

### **ADDENDUM NO. 2**

December 6, 2019

**RE**: RFP 027.20.B5, Contract Management Solution

**FROM**: Purchasing Office

Howard County Public Schools

10910 Clarksville Pike Ellicott City, MD 21042

(410) 313-5644

TO: PROSPECTIVE BIDDERS

This addendum modifies the Original Bidding Documents as noted below. Acknowledge receipt of this and all Addenda. Acknowledgement shall be by an authorized signatory on Acknowledgement of Receipt of Addenda Form.

# 1. INSERT Questions and Answers - December 6, 2019

|   | Questions   | Answers   |  |  |  |  |  |  |  |  |  |
|---|---|---|--|--|--|--|--|--|--|--|--|
| 1 | Please provide some additional details regarding:  A. Total number of users requiring access to the platform.  B. Total number of users by type  1) Administrator(s)  2) Full access  3) Approvers  4) Read Only  5) Requestors | Initially there will be between 10- 12 static users. As new contracts are being developed the number may fluctuate due to employees that will have assigned roles in their division's contract process. It may be up to anoter15 employees at any given time, however they may not have permanent roles.  1) 3 2) 5 3) 10-15 5) numbers may fluctuate |  |  |  |  |  |  |  |  |  |
| 2 | Is the Data Integration requirement with Workday and two way integration?   | employees at any given time, however they may not have permanent roles.  1) 3 2) 5 3) 10-15 5) numbers may fluctuate Yes, HCPSS requires two-way integration with Workday A budget has not been established Between any stakeholder from RFP development through Contract expiration.   |  |  |  |  |  |  |  |  |  |
| 3 | Has a budget been set for this project and if so how much?  | A budget has not been established   |  |  |  |  |  |  |  |  |  |
| 4 | 2.1 Can you expand on the type of collaboration features you wish to see in the platform?   |   |  |  |  |  |  |  |  |  |  |
| 5 | 2.4 Enable meta-data analysis. Can you explain what you are referring to here, perhaps an example would help?   |   |  |  |  |  |  |  |  |  |  |
| 6 | 3.9.1.1 search functionality with abstract and auto complete search. Is this a mandatory requirement?   | Preferred   |  |  |  |  |  |  |  |  |  |
| 7 | 3.9.4 access restrictions to support internal and external (public) users. Is HCPSS looking for a public portal? What data do you want the public to have access to?  | Yes, HCPSS would like a public portal, but with admin/security to filter/control specific aspects of the access.  |  |  |  |  |  |  |  |  |  |
| 8 | 3.9.5 text and SMS alert notifications. Is this mandatory requirement?  | At least one feature is mandatory   |  |  |  |  |  |  |  |  |  |

