Vendor:	For information call: **Purchasing Contact:** Leeann Lemon **Phone:** (304) 696-3056 **Email:** bidquestions@marshall.edu

Sealed requests to bid for furnishing the supplies, equipment or services described below will be received by the Institution. **TO RECEIVE CONSIDERATION FOR AWARD, UNLESS OTHERWISE NOTED, THE BID WILL BE SUBMITTED ON THIS FORM AND UPLOADED INTO THE MU BONFIRE PORTAL ON OR BEFORE THE DATE AND TIME SHOWN FOR THE BID OPENING.** When applicable, prices will be based on units specified; and Bidders will enter the delivery date or time for items contained herein. The Institution reserves the right to accept or reject bids on each item separately or as a whole, to reject any or all bids, to waive informalities or irregularities and to contract as the best interests of the Institution may require. **BIDS ARE SUBJECT TO THE GENERAL TERMS AND CONDITIONS AS SET FORTH HEREIN.**

DATE 10/31/2025	MANDATORY VIRTUAL PRE-BID MEETING: A pre-bid meeting will <u>not</u> be held prior to bid opening.	DEPARTMENT REQUISITION NO. MU26ENTDATA	BIDS OPEN: December 2, 2025 @ 3:00 p.m., EST. Broadcast via Teams at link listed below. https://tinyurl.com/MU26ENTDATA-EOI-OPEN	BIDDER MUST ENTER DELIVERY DATE FOR EACH ITEM BID

Item #	Quantity	Description	Unit Price	Extended Price
		<u>ADDENDUM NO. 01</u> **Project Name: MU26ENTDATA** **Enterprise Data Governance and Management Consulting Services and Strategic Plan** **MARSHALL UNIVERSITY – HUNTINGTON, WV** All bids must be submitted in accordance with the Bidding Documents issued by Marshall University's Office of Purchasing. 1. To provide an Expression of Interest **<u>revised</u>** Schedule of Events. 2. To provide responses to the technical questions. **Expression of Interest Bid Submission Deadline -** 12/02/2025 at 2:59 p.m., EST **Expression of Interest Bid Opening –** 12/02/2025 at 3:00 p.m., EST and via Microsoft Teams at the following link: https://tinyurl.com/MU26ENTDATA-EOI-OPEN		
		Total		

To the Office of Purchasing,
In compliance with the above, the undersigned offers and agrees, if this offer is accepted within _____ calendar days (30 calendar days unless a different period is inserted by the purchaser) from the bid open date, specified above, to furnish any or all items upon which prices are offered, at the price set opposite each item, delivered at the designated point(s), within the time specified.

Bidder guarantees shipment from _____

within _____ days

FOB _____ After receipt of order at address shown

Terms _____

Bidder's name Vendor _____

Signed By _____

Typed Name _____

Title _____

Email _____

Street Address _____

City/State/Zip _____

Date _____ Phone _____

Fein _____

BOG 43

SOLICITATION NUMBER: MU26ENTDATA
Addendum Number: No. 01

The purpose of this addendum is to modify the solicitation identified as ("Solicitation") to reflect the change(s) identified and described below.

Applicable Addendum Category:

[X]   Modify bid opening date and time

[ ]   Modify specifications of product or service being sought

[X]   Attachment of vendor questions and responses

[ ]   Attachment of pre-bid sign-in sheet

[ ]   Correction of error

[ ]   Other

Description of Modification to Solicitation:

This Addendum is issued to publish and distribute the following:

1. Provide an Expression of Interest _revised_ Schedule of Events.

2. Provide Technical Questions & Answers.

NO OTHER CHANGES.

Additional Documentation: Documentation related to this Addendum (if any) has been included herewith and is specifically incorporated herein by reference.

Terms and Conditions:

1. All provisions of the Solicitation and other addenda not modified herein shall remain in full force and effect.

2. Vendor should acknowledge receipt of all addenda issued for this Solicitation by completing an Addendum Acknowledgment, a copy of which is included herewith. Failure to acknowledge addenda may result in bid disqualification. The addendum acknowledgement should be submitted with the bid to expedite document processing.

ADDENDUM NO. 01 ATTACHMENT A

This Addendum is issued to provide an Expression of Interest revised Schedule of Events.

3.   **EOI Schedule of Events:**

Expression of Interest Bid Submission Deadline .... 12/02/2025 at 2:59 p.m., EST

Expression of Interest Opening Date .... 12/02/2025 at 3:00 p.m., EST

Estimated Date for Interviews .... Weeks of January 19 and 26, 2026

ADDENDUM NO. 01 ATTACHMENT B

This Addendum is issued to provide responses to the technical questions, which begin on the next page.

ADDENDUM 01 ATTACHMENT B

Q1. What was the annual spend for the previous year on this Project?

A1. This is a new project to automate data management and governance. The costs related to manual data collection, reporting, etc. are unknown since we are unable to track this.

Q2. If this is a new Contract, what is the annual Budget for this?

A2. There is currently no budget for this project. To ensure an unbiased evaluation, cost proposals, financials, and cost estimates are submitted only after the evaluation and scoring of Expressions of Interest (EOI) proposals have been completed. This ensures that the initial assessment is based solely on the technical and qualitative merits of the proposals, maintaining fairness and objectivity in the selection process.

Q3. Are you open to a hybrid delivery model with a mix of offshore and onshore resources?

A3. Yes, we are open to hybrid models.

Q4. Work will be onsite or remote?

A4. Work will be remote, but there may be times when onsite meetings are required.

Q5. Can you please give us an extension of 1-2 weeks to submit our proposal?

A5. An addendum revising the EOI Schedule of Events has been issued. Please see Addendum No. 01 Attachment A for the revised Schedule of Events.

Q6. How will it be awarded as Single Vendor or Multi-Vendor?

A6. We are considering both single vendor and multi-vendor proposals.

Q7. What are the primary business drivers behind this project (e.g., compliance, reporting accuracy, student retention, AI readiness)?

A7. All the above. Marshall University has been working diligently to integrate systems and build our foundation for accurate data reporting and AI readiness. We need a holistic data governance and management program to continue to build on this foundation. We lack the time and resources needed to build this strategy and implement it without external partners' help.

Q8. How does Marshall plan to measure the success of this engagement after delivery (for example, specific KPIs, adoption outcomes, or compliance improvements)?

    A8. The success of this engagement will result in an understanding of our current data environment, a data dictionary, data governance, and oversight policy, as well as beginning the implementation of data management technology and reporting solutions.

Q9. Which Banner modules (Student, Finance, HR, etc.) should be included in scope for the governance strategy?

    A9. Banner modules - Student, Finance, HR, Degree Works.

Q10. How is Salesforce currently integrated with Banner and other systems (e.g., APIs, middleware, custom integration)?

    A10. MU uses Jitterbit for our enrollment data integration between Salesforce & Banner (managed service by third party). We also use MuleSoft between Banner & Salesforce (internal development). Power BI is also leveraged to bridge some reporting gaps between Banner and Salesforce.

Q11. Is there an existing data warehouse, data lake, or reporting platform in use (e.g., SQL Server, Snowflake, Power BI, SAS)?

    A11. We do not have a "formal" data warehouse, but we utilize Power BI with OCI & Salesforce, as well as Argos for data reporting. We also use a custom solution for Banner reporting, called "BERT" (Banner Extraction and Reporting Tool) and a homegrown data warehouse built by IR for official reporting as well as to serve as one of the main sources for Power BI.

Q12. Does Marshall maintain a central data dictionary, catalog, or metadata repository today?

    A12. Very rudimentary, what Banner already generates, but this is a huge area of need.

Q13. Are there particular pain points with data quality, duplication, or inconsistent reporting that vendors should address in the strategy?

    A13. Yes, we have had Banner for over 35 years. There are data accuracy and consistency issues that should be addressed.

Q14. Should Blackboard LMS data and analytics be included within the governance framework?

    A14. Yes

Q15. Does Marshall currently have a data governance council, data stewards, or assigned data governance roles in place?

    A15. A data governance council was established; however, the council members were unclear about their responsibilities. Consequently, we decided to pursue an alternative approach initially. We do, however, have data stewards in place.

Q16. Should the governance framework align with specific compliance standards (FERPA, HIPAA, GDPR, state-level requirements)?

A16. Compliance with, but not limited to, FERPA, HIPAA, GDPR, state of West Virginia and Marshall University purchasing requirements is expected.

Q17. Are there existing data classification or stewardship policies, or should vendors propose these from scratch?

A17. We have an Information security policy that contains our data classification guide. We are working on drafting a data privacy policy, but we need another data governance policy in addition to these policies. Refer to www.marshall.edu/policies.

Q18. What level of documentation is expected (high-level framework only, or detailed policies, procedures, RACI charts, and playbooks)?

