ADDENDUM

IMPORTANT DOCUMENT – INVITATION TO NEGOTIATE ADDENDUM

OPENING DATE & TIME: June 25, 2021; 3:00PM

ITN NUMBER: 2020-27MCSA

ITM TITLE. Data Carragnaga Tashu ala are Calutian	
ITN TITLE: Data Governance Technol	ogy Solution
ADDENDUM NUMBER: 1	ADDENDUM DATE: June 9, 2021
The purpose of this addendum is to:	
• Extend the due date to June 25,	2021 at 3:00PM
Answer questions asked during	
PLEASE ACKNOWLEDGE RECEIPT	Γ OF THIS ADDENDUM AND RETURN IT WITH
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1. Vendor Question: Appendix A asks for overall pricing in various categories, including license fees. I did not see a scope of the number of possible users. Can you provide that number in whatever category is projected, such as power users, admin users, normal clients, etc.?

UCF Answer: To start, we're estimating <10 admin users; <25 power users/data stewards; view only access -100+

2. Vendor Question: What is the preferred method of licensing? (e.g., Perpetual, annual leasing, etc.)

UCF Answer: Annual

3. Vendor Question: What is the preferred method of implementation, or is it mixed? (e.g., desktop, client-server, internal Cloud/terminal services/desktop emulation, external Cloud, etc.)

UCF Answer: We are planning for a cloud-based implementation; the cloud host environment/platform is yet to be determined.

4. Vendor Question: We understand the sources of data. What do you estimate as the size of the data that will be captured? Do you have a preference between direct connections and data transformation, or a combination of both depending on the periodicity of the data and the op-tempo of the systems supporting your processes?

UCF Answer: We expect a combination of both approaches will be required. Data size is not available at this time.

5. Vendor Question: I am assuming an IDTC type contract with a range of possible licenses/labor hours. Is this correct? If so, this may answer question 1, but it would be a good idea to know the scope when we provide our best pricing to order under a task order.

UCF Answer: Please see answer to question #96.

6. Vendor Question: Is this a new requirement or do you have an incumbent or set of incumbents?

UCF Answer: This is a new requirement.

- 7. Vendor Question: How many users will use the software?.
 - a. IT or Super User who will modify the software configuration
 - b. Business Users Who will view and use the software

UCF Answer: Please see answer to question #1.

8. Vendor Question: Do you have any budget established? And if so, can you provide the details?

UCF Answer: The budget has not been finalized.

9. Vendor Question: Has UCF seen any solutions before RFP as part of market research or some other reason?

UCF Answer: We have investigated data governance solutions prior to the RFP, with focus on existing approaches being used in higher education.

10. Vendor Question: What is the expected duration for implementation of DG Solution, not installation of the product?

UCF Answer: Current expectation is no more than six months.

11. Vendor Question: Does UCF have a Data Governance function already in place?

UCF Answer: UCF has a DG governance program that is in its infancy, utilizing a business glossary tool. A charter and basic organizational structure have been developed, along with identification of data domains (please see answer to question #49). This implementation is to bring the program from infancy to maturity.

12. Vendor Question: Can you share your IT, Business, and Data Strategy?

UCF Answer: Formal strategy is not currently available for sharing.

13. Vendor Question: Scoring criteria for similar projects with the same complexity Versus project in higher education?

UCF Answer: Scoring criteria will include experience in higher education as well as experience in similar projects with same level of complexity.

14. Vendor Question: Are you looking for On-premises or SaaS, or PaaS solution?

UCF Answer: We see this as a PaaS solution due to the complexity of our environment.

15. Vendor Question: Is UCF aiming to replace an existing data governance program and if so, what are they currently using?

UCF Answer: Please see answer to question #11.

16. Vendor Question: Which MSP is currently providing the data governance program, if any?

UCF Answer: Please see answer to question #11.

17. Vendor Question: What are the current challenges with the existing data governance program?

UCF Answer: Please see answer to question #11.

18. Vendor Question: Is the intent to migrate existing workloads from the old data governance program to the new one?

UCF Answer: Please see answer to question #11. We expect to migrate existing business glossary definitions to the selected solution.

19. Vendor Question: Is UCF looking to develop a software solution from scratch to address this particular need, or are you looking to source a vendor with an existing application? While we do not have an existing, off-the-shelf solution, we would be happy to quote a new application built around this specification.

UCF Answer: We are looking to procure an existing data governance application to support our DG program going forward.

20. Vendor Question: While we have extensive experience handling medium to large-scale data projects, including data migration, provisioning, storing and retrieving, we have not yet worked with educational institutions such as UCF. Our references are in the Oil & Gas, Retail and Insurance industries. Are references in Education / Public Sector a must-have for this opportunity?

UCF Answer: Yes, we are looking for experience/references from educational institutions or public sector companies.