|    | Questions  | Answers  |
|----|--|--|
| 9  | 3.9.7 Please elaborate on how compliance to  | Since the HCPSS is a public entity, HCPSS have fiduciary     |
| 9  | internal, external, state and federal compliance will                                  | responsibility to ensure HCPSS policies, COMAR and           |
|    | be managed?  | federal regulations are adhered to.                          |
| 10 | 3.22 How many different lines and or specified   | To be determined in implantation phase of project            |
| 10 | permissions require to be configured?  | To be determined in implantation phase of project            |
| 11 | 3.24 Data Conversion functions that manage:  | Method of converting data so that it may be uniformly        |
|    | 3.24.1 Conversion Methods. Can you elaborate on  | stored appropriately in objects such as text data, numbers,  |
|    | this or provide an example?  | money, dates, etc.   |
| 12 | 3.24 Data Conversion functions that manage:  | Process of converting data so that it may be uniformly       |
|    | 3.24.2 Conversion Process. Can you elaborate on  | stored appropriately in objects such as text data, numbers,  |
|    | this or provide an example?  | money, dates, etc.   |
| 13 | 3.25 Data Validation. Can you elaborate on this and                                    | To control what a user can enter into a field or cell.       |
|    | provide examples. Is this on such items as phone                                       |  |
|    | numbers?   |  |
| 14 | Contract types- what types of contracts will the                                       | The resulting solution shall support all agreements made     |
|    | system support? Outsourcing, leases, real estate,                                      | on behalf of the school system.                              |
| L  | HR, IT, etc.   |  |
| 15 | Will you run the system internally or do you want it                                   | Hosted   |
|    | hosted?  |  |
| 16 | Is contract authoring and workflow part of the   | Yes. HCPSS would like a workflow/approval process.           |
|    | scope? Do you have/want a clause library and   | Yes HCPSS would like a template format and clause            |
|    | Contract document templates?   | library to build/add to the template                         |
| 17 | How are contracts created and approved now?  | Contract creation varies from simple agreements between      |
|    | How and where are they stored? In what formats?  | a school and a party to complex agreements, MOUs             |
|    | 11   | between entities,  |
| 18 | How many contracts are on your paper vs third  | Could be thousands – all with various terms, expirations,    |
| 40 | party paper?   | The professed would be unlimited but the estimate would      |
| 19 | How many contracts/documents /users will the   | The preferred would be unlimited, but the estimate would     |
| 20 | system support?  | be 5,000   |
| 20 | Are users in one place or distributed?  How many users of the system, and what general | Distributed See question #1                                  |
| ۷۱ | roles will they have?  | See question #1  |
| 22 | Will there be any interfaces to your contract  | Workday, eMMA, Outlook                                       |
|    | system? If so, what systems and what   | ,,   |
|    | data/functions will be interfaced?   |  |
| 23 | What are the current contract issues/pain you are                                      | Yes. HCPSS is trying to streamline the process with the      |
|    | trying to address? Deadlines, last of obligation                                       | items mentioned in your question. HCPSS is looking to        |
|    | visibility, access to contract documents, need for                                     | improve our processes, have continuous workflow,             |
|    | proactive alerts, inconsistent contract language,                                      | dashboard for status checks, notifications for process flow- |
|    | etc?   | email capabilities, templates for: contracts, insurance and  |
|    |  | data privacy agreements, one stop for data collection of     |
|    |  | new, current and previous contracts, connection to           |
|    |  | budget/financials of contract, ease of uploading RFP         |
|    |  | documents to the eMMA  |
| 24 | Is the project budgeted or are you just doing  | See #3 above for the budget. This is a new initiative so the |
|    | research? What is your timeframe for   | timeframe would be a joint effort between HCPSS and the      |
|    | implementing?  | awarded contractor. Of course specific milestones will be    |
|    |  | established and need to be met.                              |
| 25 | What ERP/financial systems do you have?  | Workday  |
| 26 | Do you have a sourcing system currently? If so,  | No   |
| 27 | What software do you use for Email?  | Outlook  |
|    | What software do you use for Email? What version of MS Word is being used?             | Office 365   |
| 28 |  |  |
| 29 | We have never had a requirement for Builders   | Not required for resulting contract                          |
|    | Insurance? How does this apply to a Software   |  |