A18. High level documentation with assistance in the detailed documentation (along with project team).

Q19. Does Marshall want vendors to recommend a specific governance platform (e.g., Microsoft Purview, Collibra, Informatica) or present multiple options for evaluation?

A19. Ideally, we would like to review multiple options, but also have the vendors recommend the best platform for our specific use cases.

Q20. Does Marshall already have Microsoft 365 E5 or Azure subscriptions that could support Purview, Entra, and Defender?

A20. Yes, we have M365 A5 licensing that already supports these tools.

Q21. Should integrations with wvOASIS (state financials) and Unimarket (procurement) be included in scope?

A21. Yes, ideally.

Q22. Should the solution enable self-service reporting/analytics for faculty and staff, or remain primarily IT/Institutional Research controlled?

A22. Depending on the report, it should support both options. Some reports still need validation and quality assurance from the Office of IR.

Q23. Is Marshall considering AI-enabled governance/catalog tools (auto-classification, lineage detection, risk analysis) as part of this strategy?

A23. We would like to understand this more.

Q24. What is Marshall's expected timeline and vision for AI adoption (e.g., predictive analytics, student success models, chatbots, Copilot)?

A24. We have already started AI adoption with CoPilot and Acrobat AI, Salesforce Agent Force, and small-scale pilots. Please see more at www.marshall.edu/ai.

Q25. Are there existing draft policies around responsible or ethical AI, or should vendors develop these?

A25. We mention the use of AI in our Information Security Policy UPGA-10-Information-Security-Policy.pdf.

Q26. Should the strategic plan include a formal AI Governance Playbook (roles, guardrails, monitoring, ethical use)?

> **A26.** This is out of scope currently.

Q27. Is Copilot adoption in M365, Power Platform, or Azure AI expected to be part of this roadmap?

> **A27.** No.

Q28. How many on-site workshops, presentations, or stakeholder sessions does Marshall anticipate, in addition to remote delivery?

> **A28.** The vendor should determine this to ensure project success.

Q29. Is there a target completion date for the strategy, or is the timeline flexible (e.g., 6–9 months)?

> **A29.** The timeline is flexible.

Q30. Will Marshall assign dedicated stakeholders from IT, Institutional Research, Finance, and Enrollment to participate in workshops?

> **A30.** Yes, from each of these areas.

Q31. Approximately how many workshops, interviews, or working sessions does Marshall expect across leadership, faculty, and staff?

> **A31.** Vendors should determine this to ensure project success.

Q32. Does Marshall require deliverables in specific formats (Word documents, PowerPoint decks, detailed policy manuals)?

> **A32.** Prefer Microsoft and Adobe formats for documentation.

Q33. Beyond the 40/40/20 evaluation scoring (qualifications, methodology, interview), will Marshall use additional criteria or success metrics when assessing vendor performance?

> **A33**. Proposals will be evaluated according to Section Four, #3, #3.3, and #3.4 (page 14-15) of the Expression of Interest.

Q34. Will vendors be expected to provide a phased cost roadmap for implementation following the strategy, or is this engagement limited strictly to advisory deliverables?

> **A34.** Please provide a phased implementation roadmap. Section Four, #2 (page 14) of the Expression of Interest states: "In accordance with the Code requirements, no "price" or "fee" information is requested or permitted in the bid response." Proposals will be evaluated according to Section Four, #3, #3.3 (page 14-15) of the Expression of Interest.

Q35. Does Marshall anticipate follow-on implementation being awarded under this procurement, or through a future competitive process?

> **A35.** Marshall University reserves the right to award a contract based on the proposals submitted in response to this Expression of Interest or to cancel/fail the Expression of Interest at its discretion.

Q36. Are there any state-specific compliance or security requirements (in addition to FERPA/HIPAA) that must be addressed?

A36. Compliance with, but not limited to, FERPA, HIPAA, GDPR, state of West Virginia and Marshall University purchasing requirements Is expected.

Q37. Are subcontractors permitted under this contract, and if so, do they require West Virginia registration?

A37. Yes, subcontractors are permitted and require registration with the West Virginia Secretary of State. In addition, the use of subcontracts must be disclosed in the proposal and must comply with all applicable procurement and contractual requirements.

Q38. Can you confirm whether cyber liability insurance is required in addition to general liability, auto, and professional liability coverage?

A38. The successful bidder is required to carry, at a minimum, the insurance coverage amounts indicated on page 21, section 8 of the Expression of Interest. Marshall University reserves the right to require additional insurance, including cyber-liability, based on the final contract and services being provided.

Q39. Are vendors required to store University data within the U.S., or specifically within West Virginia?

A39. Marshall preference is for university data to be stored within the U.S.

Q40. Should references come exclusively from higher education clients, or will public sector/government clients also be accepted?

A40. Preference to higher education but we will consider all references.

Q41. Can you provide a full list of the technology stack - specifically, ancillary systems that weren't listed in the EOI? Can you also prioritize the sources?

A41. Critical Infrastructure

- Palo Alto Firewall, Cisco Network Infrastructure
- Microsoft EES
- MuleSoft Any point Platform
- Banner Student, Finance, HR
- Salesforce (Enrollment Management, Case Management, Student 360)
- Blackboard LMS
- Unimarket Procure to Pay
- wvOASIS
- Ellucian Degree works
- EAB Navigate
- Dynamic Forms
- Symplicity Navigate
- Anthology Course Evaluations
- Leepfrog Course Catalog & Course Inventory Management
- Ad Astra Scheduling
- Anthology Engage (aka HERDLink)
- Cayuse Grants management (Research Corp)

- PeopleAdmin HR Suite
- Knack Tutoring
- Handshake Career Management
- Qualtrics
- Ready Mobile Application

Q42. Are there existing data standards or documentation practices in place?

A42. Yes, in various offices and various practices, we are looking to standardize all data standards and practices across the entire university. (Please refer to the data classification guide in UPGA-10 in www.marshall.edu/policies)

Q43. Can you provide an estimate of the number of users and business units that would be impacted by the implementation of a centralized data platform? Specifically, which departments, roles, or functional areas would require access, and what level of engagement or training might be needed across these groups?

A43. All faculty, staff, and students include 15,000 users across every unit on campus.

- Students - just less than 12,000 - light engagement with reporting/data platform
- Faculty - ~1050 faculty - depending on the type of faculty will determine engagement. (adjunct, professor, faculty advisor, chair, etc.)
- Staff - ~2,035 heavier users of data reporting across campus.
- The level of engagement and training will depend on the desired use of the system and the data needed. There will be a group of users that will want extensive training (Department heads, Dean's, etc.) and other users may not need to access it at all.

Q44. How is data quality currently monitored and maintained? Are there known issues with duplication, inconsistency, or missing data?

A44. This is also spread across multiple offices with IT and IR being the only recognized groups to ensure data quality and accuracy. There is data duplication in data siloes on campus, and there is inconsistent and missing data across all systems, but this is not unlike other entities. We are looking for a way to ensure that we are doing all that we can to ensure data consistency.

Q45. What is the desired timeline for go-live from project kickoff?

A45. Marshall anticipates that this engagement be a phased approach. The exact timeline will be finalized with the selected vendor.

Q46. How are data sources currently integrated? Are there ETL pipelines?

A46. Some integrations have been built or moved to MuleSoft Anypoint Platform. Other integrations are file transfers or manual uploads; third party integrations using Jitterbit.

Q47. How are the sources currently connected? Is there any desire to change connection methods?

A47. The desire is to standardize the MuleSoft Anypoint platform as much as possible. We do not wish to move away from MuleSoft.

Q48. Is there an internal IT team to help set up and maintain connections to sources?

> **A48.** Yes, IT has a dedicated enterprise database staff.

Q49. Would new reporting logic be desired, or would existing logic be used still?

> **A49.** New logic, no. We have standards which are followed and practiced, but we are open to learning where we may benefit from efficiency in the technology used and how we store our historical data.

Q50. The following quotes are from the EOI:

"BIDS MUST NOT CONTAIN PRICE QUOTATIONS: The State shall select the best value solution according to §5G-1-3 of the West Virginia State Code. In accordance with the Code requirements, no "price" or "fee" information is requested or permitted in the bid response."
"We invite interested parties to submit a proposal outlining their approach, timeline, and estimated cost for delivering these services. ("The Project")"
Do you want estimated costs for services, or should they be left out of the response?

> **A50.** Please see page 14, Section Four, #2 of the Expression of Interest which states: "In accordance with the Code requirements, no "price" or "fee" information is requested or permitted in the bid response." To ensure an unbiased evaluation, cost proposals, financials, and cost estimates are submitted only after the evaluation and scoring of Expressions of Interest (EOI) proposals have been completed. This ensures that the initial assessment is based solely on the technical and qualitative merits of the proposals, maintaining fairness and objectivity in the selection process.

