ACCESS NYC Eligibility Screening Open API
Answers to submitted questions

Technology / Infrastructure
Q: Can the existing Drools rules engine be used by the proposed API (as the ACCESS NYC website does using the Drools Proxy plugin) or will a new rules engine have to be created?
Q: What is the anticipated request volume, and how many records (average and maximum) are anticipated per request?
A: Current average requests per month to the drools engine from ACCESS NYC number 8000-10,000. The Drools engine determines eligibility for 31 programs. The request volume for the API is not anticipated to exceed average of 20,000 monthly requests from ACCESS NYC. However, the API must function independently from ACCESS NYC and may have large request volumes (tens of thousands) at times. Per the RFP, the proposal should include a suggested system architecture.

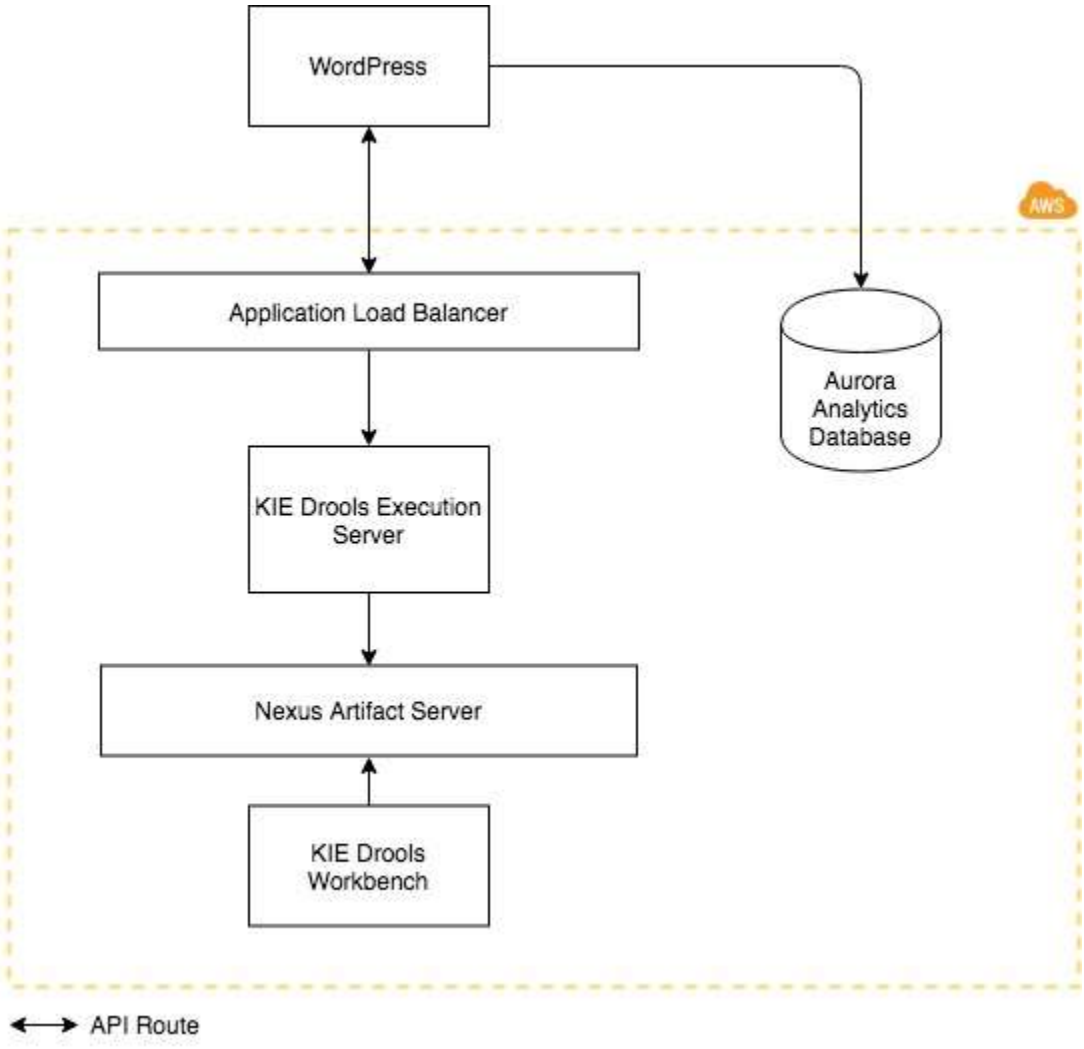
Q: Please provide technical setup details for the Access NYC website. Having this information will help us in evaluating the project approach.
Q: Will the Mayor's Fund please specify the technologies being used by ACCESS NYC (e.g., servers, database management system)?
Q: Would the Mayor's Fund please share the current architecture or design diagram of Access NYC?
Q: Besides Drools, what other technologies are being utilized or must be retained on the existing Amazon AWS infrastructure as part of the project?

