
Electric Reliability Council of Texas, Inc. (ERCOT)

Contract Administration and Procurement



Request for Information

For

Enterprise Application &

Data Center Monitoring

Date of Release: August 28, 2017

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1 GENERAL INFORMATION

1.1 RFI Objective

This is a Request for Information (RFI) only and does not constitute a commitment, implied or otherwise, that the Electric Reliability Council of Texas, Inc. (ERCOT) will take procurement action in this matter.

The ERCOT objective in this RFI is to evaluate vendor product and service offerings and develop a strategy for monitoring data center infrastructure (HVAC, Power, etc), server, “appliances”, and applications for availability and performance characteristics and virtual characteristics (VMWare and IBM POWER). The objective is to provide situational awareness and proactive event notification to avoid preventable outages. The ability to provide event correlation through analytics should be considered a key factor in presenting a solution. Additionally, the ability to integrate with an existing Configuration Management solution is vital to provide business level impacts and notifications. In the event a alternative Configuration Management solution is available, the opportunity to migrate may be presented as an alternative.

1.2 ERCOT Background

1.2.1 Overview of the Electric Reliability Council of Texas, Inc.

Electric Reliability Council of Texas (ERCOT) manages the flow of electric power to 24 million Texas customers, representing approximately 90 percent of the state's electric load. As the Independent System Operator for the region, ERCOT schedules power on an electric grid that connects more than 43,000 miles of transmission lines and 550 generation units. ERCOT also performs financial settlement for the competitive wholesale bulk-power market and administers retail switching for 7 million premises in competitive choice areas. ERCOT is a membership-based 501(c)(4) nonprofit corporation governed by a board of directors and subject to oversight by the Public Utility Commission of Texas and the Texas Legislature. Additional information about ERCOT can be found at <http://www.ercot.com/>.

1.3 Basic Philosophy: Vendor Relations

ERCOT'S fundamental commitment is to contract for value and successful results. A successful result is denoted as the generation of defined, measurable, and beneficial outcomes that support ERCOT's missions, objectives, and goals, and satisfies all defined contract requirements.

1.4 Legal and Regulatory Constraints

1.4.1 Conflicts of Interest

ERCOT seeks to ensure a level playing field in the award of the contract. ERCOT has implemented an aggressive policy concerning actual or potential conflicts of interest to ensure fair and open competition, and has included language concerning actual and potential conflicts of interest in Section 8 of the Master Agreement. Respondents must carefully review and understand this language when developing proposals.

1.4.2 Former Employees of ERCOT

The Respondent must disclose any past employment of its employees and agents, or its subcontractors' employees and agents, by ERCOT, including the individual's name and the date such individual's employment at ERCOT ended.

1.5 ERCOT Point of Contact

The sole point of contact for inquiries concerning this RFI is:

Diana Wang
Vendor Manager, Supply Chain Management
Electric Reliability Council of Texas
2705 West Lake Drive
Taylor, Texas 76574
(512) 248-3994
Diana.Wang@ercot.com

All communications relating to this RFI must be directed to ERCOT contact person named above.

Section 1 – General Information

1.6 ERCOT Timeline

ERCOT Timeline	
RFI Release Date	Monday, 8/28/17
Notice of Intent to Respond	Wednesday, 9/6/17
Vendor Questions Due	Friday, 9/15/17
Response to Vendor Questions	Monday, 9/25/17
Vendor Responses Due	Tuesday, 10/10/17
Vendor Presentations (if needed)	November 2017

1.7 RFI Cancellation

ERCOT reserves the right to cancel this RFI.

1.8 Right to Reject Responses

ERCOT may, in its discretion, reject any and all responses submitted in response to this RFI.

1.11 No Reimbursement for Costs of Responses

ERCOT will not reimburse any respondent for costs of developing a response to this RFI.

2 SCOPE, PURPOSE, AND OBJECTIVE

2.1 *Project Overview and Objective*

ERCOT is publishing a “Request for Information” (RFI) on current Enterprise Class Monitoring solutions to optimize and improve the quality and management of events and alerts throughout ERCOT. The Request for Information will provide ERCOT with current capabilities and identify strengths and weaknesses in comparison to how ERCOT currently monitors and manages its infrastructure.