21. Vendor Question: It is worth noting that while Miracle Devs, Inc is a registered company in the United States, most of our workforce is located in Argentina. Does this prevent us somehow from qualifying as vendors in the current ITN?

UCF Answer: Please see reference to ITN Section 2.58 and answer to question #64.

22. Vendor Question: Do you have any existing data governance (processes, data dictionary/business glossary, organizational structures) or data quality processes in place? Is the platform expected to interact with them - if so, how?

UCF Answer: Please see answer to question #11. It is our expectation that the platform will be able help us develop enterprise-wide data governance processes, business glossary, understand our data through lineage, and interact fully with our data sources.

23. Vendor Question: How many users do you expect to interact with the software and what will be their role (business users, data stewards working with the records)?

The number of users is ... Their role is ... The number of users is ... Their role is ... The number of users is ... Their role is ... (Please add additional roles if needed)

UCF Answer: Please see answer to question #1.

24. Vendor Question: How many data source systems would be involved and what formats are you using to store the data in these sources? E.g. SQL DB, flat files, parquets, HL7/FHIR etc. and how will be the data provided (Teradata, MSSQL, Azure DL, Hive etc.)?

UCF Answer: There are many data sources that the system would be expected to interact with. The formats of these data sources would come from cloud API's, cloud databases, local Oracle and MSSQL databases, flat files (csv, excel) among others.

25. Vendor Question: What is the complete expected data volume will be processed by the Platform (The number of tables, the average number of attributes and rows)? What is the average size of data increments and their frequency (e.g. 10,000 new records to process every day)?

UCF Answer: We are not able at this time to give an exact count of data elements that would be processed.

26. Vendor Question: Which of your applications are going to interact with the platform by reading or requesting data or metadata and how?

UCF Answer: We currently have two applications that would request metadata from the solution via API. However, there could potentially be other software applications that would need metadata interaction.

27. Vendor Question: Is there an orchestration or integration framework already available (Kafka, ESB, Azure Data Factory etc.)?

UCF Answer: We are currently using SnapLogic as an integration framework. There may be additional integration software that will need to be incorporated.

28. Vendor Question: Will connectivity to Big Data sources be required? Which technologies? Processing within the cluster or pulling data outside?

UCF Answer: We are implementing a cloud warehouse solution and expect that the data governance solution will have increasing interactions with data in that environment as we mature.

- 29. Vendor Question: Are you looking to deploy the solution in:
 - a. Your infrastructure (On-premise or in your cloud environment?)
 - b. Cloud environment provided by the vendor?

UCF Answer: Please see answer to question #3.

30. Vendor Question: Do you have any other metadata management solution, or in-house metadata management initiative that the vendor needs to integrate with?

UCF Answer: Not at this time

31. Vendor Question: How many source systems and tables will need to be imported and profiled in data catalog? What is the average table size for table to be imported? (width of the row / #of rows)?

UCF Answer: Please see answer to question #25.

32. Vendor Question: What are the source systems for the data? (RDBMS/S3/Hadoop/Streams/APIs...etc).

UCF Answer: Please see answer to question #24.

33. Vendor Question: Where are source systems located (on-prem/cloud/hybrid)?

UCF Answer: Hybrid

- 34. Vendor Question: How many users in different user roles (Admin/Editor/Viewer) are expected to access application in total, and also concurrently?
 - a. ADMIN/EDIT:
 - b. VIEW ONLY:

UCF Answer: Please see answer to question #1.

35. Vendor Question: Are you looking to have a Data Lineage solution?

UCF Answer: Yes, this is a core requirement of the solution we implement.

THE FOLLOWING RELATES TO QUESTIONS 36 – 48

Do you need the tool to help with Data Quality? - If yes, please answer questions 36-48 below. If no, please skip this section.

36. Vendor Question: Do you have any existing data governance (processes, data dictionary / business glossary, organizational structures) or data quality processes in place? Is the platform expected to interact with them - if so, how?

UCF Answer: Please see answers to question #11 and question #18.

37. Vendor Question: Do you have existing DQ/business rules you want our product to import?

UCF Answer: Yes.

38. Vendor Question: What is their format - e.g. SQL code, ETL jobs, business logic defined in a spreadsheet? How many rules are there?

UCF Answer: Data quality rules/business rules and format can vary by data source and will be provided/reviewed as part of the tool implementation process.

39. Vendor Question: Can you provide (at least a sample) of business rules or data quality rules for any of your data?

UCF Answer: Please see answer to question #38.

40. Vendor Question: If no rules are currently in place, can you provide how you would like to handle the DQ process?

UCF Answer: Please see answer to question #38.

41. Vendor Question: What is the format of the data that will be provided from the data sources – e.g. file extracts / DB tables / online API?

UCF Answer: Please see answer to question #24.

42. Vendor Question: How many systems will be providing data to the solution?

UCF Answer: Please see answer to question #24.

43. Vendor Question: What is the (complete/full) expected number/volume of records that will be provided to the DQ solution (both number of rows + attributes or actual MB/GB size)?

