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**CITY OF PHILADELPHIA**

**Office of Innovation and Technology**

**REQUEST FOR INFORMATION**

**FOR**

**Risk-Based Multi-Factor Authentication Solution**

**June 17, 2019**

Deadline for questions, requests for clarification, or requests for additional information	June 28, 2019 before 5:00 PM (Local Philadelphia Time)
City Responds to Questions	July 11, 2019
Responses to RFI Due	July 25 2019 before 5:00 PM (Local Philadelphia Time)

**JAMES F. KENNEY, Mayor**  
Mark Wheeler, CIO, Office of Innovation and Technology

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**NAME OF RFI  
REQUEST FOR INFORMATION**

**I. RESPONSE CALENDAR**

Post Request for Information	June 17, 2019
Deadline for questions, requests for clarification, or requests for additional information ( <a href="mailto:Nicole.Cook@phila.gov">Nicole.Cook@phila.gov</a> and <a href="mailto:Gayle.Ruggeri@phila.gov">Gayle.Ruggeri@phila.gov</a> )	June 28, 2019 before 5:00 PM (Local Philadelphia Time)
City Responds to Questions ( <a href="http://www.phila.gov/rfp">http://www.phila.gov/rfp</a> )	July 11, 2019
Responses to RFI Due (email <a href="mailto:Nicole.Cook@phila.gov">Nicole.Cook@phila.gov</a> and <a href="mailto:Gayle.Ruggeri@phila.gov">Gayle.Ruggeri@phila.gov</a> )	July 25, 2019 before 5:00 PM (Local Philadelphia Time)

**II. PURPOSE OF REQUEST FOR INFORMATION**

The City of Philadelphia (City) is embarking on a significant initiative to upgrade and modernize its administrative business processes and related legacy technology systems that currently support its business operations. As part of this initiative, the City intends to implement a new Multi-Factor Authentication solution. The City, through its Office of Innovation and Technology (OIT), has issued this Request for Information (RFI) in order to solicit statements of interest, capabilities, and Rough Order of Magnitude (ROM) cost estimates from all Respondents interested in, and capable of, providing commercial off-the-shelf (COTS) software as part of the City's solution.

The City is looking for the best solution(s) that meets its requirements and needs. If multiple solutions and/or pricing models are available, list and price them separately.

Respondents are asked to provide OIT with information regarding their available COTS products and solutions, subject to the following guidelines:

- Identify only COTS products that are modifiable or configurable to meet specific City requirements, and that focus on interoperability, reliability, usability, availability, capacity and scalability
- Present the software solution's interoperability and operational requirements in accordance with the International Organization for Standardization Open Systems Interconnection (OSI) model
- Include an architectural diagram of the solution with a description of the solution's scalability; responses may include one or more models or solutions
- Describe the configurability of the software to meet the specified requirements and services.

Responses should include implementation, integration, and/or configuration services. If the software can be installed and configured only by the Respondent, that must be clearly stated in the Response, including the reasons why that is the case.

Respondents may, in the City's discretion, be invited to engage in discussions with the City's project team and/or demonstrate their products, services and solutions.

No contract will be awarded pursuant to this RFI. Anyone who does not respond to this RFI is not precluded from responding to any future solicitation issued by the City. The City intends to procure software for this project as soon as reasonably possible, in accordance with the City's procurement laws and practices for software purchases, which may include, but are not limited to, the use of existing City contracts or certified cooperative purchase agreements. Respondents will not be bound by the ROM cost estimates provided in their responses to this RFI in a future procurement. The City also reserves the right to not procure any software.

### **III. RFI CONTACT INFORMATION FOR QUESTIONS, REQUESTS FOR CLARIFICATION**

All questions (see RFI Question Template Exhibit) and requests for clarification concerning this RFI must be in writing and submitted via email no later than 5:00 pm, Local Philadelphia Time, on June 28, 2019 to:

Nicole Cook  
Information Security Analyst – GRC Lead  
Office of Innovation and Technology  
[Nicole.Cook@phila.gov](mailto:Nicole.Cook@phila.gov)

Gayle Ruggeri  
IT Manager  
Office of Innovation and Technology  
[Gayle.Ruggeri@phila.gov](mailto:Gayle.Ruggeri@phila.gov)

Responses to questions and requests for additional information shall be at the sole discretion of the City. Any additional information and/or responses to questions will be posted only on the City's website at <http://www.phila.gov/rfp> ("Additional Opportunities"). No additional information and/or responses to questions will be sent by email. Nothing in this RFI shall create an obligation on the City to respond to a Respondent submitting a response.

