![DFW Dallas Fort Worth International Airport]

January 11, 2021

CLARIFICATIONS

Re: Solicitation No. 8005399 –Digital Infrastructure Platform

Please be advised of the following clarifications to the above referenced Solicitation.

Q1. Are there any conflicts of interest for this contract with other existing or anticipated DFW Airport contracts?

A1. No, the intent is to have an independent platform.

Q2. Deadline Extension for questions and RFP response. We would like to request a 6-week extension on the RFP deadlines. Considering partner involvement, holidays, COVID and a paper-based response we would like to request additional time to respond.

A2. An extension if any will be posted online via an addendum.

Q3. Electronic Response. Considering all the above factors, and that this is a Digital Infrastructure response, would it be possible to reply digitally or send a thumb drive?

A3. Digital submission is not allowed.

Q4. Account Activation-The previous Account Manager for DFW is no longer here and I would like to be listed as the primary contact for your bidding/supplier system. Are you able to reset the password for me?

A4. Please email pmmsys@dfwairport.com to update information in iSupplier.

Q5. What are the specific data sources?

A5. Please refer to the Statement of Work item 2.3.2.

Q6. What technology platform is used today?

A6. We do not have a Digital Twin platform today.

Q7. What minimum level of disaster recover should the platform support?

A7. DFW Airport, for this process, expects at a minimum a 24-hour turn around back to a production level. Since the recovery time objective (RTO) for this process is going to be 24 hours, the airport, at a minimum, would expect a warm standby failover environment to be available. Since this is a complete

cloud solution, the only Disaster Plan for the airport would be a response plan of basic information with a contact matrix to inform or escalate.

Q8. Please supply details of the DFW Airport Data Classification Policy.

A8. A Digital Facilities and Infrastructure (DFI) Standard Manual will be posted with this clarification.

Q9. What are the user role/functions to be supported?

A9. We anticipate user roles for Administrator and General User.

Q10. What is the level of integration required? Data consumption, Bidirectional communication, direct app level integrations, etc.

A10. Please refer to the Statement of Work item 2.3.2 and 2.3.18. Integration efforts will be included as part of project-based delivery orders as integrations will be specific by model.

Q11. Can a list of examples of desired/required safety and security features be provided?

A11. The safety and security features include the commercial off the shelf data technology for digital twin (COTS-DT's) ability to provide geospatial/ indoor positioning features that can be used for emergency management, situational awareness, and decision-making purposes. Security refers to the security of data, software, and facility; see section 2.4. In terms of facility security, the COTS-DT must offer flexibility such that the security features/sensors can be integrated into other existing and future security systems

Q12. Please provide guidance regarding the duration of data retentions? Are there different requirements for online access vs archived?

A12. The data is considered Permanent for retention. Archives of decommissioned assets would need to be fully accessible from the Platform in the future.

Q13. Please list third party systems and the level of integration required?

A13.   Please refer to the Statement of Work item 2.3.2 and 2.3.18. Integration efforts will be included as part of project-based delivery orders as integrations will be specific by model.

Q14. Please provide additional details or examples of "environment and ecosystem" empowerment.

 A14. "Environment and ecosystem" empowerment relates to features that improve overall situational awareness of environmental conditions and other stakeholder interests and can be integrated with other tools.   For example, the DFW Air Quality dashboard provides facility operators real-time air quality data to improve decision-making.

- An example of "environment and ecosystem" empowerment would be having a digital twin (DT) that is able to show current and historical energy consumption data, visualize the data and show trends, and then make it possible to correlate energy savings with DFW's carbon footprint

Q15. Please provide an associate of data types with required formats (e.g., loT sensor (temperature)=XML, CSV, Azure Table).

A15. Data type associations will be discussed and determined post Contract award.

Q16. Please provide additional information on the specifics of the EIOS.

A16. Enterprise Integration and Operation System (EIOS) is the Airports Enterprise Integration and Operation System. It is intended to be the centralized access platform for the Building Automation systems which include HVAC control, lighting control and electrical system monitoring. Future plans include expansion to conveyance monitoring and other building specific systems. EIOS offers monitoring of Fire Alarm systems but is not in itself a Fire Alarm resource. Building security and access control are excluded from the EIOS structure. EIOS is built on the Tridium Niagara platform (version N4) and can integrate a wide array of communications protocols.

Q17. Please provide additional information regarding the integration and the data types.

A17. Please refer to the Statement of Work item 2.3.2 and 2.3.18. Data type associations will be discussed and determined post Contract award.

Q18. Please provide a summary of enhancement requirements.

A18. Enhancements will be determined in the future as the need arises.

Q19. Please provide information regarding the FM system guidelines.

A19. Facilities Maintenance system – We currently use Infor. The DFW Standards Manual will be provided upon contract award.

Q20. Please provide a summary of enhancement requirements.

A20. Enhancements will be determined in the future as the need arises

Q21. Please provide details on the SIEM platform.