UCF Answer: Please see answer to question #25.

44. Vendor Question: How is the data from each source provided – full extracts or increments (deltas)? For the deltas, how many input records or changes (in % or absolute numbers) are expected daily/weekly/monthly? How many of these are new records and how many changed records?

UCF Answer: Data could be provided in either cadence depending on business needs or use cases. Additional specs will be determined as part of implementation.

- 45. Vendor Question: How many Data Stewards do you expect to interact with the solution?
 - a. ADMIN/EDIT:
 - b. VIEW-ONLY:

UCF Answer: Please see answer to question #1.

46. Vendor Question: What are the target systems and what is the preferred type of integration (batch, online, messaging)? Will there be some middleware involved?

UCF Answer: Please see answers to question #24 and question #27.

47. Vendor Question: Is there an orchestration workflow engine already available?

UCF Answer: No, not at this time.

48. Vendor Question: Do you expect native processing in Hadoop/Spark?

UCF Answer: Not in scope at this time.

THE FOLLOWING RELATES TO QUESTIONS 49 - 61

Do you need the tool to master your data? - If yes, please answer the questions 49 - 61 below. If no, please skip this section.

49. Vendor Question: What are the data domains in scope? Which is primary focus?

Customer

Vendor / Supplier

Employee

Product

Material Master

Other:

UCF Answer: The initial data domains for planning are Community, Financial, Human Resources, Organizational Structure, Research, RO&S (Resources, Operations & Services), Student, plus two cross-functional domains (Location, Person Data). Information within these domains is contained in various sources and formats. Initial focus will be determined during implementation planning by identification of attainable, high impact data governance use cases.

50. Vendor Question: How many systems will be providing data to the MDM solution?

UCF Answer: Numerous systems that provide data will be interacting with the data governance solution. However, please note that a formal MDM solution is not in scope for this engagement.

51. Vendor Question: Have you prepared any concept for the record mastering?

UCF Answer: No, not at this time. Please note that a formal MDM solution is not in scope for this engagement.

52. Vendor Question: Have you chosen your preferred MDM implementation style (consolidation, centralized etc.)?

UCF Answer: Please note that a formal MDM solution is not in scope for this engagement.

53. Vendor Question: What is the (complete/full) expected number/volume of records that will be provided to the MDM solution (both number of rows + attributes or actual MB/GB size)

UCF Answer: Please see answer to question #25. Please note that a formal MDM solution is not in scope for this engagement.

54. Vendor Question: What is the format of the data that will be provided from the data sources – file extracts / staging DB tables / online API?

UCF Answer: Please see answer to question #24.

55. Vendor Question: How is the data from each source provided – full extracts or increments (deltas)? For the deltas, how many input records or changes (in % or absolute numbers) are expected daily/weekly/monthly? How many of these are new records and how many changed records?

UCF Answer: Please see answer to question #44.

56. Vendor Question: Can you provide the data model of each source system, highlighting entities that the MDM solution should be processing?

UCF Answer: Not currently available. However, we anticipate formal data modeling, as needed, will be formulated during implementation of the Data Governance solution. Please note that a formal MDM solution is not in scope for this engagement.

57. Vendor Question: Do you have an idea of the expected data model for the MDM solution? If yes, please share it.

UCF Answer: Please see answer to question #56.

58. Vendor Question: Have you prepared any concept for matching rules of the records – how to identify the same Customer/Vendor/Product across the dataset? Or is this something you expect the vendor to design?

UCF Answer: No, we would expect this to be part of the implementation process

59. Vendor Question: How many Data Stewards are you expecting to use the Master Data Admin Module?

UCF Answer: While formal MDM is out of scope for this project, we are initially planning to have <25 data stewards who would be using the Data Governance tool. Please see answer to question #1.

60. Vendor Question: What are the target systems and what is the preferred type of integration (batch, online, messaging).

UCF Answer: Please see answers to question #24 and question #27.

61. Vendor Question: Is there an orchestration workflow engine already available?

UCF Answer: No, we would expect the chosen solution vendor to help us shape and implement this functionality.

- 62. Vendor Question: Will there be any sources of reference data (lists of values, codebooks etc.)? If yes,
 - a. Should this Reference Data be managed by the vendor?
 - b. How many reference data files/tables are there? (if not known, please estimate)
 - c. Are they "standalone" tables or are they connected in terms of foreign keys, etc.?
 - d. How many people will be the owners and stewards of this reference data?

UCF Answer: Yes.