The objective of this “Request for Information” is to provide ERCOT with current capabilities for solution(s) which can provide and improve upon or replace ERCOT’s existing monitoring solution which should include an immediate goal to reduce cost, increase our overall capabilities to monitor and alert against our key infrastructure and applications with a focus on dependency mapping and correlation of events to determine and understand overall impacts throughout the duration of any monitoring event.

ERCOT has several disparate monitoring solutions. The solution presented must be able to identify how it interconnects with external solutions or perhaps can displace the alternative solution.

The solution(s) should also take into consideration the ability to perform analytical diagnosis for event correlation and situation awareness. ERCOT’s helpdesk and overall support teams must be able to view dashboards which are at both a higher level to monitor the entire infrastructure but bring the capabilities to drill into any event to identify application(s) and overall business impact. Each support team will also need to be able to view their application on a dashboard for proactive notification for those teams.

2.2 ERCOT Monitoring Requirements

In their responses to this RFI, respondents must describe in details their implementation and approach for meeting the requirements for this RFI.

ERCOT currently leverages multiple off the shelf monitoring solutions and custom scripting. ERCOT is seeking to implement an enterprise class monitoring solution which will incorporate these solutions or reduce the overall number of tools without impacting the ability to support ERCOT’s infrastructure and application. The objective in tool consolidation should be to improve the overall information delivered through proactive awareness and event correlation. ERCOT is looking to include Data Center monitoring as part of this overall solution. Below are specific requirements ERCOT is looking to achieve but this may not be an all-inclusive list.

- 2.2.1** Log Monitoring – The solution(s) must be able to track contents of a given text based log file for defined criteria and taking a defined action. The capability needs to recall the last point it left off to pick up and look forward (rather than starting at the beginning each time).

Section 2 – Scope, Purpose, and Objective

- 2.2.2** Centralized console to view all events and summary of the state of the environment. Central console needs to be able to produce graphs for each business application with impact analysis for up and down stream impacts
- 2.2.3** Centralized console needs to be accessible and capable of integrations with other solutions. For example, the ability to integrate with Splunk, OEM, Foglight to present and trigger against events from these solutions.
- 2.2.4** Ability to monitor various OS's, including AIX, Linux (Redhat / CentOs, Ubuntu), and Windows.
- 2.2.5** Ability to capture syslog activity and parse based on criticality of the syslog events
- 2.2.6** Ability to ingest emails and parse into an event
- 2.2.7** Analytics – Ability to ingest a series of log files (syslog, application log, event log, Splunk, etc...) and capture and parse to find correlation activities.
- 2.2.8** Data Center monitoring for power consumption, baselining, HVAC, etc.
- 2.2.9** Ability to efficiently monitor servers, networks, storage and virtualization layers for events such as network performance / utilization; memory or swap utilization; CPU; drive / file system at an interval of seconds (not standard 5 minute intervals).
- 2.2.10** Acquisition of the topology of physical, virtual and logical elements, and the relationships between them
- 2.2.11** Ability to monitor Citrix and XEN virtualization platforms as well as VMWare and IBM Virtualization on the POWER platform.
- 2.2.12** Agentless data collection methods
- 2.2.13** Support for monitoring common application instances on Operating Systems (service, process, heap, queue depth, sga, etc ...)
- 2.2.14** Synthetic and URL Monitoring. Solution(s) must be able to provide URL monitoring with key work recognition. In addition, Synthetic transaction monitoring or behavioral scripts to simulate an action an would take on a site
- 2.2.15** Transaction based monitoring – the ability to process an entire transaction via an application from logging in to submitting a request, recording to the backend and receiving the result.
- 2.2.16** End to End Application transaction tracing. Follow the performance of transactions through an application stack with the ability to drill into specific areas for further analysis for performance and triage of issues.
- 2.2.17** Service and infrastructure grouping. The ability to group monitors, policies, and alerts based on the purpose, business unit, responsible support team, and/or severity
- 2.2.18** Use of APIs. The solution but have the ability to interoperate and perform any GUI based function via an API or command line interface.
- 2.2.19** Integration layers (e.g., IT service desk tools, IT process automation, alert management, capacity planning and configuration management)