Q51. Does Marshall University currently have any data governance program or bodies (e.g., a data stewards' group), or would the data governance program be entirely new for the university?

> **A51.** We operate in an informal environment, but yes, there are data stewards. What we are looking for is help in moving to the next level, full data governance.

Q52. What is the estimated level of knowledge of typical data governance roles and responsibilities for the people in those roles (e.g., Data Trustees, Data Stewards, Data Custodians)? This informs our approach to change management, stakeholder engagement, education, and data literacy for the engagement.

> **A52.** Overall, IT and IR know the data's location and meaning, and each office understands its own data. However, outside of IR and IT, knowledge drops when data is shared across functions.

Q53. Does the university currently have any enterprise solutions for data integration, reporting, and analytics?

> **A53.** Currently we use power BI and a homegrown system for reporting. The university recently purchased Salesforce, and some reporting is also being created there. Both MuleSoft and nightly SQL (PL/SQL and Python) scripts are used to ELT our data into usable forms for analysis and reporting.

Q54. Does the institution have any existing AI governance, coordination, or committees?

> **A54.** Yes, central Taskforce for AI.

Q55. Has the institution defined an AI strategy? If so, could it be provided?

A55. https://www.marshall.edu/ai/genai/presidential-task-force-on-ai/

Q56. For potential on-site work, do you have a preference for the activities that might include? For instance, we sometimes work with institutions whose culture supports more robust stakeholder engagement when on-site (vs. remote), while others prefer that on-site work be dedicated to more extended working sessions with the project team. We can offer either approach, or a combination of both, and it helps us to understand preferences before submitting a proposal.

A56. A mix of on-site meetings with the data team and remote sessions with data stewards and the data governance council would be effective.

Q57. For Goal/Objective 3 (Assess and Recommend a Centralized Technology Solution), is the institution seeking a direct recommendation for a technology solution based on our knowledge of the market and what we learn over the course of the engagement about the institution's needs, or is the institution seeking a partner to draft RFP specifications, or assist with a full RFP process including creation, evaluation, and selection (or another option not listed here)?

A57. We request a recommendation regarding a solution that aligns with our requirements, as part of the EOI. Responses may include proposals from individual vendors or combinations of vendors.

Q58. Do you currently have or are you in the process of procuring a metadata management (MDM) tool to assist in the assessment?

A58. Not currently, but that would be helpful.

Q59. Do you have high-level documentation of data integrations with Banner, including not only the applications but the integration method (e.g., APIs, direct database connections, ETL, etc.) used? Or, would creating such an artifact be part of the assessment?

A59. MUIT has documentation of the types of data integration to other systems including APIs, database connections, etc. This list can be provided during the engagement and built upon based on additional findings.

Q60. Is there a proposed timeline for this project?

A60. Marshall anticipates that this engagement will be phased out over time. The exact timeline will be finalized with the selected vendor**.**

Q61. Are you willing to share a list of all respondents who have expressed an interest in this project?

A61. A list of respondents will be read aloud at the scheduled EOI bid opening.

Q62. Are subcontractors allowed on this engagement?

A62. Yes, subcontractors are permitted and require registration with the West Virginia Secretary of State. In addition, the use of subcontracts must be disclosed in the proposal and must comply with all applicable procurement and contractual requirements.

Q63. Is there a preferred or prohibited list of subcontractors or vendors?

A63. No

Q64. Are there any restrictions on where the work must be performed (e.g., within the issuing state, within the U.S., or onshore vs. offshore)?

A64. Hybrid work, with preferable onshore resources.

Q65. Is remote work permitted for any portion of the work? If so, for which roles or phases?

A65. Yes, all roles and all phases with some onsite meetings required.

Q66. Do subcontractors need to be based in-state or in the U.S., or can they be located elsewhere?

A66. It is preferred that subcontractors be in the US. Subcontractors require registration with the West Virginia Secretary of State. In addition, the use of subcontracts must be disclosed in the proposal and must comply with all applicable procurement and contractual requirements.

Q67. Are there any data residency or data sovereignty requirements that would restrict where data can be accessed or stored?

A67. Preferably located in the US

Q68. Does any portion of the work (e.g., hosting, support, development) need to be performed on-site or within government facilities?

A68. No government facilities are required. Some meetings and/or work may be onsite.

Q69. Are there any specific legal, regulatory, or compliance reasons that would prevent the use of out-of-state or offshore resources (e.g., HIPAA, CJIS, FedRAMP, state IT policies)?

A69. Onshore is preferred. Compliance with, but not limited to, FERPA, HIPAA, GDPR, state of West Virginia and Marshall University purchasing requirements is expected.

Q70. If off-site or remote delivery is permitted, are there additional security controls required (e.g., VPN, dedicated machines, endpoint monitoring)?

A70. Yes, all technology must be reviewed using the HECVAT and secured appropriately.

Q71. Is Marshall University open to cloud-based solutions for this project?

A71. Yes, cloud-based is preferred.

Q72. Are there any restrictions on cloud hosting (e.g., must be hosted in a specific region/state/country)?

A72. Onshore cloud hosting is preferred.

Q73. Does Marshall University have a preferred cloud provider (e.g., AWS, Azure, Google Cloud)?

A73. Azure, AWS preferred.

Q74. Is there an existing cloud strategy or mandate that this work must align with (e.g., cloud-first policy, state contract with a cloud vendor)?

A74. Cloud first preferred, but no mandate.

Q75. Are hybrid or multi-cloud architectures acceptable?

A75. Yes

Q76. Does Marshall University require FedRAMP, StateRAMP, or other cloud compliance certifications?

A76. Not at this time but could potentially be in the future with cyber security programs.

Q77. Are there existing on-premise systems or legacy infrastructure that must be integrated with a cloud solution?

A77. Banner SIS/ERP hosted in OCI (as on prem solution).

Q78. If the solution must be hosted on government infrastructure, is a move to the cloud anticipated in a future phase?

A78. N/A

Q79. Who is responsible for cloud infrastructure provisioning—vendor or client?

A79. Client primarily but could be both.

Q80. Are there any data residency, security, or audit requirements that would affect how and where the cloud solution is hosted?

A80. All technology will be reviewed for audit and security risk.

Q81. Is there a preferred delivery methodology for this engagement (e.g., Agile, Waterfall, Hybrid)?

A81. Hybrid is fine.

Q82. Is Marshall University open to Agile or iterative approaches, particularly for discovery, prototyping, or phased delivery?

A82. Yes

Q83. If Agile is acceptable, are there internal stakeholders (e.g., Product Owners, Scrum Masters) who can participate in ceremonies (standups, sprint reviews, etc.)?

A83. Yes

Q84. Are there existing constraints that require a Waterfall approach (e.g., funding models, regulatory gates, legacy SDLC)?

A84. Funding and resource allocation may require this approach.

Q85. Is a hybrid approach (e.g., Agile within defined stage gates) acceptable or encouraged?

A85. Either is fine

Q86. Are there mandated documentation or milestone approvals that must be preserved within any chosen delivery model?

A86. No

Q87. Will vendors have flexibility to propose the methodology they believe best suits the project's complexity and risk profile?

A87. Yes

Q88. Are there existing tools or platforms the agency uses to support Agile delivery (e.g., Jira, Azure DevOps, Confluence)?

A88. No

Q89. Is the University seeking only a strategic plan and roadmap, or should the partner also be prepared for implementation services (tool configuration, integrations, migrations)?

A89. Strategic Plan, as well as implementation services.

Q90. How broad should the governance program be? Is it institution-wide (all academic and administrative units) or initially focused on a few domains (student, finance, HR)?

A90. Institution-wide with an emphasis on Student and Finance data.

Q91. For the centralized technology solution — does Marshall envision this as a data warehouse, data lake, MDM solution, or iPaaS platform (e.g., Boomi, MuleSoft, Informatica, Azure)?

A91. We are open to any solution that meets our requirements and strategy.

Q92. How are Ellucian Banner, Salesforce, Blackboard, and ancillary systems currently integrated (point-to-point, ETL, middleware)?

A92. All the above. We are currently migrating to MuleSoft.

Q93. Are there any cloud migration or ERP modernization initiatives in flight that this project needs to align with?

A93. Not yet, we are considering a move to Banner SaaS within the next 3 years.

Q94. What are the key data domains Marshall wants prioritized (e.g., student records, finance, research data, advancement/donors)?

A94. Student & Finance Data

Q95. Does Marshall already have data governance committees, stewards, or policies in place, or will this project establish them from scratch?

A95. There are some foundational things in place, but formal data governance will be established because of this project.

Q96. Are there specific regulatory/compliance frameworks that must be baked into governance (e.g., FERPA, HIPAA, GDPR, state policies)?