|     | Questions  | Answers   |
|-----|--|---|
|     | agreement, or is it not required for this  |   |
|     | Proposal/contract?   |   |
| 30  | What is the as is solution currently being used for contract management at HCPSS?                        | HCPSS has no configured solution                                  |
| 31  | Are there any specific functional requirement for pre  | Ability to post RRFP/RFI's to eMMA. Notifications of              |
|     | and post-contract phase in the end-to-end purchase   | contract end dates(sunset dates)                                  |
|     | flow other than the Contract Lifecycle Management?   |   |
| 32  | Can you please give more details on the shared   | See below   |
|     | platform requirements?   |   |
| 33  | In your current contract management process, do  | Yes although, provided what is offered, HCPSS is open to          |
| 0.4 | you use templates for contracts?   | updating as required.   |
| 34  | Do you currently use Salesforce platform at HCPSS?   | No  |
| 35  | Would you be open to pricing for the contract  | See question #15  |
|     | management system to be hosted by vendor   |   |
|     | (SaaS/cloud) or deployed on your organization's  |   |
| 26  | server (on-premise)?   | Con guestion #1   |
| 36  | Can you please confirm the number of total users will require log-on access to add contracts, edit,      | See question #1   |
|     | delete, approve, search, etc.?   |   |
| 37  | Can you please expand upon the data migration /  | Broadly migrating existing data from paper, spreadsheets,         |
| 01  | importing details for the Contract Management  | reports, Workday, etc.  |
|     | Software?  | ,, ,  |
| 38  | Can you please provide details about the   | HCPSS does not currently have a legacy system                     |
|     | columns/fields are currently tracked in the  | , , , ,   |
|     | current/legacy system?   |   |
| 39  | How many total electronic Records (rows in excel   | Not available   |
|     | spreadsheet) and how many total electronic files in  |   |
| 40  | current/legacy system?   | TDD as their is used the projectory and of utilising a province.  |
| 40  | How many total legacy (historic) electronic contract files will be imported into the Contract Management | TBD as this is not the primary goal of utilizing new CM software. |
|     | Solution?  | Software.   |
| 41  | Where are the legacy (historic) electronic contract  | On a computers, servers, Office 365 (Sharepoint), paper           |
| ' ' | files currently stored (shared folders, Sharepoint,  | copies in file cabinets, etc.                                     |
|     | document management system, paper, etc.)   |   |
| 42  | Can you please expand upon your preferences to   | Workday is our human capital management and financial             |
|     | integration with third-party systems? Please provide   | platform. HCPSS also interface with eMMA for RFP/RFI              |
|     | system details (system name, database used,  | submittals.   |
|     | home-grown or commercial) if applicable. Will this   |   |
|     | be an ongoing data integration or a one-time data  |   |
| 40  | import?  | Data accepiated with DEDs, hide, swisting, southersta             |
| 43  | What data will your organization be passing in the data integration between the Contract Management      | Data associated with RFPs, bids, existing contracts               |
|     | Solution and other third-party systems?  |   |
| 44  | Are the other systems installed/deployed on your   | HCPSS's ERP system (Workday) is a hosted SaaS                     |
| `   | organization's server(s) or is the vendor hosting the  | application.  |
|     | software (cloud/SaaS)?   |   |
| 45  | What agreement types would you like to author  | TBD   |
|     | within the system (number of templates)?   |   |
| 46  | Can you please provide additional details about  | See below chart   |
|     | your organization's workflow/approval processes?   |   |
|     | Can you please provide number of steps and   |   |
|     | examples?  |   |