Section 2 – Scope, Purpose, and Objective

- 2.2.20** Integrates with CMDB. Solution must integrate with existing CMDB and have the ability to pull specific CI attributes for event notification based on the defined CI.
- 2.2.21** Dependency mapping. Solution must be able to identify dependencies to reduce “Alert Storms” and provide a better holistic view into impacts based on any given event.
- 2.2.22** Integration with external notification solutions.
- 2.2.23** Auto Remediation. Solution must be able to remediate an event while still generating an event ticket for awareness and investigation. In the case the issue cannot be remediated due to failure, the solution must flag the issue as failed to resolve and create a ticket based on the original severity.
- 2.2.24** Scheduled Maintenance. The solution must have the ability to enable “downtime” schedules during maintenance activities in advance with notification of when these go into effect and expire / terminate.
- 2.2.25** Ability to “normalize” events. Roll up the overall number of incidents into a “count” instead of continually repeating the same event. The events need to be able to close upon resolution.
- 2.2.26** Solution must be able to support converged infrastructure (vBlock, FlexPod, Nutanix) at all hardware layers (storage, compute, and network). Explain in depth how your solution supports each.
- 2.2.27** External domain, email, website monitoring.
- 2.2.28** Support. Define the support model for your solution. Define your level 1, level 2, level 3, development (etc) escalation process and the SLA’s for each severity level. Outline the purpose behind your “Duty Manager” and their role. Outline “extra” support options available.
- 2.2.29** SNMP trap support. Must have MIB’s standard and be easy to manipulate and configure.
- 2.2.30** Real User Monitoring solutions.
- 2.2.31** Ability to monitor Oracle, SQL with an integration for Oracle Enterprise Manager and Foglight.
- 2.2.32** Integration with Splunk for log analysis
- 2.2.33** Ability to integration with Selenium, HPE ALM, and HPE LoadRunner for continuous testing capabilities.
- 2.2.34** Role Based Access is a requirement to provide “user” capabilities to specific groups, “helpdesk” or “NOC” capabilities, and then administrator capabilities.
- 2.2.35** Reporting against historical performance metrics for infrastructure and application.
- 2.2.36** Reporting - The solution(s) must be able to provide reporting capabilities for the overall number of events (broken down by severity) generated by day, month, quarter and year. The solution needs to be able to report against defined Key Performance Index for Service Level Agreements on ERCOT’s applications, servers, and data centers. Reporting on disabled monitors at both policy and server level is mandatory.
- 2.2.37** Ability to report against defined KPIs for availability and performance

Section 2 – Scope, Purpose, and Objective

2.3 Project Timeline

This is a request for information only. At this point, the objective is to understand the options available to manage ERCOT’s monitoring options.

2.4 Vendor Questions and Required Feedback

In addition to section 2.2, ERCOT seeks vendor responses to the following questions and solicits general feedback regarding ideal methodology and approach.

2.4.1 Corporate Background and Experience

(A) In your response, please provide a brief company background and experience in this field.

2.4.2 Total Cost of Ownership

(A) What are the initial (one-time) costs for this type of service?

(B) Are there any follow-up costs?

(C) What are the cost for Professional Services (i.e. training, additional support, etc.).

2.4.3 Project Schedule

(A) What is your estimated timeline for implementation?

2.4.4 Support, Training and Management

(A) What is your support model? Do you have a “follow the sun model” or is everything located in a central location. What location(s) are your support centers located?

(B) What training options are available for your solutions?

2.4.5 Security

(A) Do you adhere to NERC requirements?

3 GENERAL INSTRUCTIONS AND RESPONSE REQUIREMENTS

3.1 *Notice of Intent to Respond*

A prospective vendor may submit a Notice of Intent to Respond to the ERCOT Point of Contact identified in Section 1.5 no later than 5:00PM Central Time on **the date listed in the timeline in Section 1.6**. The Notice of Intent should consist of an email stating that the prospective vendor intends to submit a response for this request. Only vendors who submit a Notice of Intent to Respond will receive the answers to questions from all vendors, and/or any clarifications, amendments, and addenda to the Request For Information. Vendors who provide a Notice of Intent are not obligated to respond after submitting the NOI, but must submit a response to be considered for an award.