- (a) No
- *(b) Please see answer to question #25.*
- (c) Please see answer to question #24.
- (d) Please see answer to question #1.
- 63. Vendor Question: With reference to 2.26 of the ITN, "2.26 Records-The Respondent/Supplier/ Proposer/Contractor agrees to keep and maintain separate and independent records, in accordance with generally accepted accounting principles, devoted exclusively to its obligations and activities pursuant to a contract resulting from this ITN. Such records (including books, ledgers, journals, and accounts) shall contain all

entries reflecting the business operations under a resultant contract. The University or its authorized agent shall have the right to audit and inspect such records from time to time during the term of a resultant contract, upon reasonable notice to the Contractor") would UCF be open to limiting the audit to once per year calendar year?

UCF Answer: 2.26 is a negotiable term. We can work through proposed edits with the intended awardee during the award process.

64. Vendor Question: With Reference to section 2.58 of the ITN, "2.58 E-Verify All terms defined in §448.095, Fla. Stat., are adopted and incorporated into this provision. Pursuant to §448.095, Fla. Stat., Vendor certifies that it is registered with and uses the U.S. Department of Homeland Security's E-Verify system to verify the employment eligibility of all of Vendor's employees hired by the Vendor during the term of this Agreement and/or while performing work or providing services for UCF. Vendor shall require that all subcontractors performing work or providing services on behalf of Vendor for UCF also comply with the requirements of §448.095, Fla. Stat and utilize the E-Verify system to verify employment eligibility of all employees hired by subcontractor. The Vendor shall require for the subcontractor to provide to Vendor an affidavit stating that the subcontractor does not employ, contract with or subcontract with an unauthorized alien. Vendor shall maintain a copy of such affidavit for the duration of the Agreement. UCF may terminate this Agreement immediately upon notice to Vendor for any violation of this provision. A Vendor whose contract is terminated pursuant to this paragraph is liable for additional costs incurred by UCF due to the termination of the Agreement." We are a global company with services provided globally. We do not employ and do not plan to employ any unauthorized aliens. However, Support is offered 24/7 and provided remotely, How would our international support team relate to the E-verify requirements? Would all of our support employees need to be e-verified?

UCF Answer: E-Verify is only intended to verify the employment eligibility of individuals in the US, not abroad. Therefore, the vendor only needs to verify the employment eligibility via E-Verify of those employees working in the US. Please see the language copied from the DHS website that states the same.

https://www.dhs.gov/how-do-i/verify-employment-eligibility-e-verify

E-Verify is a web-based system that allows enrolled employers to confirm the eligibility of their employees to work in the United States. E-Verify employers verify the identity and employment eligibility of newly hired employees by electronically matching information provided by employees on the Form I-9, Employment Eligibility Verification, against records available to the Social Security Administration (SSA) and the Department of Homeland Security (DHS).

65. Vendor Question: Can an SI partner with product vendor and respond to this RFP or it has to be responded by Product vendor only? *Reference section 4.0, Other Requirements

UCF Answer: Our expectation is that the response will be provided by the Product vendor. Implementation partner selection will be handled separately.

66. Vendor Question: Can you share your current de-centralized DG framework which is in place? *Reference section 4.0, Other Requirements

UCF Answer: Please see answer to question #11.

67. Vendor Question: Have you define any roles, responsibilities or procedures for any campus which can be leveraged in engagement or we have to start from green field approach? *Reference section 4.0, Other Requirements

UCF Answer: Please see answer to question #11.

68. Vendor Question: What are different unstructured sources in scope for data ingestion? *Reference 4C Data Governance Management and Glossary

UCF Answer: Not known at this time, but there will be unstructured data.

69. Vendor Question: What is the login mechanism university's training database uses which need to be utilized to connect to data catalog solution (Single sign on - LDAP or active directory etc.?) *Reference Workflow

UCF Answer: UCF uses AD FS (Active Directory Federation Services)

70. Vendor Question: What are ETL tools in place which needs to be integrated for data lineage? *Reference section 4.0, Other Requirements

UCF Answer: We currently have many ETL tools that would have processes which would be re-designed or sun-setted. Please also see answer to question #27.

71. Vendor Question: Do you have existing business glossary which can be utilized for project? *Reference section 4.0, Other Requirements

UCF Answer: Please see answer to question #18.

72. Vendor Question: Are you using any data quality tool? If yes, does it need to be integrated with data catalog? *Reference section 4.0, Other Requirements

UCF Answer: Please see answers to question #11 and question #18.

73. Vendor Question: Have you done any assessment of your current data governance for any of campus or for across all campus as enterprise wide assessment? *Reference section 4.0, Other Requirements

UCF Answer: Yes, please see answer to question #11.

74. Vendor Question: What are number of application which will consume data from data catalog system (Outbound) *Reference section 4.0, Other Requirements

UCF Answer: Please see answer to question #24.

75. Vendor Question: What timeline are you looking to accomplish this entire initiative? *Reference section 4.0, Other Requirements

UCF Answer: Please see answers to question #10 and question #149.

76. Vendor Question: Do you have any data strategy document which can be referred? *Reference section 4.0, Other Requirements

UCF Answer: Please see answer to question #12.

