ToRs for website hosting services for NEBE

The National Election Board of Ethiopia (NEBE) is the appointed government agency which is mandated to oversee and supervise the national elections in Ethiopia. The NEBE is seeking a company to, without prejudice host, maintain and secure its websites offshore and to provide a service which upholds its integrity.

The current websites and those that the NEBE is wanting to develop will require that the service provider ensures that the migration is seamless and in line with a Service Level as set out in a Service Level Agreement (SLA) which is to include web site maintenance, server security, system redundancy and rapid scalability.

The websites are a primary means by which information is captured, collated and disseminated to various stakeholders. With an estimate of 450,000 monthly views during pre-election and 2 million visits during election & Result announcement, the websites allow both public and private users to subscribe, view and download current as well as archived content which the NEBE is required to do so in line with its mandate.

NEBE seeks to acquire the professional web hosting services of a company to host its open source platforms for a period of two and a half years. The NEBE in intrusting its webservices to a company strives to cultivate a vibrant community that will support, guide and strengthen the development of democracy in Ethiopia.

Objectives

- Provide a platform for interaction and information sharing among all relevant stakeholders;
- Provide high quality information, ethically and professionally meeting the NEBE's high standards;
- Enhanced and improved security measures within its platforms;
- Promote the use of technology within the elective process and the adoption of self-services, suitably meeting the requirements within the context of information sharing;
- Promote continued professionalism;
- Increase the outreach of NEBE;
- Continued enhancement of information sharing accessible by all .

Additional information about NEBE is available on the NEBE web site: www.electionethiopia.org (currently not active).

The NEBE web sites are and will be based on the following technologies:

- PHP;
- Drupal;
- MySQL;
- Apache on a Linux server;
- Server space used by web site will vary from about 200MB – 2GB and
- Content Management System: Custom-built.

Scope of work

The scope of work includes:

- Migration of existing sites and domain on to a single separate dedicated standalone server, following which the hosting and maintenance of these sites, including the applying of security patches if and when necessary, clearing out of log files, enlarging disk space as required, the managing of security certificates (SSL Certs) and the continuous monitoring of the sites;
- The hosting of NEBE websites for a contracted period for two and a half years;
- Provide 24/7 technical/help desk support with guaranteed response and resolution times - service requests and security incidents resolved within 5 days and 1-day response. Critical systems may require a 1 day turn around;
- Conduct system updates to ensure that the website, content management system and any plugins are up to date;
- Conduct daily website backups to safeguard website content in the event of a system crash;
- Provide Web Application Security to continuously discover, catalogue and protect the entire website with following capabilities:
  - Web Application Scanning that crawls and tests the website to identify any vulnerabilities and take corrective action over the two and a half years maintenance period;
  - Web Application Firewall that blocks attacks on website vulnerabilities, and lets NEBE where and when the website is accessed and
  - Malware Detection that proactively scans the website for infections, triggers automated alerts and generates detailed reports.
- Determine and provide the website capacity requirements (CPU, disk and memory etc.) via an on-demand hosting platform (on a dedicated standalone server) by analysing the current website prerequisites and forecasting for the delivery of the hosting over the two and a half years;
- Provide optimization for mobile use and continuous compatibility with latest versions of web browsers and
- The organisation must have the ability to provide a content management system integrated with the website if required in the future, which includes, but not limited to the following capabilities:
  - Content creation, scheduling, expiration and editing;
  - Content preview – content publishers must have the ability to preview changes prior to publishing on the site;
  - Analytics – website metrics, counts on visits and activity, search engine optimization, determine site traffic areas and where on the site to publish new content etc.;
  - Homepage heat mapping – to collect information about every action taken on the current site to review functionality and behaviour. The heat mapping shall include where people have clicked, scrolled and hovered on the page;
  - Graphics administration;
  - Site search statistics and
  - CMS activity reporting – detailing all login history, changes and activities taking place on the website through content administrators.