A96. Compliance with, but not limited to, FERPA, HIPAA, GDPR, state of West Virginia and Marshall University purchasing requirements Is expected.

Q97. How will success be measured — e.g., data quality metrics, reduction in duplicate records, faster reporting turnaround, AI readiness?

A97. AI readiness, reduction in duplicate records, data dictionary implementation, self-service reporting.

Q98. What is the current reporting and analytics ecosystem (Power BI, Tableau, SAS, native Banner reports)?

A98. Power BI, Argos, homegrown system "Banner Extraction Reporting Tool."

Q99. How does the University define being "AI ready" — does that mean better curated data for predictive analytics, or specific AI initiatives already scoped?

A99. Curated data for predictive analytics, better case management/student service using agentic AI

Q100. Is there an expectation for data cataloging and metadata management as part of this plan?

A100. Yes

Q101. Who are the executive sponsors and key stakeholders (CIO, Institutional Research, Enrollment, Finance)?

A101. CIO and VP IR will be executive sponsors. Key stakeholders include all Cabinet members and Deans.

Q102. How much staffing capacity exists for governance roles (data stewards, data custodians, governance council), and will training be required?

A102. Data Stewards have been identified, the data governance council has already identified, no additional staffing and yes, training will be required.

Q103. Is Marshall expecting the partner to help stand up governance bodies (committees, stewardship models), or just to recommend them?

A103. Recommend them and get them started.

Q104. Are you open to a phased approach (quick wins, then expansion) versus a single comprehensive plan?

A104. Yes, we will need to move in a phased approach due to funding.

Q105. What are the budget expectations for both strategy engagement and any potential technology platform?

A105. There is currently no budget for this project. To ensure an unbiased evaluation, cost proposals, financials, and cost estimates are submitted only after the evaluation and scoring of Expressions of Interest (EOI) proposals have been completed. This ensures that the initial assessment is based solely on the technical and qualitative merits of the proposals, maintaining fairness and objectivity in the selection process.

Q106. Will the University consider proof-of-concepts or pilot implementations as part of vendor selection?

A106. We would like to understand the strategy for a full solution.

Q107. Does Marshall University currently have any data governance program or bodies (e.g., a data stewards group), or would the data governance program be entirely new for the university**?**

> **A107.** We have a very informal structure. We would like to formalize data governance at the University.

Q108. What is the estimated level of knowledge of typical data governance roles and responsibilities for the people in those roles (e.g., Data Trustees, Data Stewards, Data Custodians)? This informs our approach to change management, stakeholder engagement, education, and data literacy for the engagement.

> **A108.** Knowledge varies by personnel. Change management and training will be important and required.

Q109. Does the university currently have any enterprise solutions for data integration, reporting, and analytics?

> **A109.** We utilize MuleSoft for data integration. Most reporting and analytics are through Power BI, Argos, and a custom solution called "Banner Extraction and Reporting Tool"

Q110. Does the institution have any existing AI governance, coordination, or committees?

> **A110.** We have a Presidential Task Force on AI (see www.marshall.edu/ai)

Q111. Has the institution defined an AI strategy? If so, could it be provided?

> **A111.** Yes, see www.marshall.edu/ai

Q112. For potential on-site work, do you have a preference for the activities that might include? For instance, we sometimes work with institutions whose culture supports more robust stakeholder engagement when on-site (vs. remote), while others prefer that on-site work be dedicated to more extended working sessions with the project team. We can offer either approach, or a combination of both, and it helps us to understand preferences before submitting a proposal.

> **A112.** Our preference will be a combination of on-site and remote work.

Q113. For Goal/Objective 3 (Assess and Recommend a Centralized Technology Solution), is the institution seeking a direct recommendation for a technology solution based on our knowledge of the market and what we learn over the course of the engagement about the institution's needs, or is the institution seeking a partner to draft RFP specifications, or assist with a full RFP process including creation, evaluation, and selection (or another option not listed here)?

> **A113.** We hope to have a technology recommendation.

Q114. Do you currently have or are you in the process of procuring a metadata management (MDM) tool to assist in the assessment?

> **A114.** No, but it would be desirable to have an MDM tool.

Q115. Do you have high-level documentation of data integrations with Banner, including not only the applications but the integration method (e.g., APIs, direct database connections, ETL, etc.) used? Or, would creating such an artifact be part of the assessment?

A115. We have informal documentation, but this would be included in the assessment as an artifact.

Q116. Is there a proposed timeline for this project?

A116. Marshall anticipates that this engagement will be a phased approach. The exact timeline will be finalized with the selected vendor.

Q117. Are you willing to share a list of all respondents who have expressed interest in this project?

A117. If requested, Marshall University will share a list of respondents who have submitted proposals in response to the Expression of Interest.

Q118. Apart from Marshall's efforts to integrate its CRM and LMS and modernize the university's data infrastructure, are there any other large-scale projects or transformations Marshall is undertaking that may impact the Enterprise Data Governance and Management Consulting Services and Strategic Plan project? If so, what are the objectives and timelines of these efforts?

A118. There are many large-scale projects happening within the University; however, none that would directly impact the success of this project.

Q119. Does Marshall currently have any established governance and/or working groups to oversee its data governance and management? If so, what is the mandate and composition of these groups? What successes and challenges has Marshall experienced with these groups?

A119. We have informal data governance procedures, mostly between IT and IR. There are many challenges with data management and governance due to informal processes and no formal data program.

Q120. Has Marshall established any artificial intelligence (AI) related initiatives? If so, what is the scope of these AI initiatives and how does Marshall envision these existing initiatives overlapping with and/or informing its data governance and management?

A120. Yes, please see www.marshall.edu/ai for more information. This program will also assist with further AI readiness and implementation.

Q121. The first referenced section indicates vendors should provide the "estimated cost for delivering these services." Section 4 states that "no price or fee information is requested or permitted in the bid response." Please clarify.

A121. Section Four, #2 (page 14) of the Expression of Interest which states: "In accordance with the Code requirements, no "price" or "fee" information is requested or permitted in the bid response.". To ensure an unbiased evaluation, cost proposals, financials, and cost estimates are submitted only after the evaluation and scoring of Expressions of Interest (EOI) proposals have been completed. This ensures that the initial assessment is based solely on the technical and qualitative merits of the proposals, maintaining fairness and objectivity in the selection process.

Q122. Should the proposer complete, sign, and submit the cover page as part of our bid response? If so, please confirm we should disregard the areas concerning pricing and shipment.

A122. Yes, the bid cover page, along with the cover page of any addenda, must be signed and dated.

Q123. Is this form required as part of the proposal submission? If so, please provide it.

A123. Please see Section Two: Instructions to Vendors Submitting Bids, Section Three: Project Specifications, and Section Four: Vendor Proposal, Evaluation, & Award as to format and information to be included in vendor proposals.

Q124. Is this form required as part of the proposal submission? If so, please provide it.

A124. Please see Section Two: Instructions to Vendors Submitting Bids, Section Three: Project Specifications, and Section Four: Vendor Proposal, Evaluation, & Award as to format and information to be included in vendor proposals.

Q125. Which existing data governance documentation, data dictionaries, or system integration maps are available for review?

A125. None. We can provide this detail verbally, but no formal documentation exists.

Q126. Which existing data governance documentation, data dictionaries, or system integration maps are available for review?

A126. None. We can provide this detail verbally, but no formal documentation exists.

Q127. Are there any critical deadlines (e.g., budget cycles, compliance requirements) that would impact our proposed timeline? If yes, please describe

A127. No

Q128. Are there existing APIs or data integration tools in place? If yes, please describe.

A128. Yes, MU is migrating to MuleSoft.

Q129. What are the current data refresh frequencies between systems?

A129. Varies based on the data need/integration type.

Q130. What are the top 3 pain points this project must address?

A130. Data governance and definition/management, data management technology, AI readiness

Q131. Which specific regulatory compliance requirements must be addressed?

A131. Compliance with, but not limited to, FERPA, HIPAA, GDPR, state of West Virginia and Marshall University purchasing requirements Is expected.

Q132. The document states "Identify and recommend a modern, scalable technology platform." Do you expect recommendations for specific vendor solutions, or technology-agnostic architectural guidance, or both?

A132. Both

Q133. How will project success be measured?

A133. Formal data governance structure, implementation of data management solution and change management.

Q134. Page 2 of the RFP invites interested parties to submit a proposal outlining approach, timeline, and estimated cost for delivering services; however, on page 14, the RFP states that no "price" or "fee" information is requested or permitted in the bid response. Would you please clarify if and how we are supposed to submit budget information? Is there an estimated project budget?