77. Vendor Question: Do you have organization structure (From data ownership perspective) of each campus which need to be considered at start of engagement. *Reference section 4.0, Other Requirements

UCF Answer: Yes, please see answer to question #11.

- 78. Vendor Question: "Will you share details around scope :-
 - (i) number of business terms in scope
 - (ii) number of critical data elements per campus
 - (iii) number of reports to be integrated
 - (iv)number of users and roles to be implemented,
 - (v)number of workflows to be build to manage data catalog solution
 - (vi) number of dashboard to be build within data catalog solution
 - (vii) number of policies to be defined per campus"

UCF Answer: (i),(ii), (vi), (vi), (vii) - To be determined as part of implementation (iv). Please see answer to question #1.

79. Vendor Question: Are you looking solution in premise or cloud. If cloud then do you have any preference in terms of SaaS model hosting on specific cloud like AWS or GCP or Azure OR are you open for any cloud platform? *Reference "Infrastructure".

UCF Answer: Please see answer to question #3.

80. Vendor Question: Can SI partner respond the proposed solution with only one tool or more than one tools. *Reference "Infrastructure".

UCF Answer: Please see answer to question #65.

81. Vendor Question: Have you done any pre rfp analysis or cursory look at different available tools in market around data catalog, data market place? Any specific suggestion or input would you like to share with us? *Reference section 4.0, Other Requirements

UCF Answer: Please see answer to question #9.

82. Vendor Question: Do you have any roadmap in terms of how do you want to roll out data catalog features across all univercity campus? Can you share that? Means no of capmpus and their users who will use the

UCF Answer: Please see answer to question #1. The roll out plan to be developed as part of implementation.

83. Vendor Question: Information model building of various source application (Business model, Logical data model) is in scope? If yes what tool are in place for data modelling? *Reference section 4.0, Other Requirements

UCF Answer: Please see answer to question #56.

84. Vendor Question: Do you have a list/matrix of the top business processes and applications that need master data management?

UCF Answer: No, not at this time. Please note that a formal MDM solution is not in scope for this engagement.

85. Vendor Question: Where is master data physically dispersed throughout the organization?

UCF Answer: While formal MDM is not in scope for this project, master data is dispersed over a few systems, but is primarily originating from our ERP.

86. Vendor Question: Do you have a link where are placed the UCF IT standards?

UCF Answer: UCF IT policies can be found at: https://policies.ucf.edu/#ucfTechandComm

87. Vendor Question: Do you have an org chart of the UCF work staff that will be involved in data management (technical and functional)?

UCF Answer: This will be provided during project.

88. Vendor Question: The proposed solution will be implemented in UCF data center or on cloud?

UCF Answer: Please see answer to question #3.

89. Vendor Question: If the solution will be implemented on cloud, the UCF have a current cloud service with a provider (google, amazon, azure)?

UCF Answer: Please see answer to question #3.

90. Vendor Question: Do you have list of the data sources from the different applications required to be part of the MDM process and the size of these sources (MB, GB)?

UCF Answer: Please see answer to question #50.

91. Vendor Question: Does UCF has a GIS Data Management Policy that must abide by?

UCF Answer: No, not at this time

92. Vendor Question: Is UCF exploring any products for Data Governance Solution?

UCF Answer: Please see answer to question #9.

93. Vendor Question: Is the expectation that the SI come up with a recommendation for the DG Solution?

UCF Answer: Please see answer to question #65.

94. Vendor Question: Does the SI need to be a reseller for the licenses?

UCF Answer: Please see answer to question #65.

95. Vendor Question: How many licenses are required?

UCF Answer: Please see answer to question #1.

96. Vendor Question: Is this a complete project assignment from getting the licenses, deployment, implementation to support or a T&M?

UCF Answer: Yes, this engagement is a complete project assignment.

97. Vendor Question: Product Related- How many environments for the install? Dev, Prod? Dev, QA, Prod? Also, will Data Quality be in play here with Data Governance?

UCF Answer: Ideally, we'd have at least two environments: a dev and prod. However, we cannot at this time rule out a QA environment as well. Yes, Data Quality is a component of the desired solution.

98. Vendor Question: Sources Related- How many sources need to be scanned for catalog?

UCF Answer: Not known at this time.

99. Vendor Question: Sources Related- How many sources need to be scanned for data privacy?

UCF Answer: Not known at this time.

100. Vendor Question: Staffing Related- Will UCF provide a business analyst as part of this engagement?

UCF Answer: Please see answer to question #162.

101. Vendor Question: Data Lineage Related- Do you need or want to track data lineage from the solution outside of the ETL?

UCF Answer: Potentially; however, this is unknown until we fully understand the solutions capabilities in the lineage area.

102. Vendor Question: Non-Functional Requirements - Are they will be open to hosting it themselves in AWS/Azure?

UCF Answer: Please see answer to question #3.

103. Vendor Question: SLAs - What are the expected minimum SLAs and availability expectations?

UCF Answer: Not known at this time.

