  
Managing Director | Technology Consulting | Ernst & Young, LLP (EY)  
Subhankar.Sarkar2@ey.com  
Cell: +1 571 970 7719

# 2. Authorized representative

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Name, title, email, telephone and fax number of person authorized to contractually obligate vendor's company with proposal and any future negotiations;

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I am authorized to sign this Acknowledgement and agree to abide by all conditions of this RFP and that I have read and understand the documents in their entirety. I confirm the pricing provided to the County under this RFP and that all statements made are true, complete, and correct.

Project Job No.: 210317

Project Description: Case Management system for PHS



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Authorized Signatory

10/05/2023  
Date

Michelle M. Reed  
Partner/Principal | Ernst and Young, LLP (EY)  
Michelle.Reed@ey.com  
+1 713 750 5980



### 3. Executive summary

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In this section, we have outlined our response as follows:

- i. Our understanding of the Project
  - ii. Relevant Experience
  - iii. Verifiable References
  - iv. MWBE Partner highlight
  - v. Guide to reading this response vis-à-vis the evaluation criteria
- 

#### i. Our Understanding

Ernst & Young LLP (EY US) is pleased to respond to the Harris County Public Health Office's request for qualified vendors to provide business and technology consulting services. We understand that you are seeking a leading professional services firm that will assist the Public Health Office with designing and developing a case management system.

We believe the EY team is the best choice for Harris County because we offer:

- ▶ **Commitment to Harris County:** Our firm's presence in Harris County is reflected in our 100-year history in the State of Texas, with 1,800 EY professionals providing services to clients throughout the County. EY employees have a strong commitment to our Harris County community, supporting organizations such as the Greater Houston Partnership and United Way and serving the County in engagements similar to our Outcome Budgeting Project with the County Administrator.
- ▶ **Experience serving governments:** By selecting us, Harris County can draw on our extensive experience serving clients in the public sector as well as in the commercial space, including 36 of the 50 States in the Union, 19 Federal agencies, and 96% of Fortune 50 companies. Much of this work has been on similar sets of work in the scope of this solicitation.
- ▶ **Experience in Safety Net programs:** Our Health & Human Services (HHS) team is adept at designing "Smart Safety Net" programs through a person-centric approach, human-centered design, empowered caseworkers, and outcome-based commissioning of services. We bring well-rounded experience in the service areas that form Safety Net: Health, Housing, Children & Family Services, Youth Justice and Child Protection.
- ▶ **Multifaceted team:** We have assembled a dynamic team with extensive experience and knowledge of the services noted in the proposal to serve Harris County. Notably, our proposed Engagement Lead is the creator of the HHS IBM Connect360 product currently used by multiple counties to facilitate Whole Person Care. The EY team also includes a Health and Human Services (HHS) expert with experience in Medicaid, Child Welfare, and HHS program transformations, who can advise Harris County on its journey to enable a state-of-the-art case management solution.

#### ii. Relevant Experience

We are a leading consulting firm to state governments and public-sector entities. EY has been serving public-sector organizations since its founding, and the firm works with more than 2,000 government and public-sector clients annually. Our 20,000 government and public-sector professionals have decades of experience helping government entities tackle their most critical challenges.

##### Health and Human Service Relationships

The EY organization has extensive experience assisting States and Counties with solutions to serve their most vulnerable people. We have developed strategies that have enabled individuals with intellectual and developmental disabilities to live healthy and independent lives in their communities rather than in State institutions. Additionally, the EY team has assisted a major State with a transformation program that has

enabled individuals with significant behavioral health needs to receive service as close to home as possible and in the least restrictive environment possible.

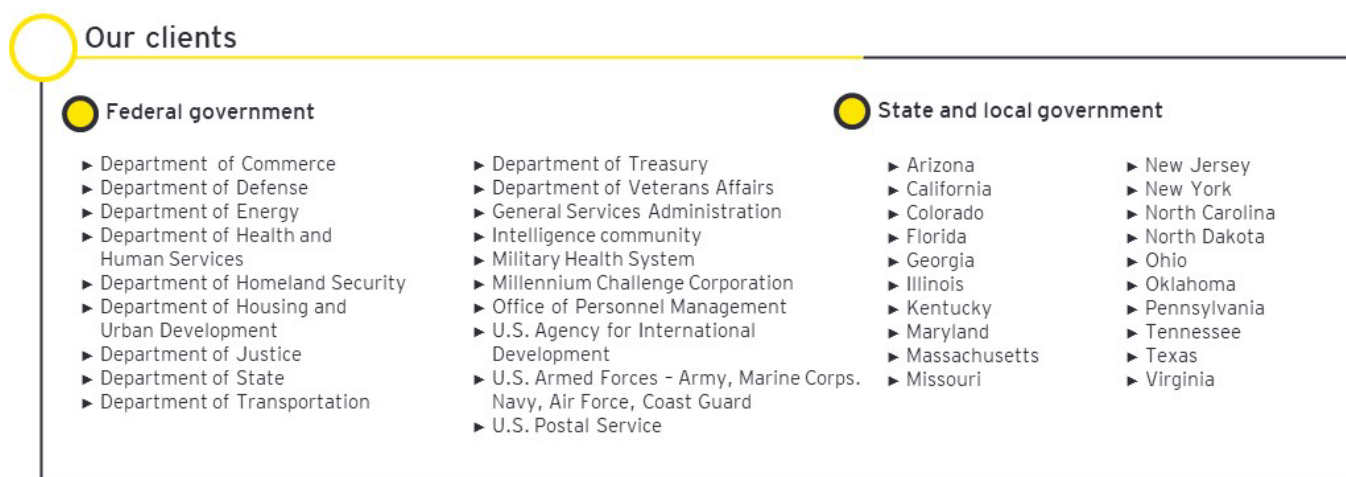
We are dedicated to helping government agencies achieve mission success within the government and public sector landscape. Focused from strategy to execution, the EY Government & Public Sector (GPS) practice helps our clients implement new ideas to achieve their visions:

- ▶ Protecting our nation and increasing public Safety
- ▶ Improving health care for our military, our veterans, and our citizens
- ▶ Delivering essential public services and helping those in need

Our Health & Human Services team works nationally with State and County agencies charged with administering Medicaid, eligibility, enrollment, child support, public health and other human services functions. Our professionals are former state health agency leaders, industry thought leaders, and top technology and platform experts who help our clients solve some of their most complex challenges. We employ a disciplined, thoughtful, risk-focused approach to all aspects of our work including:

- ▶ Project and program management
- ▶ Federal oversight and IV&V
- ▶ Agency and functional transformation
- ▶ Program assessments
- ▶ System integration
- ▶ Digital innovation
- ▶ Public finance management, including blockchain

State and County governments are under extraordinary pressure to do more with less, particularly given the impact of COVID-19. States and Counties are faced with assessing and managing the impact on fiscal, budgetary, and policy aspects pertaining to people, business processes, and technologies. Illustrated below is a list of some of our Federal, State, and Local government clients. We are engaged with many State and County governments to optimize business processes, better align organizations, and deploy innovative technology to improve services for residents, businesses, employees and visitors.



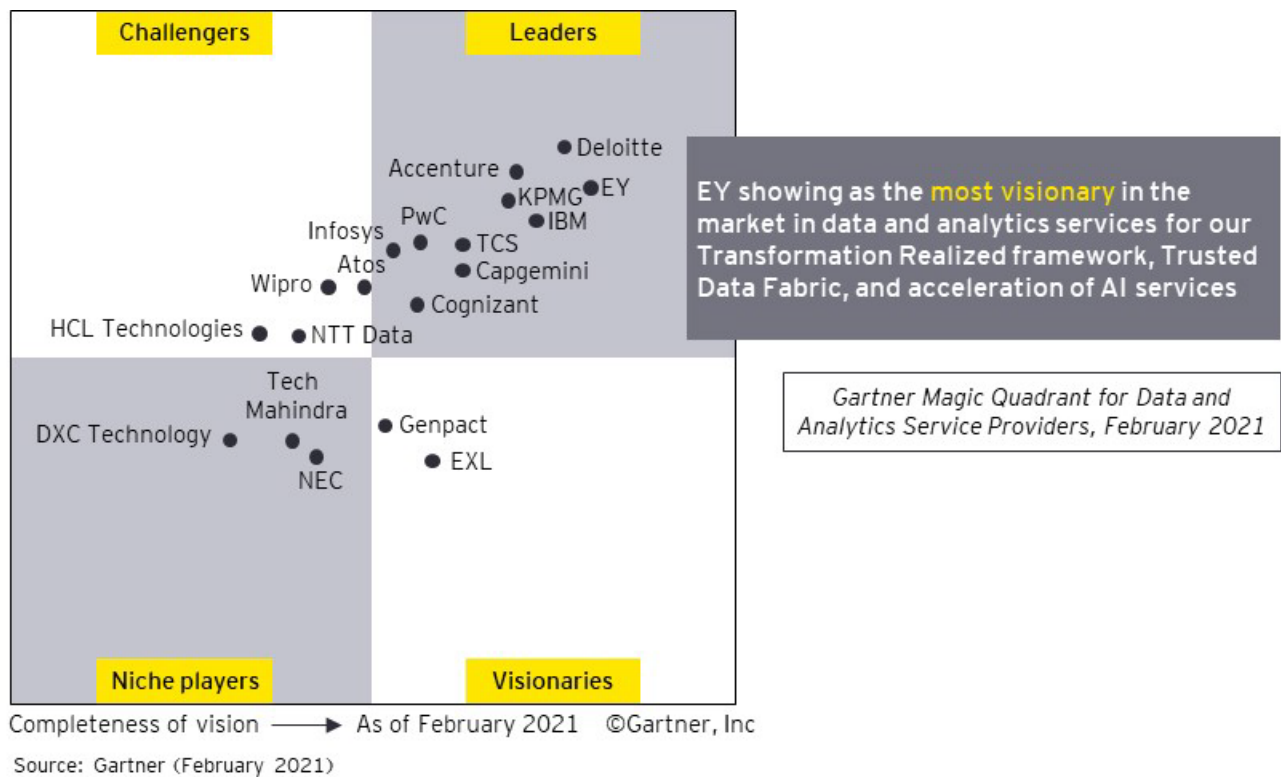
**Figure 1:** EY's support for public sector entities spans all levels and geographies.

## EY Differentiators

We are a market leader in Data Analytics strategy and execution with 27,000 professionals dedicated to delivering data integration and analytics services at scale for similar engagements. We have successfully designed, executed, and operationalized end-to-end Data Integration frameworks that address data quality, data governance, metadata management, and enterprise data integration for several public sector entities. We also are a market leader in digital transformation, helping Government agencies reinvent themselves through the power of data, interoperability, and automation.

## Gartner Report - EY organization is the Market Leader in Data & Analytics

Gartner has recognized us as a Leader and a Visionary in the Gartner Magic Quadrant 2021 for Data Analytics Services. In this highly competitive evaluation, the EY organization is now listed in the top three firms by Gartner this year; No. 1 in vision/strategy and No. 3 in ability to execute/size. And through ongoing involvement with various industry efforts, we have helped define key issues and shaped related market practices.



**Figure 2:** [Gartner Magic Quadrant for Data and Analytics Service Providers, February 2021](#)



## The Forrester Wave and IDC - We are the Market Leader in Digital Transformation

The EY organization is the recognized market leader in digital transformation and views interoperability as a distinct digital transformation opportunity. We are committed to the highest levels of integrity, quality, and professionalism in all that we do. We have deep knowledge and experience in helping government organizations transform their existing organizations, core processes and technologies. Our firm is a recognized market leader in Digital Transformation Services by Forrester and IDC.



Figure 3: Digital business consulting services market analysis places EY as an industry leader

### iii. MWBE Partner Highlight



Our MWBE partner, MPACT, is a Harris County, City of Houston-based certified Minority Business Enterprise (MBE), a State of Texas HUB and a Federal Small Business Administration 8(a) certified firm with over 15 years of experience specializing in Program Management and Compliance. These two pillars require a team that is organized and efficient in risk management, communications, reporting, and monitoring.

MPACT responds to its Texas community with agility and dedication. They support local communities, including Fort Bend County, Nueces County, Harris County, City of Corpus Christi, City of Houston, Missouri City, Pearland, Port Arthur, San Marcos, and Southeast Texas. MPACT has experience managing the complexities of multiple agencies and departments that are both cross-functional and siloed. MPACT is currently providing COVID-19 financial management, reimbursement, eligibility program management, and rental assistance services across multiple counties that require rigorous reporting, schedule management and rapid response to critical issues.

Based upon MPACT's experience and knowledge of County government programs, they know how to assess and determine where the pitfalls and high-risk areas may reside. MPACT has a three-tiered approach to

quality assurance and monitoring that has been effective for past engagements and successfully identifies risks for mitigation and corrective actions. Their process includes a series of checklists, experienced-based decision-making, interim management reviews and approvals, and independent technical reviews to monitor activities and facilitate the development of high-quality work products.

The MPACT project team is skilled at triaging and prioritizing activities so that we can better understand how they integrate and align to produce the best outcomes. Their ability to support the EY team in this effort and through collaboration provide Harris County with experienced personnel that can quickly report progress, identify risks, and provide solutions.