Additionally, the services required, and activities will include:

- Assist with securing the existing site during the transition to the new platform; preservation of all current website content and functionality;
- Optimize the site for low bandwidth users;
- 24/7 website monitoring and security monitoring starting 2 weeks before election all the way to results announcement (1 month after the election day);
- Uptime Guarantee – the website/s shall have a guaranteed uptime of 99.9% per annum and be backed by a service level agreement to be provided by the company.

Included in the bid must be annual consulting hours – 36 hours of consulting service hours as part of the maintenance services for the execution of additional projects as and when required by NEBE.

Web site hosting:

- The dedicated standalone server should support the technologies used which currently includes PHP, MySQL.

Current Environment

The site is currently hosted on a Managed and Performance-Optimized Dedicated Server by a private company in Ethiopia and will provide the appropriate permissions to transfer the domain, and to access and backup all files and databases.

Web Server Requirements

Hardware (Dedicated standalone server with the ability to dynamically allocated additional capacity when required):

- CPU Guaranteed 8 Cores;
- RAM Guaranteed 16GB;
- Storage 20 GB Raid 10 &
- 100MBps Bandwidth, guaranteed up to 10,000 GB data transferred per month.

Software:

- OS – (Linux CentOS 7.x);
- Database type - MySQL (Unlimited databases);
- Drupal;
- PHP, DRUPAL &
- Flash Support required .

Email & Sub-domain

- Unlimited number of business email addresses & Sub-domains.

On-Server Backup Requirements

- Nightly incremental backups with a weekly full back so as to ensure the availability of the web site/s for the past 14 consecutive days;
- Off Server File and DB full backups Weekly;

Malware and Virus Scanning Management:

- Automatic Scans for Malware and Hacks every 6 hours;
- Malware Removal & Clean-up within 6 hours if detected.

Advanced Web Application Firewall requirements

Website Application Firewall (WAF) / Intrusion Prevention System (IPS), proactively mitigating attacks against the website/s must be in place and provided. The company must have the ability to stop all attacks including: Distributed Denial of Service (DDoS), Brute Force, and automated attacks looking to exploit software vulnerabilities.

The companies monitoring platform must utilizes a proprietary approach to scanning websites. Must have the ability / capability of identifying any Indicator of Compromise (IoC), the detection technology must able to quickly identify and alert NEBE in the event of any security incident and breaches.

- DDoS Mitigation
    - Layer 7 HTTP Flood Attacks;
    - DNS Amplification Attacks &
    - SSDP Attacks.
- Website Attacks and Hacks
    - SQL Injection Attacks;
    - Cross Site Scripting (XSS) &
    - Automatic Software Vulnerability Patches.
- Malware Prevention
    - Prevent Infections &
    - Prevent google Blacklists

Web site maintenance:

- The contracted web development company will maintain full backups of the web sites through the duration of the contract. The backup, code and source files will be delivered in full to client on the termination of the contract;
- The contracted web hosting company will provide a standard SLA with resolution times in the proposal;
- The contracted web hosting company will verify regularly that the site is up and running, and will revert to the back up whenever necessary;
- The contracted web development company will give guidance on using the admin interface of the CMS when and if necessary;
- Monitor the server logs to see most popular pages accessed and downloads and generate regular reports.

Web site maintenance policy:

- Maintenance does not include web site redesign or development;
- Documents and graphics, such as logos and images, will remain the property of NEBE;
- The hosting company must offer a service level agreement (SLA) with guaranteed server uptime and response time to queries. The company should have an automated issue management ticket system for NEBE requests and allow NEBE to access tickets via the web at any time, including the correspondence log/s;
- The SLA will include financial penalty clauses should the company break the terms of the agreement;

Specific responsibilities during the migration phase:

There will be a migration phase of 2-3 months during which time the current hosting company in Ethiopia and the new company will be working in tandem. During that period, the newly contracted web hosting company will be responsible for:

- Getting familiar with the structure and functionality of the web site;
- Understand the NEBE's technical web hosting roadmap;
- Work with NEBE to suggest any high-priority technical tasks that may need to be addressed during the migration period and during future migrations of web systems.