104. Vendor Question: Storage Capacity -What is the expected storage capacity and growth projections for the institutional data catalog?

UCF Answer: Not known at this time.

105. Vendor Question: Data catalog ownership - Is the preference for the data catalog solution to be installed in an environment owned by the University or in an environment owned by the Bidder?

UCF Answer: Please see answer to question #3.

106. Vendor Question: Data requests - It is noted that institutional data resources much be searchable, discoverable, and requestable. For the requirement relating to "requestable", is the expectation that a data marketplace be made available with ability for end users to request and receive access to data?

UCF Answer: Yes

107. Vendor Question: Data inventory - Is there an inventory of data assets including

databases, reports/visualizations, terms, rules, data policies etc. already available or is the vendor expected to account for collecting all of these during the planning/requirements phase?

UCF Answer: There does exist an initial inventory of assets, however, more will be identified and be integrated into the project as the solution is implemented.

108. Vendor Question: Data search and discovery - The request is for the software to be able to search and discover data/information resources for a given 'area of interest'. Are these areas of interests documented and does an inventory of the relevant data by area of interest exist today?

UCF Answer: Yes, our core areas of interest and their inventory are known. Please also see answer to question #49.

109. Vendor Question: SaaS clarification - Should the individual components that make up the proposed solution be SaaS? Or can be they include Cloud PaaS components and/or software components packaged as containers and deployed on a PaaS (like AWS EKS)?

UCF Answer: Please see answer to question #14.

110. Vendor Question: PCI - Should we anticipate PCI data?

UCF Answer: Potentially, but we are currently considering it out of scope for this initial project engagement. However, this may change as we work with the different data sources during implementation and determine initial use cases.

111. Vendor Question: PHI - Should we anticipate PHI data?

UCF Answer: Please see answer to question #110.

112. Vendor Question: Analytics and metrics - What usage analytics and metrics are expected from?

UCF Answer: We are still gathering and determining the metrics and analytics by which to measure the data governance program and activities. Examples of metrics under consideration include:

- Number of data issues identified and time from issue identification to resolution
- Number of approved and implemented standards, policies, and processes
- Number of published data definitions
- Number of business terms mapped to data models and objects*
- % completion of attributes
- % completion of lineage
- % completion of glossary
- Accuracy and error rates in data sets, with alerts if errors exceed acceptable levels
- *Number of errors identified and fixed per month or quarter*
- 113. Vendor Question: Cloud connections Should we assume a secure connection exists between a cloud (e.g. AWS) and on-premise data sources?

UCF Answer: Yes

114. Vendor Question: Unstructured data - Would there be any unstructured data that would be ingested?

UCF Answer: Please see answer to question #68.

115. Vendor Question: Data volume - What is the expected volume of data to be ingested including ingestion frequencies?

UCF Answer: Please see answer to question #25.

116. Vendor Question: Data format - What are types of data formats that will have to be ingested into the catalog?

UCF Answer: Please see answer to question #24.

117. Vendor Question: Data quality - Are there any manual or automated processes performed that impact the quality of critical domain data?

UCF Answer: Yes.

118. Vendor Question: Data business processes - Are there any data governance, master data, or data quality business processes in place serving to improve UCF's overall data quality? If so, please describe a few examples.

UCF Answer: Please see answer to question #22.

119. Vendor Question: Data owners - Is there any assigned ownership to data assets today?

UCF Answer: Yes, but not formally. Please see answer to question #11.

120. Vendor Question: Data rationalization - Has data ever been rationalized to determine what attributes are most critical to meeting UCF's goals?

UCF Answer: There is high level understanding and knowledge of data critical to UCF needs and goals. However, formal data modeling, as needed, will be formulated during implementation.

121. Vendor Question: Data Domains- How many data domains does UCF maintain? Which are the most critical to meeting UCF's goals? a. How many data sources contain data for the core domain(s)?

- UCF Answer: Please see answer to question #49. Exact count of sources containing core domain data is not known at this time.
- 122. Vendor Question: Metrics Does the university have any metrics to help us understand the user population in addition to the administrator users that have been identified for each institution?
 - *UCF Answer: Please see answer to question #1.*
- 123. Vendor Question: Security What is the high level (bullet points) security requirements for data exchange and data access (e.g. authentication, authorization, connection protocols)?
 - *UCF Answer: UCF Security requirements can be found at: https://infosec.ucf.edu/risk-and-compliance/vrm/*
- 124. Vendor Question: Data Preparation -If data preparation is needed to automatically cleanses, enrich, normalize, and transform data seamlessly, could you provide the frequency and volume of data.
 - *UCF Answer: Please see answer to question #25.*
- 125. Vendor Question: BI Visualization What BI/Visualization/Data Science tools are currently employed by data analysts/ business users? How frequently do you require data to be refreshed for Analytics?
 - UCF Answer: We currently use Tableau, PowerBI, SAS Visual Analytics as the primary visualization tools. Data refreshes depend on the report and business need and different areas use different tools for specific business purposes.
- 126. Vendor Question: Managing reference code sets, terms, glossaries, r What tools / product(s) are used for data preparation / transformations to deliver data to business analysts and other data "consumers"?
 - *UCF Answer: There are a variety of data manipulation tools used by various areas on campus to deliver data to users.*
- 127. Vendor Question: Policies and procedures What are examples of policies & procedures by campus? Can you provide an example different administrative structure? Do the procedures require workflow approvals or reviews from multiple stakeholders?