MPACT’s portfolio of services also includes community outreach and communications, diversity and inclusion, and implementing programs in support of community resiliency planning. They bring local and national experience, innovation and successful models that have led to efficient and timely solutions to federal, state and local agencies. Our joint team’s success in delivering large programs is rooted in our proven ability to immediately mobilize, initiate program startup, scale quickly, and provide quality service to clients and communities.

iv.Verifiable references

Client: California Statewide Automated Welfare System			
Total Contract Value	\$10,768,415	Client Point of Contact	Point of Contact to be provided upon request
Scope of services			
<p>EY supported the design, development, testing, and releasing of the Online CalWORKs Appraisal Tool (OCAT) for the California Statewide Automated Welfare System. OCAT is a comprehensive Web-based application for use by Welfare-to-Work (WtW) case managers with clients in the California Work Opportunities and Responsibilities to Kids (CalWORKs) program.</p> <p>During the Welfare-to-Work Appraisal, OCAT is used to gather client information, through a series of questions, including, but not limited to, employment and educational history, housing stability, physical and behavioral health, and domestic abuse. OCAT provides customized recommendations based on the specific information collected during the interview and appraisal process. The recommendations aid the case managers in developing Welfare-to-Work plans for the client. Through OCAT, case managers can understand the strengths, barriers, and work readiness needs of clients, as they move towards gainful employment and self-sufficiency, and supervisors and site administrators are able to understand their client populations at an aggregate level. To develop a comprehensive picture of client needs, caseload information is summarized into reports at various levels, including statewide, countywide, and localized views.</p> <p>The project involved the development and implementation of the tool for the Welfare-to-Work case managers in the State’s fifty-eight (58) Counties. EY was responsible for the entire software development lifecycle (SDLC) including designing, developing, compiling, testing, and releasing software into the AWS Cloud. EY’s capabilities included:</p> <ul style="list-style-type: none"><li>▶ Open-Source Cloud development leveraging AWS services</li><li>▶ Identifying and Building Realtime interfaces that integrate with Consortium’s SAWS systems and documentation via interface design document</li><li>▶ Robust System Security that uses an intensive verification process used to confirm Consortia’s information security standards are met before supplying hosting services to the cloud</li></ul>			

EY performed the following project tasks and provided respective deliverables:

**Phase 1 - Development and Implementation (D&I) Phase** consisting of the following tasks:

- Project Management
- Confirm System Requirements
- Application Design
- Application Development
- Implementation
- Final Acceptance

**Phase 2 - Maintenance and Operations (M&O) Phase** consisting of the following tasks:

- Project Management
- System Maintenance and Operations
- System Transition

### Additional Experience:

EY brings to the engagement specific experience of and knowledge about the Harris County IT and data landscape. We have been providing services to HCPH, in close collaboration with HCPH IT, HCUS, CAO and County affiliates such as Harris Health and Harris Center, for nearly two years in the following areas:

**EY enabled and supported the ACCESS Harris Program, focused on improving the well-being, self-sufficiency, and access to services for the County's most vulnerable residents through integrated service delivery and data sharing across agencies. We supported the following critical areas:**

- **Data Governance** - EY helped HCPH develop Data Sharing Agreements (DSAs) and Interface Control Documents (ICDs) with eight different County agencies and affiliates, for the purpose of building the County's ACCESS care coordination platform. These agencies and affiliates spanned public health, housing and public safety, justice, and mental and behavioral health, all with variant data semantics and privacy controls. We developed a data sharing framework and underlying technical architecture, with infosec and privacy controls baked in, for these agencies to share data effectively within compliance boundaries.
- **Data Integration** - EY collaborated with HCPH IT and HCUS to implement the data integration architecture for ACCESS, including secure data pipelines from the different agency systems into the ACCESS platform. We implemented capabilities such as data profiling, data quality, data lineage, complex data transformations, data format conversion, data anonymization and PGP encryption. We also developed a process for an automated, no-touch deployment of the data pipelines. We successfully completed a PoC for integration of Harris Health EPIC with ACCESS, using an HL7 FHIR based Node.js microservice.
- **Data Analytics and Reporting** - EY is helping design and develop comprehensive KPI dashboards for internal and external audiences. These dashboards provide the county with a clear storyline for ACCESS program performance and areas of improvement. The dashboards run on top of an integrated data hub running in the County's Azure tenant. The data hub incorporates capabilities such as data catalog, data lineage and data quality controls.
- **Cyber Security** - For the ACCESS program, EY supported HCPH IT and HCUS in establishing controls, building a security responsibility matrix, and collecting security event data (SIEM). At a HCPH departmental level, EY is providing services for security risk and impact assessment, security architecture reviews, penetration testing, red team testing, Plan of Actions & Milestones (POA&Ms), and risk mitigation strategies.



EY is helping HCPH design a public health Compliance Program to eliminate fraud and abuse, institutionalize the appropriate policies and standards, protect health and other critical data, and deploy an effective compliance monitoring plan:

- ▶ EY is helping establish an office of public health and healthcare compliance based on the United States Department of Health and Human Services (DHHS) Office of Inspector General (OIG) 7 elements of a Compliance Program. This effort includes a compliance risk assessment, a privacy and security assessment, a roadmap and an implementation plan to address gaps and risks.

In addition to our work with HCPH, EY's commitment to Harris County also extends to other key initiatives including:

- ▶ **Harris County's Disaster Recovery Evaluation and Resiliency Building for Future Disasters Project with the Harris County Community Services Department** - A project to develop a framework to promote best practices for recovery, analyzing Houston's competitive strengths and challenges as compared to peers, to support economic development initiatives, and assessing Houston's framework to build a resilient city to improve power quality, reliability, and investments.
- ▶ **City of Houston Resilient Now Program Launch** - A critical cross-stakeholder initiative to strengthening power quality and reliability, align objectives and prioritize investments to achieve the City of Houston's power resiliency goals through stakeholder interviews and the development and strategy of Houston's Master Energy Plan.

## v. Guide to reading this response vis-à-vis the evaluation criteria

For the convenience of the evaluators, we have provided this cross-reference of evaluation criteria vis-à-vis the sections in our response.

Scoring criteria	Addressed in Sections
Professional qualifications and experience of vendor and its staff with a minimum of 5-7 years of relevant experience with other clients of similar size and type (population, budget, public sector) and demonstrated success in providing the services it has identified it can perform that are requested in this RFP	Section 1
Quality and Comprehensiveness of Work Plan, timeline, and client engagement approach	Section 2.3
Pricing	Section 3
Project team member's experience, expertise level and areas of expertise	Section 2.4
Verifiable references submitted with vendor proposal	Section 2.4

## Section II Scope of service/Narrative of proposed services



# 1. Proposed methodology and approach

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In this section, we have outlined our response as follows:

- i. Our Understanding of the Project
  - ii. Proposed Methodology and Approach
- 

## i. Our understanding

We understand that Harris County is aiming to enhance its delivery of care and services to its residents and communities by providing personalized care coordination and management. It is our understanding that Harris County is seeking to design and develop a comprehensive case management solution with the features to support the following key case management capabilities:

- a) Manage and update client information in a centralized repository.
- b) Enroll clients into care programs and create care plans based on their individual needs, with the ability for care providers across programs to collaborate through an integrated care model.
- c) Manage case workflows and seamlessly track task assignments and completions within prescribed deadlines.
- d) Conduct evidence-based assessments and administer surveys and questionnaires to understand and evaluate client needs and inform the development of tailored care plans and goals.
- e) Send essential case data into the HCPH integrated data hub for custom reporting and analytics.
- f) Ability to integrate with authorized internal and external systems, including Master Client Index and Entity Resolution systems, through APIs, including HL7 FHIR RESTful APIs.
- g) Secure and compliant solution deployed in Harris County's Azure Government tenant, in adherence to applicable standards and regulations to protect client and patient data, including HIPAA.

## ii. Proposed methodology and approach

We have experience with similar programs for State and County HHS organizations, and based on that experience, we understand the need to bring a balanced approach to overall program management and systems delivery for Harris County. Our approach harmonizes the key concepts of PMI-PMBOK to bring disciplined and controlled governance with the flexibility and speed of an Agile delivery process. The core of this approach is driven by the combination of key tenets of overall Program Governance, including system/IT governance and data governance. While the core of it is managed by this clearly defined governance model, the execution of it is enabled by:

- Program Management – Planning, monitoring, and reporting
- Delivery Methodology (Agile) – Design, build, and test

## Program and project management

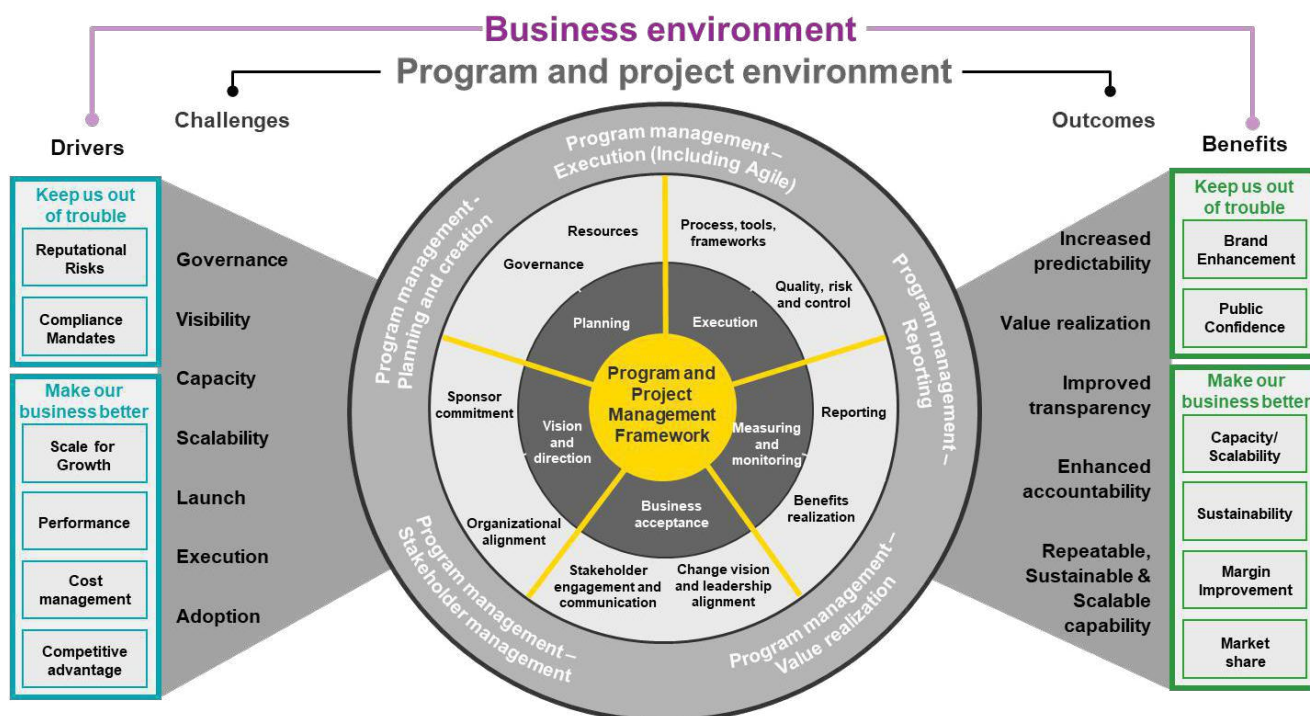
We have developed a program management approach based on program requirements, complexity, and duration. To maintain an operational focus on the mission, we maintain a flexible and responsive program management infrastructure capable of adapting to growing and shifting demands. Harris County will benefit from proven EY processes and experiences in similar programs. Our efforts have helped strengthen our clients' operational planning and increase program effectiveness and productivity so that programs are deployed using disciplined, industry-accepted methodologies. Our program management methodology



provides a logical process for managing a complex portfolio of transformation initiatives. We begin by organizing investments so that decisions are made with full and accurate information and the resulting resource allocations are understood across stakeholder groups. We subsequently provide a holistic approach, from tools to processes, to support better investment decision-making. Finally, we enable transformation leaders to control execution and realize value across all stages of the program cycle.

Our project management methods support the end-to-end execution of data initiatives. Foundationally aligned with the PMI practices, EY methods are complemented by the experiences and lessons learned from our 1,000+ US-based project management practitioners (PMPs) and certified Scrum and Scaled Agile Framework (SAFe) resources.

From project initiation to closing, we integrate processes and technology to accelerate effective project management (see figure below). Harris County will benefit from our robust, flexible, and rapid reporting structure to support timely decision-making, elevation of risks and issues, execution of key deliverables, and achievement of milestones.



**Figure 4:** Our comprehensive Project Management framework to cultivate program success

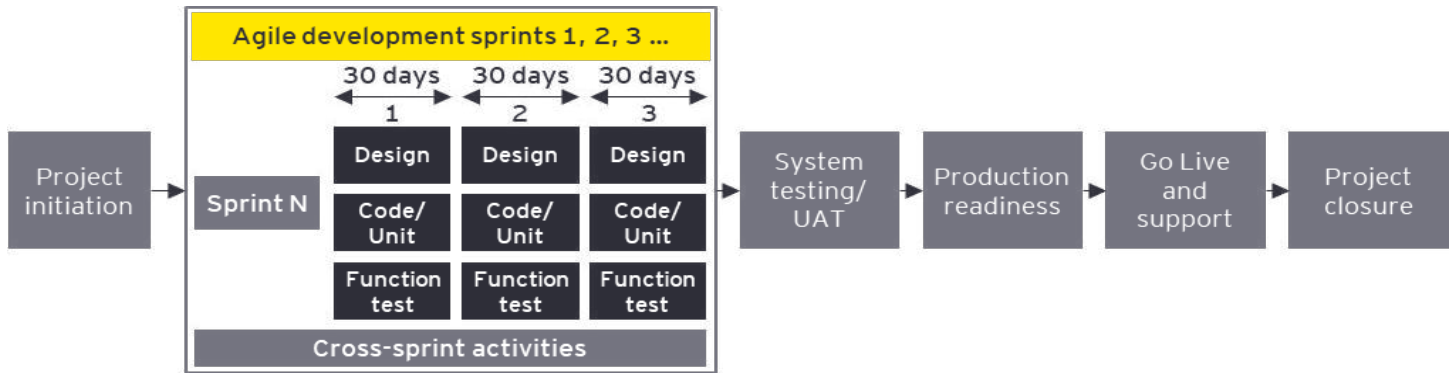
## Delivery methodology (Agile)

This methodology is at the heart of the business and digital transformations, and we have proven experience across different state agencies, specifically in Health and Human Services and hundreds of other organizations in the private sector. It begins with design sessions with your stakeholders across business and technology groups and includes a deep dive to prove the design and refine the architecture blueprint.

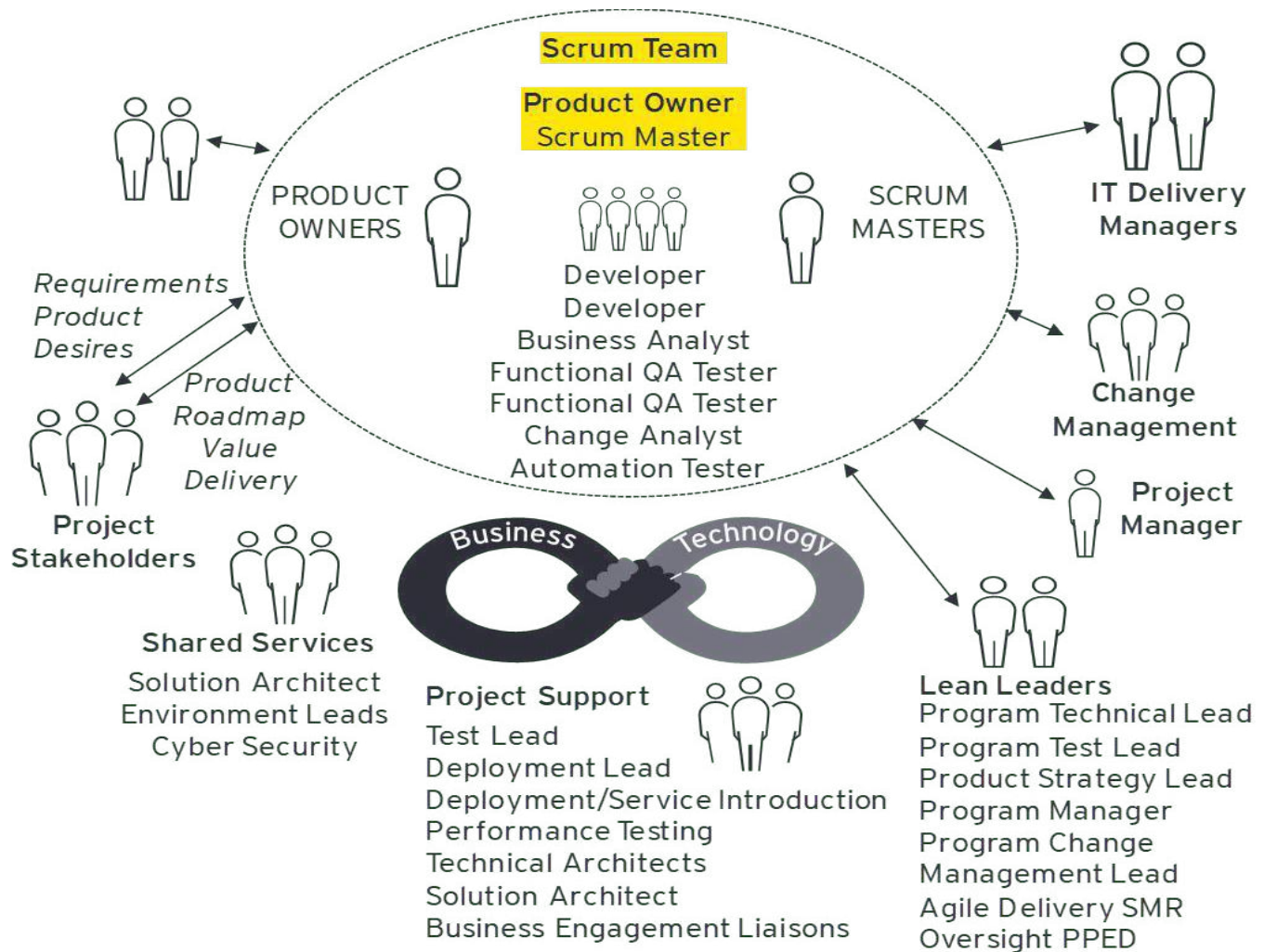
Our execution strategy is designed to iteratively deliver value to Harris County using this methodology:

- ▶ Introduce key activities for sprint execution keeping in mind the needs of Harris County
- ▶ Review Agile ceremonies, roles, and responsibilities
- ▶ Socialize and obtain feedback from sponsors, vendor partners and key stakeholders
- ▶ Develop a strategic plan for execution

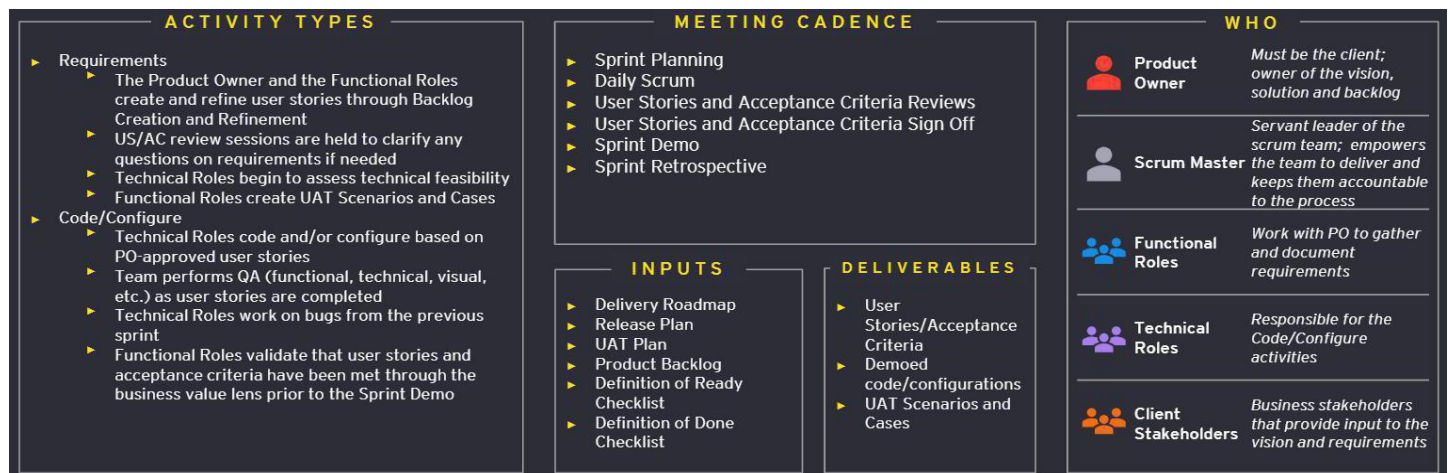
- Develop a knowledge transfer plan



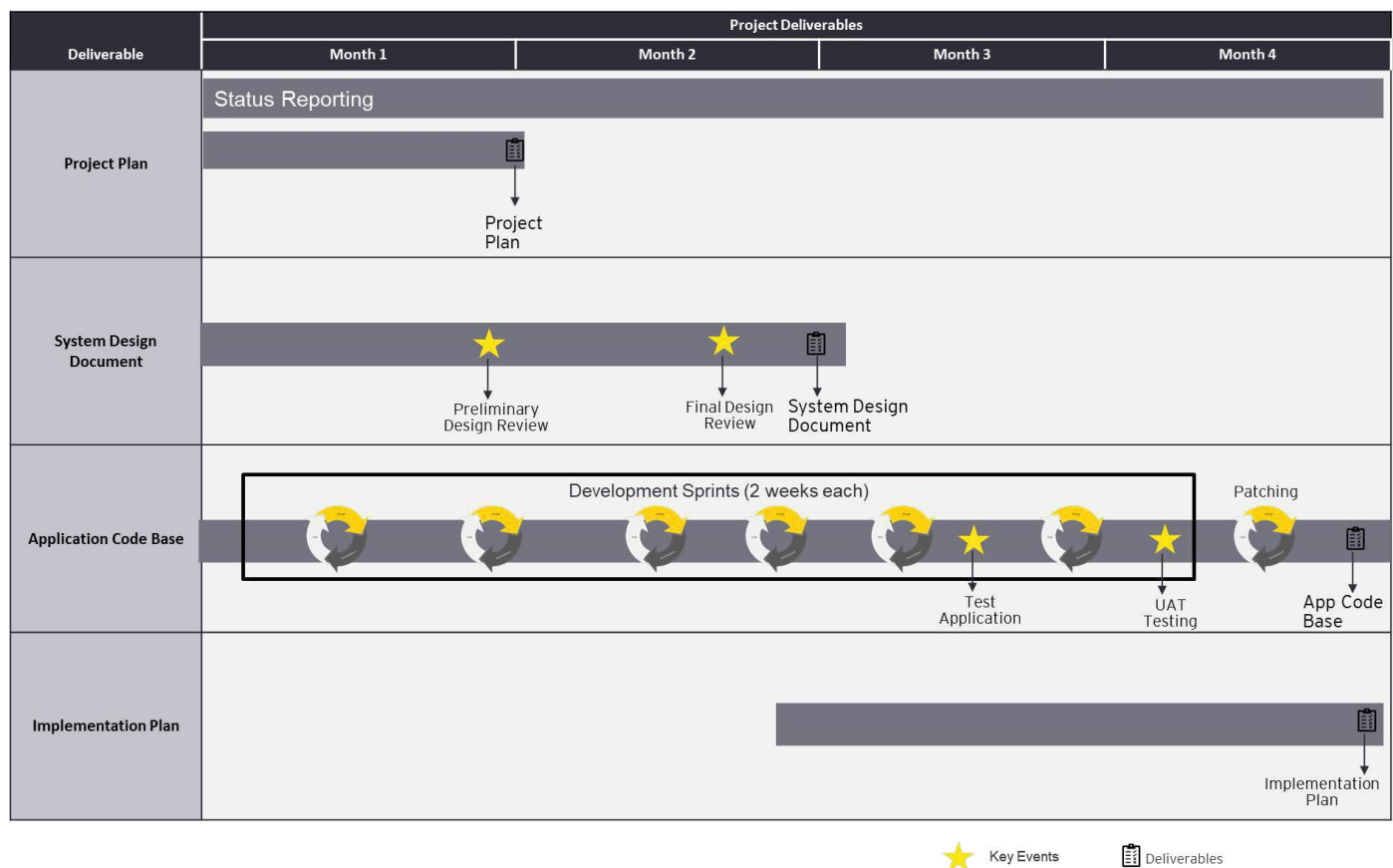
EY plans to structure the Agile team in the following way:



The Sprint delivery process covers the structure and cadence, including the release and sprint activities as well as team roles and responsibilities. This framework covers the end-to-end activities required to deliver a release. An overview of sprint cadence is as follows:



## 2. Project plan and timeline





### 3. Proposed Services and Deliverables

In this section, we have outlined our response as follows:

- i. Deliverables
- ii. Vendor Responsibilities

#### i. Deliverables

##### Deliverables schedule

#	Deliverable	Artifacts included	Schedule
1	Project Plan	<ul style="list-style-type: none"><li>Project Goals and Objectives</li><li>Integrated project schedule, key milestones, and dependencies</li><li>Task breakdown Structure</li><li>Governance and Escalation</li><li>Resource allocation and RACI</li><li>Risk Management Plan</li><li>Status Reports and Updates</li></ul>	End of Month 1
2	Systems Design Document	<ul style="list-style-type: none"><li>Environment design and infrastructure requirements</li><li>Systems Architecture</li><li>Design features of Application</li><li>Security Considerations &amp; Posture</li><li>API and Middleware Design</li><li>UI Design</li><li>Workflow Designs</li></ul>	End of Month 2
3	Application Code Base	<ul style="list-style-type: none"><li>Source code and configuration files (GitHub link)</li><li>Library and Dependencies</li><li>Build Scripts</li><li>Database Scripts</li><li>README, code comments, and Documentation Files</li><li>Change Log/History</li></ul>	Each Release cycle
4	Implementation Plan	<ul style="list-style-type: none"><li>Timeline and Activities</li><li>Environment and Application Preparation</li><li>Interface Connections requirements</li><li>Reference Data Configuration</li><li>User Onboarding and Support</li><li>System Sustenance</li></ul>	End of Month 4

##### Format of deliverables

Deliverables will be formatted in Microsoft Word, Visio, and PowerPoint for technical and business specification documents, or as source code and configuration files accessible within a GitHub repository. EY will deliver status reports and executive summaries in Microsoft PowerPoint.

## Acceptance Criteria

- ▶ EY will conduct a Preliminary Design Review (PDR) to seek early feedback on deliverables and perform course corrections if necessary. During the PDR, we will explore unaddressed issues and risks and identify areas that require elaboration or clarification. We will also discuss the key functional or technical concepts that shape the deliverable.
- ▶ EY will conduct a Final Design Review (FDR) with key County stakeholders the week of deliverable submission for final walk-through. We will address critical items of feedback and submit the deliverable. Sub-critical items will be carried in the product backlog.
- ▶ The deliverable acceptance criteria will be considered met if the deliverable fulfills the scope and addresses the critical feedback received in the PDR/FDR.
- ▶ To preserve timeline, it is requested that the County submit feedback within 3 business days of the PDR and FDR submissions. We will provide an Excel log of feedback received during the PDR and FDR, and how we addressed each item. If no response is provided by the county within 3 days, it will be considered that deliverable in question has been accepted.

## Project Completion Criteria

The project will be considered complete when the deliverables specified in this RFP have been submitted by EY to the County and have met the acceptance criteria above.

## ii. Vendor Responsibilities

### EY responsibilities

- ▶ The EY team will perform the activities stated within this SoW and will submit the deliverables within the stated timeline.
- ▶ We will hold monthly deliverable reviews to solicit feedback and align with stakeholder objectives.
- ▶ We will assign a Project Manager (PM) to lead the delivery of services within this RFP. This person will act as the primary EY point-of-contact for the County.
- ▶ We will expeditiously escalate to the County PM any issues that impede the conduct of the project, including lack of access to County stakeholders or subject matter experts.
- ▶ EY personnel will follow the County prescribed Rules of Behavior pertaining to handling County data or presence on County premises. The EY team will handle personally identifiable information (PII), personal health information (PHI) or other protected data about County residents in the course of this engagement in accordance with County regulations and procedures. The County will ensure that our team is provided with all regulations and procedures.
- ▶ We will provide a weekly status report that will include:
  - ▶ Status summary
  - ▶ Key milestones and schedule performance
  - ▶ Key accomplishments, upcoming activities, and blockers
  - ▶ Deliverable status
  - ▶ Issues and risks
  - ▶ Items requiring senior leadership intervention

### County Responsibilities:

- ▶ The County will assign a project manager (PM) to oversee the Services provided by the EY team and act as the primary point-of-contact for day-to-day conduct of the project.
- ▶ The County will provide 1 System Administrator and 1 Business Analyst, who will work with the EY team within the Agile Squad model concept.

- ▶ The County will provide cyber security resource that will review and sign off on solution design and security approach.
- ▶ The County will define and provide solution requirements documentation that's within the scope of this SOW at the beginning of the engagement. This includes but not limited to application workflows, system requirements, etc.
- ▶ The County will provide access to the necessary environments and software tools including the use of Open Source software as required.
- ▶ The County will procure software and necessary licenses [listed in section 2](#)
- ▶ The County will respond to EY's requests for signoff and approvals within 3 business days of requests.
- ▶ The County will schedule working session with the appropriate stakeholders within 2 business days upon EY's requests.
- ▶ The County will provision Azure resources to 3 environment Dev, UAT and Prod prior to the start of the engagement. Additional resources, if applicable, will be provisioned after architectural approval.
- ▶ The County will expeditiously resolve any delays in obtaining participation, requirements, feedback, or approvals from stakeholders, as and when The EY team reports such delays.
- ▶ The County will provide access to strategic plans and performance data relevant to this engagement. County will provide additional supporting documentation as deemed necessary during project delivery.
- ▶ The County will provide the cloud services and tools for data integration.