The City may, in its sole discretion, issue addenda to this RFI containing responses to questions, clarifications of the RFI, revisions to the RFI or any other matters that the City deems appropriate. Addenda, if any, will be posted on the City's website at <http://www.phila.gov/rfp> ("Additional Opportunities"). It is the Respondent's responsibility to monitor the Additional Opportunities site for Addenda and to comply with any new information.

Oral responses made by any City employee or agent of the City in response to questions or requests for information or clarification related to this RFI are not binding and shall not in any way be considered as a commitment by the City.

If a Respondent finds any inconsistency or ambiguity in the RFI or an addendum to the RFI issued by the City, the Respondent is requested to notify the City in writing by the above deadline for questions and requests for information or clarification.

#### **IV. ABOUT THE CITY OF PHILADELPHIA AND OIT**

The City of Philadelphia is the largest city in the Commonwealth of Pennsylvania and the sixth-most populous city in the United States with over 1.5 million residents. Additionally, due to its rich historic and cultural heritage, the region is visited by more than 40 million people each year.

Philadelphia is located in the southeastern section of Pennsylvania and the coterminous city/county covers 143 square miles. The City is bordered by the following counties: Bucks, Montgomery and Delaware in Pennsylvania, and Burlington, Camden and Gloucester in New Jersey.

As an operating department of the City, OIT provides technology and telecommunication services to the City, its employees, and the community. There are over 25,000 city employees in Philadelphia.

#### **V. RESERVED**

#### **VI. ANTICIPATED SOLUTION REQUIREMENTS**

The proposed solution should include the following functionality:

- General System Requirements
  - Supports integration with multiple types of user repositories (e.g. Active Directory, SQL Database)
  - Supports integration with multiple active directory domains (external and internal)
  - Supports Active Directory Federation Service (AD FS), RADIUS, Open ID Connect, and SAML integration
  - Supports web service integration (RESTful)
  - Has an administrative/helpdesk user interface and supports role-based scoping for administrator/helpdesk operations
  - Supports branded multi-factor authentication screens
  - Compliant with CJIS Security Policy, HIPAA and HITECH Act, and PCI DSS
  - Supports multiple environments (e.g. DEV, TEST, SYST)
  - Supports highly available configuration
  - System is scalable to entire user base including external users
- Registration and Credential Management Requirements
  - The system supports MFA for login to the administrative interface
  - The system provides the end user the ability to self-register for multi-factor authentication
  - The system supports registration of multiple multi-factor authentication credentials per user

- The system allows administrators/helpdesk to reset, temporarily override/suspend, and disable a user's multi-factor authentication credentials
- Multi-Factor Authentication Requirements
  - The system supports a native mobile (IOS, Android) application for multi-factor authentication
  - The system supports one-time passwords over SMS for multi-factor authentication
  - The system supports one-time passwords over email for multi-factor authentication
  - The system supports choice of multi-factor authentication mechanisms during login and allows multi-factor authentication options to be set independently for each application
- Risk-Based Authentication Requirements
  - The system analyzes the user's login to determine the level of risk associated with the transaction (risk score)
  - The system allows the administrator to configure which contextual risk indicators define 'high' and 'low' risk transactions
  - The system prompts the end user for user ID and password (one factor) if the risk score is 'low'
  - The system prompts the end user for multi-factor authentication if the risk score is 'high'
  - The system supports device profiling as a contextual risk indicator (e.g. new device, new operating system) and allows a user to mark a device as 'public' if they do not want that device to be associated with their account
- Auditing/Logging Requirements
  - The system maintains historical multi-factor authentication access data (e.g. successful and failed logins)
  - The system logs multi-factor access attempts in real time (or near real time)
  - The system can generate canned and ad hoc reports for multi-factor authentication access data (e.g. reports for failed MFA between date X and date Y)
- Desired Optional Features
  - Supports OAUTH 2.0 integration
  - Provides an SDK for IOS and Android application integration
  - Supports web service integration (SOAP)
  - Provides a security mechanism for Office 365 legacy authentication (e.g. IP restriction)
  - Supports software-based tokens (PKI) for multi-factor authentication
  - Supports smart card (PKI) based multi-factor authentication
  - Supports knowledge-based questions for multi-factor authentication
  - Supports a Windows desktop application for multi-factor authentication (e.g. time-based code generator)
  - Supports hardware code generators for multi-factor authentication
  - Uses behavioral analytics to enhance transactional risk analysis (e.g. abnormal application access patterns)
- The system supports geo-location as a contextual risk indicator (e.g. new geo location, impossible travel pattern)