A21. Currently LogRhythm security information and event management (SIEM).

Q22. Please provide details on the EPP and EDR solutions.

A22. Windows Defender is the End Point Protection (EPP), and we use advanced threat protection (ATP) for the endpoint detection and response (EDR) solution

Q23. We would like to request an extension of time of 6 weeks, or until February 22, in order to thoroughly respond the RFP and all attachments in a compliant and complete manner. Due to the next two weeks over the Christmas and New Years' holiday, many of the resources required for completion of the forms, content and signatures are unavailable and it will be difficult to provide a complete response.

A23. See A2 above.

Q24. In section Tab 1 Brief Executive Overview, 7.2.4.5.4 Proposers shall complete the forms titled "Organizational Summary Information", "Business Disclosure", and "Proposal Endorsement" included in this Solicitation. (Forms are available in "Proposal Response Forms" section), are these forms to be included in Tab 1 or attached as Appendices at the end of the proposal under.

A24. Tab 1.

Q25. These referenced forms for completion and submittal with response are missing from the RFP:
- Work Force Composition Form
- Bond Forms
- Workers Compensation Hold Harmless and Indemnification Agreement
- Certificate of Anti-Corruption Compliance
- Foreign Corrupt Practices Act (FCPA) Disclosure Statement

A25. The forms required, if applicable, are located in sections titled Proposal Response Forms and Exhibit B.

Q26. Is there a page limit for section Tab 6 – List of Exceptions / Substitutions / Clarifications / Additions?

A26. No.

Q27. What is the Plan for the 3D Scan Data? What scanning process and device will be used? What is the expectation for the conversion of scanned data to Revit models?

A27. This Contract will not include the scanning and conversion processes.

Q28. Third party integrations-are these current software platforms being used by DFW or proposed?

A28. Yes, they are currently in use at DFW. Please refer to the Statement of Work item 2.3.2 and 2.3.18

Q29. What is DFW's current work order management plan and is the requirement to create a new one or integrate with what is currently being used?

A29. Our current work order management system if INFOR Enterprise Asset Management (INFOR), and we intend to integrate with the existing system, not replace the existing system.

Q30. Does this DFW initiative still have the original budget allocated to it for the time period requires in the RFP?

A30. The budget has not been determined.

Q31. What is DFW's budget for this project?

A31. See A30 above.

Q32. The evaluation criteria note 10 points will be scored for Customer Service/On-Going Support Plan. However, this does not appear to be a category requested in the RFP or required Proposal format. Can you please clarify/advise where this section should be responded to?

A32. Customer Service/On-going support plan should be tied to your entire proposal response where you see relevant

Q33. 2.3.1-The Digital Twin Platform shall include the following: Are items 2.3.2 thru 2.3.23 Applications, Documentation, Information, Programs, Requirements, that the chosen provider will need to integrate, create, and support, or are they merely Applications, Documentation, Information, Programs, Requirements, that will be migrated to Virtualization on the Digital Twin Platforms?

A33. These will be migrated to Virtualization on the Digital Twin Platforms. Thru integrations we intend to tie other systems to the twin.

Q34. 2.4.1.4-Compatible with our chosen end point protection (EPP), end point detection and response (EDR) solutions: What is your chosen end point protection (EPP), end point detection and response (EDR) solutions?

A34. Windows Defender is the EPP and we use ATP for the EDR solution

Q35. 2.4.2 Cloud: What is the expected storage and compute requirements needed for this environment? (i.e. 100 TB of storage, 64 GB of RAM)?

A35. Based on your understanding of your platform and the intended DFW usage, please provide your recommendations.

Q36. Disaster Recovery Requirements: Are there any specific requirements to consider for Disaster Recovery? (1. Are specific regions needed for this environment? 2. Is the disaster recovery site expected to be a hot, warm standby or cold site?

A36. DFW Airport, for this particular process, expects at a minimum a 24-hour turn around back to a production level. Since the RTO for this process is going to be 24 hours, the airport, at a minimum, would expect a warm standby failover environment to be available. Since this is a complete cloud solution, the only Disaster Plan for the airport would be a response plan of basic information with a contact matrix to inform or escalate.

Q37. Is it a mandatory requirement for the prime contractor to provide 5 customer references or can it be fulfilled by the subcontractor also?

A37. Five references are required by the prime and two by the subcontractor. See Section 7 Proposal Format Requirements, 7.2.4.11.1 and 7.2.4.11.2.

Q38. Can we submit references of those projects where some of the components of DFW scope has been implemented & Integrated as an independent component/standalone?

A38. No. See A37 above.

Q39. Will references provided by 2 subcontractors or M/WBE be counted towards the prime contractor's qualification?

A39. No. See A37 above.

Q40. Reference Specs/SOW 2.3.18.5 Environment: A diagram or document that lists the various environments for each region along with Technology/ Process details (Infor EAM Footprint, Modules implemented & Utilized, Version).