|          | Questions   | Answers   |  |  |  |
|----------|---|---|--|--|--|
| 47       | [For GSA eligible organizations] Is your organization                             |   |  |  |  |
|          | eligible to purchase off of the GSA Schedule 70? If                               |   |  |  |  |
|          | yes, would you like GSA pricing in the bid response                               | contact information, and contract name and number.  |  |  |  |
|          | or retail pricing?  | ,   |  |  |  |
| 48       | How Does HCPSS currently manage contracts?  | Shared drives on server and Sharepoint See below chart  See below chart  Yes  By utilizing a dashboard, users will see the process flow and know where the contract is in the process. (Such as creation, legal, finance, data privacy, insurance, Board approval, etc.)  HCPSS wants to ensure that our work is auto saved, and you can return to your place in the development or process without losing valuable work. |  |  |  |
| 49       | 3.5 "An approval process with notifications,                                      | See below chart   |  |  |  |
|          | reminders and controls"   |   |  |  |  |
|          | a) Please describe within which parts of the                                      |   |  |  |  |
|          | contracting process would approvals be  |   |  |  |  |
|          | needed  |   |  |  |  |
| 51       | 3.6 "Workflow dashboards that allow users to see                                  | See below chart   |  |  |  |
|          | the process stage"  |   |  |  |  |
|          | <ul> <li>a) Can you please elaborate on this</li> </ul>                           |   |  |  |  |
|          | requirement and/or provide a use case?  |   |  |  |  |
| 52       | 3.9.3 "E-signature Authorizing"   | Yes   |  |  |  |
|          | <ul> <li>a) Typically, with a Contract Management</li> </ul>                      |   |  |  |  |
|          | system, E-signatures and approvals for  |   |  |  |  |
|          | sign-off are not included within scope, as  |   |  |  |  |
|          | the Contract Authoring and Creation   |   |  |  |  |
|          | process are done outside the system, and  |   |  |  |  |
|          | once the contract is finalized, the system  |   |  |  |  |
|          | should be utilized to manage all of the   |   |  |  |  |
|          | contract's data, dates, documents, etc. As  |   |  |  |  |
|          | there is a key distinction between Contract                                       |   |  |  |  |
|          | Management and Contract Authoring, we   |   |  |  |  |
|          | need to know if HCPSS is seeking contract   |   |  |  |  |
|          | authoring/creation module in addition to<br>standard Contract Management Features |   |  |  |  |
|          | (tasks, notifications, repository,  |   |  |  |  |
|          | performance management).  |   |  |  |  |
| 53       | 3.18.1. Ability to display organizational cascading                               | By utilizing a dashboard, users will see the process flow   |  |  |  |
|          | goals, i.e. individual, team, department,   |   |  |  |  |
|          | organizational.   |   |  |  |  |
|          | a) Can you provide more information or  |   |  |  |  |
|          | specific examples on how you envision this  |   |  |  |  |
|          | in the software?  |   |  |  |  |
| 54       | 3.20. Functions for users to save information and to                              | HCPSS wants to ensure that our work is auto saved, and  |  |  |  |
|          | return later to complete and/or update applications                               | you can return to your place in the development or process  |  |  |  |
|          | (auto save preferred).  | without losing valuable work.   |  |  |  |
|          | b) Can you further elaborate on this  |   |  |  |  |
|          | requirement?  |   |  |  |  |
| 55       | 3.24. Data Conversion functions that manage:                                      |   |  |  |  |
|          | a) 3.24.1.Conversion Methods  |   |  |  |  |
|          | a) 3.24.2.Conversion Process  |   |  |  |  |
|          | b) 3.24.3.Data Extraction   |   |  |  |  |
| $\vdash$ | c) 3.24.4.Scheduling  | See Ougetiens 11, 12, 12  |  |  |  |
|          | d) 3.25. Data validation  | See Questions 11, 12, 13  |  |  |  |
|          | Is HCPSS looking for a Data     Conversion plan in regards to these               |   |  |  |  |
|          | Conversion plan in regards to these   |   |  |  |  |
|          | requirements (3.24 – 3.25)? If not,   |   |  |  |  |
|          | can you please clarify what is desired here?                                      |   |  |  |  |
| $\vdash$ | ucolleu liele !   |   |  |  |  |
|          |   |   |  |  |  |