- The system supports network profiling as a contextual indicator (e.g. new proxy IP address, known malicious IP address)
- The system supports 'time of access' as a contextual risk indicator (e.g. accessing after working hours)

The goal of this initiative is to implement a Risk-Based Multi-Factor Authentication product to increase the security of city information systems while maintaining the end user experience. The Risk-Based MFA product should allow the city to limit the impact of weak or stolen passwords while only requiring secondary authentication for higher risk activity. The product will be used to implement Multi-Factor Authentication on City enterprise resources including VPN connections, O365, version control, and other enterprise applications.

## **VII. SUBMISSION GUIDELINES**

The City expects each Respondent to include in their response to this RFI the following items in the order listed:

### **Company Overview:**

Include company name, physical address, phone number, fax number, and web address, a brief description of the company, its services, business size (total revenue and number of employees), and point(s) of contact, including name, address, phone and email address. Note the company's operations including the number of years the company has been supporting this solution; location of company's headquarters and all other office locations; and three years of financial data to ensure company stability.

If applicable, please describe any subcontractors or partners with which you have worked. Resumes need not be included.

### **Experience:**

Describe your company/organization's relevant experience (and that of partners, when applicable) with Risk-Based Multi-Factor Authentication. Identify your experience with clients of similar size and scope to the City of Philadelphia, including:

1. Client name
2. Engagement title
3. Description of engagement
4. The solution implemented
5. The methodology used
6. Cost
7. Start and completion dates of the project
8. Name, address and telephone number of a contact person

### **Product/Software Solution:**



Identify one or more COTS solutions that meet the City's requirements. Responses that describe solutions which are completely custom software may, in the City's discretion, be rejected without review.

A major goal of this RFI is to provide Respondent with an opportunity to inform the City and OIT about their respective software solution's interoperability and operational requirements in reference to the OSI model. Respondents are encouraged to include in their response an architectural diagram of the solution with a description of the solution's scalability. Respondents are welcome to provide one or more models or solution sets to meet this requirement for an integrated interoperable solution set.

**Infrastructure/Architecture Model:**

Identify the infrastructure/architecture model(s) you provide and support, and whether they are on-premise, hosted off-premise, or Software-as-a-Service (SaaS) models.

Supplement this request with an interoperable architectural diagram outlining each OSI layer requirement for enablement, sustainment, reliability, redundancy, and growth. Highlight your anticipated annual upgrade and patch release schedule.

**Key Features:**

Identify best of breed features included in the proposed COTS solution(s), including, at a minimum, the Key Features in Section VI. Anticipated Project Requirements.

**Support and Maintenance Model:**

Provide the anticipated ongoing software maintenance and support services required to sustain the solution including frequency of upgrades and patches/bug releases and the estimated timeframes to complete. Outline the services in your support model including available service level agreements.

**Training Model:**

Outline the services in your training model for administrative and end user training including the training services, methodology, and typical schedule. Include the pricing model for training services and the methodology and schedule.

**Reporting and Key Performance Indicators (KPIs):**

Provide the standard and custom reporting included in your solution and the available KPIs. Include information on data input and export capabilities; security and auditing, and dashboards and metrics.