> **A134.** Section Four, #2 (page 14) of the Expression of Interest which states: "In accordance with the Code requirements, no "price" or "fee" information is requested or permitted in the bid response." Proposals will be evaluated according to Section Four, #3, #3.3 (page 14-15) of the Expression of Interest. There is currently no budget for this project. To ensure an unbiased evaluation, cost proposals, financials, and cost estimates are submitted only after the evaluation and scoring of Expressions of Interest (EOI) proposals have been completed. This ensures that the initial assessment is based solely on the technical and qualitative merits of the proposals, maintaining fairness and objectivity in the selection process.

Q135. Is building a list of stakeholders' part of the project or is there an existing list of stakeholders we would work with Marshall University to engage?

> **A135.** Marshall University maintains an initial list of key stakeholders across academic, administrative, and IT units. The selected vendor will work with the University to refine and expand this list as appropriate.

Q136. What are the expected deliverables from this project, if any?

> **A136.** Expected deliverables include: (1) a current-state assessment of data and governance practices, (2) a comprehensive Data Governance and Management Strategic Plan, and (3) recommendations for supporting technologies and frameworks to enable enterprise-wide integration, reporting, and analytics.

Q137. What is the exhaustive list of systems that are expected to be included in the governance framework?

> **A137.** Refer to A41.

Q138. Are the data systems currently integrated or linked and do the current data flows need to be mapped?

> **A138.** Some systems are integrated on a limited basis. A comprehensive mapping of data flows, including points of integration and gaps, will be an important part of the assessment phase.

Q139. How many references and past performance examples should be provided?

> **A139.** Three references from similar higher education or enterprise-scale projects are recommended.

Q140. Is there an expected timeline for this work?

> **A140.** Marshall anticipates that this engagement will be a phased approach. The exact timeline will be finalized with the selected vendor.

Q141. Section 3 of the general terms & conditions (page 19) of the solicitation indicates an attachment. Where is the attachment located?

    A141. There are no additional attachments. This was marked in error.

Q142. Does the university currently use any cloud-based infrastructure, and if so, which platform?

    A142. Yes. Marshall utilizes Microsoft Azure as part of its enterprise infrastructure as well as Oracle OCI (Banner), and Salesforce as our main cloud platforms currently.

Q143. Should each of the three objectives / tasks outlined in Section 3 of the EOI—data landscape evaluation, governance framework development, and technology solution recommendation—be treated as distinct workstreams, or are they expected to be integrated into a single unified engagement?

    A143. They are to be integrated into a single unified engagement, though the work may be phased in or sequenced to ensure clarity of deliverables.

Q144. For each of the three objectives outlined in the EOI, are there specific target end dates or milestones that Marshall University is aiming for? Additionally, are there any known holidays, academic breaks, or institutional blockers not included in the publicly available calendars that could impact the project timeline?

    A144. There are no fixed target end dates beyond the overall project timeline. Vendors should be aware of academic breaks (winter, spring, summer) and University holidays as posted on the public academic calendar. No additional institutional blockers are anticipated.

Q145. Will Marshall University designate a Project Manager or PMO function to support this engagement? What level of project management support is expected from the selected vendor?

    A145. Yes. The CIO and VP of IR. are championing this project. The selected vendor will be expected to provide project management for the engagement, including status reporting and timeline management, in coordination with the University's designated leads.

Q146. Beyond the current effort to integrate Banner with ancillary systems like Salesforce and Blackboard as part of Marshall University's data infrastructure modernization, are there any other ongoing data initiatives or pilot projects that the vendor should align with or build upon? If so, could you specify the technologies or platforms involved in those efforts?

    A146. Marshall is actively modernizing its reporting and analytics environment, including expansion of Power BI and exploration of cloud-based data integration. Additional initiatives may be identified during discovery, but no further specific pilot technologies are being mandated at this time.

Q147. To what extent does Marshall University currently have a campus-wide data governance program in place (e.g., data governance committee, defined data stewards) for Student data or other data domains?

    A147. Marshall has begun building data governance capacity, including a Data Governance Council and stewardship structures in certain domains. However, a comprehensive enterprise-wide program has not yet been fully implemented.

Q148. Are there existing data definitions, glossaries, or data governance artifacts that have already been created and should be leveraged?

> **A148.** Yes. Preliminary artifacts exist, including draft data definitions and governance documentation. These materials will be made available to the selected vendor to ensure continuity and efficiency.

Q149. Does Marshall University have a preferred or existing Master Data Management (MDM) solution (e.g., Informatica, Profisee, Boomi)?

> **A149.** Marshall does not currently have an enterprise-wide MDM solution in place. Vendors are encouraged to recommend options aligned with the University's strategy and technology environment.

Q150. Are there preferred platforms, tools, or technologies (e.g., cloud vendors, integration tools, reporting tools) that Marshall University envisions for its future-state data infrastructure? We understand that objective three is vendor selection, are there any restrictions?

> **A150.** Marshall does not impose restrictions on recommendations, provided they align with industry standards, scalability, and interoperability.

Q151. Which cloud data platforms are currently in use or supported at the Marshall University campus level (e.g., Snowflake, Databricks, Microsoft Fabric)?

> **A151.** Azure, AWS, Oracle OCI, Snowflake (Blackboard LMS), and Salesforce currently.

Q152. What is Marshall University's preferred enterprise business intelligence (BI) tool for campuswide reporting (e.g., Power BI, Tableau, Looker)?

> **A152.** Currently, Power BI is Marshall University's preferred enterprise BI tool with Argos also being used for internal reports.

Q153. Are there any technologies or tools currently in use that Marshall University plans to phase out or replace in the near future?

> **A153.** Legacy reporting tools do exist, and we realize that many may need to be phased out with Power BI positioned as the long-term enterprise solution. Specific retirement timelines will be determined in coordination with the overall strategy.

Q154. Are there any existing or planned AI use cases that Marshall University considers institutional priorities, as referenced in the EOI's strategic goals?

> **A154.** Yes. AI is considered a strategic priority, with anticipated use cases in student success, financial aid optimization, and administrative efficiency. The current engagement is intended to establish the governance and data management foundation to enable these initiatives.

Q155. What is the anticipated scope of training and change management? Would the selected vendor be responsible for leading any training or change management initiatives, or would those activities be considered out of scope and handled by Marshall University's internal team?

A155. The selected vendor will be expected to provide recommendations and high-level support for training and change management. The University will lead internal execution, but vendor expertise in best practices is encouraged to guide these efforts.

Q156. The EOI states that Marshall University invites interested parties to "submit a proposal outlining their approach, timeline, and estimated cost for delivering these services." However, it's also stated that "BIDS MUST NOT CONTAIN PRICE QUOTATIONS: The State shall select the best value solution... no 'price' or 'fee' information is requested or permitted in the bid response." Could Marshall University please clarify how "estimated cost" should be addressed?

A156. Section Four, #2 (page 14) of the Expression of Interest which states: "In accordance with the Code requirements, no "price" or "fee" information is requested or permitted in the bid response." Proposals will be evaluated according to Section Four, #3, #3.3 (page 14-15) of the Expression of Interest. There is currently no budget for this project. To ensure an unbiased evaluation, cost proposals, financials, and cost estimates are submitted only after the evaluation and scoring of Expressions of Interest (EOI) proposals have been completed. This ensures that the initial assessment is based solely on the technical and qualitative merits of the proposals, maintaining fairness and objectivity in the selection process.

Q157. What is Marshall University's current perceived data management and governance maturity level across the institution (e.g., ad-hoc, nascent, defined, managed, optimized)? Has there been attempts further the institution's overall data management capability? If so, how does this RFP fit into that?

A157. Marshall's maturity level can best be described as nascent to defined. Foundational efforts such as a Data Governance Council and initial stewardship roles have been established, but a comprehensive, enterprise-wide framework is not yet in place. This project is intended to formalize and advance the University's overall data governance and management capability.

Q158. To help us tailor our "strategic roadmap with actionable recommendations," could Marshall University elaborate on the specific pain points or key challenges currently experienced with its data infrastructure, systems, and practices? And is the intended scope focused on technology, or is there an expectation that the selected vendor is assessing IT, data talent, and overall change management capability and capacity?

A158. Key challenges include siloed data sources, inconsistent definitions, limited enterprise-wide governance, and increasing demand for integrated analytics. The scope is both technical and organizational—vendors should address technology, governance, talent, and change management to ensure sustainable improvements.

Q159. Does Marshall University have any current schematic diagrams of the current technology ecosystem and the tools within it? Are there any large-scale pending changes to the technology landscape at Marshall? New CRM, ERP, SIS, etc.?

A159. High-level architecture diagrams exist and will be shared with the selected vendor. No major system replacements are currently planned; Banner remains in the SIS, Salesforce is the CRM, and Blackboard is the LMS. Incremental modernization initiatives are ongoing.