A40. The intent is for the proposer to integrate with our existing INFOR application. Additional documentation can be provided post Contract award.

Q41. Reference Specs/SOW 2.3.18.5 Governance/Workflow: process that is followed by the EAM Team.

A41. The intent is for the proposer to integrate with our existing INFOR application.

Q42. Reference Specs/SOW 2.3.18.1-2.3.18.11 Is there an expectation for provider to migrate any of the 11-application listed in the RFP document to be migrated to Target Cloud. If yes, please provide inventory details with resource specifications, OS & DB for each of the applications to be considered.

A42. No, existing applications will not be migrated to the Target Cloud.

Q43. Reference Specs/SOW 2.5.1 What is the RTO & RPO expected in an event of disaster and is there any existing DR in place?

A43. DFW Airport, for this particular process, expects at a minimum a 24-hour turn around back to a production level. Since the RTO for this process is going to be 24 hours, the airport, at a minimum, would expect a warm standby failover environment to be available. Since this is a complete cloud solution, the only Disaster Plan for the airport would be a response plan of basic information with a contact matrix to inform or escalate.

Q44. Reference Specs/SOW 1.4.1 Asset Classification: Please provide visibility on the number of assets expected or planned for Digital Twin in the roadmap and categorization of the assets as per criticality, i.e., High, Medium, and Low, if possible.

A44. We will provide a detailed inventory post Contract award. We anticipate standard protocols for integration.

Q45. Reference Specs/SOW 1.4.1 Simulation: What are the use cases that have been planned as part of the roadmap?

A45. A variety of projects in both civil and facility, including new and existing assets are planned for the roadmap.

Q46. Reference Specs/SOW 1.4.1 Is there currently any Remote Monitoring projects that are deployed, if so, which assets are being monitored and details about of the use cases?

A46. Remote monitoring is currently in use across Building Management Systems, Weather Sensors, Door Sensors, etc. Additional details will be provided post Contract award.

Q47. Reference Specs/SOW 1.4.1-Does this refer to physics-based modelling and simulation for specific assets or does this refer to discrete event simulation for specific?

A47. Simulations need to be planned and accounted for both scenarios.

Q48. Reference Specs/SOW 2.3.2.4 Assets: Please provide a list of the types of existing assets (eg. escalators, elevators, HVAC, etc.).

A48. Remote monitoring is currently in use across Building Management Systems, Weather Sensors, Door Sensors, etc. We will provide a detailed inventory post Contract award. We anticipate standard protocols for integration.

Q49. Reference Specs/SOW 2.3.7 Assets: What is the volumetric on the existing asset?

A49. Each project delivered to the Digital Twin platform can vary widely due to the complexity of various assets to be twinned. To be determined post Contract award.

Q50. Reference Specs/SOW 2.3.13 Fault Detection: What is the current process of failure detection?

A50. Current process is not relevant as it is limited to individual systems, processes and manual reporting. We anticipate that systems and processes that have automated fault detection will be incorporated into future digital twin models. This platform will aggregate and report on the data provided to the models

Q51 Reference Specs/SOW 2.3.13 Fault Detection: Is there any historical asset failure reports maintained which can be provided?

A51. Current process is not relevant as it is limited to individual systems, processes and manual reporting. We anticipate that systems and processes that have automated fault detection will be incorporated into future digital twin models. This platform will aggregate and report on the data provided to the models.

Q52. Reference Spec/SOW 2.3.7 Does this refer to overlaying of real-time sensor/environmental data on 3D models?

A52. Yes

Q53. Reference Spec/SOW 2.3.9 & 2.3.12 & 2.3.14 Is there an OPC Server already in place to do necessary protocol conversion? Or does this need to be prescribed as part of the proposal?

A53. The open platform communication (OPC) Server does not need to be prescribed as part of this proposal.

Q54. Based on the given complexity and the volume of data, an ETL and BPMN tools might be necessary. Is there any existing or preference for an ETL or BPM tool? Or would it be something that Wipro needs to prescribe?

A54. We currently use Mulesoft for integration, Informatica for extract transfer load (ETL), and Appian for business process management (BPM). Proposers would not need to provide ETL or BPM tools.

Q55. Reference Spec/SOW 2.3.18.5 Volumetrics: Details on the number of transactions / events handled by the platform, WO/Yr, User base.

A55. Platform is intended to display events.

Q56. Reference Spec/SOW 2.2.18.5 Information Security: How is information security handled currently? Is there any framework defined? The question is specifically around the audit compliance tasks / risk management activities expected from the Managed Services team specific to Security.

A56. The main frameworks we model are payment card industry data security (PCI DSS) and Center for Internet Security (CIS) with influences from National Institute of Standards and Technology (NIST) in the past. But we are moving towards CIS.

Q57. Reference Spec/SOW 2.3.18.5 APM: Reliability Monitoring Implements: Or future approach.