## 4. Approach for completion of services

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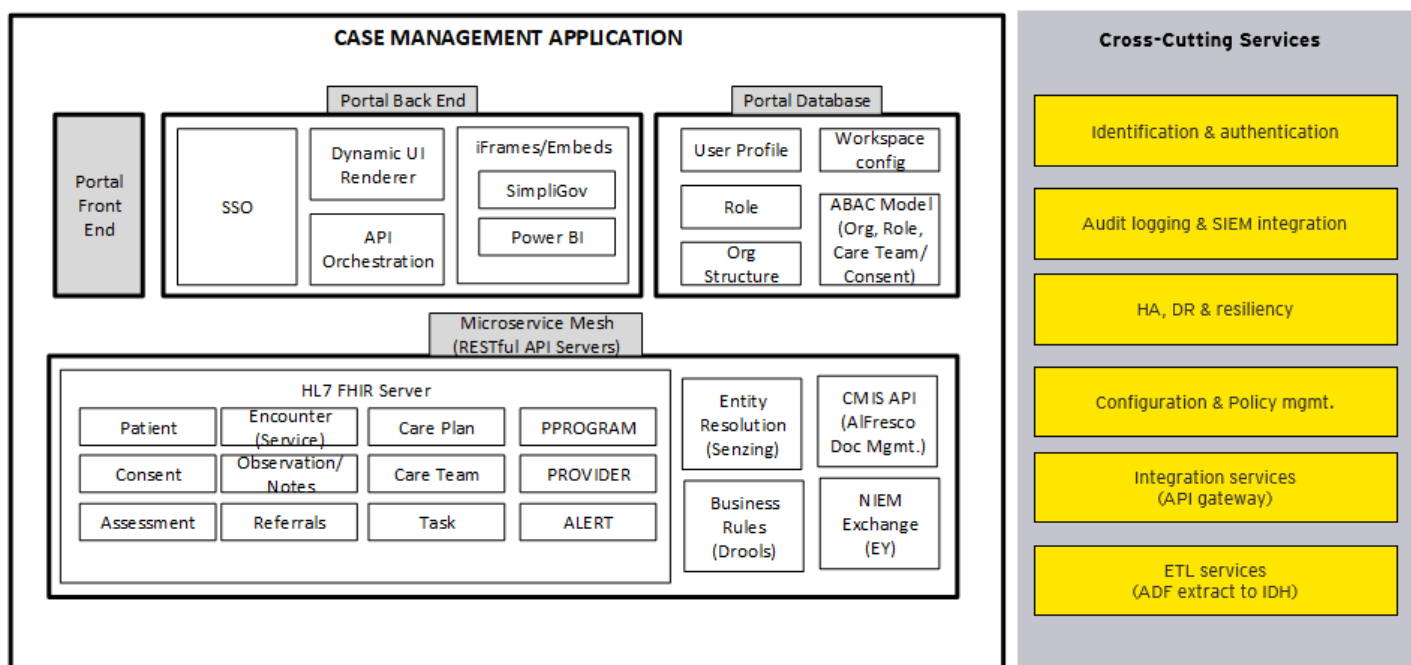
In this section, we have outlined our response as follows:

- i. Approach towards Case Management Solution
  - ii. Project Plan
  - iii. Risk Management Plan
  - iv. Governance and Escalation Plan
  - v. Resource Allocation Plan
  - vi. Defined Key Deliverables
  - vii. Project Organization Chart
  - viii. Project Team Qualifications
  - ix. Firm Qualifications
  - x. Relevant Experience
- 

### i. Approach towards Case Management Solution

The following are the design principles we follow in building the Case Management solution:

1. **Modularized**, microservice based architecture - We do not follow the typical and dated paradigm of large monolithic applications bound to their application database. Our solution is built ground-up using microservices and follows a modular architecture. Microservices can be added, adapted or removed in a modular way as demands change.
2. **Lightweight**, flexible User Experience (UX) layer - Application pages are built using React.JS wherein look and feel can be easily adapted to the user's preference. Home screens can be configured for each user group, and users can then set their own preferences. The UX layer spreads over the Microservice Mesh, and handles application data by orchestrating the various RESTful APIs.
3. **Seamless integration with County ecosystem** - We follow a secure yet open architecture wherein our REST APIs can be invoked within our own application, and also by authorized external systems. We provide the entire range of HL7 FHIR RESTful APIs, using which external systems can sustain bi-directional communication with us.
4. **Modern**, containerized architecture - We deploy on Kubernetes, with our different microservices deployed on pods that can be independently configured and automatically deployed. The architecture scales vertically and horizontally in response to demand, based on the Kubernetes configuration. For example, increased load on the HL7 FHIR server will automatically instantiate additional pods for this microservices.
5. **Best of breed experience** - We securely embed SimpliGov and Power BI widgets such that users have all the functionality they need in one place, within our application. We enable a best of breed experience by collaborating with other County application providers and integrating their capabilities into our application in a seamless way.



**Figure 5:** Application architecture

The diagram above shows our proposed application architecture. It depicts a lightweight portal application sitting atop a Microservice Mesh and leveraging certain cross-cutting Azure PaaS capabilities. The portal application includes dynamic UI rendering and secure object embedding (SimpliGov, Power BI). Most importantly, it includes an Attribute Based Access Control (ABAC) model that enables fine-grained access control on the underlying APIs from the Microservice Mesh. These APIs include the following:

- ▶ Entity Resolution (ER) APIs - Read and write client demographic details and identifying information; match clients across systems
- ▶ HL7 FHIR APIs - Care Management lifecycle APIs such as Assessments, Enrollment, Consent, Care Plan, Services and Progress Notes.
- ▶ Business Rules APIs - Rules logic exposed by a configurable business rules engine, that allows the separation of volatile rules from application code and increases system stability.
- ▶ NIEM Exchange APIs\* - The National Information Exchange Model (NIEM) is the US Government's preferred domain taxonomy for various domains such as Justice and Emergency Management.
- ▶ Content Management Interoperability Services (CMIS) APIs\* - For handling of documents.

\* Potential next phase capability

The diagram below shows the proposed integration architecture. Internal AND external integrations leverage the Entity Resolution and HL7 FHIR APIs. The system maintains an internal Master Client Index (MCI) and can also integrate with an external MCI for searches and holistic client view. Bulk data for reporting and analytics is extracted by Azure Data Factory (ADF) and fed into the HCPH Integrated Data Hub.

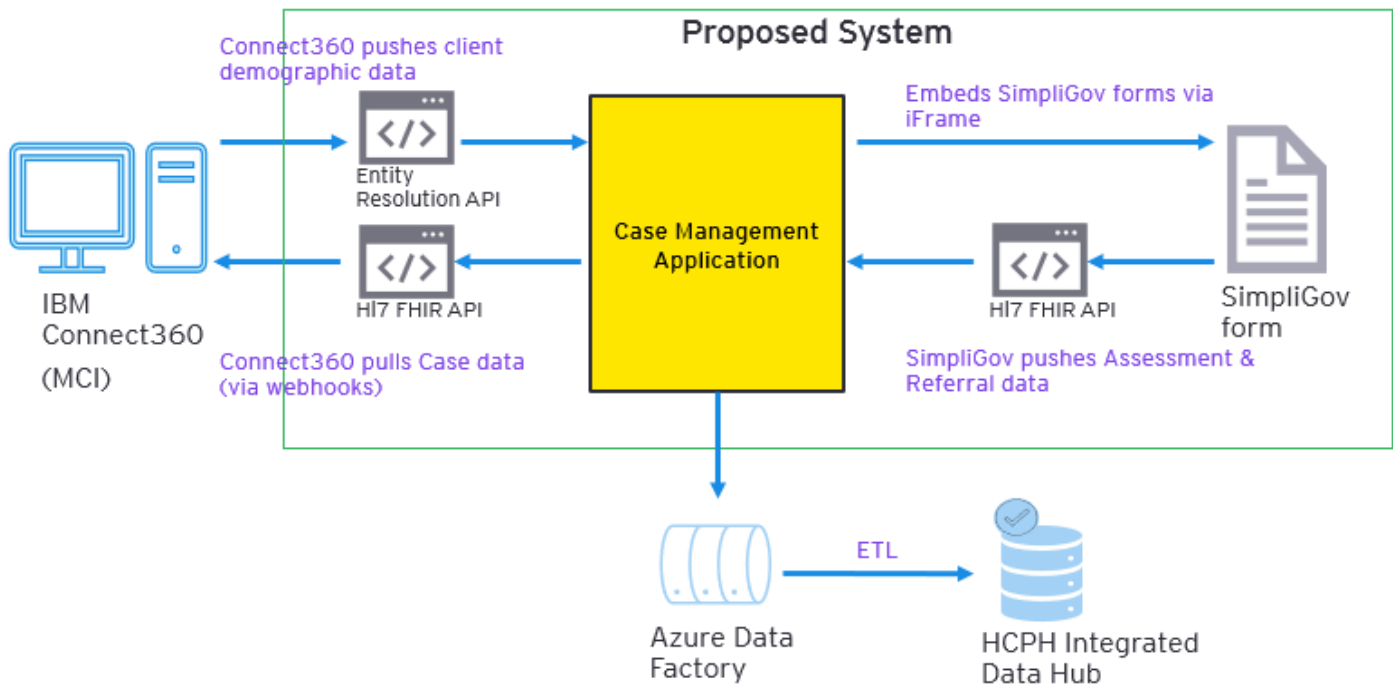


Figure 6: Integration architecture

The following diagrams shows the deployment architecture of the proposed solution. The solution is deployed in the County's Azure Gov tenant. The diagrams shows network layout, with the various internal and external connections and the protocols used. It also depicts SIEM coverage via the Azure Sentinel security event collector.

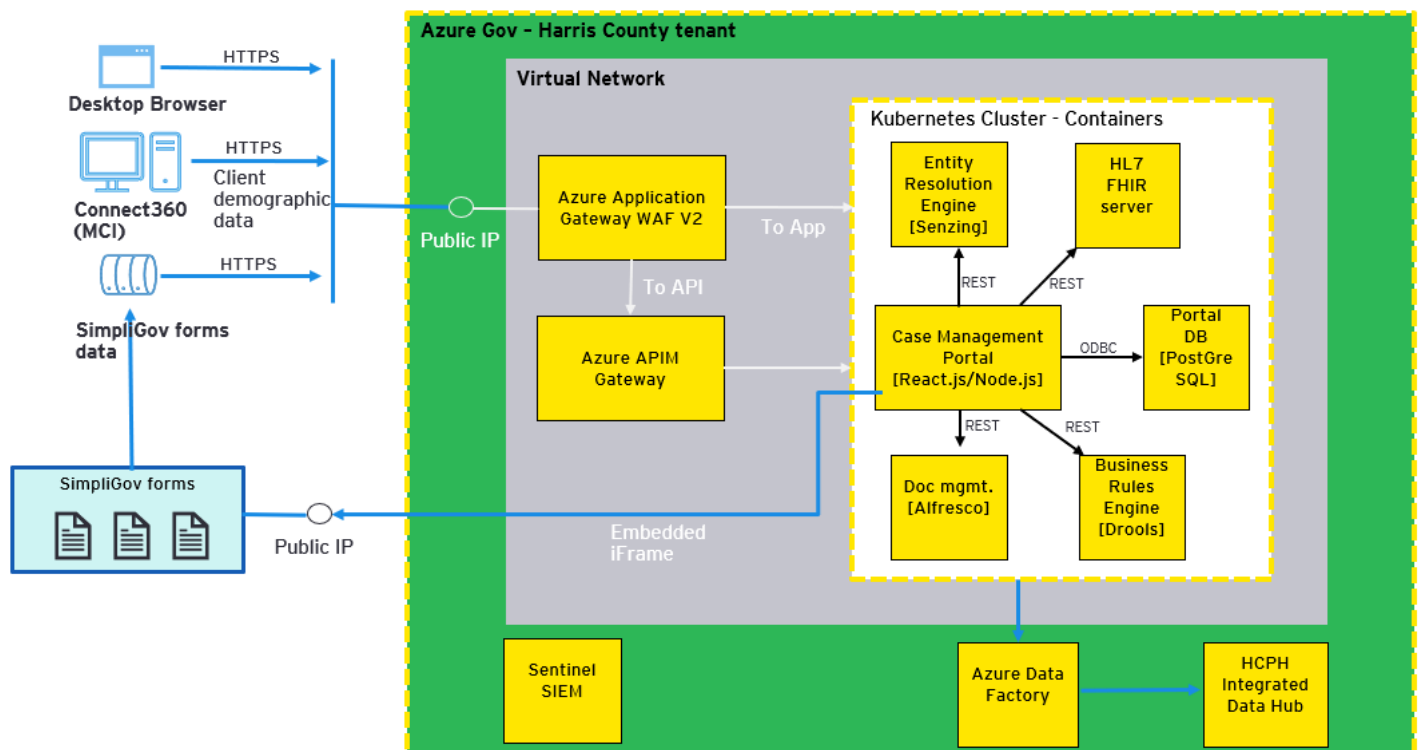


Figure 7: Deployment architecture



## Government Furnished Equipment (GFE)

Our approach is to make the best of the County's current infrastructure and software entitlements. The proposed design is predicated on Harris County providing the following software and cloud infrastructure. If these components are not provided, we will need to work with the County to modify the design, which may lead to a change to the services estimate.

### COTS software

- Sensing Entity Resolution

### Open Source Software (no acquisition required but it's use needs to be allowed)

- HL7 FHIR Server
- Drools Business Rules Engine
- Alfresco document management

### Azure.Gov catalog components

- |                             |                       |
|-----------------------------|-----------------------|
| ▸ Azure Kubernetes          | ▸ Azure Log Analytics |
| ▸ Redis Datastore           | ▸ Azure Monitor       |
| ▸ Postgres SQL Server       | ▸ Azure Sentinel      |
| ▸ Azure Data Factory        | ▸ Storage Account     |
| ▸ Azure API Management      | ▸ Virtual Network     |
| ▸ Azure Application Gateway |                       |

### Other County entitlements

- |                              |                 |
|------------------------------|-----------------|
| ▸ SimpliGov                  | ▸ Azure Dev Ops |
| ▸ Power BI                   | ▸ Azure GIT     |
| ▸ Azure Active Directory(AD) |                 |

## Other pre-requisites

For us to do the development work collaboratively with the County team, we will need the following access and rights:

- Access to RDP machines via County VPN for designated EY personnel.
- Access to pull from external GitHub repository for CI/CD operations.
- Developer rights for designated EY personnel; other rights as required to install application

## ii. Project Plan

The EY team will prepare an integrated master plan management approach to detail key activities, milestones and deliverables and establish standards and responsibilities for maintaining the integrated master schedule. The project schedule includes other key resources and projects that affect the resources or outcomes of the project. It will serve as the baseline, resource-loaded schedule that enables critical-path determination and monitoring. The project schedule is detailed enough to identify potential schedule conflicts and produce a project-level timeline. The EY team will track dependencies and assumptions, provide a program-level view of resource allocations and milestones, identify potential schedule conflicts, and provide management with schedule information.

The plan provides the ability to generate schedule reports for project management and is to be shared with all vendors for data collection and to provide project management reporting. The EY team will establish scheduling standards to enable critical path management of projects and support the creation and maintenance of detailed schedules for project teams.

The EY team will support Harris County in developing and managing project schedules. With experience managing similarly complex programs, we will provide each stakeholder with insight into effective schedule development techniques, with a focus on accurately capturing dependencies, resource needs and task constraints. As projects begin to be executed, we will assist each project manager with accurately updating their schedule to reflect progress made towards milestones on a weekly basis. These updates then roll up into the master program schedule automatically, allowing for near-real-time visibility into overall program activities.

### iii. Risk Management Plan

A detailed approach will be created to address the identification, communication, assessment, response and monitoring of risks and issues that impact or threaten the health of the project. As issues are identified, remediation activities will be integrated into issue management processes. Roles and responsibilities will be defined to include issue management and resolution. Risks and issues will be escalated as needed as per the governance structure.

Risk is core to the EY DNA, and our teams manage risk on a continuous basis on virtually every project. The risk management cycle consists of five stages: Identify, Assess, Mitigate, Monitor and Accept.

- ▶ **Identify:** foresee or recognize risks, define risks and assign an owner in the risk log
- ▶ **Assess:** examine the probability and impact to program value of the risk; choose to mitigate, transfer, avoid, monitor or accept; define associated tasks; and escalate when warranted
- ▶ **Mitigate:** execute tasks to mitigate, transfer or avoid a risk
- ▶ **Monitor:** routinely confirm that risk probability and impact are being controlled
- ▶ **Accept:** confirm that a risk does not warrant proactive management and document decision

Planning for and addressing risks is critical throughout the project's lifecycle. Risk is inherent in all programs and each project has some degree of risk associated with it. Each identified project risk should be assigned two dimensions:

1. Risk probability (or "likelihood")
2. Risk Impact (or "consequence")

#### Risk Probability

Risk probability (or "likelihood") is a measure of the likelihood that a certain risk will occur and negatively affect the project (i.e., probability of occurrence). The probability of occurrence for the risk element should be defined on a level from 1-5.

#### Risk Impact

Risk Impact (or "consequence") is a measure of the anticipated degree of impact that the risk, if it occurs, will have on the project. The degree of impact related to the risk element is calculated based on 3 inputs – Technology, Schedule and Cost on a level from 1-5.

