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Specification

For

Oracle DBA Support

And

Hosting

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1. Purpose of this Specification

This document aims to provide the technical and operational outline of the Services.

2. Working with the Council

The Supplier shall deliver the Services specified in this Specification with the Council in a way that embodies the spirit of the partnership.

The Council's Authorised Officer shall provide the overall client management element of the Contract and day-to-day administration in terms of instruction, variation and data collection.

2.1. Reporting and Performance Management

2.1.1. Record and Report Management

The Supplier shall provide and maintain the following records and reports (as amended in the Council's complete discretion from time-to-time):

- A detailed list and statistical data of fault/support calls logged.
- Response times for each call measured against SLA timeframe.
- Resolution times for each call measured against SLA timeframe.
- Reasons if applicable for SLA failure.
- The Supplier shall provide access to a real time performance reporting portal which shall be updated bi-weekly and able to be accessed by the Council.
- Inventories - Information for all hardware and software covered under the Contract with the Council; to include but not be limited to, model and serial number, location.
- Supplier Procedures - Instructions for the Council pertaining to fault reporting and escalation procedures.
- Training – User Guides for the Council's staff relating to the use of the implemented solution as appropriate and agreed with the client.

2.1.2. Performance Management

The Supplier shall attend Contract Management meetings at the Council's premises which will take place at regular intervals, but in any case at a minimum of monthly during the implementation phase (first three months) and quarterly thereafter. These frequencies are subject to change at Council's complete discretion.

2.1.3. Key Performance Indicators

The Supplier shall report data to evidence their performance against the Key Performance Indicators set out in Appendix 2. Reports must be submitted to the Council's Authorised Officer according to the schedule as set out in the "Reporting Frequency" column.

The Council will monitor the performance against and the relevance of, the Key Performance Indicators on an ongoing basis and agree with the Supplier any revisions of these in advance of the commencement of each contractual year.

2.1.4. Data Collection

Additionally, the Supplier shall provide data as requested by the Council's Authorised Officer which will evidence further performance of the Services. This data may not initially have a target figure, but may form part of the discussions and amendments to the list of Key Performance Indicators or otherwise.

2.2. Supplier's Quality Assurance

The Supplier shall maintain a robust quality management system that they will use for internal monitoring to ensure that Services are delivered in accordance with this Specification.

2.3. Social Value

As part of delivering the Services, the Supplier shall (where appropriate) implement a range of initiatives to achieve the following Social Value outcomes, including, but not limited to:

- Local employment, training and apprenticeships, creation of volunteer opportunities.
- Environmental sustainability – use of products, working practices and encouraging recycling.
- Commitment to Living Wage.

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3. Systems

The following systems are within scope for delivery of the Services:

3.1.1. E-Business Suite

Release	Usage
E-Business Suite 12.1.3	Production
E-Business Suite 12.1.3	Production Support (Pre-Production)
E-Business Suite 12.1.3	Non Production Test
E-Business Suite 12.1.3	Development
E-Business Suite 12.1.3	Production-DR

3.1.2. OBIEE

Release	Usage
12.1.0.2/11.1.1.7	Production
12.1.0.2/11.1.1.7	Development
12.1.0.2/11.1.1.7	Production-DR

3.1.3. System information

E-Business Suite Apps Release 12.1.3
DB Version 11.1.0.7

Usage	Services
Production	DB
Production	Web/Forms/Admin/CCR/Disco10g
Production	Web/Admin (DMZ)
Production Support (Pre-Production) and Development	DB
Production Support (Pre-Production) and Development	Web/Forms/Admin/CCR/Disco10g
Production Support (Pre-Production) and Development	Web/Admin (DMZ)
Non Production Test	DB
Business UAT	Web/Forms/Admin/CCR/Disco10g

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OBIEE Apps Release 12.1.0.2
DB Version 11.1.1.7

Usage	Services
Production and Test	DB
Production and Test	Middle Tier (MT), OBIEE 12.1.0.2, OHS, Informatica Power Centre and DAC Server
Production and Test	BI Client, Informatica Client, DAC client

- Estimated current Database size for each EBS 12.1.3 environment is 550GB with a growth estimate of 120G per year.
- Estimated current Database size for each OBIEE is 380G with a growth estimate of 60G in year one. There is a potential for the Council to develop OBIEE to manage and report beyond the usual EBS data so the size of the database shall be reviewed on an annual basis. Any growth in database capacity will be charged in accordance with the pricing schedule in [update with bidder response].