3.2 *Vendor Questions and Comments*

All questions and comments regarding this RFI must be submitted electronically to the email address contained in Section 1.5 (ERCOT Point of Contact). All questions must reference the appropriate RFI page and section number. In order to receive a response, vendor questions and comments must be received no later than the deadline set forth in Section 1.6 (ERCOT Timeline). Inquiries received after the due date may be reviewed by ERCOT but will not receive a response. Answers to vendor questions will be emailed to the point of contact listed on the Notice of Intent to Propose. A respondent must inquire in writing as to any ambiguity, conflict, discrepancy, exclusionary specification, omission or other error in this RFI prior to submission. If a respondent fails to notify ERCOT of any error, ambiguity, conflict, discrepancy, exclusionary specification, or omission, the respondent shall respond at its own risk and, if awarded the contract, shall have waived any claim that the RFI and Master Agreement were ambiguous and shall not contest ERCOT's interpretation. If no error or ambiguity is reported by the deadline for submitting written questions, the respondent shall not be entitled to additional compensation, relief, or time by reason of the error or its later correction.

ERCOT reserves the right to amend answers prior to the submission deadline.

3.3 *News Releases*

A respondent may not issue press releases or provide any information for public consumption regarding its participation in this RFI without specific, prior written approval of ERCOT.

3.4 ERCOT Use of Vendor Ideas

- ERCOT reserves the right to use any and all ideas presented in any response that are not the respondent's proprietary information and so designated in the response. The respondent's proprietary materials do not include information that ***is already published or available to the public, or subsequently becomes available;***
- is received from a third party who, to ERCOT's knowledge, is not in breach of ***any obligation of confidentiality;***
or
- is independently developed by personnel or agents of ERCOT without reliance on the respondent's proprietary materials.

3.5 Additional Information

By submitting a response, the respondent grants ERCOT the right to obtain information from any lawful source regarding: (i) the past business history, practices, conduct, and ability of a respondent to supply goods, services, and deliverables; and (ii) the past business history, practices, conduct, and ability of the respondent's directors, officers, and employees. ERCOT may take such information into consideration in evaluating responses.

3.6 Instructions for Submitting Responses

3.6.1 Submission

Submit responses to the ERCOT Point of Contact no later than **5:00 p.m. Central Time on the submission deadline** (See Section 1.6 & 1.7). The proposal must be signed by an authorized representative of the respondent and submitted electronically via email—the file must not exceed 20MB. If this size restriction cannot be met, multiple emails may be sent, but respondent must indicate how many emails ERCOT should anticipate (i.e. email 1 of 3). ERCOT reserves the right to disqualify late proposals.

3.6.2 Additional Requirements

All responses must be:

- Clearly legible;
- Sequentially page-numbered;
- Organized in the sequence outlined in Section 3.7;
- Responsive to the requirements of this RFI;

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- Responses should include the respondent's name at the top of each page, and should not include unrequested materials or pamphlets.

3.7 Format and Content

The proposal must consist of two parts:

- Part 1 – Business Response; and
- Part 2 – Cost Proposal.

3.7.1 Part 1 -- Business Response

The Business Response, must include:

- Section 1 – Transmittal Letter;
- Section 2 – Executive Summary;
- Section 3 – Corporate Background and Experience;
- Section 4 – Methodology and Services Approach
- Section 5 – Assumptions;
- Section 6 – Vendor Information and Other Required Forms.

Section 1 -- Transmittal Letter

Respondents must include a transmittal letter printed on official company letterhead. The letter must be signed by an individual authorized to legally bind the respondent.

The transmittal letter must include:

1. Disclosure of all pending, resolved, or completed litigation, mediation, arbitration, or other alternate dispute resolution procedures involving the respondent (including subcontractors,) and its client(s) within the past 24 months.
2. Disclosure of all affiliations with, or ownership relationships with, any ERCOT Market Participant or its affiliates.
3. A description of any personal or business interest that may present an actual, potential, or apparent conflict of interest with the performance of the contract and an explanation of how the respondent can assure ERCOT that these relationships will not create an actual conflict of interest.
4. A list of key personnel previously employed by ERCOT in accordance with the requirements of Section 1.5.2.
5. A complete list of all exceptions, reservations, and limitations to the terms and conditions of the RFI.

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6. Signed copies of the Professional Services Agreement, NDA, IRS W-9, and Vendor Information Form located at <http://www.ercot.com/about/procurement/index.html>.