A: The ACCESS NYC eligibility screener is a single page web application powered by an API built on the **Drools Business Rules Management System** hosted on **Amazon Web Services** through the **NYC Department of Information Technology and Telecommunications**. Additional benefit program content is delivered by **WordPress**, an open-source content management system, hosted on **WP Engine**. All benefit program information on ACCESS NYC is publicly available through the **Benefits and Programs API** on the City of New York's Open Data portal.

The ACCESS NYC Design System utilizes patterns from the **U.S. Web Design System**, the **Bourbon SASS Tool Set**, and **Tailwind.css Utility Framework**.

Links
- **ACCESS NYC Github Repository**
- **NYC Opportunity Github Team**
- **NYC Opportunity on Packagist**
- **Benefits and Programs API**

Simplified Infrastructure Diagram:



Q: Will the Drools engine be hosted by AccessNYC or within the API? If not, how will the Drools rules be be handed off or synced to the API system?
A: The Drools engine is hosted by AWS. The API should act as a proxy layer to the Drools engine. If the vendor chooses to host a separate Drools engine for API, recommendation of syncing up the Drools engine should be included in the proposal.

Q: How many deployment environments are presently being maintained (e.g., development, QA, staging, production, other)?
A: There is currently production environment and staging environment for the Drools engine, additional lower environment can be configured for development.

Q: What database is being used for the project today?
A: An Aurora Database stores user input JSON and response JSON sent back to users in the ACCESS NYC front end.

Q: Should the API utilize the same infrastructure (Drools) and is knowledge of Drools and related technologies such as Maven, JBoss, Jbpm, and Guvnor a prerequisite to working on this project?
A: Yes, the API must utilize the same Drools infrastructure.

Q: Could NYC Opportunity provide more detail on the scope of the API changes that need to be made/functionality that needs to be developed?
A: There is no API running on Drools engine right now so the scope of the work is to develop a new set of API. At a very high level, the API would take client information as input, run through Drools engine and return a benefit program or a set of benefit program that the client is eligible for. Please reference the goals section in the RFP.

Q: Could the solution be developed with Django Rest Framework (DRF) to expose the APIs necessary?
A: Yes, if that is part of the vendor proposal, that solution will be evaluated against the other proposals.

Q: Is PHP an acceptable programming language to build the API? Or is Java preferred?
A: Yes, if that is part of the vendor proposal, that solution will be evaluated against the other proposals.

Q: Is your current Drools platform exposing rules via any REST service?
A: ACCESS NYC Screener is currently using a service exposed by the Drools engine. Ajax call: https://github.com/CityOfNewYork/ACCESS-NYC/blob/master/wp-content/themes/access/src/js/modules/screener.js#L1120

Q: The RFP mentions existing eligibility rules developed on the open-source Drools platform. Is this accessible today, is there a way that we can see this solution, get a tour, or do a code review?
A: ACCESS NYC Screener is currently using a service exposed by the Drools engine. Ajax call: https://github.com/CityOfNewYork/ACCESS-NYC/blob/master/wp-content/themes/access/src/js/modules/screener.js#L1120

