

**CITY OF HOUSTON**  
**HOUSTON INFORMATION TECHNOLOGY**  
**SERVICES**  
**S29- Q24620**  
**NOTICE OF REQUEST FOR QUALIFICATION**

**STRATEGIC**  
**PURCHASING DIVISION**  
901 Bagby Street, Concourse  
Level  
Houston, Texas 77002

**GENERAL INSTRUCTIONS, TERMS & CONDITIONS**

The City of Houston's Information Technologies Services is soliciting services from qualified consultancies/contractor(s) to perform the following services as described in the Statement of Work for **Software Performance Testing and Review**.

Prospective consultancies/contractor(s) needing additional information/clarification to this Request for Qualification (RFQ) are requested to e-mail questions to Douglas Moore at [douglas.moore@houstontx.gov](mailto:douglas.moore@houstontx.gov). The deadline for submitting questions is **June 12, 2013 at 12:00 PM CDT. No questions will be accepted after deadline.** All questions will be answered via letter of clarification to this RFQ and posted on the City's e-bidding website and automatically e-mailed to all who registered to receive this RFQ.

Please review the Statement of Work below. If you believe that your consultancy/firm meets the minimum requirements as outlined in the Statement of Work of the RFQ, please submit your Statement of Qualifications (SOQ) to Douglas Moore, via one of the methods listed below by **June 25, 2013 at 12:00 PM CDT. No SOQ's will be accepted after deadline.**

E-mail: (Preferred Method): [douglas.moore@houstontx.gov](mailto:douglas.moore@houstontx.gov)

Mail:  
City of Houston  
Strategic Purchasing Division (Suite B500)  
901 Bagby Street  
Houston, Texas 77002

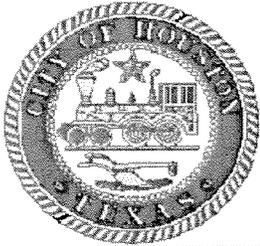
**STATEMENT OF WORK**

**1.0 Overview**

- 1.1 The City of Houston is publishing a Request for Qualifications from all qualified vendors for independent software review and performance testing services. The application system to be tested is a large, custom developed software system with a browser-based front end user interface for Internet users, and a rich client front end for internal users. The solution utilizes Microsoft .NET/WFC technologies, with a Microsoft SQL Server (2008 R2) database backend. To qualify to submit a Statement of Qualifications (SOQ), interested vendors must demonstrate experience in the specific technologies used in the system to be tested, specifically HP QTP and LoadRunner.
- 1.2 The system is currently under development and not in production. A large code base has been implemented, however. At this time, the City is focusing this RFQ on performance testing and not functional testing.