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4. Key Requirements and Objectives

4.1. Services Overview

- The Services are separated into three (3) main areas:
    1. DBA Support Services (including back-up and disaster recovery);
    2. Hosting Services; and
    3. Migration Services (of full EBA and OBIEE system from OMCS).

    Collectively referred to as 'Services' throughout this specification, or individually as required.
- The Migration Services will be fixed price in accordance with the pricing schedule set out in [update with bidder response] and should take no longer than the time specified in the ITT
- The Hosting Services must be located within the boundaries of the GB / EU region.
- The Supplier must perform the Services in accordance with the Service Level Agreement set out in [update with bidder response] of this Specification.
- The Supplier shall maintain and provide the Council with access to an online Service Request Management tool for the tracking reporting and communication of incidents. The Supplier must provide Live User Access Licences in order for the Council to access this tool.
- The Supplier must provide and ensure 24 hours a day 7 days a week Oracle EBS Service availability and operation.

- The Supplier shall provide DBA Support Services from 8am to 6pm GMT every working day of year with exceptional 24 hours a day 7 days a week support for Major Events.
    A major event is defined as an issue which stops the council performing essential activities
    Examples of this are:
    Complete loss of service, where the Council are unable to access the solution at all.
    Not being able to pay employee salaries to meet payroll deadlines

4.2. Non-Functional Requirements

As part of delivering the Services the Supplier must provide the following Non-Functional Requirements:

- Provide a Project Manager for the setup of the Hosting Solution and the migration of existing EBS system.
- Provide an Account Manager to manage the ongoing DBA support Services and Hosting Services.
- Notify the Council, as soon as practicable, about new technology and software, including, but not limited to any patches, software or firmware updates to ensure system optimisation and compatibility.

4.3. Functional Requirements

4.3.1. DBA Support Services

The Supplier must provide the following functional requirements for the DBA Support Services:

- DBA support services include services provided by the supplier to implement changes to environments through the through the installation and/or configuration of:
  - o   Oracle Programmes
  - o   Configurations, extensions, modifications, localisations, integrations (CEMLI's) of Oracle software
  - o   Third Party software
- Full DBA Support Services including: backups, monitoring and promotion of CEMLI components to production and test environments, as requested by the Council or the Council's nominated development partner.
- The DBA Support Services must be made available from 8am to 6pm GMT every working day of year with exceptional 24 hours a day X 7 days a week support for Major Events.
- Proactive DBA monitoring and alerting of the following areas, including, but not limited to:
  - o   Availability;
  - o   Performance; and
  - o   Capacity.

- Migrate and perform any change requests and related solutions based on the associated installation specifications.
- Provide mandatory and emergency patching support at the direction of the Council.
- Patches shall be applied to various instances as requested by the Council or the Council's nominated development partner, as soon as possible, but must follow the SLA detailed in section [update with bidder response] of this document.
- All patches must be approved by the Council before being installed in any environment.
- Monitor and maintain the Oracle E-Business Suite database and application servers for the production system, test and development systems.
- Monitor all scheduled backups and check these have completed successfully and report back to the Council.
- Monitor the space available and when required, increase or decrease as needed upon approval by the Council.
- Verify size/growth for table space thresholds on all Oracle Production and Test Database servers.
- Implement and deliver proactive counter steps to maintain Oracle E-Business Suite's health and implement changes as required by the Council.

