Project Number: RFP80080 Date prepared: Mon. Sept 16,2019.

# REQUESTS FOR PROPOSALS

MIGRATING THE EXISTING WEBSERVER TO CLOUD PLATFORM.

# PREPARED FOR BALLOT ONLINE LLC

PREPARED BY: SANTHOSH THIRUMALAI

## **SUMMARY and BACKGROUND:**

Ballot Online LLC is a leading provider of online voting solutions to a global client base. Due to the increase in clients Year over Year the company is facing huge traffic to its webservers and eventually leading to system crashes and outages due to the internal datacenters being maxed out. Despite investing in adding more infrastructure to the existing datacenter, the firm is planning to migrate its webservers to a cloud platform so that the thru traffic can be handled dynamically.

The on-premise webservers and the applications which are running currently were designed for legacy platform and it needs to be modernized so that the data acquired can be analyzed and reported to the organization to make conscious investment decisions to improve the quality of services.

Another important aspect to migrate to cloud is to avoid capital expenditures to upgrade the existing data center which may not guarantee to handle peak traffic, whereas the cloud environment can scale dynamically and the organization can pay only for what it uses.

The existing on-premise datacenter will be leveraged to store the confidential data generated and cloud storage can be used to store the data for analytics.

This RFP is to solicit proposals from various IT organizations to migrate and modernize the existing webservers and applications to AWS Cloud. The vendor will be selected based on the evaluation criteria, provided in detail with this RFP.

#### **PURPOSE:**

The purpose of the project is as follows:

Ballot Online LLC. is an online voting solutions company growing rapidly due to the great demand for its services from the users. The existing web servers hosted on-premise is faltering due to peak loads and the users are experiencing unusual wait times. Sometimes the webservers crashes when the traffic is overwhelming.

The organization is trying to solve this issue by not adding more servers to its datacenters, since the chances to handle the spike in traffic anytime is limited. Also, the resource may sit idle if the volume of connections is low.

Moreover, the company is looking to implement a system to predict the user trends and their needs by implementing AI and ML solutions so that they can sensibly invest and grow the business.

In order to improve the quality of service and meet the needs explained, the organization is looking to migrate and modernize its existing webserver infrastructure to Cloud platform.

## **GOALS:**

The new system must be

- Highly available and auto scale during peak volumes.
- Fault tolerant.
- Easy to maintain.
- Having a software process to analyze the data generated and provide a trend report.
- Interoperable with the on-premise datacenter to store the confidential information.
- Secure.

# **SCOPE OF WORK AND REQUIREMENTS:**

The scope of this project includes analyzing the requirements, licensing, design, development, testing, implementing the new system in AWS cloud and train the associates as part of handover process.

Though the focus of the RFP is on the selection of vendor partner to migrate and manage the webservers in a cloud platform, the ability to provide DevOps Consulting and professional services will be considered a plus.

The following criteria must be established to achieve success.

- The system must be maintenance and user friendly.
- Available up to 99.95%.
- Fault tolerant system: In case of any failures, the load must be routed to a backup server until the failure is resolved.
- Continuous deployment must be facilitated without impacting the performance.
- The existing system must not be impacted during the migration.
- The vendor must handle any issues during the migration and must not impact the business.
- There must be a business continuity plan during the downtime or maintenance.
- There must be a help desk 24 by 7 during the implementation and after the handover for 1 year to handle severity 1 tickets.
- The new system must have an AI and ML based software system to provide the following demographics as reports by processing the data in cloud.
  - o Number of repeated customers on a given date and time.
  - Visitors nature of business.

- o Future prediction of customers who may or may not be using the services.
- The confidential data of the customers must be routed to the on-premise data centers for storage.
- The system must guarantee the security in order to avoid DDOS and hacking attacks. Also, it must be robust to avoid data leaks.

#### The vendors must also

- Disclose in detail, if they are going to subcontract the tasks.
- Provide a detail plan on security compliance that they are going to follow to educate their associates on securing the data which belongs to Ballot-Online LLC.
- Provide costing details and plans, if they plan for offshoring.
- Provide a detailed Work breakdown structure.
- Continual, around the clock support for the Webservers which includes but not limited to network monitoring, network security, network availability and health performance.
- Document the helpdesk tickets with severity details, incident resolution and support staff details.
- Be able to configure, schedule and manage backups of all data including, but not limited to: files, folders, images, system state, databases and applications.
- Follow the configuration management process that Ballot-Online LLC maintains.
- Have a primary and backup account representative who will be responsible for communicating all the outages and degrading performances in a performance report every week thru a recurring meeting with the Ballot-Online LLC's Management and Tech team.