- UCF Answer: Please see answer to question #11. UCF Policies can be found at https://policies.ucf.edu/; workflow approvals/reviews from multiple stakeholders are required.
- 128. Vendor Question: Architecture What are the current guard rails for maintaining sensitive / Personally Identifiable Information (PII) to limit organization's exposure to risks?
 - *UCF Answer: UCF Security Standards can be found at:* <u>https://infosec.ucf.edu/security-standards/</u>. Also, please see answer to question #123.
- 129. Vendor Question: Architecture What are the current "pain points" of understanding data from the standpoint of business users? From the standpoint of IT/operations?
 - UCF Answer: Multiple/siloed data sources- internal and external to UCF IT; no centralized, governed approach for data definitions; not knowing who to contact for understanding data. Please also see answer to question #156.
- 130. Vendor Question: Architecture What are the current "pain points" of finding data from the standpoint of business users? From the standpoint of IT/operations?
 - UCF Answer: Multiple places to have to go to find information; not knowing what's already available or who to contact to find out. Not knowing or being able to determine original source of data and subsequent transformations. Please also see answer to question #156.
- 131. Vendor Question: Architecture How are data assets cataloged today? What product(s), if any, is currently used for metadata management?
 - UCF Answer: There is no large scale utility for metadata management in production.
- 132. Vendor Question: Architecture Please describe Current state of Information Architecture.
 - UCF Answer: UCF has a very complex and diverse landscape of data and information spanning multiple domains. Please also see answer to question #49.
- 133. Vendor Question: The heterogeneity in data sources, tools, and owner Please describe Current state of BI Reporting and Analytics process? Example, with multiple reporting tools (Tableau, Power BI, Cognos) could you list the responsibility/ownership by

organization and data sources? Are the same datasets being ingested for by the reporting tools?

UCF Answer: Please see answer to question #125.

134. Vendor Question: The heterogeneity in data sources, tools, and owner - Describe the requirement(s) to join heterogeneous data sources as part of data self-service for business users. For example, mash up traditional RDBMS / CRM data with IOT / weather/
Twitter feeds

UCF Answer: The variety of data sources and business needs will require numerous types of data to be combined for different analyses.

135. Vendor Question: The heterogeneity in data sources, tools, and owner - Is there a complete list of internal and external data sources to be catalogued? Could this be provided?

UCF Answer: Please see answer to question #107.

136. Vendor Question: UCF's data governance - What is the technology skillset of the data "consumers", e.g. data stewards, business users, data analysts, data scientists?

UCF Answer: UCF staff will have the necessary skillsets to interact and understand the user interface of the solution and the data elements ingested. The selected vendor will be responsible for training UCF staff on the usage of the solution implemented along with other relevant points for knowledge transfer.

137. Vendor Question: UCF's data governance - What level of concurrency (i.e. the number of active concurrent users) are you planning to test?

UCF Answer: Please see answer to question #1.

138. Vendor Question: UCF's data governance - How is the quality of data assets accessed today?

UCF Answer: By a variety of methods depending on the unit responsible for the data.

139. Vendor Question: Transition Out section - We are not clear on what is asked of the Vendor in this section. Do you want us to have the plan now? Just agree to help? Make sure there are no roadblocks? The products in scope will be installed behind UCF controls and maintained by UCF IT team (or Huron resources). In this scenario, in case

of a transition out, the migration to alternate data governance vendors would be the responsibility of UCF or their chosen partner like Huron to help them move the assets.

UCF Answer: We would like to know and have documented what processes and procedures the selected vendor would have in place or able to provide in the event of this occurring.

- 140. Vendor Question: What is the scope of the engagement all UCF applications or a defined subset?
 - o How many total datasources does UCF have that are in-scope?
 - o What is the estimated total volume of data in scope?

UCF Answer: The initial scope of this engagement is to implement the selected data governance tool solution, operationalize corresponding functionalities, establish connectivity with specified data sources (not all UCF applications), and provide guidance on data governance organization selected functional use cases (to be determined). Please also see answers to questions #24 and #25.

141. Vendor Question: Can you share UCF's existing charter for data governance committee?

UCF Answer: Not at this time; our data governance charter is currently in draft.

142. Vendor Question: Is UCF using existing data governance tools?

UCF Answer: Please see answer to question #11.