#### Risk Factor

The Risk Factor is calculated as the combination (multiplication) of the "Likelihood" and the highest "Consequence". *For example:*

If Risk Likelihood = 3

If Risk Consequence - Technology = 3

If Risk Consequence - Schedule = 4

If Risk Consequence - Cost = 1

Then the Risk Factor = Risk 'Likelihood' \* Risk 'Consequence' = 3 \* 4 = 12

Therefore, the Risk Factor for the above example is Yellow, based on the following chart / grid:

#### Quantification of Risk Severity

##### Likelihood

What is the Likelihood the Precursor Condition to the Risk will Happen?		
Level	Approach and Processes	
1	Not Likely	0 - 20% Probability of Occurrence
2	Low Likelihood	20 - 40% Probability of Occurrence
3	Likely	40 - 60% Probability of Occurrence
4	High Likely	60-80% Probability of Occurrence
5	Near Certainty	80 - 100% Probability of Occurrence



##### Risk Factor Matrix

Likelihood	1	2	3	4	5
5	5	10	15	20	25
4	4	8	12	16	20
3	3	6	9	12	15
2	2	4	6	8	10
1	1	2	3	4	5
		Consequences			



##### Consequence

Given the Risk is Realized, what would be the magnitude of the impact?			
Level	Technical	Schedule	Cost
1	Minimal OR No Impact	Minimal OR No Impact	Minimal OR No Impact
2	Minor OR < 2% performance reduction	Slight delay < 1 month	Budget Increase of (< \$1M)
3	Moderate performance Shortfall; 2-5%	Minor Schedule Slip (1 to 3 Months)	Budget Increase of (\$1 - 2M)
4	High Performance Reduction; 5-10%	Major Schedule Slip (3 to 6 months)	Budget Increase of (\$2 - 5M)
5	Unacceptable; Over 10% Reduction in Performance	Unacceptable Schedule Delay ( > 6 months)	Budget Increase of ( > \$5M)

Figure 8: Risk Factor calculation

## iv. Governance and Escalation Plan

Governance includes the structures, roles, processes, and accountabilities that enable decision-making and effective execution of a program's objectives.

- ▶ Governance is the principles, policies and frameworks that direct and control programs and projects
- ▶ Governing bodies, executives and senior directors are responsible for overseeing their programs and projects to achieve both accountability and performance
- ▶ The elements of organizational governance that address projects, programs, and portfolios should be:
  - ▶ An integral part of the organization's overall governance framework
  - ▶ Supportive of the principles, values, and strategic objectives of the organization
  - ▶ Designed to optimize the benefits created by investing resources in selected projects, programs, and portfolios

Successful governance can be achieved by:

- ▶ Agreeing on a structure up-front
- ▶ Documenting roles and responsibilities
- ▶ Identifying the right sponsors who are visibly accountable



A decision escalation path will be developed with the Harris County PM to ensure all levels of stakeholders have visibility on the appropriate decisions. The diagram below depicts a sample escalation path depending on the decision type.

Decision Type	Business Owner	Working Group	Steering Committee	Executive Leadership	
				Assistant Secretary	Secretary
Release Management	Confirms and validates business requirements	Signs off on user stories and oversees release	Approves major releases	Informed	Informed
Product Vision / Project Charter	Establishes business vision	Makes recommendation	Makes decision	Informed	Informed
Product Roadmap / Solution Design	Establishes business vision	Defines requirements and draft solution design	Confirms solution design	Informed	Informed
Major strategic or programmatic decisions	Provides input	Provides input	Makes recommendation	Reviews / approves recommendation	Makes decision

Figure 9: Sample decision escalation path

## v. Resource Allocation Plan

The primary objectives of a well-defined resource allocation plan are to:

- ▶ Ensure that a structured approach is followed for identification and selection of resources
- ▶ Ensure that resource allocation is performed based on the project prioritization within the project portfolio
- ▶ Determine the most appropriate solution to meet the project's resource requirement (i.e., skill set and timing)

High performance organizations adopt formal resource management techniques for effective planning and management of their resources (business and technical) across the whole enterprise, which is fully integrated with other key management processes. The management of leading practice organizations considers resource management to be a critical process that is highly responsive to changes in strategic objectives. It provides:

- ▶ The ability to realign and reallocate resources rapidly in response to strategic and tactical initiatives
- ▶ The ability to monitor and make necessary adjustments to meet organizational objectives

Some of the other benefits of resource management include:

- ▶ Reduce operational management time spent on resource planning
- ▶ Increase flexibility of staff across projects and project locations
- ▶ Facilitate getting the right people in the right place at the right time
- ▶ Enable communication regarding resources across the organization
- ▶ Forecast quality improvement
- ▶ More effective use of people resources through active career, resource and succession planning

The following represents a detailed resource allocation process that the EY team would help implement at Harris County:



Activities	Owners	Tools/Templates
<b>Submit Resource Request Form</b> The first step in the Resource Management Process is to complete and submit a Resource Request Form.	<ul style="list-style-type: none"> <li>Project Manager</li> </ul>	<ul style="list-style-type: none"> <li>Resource Request Form</li> </ul>
<b>Review Resource Request</b> Upon receipt of the Resource Request, the PMO should ensure that all information needed to evaluate the request has been included. The Department Head and the PMO will: <b>Gather/Update Information</b> Perform a detailed analysis of the resource request by working closely with the Project Manager to gather and review the relevant information and determine the availability of the requested resource(s). <b>Prioritize Request</b> Prioritize the resource request based on the analysis. This will determine the urgency in which the Department Head/PMO will review and address the resource request.	<ul style="list-style-type: none"> <li>Department Head</li> <li>Project Manager</li> <li>PMO</li> </ul>	<ul style="list-style-type: none"> <li>Resource Request Form</li> <li>Resource Management Tool</li> </ul>
<b>Assign Resource</b> The decision to continue with the processing or rejection of the request should generally be made based on: <ul style="list-style-type: none"> <li>The availability of appropriate resources</li> <li>The outcome of the overall assessment of the request</li> <li>The priority of the resource request in comparison to other projects within the Project Portfolio</li> </ul> If the primary resource(s) is available, commit them to the project.	<ul style="list-style-type: none"> <li>Department Head</li> <li>PMO</li> </ul>	<ul style="list-style-type: none"> <li>Resource Request Form</li> <li>Resource Management Tool</li> </ul>
<b>Alternative Actions</b> If the requested resources are unavailable, alternative actions need to be considered, such as: <ul style="list-style-type: none"> <li>Review the project portfolio to determine if there are any other resources that fit the skill and timing requirements of the project. This can be done by reviewing the existing project descriptions and deciding of which projects have similar skill requirements</li> <li>Discuss with leadership for additional review of project and resource requests</li> <li>Request external resources</li> </ul> The outcome of the decision is updated and reflected in the Resource Management Tool	<ul style="list-style-type: none"> <li>Department Head</li> <li>PMO</li> </ul>	<ul style="list-style-type: none"> <li>Resource Request Form</li> <li>Project Request Form</li> <li>Portfolio Management Tool</li> </ul>
<b>Vendor Management Process</b> As indicated above, if the resources are unavailable to meet the project resource requirement, the request should be routed through Vendor Management Process to evaluate the use of external/third-party resource.	<ul style="list-style-type: none"> <li>PMO</li> </ul>	<ul style="list-style-type: none"> <li>N/A</li> </ul>

## vi. Defined key deliverables

Our deliverables management approach will describe the expectations, requirements and content associated with each work product, as well as the document review, acceptance and storage standards.

We will work with the Harris County Project Manager to track deliverables and ensure they are stored in a centralized location. We will confirm that all internal review gates for all deliverables are observed. The EY team will develop a deliverables expectation document (DED) to confirm an agreed-upon understanding of purpose, scope, content and timeline of each deliverable. Each DED will be reviewed and approved by a Harris County representative. Confirmation of the required content will be obtained in a walk-through of the deliverable before formal delivery and will be built into the project plan.

The DED for each deliverable will be completed in advance of the stage or phase in which it will be completed. For those deliverables due in the first phase of the project, the DED completion will be planned into the beginning of that phase.

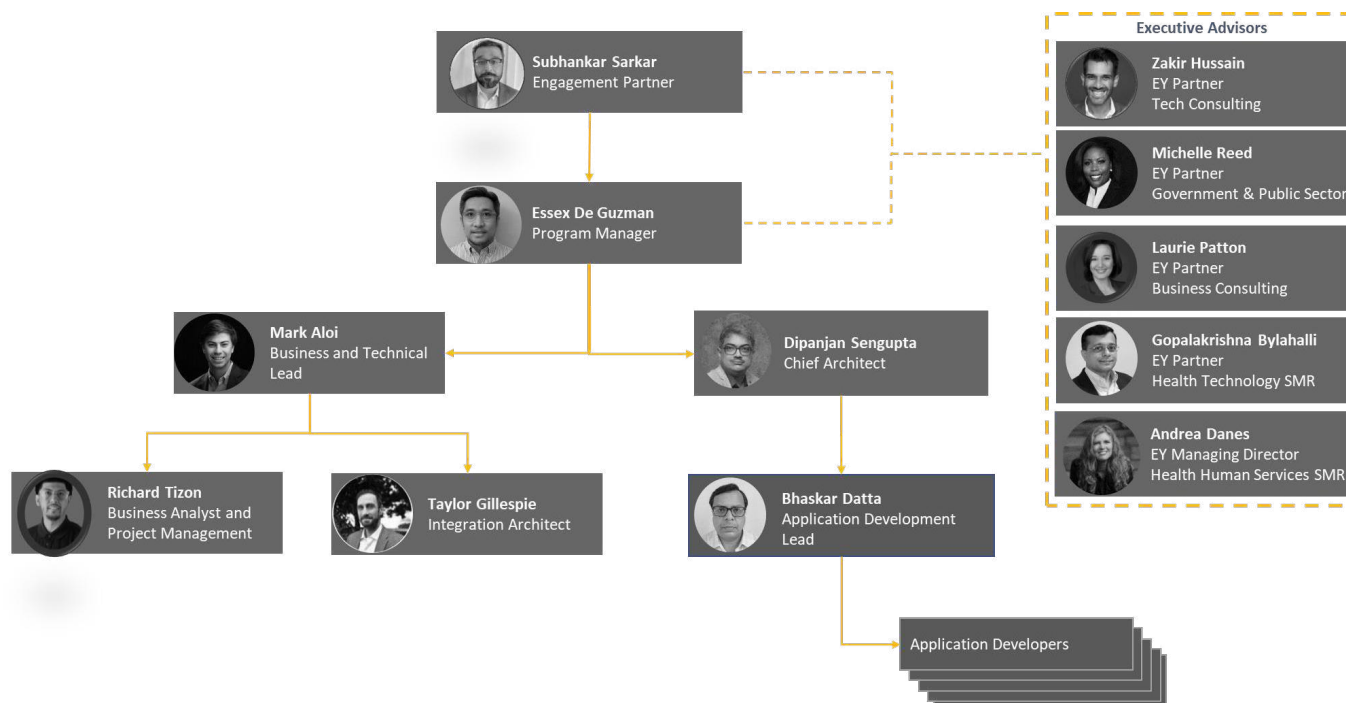
The DED will include the following:

- ▶ Deliverable name
- ▶ Deliverable purpose
- ▶ Deliverable table of contents
- ▶ A general description of the information that will be contained in the deliverable
- ▶ Deliverable acceptance criteria. These criteria will be consistent with the requirements of the SOW/contract
- ▶ Deliverable quality reviews checkpoints

The EY team will address feedback provided by Harris County stakeholders during the Preliminary Design Review (PDR) and Final Design Review (FDR) for each deliverable. The acceptance criteria will be considered met if the deliverable fulfills the scope in the SOW and feedback has been addressed, confirmed and approved by the appropriate County workstream leader. If feedback is not received within 10 days business days of submission of the deliverable, we will assume the deliverable has been accepted.

The key deliverable artifacts in the different workstreams are listed below. These artifacts are described in detail earlier in this section.

## vii. Project Organization Chart



## viii. Project team qualifications



### Subhankar Sarkar

**Proposed Position:** EY Engagement Partner

**Years with the company:** 2

**Total years of experience:** 23

#### Qualifications relevant to this project

Subhankar has more than 20 years of consulting experience in Federal, State and Local Government. He works with clients on IT portfolio modernization, enterprise architecture and cloud. He is the creator and first implementer of an advanced data interoperability framework that has been adopted by Health and Human Services agencies nationally and internationally.

Prior to his current role at EY, Subhankar was the chief architect for Health and Human Services at IBM. He led multiple Medicaid 1115 Demonstrations in California, was an advisor to the New York Medicaid office, and performed transformative work for the Ministry of Social Development in New Zealand. Subhankar was the recipient of the IBM-wide Outstanding Technical Achievement Award in 2020.

#### Project experience relevant to this project

- ▶ **IBM HHS Connect360** - Creator of the IBM HHS Connect360 product, currently in use in five counties across the nation, and in New Zealand. The product includes breakthrough solutions in the areas of Whole Person Care, Authorization & Consent and Identity Management.
- ▶ **California State** - Architected and implemented a data interoperability and intelligent automation platform that connected 11 County departments, and also the local 211 and HIE, within a large California County. The State Office of System Integration conferred upon the project the Best of California award in 2019.
- ▶ **California FIRE** - Helped a California county respond effectively to the devastation and homelessness caused by wildfires, by equipping multi-disciplinary teams with analytic insights to support residents' housing, medical and food needs. The project won the NaCo Achievement award and the London Financial Times Intelligent Business award.
- ▶ **FHA** - Supported the Federal Housing Administration with alternatives analysis and investment planning pursuant to OMB Exhibit-300. Technical advisor to the FHA Commissioner's office during the housing crises of 2008.
- ▶ **DoD** - Led certification and accreditation of major federal systems and performance and capacity analysis for large DoD systems.

#### Education and certifications

- ▶ MBA - Strathclyde University, Glasgow, UK
- ▶ Bachelor's in Technology - Indian Institute of Technology, Kanpur
- ▶ PMI-certified Project Management Professional (PMP)
- ▶ Microsoft-certified Azure Solutions Architect – Expert
- ▶ Certified ITIL Professional



### Essex De Guzman

**Proposed Position:** EY Program Manager

**Years with the company:** 2

**Total years of experience:** 17

#### Qualifications relevant to this project

Exequiel "Essex" De Guzman has more than 17 years of creating and executing an end-to-end data & technology strategy and delivery, from application development, data creation and data management, to analytical data consumption, and data science model integration into business workflow. A trusted data advisor that guides transformation of data into customer value by applying industry best practices and frameworks to understand what's possible, understanding the business context to determine what's feasible, and implementing enterprise grade solutions to make things real.