# **TIMELINES:**

The proposal will be accepted till 6 PM EST October 30, 2019. Any proposals received after this date will be sent back to the vendors. All proposals must be signed by a representative of the company submitting the proposal.

Evaluation of the proposals will be conducted from November 1,2019 to November 15,2019. The bidders will be notified in case of any additional details required during the period.

The selection decision will be made no later than November 18,2019.

Contract negotiations will be completed by November 30,2019.

Project initiation must be complete by December 31,2019.

Project planning phase must be completed by January 15, 2020. Project planning phase will determine the timeline/schedule for the remaining phases of the project.

# **BUDGET:**

Ballot-online LLC is willing to spend between USD \$175000 to \$350000 for this effort. All proposals must include costs proposed to complete the tasks described in the scope of the project. Cost should be denoted as non-recurring costs (NRC) or Monthly recurring costs (MRC). The pricing must include the licensing costs, taxes, charges if any, hosting fees, resourcing fees, travel costs, profit margin and other costs in an itemized format.

The table below describes how Ballot-online LLC will pay the contractors.

| Payment Plan:             |                             |
|---------------------------|-----------------------------|
| Requirement Gathering     |                             |
| Completion                | 10% of the finalized budget |
| Design Completion         | 10% of the finalized budget |
| Development Completion    | 15% of the finalized budget |
| Testing Completion        | 15% of the finalized budget |
| Implementation Completion | 30% of the finalized budget |
| Handover completion       | 10% of the finalized budget |
| Final Payment             | 10% of the finalized budget |

# PROPOSAL CONTENT REQUIREMENT:

The proposal shall be comprised of the following four (4) volumes, numbered Volumes I, II, III, and IV. All text shall be twelve (12) point font, and page limits shall be as indicated. <u>Please do not include corporate marketing material or boiler plate information in your response</u>.

Volume I Corporate Information-Limit to two (2) single-spaced pages. Vendor(s) shall
provide a summary of any corporate information relevant to this RFP, which should
include, at minimum: Length of time providing managed services, experience handling
the same level of services as Ballot-Online LLC needs in this RFP, and brief summary of
the financial strength of the company.

- Volume II Technical Solution and Approach-Limit to twenty-five (25) single spaced pages including graphics.
- Volume III Past Performance-Limit to eight (8) single spaced pages. Vendor(s) shall
  describe three (3) to five (5) examples of similar Migration services that vendor has
  provided of similar size in the past three (3) years. For each example include contact
  information and written permission for a reference to discuss its performance with
  Ballot-Online LLC.
- Volume IV Price Proposal-Limit to ten (10) single spaced pages. Vendor(s) shall provide the best financial proposal to complete the work for the duration of the contract term. Identify any assumptions made to create the Price Proposal. Please include pricing for travel, other direct cost, and any optional services that may be relevant to this RFP.

## **EVALUATION CRITERIA:**

Ballot-Online LLC's RFP Coordinator will review all the proposals to determine the compliance to the RFP and will forward only the proposals which complies as per the RFP guidelines, to the RFP evaluation team for further review.

Ballot-Online LLC will award the project to the vendor who ranks best, based on the criteria given in the below table.

| Technical Proposal Evaluation |                                   |        |       |  |  |
|-------------------------------|-----------------------------------|--------|-------|--|--|
| #                             | Description                       | Weight | Score |  |  |
| 1                             | Management Proposal               | 15%    |       |  |  |
|                               | 1. Account Team/Oral Presentation | 5%     |       |  |  |
|                               | 2. Corporate Qualification        | 5%     |       |  |  |
|                               | 3. Corporate Experience           | 5%     |       |  |  |
| 2                             | Technical Proposal                | 50%    |       |  |  |
| Cost Proposal Evaluation      |                                   |        |       |  |  |
| 3                             | Cost Proposal                     | 35%    |       |  |  |
|                               | 1. Terms and Conditions           | 5%     |       |  |  |
|                               | 2. Pricing                        | 30%    |       |  |  |

# **REFERENCES:**

https://www.rfpassociates.net/2013/01/08/the-case-for-including-a-budget-in-every-rfp/

https://www.projectmanagementdocs.com/template/project-documents/request-for-proposal/#axzz5zYcc1Dri

https://oecm.ca/sites/default/files/RFP/01.Cloud 203 RFP Final.pdf

https://github.com/sthirumalai2020/Cloud-Computing/blob/master/AAMVARFP-FY18-012-

ManagedServicesProvider.pdf

#### SERVICE LEVEL AGREEMENT:

Customer Name: Ballot-Online LLC.
Vendor Name: ABC IT Solutions Corporation.
Customer Representative: Santhosh Thirumalai – Assoc. Director, IT.