**2.0 System Architecture**

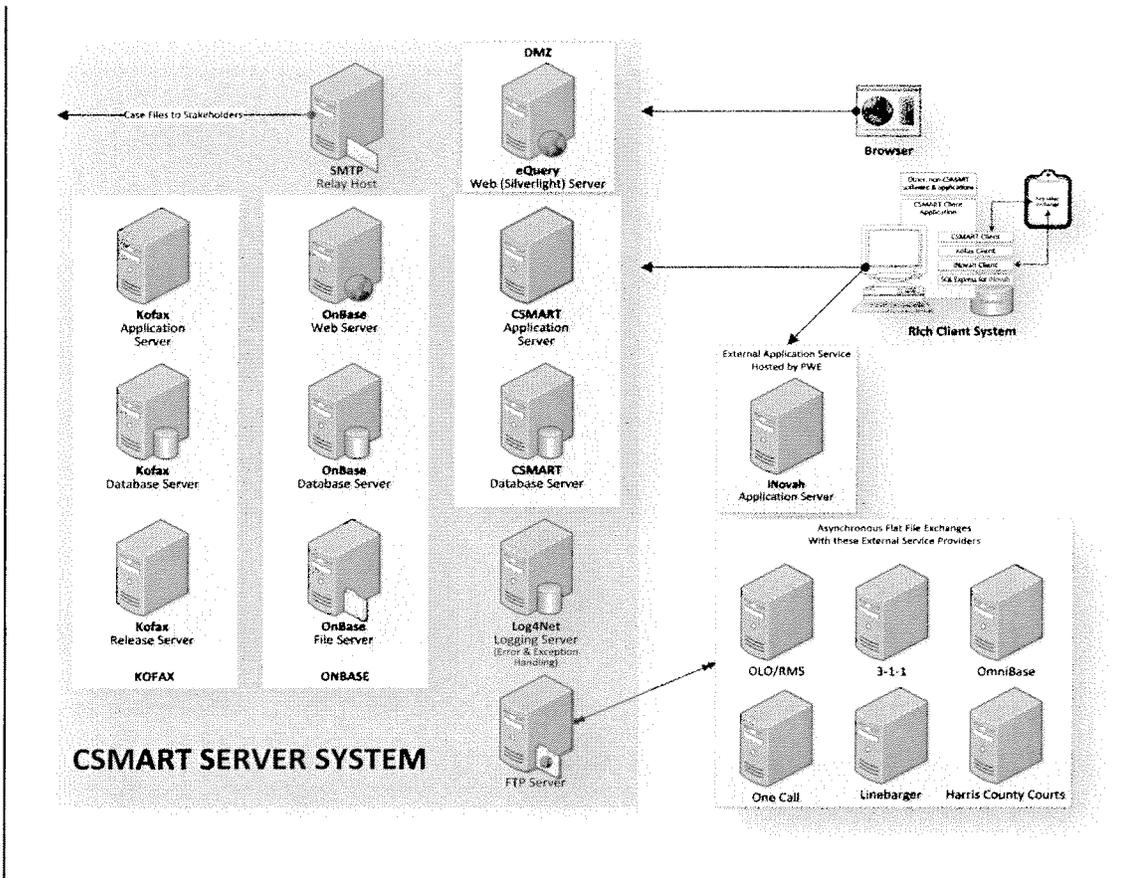
- 2.1 The system architecture consists of multiple tiers with a variety of interfaces connecting to external



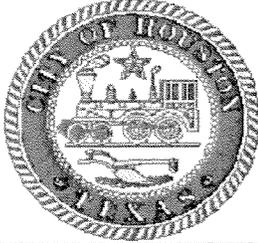
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finance, CRM, and document management systems. The physical architecture is diagrammed as follows:

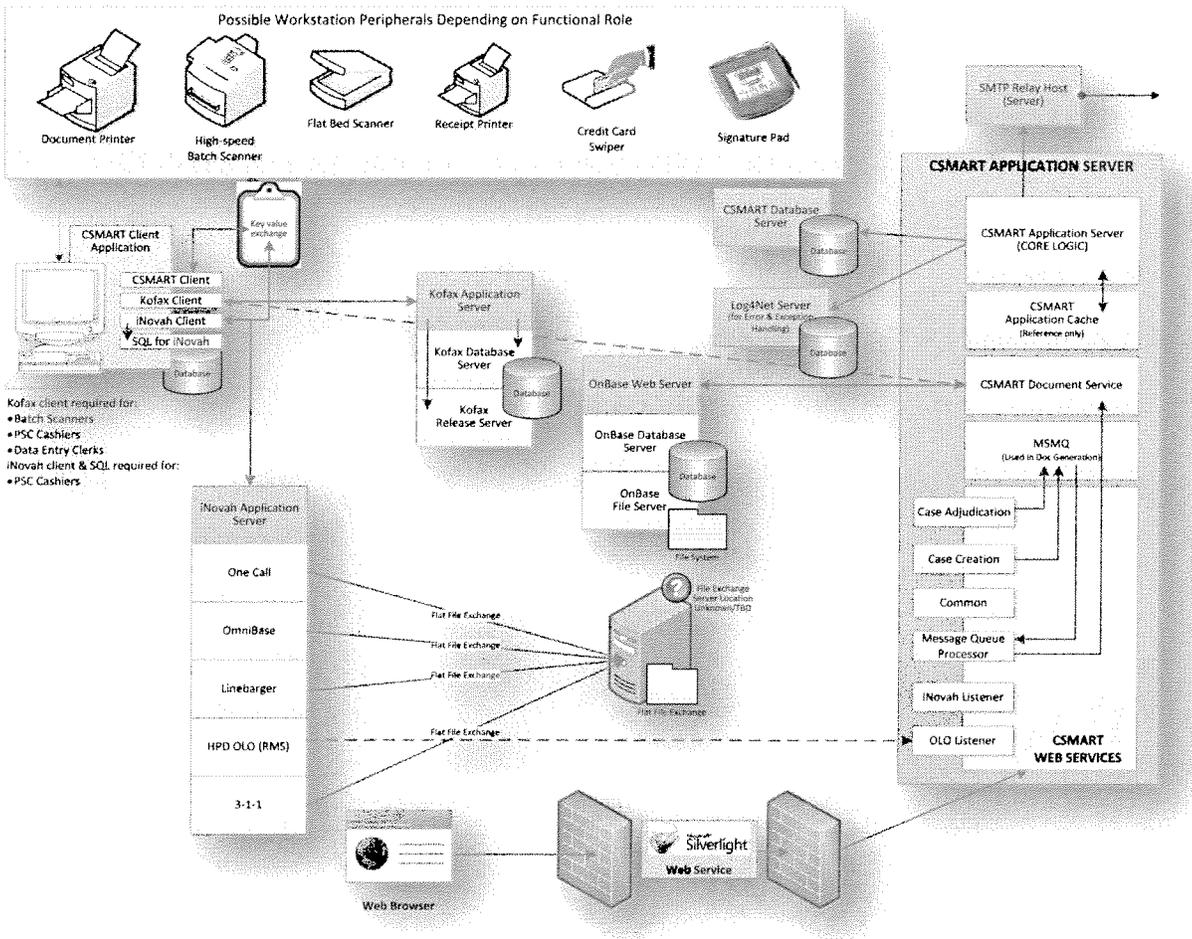


2.2 End users interact with the system via the CSMART client application (rich client) or the the Internet accessible browser-based client (Silver Light).



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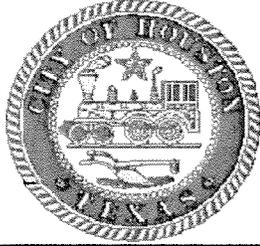


### 3.0 Testing Tools

3.1 The City requests that the primary performance testing scripts be developed using QTP and LoadRunner, an HP (formerly Mercury Interactive) testing suite. **No other testing scripts will be considered. Any SOQ submittal that seeks other testing scripts will be considered as non-responsive to this RFQ and the proposal shall be rejected.**

### 4.0 Methodologies

4.1 The system to be tested is being implemented using modified Waterfall project management methodology. As such, a release containing new features is deployed to a user acceptance testing



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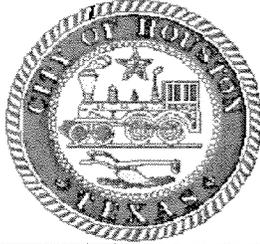
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environment every 60 to 90 days.

- 4.2 The responding vendor should assume that all tests must be scripted and repeatable and become the property of the City of Houston at the end of the engagement. At the end of each release, new functionality should be testable and old functionality should be regression tested.
- 4.3 The test cases should be developed at the user interface (web browser) level. They should test actual transactions, business processes, and user use case scenarios. Test data and user accounts for various system security roles will be provided.
- 4.4 The responding vendor should understand that they may be required to run QTP and LodeRunner scripts developed by the software development team to validate testing results, establish performance baselines and confirm repeatability.