Technical Evaluation Criteria:

1) **Company profile and expertise (35%):**

   The company should have:

   - Proven experience of web hosting and support in the international sector (The company must demonstrate in the form of a reference letter from three (3) clients, preferably from the following categories: IGO, Government agencies that they have supported and delivered web hosting and system related **services for no less than eight (8) years); (15%);**
   - Strong experience in well-known and widely used open source platforms,
   - such as Drupal, Joomla, WordPress, etc (The company must demonstrate in the form of open source certifications they have **obtained); (10%)**
   - Strong track record in web site hosting; security and administration; Google analytics;
   - Etc. (The company is to provide a detailed company profile demonstrating that they have experience in the hosting, developing and securing of websites, incorporating all the requirements as stated **in this Terms of Reference) (10%).**

2) **Approaches and Methodologies appropriateness to the conditions and timeliness of the implementation plan (20%):**

   - Understanding of End Users needs to match with adequate technical solutions (The company must provide a reference letter from two big clients stating that they have architected and provided solutions for web-based hosting and development **requirements) (20%);**

3) **Management structure and qualification of key personnel (15%):**

   Support staff skill level requirements (Staff allocated to support NEBE) – All allocated staff supporting the NEBE must have At least 8-year experience in the sector and similar experiences must be demonstrated – CV's to be attached to **the proposals (15%):**

   3.1 Team Lead (3%):
   - Must be PMP certified and up to date;
   - BSC in Computer Science degree or similarly related;
   - Eight (8) Years similar work experience;
   - Demonstrate that they have managed clients similarly to the NEBE or demonstrate that they have managed Governmental organisations and
   - Demonstrate a proven track record in the support of these organisations;

3.2 Infrastructure Technical Support Staff (3%):
- BSC in Computer Science Degree or higher;
- Certifications advantages (IE Linus Certifications, Hardware supplier certifications ETC);
- Eight (8) years working experience in the field of web hosting infrastructure).

3.3 Database Technical Support Staff:
- BSC in Computer Science Degree or higher;
- Certifications advantages (IE database security, database table structure design ETC.);
- Eight (8) years working experience in the field of open source web hosting database support;

3.4 Security Technical Support Staff (3%):
- BSC Computer Science Degree or higher;
- Eight (8) years working experience in the field of open source web hosting security support;
- additional certifications advantages (IE security certifications from organisations such as MacAfee ETC);
- BSC Computer Science Degree or higher;
- Eight (8) years working experience in the field of open source web hosting security support;

3.5 Web Site Developer (3%):
- Certifications advantages (IE certifications from PHP, Drupel ETC);
- BSC in Computer Science Degree or higher;
- Eight (8) years working experience in the field of open source web hosting development);

Performance Management

The Bidder will be directed by the NEBE appointed person, or persons authorized by the NEBE, NEBE to ensure the effective, efficient and consistent performance of duties and the implementation of the goals and objectives of the NEBE.

The following expectations are presented:

1. Professional and efficient hosting of NEBE website for a contracted period of two and a half years years;
2. Provision of 24/7 technical/help desk support and monitoring with guaranteed response and resolution times;
3. Provision of guaranteed uptime of the website (The company must demonstrate that they have their own Tier 3 data centre with offsite redundancy capabilities);
4. Ability to conduct security upgrades on website upon availability of latest upgrade;
5. Ability to conduct system updates on website upon availability of latest update;
6. Ability to conduct website optimization;
7. Ability to conduct daily and weekly website backups and
8. 36 monthly reports documenting ALL maintenance/work completed for the period, health of the service level agreement, required continual service improvements and agreed on activity/usage reports.

The Ministry of Information and Networks Security Agency (INSA) will provide information stored on the Content Management System upon the migration of the website.