A57. Current process is not relevant as it is limited to individual systems, processes and manual reporting. We anticipate that systems and processes that have automated fault detection will be

incorporated into future digital twin models. This platform will aggregate and report on the data provided to the models

Q58. Reference Spec/SOW 2.3.2.3 Please share specific compliance standards that provider has to adhere.

A58. Details will be shared as needed post Contract award.

Q59. Reference Spec/SOW 2.3.19 Can DFW provide insight into average volume of building/terminal data that gets generated so that it will help us in sizing?

A59. Not at this time.

Q60. Reference Spec/SOW 2.4.1.4 Is there any current EPP and EDR solution in place?

A60. Windows Defender is the EPP and we use ATP for the EDR solution.

Q61. Reference Spec/SOW 2.8.9 Is it accurate to assume that the scope of support of the environment will be 24x7?

A61. Yes

Q62. Reference Spec/SOW 2.3.18.5 Team Size: Maintenance users hierarchy EAM Users count by role.

A62. Please refer to Addendum #1 Revised Scope of Work.

Q63. Reference Spec/SOW 2.3.18 Is there a requirement to address any end user applications (like Asset management, Messaging & Collaboration, VDI, etc.)?

A63. No.

Q64. Has DFW assigned priorities (Must Have, Should Have, Nice to Have) on scope items mentioned? or numerically indexed? Please provide. **2.3**

A64. These are all considered required.

Q65. Can DFW share existing analysis/reports/dashboards on Facility Energy Analysis? What KPIs is DFW specifically monitoring? **2.3.2.1.**

A65. To be determined as we implement this new technology.

Q66. What specific compliance requirements does DFW have for LOA? **2.3.2.3**

A66. This isn't a requirement for this solicitation but will be handled through the Scan to building information technology (BIM) contractor per an issued DO.

Q67. What specific workflows is DFW requiring to be modeled outside of workflows that exist in current DFW systems (like BIM360, Unifier?) **2.2.1**

A67. None.

Q68. What is DFW's current work order management system? How are work orders managed at DFW: 2.3.4.

A68. Please refer to Addendum #1 Revised Scope of Work.

Q69. Wayfinding capabilities in mobile app - is this tied to the as-built BIM Model or is the source data present in other forms that needs to be digitized? **2.3.5.**

A69. Please refer to Addendum #1 Revised Scope of Work.

Q70. Please expound on Safety/Security features - this is on the application or tracking of safety/security incidents?2.3.6

A70. The safety and security features include the COTS-DT's ability to provide geospatial/ indoor positioning features that can be used for emergency management, situational awareness, and decision-making purposes. Security refers to the security of data, software, and facility; see section 2.4. In terms of facility security, the COTS-DT must offer flexibility such that the security features/sensors can be integrated into other existing and future security systems

Q71. How is DFW's geospatial data currently structured? any publicly available datasets that can be shared?**2.3.15**

A71. DFW currently use ESRI and North American Datum of 1983 (NAD83) State Plane Coordinate system for geospatial data. Relevant datasets will be provided post Contract award.

Q72. What format is the CMMS/EAM FM data currently available in? **2.3.19**.

A72. Please refer to Addendum #1 Revised Scope of Work.

Q73. Platform will expose data/services through standard APIs - enhancements to platform by third-party developers will be add-on to platform not core to the platform. Is this acceptable? **2.3.18.11.1**

A73. Yes.

Q74. Will geo-fencing on the platform need to be integrated to other DFW systems downstream?

A74. Yes.

Q75. Can this platform be supported by a combination of onshore/offshore resources?

A75. Yes

Q76. What cloud provider does DFW use today? Is there a preference for cloud provider?

A76. DFW currently uses a combination of Azure and Amazon Web Services (AWS).

Q77. Tagging of assets. Is there an estimate of the number of assets to be tagged? **2.3.2.4.**

A77. Not currently. It will vary greatly by the projects undertaken. We will provide a detailed inventory post Contract award. We anticipate standard protocols for integration.

Q78. Does the airport have an operational IOT cloud? If so, what percentage of the airport has sensors and what is the volume of data collected daily?

A78. EIOS is the Airports Enterprise Integration and Operation System. It is intended to be the centralized access platform for the Building Automation systems which include HVAC control, lighting control and electrical system monitoring Future plans include expansion to conveyance monitoring and other building specific systems. EIOS offers monitoring of Fire Alarm systems but is not in itself a Fire Alarm resource. Building security and access control are excluded from the EIOS structure. EIOS is built on the Tridium Niagara platform (version N4) and can integrate a wide array of communications protocols.

Q79. Does shall be available in real time - What is the maximum allowed latency acceptable in the definition of "real time"? **2.3.9.**

A79. Please provide details in your proposal on how you plan to accommodate real time.

Q80. What are the brands and model numbers of the Smart Sensors described? **2.3.14**

A80. This will be determined on a project-by-project basis.