**Pricing/Licensing Model:**

Include a general pricing model and costs for the software based upon the information provided in this RFI. This pricing should also indicate the licensing model, (i.e. licensing by individual users, by core, by seat etc.), descriptions of the hosting models available, and estimates of associated costs. Include cost estimates for ongoing support and maintenance for three years, and when those

support and maintenance costs begin (i.e. at time of purchase, after implementation, etc.). If applicable, include a list of additional items or services/software needed to operate the system that are not included and must be provided/purchased by the City.

Respondents will not be bound by any cost estimates included in responses to this RFI.

## **VIII. USE OF RESPONSES**

Responses to this RFI may be used by OIT to select a software product for Risk-Based Multi-Factor Authentication. Responses may also be used to assist OIT in gathering information for planning purposes, and for purposes of identifying sufficient resources for an implementation initiative.

The City does not intend to announce any further actions taken pursuant to this RFI. If any such announcements are made, at the sole discretion of the City, those announcements will be posted with the original RFI. In some cases, at the City's sole discretion, the City may issue an RFP. The City will notify Respondents to this RFI once the RFP has been posted on the City's website.

The City will notify you if additional information is required in order to evaluate your response to this RFI. Absent such follow up from the City, we respectfully request that respondents refrain from requesting additional information on the status of this RFI. In order to protect the integrity of the City procurement process, City personnel will not respond to requests for additional information on the status or outcome of this RFI, other than as described above.

## **IX. HOW TO SUBMIT RESPONSES**

Respondents should submit their responses electronically (hard copies are unacceptable) in MS Word or Adobe PDF format, as a single document (see note below), to:

Nicole Cook	Gayle Ruggeri@phila.gov
Information Security Analyst – GRC Lead	IT Manger
Office of Innovation and Technology	Office of Innovation and Technology
<a href="mailto:Nicole.Cook@phila.gov">Nicole.Cook@phila.gov</a>	<a href="mailto:Gayle.Ruggeri@phila.gov">Gayle.Ruggeri@phila.gov</a>

**Responses are due July 25, 2019 before 5:00 pm, Local Philadelphia Time.**

**Note:** Response document(s) are limited to 15 MB; if necessary, please submit multiple files or zip/compress the file(s)

## **X. CONFIDENTIALITY AND PUBLIC DISCLOSURE**

Respondents shall treat all information obtained from the City which is not generally available to the public as confidential and/or proprietary to the City. Respondents shall exercise all reasonable

precautions to prevent any information derived from such sources from being disclosed to any other person. No other party, including any Respondent, is intended to be granted any rights hereunder.

## **XI. RIGHTS AND OPTIONS RESERVED**

In addition to the rights reserved elsewhere in this RFI, the City reserves and may, in its sole discretion, exercise any or more of the following rights and options with respect to this RFI if the City determines that doing so is in the best interest of the City:

1. Decline to consider any response to this RFI (“response”); cancel the RFI at any time; elect to proceed or not to proceed with discussions or presentations regarding its subject matter with any Respondent and with firms that do not respond to the RFI; to reissue the RFI or to issue a new RFI (with the same, similar or different terms);
2. Select a COTS package from a vendor that does not respond to this RFI, or elect not to proceed with any procurement;
3. Waive, for any response, any defect, deficiency or failure to comply with the RFI if, in the City’s sole judgment, such defect is not material to the response;
4. Extend the Submission Date/Time and/or to supplement, amend, substitute or otherwise modify the RFI at any time prior to the Submission Date/Time, by posting notice thereof on the City web page(s) where the RFI is posted;
5. Require, permit or reject amendments (including, without limitation, submitting information omitted), modifications, clarifying information, and/or corrections to responses by some or all Respondents at any time before or after the Submission Date/Time;
6. Require, request or permit, in discussion with any Respondent, any information relating to the subject matter of this RFI that the City deems appropriate, whether it was described in the response to this RFI;
7. Discontinue, at any time determined by the City, discussions with any Respondent or all Respondents regarding the subject matter of this RFI, and/or initiate discussions with any other Respondent or with vendors that did not respond to the RFI;
8. To conduct such investigations with respect to the financial, technical, and other qualifications of the Respondent as the City, in its sole discretion, deems necessary or appropriate;

9. Do any of the foregoing without notice to Respondents or others, except such notice as the City, in its sole discretion, may elect to post on the City web page(s) where this RFI is posted.