Q160. What internal resources (e.g., dedicated staff, access to key stakeholders, existing data teams) will Marshall University commit to this project to work collaboratively with the selected vendor?

> **A160.** Marshall will designate a project lead, provide access to key stakeholders, and make available data management staff from Institutional Research, IT, and other relevant areas to collaborate with the vendor.

Q161. Beyond the defined objectives, what are the key success metrics or desired outcomes that Marshall University will use to evaluate the overall success of this data governance and management project?

> **A161.** Success will be evaluated based on the establishment of a formal governance framework, improved data quality and accessibility, a clear technology roadmap, and readiness to support advanced analytics and AI initiatives.

Q162. How will project success be measured?

> **A162.** Project success will be measured by: (1) implementation of a formal data governance structure, (2) delivery of a data management strategy and solution recommendations, and (3) incorporation of change management practices that ensure adoption.

Q163. Are subcontractors allowed on this engagement?

> **A163.** Yes. Subcontractors are permitted and require registration with the West Virginia Secretary of State. In addition, the use of subcontracts must be disclosed in the proposal and must comply with all applicable procurement and contractual requirements.

Q164. Is there a preferred or prohibited list of subcontractors or vendors?

> **A164.** Marshall does not maintain a preferred and/or prohibited list of subcontractors. Subcontractors require registration with the West Virginia Secretary of State. In addition, use of subcontracts must be disclosed in the proposal and must comply with all applicable procurement and contractual requirements

Q165. Are there any restrictions on where the work must be performed (e.g., within the issuing state, within the U.S., or onshore vs. offshore)?

> **A165.** Work can be performed offshore, but no data should be transferred offshore to comply with state and institutional requirements. Compliance with, but not limited to, FERPA, HIPAA, GDPR, state of West Virginia and Marshall University purchasing requirements is expected.

Q166. Is remote work permitted for any portion of the work? If so, for which roles or phases?

> **A166.** Yes. Remote work is permitted for discovery, analysis, and strategy development phases. Some on-site engagement may be required for workshops, stakeholder interviews, or executive presentations.

Q167. Do subcontractors need to be based in-state or in the U.S., or can they be located elsewhere?

> **A167.** It is preferred that subcontractors be in the U.S.; however, they do not need to be based in the state of West Virginia. Subcontractors require registration with the West Virginia

Secretary of State. In addition, the use of subcontracts must be disclosed in the proposal and must comply with all applicable procurement and contractual requirements.

Q168. Are there any data residency or data sovereignty requirements that would restrict where data can be accessed or stored?

> **A168.** Yes. All University data must remain stored and processed within the United States in compliance with applicable state and federal requirements.

Q169. Does any portion of the work (e.g., hosting, support, development) need to be performed on-site or within government facilities?

> **A169.** Hosting and support do not need to occur on-site. Occasional on-site presence may be requested for key project activities.

Q170. Are there any specific legal, regulatory, or compliance reasons that would prevent the use of out-of-state or offshore resources (e.g., HIPAA, CJIS, FedRAMP, state IT policies)?

> **A170.** Yes. State and institutional policies require data to be handled within the United States. Offshore data resources are not permitted for this engagement. Compliance with, but not limited to, FERPA, HIPAA, GDPR, state of West Virginia and Marshall University purchasing requirements Is expected.

Q171. If off-site or remote delivery is permitted, are there additional security controls required (e.g., VPN, dedicated machines, endpoint monitoring)?

> **A171.** Yes. Remote access must occur through secure, University-approved methods such as VPN. Additional security controls, such as endpoint monitoring and compliance with University IT policies, will be required.

Q172. Is Marshall University open to cloud-based solutions for this project?

> **A172.** Yes. Cloud-based solutions are acceptable and encouraged where they provide scalability, security, and cost-effectiveness.

Q173. Are there any restrictions on cloud hosting (e.g., must be hosted in a specific region/state/country)?

> **A173.** Yes. Data must be hosted within the United States.

Q174. Does Marshall University have a preferred cloud provider (e.g., AWS, Azure, Google Cloud)?

> **A174.** No, we are looking for recommendations.

Q175. Is there an existing cloud strategy or mandate that this work must align with (e.g., cloud-first policy, state contract with a cloud vendor)?

> **A175.** Marshall has adopted a cloud-first strategy.

Q176. Are hybrid or multi-cloud architectures acceptable?

> **A176.** Yes. Hybrid or multi-cloud approaches are acceptable if they align with strategic goals, security, and compliance requirements.

Q177. Does Marshall University require FedRAMP, StateRAMP, or other cloud compliance certifications?

A177. No.

Q178. Are there existing on-premise systems or legacy infrastructure that must be integrated with a cloud solution?

A178. Yes. Existing on-premises systems should be integrated with any future cloud solution.

Q179. If the solution must be hosted on government infrastructure, is a move to the cloud anticipated in a future phase?

A179. Marshall anticipates continued movement to cloud infrastructure where feasible. On-premises hosting may be maintained during the interim.

Q180. Who is responsible for cloud infrastructure provisioning—vendor or client?

A180. The selected vendor may give guidance and recommendations.

Q181. Are there any data residency, security, or audit requirements that would affect how and where the cloud solution is hosted?

A181. Yes. Data must remain within the United States, and any solution must comply with state security standards, University IT policies, and applicable federal regulations.

Q182. Is there a preferred delivery methodology for this engagement (e.g., Agile, Waterfall, Hybrid)?

A182. Marshall University does not prescribe a specific delivery methodology. We expect vendors to recommend an approach that ensures stakeholder engagement, timely deliverables, and quality outcomes. A hybrid model that balances structured stage gates with iterative feedback may be most appropriate.

Q183. Is Marshall University open to Agile or iterative approaches, particularly for discovery, prototyping, or phased delivery?

A183. Yes. We welcome iterative approaches, particularly during the discovery and prototyping phases, where early insights and stakeholder validation can improve the final strategy and recommendations.

Q184. If Agile is acceptable, are there internal stakeholders (e.g., Product Owners, Scrum Masters) who can participate in ceremonies (standups, sprint reviews, etc.)?

A184. While Marshall does not maintain formal Agile roles such as Scrum Masters or Product Owners, key stakeholders from Institutional Research, Information Technology, and other units will be available to participate in recurring check-ins, workshops, and review sessions as needed.

Q185. Are there existing constraints that require a Waterfall approach (e.g., funding models, regulatory gates, legacy SDLC)?

A185. There are no hard constraints requiring a Waterfall approach. However, the engagement must align with procurement and reporting requirements, which favor clearly defined milestones and deliverables.

Q186. Is a hybrid approach (e.g., Agile within defined stage gates) acceptable or encouraged?

A186. Yes. A hybrid approach is both acceptable and encouraged. We believe this balances the accountability of defined stage gates with the adaptability of iterative engagement, ensuring broad stakeholder input and a strategy that reflects the needs of the University.

Q187. Are there mandated documentation or milestone approvals that must be preserved within any chosen delivery model?

A187. Yes. While Marshall University is open to flexible delivery models, the project must include clear stage gates with defined deliverables and milestone approvals to align with state procurement and reporting requirements.

Q188. Will vendors have flexibility to propose the methodology they believe best suits the project's complexity and risk profile?

A188. Yes. Vendors are encouraged to propose the most appropriate methodology, provided it ensures stakeholder engagement, risk management, and timely delivery of project outcomes.

Q189. Are there existing tools or platforms the agency uses to support Agile delivery (e.g., Jira, Azure DevOps, Confluence)?

A189. Marshall University primarily utilizes Microsoft Teams, Planner, SharePoint, and GitLab for collaboration and project tracking. Other tools may be considered if they align with University's IT standards.

Q190. Can Marshall University provide an approximate number of the onsite workshops/meetings that are anticipated?

A190. No, it will depend on the scope and schedule and can be determined as part of project planning. We are OK with a hybrid approach to meetings.

Q191. Aside from the data systems in scope, Beyond Banner, Salesforce, Blackboard, Unimarket, and wvOASIS, are there additional systems (data warehouse, reporting tools) that should be included in the assessment?

A191. These systems would be the focus of the initial project.

Q192. Security Matrix: Will this include a security matrix design and implementation support for applicable system(s)?

A192. Potentially. We already have a data classification guide in our information security policy.

Q193. In regard to the AI readiness expectations, is the University seeking a specific AI governance framework or ethics principle to be included, and are there any preferred standards?

A193. No, just ensuring that we have data managed for future AI implementations.

Q194. The document states "Identify and recommend a modern, scalable technology platform." Do you expect recommendations for specific vendor solutions, or technology-agnostic architectural guidance, or both?

> **A194.** Both.

Q195. Page 12, section 4.3 references "…*Finance, IT, Institutional Research, Student Enrollment and Retention*". Please confirm the total number of departments/stakeholder groups in scope and specify the ones that are included.