Q: Can you provide us with the existing rules definitions?
Q: Can you give more definition to “Documenting eligibility rules data model, including a data dictionary to ease mapping of data elements”? Can you give examples of what would be included in this deliverable?
Q: Does documentation of the eligibility data model exist, and can it be shared? If it does exist, can you clarify the nature of the deliverable #3 ('documentation of rules engine data model')? Is the schema still under development, or will it be considered established and unchanging for the duration of this project?
A: The rules engine that powers ACCESS NYC is fully developed and in operation. Internal documentation will be shared with selected partner. The selected partner is to develop openly

available documentation of the data model and API, including a data dictionary. We do not anticipate changes to the schema.

Q: Is the Drools engine linearly scalable for large data requests? What is the response time of the drool 95th and 99 percentile? How do those vary with increased load?
A: There are two Drools execution servers running behind a load balancer. More execution servers can be added to scale if needed. Currently, 100 percent response time is less than 250ms.

Q: Is the existing back-end RedHat or some other linux variant?
A: The existing back-end is running the Amazon Linux AMI.

Business / Process

Q: Clarify "Security accreditation collaboration for all features"
Q: Under deliverables and timeline: please explain "Security accreditation collaboration for all features". Does this mean that every feature will need clearance and credentials to interact with the others?
Q: What elements of security audit procedure would the applicant focus on? What assistance from NYC would a successful applicant have to ensure that they are exceeding security standards?
A: Security Accreditation is a formalized review process that all City agencies perform with DoITT before technical deployments to meet the City's security standards. All aspects of development work will need to pass DoITT's formalized Security Accreditation process. The NYC Opportunity team will collaborate with the vendor to go through the process and receive accreditation. More info: https://www1.nyc.gov/site/doitt/business/it-security-requirements-vendors-contractors.page

Q: If changes to the rule engine are required to accommodate the new API, will such changes be outside of the present Scope of Work?
A: Changes will not be outside the present Scope of Work.

Q: Our impression is the budget is insufficient for the amount of work that needs to be done. Do you want to know what we can accomplish for the $50,000 budget you have allocated or are you open to allocating additional budget?
A: We are accepting proposals for the allocated budget and further recommendations should be clarified in the proposal.

Q: As a cost saving option, could the city provide resources to do some of the activities outlined such as user testing and documentation?
A: Any recommendations should be clarified in the proposal.

Q: Again as a cost saving activity, could we recommend the essential activities for an agency to lead vs those that you could do internally or reserve for a future phase?
A: Any recommendations should be clarified in the proposal.

Q: What is driving the project length? Is it possible to provide a shorter timeline?
Q: Could NYC Opportunity explain budget and the the timeline in the context of the API scope? Why has NYC Opportunity only allotted one month (of the total four months) for Infrastructure set-up and Development?
A: The proposal can include a shorter timeline within the project length, but will need to accomodate all phases of the project, including Security Accreditation. Proposers should outline a high level timeline, which will be finalized with the selected partner in their Scope of Work.

Q: Will this project be managed primarily by the Mayor's Fund or NYC Opportunity? Who are the key points of contact? What is the role of the team that developed ACCESS NYC in this project? What, if any, capacities (technical and otherwise) will be involved from the government's side in this project?
A: The Mayor's Fund and NYC Opportunity are partners in this project. NYC Opportunity will be the technical and product lead for the project. NYC Opportunity built and manages ACCESS NYC. The key points of contact will be the Product Manager for ACCESS NYC and the Director of Technology Development at NYC Opportunity, who will engage additional team members as needed for reviewing and accepting deliverables from the selected partner.

Q: Would a proposal's potential replicability for other jurisdictions be considered a positive factor?
A: This would be a considered factor under Application Instructions and Evaluation Criteria in the RFP "Proposed Approach."

Q: Does it matter whether the applicant has done business with NYC gov before?
A: This would be a considered factor under Application Instructions and Evaluation Criteria in the RFP "Organizational experience and capacity."