Q81. Are there examples, sample files or structure of files that will be provided by DFW to create and maintain the Digital Twin model? **1.2**

A81. No.

Q82. What portion of the campus (buildings, structures, runways, etc.) is within scope for deployment in year 1 of the contract?**1.5 Proposal Response Form**

A82. As stated during the pre-bid conference, the two twins to be completed in the first year are Terminal D building and garage and Runway 18R. Additional projects may be identified as programmed.

Q83. Is there a defined list of Key Performance Indicators (KPIs) or Metrics that are used or are planned to be used to assess the operational health of the infrastructure? If so, what are they?**1.4.1**

A83. Not currently.

Q84. Reference Specs/SOW 1.4.1 Asset Classification: What are the types of sensors, PLCs, and SCADAs that are part of the landscape? Certain sensors may support proprietary protocols?

A84. We will provide a detailed inventory post Contract award. We anticipate standard protocols for integration.

Q85. Are there examples and can additional context that can be provided of what the immersive data visualization expectations are?**1.4.2**

A85. No. The intent of this proposal is to procure a platform to provide the experience described in 1.4.2.

Q86. Is there a list of assets and asset type that can be provided to allow for a better visualization of scope and scale of the deployment? **1.4.4/2.3.2.4**

A86. We will provide a detailed inventory post Contract award. We anticipate standard protocols for integration.

Q87. Please clarify program milestones and scope within each milestone. Example- Notice To Proceed May 1, 2021 - Provisioning and implementation of Digital Twin Platform May 2021. Does implementation begin May 1, 2021 with provisioning complete at the end of the 1 year contract term (May 1, 2022)? **1.5/Schedule of Events**

A87. Our expectation is a rapid implementation of a Digital Twin of Runway 18R that will be live and usable on the new platform by September 30, 2021.

Q88. Do the BIM/ Revit models exist? If so, can they be provided (if they are in the public domain)**2.3.2**

A88. The BIM model of Runway 18R will be ready.

Q89. Is there a full list of 3rd party systems to currently and potentially integrate with? If so, what are they? **2.3.3/ 2.3.11**

A89. Please refer to 2.3.18 in the statement of work for a list of primary integrations.

Q90. In regards to the submittal requirements summarizes 7.2.4 – please confirm that these requests (schedules, tasks, resources, partners) are in relations to the current SOW and are not in relations to what would be required to execute on future task orders.

A90. Yes.

Q91. Can alternative pricing submission format be used to better align to the vendors pricing structure.

A91. The original pricing submission format is required. An additional alternative pricing submission option can be submitted.

Q92. What is the expected and intended utilization upon purchasing the software, prior to adding future solicitations which add the vertical and horizontal assets?

A92. Our expectation is a rapid implementation of a Digital Twin of Runway 18R that will be live and usable on the new platform by September 30, 2021.

Q93. What do you expect to view or having access to on day-one, once logins are provided and the designated DFW staff have access?

A93. Our expectation is a rapid implementation of a Digital Twin of Runway 18R that will be live and usable on the new platform by September 30, 2021.

Q94. During the Pre-Proposal conference call, there was mention of a feasibility study conducted to determine the M/WBE criteria, can you please share the study or relevant details for review for consideration towards the response?

A94. Here is the link to the DFW Airport's Disparity Study.
https://www.dfwairport.com/cs/groups/webcontent/documents/webasset/p3_271810.pdf.

Q95. Please provide the following policies for review in order to comply with the RFP response:
      a. 1.6.1 DFW Airport User and Administrative Access
      b. 1.6.2 DFW Airport ITS Systems and Disaster Recovery
      c. 1.6.3 DFW Airport Data Classification Policy

A95. See A8 above.

Q96. Insurance Requirements, please provide a template of all the listed named insured parties we can provide directly to the insurance carrier, along with list of expected endorsements.

A96. The Named Insured is the policy holder. We don't have a template for that. The manner in which they are listed on their own insurance policy is up to their own insurance provider. DFW Airport is asking to be included as an Additional Insured to their insurance policies, where applicable. The insurance provisions (attached) outline how DFW International Airport Board should be named as Additional Insured. It also includes a sample Certificate of Insurance.

Q97. Please confirm no addendums have been posted against this solicitation as at 12/18/2020, as none are listed on the DFW website.

A97. No addendums have been posted as of 12/18/2020. However, addendums have been posted since.

Q98. During the pre-submission meeting, it was mentioned that two projects are underway 18R runway and Terminal D & garage. What is the scope of these projects related to this advertised scope of work? Can you please share the software products being used and firms executing the scope?

A98. Our expectation is a rapid implementation of a Digital Twin of Runway 18R that will be live and usable on the new platform by September 30, 2021.

Q99. Related to scope item 2.3.4 work order management, can you please clarify if the new platform will integrate with an existing work order management system or if work order management shall be furnished new?

A99. Please refer to Addendum #1 Revised Scope of Work.