Please also address the following Records and Information Management (RIM) RFP Questions:

1. Does the solution include an application that will generate electronic information to be saved or stored within such application, whether hosted off-site or within ERCOT's current IT infrastructure?
If YES, proceed to question 2.
If NO, no further questions are required as this does not pose any RIM Program concerns.
2. Does your solution utilize proprietary electronic document formats?
If YES, provide additional detail for RIM evaluation (what format(s) and access requirements).
If NO, provide additional detail for RIM evaluation (what format(s)).
3. Can your product meet ERCOT's RIM program requirements¹ for Records and information generated or stored by the system including destruction at the end of their lifecycle?
If YES, provide additional detail for RIM evaluation.
If NO, initiate additional discussion.

Section 2 -- Executive Summary

In this section, the respondent should condense and highlight the content of the Business Response to provide ERCOT with a broad understanding of the respondent's approach to meeting ERCOT's objectives for this RFI.

Section 3 -- Corporate Background and Experience

Respondent Background and Experience

This section details the respondent's corporate background and experience. If the respondent proposes to use subcontractor(s), it must describe any existing ongoing relationships with such subcontractor(s), including project descriptions. The section should include the following information:

- Respondent's full organization, company or corporate name;

¹ RIM program requirements include purging records and non-record information based on current business requirements and the retention requirements found in ERCOT's Records Retention Schedule.

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- Headquarter address;
- Type of ownership (e.g. partnership, corporation);
- If the respondent is a subsidiary or affiliate and the name of the parent organization;
- Federal taxpayer identification;
- Name and title of person responsible for responding to questions regarding the response, with telephone number, facsimile number, and email address.

Describe the respondent's corporate background as it relates to projects similar in scope and complexity to the project described in this RFI.

Section 4 – Methodology and Services Approach

Describe the respondent's methodology for providing the services/requirements identified in Section 2.

Include a proposed project schedule, including start and finish dates of the terminal, and summary elements that are essential to developing a monitoring solution as required in Section 2 or as proposed by the vendor.

Section 5 – Assumptions

State any business, economic, legal, or practical assumptions that underlie the respondent's Response.

Section 6 – Appendices

Include any appendices to the respondent's Business Proposal.

Section 7 – Vendor Information and Other Required Forms

Respondents must complete the following required forms found on ERCOT's website,

<http://www.ercot.com/about/procurement>

- Nondisclosure Statement, <http://www.ercot.com/content/wcm/lists/96114/NDA - MUTUAL Rev. 08-29-16 .pdf>
- Vendor information form, <http://www.ercot.com/content/wcm/lists/96114/Vendor Information Form 07.29.16.docx>
- Except for current ERCOT suppliers who have an active Master Agreement with ERCOT or who have completed the Vendor Information Form (VIF) within the last six months, all Respondents must provide a completed Supplier Vendor Information Form, attached hereto as Attachment C along with the proposal.

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3.7.2 Part 2 -- Cost Proposal

The Cost Proposal must be based on the Scope of Work described in Section 2. This section should include any business, economic, legal, or practical assumptions that underlie the Cost Proposal.

4 EVALUATION

4.1 Evaluation of Response

ERCOT will select the successful vendor through an internal evaluation process. ERCOT will consider capabilities or advantages that are clearly described in the proposal, which may be confirmed by oral presentations, site visits, or demonstrations if required, and verified by information from reference sources contacted by ERCOT. ERCOT reserves the right to contact individuals, entities, or organizations that have had dealings with the respondent or staff proposed for this effort, whether or not identified in the proposal.

4.2 Evaluation Criteria

The primary criteria for evaluating the proposals as they relate to this RFI are as follows:

1. The vendor's ability to meet the requirements set forth in Section 2.
2. The vendor's fees or cost structure.

4.1 Oral Presentations and Site Visits

ERCOT may, at its sole discretion, request oral presentations, site visits, and/or demonstrations from one or more respondents. ERCOT will notify selected respondents of the time and location for these activities, and may supply agendas or topics for discussion. ERCOT reserves the right to ask additional questions during oral presentations, site visits, and/or demonstrations to clarify the scope and content of the written proposal, oral presentation, site visit, or demonstration.

4.3 Discussions with Respondents

ERCOT may, but is not required to, conduct discussions and negotiations with all, some, or none of the respondents for the purpose of obtaining the best value for ERCOT.