#### Project experience relevant to this project

- ▶ **Director, Engineering Lead (Data, Software and Quality)** - Essex owned the data strategies and target architecture for the Sales, Service, Acquisition and Risk Engineering value stream for the middle and large commercial business lines for one of the largest commercial insurance providers. He was responsible for executing an organizational transformation to optimize, mature, and grow teams for the Software, Data and Quality engineering practice while driving down overall operating cost. He partnered with executives and delivery leads to modernize the data ecosystem from on premise appliances to hybrid cloud services for data integration, data analytics and data science processes. He provided reverse mentoring for senior executives on emerging technology and modern workplace trends. He created a data hub strategy for optimizing application and data integration to accelerate application rationalization and modernization efforts for the organization.
- ▶ **Manager, Big Data Software Engineering** - Essex was a manager for 1 of the Big Four consulting firms. He was responsible for rapidly architecting, designing, prototyping, and implementing data systems. He consulted on the Big Data and Data Science needs for a variety of Fortune 1000 corporations and other major organizations. He was responsible for designing, planning and presenting strategic road maps for data initiatives to clients. He worked in cross-disciplinary teams within the consulting firm's industry experts to understand client needs and ingest rich data sources such as social media, news, internal/external documents, emails, financial data, and operational data. He researched, experimented, and utilized leading Big Data methodologies such as Hadoop, Spark, Netezza, and NoSql. He architected, implemented and tested data processing pipelines and data mining / data science algorithms on a variety of hosted settings, such as AWS, Azure, client technology stacks, and the firm's internal clusters. He translated advanced business analytics problems into technical approaches that yielded actionable recommendations in diverse domains such as risk management, product development, marketing research, supply chain, and public policy; communicated results and educated others through insightful visualizations, reports and presentations.
- ▶ **Technical Architect** - Essex was the technical architect for a healthcare informatics organization working on the Enterprise Platform Analytics team, whose goal is to provide data as service on the cloud by collecting and organizing data from a multiple member hospital's electronic recording system into a data lake. Then, transformed and integrated data into a standard input format (SIF) that feeds into a platform that transforms data into a standard output format (SOF), using a unified proprietary data model and big data technologies such as Scala, Spark, Hive and Oozie. SOF data was then standardized using reference data management (RDM) tool - Symedical, and data entities through a master data management (MDM) process using IBM Initiate. Enriched data was then used for reporting and analytics using BI tools such as Tableau and Cognos. Additionally, Essex led the development of Population Health and Patient Cohort applications that uses a custom graphical user interface to help manage provider workflows while leveraging mastered and enriched data.
- ▶ **Others** - Essex held various roles throughout his careers such as Data Integration Technical Lead, Systems Engineer, and Software Developer.

## Education and certifications

- ▶ BS Computer Science - University of North Carolina, Charlotte NC



## Dipanjan Sengupta

**Proposed Position:** Chief Architect

**Years with the company:** 1

**Total years of experience:** 26

## Qualifications relevant to this project

An accomplished architect with over 26 years of experience in middleware technologies, integration, service-oriented, microservices and cloud-native architecture, he provides thought leadership and innovation in developing reusable assets and delivery accelerators, aligned with current and emerging trends in cloud computing, and evangelizes the adoption of these accelerators in delivery projects to provide competitive advantage. Dipanjan is a regular speaker at conferences worldwide on his areas of expertise. He has been invited to speak on generative artificial intelligence at the Open Group Summit in Houston, Texas this year. He has recently filed two patents, one on data interoperability and another on declarative digital engineering specifications.

## Project experience relevant to this project



- ▶ **New York-based global marketing communications agency** - Modernizing integration applications from MuleSoft Platform to Amazon Web Services for a multinational provider of company credit scores and credit report information. Build a unified consumer engagement platform using cloud-native architecture. Designed a federated event-driven microservice orchestration engine using open-source frameworks and libraries was built to address the complex workflows that the nature of business demanded
- ▶ **American department store chain headquartered in New York** - Design, development and delivery of an enterprise-wide microservices governance and automation framework for one of the largest department store chains in the world. create a set of utility libraries which addressed the cross cutting concerns such as logging, tracing, exception handling etc. to build a reference implementation complying with the best practices in terms of use of design patterns, code governance and twelve factor principles
- ▶ **Hong Kong-based international luxury hotels and resorts company** - built a state-of-the-art e-commerce site that exchanges data from multiple on-premise, cloud-based and third-party services. Designed and lead the implementation of an integration middleware of the e-commerce site using Amazon Web Services to connect with on-premise content and campaign management systems, third-party booking engines and other cloud-based apps that provide analytical insights on revenue and target campaigns that feeds the site.
- ▶ **High Performance Cloud Integration Platform** - Dipanjan built an open-source based service-oriented integration platform that helps connect on-premise and cloud-based applications. The platform supports multiple wire formats and low latency serialization libraries for faster data exchange and components for connecting with a variety of data sources. It supports all relevant enterprise and cloud integration patterns. The flight information hub of one of the largest airports in Europe was built on this platform.

### Education and certifications

- ▶ Master of Technology from Indian Institute of Technology, Kanpur
- ▶ Bachelor of Engineering, Jadavpur University



## Bhaskar Datta

**Proposed Position:** Application Development Lead

**Years with the company:** 2

**Total years of experience:** 30+

### Qualifications relevant to this project

Bhaskar has overall IT experience of over 30 years and played the role of Enterprise and Data Architect for last 10+ years. He has delivered more than 10 large development projects as Enterprise and Solution Architect with some of them having Cloud Native Microservices, Async Messaging, Event Handling, API Management and Integration. He has extensive experience as a Data Architect in both OLTP and Data Warehouse platforms and designed high performance and large data repositories.

### Project experience relevant to this project

- ▶ **Online Food Ordering Platform** - Served as solution architect of his cloud deployed platform having cloud native microservices, messaging & events and integration with third parties and payment gateways catering to functionalities like menu catalog ingestion, order management, POS integration & payment.
- ▶ **DRIVE** - Served as data architect in data warehouse initiative to integrate and pull data from NBO Menu Management system. Data is leveraged for analysis and BI reporting of operational and cost efficiency.
- ▶ **Operational Metrics Dashboard** - Worked as solution architect in ASP.Net MVC web application to capture performance data and analyze/calculate complex Metrics & KPIs. Extensive use of java script and Kendo visualization components
- ▶ **Volume Discount Analysis** - Served as data architect to analyze food catalogue from leading suppliers to find best match in terms of price, volume discount and various other parameters.
- ▶ **HomeBase** - Served as solution architect in Web App for end-to-end real estate transaction having extensive asynchronous middleware operations, messaging and workflow management.
- ▶ **Master Data Management (MDM)** - Worked as data architect in Informatica MDM & Oracle project to gather, cleanse & consolidate master data from heterogenous systems.
- ▶ **Better Homes & Gardens** - Worked as solution architect to design & build REST APIs exposed for third party consumption in real estate domain.

### Education and certifications

- ▶ Bachelor of Engineering in Electronics and Tele-Communication Engineering



## Mark Aloï

**Proposed Position:** Business and Technical Lead

**Years with the company:** 4

**Total years of experience:** 6

### Qualifications relevant to this project

An emerging business leader with a record of providing value creating, business intelligence and data solutions for clients and companies alike. Mark brings a rare combination of strategic thinking, leadership, business acumen, comprehensive technical knowledge, and strong communication skills. He is a part of EY's Data and Analytics consulting practice where he leads teams delivering applications on microservices based architectures. Mark is a trusted advisor for some of the largest organizations in the US and provides data strategy, implementation, and program management for microservices based architectures and data platforms.

### Project experience relevant to this project

- ▶ **Medicaid Case Management Application** - Mark was the project manager, data, and architecture lead for building a Medicaid Case Management Application which streamlined the process for case workers to support constituents, enrol them for new services, and discover relationships between disparate data points. This Application followed an API driven approach for accessing data from various source systems. This application solved for clients request of being able to access all a constituent's information from a single application rather than having multiple applications case workers had to use to get a complete picture of individuals in the various programs. This solution saved medicaid case workers thousands of hours by having a single application to access all of a constituent's information and be able to take actions, assign care plans, and detect fraud.
- ▶ **Microservice Platform Product Owner** - Product Manager and delivery lead for Data Fabric solution offering in EY. In this role, Mark oversees the delivery of data integrations, assets, and solutions that answer a range of business questions for diverse clients in many industries. Mark has designed and managed the implementation of microservices based applications leveraging HL7 FHIR, Data Fabric, and Entity Resolution tools.
- ▶ **Fortune 50 Life Sciences Company** - Mark led the data migration and data integration workstreams for a new R&D software implementation at a fortune 100 life sciences client, delivering a seamless transition of application and downstream system integrations.
- ▶ **Securitization Organization:** Drove the implementation of a business intelligence transformation helping a leading capital markets client to modernize and automate their reporting capabilities through a business semantic layer and a data warehouse integration with various business systems.

### Education and certifications

- ▶ B.S. in Business Analytics - University of Tennessee
- ▶ Microsoft Certified Solutions Expert in Data Management and Analytics



## Taylor Gillespie

**Proposed Position:** Integration Architect

**Years with the company:** 2

**Total years of experience:** 12

### Qualifications relevant to this project

With an emphasis on open-source software, Taylor has over 12 years of cumulative experience architecting and developing on many different platforms. His work with sensitive big data and integrating systems, position him to deliver the tools for sector-specific data products.

### Project experience relevant to this project

- ▶ Led the application development of a Proof of Concept (POC) for state-level Medicaid caseworkers to quickly assess a constituent's status and facilitate, timely, actionable outcomes through the integration of EY Intelligence Engine (IE) entity resolution (ER), data fabric, and IBM Fast Healthcare Interoperability Resources (FHIR) server. Using those backend services, Next.js, React, Typescript, and CouchDB.

- ▶ Assisted a client presentation by developing a live POC of generating Centers for Disease Control and Prevention (CDC) compliant Health Level Seven version 2 (HL7v2) messages from application source systems.
- ▶ Helping implement POC of X12 Electronic Data Interchange (EDI) Claim message parsing pipeline into EY IE ER, FHIR, neo4j graph database, and facilitate the Power BI reporting.
- ▶ Aided and serviced marketing initiatives, subscriber fulfillment, and feature development for startups.



## Richard Tizon

**Proposed Position:** Business Analyst and Project Management

**Years with the company:** 2

**Total years of experience:** 7

### Qualifications relevant to this project

Richard brings over 7 years of experience of managing complex projects, gathering, documenting, and communicating requirements and testing applications. Richard has prior local government experience in Program and Project Management for multiple counties in the Houston Area and brings a wealth of Analyst, Project Management, and Testing experience.

### Project experience relevant to this project

- ▶ **County ARPA Program** - As workstream lead and project management support, Richard is assisted in the responsibilities of project and milestone tracking. Other duties included performance and KPI tracking, management of risk registry, coordination of stakeholders, and confirming the proper and timely execution of activities. This initiative was led by a county public health department and encompassed the work of multiple County departments, agencies, and community-based organizations. Combining services, systems, and funding, these agencies helped residents provide different services to meet their needs. Richard aimed to provide experienced assistance in project management support to ensure the overall success of counties mission.
- ▶ **ARPA Cares Act: Fort Bend County** - Richard assisted as Program Manager to support the utilization of a Grant Management Technology solution to assist with Fort Bend County's efforts in providing Emergency Rental Assistance to residents impacted by COVID-19. Tasks included assisting in implementing Grant Management Software, overseeing customer data, managing CRM, and improving customer relations through the CRM system. In addition, Mr. Tizon tested the CRM system for functionality, data accuracy, performance, and to assess the system's overall quality and reliability. Along with assisting in overseeing program processes, he also managed and worked with internal and external partners to automate and improve existing metrics and management reports. Richard provided Project and Program Management, Grant Management, and Case Management to Fort Bend County with its CARES Act funding received through the U.S. Treasury to aid Fort Bend County residents with rental and utility assistance.
- ▶ **CARES Act Small Business Program: Fort Bend County** - Richard performed case management and eligibility determinations for COVID-19 Fort Bend County Small Business Program. He completed Quality Assurance & Quality Control on eligible cases to process checklist/transmittals for payment processing. He reconciled daily reports submitted by case managers and auditors to update master files for reporting purposes. He also analyzed data files to produce daily, weekly, & ad hoc reports to Management & County Officials.

### Education and certifications

- ▶ B.A. Business Management - Goldey-Beacom College
- ▶ Corporate Financial Planning and Analysis Professional - Rice University
- ▶ Registered Scrum Master



## Andrea Danes

**Proposed Position:** Health and Human Services SMR

**Years with the company:** 4

**Total years of experience:** 30+

### Qualifications relevant to this project

Andrea is widely recognized as an industry expert with more than 30 years' experience in both public and private sectors, with program expertise in Medicaid, Child Welfare, and other Human Services programs. Over the two decades in the private sector Andrea has worked with agency and program leaders in more than 43 states. Leveraging her broad experience, she provides strategic guidance to executives leading federal initiatives, state agencies, and vendor organizations to redesign their program approach, adjust product and service offerings, align with federal and state regulations, and advocate effectively across industry groups.

Andrea's passion for establishing better service delivery models across HHS is driven by personal experience both as a child growing up in Section 8 housing with free lunches, as well as in adulthood where their youngest daughter came into the family through kinship placement. This powerful combination of professional and lived expertise uniquely positions her to help government agency leaders understand the power of their programs, and the untapped potential of their populations. Her knowledge of the programs from the "inside out" and experience with the challenges from the "outside in" give her exceptional insight into the current problems plaguing our Human Services programs, and the experience and expertise to help solve them.

For more than 20 years Andrea has been a nationally recognized and sought-after speaker, sharing perspectives and guidance through industry conferences, thought leadership, and podcast appearances. She's provided expertise on panels and as a single interviewee and is always excited to share what she has learned with others interested in transforming the social safety net.

#### Project experience relevant to this project

- ▶ **EY HHS Leader** - Providing Executive thought leadership and strategy to the firm's market approach to HHS transformation. Actively engaged in the firm's global approach to identifying and supporting vulnerable citizens using integrated data and risk algorithms to identify and apply intervention strategies through government-based programs. Development of presentation and published materials to support program initiatives using data and technology to identify and proactively support vulnerable populations. Advocate across industry forums for smart safety net initiatives designed to leverage social service program benefits in a person centric strategy
- ▶ **Portfolio Leader** - Overseeing work in more than 40 states across various agencies and programs, providing executive leadership and oversight of both business development and delivery. Led HHS strategy and program redesign initiatives executed through a national team of consultants serving the Centers for Medicare & Medicaid Services (CMS) for development of MITA 3.0 and across more than 26 state agencies. Executive oversight for all US HHS agency transformation work, including strategy, project management, and quality assurance/IV&V. Established and led all aspects of the Healthcare and Human Services Practice including strategic planning, client relationship management, business development, Centers of Excellence research, industry participation, project oversight, and marketing

#### Education and certifications

- ▶ B.S, Political Studies and Management Information Systems, UIS
- ▶ A.S., Business Administration, Lincoln Land Community College
- ▶ Business Law, Lincoln College

## ix. Firm qualifications

We are a leading consulting firm to state governments and public-sector entities.

The EY organization has been serving public-sector organizations since its founding, and the firm works with more than 2,000 government and public-sector clients annually. Our 20,000 government and public-sector professionals have decades of experience helping government entities tackle their most critical challenges.



**We bring leading public sector and commercial insights to help drive innovation and address challenges for government clients**



**Public sector focus**

- We have worked with over 36 states across the US, bringing broad and deep experience in facing the challenges of public sector clients.
- We deploy teams with a mix of public sector and commercial experience to drive innovative, practical approaches for our government clients.



**Commercial insights**

- We bring leading commercial practices to our government clients to address their key issues.
- Our alliances with leading innovation and technology organizations mean we can help our clients drive their current and future technology investments and enable better business outcomes.