Q100. Related to scope item 2.3.5 digital wayfinding, can you please clarify if the new platform will integrate with existing wayfinding technologies and the official DFW mobile app?

A100. Please refer to Addendum #1 Revised Scope of Work.

Q101. Related to scope item 2.3.6 safety & security features, can you please elaborate what specific features are desired?

A101. The safety and security features include the COTS-DT's ability to provide geospatial/ indoor positioning features that can be used for emergency management, situational awareness, and decision-making purposes. Security refers to the security of data, software, and facility; see section 2.4. In terms of facility security, the COTS-DT must offer flexibility such that the security features/sensors can be integrated into other existing and future security systems

Q102. On the pricing proposal table, can you please clarify line item descriptions by line item and specifically what each line item represents and also frequency of each line item (one time vs. recurring)?

A102. No, the scoring sheet aligns to the request for proposal (RFP) Statement of Work.

Q103. Related to scope item 2.8.4 ongoing support, can you please clarify what type of support is required from project kickoff prior to development and deployment of the platform?

A103. Support is not required prior to deployment of the platform.

Q104. Related to scope item 2.8.8 advance notice for change management, can you please clarify the change management protocol and the responsible DFW department the contractor will notify?

A104. The DFW Information Technology Services (ITS) Department. An ITS point of contact will be assigned post Contract award.

Q105. Can you please clarify the number of users? Scope item 2.2.1 states core user base of 50 – 100 end users, with up to three (3) System Administrators, however the pricing table item Enterprise license states (unlimited users).

A105. Item 2.2.1 is intended to provide an estimate of end users to aid in understanding the intended user base. The pricing sheet requests enterprise pricing.

Q106. Related to scope item 1.4.1, can you please provide an approximate number of Assets or IoT tags to be monitored?

A106. We will provide a detailed inventory post Contract award. We anticipate standard protocols for integration.

Q107. Related to scope item 2.3.3 integrations, can you please identify third-party systems beyond those listed in 2.3.18?

A107. Additional integrations beyond the list in 2.3.18 will be discussed post Contract award. Integration efforts will be included as part of project-based delivery orders as integrations will be specific by model.

Q108. Is DFW already using one or more IoT vendors and/or software products? If so, can you please identify those products?

A108. Yes, please refer to the Statement of Work for relevant examples.

Q109. Related to scope 2.3 and 2.311. Please confirm integration efforts will be issued as delivery orders by DFW Airport as they are needed and not inclusive of the platform pricing.

A109. Integration efforts will be included as part of project-based delivery orders as integrations will be specific by model.

Q110. Many intended outcomes/benefits were identified in the RFP. Are there a top three benefits that DFW would like to see come from the effort?

A110. Refer to the Statement of Work section 1.4.

Q111. Please describe the top drivers for the Digital Infrastructure Platform. For example, efficiency, innovation, 3D visualization, data orchestration, business process engineering?

A111. Refer to the Statement of Work section 1.4.

Q112. Is there an existing Integration Service Platform in place and what is the name of the software(s)? ie Dell Boomi, Mulesoft, TIBCO, WebSphere etc.   If so, are there DFW staff trained in this platform?

A112.   We currently use Mulesoft for integrations. Yes, DFW staff is trained in Mulesoft.

Q113. Are airport operational tools such as AODB, RMS, BHS, VMS, Security, ERP, SCADA, to be integrated as well? If so, please name them.

A113. Relevant system have been listed in the Scope of Work, additional systems may be added as additional projects to be hosted are identified.

Q114. Section 2.4.1.1 Lists Two Factor Authentication as a program requirement. Does DFW already have a two-factor authentication application in use? If so, please specify.

A114. Currently Microsoft Authenticator.

Q115. Please clarify if there are any specifically precluded vendors.

A115. No.

Q116. Will members of the selected team be precluded from participating in future professional services contracts? Specifically, will the selected vendor (or team members) be allowed to pursue future DFW Design On-Calls.

A116. No, vendors will not be precluded from participating in future opportunities.

Q117. Refer to section 2.1.5 "roadmap". Please confirm if the roadmap should be limited to the 5-year program.

A117. A five year look ahead of your platform roadmap is sufficient. Additional details can be provided.

Q118. Refer to proposal pricing, page 49 and section 2.1.5 "Roadman". Please clarify whether the proposal pricing form should include "Platform implementation" costs are intended to cover the first year or all five years with potential extensions?

A118. First year only.

Q119. The RFP scope identifies 50-100 users but the pricing form on page 49 states unlimited users. Please clarify number of users for pricing form.

A119. Item 2.2.1 is intended to provide an estimate of end users to aid in understanding the intended user base. The pricing sheet requests enterprise pricing

Q120. Refer to proposal pricing, page 49 and section 2.3.18. Does then price form need to include licensing costs for existing DFW software that is identified in the RFP? Autodesk, Bentley, Esri, Infor, etc.

A120. No.