Q: If applicants to this RFP also build and vend products that connect people to benefits, would such proposals be considered positively or negatively or neutrally?
A: This is would be a considered positive factor under Application Instructions and Evaluation Criteria in the RFP "Organizational experience and capacity."

Q: Are offshore engineering teams acceptable?
A: Offshore engineering teams are acceptable. The Vendor project lead should be based in the United States for communication during City office hours (9 am - 5 pm ET). The Vendor must do all direct management of the offshore engineering team. Access to the AWS environment will be provisioned in coordination with DoITT.

Q: Can you specify any restrictions on where work on this project may take place?

A: Communication between working teams should take place during City office hours (9 am - 5 pm ET). Access to the AWS environment will be provisioned in coordination with DoITT.

User / Use Case

Q: Would the Mayor's Fund please provide more information on how rules are mapped to user inputs?
A: End users can take a 10-step eligibility screener on ACCESS NYC: nyc.gov/accessnyc. At the end of the process, a JSON payload is sent to the Drools Execution Server, which applies rules logic against the payload, and serves a response of eligible programs. The new API must function separately from the ACCESS NYC front end.

Q: How do you expect city agencies/partners will use the benefits screening API?
Q: Could NYC Opportunity provide a use case for the API?
The goal of opening ACCESS NYC eligibility screening through creating and exposing an API is to extend the capacities of comprehensive benefits screening to city agencies and partners to utilize for their own digital products, tools, services.
Example use case: An agency or organization manages a database of client information. They are interested in determining benefits program eligibility for their existing clients. By sending API requests to NYC Opportunity's Drools Servers, they would receive a responses with program eligibility.

Q: Could NYC Opportunity confirm that 'The API should be designed to provide full coverage, allowing for functionality independent of ACCESS NYC" means that the API will cover all aspects of ACCESS NYC and a partner would never need to complete part of a transaction through the API and then part manually through ACCESS NYC?
Q: "The API should be designed to provide full coverage, allowing for functionality independent of ACCESS NYC." Could you further define this requirement?
A: That is correct, the API should provide eligibility results independent of ACCESS NYC and any usage of the API would not require manual transactions on ACCESS NYC.

Q: Is the ability to send in a structured CSV file and get a response considered a core requirement of the project? Can you speak to its prioritization against other deliverables in the project?
A: It is an important factor in the project. Separate cost/effort estimation can be included in the proposal for prioritization consideration.

Q: Are there more defined requirements for the structured CSV input mechanism? Is there a requirement for a user to login to a web interface and upload a file?
A: There are not defined requirements. Proposal can define detailed solutions.

Q: Other than program codes, is there any data that this API should return?
Q: What are typical inputs and outputs of the Drools engine?

A: Currently, the Drools engine only returns the program codes. To obtain additional information about the programs, reference: the Benefits and Programs API. Recommendations for additional data can be included in the proposal.

Inputs and outputs to and from the Drools Engine are JSON Objects. Inputs contain data elements that the rules engine utilizes to determine eligibility.

An example of a JSON input:
SEE ATTACHED FILE input.json

An example of a JSON output:
SEE ATTACHED FILE output.json

Q: Regarding User-Centered Design, who is the ideal user and what information do you have about these users and their desires to utilize a screening API? At what point will there be validation of the work with a “user population” in order to ensure user-centered design?
Q: What will the user testing process entail? Who are the users? Who will be primarily responsible for managing the user testing process?

A: Proposals should include details of a user-validation process to ensure that the API is understood and usable by parties outside of NYC Opportunity. NYC Opportunity will coordinate to involve potential API users. As a reference, 18F has created a guide to API Usability Testing: https://18f.github.io/API-Usability-Testing/

Example use case: An agency or organization manages a database of client information. They are interested in determining benefits program eligibility for their existing clients. By sending API requests to NYC Opportunity’s Drools Servers, they would receive responses with program eligibility.

Example use case: A startup is building a new healthcare product and would like to screen for eligibility as part of their intake process. They are able to send the appropriate data elements via API request to the NYC Opportunity Drools Services, and receive responses with program eligibility that their caseworkers will help the client enroll in.