**5.0 Requested Services**

- 5.1 At a minimum, the City expects the consultancy/consultant to provide the following services:
  - 5.1.1 Performance Base Lining – Each developed test case should have a recorded base line performance metric, representing optimal (no load) conditions. By definition, no other test will perform more quickly than the base line but a well performing function or process will approach this level of performance.
  - 5.1.2 Reliability Testing – A subset of test cases will be designated to be executed over a longer period of time (48 – 72 hours). This is used to identify potential problems with memory allocation or leaks, improperly terminated threads, etc, that eventually could cause a system crash or a degradation of performance. This test protocol records such metrics as CPU utilization, memory utilization, open thread count, etc. In general, a well performing system would show consistency in the metrics during the test period, given a predefined constant load.
  - 5.1.3 Load Testing – A subset of test cases will be identified and will be run against the system to simulate estimated daily load levels. For example, the highest number of concurrent users may occur at the open of business, trailing off through the rest of the morning and then spiking up again after 1 pm. This test protocol records response times, transactions per second, and so on during the anticipated peaks and valleys of load levels throughout a typical business day.
  - 5.1.4 Capacity (Stress) Testing – A subset of test cases will be executed against the system to simulate concurrent users. The number of simulated users will be increased until the performance / response time of one or more user use cases becomes unacceptable. This test protocol identifies the overall capacity of the software and hardware systems and also will indicate which of the test cases (transactions) are the most “expensive” from a performance perspective.
  - 5.1.5 Individual Performance Test – While the system is under an estimated “typical” load, each major business process test case will be executed and response times charted against each test’s base line



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performance metric.

- 5.1.6 Spike Testing – A subset of tests cases will be executed on the system by a number of simulated concurrent users that are much higher than the estimated average level. (Fifty to seventy-five percent higher, for example.) This test will be run for a limited period (a spike) and will record response times and system metrics before, during, and after the spike. While performance degradation is expected, a well performing system will return to nominal response times and performance characteristics quickly after the spike load is removed.

**6.0 Performance Remediation (Tuning) Services**

- 6.1 With each release cycle, performance issues may be identified. At its discretion, the City may request the vendor to assist with analysis of specific performance problems and to provide recommendations of potential solutions.

- 6.1.1 Bottleneck Analysis – Implement additional tests to determine the component or layer that is the primary cause of a performance issue (bottleneck). This could include both software and hardware bottlenecks. For example, each system tier may need to be tested:

- 6.1.1.1 Client – Is the client hardware or browser insufficient for the required performance characteristics (HTML/AJAX testing)?

- 6.1.1.2 Network – During periods of load or multiple concurrent users, does a network analysis indicate extremely high bandwidth utilization or latencies?

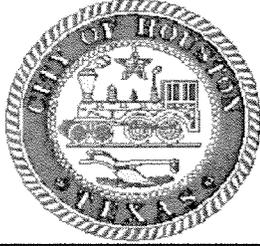
- 6.1.1.3 Application Server – Is the web application server configured optimally?

- 6.1.1.4 Application Objects/Services – Are application code objects contending for server resources; is caching used appropriately?

- 6.1.1.5 Backend Database/Document Management Services – Are queries and data modification procedures performing appropriately; are tables, joins, indexes, etc. being leveraged correctly? Is the storage sub-system able to appropriately handle demand for both data retrieval and data writing?

- 6.1.2 Tuning Recommendations –The City may request tuning recommendations for various components, both software and hardware. Recommendations should be made in terms of an estimated cost/benefit metric.

**7.0 M/WBE Compliance:**



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7.1 Contractor shall comply with the City's Minority and Women Business Enterprise ("M/WBE") programs as set out in Chapter 15, Article V of the City of Houston Code of Ordinances. Contractor shall make good faith efforts to award subcontracts or supply Agreements in at least **24%** of the value of this Agreement to M/WBEs. Contractor acknowledges that it has reviewed the requirements for good faith efforts on file with the Mayor's Office of Business Opportunity (MOBO) and will comply with them.

7.2 Contractor shall require written subcontracts with all M/WBE subcontractors and shall submit all disputes with M/WBEs to binding arbitration to be conducted in Houston, Texas if directed to do so by the OBO Director.

**8.0 Submission of Qualifications**

8.1 The City of Houston's Information Technology Services is requesting qualified software performance testing and review consulting service providers to submit their qualifications. To qualify for the contract award, the consultancy/consultant **MUST** at a minimum, include responses to the following requirements within **50 pages (single sided)** or less, excluding all required forms as listed in (Section 8.2 - TABLE 1 REQUIRED FORMS).