Q121. What type of "simulations" are required by Section 1.4.3 of the Specifications / Scope of Work?

A121. This refers to the ability of the COTS-DT to simulate different "what-if" scenarios. For example, airflow/contaminant dispersion, fault-detection, or energy consumption. This could be a functionality that may be provided by integrating with other third-party tools.

Q122. What types of "safety features" are required by Section 2.3.6 of the Specifications / Scope of Work?

A122. The safety and security features include the COTS-DT's ability to provide geospatial/ indoor positioning features that can be used for emergency management, situational awareness, and decision-making purposes. Security refers to the security of data, software, and facility; see section 2.4. In terms of facility security, the COTS-DT must offer flexibility such that the security features/sensors can be integrated into other existing and future security systems

Q123. Does the word "security" in Section 2.3.6 of the Specifications / Scope of Work refer to data / software or facility security? If the reference is to facility security, then what type of requirements are desired? If the reference is to data / software security, is this requirement covered by the requirements in Section 2.4?

A123. The safety and security features include the COTS-DT's ability to provide geospatial/ indoor positioning features that can be used for emergency management, situational awareness, and decision-making purposes. Security refers to the security of data, software, and facility; see section 2.4. In terms of facility security, the COTS-DT must offer flexibility such that the security features/sensors can be integrated into other existing and future security systems

Q124. Can you provide a rough order of magnitude estimate of the number of assets and devices referred to in Section 2.3.14 of the Specifications / Scope of Work?

A124. Not at this time. We will provide a detailed inventory post Contract award. We anticipate standard protocols for integration.

Q125. How does the requirement to "provide testing schedule" in Section 2.4.2.6 of the Specifications / Scope of Work relate to the requirement to "provide a most recent testing schedule" in Section 2.4.2.10?

A125. 2.4.2.10 is a duplicate of 2.4.2.7 and 2.4.2.8. For the testing schedule, we want to know how often tests such as recovery testing, penetration testing, simulations, etc. are being conducted, what testing is performed on an annual basis, or what is the frequency of the various test that are performed.

Q126. For 2.3.4 "Provide work order management and support creating/updating an event, creating a work order, assigning a work order, checking a work order status, etc." is it DFW's intent to replace some functionality available in Infor EAM or have the platform interface with Infor EAM to generate work orders, assign them, etc?

A126. Please refer to Addendum #1 Revised Scope of Work.

Q127. Does DFW expect this system to provide wayfinding capabilities or interface with another system (mentioned in 2.3.5 on page 27)? Is the expectation to provide an app for passengers for wayfinding?

A127. Please refer to Addendum #1 Revised Scope of Work.

Q128. Does Section 2.3.4 also require the ability to interact with and complete work orders through a mobile interface?

A128. Please refer to Addendum #1 Revised Scope of Work.

Q129. Can you disclose your SIEM, EPP, and EDR solutions?

A129. Security Information and Event Management (SIEM) platform compatibility – Currently LogRhythm SIEM.   Windows Defender is the EPP and we use ATP for the EDR solution.

Q130. Reference Pre-proposal slides. The slides note 18R runway and Terminal D/ Garage as first two projects. Are these the first two Delivery Orders for Y1? Are others expected in Y1 or Y2-Y5?

A130. Our expectation is a rapid implementation of a Digital Twin Platform followed with the rapid implementation of Runway 18R that will be live and usable on the new platform by September 30, 2021. Terminal D/Garage is anticipated in Year 1. Additional projects will be identified as programs are confirmed. The Runway 18R and Terminal D and Garage projects will have DOs issued quickly after this NTP is issued.

Q131. Reference Pre-proposal slides. What are the SF and project cost of the 2 projects noted on the slides?

A131. Terminal D Garage approximately 2,000,000 sf, Terminal D Building approximately 2,000,000 sf and Runway 18R approximately 2,500,000 sf. Linear feature? Not relevant? Project costs will not be disclosed.

Q132. Reference Pre-proposal slides. What are the anticipated completion dates for 1st two projects noted on the slides?

A132. Our expectation is a rapid implementation of a Digital Twin Platform followed with the rapid implementation of Runway 18R that will be live and usable on the new platform by September 30, 2021. Terminal D/Garage is anticipated in Year 1. Additional projects will be identified as programs are confirmed. The Runway 18R and Terminal D and Garage projects will have DOs issued quickly after this NTP is issued.

Q133. Can DFW extend the deadline up to 2 weeks to accommodate the holidays and the impacts of COVID?

A133. See A2 above.

Q134. Is a fully electronic submission acceptable?

A134. See A3 above.

Q135. Can you provide a sample contract for review?

A135. The contract contains all special provisions and general terms and conditions listed in the request for proposal. It will also include the proposal submitted by the Contractor.

Q136. Is a bond required?

A136. No.

Q137. What is the anticipated SOW and Schedule for Y1 Deliver Orders?