**Global reach**

- Our Government and Public Sector team focuses on federal, state and local governments. We provide solutions for key challenges impacting government today.
- Our distinct ability to access our network allows us to quickly bring the right experience on the issues that matter to our clients.

State governments are under extraordinary pressure to do more with less, particularly given the impact of COVID-19. States are faced with assessing and managing the impact on fiscal, budgetary and policy aspects pertaining to people, business processes and technologies. We are engaged with many state governments to optimize business processes, better align organizations, and deploy innovative technology to improve services for residents, businesses, employees and visitors.

**Our clients**

**Federal government**

- ▶ Department of Commerce
- ▶ Department of Defense
- ▶ Department of Energy
- ▶ Department of Health and Human Services
- ▶ Department of Homeland Security
- ▶ Department of Housing and Urban Development
- ▶ Department of Justice
- ▶ Department of State
- ▶ Department of Transportation

**State and local government**

- |  |                 |                  |
|--|-----------------|------------------|
| ▶ Department of Treasury   | ▶ Arizona       | ▶ New Jersey     |
| ▶ Department of Veterans Affairs                                       | ▶ California    | ▶ New York       |
| ▶ General Services Administration                                      | ▶ Colorado      | ▶ North Carolina |
| ▶ Intelligence community   | ▶ Florida       | ▶ North Dakota   |
| ▶ Military Health System   | ▶ Georgia       | ▶ Ohio           |
| ▶ Millennium Challenge Corporation                                     | ▶ Illinois      | ▶ Oklahoma       |
| ▶ Office of Personnel Management                                       | ▶ Kentucky      | ▶ Pennsylvania   |
| ▶ U.S. Agency for International Development                            | ▶ Maryland      | ▶ Tennessee      |
| ▶ U.S. Armed Forces - Army, Marine Corps, Navy, Air Force, Coast Guard | ▶ Massachusetts | ▶ Texas          |
| ▶ U.S. Postal Service  | ▶ Missouri      | ▶ Virginia       |

**Figure 10:** EY's support for public sector entities spans all levels and geographies.

## The Forrester Wave and IDC EY is the Market Leader in Digital Transformation

We are the recognized market leader in digital transformation and views interoperability as a distinct digital transformation opportunity. We are a recognized market leader in Digital Transformation Services by Forrester and IDC as shown in the chart below. We are committed to the highest levels of integrity, quality, and professionalism in all that we do. We have deep knowledge and experience in helping government organizations transform their existing organizations, core processes and technologies. We are providing information in our response that we believe demonstrates we are a qualified firm for helping Harris County on this critical initiative.



**Figure 11:** Digital business consulting services market analysis places EY as an industry leader.

EY data integration capabilities combine data best practices and advanced analytic techniques to assess and develop recommendations for improvements on the maturity and scalability of data management, collection, analysis and visualization/business intelligence processes and methods. We have subject-matter resources with extensive experience in:

- ▶ General information management and technical support including data architecture, data warehouse design and implementation, ETL, and the design and automation of other database administration processes
- ▶ Developing scalable and repeatable analytic frameworks and implementing customizable reporting and business intelligence dashboards to aid in management decision-making with data-driven results to meet mission goals
- ▶ Analyzing unstructured, semi-structured and structured data using scalable statistical and machine learning techniques including multivariate regression, hypothesis testing, natural language processing/text mining, sentiment analysis and geospatial modeling

“

The EY staff couldn't have been more respectful, knowledgeable, prepared and customer focused. The meetings always had a set agenda and purpose, were held and tracked timely, customer interactions at all levels were respectful and always willing to listen, learn and advise.

Commonwealth of VA CIO  
Robert Hobbelman



**Figure 12:** EY follows a global, industry-focused approach to Consulting.

- ▶ **Trust.** You'll see technology and innovation and data. But everything we do is founded on the following principles of building trust.
- ▶ **Integrity.** Using risk management both in design and execution.
- ▶ **Protection.** Blending cyber risk management and privacy into design and delivery.
- ▶ **Constituent connection.** All of our human-facing designs are experience-led, which creates the dynamic between government and constituent that builds trust.
- ▶ **Purpose Built.** Our competitive advantage lies in the approach we've taken to build and scale our consulting capabilities. We have listened carefully to our clients and have observed trends in the market that direct us toward areas of increased and sustained demand across consulting, including underserved capability areas. Through focused talent acquisition, organizational acquisition, organic talent development and a targeted alliance strategy, we have built a consulting capability that is custom tailored to meet the most pressing demands of our clients.

- **Consulting Breadth.** Ability to provide full-service consulting capabilities from strategy, to implementation support, to managed services.

“

EY's partnership has been invaluable in helping to conceptualize a Safety Net dedicated to growing the capacity of those in need of services beyond that moment in their lives. Through the partnership, EY has evidenced a strong knowledge of the many component parts of the Safety Net, while seeing beyond the boundaries of bureaucracy.

Clarence Carter  
Commissioner TN DHS  
Former Director Office of Family Assistance  
US Department of Health and Human Services, and  
State of AZ

► **Cross-Service Line Network.** Over 300,000 employees globally with a range of skill sets that many of our consulting competitors do not possess.

► **Team.** We realize to attract and keep talent we need to empower our people to build their careers through diverse and flexible learning opportunities and purpose-driven experiences. Each year, we invest \$500 million in more than 14 million hours of training for our people. EY Badges is a key firm-wide learning program that recognizes the need to upskill and motivate all our people to work with a global and digital mindset. EY professionals and staff can earn credentials in vital areas such as Blockchain, design thinking and artificial intelligence, to name a few.

► **Innovation.** Our innovation capabilities and being recognized for our focusing end-to-end from ideation to scale. Our firm has been recognized by Forrester Research as a leader in innovation consulting services in The Forrester Wave™: Innovation Consulting Services Providers.

- **Technology.** Our award-winning technologies help us serve our clients more efficiently and cost-effectively. We have invested \$1b in new technology solutions, client services, innovation and the EY ecosystem over the past two financial years. This move is part of an ongoing strategy to provide clients and people with innovative offerings using the latest disruptive technologies.

## Health and Human Services Domain Knowledge

We have years of experience assisting states with solutions to serve their most vulnerable people. We have developed strategies that have allowed individuals with intellectual and developmental disabilities to live a healthy and independent life in the community rather than in state institutions. Additionally, our firm has assisted a major state with a transformation program that has enabled individuals with significant behavioral health needs to receive service as close to home as possible and in the least restrictive environment possible.

We have dedicated to helping government agencies achieve mission success within the government and public sector landscape. Focused from strategy to execution, the EY Government & Public Sector (GPS) practice helps our clients implement new ideas to achieve their visions:

- Protecting our nation and increasing public Safety
- Improving health care for our military, our veterans and our citizens
- Delivering essential public services and helping those in need

Our Health & Human Services team works with state agencies charged with administering Medicaid, eligibility, enrollment, child support, public health and other human services functions. Our professionals are former state health agency leaders, industry thought leaders and top technology and platform experts who help our clients deal with their varied challenges. We employ a disciplined, thoughtful, risk-focused approach to all aspects of our work including:

- Project and program management
- Federal oversight and IV&V
- Agency and functional transformation
- Program assessments
- System Integration
- Digital innovation
- Public finance management, including blockchain



## x. Relevant Experience

Client: California Statewide Automated Welfare System			
Total Contract Value	\$10,768,415	Client Point of Contact	Point of Contact to be provided upon request
Scope of services			
<p>EY supported the design, development, testing, and releasing of the Online CalWORKs Appraisal Tool (OCAT) for the California Statewide Automated Welfare System. OCAT is a comprehensive Web-based application for use by Welfare-to-Work (WtW) case managers with clients in the California Work Opportunities and Responsibilities to Kids (CalWORKs) program.</p> <p>During the Welfare-to-Work Appraisal, OCAT is used to gather client information, through a series of questions, including, but not limited to, employment and educational history, housing stability, physical and behavioral health, and domestic abuse. OCAT provides customized recommendations based on the specific information collected during the interview and appraisal process. The recommendations aid the case managers in developing Welfare-to-Work plans for the client. Through OCAT, case managers can understand the strengths, barriers, and work readiness needs of clients, as they move towards gainful employment and self-sufficiency, and supervisors and site administrators are able to understand their client populations at an aggregate level. To develop a comprehensive picture of client needs, caseload information is summarized into reports at various levels, including statewide, countywide, and localized views.</p> <p>The project involved the development and implementation of the tool for the Welfare-to-Work case managers in the State's fifty-eight (58) Counties. EY was responsible for the entire software development lifecycle (SDLC) including designing, developing, compiling, testing, and releasing software into the AWS Cloud. EY's capabilities included:</p> <ul style="list-style-type: none"> <li>▸ Open-Source Cloud development leveraging AWS services</li> <li>▸ Identifying and Building Realtime interfaces that integrate with Consortium's SAWS systems and documentation via interface design document</li> <li>▸ Robust System Security that uses an intensive verification process used to confirm Consortia's information security standards are met before supplying hosting services to the cloud</li> </ul> <p>EY performed the following project tasks and provided respective deliverables:</p> <p><b>Phase 1 - Development and Implementation (D&amp;I) Phase</b> consisting of the following tasks:</p> <ul style="list-style-type: none"> <li>▸ Project Management</li> <li>▸ Confirm System Requirements</li> <li>▸ Application Design</li> <li>▸ Application Development</li> <li>▸ Implementation</li> <li>▸ Final Acceptance</li> </ul> <p><b>Phase 2 - Maintenance and Operations (M&amp;O) Phase</b> consisting of the following tasks:</p> <ul style="list-style-type: none"> <li>▸ Project Management</li> <li>▸ System Maintenance and Operations</li> <li>▸ System Transition</li> </ul>			

## Additional Experience:

EY brings to the engagement specific experience of and knowledge about the Harris County IT and data landscape. We have been providing services to HCPH, in close collaboration with HCPH IT, HCUS, CAO and County affiliates such as Harris Health and Harris Center, for nearly two years in the following areas:

**EY enabled and supported the ACCESS Harris Program, focused on improving the well-being, self-sufficiency, and access to services for the County's most vulnerable residents through integrated service delivery and data sharing across agencies. We supported the following critical areas:**

- ▶ **Data Governance** - EY helped HCPH develop Data Sharing Agreements (DSAs) and Interface Control Documents (ICDs) with eight different County agencies and affiliates, for the purpose of building the County's ACCESS care coordination platform. These agencies and affiliates spanned public health, housing and public safety, justice, and mental and behavioral health, all with variant data semantics and privacy controls. We developed a data sharing framework and underlying technical architecture, with infosec and privacy controls baked in, for these agencies to share data effectively within compliance boundaries.
- ▶ **Data Integration** - EY collaborated with HCPH IT and HCUS to implement the data integration architecture for ACCESS, including secure data pipelines from the different agency systems into the ACCESS platform. We implemented capabilities such as data profiling, data quality, data lineage, complex data transformations, data format conversion, data anonymization and PGP encryption. We also developed a process for an automated, no-touch deployment of the data pipelines. We successfully completed a PoC for integration of Harris Health EPIC with ACCESS, using an HL7 FHIR based Node.js microservice.
- ▶ **Data Analytics and Reporting** - EY is helping design and develop comprehensive KPI dashboards for internal and external audiences. These dashboards provide the county with a clear storyline for ACCESS program performance and areas of improvement. The dashboards run on top of an integrated data hub running in the County's Azure tenant. The data hub incorporates capabilities such as data catalog, data lineage and data quality controls.
- ▶ **Cyber Security** - For the ACCESS program, EY supported HCPH IT and HCUS in establishing controls, building a security responsibility matrix, and collecting security event data (SIEM). At a HCPH departmental level, EY is providing services for security risk and impact assessment, security architecture reviews, penetration testing, red team testing, Plan of Actions & Milestones (POA&Ms), and risk mitigation strategies.

**EY is helping HCPH design a public health Compliance Program to eliminate fraud and abuse, institutionalize the appropriate policies and standards, protect health and other critical data, and deploy an effective compliance monitoring plan:**

- ▶ EY is helping establish an office of public health and healthcare compliance based on the United States Department of Health and Human Services (DHHS) Office of Inspector General (OIG) 7 elements of a Compliance Program. This effort includes a compliance risk assessment, a privacy and security assessment, a roadmap and an implementation plan to address gaps and risks.

**In addition to our work with HCPH, EY's commitment to Harris County also extends to other key initiatives including:**

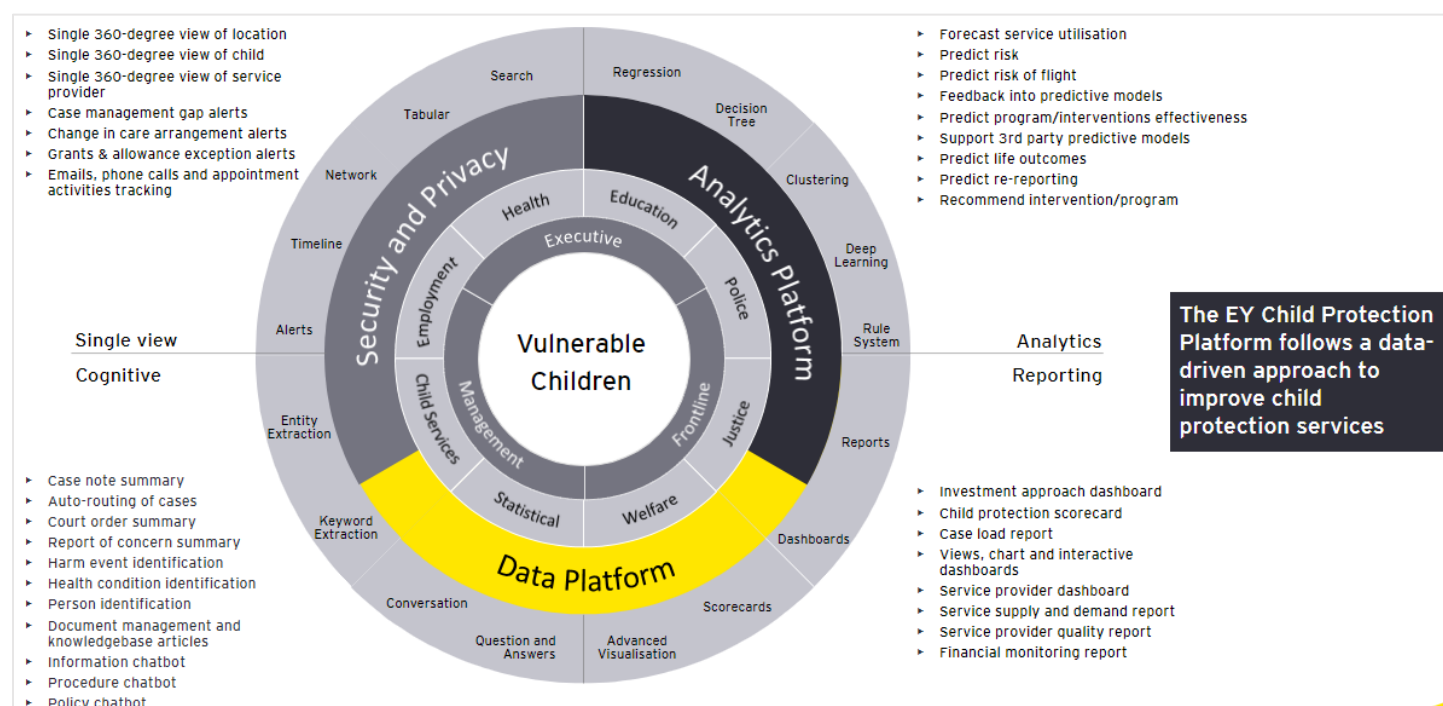
- ▶ **Harris County's Disaster Recovery Evaluation and Resiliency Building for Future Disasters Project with the Harris County Community Services Department** - A project to develop a framework to promote best practices for recovery, analyzing Houston's competitive strengths and challenges as compared to peers, to support economic development initiatives, and assessing Houston's framework to build a resilient city to improve power quality, reliability, and investments.
- ▶ **City of Houston Resilient Now Program Launch** - A critical cross-stakeholder initiative to strengthening power quality and reliability, align objectives and prioritize investments to achieve the City of Houston's

power resiliency goals through stakeholder interviews and the development and strategy of Houston's Master Energy Plan.