|      | Questions  | Answers  |
|------|--|--|
| 56   | Evaluation: Can HCPSS provide exact weights to                                       | Each item relates to the other. HCPSS are looking for  |
|      | the categories/criteria listed in the evaluation table                               | process improvement, thus saving staff time and ensuring   |
|      | in Section 5?  | all key documents are included in our contracts.   |
| 57   | Has this project been budgeted? If so what is the                                    | TBD  |
|      | budgeted amount?   | TDD  |
| 58   | Would HCPSS like to import all active and historical                                 | TBD  |
|      | contracts?   |  |
| 59   | How many estimated users would HCPSS have?   | See Question 1   |
| 60   | Could you provide a breakdown of the users by type                                   | See Question 1   |
|      | required for the contract management system?   |  |
|      | a) Contract Management Standard Users  |  |
|      | b) Contract Management End Users<br>*Where Standard Users have the ability to create |  |
|      | and manage records and edit other user's records                                     |  |
|      | and End Users have a more limited user interface                                     |  |
|      | with fewer privileges and more typically thought of                                  |  |
|      | as a read-only type user; could be external to                                       |  |
|      | HCPSS  |  |
| 61   | What is the estimated cost of the Contract   | TBD  |
| 01   | Management Solution project?   |  |
|      | Has the Department allocated funding for the   | No. There is a placeholder in next year's budget to be   |
| 62   | Contract Management Solution yet? If so, through                                     | presented to and approved by the BoE.  |
| 0_   | which source (budget, CIP, state/federal grant,                                      |  |
|      | etc.)?   |  |
| 63   | How is the Department currently meeting this need?                                   | Manual process, using a shared drive   |
| 64   | Which vendor provides the incumbent Contract   | No incumbent   |
|      | Management Solution?   | Out to the state of the state o |
| G.E. | Would it be possible to name the three greatest                                      | Cumbersome, labor intensive, no notification process other   |
| 65   | challenges the Department is having with their current solution?                     | than staff emailing one another.   |
|      | Who is the technical contact and/or project manager                                  | TBD  |
| 66   | for the Contract Management Solution?  |  |
|      | Which operating platform does the Department   | Office 365   |
| 67   | currently use?   | Cilide 600   |
|      | Which operating platform is desired for the Contract                                 | No preference  |
| 68   | Management Solution?   | , 110 p. 1010 p. 1010  |
|      | Which other systems will have to integrate/interface                                 | Workday and eMMA. Second part of your questions in not   |
| 69   | with the Contract Management Solution, and will the                                  | clear.   |
|      | State provide incumbent vendors for each system?                                     |  |
| 70   | What is the number of users anticipated for the                                      | See Question 1   |
| 70   | Contract Management Solution?  |  |
|      | Could you please tell me how many folks would be                                     | See Question 1   |
| 71   | using the system? How many power users, how  |  |
|      | many view only/standard users?   |  |
| 72   | How many contracts you have today?   | Question is not clear.   |
| 73   | How much spend under management you have   | Question is not clear.   |
|      | today?   |  |
| 74   | Is HCPSS open to a private cloud as opposed to                                       | No   |
|      | SaaS? What is HCRSS's implementation timeline?                                       | Within HCDSS EV2024  |
| 75   | What is HCPSS's implementation timeline?   | Within HCPSS FY2021.   |
| 76   | How many users are anticipated using the system, both internal and external?         | Internal, see Question 1.  |
|      | What kind of printers/printer drivers is HCPSS                                       | Numerous. Provide what your firm supports in your  |
| 77   | currently using?   | response to the RFP.   |
|      | ourronuy using:  | response to the Dill.  |

|    | Questions                                    | Answers  |
|----|--|--|
| 78 | Will HCPSS accept exceptions to the contract | Bidders may take exceptions. HCPSS has the sole right to |
| 78 | language/terms?                              | accept or reject exceptions to the RFP.                  |
| 70 | Will HCPSS agree to our cloud subscription   | Question is not clear.                                   |
|    | agreement if they go with public cloud?      |  |