143. Vendor Question: Do you have a data governance department today?

UCF Answer: Please see answer to question #11.

144. Vendor Question: Is the vendor responsible for data aggregation and storage?

UCF Answer: No, the solution provider is not expected to store *UCF* data outside of metadata needed to support data governance activities within the application.

145. Vendor Question: Do you have an Enterprise data warehouse?

UCF Answer: No; however, we have an extensive census data warehouse used to support official institutional reporting.

146. Vendor Question: Can you provide an org chart of prospective data stewards and operational owners by Department?

UCF Answer: No, not at this time.

147. Vendor Question: How many licenses and users of the platform do you anticipate?

UCF Answer: Please see answer to question #1.

148. Vendor Question: Outside of a tool, how are you tracking it today. ie: Excel?

UCF Answer: Please see answer to question #11.

149. Vendor Question: What is the planned start date of the engagement?

UCF Answer: We would like to start as soon as possible, hopefully in July or early August, following vendor selection and contract finalization.

150. Vendor Question: You mention FERPA, HIPAA and GDPR certifications – are these certifications required? Can a vendor obtain that prior to start date or they must have an existing certification?

UCF Answer: Please refer to ITN for requirements. These are not certifications.

151. Vendor Question: What IAM technology do you use for SSO?

UCF Answer: Please see answer to question #69.

152. Vendor Question: Do you need data curation and data transformation services too? Or is this pure data governance?

UCF Answer: The scope of this project is data governance; data curation and data transformation are not expected.

153. Vendor Question: To what extent does UCF need the vendor to provide services?IE: Data engineering, data quality assurance, data pipelining, data visualizations, and Data Governance Advisory Services?

UCF Answer: Please see answer to question #152. Vendor services are expected to meet implementation requirements and successful operationalizing of data governance processes utilizing tool functionality.

154. Vendor Question: What self-service features are important to have available in the platform?

UCF Answer: Self-service features of interest include: ability for admins and stewards to create and administer the critical workflows for the DG process along with developing the business glossary and catalog; users having the access create and modify internal reports to measure and report on data governance activities; ability for users to see and manage data lineage to fully understand cadence of data usage, how/by whom data is being used and modified.

155. Vendor Question: Would you be able to provide a deeper insight into the motivation for this invitation to negotiate?

UCF Answer: Please see answers to questions #11, #129, #130, and #156.

156. Vendor Question: Was there a compelling event that led to the decision to pursue a data governance strategy/solution?

UCF Answer: Yes, UCF is moving from PeopleSoft to Workday ERP. The need for "single source of truth" and trust in the data, as well as data quality, were identified as required foundational components to support this transition.

157. Vendor Question: Is there a budget earmarked that can be shared? Or a historical budget?

UCF Answer: Please see answer to question #8.

158. Vendor Question: Reference page 13 - Paragraph states "The Respondent/Supplier(s) shall ensure that all vehicles parked on campus for purposes relating to work resulting from an agreement shall have proper parking permits"

Will UCF consider 100% remote work to provide the services/deliverables?

UCF Answer: At this time, we are planning for much of the work to be completed virtually, particularly for the first part of the project. However, as the project progresses, there may be a need for limited on-site work, which will be identified and planned out.

159. Vendor Question: Reference page 22 - Can non-U.S. citizens (e.g., Canadian) work on this project if they are authorized to work in the U.S.?

UCF Answer: Please see Section 2.58 in ITN and answer to question #64, if relevant.

160. Vendor Question: Reference page 28- The past perf requirement feels too restrictive, and UCF may exclude viable vendor partnerships. As example, we bring federal and state government experience on an enterprise-level and project-level and can easily scale to meet expectations and requirements. Will UCF be willing to accept non-higher education past performance as long as it is relevant to the performance requirements?

UCF Answer: Please see answers to question #13 and question #20. Additionally, UCF is a state public university, so relevant state government experience could be considered.

161. Vendor Question: Reference page 30 - Do you have someone that will be serving as the data administrator or data program manager?

UCF Answer: Yes, we do.

162. Vendor Question: Reference page 30(a) - As an open data platform - we already comply with other open data standards and will be able to customize compliance with HIPPA, FERPA, and GDPR standards with the guidance of your team, would there be a point person available for collaboration on this?

UCF Answer: Yes, the appropriate UCF team members will be available for collaboration.

163. Vendor Question: Reference page 30(a) - Are you open to open-source open data solutions for this?

UCF Answer: That will be dependent upon how the solution satisfies the requirements outlined in the ITN.

164. Vendor Question: Reference page 30(c,v) Could you tell us the user story or use case you would need to integrate to Salesforce and other tools like Workday?

UCF Answer: UCF is implementing Workday from PeopleSoft as the ERP solution. Salesforce is a primary tool for managing online applicants, enrollment, and coaching. Both of these will have key data elements that will need to be incorporated into the Data Governance program.