## **OVERVIEW:**

This agreement is a Service Level Agreement ("SLA") between Vendor "ABC IT Solutions Corporation" and customer "Ballot-Online LLC" for cloud hosting, migration, and operational services.

The SLA is valid until superseded by a revised agreement approved by all stakeholders in writing.

# **OBJECTIVES:**

The purpose of this SLA is to ensure that both parties are clear about the commitments for the cloud hosting, migration and operational services that are subjective to this SLA. This SLA provides

- Clear and measurable descriptions of services provided.
- Key metrics used to establish SLA's.
- Establish clear understanding of expected service performance.

#### **STAKEHOLDERS:**

The following are the primary stakeholders for this SLA.

Vendor: ABC IT Solutions Corporation.

Customer: Ballot-Online LLC.

#### SERVICE AGREEMENT:

## • SERVICE SCOPE:

Around the clock support for the Webservers which includes but not limited to

- Network monitoring.
- Network security.
- Network availability.
- Health performance.
- Planned or emergency onsite assistance.
- Data security.
- Server availability.
- Data Backup.
- On call support.
- Server performance monitoring.
- Server upgrades.
- On-premise datacenter interoperability.

#### VENDOR RESPONSIBILITY:

- Meeting response times associated with incidents based on the severity.
- Appropriate notification to customer on scheduled maintenance.

#### CUSTOMER RESPONSIBILITY:

- Payment for all support costs at agreed intervals.
- Reasonable availability of resources from the customer when resolving incident tickets.

#### **SERVICES MANAGEMENT:**

#### • SERVICE AVAILABILITY:

- 1. ABC IT solutions corporation ("Vendor") must provide service availability twenty-four hours a day, 7 days a week (24 X 7) except during times of Service maintenance. This is applicable predominantly to production cloud environment and dashboards.
- 2. Vendor shall use reasonable efforts to achieve the target service availability goal of 99.99% system uptime except during scheduled service maintenance or acts of nature. Ballot-Online LLC ("Customer") recognizes that the internet is comprised of autonomous systems that are beyond the control of the vendor. Routing faults and failures of Internet outside the control of the vendor can occur, and such instances will not be considered as failure of 99.99% of system uptime.

# • SERVICE REQUESTS:

In support of the services outlined in this agreement, the vendor will respond to service related incidents and/or requests submitted by the customer within the following timeframe. The customer must use the service portal to raise tickets and assign that to the vendor team for tracking.

| Severity Level   | Explanation                | Response Goals                   |
|------------------|----------------------------|----------------------------------|
|                  | Production cloud down,     |                                  |
|                  | Business is severely       |                                  |
|                  | impacted, not              | Within 30 minutes during         |
|                  | workaround or security     | business hours, otherwise 8 hrs. |
| Emergency - Sev1 | issues                     | during non-business hours        |
|                  |                            | Within 1 hr. during business     |
|                  | Production cloud is        | hours, otherwise 8 hrs. during   |
| High - Sev2      | operational but not stable | non-business hours               |
|                  | Moderate or low business   | Within 2 hrs. during business    |
|                  | disruptions in production  | hours, otherwise 10 hrs. during  |
| Medium - Sev3    | or test                    | non-business hours               |
|                  | No disruptions but some    | Within 4 hrs. during business    |
|                  | sensitivity in production  | hours, otherwise 12 hours during |
| Low - Sev4       | or test cloud              | non-business hours               |

# References:

https://modx.com/policy/modx-cloud-sla

http://www.slatemplate.com/# ServiceAgreement

https://azure.microsoft.com/en-us/support/legal/sla/cloud-services/v1 0/

https://en.wikipedia.org/wiki/Service-level agreement

# Statement of Work Cloud Migration Services Customer: Ballot-Online LLC

# Vendor: ABC IT Solutions Corp

Customer Representative: Santhosh Thirumalai, Assoc. Director IT.

# **Introduction/Background:**

The purpose of this Project is to migrate the web-server and web applications for Ballot-Online LLC, from on-premise to Cloud platform, since the customer traffic to access the voting services is increasing exponentially.

The company also wants to create an analytics platform to forecast the customer trends and usage to make effective business decisions in the future.