This RFI and the process described are proprietary to the City and are for exclusive benefit of the City. Upon submission, responses to this RFI shall become the property of the City, which shall have unrestricted use thereof.

## **XII. PUBLIC DISCLOSURE**

By submitting a response to this RFI, Respondent acknowledges and agrees i) that the City is a “local agency” under and subject to the Pennsylvania Right-to-Know Law (the “Act”), 65 P.S. §§ 67.101-67.3104, as the Act may be amended from time to time; and ii) responses may be subject to public disclosure under the Act. In the event the City receives a request under the Act for information that a Respondent has marked as confidential, the City will use reasonable efforts to consult with Respondent regarding the response and, to the extent reasonably practicable, will give Respondent the opportunity to identify information that Respondent believes to be confidential proprietary information, a trade secret, or otherwise exempt from access under Section 708 of the Act.

Notwithstanding anything to the contrary contained in this RFI, nothing in this RFI shall supersede, modify, or diminish in any respect whatsoever any of the City’s rights, obligations, and defenses under the Act, nor will the City be held liable for any disclosure of records, including information that the City determines in its sole discretion is a public record and/or information required to be disclosed under the Act.

RFI Question Template Exhibit

Respondent Name:		
Question Number	RFI Section # <i>(If applicable)</i>	Question(s)
1.		
2.		
3.		
4.		
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12.		



## City of Philadelphia OIT Multi-Factor Authentication RFI – Question Template

Respondent Name:		
Question Number	RFI Section # <i>(If applicable)</i>	Question(s)
1.		
2.		
3.		
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## City of Philadelphia OIT Multi-Factor Authentication RFI Question Responses

Respondent Name:			
Question Number	RFI Section	Question(s)	Response
1.		If there is to be an RFP that follows, is there an estimated timeframe as to when it might be released? Is this considered to be an urgent need for the City? Is there an estimated implementation or go live date?	To be determined
2.		Does the City currently have an MFA solution in place? If so, could you provide information on the solution, the vendor that provides it, and if they still are currently under contract?	N/A
3.		Has funding been secured for this solution? Will it be available in the upcoming FY 2020?	N/A
4.		What format does City of Philadelphia want respondent to use for our response? Is a template going to be provided at a later date?	See section VII. SUBMISSION GUIDELINES
5.		For pricing we have quantity level pricing but quote through resellers. Does City of Philadelphia want actual pricing or only the process we use for pricing? The RFI mentions 25,000 users. Is that the actual count of users needing MFA?	Please provide the pricing and pricing options for 25,000 users.
6.		If you want actual pricing, can we choose a reseller to work with to provide it?	No, pricing, as it relates to this RFI, should not be provided via any reseller.
7.		What is the user count that the City of Philadelphia intends to license for Multi-factor authentication use? Example: 20,000, 22,000 , 25,000?	25,000
8.		Is there interest in hardware tokens?	OIT would be interested in hearing about other authentication options but hardware tokens are not a requirement.
9.		How many end users will need more than one type of authentication method?	To be determined
10.		Are you virtualized with VMware or Hyper-V?	N/A
11.		Who exactly will be the end users? i.e. Remote Employees, Emergency Personnel, etc.	End users will include city personnel, consultants, and vendors.
12.		How many end users would you like the estimated pricing models to address?	25,000



## City of Philadelphia OIT Multi-Factor Authentication RFI Question Responses

Respondent Name:			
Question Number	RFI Section	Question(s)	Response
13.		Would you find it beneficial if there was an authentication option in the form of an application on Android or iPhone that had a push notification, on-time passcode, and biometrics packaged together in one application?	OIT would be interested in hearing about other authentication options.
14.		What are the resources, and their vendors, you are looking to lock down with multi-factor authentication? i.e. VPN, Cloud Applications, etc.	The product will be used to implement Multi-Factor Authentication on City enterprise resources including externally-facing systems, cloud applications, and key enterprise systems across a number of vendors.