|          | Project | t Liet Co | ommittee       | Purchasing      | Purchasing       | Bid Packet goes  | Purchasing     | Schedule | Pid        | Answer     | Bid Addendum | Dide   | Updated | Rid            | Office/Dept. | Vorify MPE     | Croato Rid   | Notify Biddor     | Bidder defaults   | Purchasing     | Board receives  | New Process:   | Before the new   | Contract Awarde  | Contract   | Contract ratified |
|----------|---------|-----------|----------------|-----------------|------------------|------------------|----------------|----------|------------|------------|--------------|--------|---------|----------------|--------------|----------------|--------------|-------------------|-------------------|----------------|-----------------|----------------|------------------|------------------|------------|-------------------|
| 1        |         |           |                |                 | -                | - 1              | -              |          |            |            |              |        |         |                | Recommend    |                |              | I -               | bioder delaults   | creates Board  |                 |                |                  |                  |            | CONTRACT FACITIES |
| Task     | Create  |           |                |                 | -                | back to requesto |                |          | -          | 1          | and/or post  | opened |         | Cancellation   |              |                | Tab and Post |                   |                   |                |                 |                |                  | and entered into |            |                   |
|          |         |           | Formats        | request for     |                  | for review       | s Approved bio | held     |            | from Bid   | Questions    |        | page    | and/or Start   | s Bid        | Bond           | to Web page  |                   |                   | Approval       | recommendatio   | *              | process          | Contract         | approved   |                   |
|          |         |           | ob/SVCS/Sup    |                 | with Template    |                  |                |          | Interested |            |              |        |         | Over           | Selected     | information    |              |                   |                   |                |                 | _              | questions/answ   | · ·              | by BOE.    |                   |
|          |         | pl        | lies needed    |                 | Documents to     |                  |                |          | Suppliers  |            |              |        |         |                |              |                |              |                   |                   | cover sheet    |                 |                | ers went before  | System           |            |                   |
|          |         |           |                |                 | Create Draft Bio |                  |                |          |            |            |              |        |         |                |              |                |              |                   |                   | for signatures |                 | request        | the Board at a   |                  |            |                   |
|          |         |           |                |                 |                  |                  |                |          |            |            | Extends      |        |         | Extends        |              |                | New Process  |                   | Extends timeline  |                |                 | 1 day - 1 Week | Extended Board   |                  | Process    |                   |
|          |         |           |                |                 |                  |                  |                |          |            |            | timeline     |        |         | timeline       |              |                | -            | Governance        | <b>→</b>          |                | 2 weeks         |                | meeting 1-2      |                  | may start  |                   |
|          |         |           |                |                 |                  |                  |                |          |            |            |              |        |         |                |              |                |              | Review/Privac     |                   |                |                 |                | hours. Staff     |                  | over       |                   |
|          |         |           |                |                 |                  |                  |                |          |            |            |              |        |         |                |              |                |              | У                 |                   |                |                 |                | attended to      |                  |            |                   |
|          |         |           |                |                 |                  |                  |                |          |            |            |              |        |         |                |              |                |              |                   |                   |                |                 |                | answer on the    |                  |            |                   |
|          |         | N         |                | Data Governance | Bid (window)     |                  |                |          |            |            |              | 6 wks  |         |                |              |                |              | 10 days           | 20 days           |                |                 |                |                  |                  |            |                   |
| _        |         |           | ~              | Review/Privacy  | 1                |                  | ,              |          |            |            |              |        |         |                |              |                | 1            |                   |                   |                |                 |                |                  |                  |            | ļ                 |
|          | Dept.'s | and De    | ept. email     | Purchasing      | Existing         | Requestor/Dept.  |                |          | Hard stop  | Forward    | Issue        |        |         | Explanation to |              | Verify         |              | Bidder has 10     | Next lowest       | Bid/RFP gets   | BOE office      | Bid approval   | Bids/Contracts   |                  | Contract   |                   |
|          | offices | create re | equest for Bid | receives Bid    | contracts may    | reviews/approve  |                |          | after 1    | questions  | addendum     |        |         | the BOE as to  |              | information    |              | days from         | bidder is         | routed to      | receives        | may be delayed | may be denied,   |                  | needs to   |                   |
|          | project | t Co      | ommitment      | Commitment Forn | take less time   | s                |                |          | week(close | to         | prior to bid |        |         | why bid is     |              | kept in        |              | opening to        | contacted.        | appropriate    | copies(10) for  | at this point. | approved or      |                  | be         |                   |
|          | timelin | ne.       |                | communicates    | but may need     |                  |                |          | d)         | Requestor/ | opening.     |        |         | cancelled.     |              | Purchasing     |              | ensure all MBE,   | Bidder has 10     | departments    | BOE member      |                | tabled by the    |                  | amended    |                   |
|          | Purcha  | ising     |                | with Dept. for  | tweaking         |                  |                |          |            | Dept. This |              |        |         | Process may    |              | office         |              | C&D               | days from         | and Supt. for  | review prior to |                | Board. Tabling,  |                  | as written |                   |
| Proces   | works   | with      |                | specifications  |                  |                  |                |          |            | process    |              |        |         | start over for |              |                |              | information,      | opening to        | prior approva  | BOE meeting     |                | typically due to |                  |            |                   |
| rioces   | reques  | iting     |                |                 |                  |                  |                |          |            | may        |              |        |         | this request.  |              |                |              | outreach and      | ensure all MBE,   |                |                 |                | not having       |                  |            |                   |
|          | Office/ | Dept.     |                |                 |                  |                  |                |          |            | necessitat |              |        |         | May receive    |              |                |              | availability      | C&D information   | ł              |                 |                | enough           |                  |            |                   |
| 1        | regard  | ing the   |                |                 |                  |                  |                |          |            | e a        |              |        |         | feedback from  |              |                |              | certificate is in | outreach and      |                |                 |                | information,     |                  |            |                   |
|          | develo  | pment     |                |                 |                  |                  |                |          |            | redesign.  |              |        |         | bidders as     |              |                |              | place.            | availability      |                |                 |                | causes delays in |                  |            |                   |
| 1        | of nee  | d and     |                |                 |                  |                  |                |          |            |            |              |        |         | well.          |              |                |              |                   | certificate is in |                |                 |                | the start or     |                  |            |                   |
|          | specifi | cation    |                |                 |                  |                  |                |          |            |            |              |        |         |                |              |                |              |                   | place.            |                |                 |                | delivery of      |                  |            |                   |
|          | After b | oudget    |                |                 |                  |                  |                |          |            |            |              |        |         |                |              |                |              |                   |                   |                |                 |                | If the Board     |                  |            |                   |
|          | release | 2         |                |                 |                  |                  |                |          |            |            |              |        |         |                |              |                |              |                   |                   |                |                 |                | decision is too  |                  | up to 4    |                   |
| Timeline | ne      |           |                | 1 day - 4 wks   | 2 days - 1 wk    | 1 day to 1 wk    | 15 days        |          | 1 wk       | 1 day +    | 48 hours     |        |         | 6 wks          |              | 1 hr to 2 days | 1 day        | 10 days           | 10 days           | 1 day to 1 wk  | 1 wk            | 1 wk           | restrictive, the | 1 day            |            |                   |
|          |         |           |                |                 |                  |                  |                |          |            |            |              |        |         |                |              |                |              |                   |                   |                |                 |                | timeline may be  |                  | months     |                   |
|          |         |           |                |                 |                  |                  |                |          |            |            |              |        |         |                |              |                |              |                   |                   |                |                 |                | expanded.        |                  |            |                   |