A137. Our expectation is a rapid implementation of a Digital Twin Platform followed with the rapid implementation of Runway 18R that will be live and usable on the new platform by September 30, 2021. Terminal D/Garage is anticipated in Year 1. Additional projects will be identified as programs are confirmed. The Runway 18R and Terminal D and Garage projects will have DOs issued quickly after this NTP is issued.

Q138. Do the 4 additional years to include subsequent Delivery Orders?

A138. Yes. Additional projects will be identified as programs are confirmed.

Q139. Can you clarify what proposal sections are included in the Technical/Compliance with the Scope of Work (30 Points) section? Does this include Tab 1, Tab 2, Tab 3 & Tab 7? If so, can you provide the weighting of those 4 tabs within the 30 points?

A139. The sections in the evaluation criteria should be reflected in the entire proposal response.

Q140. Should brochures and other loose items be provided electronically as well as hard copy?

A140. All documents should be delivered hard copy, and on the thumb drive.

Q141. 7.2.4.9.1 Is the Gannt chart included in the 10-page limit?

A141. Yes.

Q142. 7.2.4.9.4 Please define optional tasks.

A142. Optional tasks are additional tasks the proposer plans to perform the scope of work that is not defined in the current scope of work.

Q143. Reference Evaluation Criteria 3.6 (Customer Service/On-going support plan) Is the criteria tied to the Specification/scope of work section 2.8 (Technical Support)?

A143. Yes.

Q144. Reference Specification/Scope of Work Section 2.11 (Documents) Section 2.11 references several documents to be provided. Please clarify location for these in the proposal response. Should these be provided in section 7.2.4.6.2 in loose form and on the USB drive?

A144. Please include in Tab 2-Relevant Information in original and thumb drive.

Q145. Reference Specifications/Scope of Work Section 2.5 (Disaster Recovery Requirements) Section 2.5 references several documents to be provided. Please clarify location for these in the proposal response. Should these be provided in section 7.2.4.6.2 in loose form and on the USB drive?

A145. Please include in Tab 3-Statement of Work in original and thumb drive.

Q146. Reference Specification/Scope of Work Section 2.4.2 (Cloud) Section 2.4.2 2.4.2 references several documents to be provided. Please clarify location for these in the proposal response. Should these be provided in section 7.2.4.6.2 in loose form and on the USB drive?

A146. Please include in Tab 5-Implementation in original and thumb drive.

Q147. Reference Specifications/Scope of Work Section 2.7 (Training) Please clarify training requirements - Remote or on-site, class size preference/limitation, training focus (admin/manager/power user/standard user?), manuals required (standard or DFW custom), Computer based training, preferred timeframe for training? All training to be completed Y1? Incremental Training for only existing users or both existing and new users?

A147. Please provide your best and recommended model for training a large diverse workforce in all applicable roles in order to support a successful implementation and ongoing use.

Q148. Reference Specification/Scope of Work Section 2.10 (Company Profile) Section 2.5 references company profile to be provided. Please clarify location for this in the proposal response. Can it be provided in the cover letter?

A148. Please include in Tab 1-Brief Executive Overview in original and thumb drive.

Q149. Reference Pricing Form-Install Configure/Testing- Please clarify, is this for the base digital twin software only or to include any potential Delivery Orders in Y1?

A149. Base digital twin platform software only.

Q150. Reference Pricing Form-Install Configure/Testing - Please clarify, does his include integration with any of the defined existing systems or are all integration fees to be included in the Platform Implementation section of the pricing form.

A150. Integration efforts will be included as part of project-based delivery orders as integrations will be specific by model.

Q151. Reference Pricing Form Renewal Options- Please clarify which specific pricing items are included in the escalations rates for Y2 -Y5. Is this limited to only System software, Enterprise License, Annual Software License Subscription Fee, Including 24/7 Software Support Hosting and Maintenance?

A151. Please see Addendum No. 2 Revised Proposal Pricing.

Q152. Reference 2.1.4 Qualifications of Contractor- Please clarify, are you requiring existing on-going or completed Digital Twin implementations at Airports or Cities as a pass/fail requirement for the contractor to bid?

A152. No, please describe your relevant experience.

Q153. If a Prime Contractor is awarded a contract under this Solicitation 8005399 – Digital Infrastructure Platform, and is awarded a contract under Solicitation 8500386 - Project Management / Construction Management Program Integration Office Services (PM/CM PIO), is the DFW Board aware of a Conflict of Interest between these contracts?

A153. See A1 above.

NOTE: A copy of this questions and clarifications document shall be acknowledged by appropriate signature and attached to the submitted proposal.

_____
Company Name

_____
Signed   Date

If you have any questions regarding this matter, please contact Miriam Seymour during normal working hours (8:00 a.m. to 4:30 p.m., Monday through Friday) at 972-973-5631 (p), or at the email address of mseymour@dfwairport.com.

Sincerely,

Miriam Seymour
Senior Contract Administrator
Procurement and Materials Management Department