## Case Study - EY Protection Intelligence Platform

EY built a Child Protection Intelligence Platform (CPIP) to provide frontline staff a 360-view of children and their families to identify children at risk and provide timeline interventions. The platform included capabilities to support data-driven case management, real-time collaboration, and data sharing between different entities across the childcare ecosystem.

The EY CPIP helps governments and frontline case workers to make timely and responsive decisions and improve outcomes for children and their families. EY employed an approach tailored to the specific processes and requirements of the client in streamlining their childcare delivery services and covered the five essential stages of child protection services, including Intake, Investigations, Court, Case Management, and Placement.



**Figure 13:** The EY CPIP helps provide frontline staff with a 360-view of children and their families to identify children at risk and provide timely interventions.

## Case Study – Homelessness Intervention and Support

In 2018, The Homelessness Reduction Act (HRA) came into force in the UK, leading to increased demand for Housing services in a period of reduced funding due to austerity measures. Local authorities in the UK were under enormous strain with annual budget cuts. Many social workers faced increased caseloads and struggled to gain an accurate view of the scope and scale of households at risk. In 2019, the Town of Maidstone launched their new Homelessness & Rough Sleeper Strategy, prioritizing the prevention of homelessness. The Maidstone Borough Council approached us to support their transformation towards a preventative service model.

Collectively, we pioneered a new approach to tackling homelessness by designing and implementing 'OneView' – an innovative tool that brings together data from different areas to identify those at risk of future homelessness and enables councils to understand their services in a holistic way – ultimately transforming the way that vulnerable groups are supported.

The tool also enabled Maidstone to overcome a number of their key challenges, with core functionalities including:

- ▶ Single view of customer via automated case summaries
- ▶ Robust data controls
- ▶ Interactive reporting Proactive risk alerts

By better understanding the demand for temporary accommodation and examining how trends change over time, we can help counties adapt their services accordingly and continue supplying timely, personalized support in the future. Our approach was predicated on establishing a robust approach to information and data governance that enabled OneView to be used as a mechanism for improved partner working, enabling the sharing of information in a secure, controlled, ethical and compliant manner. Subsequent phases focused on supporting the service to improve decision making and resource commissioning through better use of data and insight.

In just one year, the EY team was able to enable the following outcomes:

- ▶ Reduction in homelessness through improved early intervention
  - ▶ Households were identified 3-6 months before reaching crisis point
  - ▶ **40% reduction in homelessness** due to risk alerts enabling proactive support
- ▶ Generated cost savings
  - ▶ **£225k in actual cost savings**, with potential savings of £578k if MBC had additional capacity; equivalent to 15% of the Housing budget
  - ▶ Represents an **ROI of over 600%** and broader societal savings of £2.5m
- ▶ Improved partner working
  - ▶ **Consolidated 15+ data files** from internal and external sources
  - ▶ Enabled teams to gain a more holistic understanding of an individual's situation
- ▶ Reduced administrative burden
  - ▶ **61 days reinvested** in working directly with vulnerable citizens
  - ▶ Potential to increase to 160 days with a broader roll-out

By pulling together data that already exists, the EY team was able to identify a trend toward homelessness and could intervene earlier and proactively prevent individuals and families from becoming homeless.



## Section III Pricing





The total not-to-exceed price for the work performed under this SOW is \$500,000. EY will bill Harris County in monthly increments for the duration of the project. The fee schedule is specified in the table below:

#	Deliverable	Pricing Type	Price	Anticipated Invoice Dates
1	Project Plan	Fixed Fee	\$35,000	End of Month 1
2	System Design Document	Fixed Fee	\$65,000	End of Month 2
3	Application Code Base	Fixed Fee	\$350,000	End of Months 1-4
4	Implementation Plan	Fixed Fee	\$50,000	End of Month 4

Section IV  
MWBE Goal Participation  
Information Packet with  
goal inserted



## M/WBE UTILIZATION PLAN

The *M/WBE Utilization Plan* must be completed and submitted by the time specified in the solicitation documents. If the goal was not achieved, good faith efforts documentation must be submitted with the *M/WBE Utilization Plan*. All questions in the Good Faith Efforts Checklist **MUST** be completed and submitted with the *M/WBE Utilization Plan* if the goal is not met. Attach additional sheets as necessary.

### Section I — Project Identification and Goal

Project Name	Harris County Case Management
Solicitation Number	Job No 210317

Project Goal		
M/WBE	13	%

### Section II — Prime Company Information

Name of Company	Ernst & Young LLP
Address	1401 McKinney Street, Suite 2400
City, State Zip	Houston, Texas 77010
Phone	1 949 437 0736
Name of Contact Person	Subhankar Sarkar
Email address for Contract Person	subhankar.sarkar2@ey.com
Telephone number for Contract Person	1 571 970 7719
Is prime company M/WBE certified? (MBE/WBE, DBE, HUB, or 8(a))	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> MBE/WBE Joint Venture <input type="checkbox"/>

I certify that the information included in this *Utilization Plan* is true and complete to the best of my knowledge and belief. I further understand and agree that this *Utilization Plan* shall become a part of my contract with Harris County.

Subhankar Sarkar, Executive Director

Name and Title of Authorized Representative

Subhankar Sarkar

Digitally signed by Subhankar Sarkar  
DN: cn=Subhankar Sarkar, o=US, c=Ernst & Young, LLP,  
email=subhankar.sarkar2@ey.com  
Date: 2023.10.04 08:29:45 -0700

Signature

10/5/2023

Date

#### For County Use Only:

I have reviewed this *Utilization Plan* and found that the Proposer **HAS** or **HAS NOT** complied as per the County M/WBE Policy.

Reviewer

*Adrian Bolden*

Date: 1/29/2024

### Section III — Utilization Plan Summary

Goals: Proposed Participation		
Proposer's own participation in project	87.00	%
M/WBE(s): (MBE/WBE, DBE, HUB, or 8(a))	13.00	%
Non-Certified Subcontractor(s)	0.00	%
<b>Total Participation (must equal 100%)</b>	<b>100.00</b>	<b>%</b>

**Is the stated M/WBE goal of the solicitation met?** *(If no, provide an explanation below, attach the Good Faith Efforts checklist, and documentation of good faith efforts)*

Yes ☒

No ☐

**Explanation for not meeting the M/WBE Goal:**

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**For County Use Only:**

Verified Goal Attainment:

M/WBE 13 %

Bidder has committed to meeting the goal at 13% and signed LOI attached confirming intentions.



**Section IV — Disclosure of M/WBE Participation**  
**Please list all M/WBE subcontractors below & Duplicate as Needed**

*Tips: Use the name of the firm as listed in the directory.  
 Ensure the firm is certified in the area in which they are participating on this project.  
 Ensure the firm's participation is in line with the scope and germane to the project.*

Name of MBE/WBE Certified Firm	MPACT Strategic Consulting LLC
Certified by:	Harris County
Address/ City / State / Zip	4635 Southwest Freeway, Suite 700, Houston TX 77027
Name of Contact Person	Spurgeon Robinson
Email address for Contract Person	srobinson@mpact-consulting.com
Telephone number for Contract Person	917 817 8692
Percent of Subcontract	13
Description of services	<small>Provide professional services in the areas of Project Management to support the design of a case management solution.</small>
6-digit NAICS code for work to be performed	541611

Name of MBE/WBE Certified Firm	
Certified by:	
Address/ City / State / Zip	
Name of Contact Person	
Email address for Contract Person	
Telephone number for Contract Person	
Percent of Subcontract	
Description of services	
6-digit NAICS code for work to be performed	

Name of MBE/WBE Certified Firm	
Certified by:	
Address/ City / State / Zip	
Name of Contact Person	
Email address for Contract Person	
Telephone number for Contract Person	
Percent of Subcontract	
Description of services	
6-digit NAICS code for work to be performed	





## LETTER OF INTENT TO SUBCONTRACT

Project Number Job No. 210317

Project Title Harris County Case Management

Ernst & Young LLP ("Contractor") agrees to enter a contractual

agreement with MPACT Strategic Consulting LLC ("M/WBE Subcontractor"), who will

provide the following goods/services in connection with the above-referenced contract:

Pursuant to Harris County's M/WBE policy, only M/WBE firms which are currently certified with one of Harris County's recognized certifying agencies may be counted towards meeting the M/WBE goal at the subcontracting level.

Insert a brief narrative describing the goods/services to be provided. Broad categorizations (e.g., "electrical," "plumbing," etc.) or the listing of the NAICS Codes in which M/WBE Subcontractor is certified are insufficient and may result in this Letter of Intent to Subcontract not being accepted.

MPACT Strategic Consulting to team with EY in providing business and technology consulting services. MPACT will provide professional services in the area of Project Management and data analysis and provide their own resources as needed to complete the work.

for an estimated amount of \$ 65,000 or 13 % of the total estimated contract value.

The parties acknowledge that any obligation of the prime contractor to enter into a subcontract agreement or purchase order with the subcontractor is expressly contingent upon the prime contractor entering into a contract with Harris County for the work as defined in the bid/proposal.

**This document must be completed in its entirety by the Contractor and signed by both the Contractor and the M/WBE Subcontractor.**

Any false statements or misrepresentations regarding information submitted on this form may be a criminal offense in violation of Section 37.10 of the Texas Penal Code.

Contractor agrees to utilize M/WBE Subcontractor in the capacities indicated herein, and M/WBE Subcontractor agrees to work on the above-referenced contract in the capacities indicated herein, **contingent upon award of the contract to Contractor.**

Subhankar  
Sarkar

Digitally signed by Subhankar  
Sarkar  
DN: cn=Subhankar Sarkar, c=US,  
ou=Ernst & Young, LLP,  
email=subhankar.sarkar2@ey.com  
Date: 2023.10.04 10:29:40 -0700

Signature: Contractor

Print Name

Title

Date

Spurgeon Robinson

Signature: M/WBE Subcontractor

Spurgeon Robinson

Print Name

President 10/04/2023

Title

Date



**GLENN HEGAR** TEXAS COMPTROLLER OF PUBLIC ACCOUNTS

The Texas Comptroller of Public Accounts (CPA) administers the Statewide Historically Underutilized Business (HUB) Program for the State of Texas, which includes certifying minority, woman, and service disabled veteran-owned businesses as HUBs and facilitates the use of HUBs in state procurement and provides them with information on the state's procurement process.

We are pleased to inform you that your application for certification/re-certification as a HUB has been approved. Your company's profile is listed in the State of Texas HUB Directory and may be viewed online at <https://mycpa.cpa.state.tx.us/tpasscmblsearch/index.jsp>. Provided that your company continues to meet HUB eligibility requirements, the attached HUB certificate is valid for the time period specified.

You must notify the HUB Program in writing of any changes affecting your company's compliance with the HUB eligibility requirements, including changes in ownership, day-to-day management, control and/or principal place of business. *Note: Any changes made to your company's information may require the HUB Program to re-evaluate your company's eligibility.*

Please visit our website at <http://comptroller.texas.gov/procurement/prog/hub/> and reference our publications (i.e. Grow Your Business pamphlet, HUB Brochure and Vendor Guide) providing addition information on state procurement resources that can increase your company's chances of doing business with the state.

Thank you for your participation in the HUB Program! If you have any questions, you may contact a HUB Program representative at 512-463-5872 or toll-free in Texas at 1-888-863-5881.

**Texas Historically Underutilized Business (HUB) Certificate**



Statewide Historically Underutilized Business Program

Certificate/VID Number:	1331153997000
File/Vendor Number:	480525
Approval Date:	08-FEB-2021
Scheduled Expiration Date:	08-FEB-2025

The Texas Comptroller of Public Accounts (CPA), hereby certifies that

**MPACT STRATEGIC CONSULTING LLC**

has successfully met the established requirements of the State of Texas Historically Underutilized Business (HUB) Program to be recognized as a HUB. This certificate printed 12-FEB-2021, supersedes any registration and certificate previously issued by the HUB Program. If there are any changes regarding the information (i.e., business structure, ownership, day-to-day management, operational control, business location) provided in the submission of the business' application for registration/certification as a HUB, you must immediately (within 30 days of such changes) notify the HUB Program in writing. The CPA reserves the right to conduct a compliance review at any time to confirm HUB eligibility. HUB certification may be suspended or revoked upon findings of ineligibility.

Statewide HUB Program  
Statewide Procurement Division

Note: In order for State agencies and institutions of higher education (universities) to be credited for utilizing this business as a HUB, they must award payment under the Certificate/VID Number identified above. Agencies, universities and prime contractors are encouraged to verify the company's HUB certification prior to issuing a notice of award by accessing the Internet (<https://mycpa.cpa.state.tx.us/tpasscmblsearch/index.jsp>) or by contacting the HUB Program at 512-463-5872 or toll-free in Texas at 1-888-863-5881.

Rev. 06/19

Section V  
MWBE Utilization Plan  
Commitment Form





**MINORITY- AND WOMAN-OWNED BUSINESS ENTERPRISE  
UTILIZATION COMMITMENT FORM**

The undersigned has satisfied the requirements of the specifications in the following manner (please check the appropriate space):



The proposer is committed to M/WBE participation on this project equal to or greater than the goal stated in the bid and has submitted WITHITS BID and attached hereto a Letter of Intent for each M/WBE listed on the utilization form.

OR –



The proposer is unable to meet the goal, is committed to a minimum of \_\_\_\_\_% M/WBE participation on this contract, and has submitted WITHITS BID and attached hereto documentation of the proposer's efforts with respect to each of the good faith effort actions listed in the Good Faith Efforts Checklist. Vendors shall also provide a Letter of Intent for the minimum M/WBE participation they are able to meet.

Proposer: Subhankar Sarkar  
By: Subhankar Sarkar  10/5/2023  
Signature Date

Address: 1401 McKinney Street Suite 2400  
Houston, Texas Zip Code: 77010

Telephone No.: 1 949 437 0736  
Email address: subhankar.sarkar2@ey.com

\*\*Vendors that are M/WBE and completing the percentage of the goal as the prime for this project shall submit this completed form, a Letter of Intent and their certification(s).

\*\*Vendors may utilize the Letter of Intent form provided within this package or may submit vendors own letterhead.

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