### SHARED PLATFORM REQUIREMENTS

#### SYSTEM ARCHITECTURE

a. The architecture must provide the Central Office and all schools of HCPSS with the ability to collect the required data and provide access to the collected data. The primary architecture should be a centralized, user-friendly (Graphical User Interface) software system accessible through web page compliance (W3) standards along with cross-browser support (Microsoft Edge Version 40, Internet Explorer Version 11, Firefox Version 52, Chrome Version 58) with the data hosted by HCPSS. HCPSS allows a Bring-Your-Own-Device (BYOD) initiative for students and staff, and will have numerous devices to support including, but not limited to mobile phones, tablets, Chromebooks and laptops. The system should include as part of the final solution certain mandatory local modifications, reports and minimum configurations for user access devices that are required by the time of initial pilot.

### 2. CURRENT STATE

Computer & Server Hardware and Operating System Infrastructure

- a. The HCPSS supports computers running Windows, Apple and ChromeOS operating systems. Any proposed solution must be capable of working with full functionality in all environments for classroom and school front-office users. The current computer configuration includes as a minimum Windows 7 SP1, Windows 10, and Apple OS X 10.9 through 10.13. The HCPSS has supports a Bring Your Own Device (BYOD) initiative for students and staff that include mobile phones, tablets, and laptops.
- b. For supported server environments, HCPSS runs Windows 2008 R2 through 2016 and Ubuntu 16.04 to handle critical student information as well as business systems. HCPSS has implemented a Microsoft Active Directory Services architecture that is used for all network and some system authentications. Currently supported databases include MySQL, PostgreSQL, and Microsoft SQL Server.