8.1.1 Provide a specific statement of qualifications (SOQ) for this RFQ. The SOQ shall state the consultancy/consultant qualifications and experience in the area of Software Performance Testing and Review. (If possible, the consultancy/consultant shall expand upon its qualifications and experience in the Public Sector. Specific, relevant experience with Software Performance Testing and Review should be highlighted)

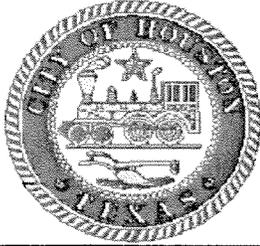
8.1.2 Provide an explanation of the consultancy/consultant understanding of the work that must be accomplished via this RFQ and the proposed approach detailing the steps that will be utilized to meet this RFQ's intent.

8.1.3 Provide examples of testing processes, scripts and methodologies that have been deployed and used on projects that were similar in size and nature to this project.

8.1.4 Provide a high level project plan including phases, milestones, deliverables, and number of days after Notice to Proceed (NTP) that each task shall be accomplished. An example for the purpose of this submittal, shall read as (Milestone One shall be completed 30 days after NTP)

8.1.5 Provide an organizational chart of proposed staff roles, resumes, licenses, designations, certifications, as applicable, availability, highlights of Software Performance Testing and Review experience and tenure with consultancy

8.1.6 Provide a written statement acknowledging the City's M/WBE Program and contractor's willingness to make a good-faith effort in utilizing a certified M/WBE sub-contractor for 24% of work for the contract awarded by the City



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8.1.7 Provide a minimum of three references for Software Performance Testing and Review efforts, preferably in the Public Sector

8.2 **Additionally, the documents listed below must be provided with the SOQ:**

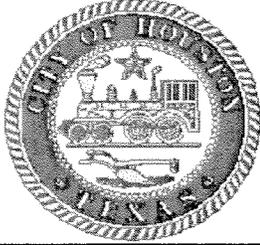
<b>TABLE 1 - REQUIRED FORMS</b>
Affidavit of Ownership.doc
Fair Campaign Ordinance.doc
Statement of Residency.doc
Drug Forms
PoP 1a Pay or Play Acknowledgment Form
Contractor Questionnaire
Hire Houston First Affidavit (See Details Below)

*\* All forms can be downloaded from the following link: <http://purchasing.houstontx.gov/forms.shtml> Offeror will be able to click and print each required document from this site.*

**9.0 Qualification Evaluation Criteria**

9.1 In evaluating the submitted SOQ's, the following criteria will be used when evaluating the RFQ responses and are listed in the order of importance to the City of Houston:

<b>Evaluation Criteria</b>	<b>Allotted Points</b>
Established and verifiable track record for Software Performance Testing and Review	30
Software Performance Testing and Review skills and Testing Processes, Scripts and Methodologies.	30
Ability to field an experienced and qualified team that can partner synergistically with City of Houston	20
Clear understanding of City's Software Performance Testing and Review requirements and proposed SOW delivery methodology	10
M/WBE Participation	5 (Pass/Fail)



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Conformance to the RFQ requirements	5 (Pass/Fail)
<b>Total Points</b>	<b>100</b>

\* Hire Houston First Preference Points (City Business = five (5) extra percentage points or Local Business = three (3) extra percentage points and Non-City and Non-Local Business will receive zero (0) extra percentage points).

- **HIRE HOUSTON FIRST**

**Designation as a City Business or Local Business**

To be designated as a City or Local Business for the purposes of the Hire Houston First Program, as set out in Article XI of Chapter 15 of the Houston City Code, a bidder or proposer must submit the **Hire Houston First Application and Affidavit (“HHF Affidavit”)** to the Director of the Mayor’s Office of Business Opportunities and receive notice that the submission has been approved prior to award of a contract. Bidders are encouraged to secure a designation prior to submission of a bid or proposal if at all possible.

