

## **1 Detail Scope of Work**

- 1.1 The scope of work shall include but not be limited to the following:
  - 1.1.1 Consultant shall provide access to Service Desk to raise tickets to report any fault, the service desk shall be available 24 hours a day, 365 days a year.
  - 1.1.2 Provide 24x7 support to resolve IT related issues, incidents, events or problem in the systems, to ensure the highest possible availability of the system as defined in the "Business Impact Matrix for Incidents" section (Clause 6 below) ;
  - 1.1.3 In addition to solving problems, the Consultant will also perform IT tasks as defined in the "IT Operations Management" section (Clause 3 below).
- 1.2 The following services will be provided as part of the Service Level Agreement:
  - 1.2.1 Coordination with HAYA IT to resolve any issues related to dependant services like network, power, antivirus, etc.
  - 1.2.2 Delivering solutions for any Operating System, Firewall, proxy or server configurations required for the system to run without interruption. Haya Water IT staff will carry out the required configurations following Haya Water's Change Management processes.
  - 1.2.3 Performing monthly preventative maintenance of all software components. The maintenance report should be attached with the invoice of the each month.
  - 1.2.4 Provide Management, Support and Operation of Application, Database and Interfaces.
  - 1.2.5 Train HAYA IT personnel on:
    - 1. System operations monitoring
    - 2. System administration, including backup & restore
    - 3. resolution of any minor errors
    - 4. Resolution of any technical issue.
    - 5. Check scheduled tasks.
  - 1.2.6 Provide periodical performance and availability reports.
  - 1.2.7 Apply system updates, patches and bug fixes.
- 1.3 To ensure the above, the services to be provided are classified under following categories:
  - IT Operations Management
  - On-call Support

## 2 IT Operations Management

2.1 The Consultant shall perform "IT Operations Management" as follows

Process/Activity	Description	Requirements/Conditions
Active service window operations	Monitor and manage systems operation and events in order to ensure application performance and availability	
Monitor daily operational tasks	Execute daily and periodic operational tasks (e.g. job scheduling, system management tasks, maintenance jobs, error log checking and resolving, etc).	
Monitor backup/restore	Ensure backup of business and system data, ensuring backups are handed over to Haya staff for off-site storage. Perform backup/restore drill in a controlled environment once a quarter	
Availability in case of hardware, server, operating system, application or database failures	Coordinate with Water staff activity to ensure daily on-line availability and performance of the system, and timely execution of batch processes.	
Other Activities	<ul style="list-style-type: none"> <li>- ensure availability and performance of CC&amp;B Database</li> <li>- Escalate issues to Oracle Support team and third parties as appropriate</li> <li>- Manage interfaces with other internal and external applications</li> </ul> Monitor database performance and storage utilization to ensure availability and performance. Provide recommendations as required.  Carry System tuning to ensure optimum performance. <ul style="list-style-type: none"> <li>- Monitor and Resolve all alerts and warnings detected by Oracle database alert log</li> </ul>	
Upgrades and patch application	Maintain Application and Database patch levels up to date by Monitoring application and database patch releases, determining impact on existing setup and implementing as required, in consultation with Haya staff and as per change procedures.	
Hardware and Infrastructure management	Recommending hardware and infrastructure enhancements to ensure all performance and capacity requirements.  Configuring all the infrastructure related to CC&B to ensure 99% availability	Haya Water is responsible to follow recommendations for hardware in order to enable the Consultant to meet required targets. If insufficient hardware is provided, The Consultant will not be held responsible for not meeting performance and availability targets.

### 3 Support Services

3.1 The Consultant shall perform on call support services as follows

Process/Activity	Description	Requirements/Conditions
Incident management	Perform incident analysis, diagnosis and incident solving, proactive detection of incidents, initiate escalations/crisis management procedures in case of emergencies and document the resolution of incidents	Includes all applications, interfaces and reports Haya Water will permit changes to production environment only after approval by the Consultant Incident, Problem and Change Management will have to follow Haya Water's ITIL processes.  Haya Water will permit changes to production environment only after approval by Consultant
Problem management	Prevent the re-occurrence of incidents; define improvements through the change management process.	
Test and Acceptance	Ensure that manageability and operational criteria are met before taking changes into production	
Change execution	Approve configuration changes related to the installation of new software (upgrades) or fixes/workarounds.	
Software Control and Distribution	Manage the approved distribution, installation and activation of new software releases, versions, patches/fixes, etc.	
Test environment	Maintain a test instance that is a replica of production environment at any given point in time, except when testing is being carried out.	

3.2 The Consultant shall provide a web based portal for raising service requests and problem reports.

3.3 Once tickets are raised, the service request system shall be capable for automatic escalation. The Consultant shall provide all alternative channels to handle service requests.

3.4 The Consultant shall appoint a primary focal point and a backup focal point. Haya Water IT staff will liaise with the focal points for any support related communications.

3.5 If no reliable solution is found and implemented within the escalation threshold time as specified in the business impact matrix below, Haya Water retains the right to engage any other independent consultant to solve the problem without reference to The Consultant and the costs of the independent consultant will be recovered from The Consultant.