### Local Area Network (LAN) Configuration

- c. The HCPSS has a very robust network infrastructure. All hard-wired access devices connect at a minimum of 1gpbs switched. The network switching architecture includes Aruba, HP, and Cisco LAN switches. VLANs and firewall technology have been deployed as part of the overall network security plan.
- d. The HCPSS deployment of wireless connectivity throughout the school system includes 2.4GHz 802.11g/n and 5GHz 802.11n. All classrooms, offices, meeting and common areas are equipped with Aruba wireless products to meet this need. Aruba Airwave and Clearpass solutions have been deployed to enable HCPSS staff to provision and manage wireless services accordingly. The wireless

- network is connected to the wired network with UTP with a minimum speed of 1gps per AP.
- e. Wide Area Network (WAN) Configuration
- f. HCPSS uses Howard County ICBN (Inter County Broadband Network) as a data communication service to provide for data connectivity between remote school locations and central office. The ICBN provides between 1GBps and 5GBps bandwidth from each remote site over a fiber optic network.

## 3. Communication Systems

The following requirements describe the communications systems which operate on the HCPSS network and strategies which would need to be compatible with the Offeror's product:

- Email Service: HCPSS uses Microsoft Office 365 for all corporate email communications.
- b) Content Syndication: Provide data as feeds that are accessible via HTTPS XML or JSON structures.
- c) An External REST-ful Application Programming Interface (API): An API means that we could write programs that could read/write data or call methods against the Offeror's product using defined JSON or XML structures.
- d) WebHooks: WebHooks are extensibility points inside the Offeror's product that allow specific URLs to be triggered when events happen within the system. (i.e. A student gets added to the system and the system calls a specific URL for subsequent actions.)
- e) Plugins/Internal API: The product has an internal, documented API that allows custom developed modules to run within it and safely access data.
- f) Content Syndication, JavaScript Widgets/ iFrames, and External REST-ful Application Programming Interface (API) are all accessible via HTTP and a standard and secure programmatic authentication mechanism.
- g) Existing Student and Staff Management Systems
- h) HCPSS currently maintains several information systems to manage its student information and staff needs, including but not limited to:
  - Synergy Student Information System, Collects and reports student demographic, enrollment, attendance, conduct, course, and transcript data. Includes grade book and family/student portal tools.
- (1) Microsoft SQL Server, Hosted In-House.
  - ii) Hoonuit is an end-to-end data warehouse solution with reporting, analytics and data visualization all in one. This complete solution supports the school district's administrators, leadership, and teachers to access, query, analyze, and use data to inform policies, practice, and decision-making at all levels of the organization. Hoonuit can be used to view enrollments, attendance, discipline, grades, assessments, etc. in one central location.
  - (1) Microsoft SQL Server, Hosted In-House, Data is loaded nightly from disparate sources

- iii) Workday ERP Management system for financial and employee data.
- (1) Hosted Cloud Based, Data Movement: Inbound and Outbound.
- iv) CANVAS Learning Management System Used by teachers, students and parents for assignments and assignment scores
- (1) Cloud Based, Data Movement: Automatically from Synergy every night
- v) HCPSS currently exchanges data with many different internal and external systems, including but not limited to
- vi) TieNet Document special education plans and meetings. Student demographic data is pushed to Tienet from Synergy every 20 minutes.
- (1) Hosted, Data Movement: Inbound Data from Synergy and Outbound to Synergy.
- vii) Naviance Guidance counseling, College planning application students use to manage college application submissions and reporting SAT, PSAT, and ACT test scores. Data is automatically imported.
- viii) Newton Point of Sale (PoS) (MCSoftware Company) Manage student meal accounts. Student class roster data is automatically uploaded nightly.
- ix) FitnessGram Records student health and athletic milestones. Student roster data is uploaded automatically every night.
- x) Library Corps Manages student book check outs/ins. Student data is automatically uploaded daily.
- xi) Transfinder Routes school buses for all students. Data is uploaded automatically nightly.
- xii) Pearson SuccessNet Online textbook service, data is manually automatically.
- xiii) Maryland Department of Mental Health and Hygiene: Attendance data from each school is automatically pushed daily.

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**END OF ADDENDUM**