In order to support the migration initiative, Ballot-Online LLC the "Customer" has chosen ABC IT Solutions Corp as a "Client Partner" to gather requirements, design, develop, test, deploy, maintain and hand over the new system after migration.

# **Scope of Work:**

In addition to the scope of work explained in the RFP section, the following statements also counts with respect to the scope.

The client partner must analyze the existing webserver, capture the critical functionalities and provide a plan/schedule to migrate the items to production cloud.

The project must operate in agile methodology and the customer expects continuous delivery and integration.

In addition, the client partner needs to develop an analytics platform which must be easy to use and provide customizable reports to the business users for decision making.

The customer expects the client partner to adhere to the SLA guidelines attached with this SOW and support the migration as described.

# Type of work, responsibilities and Acceptance criteria:

The client partner must be responsible for the following.

- Requirement analysis.
  - The associates from the client partner must work with the product owners to gather the requirements in detail by scheduling planning sessions and document

them in detail. The document must be presented to the product owners and stake holders to get the signoff.

## Technical design.

 The technical design of the cloud migration must be completed by the architects from the client partners collaborating with the tech group from the customer and prepare a document and presented to the technical committee and the cloud COE from the customer and get their signoff.

## Planning and development.

- The Development schedule and work breakdown must be planned and presented to the project manager and the product owner and get their consensus to proceed further.
- The story backlog and grooming must be completed before the start of each sprint.

## Planning and testing.

- The test plan which includes unit testing, integration, user acceptance and quality assurance must be documented and presented to the Quality assurance team, project manager, product owner and other stake holders.
- The client partner must create test environments, interfaces and coordinate with other teams for integration.
- The test results must be demonstrated before the product owners and get their signoff during each sprint.

# Migration:

- The change management process must be followed strictly and the migration must not impact the regular business of the customer.
- The client partner must follow incremental installs and a minimum viable and workable product must be shipped to production each sprint.

## Support:

- During the migration and after the migration the client partner must provide 24 by 7 support to mitigate any issues.
- o The SLA document provided with this SOW must be followed.

#### Handover:

 After migration the complete details of the project must be well documented, presented to the stake holders from the customer side and get the signoff to complete the handover process.

## **Cloud Services:**

The On-Premise web-server must be migrated to Amazon Web Services (AWS) EC2 cloud instances as Apache web-server.

# **Business continuity planning: (BCP)**

The client partner must plan for the business continuity, disaster recovery and system backup/ restore for the webservers and applications to be migrated to the cloud.

The client partner must deliver the following to guarantee the BCP.

- Create the Continuity of Operations Plan (COOP).
  - o Develop the IT components of the Continuity of Operations Plan (COOP).
- Development and exercise of the IT Disaster Recovery Plan (IT DRP) within COOP.
- Development and exercise of the IT System Backup and Restoration Plan.

## **Data protection planning:**

The confidential data must be stored in the on-premise datacenter. The other data which are being planned to store in the cloud should be tokenized and encrypted to provide data protection.

A detail plan on which data to be stored in on-premise and which data into cloud must be planned with the Cloud COE of the customer firm, documented and signed off.

## <u>Service Level Agreement (SLA):</u>

The SLA details and present in the RFP starting page #7.

## **Compliance:**

Since the customer provides across the globe, the system that will be migrated to cloud must abide to the legal and data compliance laws for each geography.

# **Reporting:**

The following reports must be provided to the Ballot-Online LLC's management and tech team on the frequency denoted.

| Report Name                       | Frequency  |
|-----------------------------------|------------|
| Tickets that missed SLA intervals | Weekly     |
| List of Chronic Issues            | Weekly     |
| System Availability               | Weekly     |
| Patches applied                   | Each Patch |
|                                   | cycle      |
| Backup details                    | Daily      |
| Threshold Monitoring              | Monthly    |
| Status reports                    | Weekly     |

# **References:**

https://courses.edx.org/courses/course-

 $\frac{v1: USMx + CC607x + 2T2019/courseware/2471b413bb284d12a355b9db6183772c/fe902caf2b5c4}{440a429a01e8d3ad27c/1?activate block id=block-}$ 

 $\underline{v1\%3AUSMx\%2BCC607x\%2B2T2019\%2Btype\%40vertical\%2Bblock\%40ca7f67aba87244faa5344}\underline{d1b6900da6b}$ 

https://en.wikipedia.org/wiki/Statement of work

https://github.com/sthirumalai2020/Cloud-Computing/blob/master/SOW%20Sample.pdf