> **A195.** All departments of the university are in scope.

Q196. Page 3, section 1.2 mentions *"... submit a proposal outlining their approach, timeline, and estimated cost…"*. Kindly provide the start date, end date and overall duration of the project.

> **A196**. Marshall anticipates that this engagement will be a phased approach. The exact timeline will be finalized with the selected vendor.

Q197. Page 11, section 3.1 states "*The proposed Project can be executed remotely…*" Can we provide all services/part of the services remotely from outside of USA, say India?

> **A197.** Onshore resources are preferred.

Q198. Page 2, section 1.1 mentions "…*management consulting services and strategic plan*" Has the University performed any similar "consulting service / strategic plan exercise" in the past?

> **A198.** Not related to data management/governance.

Q199. Page 11, section 3.3 highlights "*staff qualifications and experience in completing similar projects…*". Could you clarify what roles and responsibilities are expected from our team? Additionally, what roles from the University's side are anticipated to be involved in the project?

> **A199.** Individuals are familiar with data management, data integration, data governance, and strategy with experience in implementation of these services. IT and IR will be involved with the project at the University.

Q200. Page 2, section 1, point 2 mentions "…*and estimated cost for delivering these services*". However, page 14, point 2 mentions "*... no "price" or "fee" information is requested or permitted in the bid response*". Could you please confirm whether pricing information is required as part of the submission?

> **A200**. Section Four, #2 (page 14) of the Expression of Interest which states: "In accordance with the Code requirements, no "price" or "fee" information is requested or permitted in the bid response." There is currently no budget for this project. To ensure an unbiased evaluation, cost proposals, financials, and cost estimates are submitted only after the evaluation and scoring of Expressions of Interest (EOI) proposals have been completed. This ensures that the initial assessment is based solely on the technical and qualitative merits of the proposals, maintaining fairness and objectivity in the selection process.

Q201. Page 11, point 3.1.b mentions *"…this project can be constructed within the project budget*." Please share the budget allocated for this project.

A201. There is currently no budget for this project. There is currently no budget for this project. To ensure an unbiased evaluation, cost proposals, financials, and cost estimates are submitted only after the evaluation and scoring of Expressions of Interest (EOI) proposals have been completed. This ensures that the initial assessment is based solely on the technical and qualitative merits of the proposals, maintaining fairness and objectivity in the selection process.

Q202. Can the Project be executed with a mixed team of On-site, On-Shore Remote and Off Shore Remote?

A202. Our preference is for onshore remote and onsite.

Q203. Will Off-Shore remote have access to the systems required to execute the Project?

A203. Our preference is for onshore remote and onsite.

Q204. Does the current landscape include any systems other than Salesforce, Blackboard and Ellucian Banner, UniMarket, wvOasis

A204. Yes, we have many other systems, but the focus is on the systems mentioned.

Q205. How is reporting done today? Do we have a Reporting Database/ Warehouse/lake in the Architecture?

A205. Very informal data warehouse through IR. Reporting is done by IR and some in IT using Power BI, Argos, and a custom solution "Banner Extraction & Reporting Tool"

Q206. What does wvOasis do?

A206. wvOasis is the state of WV's ERP tool which manages cash flow & payments for Marshall.

Q207. Please provide the registration link to Bonfire for vendor account creation and submission of the bid

A207. [Vendor Registration & Bonfire Login – Procurement Services](#).

Q208. Section 4.2 says, "BIDS MUST NOT CONTAIN PRICE QUOTATIONS: The State shall select the best value solution according to §5G-1-3 of the West Virginia State Code. In accordance with the Code requirements, no "price" or "fee" information is requested or permitted in the bid response." but Section 1.2 says "We invite interested parties to submit a proposal outlining their approach, timeline, and estimated cost for delivering these services. ("The Project")". Please Clarify.

A208. Section Four, #2 (page 14) of the Expression of Interest which states: "In accordance with the Code requirements, no "price" or "fee" information is requested or permitted in the bid response." Proposals will be evaluated according to Section Four, #3, #3.3 (page 14-15) of the Expression of Interest. There is currently no budget for this project. To ensure an unbiased evaluation, cost proposals, financials, and cost estimates are submitted only after the evaluation and scoring of Expressions of Interest (EOI) proposals have been completed. This ensures that the initial assessment is based solely on the technical and qualitative merits of the proposals, maintaining fairness and objectivity in the selection process.

Q209. General 1.1 How many users or departments will be involved in the engagement?

A209. All administrative and academic departments of the university.

Q210. What Department, School, or Institute is using this Salesforce org?

A210. The entire university is using it for the student/employee porta (myMU), but the focus has been on enrollment management, Marshall online, and moving into other departments.

Q211. When would you like to start this project?

A211. Early 2026

Q212. Is there a deadline for when deliverables are needed?

A212. No specific deadline

Q213. Are there prioritized AI use cases identified? If so, please describe

A213. Non identified, but student retention and finance would be a priority.

Q214. Does the project estimate need to fit into a pre-approved budget? If so, what is that budget?

A214. There is currently no budget for this project. There is currently no budget for this project. To ensure an unbiased evaluation, cost proposals, financials, and cost estimates are submitted only after the evaluation and scoring of Expressions of Interest (EOI) proposals have been completed. This ensures that the initial assessment is based solely on the technical and qualitative merits of the proposals, maintaining fairness and objectivity in the selection process.

Q215. Data 2.1 What are your top data quality and identity challenges?

A215. Data definition, data reporting, and data integration.

Q216. Are there unique identifiers across the various systems for matching records?

A216. Yes, MUID

Q217. What is the expected frequency and volume of data exchange? Will the integration be bidirectional or unidirectional?

A217. Variations depending on the use case.

Q218. Do you have a preferred middleware tool of choice for integration? Do you use an existing middleware tool?

A218. We use MuleSoft.

Q219. Do you have any concerns about the quality of your data? How would you describe the cleanliness and accuracy of the data?

A219. Yes, we have concerns; we have been on Banner for 35+ years.

Q220. Integrations 3.1 The EOI mentions, efforts are underway to integrate these systems and modernize the university's data infrastructure, what are the efforts currently underway, planned, and/or completed?

A220. Please refer to MUIT Strategy on a Page here: [Strategic Goals -](#)

Q221. What systems are integrated with the Salesforce org?

A221. Banner, Marketing Cloud, Common App, Pharm CAS, Blackboard

Q222. How are the systems integrated?

A222. Variety of integrations/file transfers.

Q223. Is there an existing ETL tool, if so, what tool is it?

A223. MuleSoft

Q224. Governance 4.1 What governance structures, roles, and policies already exist?

A224. Informal governance structure with data stewards. See policies (www.marshall.edu/policies) for Information Security policy and data privacy policy.

Q225. Is there currently a Data Governance committee? If so, please describe the assigned roles

A225. There was the start of one, but we have not met in quite some time.

Q226. KPIs 5.1 Which institution-level decisions and metrics must be standardized first?

A226. Current state of data, data management plan/strategy, data definition methodology

Q227. Technical 6.1 Provide current documentation, including system landscapes, data flow diagrams, pain points, desired future state if available

A227. Can be provided during current state analysis.

Q228. How many Salesforce licenses do you currently have and for which products?

A228. Can be discussed during current state analysis, Salesforce Ed Cloud & Marketing Cloud

Q229. Are there external users like Students or partners?

A229. Yes

Q230. How much volume of data do you have per system?

A230. Can be explored during current state analysis.

Q231. How does this data governance initiative align with broader institutional goals such as student success, operational efficiency, or AI readiness?

A231. Aligns greatly and will help set the foundation for these initiatives.

Q232. Are there other concurrent initiatives (e.g., ERP modernization, CRM expansion, AI pilots) that may impact or intersect with this project?

A232. Yes

Q233. How would you describe the current culture around data usage and ownership across departments?

A233. Data stewards are identified, and integrations are used; however, there is no formal documentation or governance structure.

Q234. What is the level of awareness and understanding of data governance among faculty, staff, and leadership?

A234. Awareness and understanding vary. Leadership is very aware, but faculty/staff are not aware.

Q235. Are there existing cross-functional teams or committees that address data governance or data strategy?

A235. Mostly from IT & IR functions

Q236. What level of involvement is expected from academic departments, administrative units, and IT during the strategy development process?

A236. IT will be involved extensively. Administrative and academic departments will be involved intermittently.

Q237. Has an executive sponsor(s) for this initiative been identified? Is there a team governance structure in place that will support this initiative?

A237. Yes

Q238. What is the desired scope of the data governance framework, and which departments or data domains (e.g., student, finance, human resources) are the highest priority?

A238. Students & Finance are the highest priority

Q239. Beyond Banner, Salesforce, and Blackboard, what types / roughly how many other "ancillary systems" are in use?