**Download the HHF Affidavit** from the Office of Business Opportunities Webpage at the City of Houston e-Government Website at the following location:

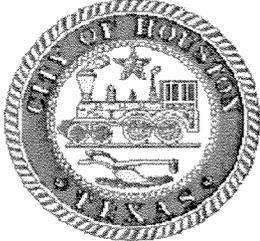
[www.houstontx.gov/obo/moreforms/hirehoustonfirstaffidavit.pdf](http://www.houstontx.gov/obo/moreforms/hirehoustonfirstaffidavit.pdf)

Submit the completed application forms to: Mayor’s Office of Business Opportunity, One Stop Business Center, 900 Bagby St., Public Level, Houston, TX 77002 or Applications may be submitted via e-mail to [HHF-MOBO@houstontx.gov](mailto:HHF-MOBO@houstontx.gov) or faxed to 832.393.0952.

**Award of Procurement Pursuant to a Request for Proposal, Best Value Solicitation or Alternative---Pursuant to Chapter 15 of the City Code of Ordinances**

IN EVALUATION OF A PROPOSAL SUBMITTED UNDER ANY OF THE ABOVE PROCUREMENT METHODS, THE CITY SHALL AWARD EXTRA POINTS EQUAL TO

- **THREE PERCENT** OF THE TOTAL EVALUATION POINTS AVAILABLE TO A “LOCAL BUSINESS,” AS DEFINED IN SECTION 15-176 OF THE CITY OF HOUSTON CODE OF ORDINANCES, AND
- **FIVE PERCENT** OF THE TOTAL EVALUATION POINTS AVAILABLE TO A “CITY BUSINESS ,”AS DEFINED IN SECTION 15-176 OF THE CITY OF HOUSTON CODE OF ORDINANCES
- UNLESS THE USER DEPARTMENT DETERMINES THAT AN AWARD TO THE LOCAL OR CITY BUSINESS WOULD UNDULY INTERFERE WITH CONTRACT NEEDS, AS PROVIDED N SECTION 15-181 OF THE CODE.



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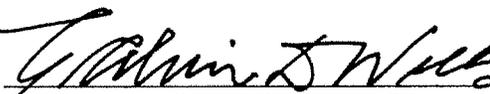
**9.2 SELECTION PROCESS**

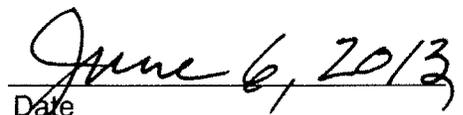
9.2.1 The award of this agreement will be made to the best respondent(s) offering the response which best meets the needs of the City. The City may make investigations, as it deems necessary, to determine the capabilities of each respondent. Therefore, the respondent shall furnish to the City such data as the City may request for this purpose. The City reserves the right to reject any offer if the evidence submitted by or the investigation of the respondent fails to satisfy the City or the respondent is deemed unqualified to provide the services contemplated.

9.2.2 The City of Houston has sole discretion and reserves the right to cancel this RFQ, or to reject any or all SOQ received prior to contract award.

**10.0 NO CONTACT PERIOD**

10.1 Neither Offeror(s) nor any person acting on Offeror(s)'s behalf shall attempt to influence the outcome of the award by the offer, presentation or promise gratuities, favors, or anything of value to any appointed or elected official or employee of the City of Houston, their families or staff members. All inquiries regarding the solicitation are to be directed to the designated City Representative identified on the first page of the solicitation. Upon issuance of the solicitation through the pre-award phase and up to the award, aside from Offeror's formal response to the solicitation, communications publicly made during the official pre-proposal conference, written requests for clarification during the period officially designated for such purpose by the City Representative, neither Offeror(s) nor persons acting on their behalf shall communicate with any appointed or elected official or employee of the City of Houston, their families or staff through written or oral means in an attempt to persuade or influence the outcome of the award or to obtain or deliver information intended to or which could reasonably result in an advantage to any Offeror. However, nothing in this paragraph shall prevent an Offeror from making public statements to the City Council convened for a regularly scheduled session after the official selection has been made and placed on the City Council agenda for action.

  
\_\_\_\_\_  
Calvin D. Wells, ARA Deputy Director  
City Purchasing Agent

  
\_\_\_\_\_  
Date