A239. Multiple, but Banner, Salesforce, and Blackboard will be the main systems in scope.

Q240. What is the anticipated involvement and commitment level from key data owners, data stewards, and business users?

A240. Weekly commitment, but project will be led by IR & IT

Q241. Is there a current data governance council or steering committee in place? If so, what is its composition and authority?

A241. It has been formed but has little involvement.

Q242. What are the current reporting and business intelligence tools being used by the university?

A242. Power BI, Argos, Banner Extraction & Reporting Tool (custom solution)

Q243. Who are the key stakeholders, and who will be the main point of contact for the project?

A243. IT & IR

Q244. Are there currently any staff dedicated to data governance?

A244. No outside of the Chief Data Officer and CIO

Q245. Have you employed any data standards across the University? If so, which ones?

A245. Data Classification Guide in our Information Security Policy
www.marshall.edu/policies

Q246. What is the scope and depth of the current data landscape assessment expected? Are there specific systems, data sources, or business units that must be prioritized (e.g., Banner, Salesforce, Blackboard, Unimarket, wvOasis, etc.)?

A246. The systems mentioned will be prioritized.

Q247. Is the University open to both on-premises and cloud-based solutions for centralized data management, integration, and reporting?

A247. Yes

Q248. Is the University open to both on-premises and cloud-based solutions for centralized data management, integration, and reporting?

A248. This should be part of the recommendation

Q249. What are the integration requirements with existing systems (Banner, Salesforce, Blackboard, etc.)? Are APIs or connectors available for these platforms?

A249. Yes, mostly - can be further delineated during current state analysis.

Q250. What is the anticipated volume and variety of data to be managed? Are there scalability or performance benchmarks to meet?

A250. Can be discussed during current state analysis.

Q251. Can the Project be executed with a mixed team of On-site, On-Shore Remote and Offshore Remote?

A251. Our preference is for onshore remote and onsite.

Q252. Will Off-Shore remote have access to the systems required to execute the Project?

A252. Our preference is for onshore remote and onsite.

Q253. Does the current landscape include any systems other than Salesforce, Blackboard and Ellucian Banner, UniMarket, wvOasis

A253. Yes, we have many other systems, but the focus is on the systems mentioned.

Q254. How is reporting done today? Do we have a Reporting Database/ Warehouse/lake in the Architecture?

A254. Very informal data warehouse through IR. Reporting is done by IR and some in IT using Power BI, Argos, and a custom solution "Banner Extraction & Reporting Tool"

Q255. What does wvOasis do?

A255. wvOasis is the state of WV's ERP tool which manages cash flow & payments for Marshall.

Q256. Please provide the registration link to Bonfire for vendor account creation and submission of the bid

> **A256**. [Vendor Registration & Bonfire Login – Procurement Services](#)

Q257. Section 4.2 says, "BIDS MUST NOT CONTAIN PRICE QUOTATIONS: The State shall select the best value solution according to §5G-1-3 of the West Virginia State Code. In accordance with the Code requirements, no "price" or "fee" information is requested or permitted in the bid response." but Section 1.2 says "We invite interested parties to submit a proposal outlining their approach, timeline, and estimated cost for delivering these services. ("The Project")". Please Clarify.

> **A257.** Section Four, #2 (page 14) of the Expression of Interest which states: "In accordance with the Code requirements, no "price" or "fee" information is requested or permitted in the bid response." Proposals will be evaluated according to Section Four, #3, #3.3 (page 14-15) of the Expression of Interest. There is currently no budget for this project. To ensure an unbiased evaluation, cost proposals, financials, and cost estimates are submitted only after the evaluation and scoring of Expressions of Interest (EOI) proposals have been completed. This ensures that the initial assessment is based solely on the technical and qualitative merits of the proposals, maintaining fairness and objectivity in the selection process.

Q258. How many users or departments will be involved in the engagement?

> **A258.** All administrative and academic departments of the university.

Q259. What Department, School, or Institute is using this Salesforce org?

> **A259.** The entire university focused on enrollment management, Marshall online, and moving into other departments.

Q260. When would you like to start this project?

> **A260.** Early 2026

Q261. Is there a deadline for when deliverables are needed?

> **A261**. No specific deadline

Q262. Are there prioritized AI use cases identified? If so, please describe

> **A261**. Non identified, but student retention and finance would be a priority.

Q263. Does the project estimate need to fit into a pre-approved budget? If so, what is that budget?

> **A263**. There is currently no budget for this project. There is currently no budget for this project. To ensure an unbiased evaluation, cost proposals, financials, and cost estimates are submitted only after the evaluation and scoring of Expressions of Interest (EOI) proposals have been completed. This ensures that the initial assessment is based solely on the technical and qualitative merits of the proposals, maintaining fairness and objectivity in the selection process.

Q264. What are your top data-quality and identity challenges?

A264. Data definition, data reporting, and data integration.

Q265. Are there unique identifiers across the various systems for matching records?

A265. Yes, MUID

Q266. What is the expected frequency and volume of data exchange? Will the integration be bidirectional or unidirectional?

A266. Variations depending on the use case.

Q267. Do you have a preferred middleware tool of choice for integration? Do you use an existing middleware tool?

A267. We use MuleSoft.

Q268. Do you have any concerns about the quality of your data? How would you describe the cleanliness and accuracy of the data?

A268. Yes, we have concerns; we have been on Banner for 35+ years.

Q269. The EOI mentions, efforts are underway to integrate these systems and modernize the university's data infrastructure, what are the efforts currently underway, planned, and/or completed?

A269. Please refer to MUIT Strategy on a Page here: Strategic Goals -

Q270. What systems are integrated with the Salesforce org?

A270. Banner, Marketing Cloud, Common App, Pharm CAS, Blackboard

Q271. How are the systems integrated?

A271. MuleSoft, Jitterbit; Variety of integrations/file transfers.

Q272. Is there an existing ETL tool, if so, what tool is it?

A272. MuleSoft (Marshall's ETL solution), Jitterbit (managed by a third party ONLY for Enrollment Data)

Q273. What governance structures, roles, and policies already exist?

A273. Informal governance structure with data stewards. See policies (www.marshall.edu/policies) for Information Security policy, data privacy policy under review.

Q274. Is there currently a Data Governance committee? If so, please describe the assigned roles

A274. Yes, but we do not meet routinely currently.

Q275. Which institution-level decisions and metrics must be standardized first?

A275. Current state of data, data management plan/strategy, data definition methodology

Q276. Provide current documentation, including system landscapes, data flow diagrams, pain points, desired future state if available

A276. This should be part of the engagement; Can be provided during current state analysis.

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Q284. Are there existing cross-functional teams or committees that address data governance or data strategy?

A284. Mostly from IT & IR functions

Q285. What level of involvement is expected from academic departments, administrative units, and IT during the strategy development process?

A285. Most involvement will come from IT & IR functions with input from other departments.

Q286. Has an executive sponsor(s) for this initiative been identified? Is there a team governance structure in place that will support this initiative?

A286. Yes

Q287. What is the desired scope of the data governance framework, and which departments or data domains (e.g., student, finance, human resources) are the highest priority?

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Q294. Have you employed any data standards across the University? If so, which ones?

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Q295. What is the scope and depth of the current data landscape assessment expected? Are there specific systems, data sources, or business units that must be prioritized (e.g., Banner, Salesforce, Blackboard, Unimarket, wvOasis, etc.)?

A295. The systems mentioned will be prioritized.

Q296. Is the University open to both on-premises and cloud-based solutions for centralized data management, integration, and reporting?

A296. Yes

Q297. Are there preferred technology vendors or platforms, or is the University seeking vendor-neutral recommendations?

A297. This should be part of the recommendation from the EOI.

Q298. What are the integration requirements with existing systems (Banner, Salesforce, Blackboard, etc.)? Are APIs or connectors available for these platforms?

A298. Yes, mostly - can be further delineated during current state analysis.

Q299. What is the anticipated volume and variety of data to be managed? Are there scalability or performance benchmarks to meet?

A299. This will be discussed during current state analysis.

ADDENDUM ACKNOWLEDGEMENT
FORM SOLICITATION NO.: 01

MU26ENTDATA

Instructions: Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification.

Acknowledgment: I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specifications, etc.

Addendum Numbers Received:

(Check the box next to each addendum received)

☑ Addendum No. 1		☐ Addendum No. 6
☐ Addendum No. 2		☐ Addendum No. 7
☐ Addendum No. 3		☐ Addendum No. 8
☐ Addendum No. 4		☐ Addendum No. 9
☐ Addendum No. 5		☐ Addendum No. 10

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any University personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.

_____

Company

_____

Authorized Signature

_____

Date

NOTE: This addendum acknowledgement should be submitted with the bid to expedite document processing.