- Proactively monitor Oracle Security Alerts and advise the Council accordingly.
- Ensure that each non-production environment is regularly refreshed, ensuring that no environment is more than three (3) months old. The Supplier shall maintain and follow an agreed annual refresh calendar set out in [update with bidder response] for all environments.
- Ensure that any cloned environment includes a sanity check for errors before releasing to end users.
- Perform planned preventative maintenance activities within normal office hours to reduce operational impact and to minimise costs.
- Update Service Requests with diagnostic tool outputs, running SQL scripts etc. as directed by Oracle or the Council's Authorised Representative.
- Apply any patches recommended by Oracle or other support provider authorised by the Council to resolve service requests.
- Monitor and capture the size of all databases & maintain growth graph of critical/large databases in the monthly service reports to be provided to the Council.
- Prepare and share monthly reports with the Council, the full content of the monthly reports shall be agreed by the parties upon commencement of the Contract.
- Maintain inventory of Oracle licenses.
- Proactively monitor Critical Patch Updates and advice on the application of these.
- Undertake regular Oracle EBS health checks as directed by the Council's Authorised Officer.
- Provide a web-based interface to enable Customer's management of the system printer queues. To include operational support for the web-based interface, use of the Tools features, and printer driver issues, configure and manage print driver settings serving the Oracle E-Business Suite Programs.

4.3.2. Backup and Restore

The Supplier shall provide system backup and restore Services in accordance with the below.

The following table identifies the frequency and types of backups, and the related retention periods.

Backup Type	Backup Requirements	
	Production	Non-Production
DB and 12.1.3, OBIEE Application Code Trees	Daily hot backups retained locally for 14 days Daily snapshot backups retained for 28 days	Daily hot backups retained locally for 7 days. Daily snapshot backups retained for 7 days
Archive Logs	Daily backups retained locally for one day and backup sets on disk for 14 days in a Fast Recovery Area (FRA). 28 Days Snapshots	Daily hot backups retained locally for one day
Operating System	Daily backups retained for 28 days	Daily backups retained for one day

- Backup 14 Days RMAN backup Retention on disk, with 28 days disk snapshots.
- Store backups for the production environments for a period of 28 days using Snapshots.
- Weekly Level 0 and daily Incremental 1 hot database backups, for Production and Non Production to disk with further snapshots taken.

4.3.3. Disaster Recovery

The Supplier must manage and deliver a detailed disaster recovery plan for EBS and OBIEE which must include:

- o Provision of one standby environment for each production environment (PTHURI and PTHUR3). Each standby environment will be functionally equivalent to the corresponding production environment.
- o 2 Availability Zones (Datacentres).
- o The percentage of production capacity during disaster should be 50%
- o Data Centres must be located in the GB / EU region
- o A Recovery Time Objective of 12 hours or less.
- o A Recovery Point Objective of 4 hours or less.
- o Allow services to failover Production to another Data Centre within availability zone, in the same region (i.e. GB / EU).
- o Production must be able to be failed over to another Availability Zone in the event of a Data Centre failure.
- o Availability Zones must be in distinct physical locations and have Low latency network connectivity between them inside the same region and be engineered to be insulated from failures from other Availability Zones.
- o Each Availability Zone must run on its own physically distinct, independent infrastructure and be engineered to be highly reliable; and have independent power, cooling, network and security.
- o Common points of failures like generators and cooling equipment must not be shared across Availability Zones. Additionally, they must be physically separate.
- o Annual Disaster Recovery must be undertaken and failover testing shall include two test events from the hosting site and one additional annual test with the Council's end users.

4.3.4. Hosting

The Supplier must provide Cloud Hosting Services for the Councils Oracle EBS and OBIEE systems in accordance with the below:

- The Hosting solution must provide a balance of computing, memory, and network resources, more than sufficient to run the Council's Oracle EBS systems efficiently, it shall also include support for enhanced networking.
- The infrastructure should be designed to accommodate a maximum of 450 concurrent users. Concurrent usage is the number of users simultaneously logged into the environment.
- The Supplier shall mange the infrastructure in such a way that it is capable of delivering and does deliver fully functional and operational service to all users at their place of consumption in accordance of the service levels set out in this agreement.
- The Council requires that its users are able to use the applications during the core hours and to facilitate this Supplier shall ensure that the infrastructure is fully functional and operational to support the Applications during the core hours. The Supplier shall ensure any routine maintenance and/or utility processes are conducted outside these core hours.
- The supplier shall provide and maintain an anti-virus solution on the whole infrastructure
- The Suppler shall provide and operate monitoring tools to monitor the infrastructure (including monitoring load on the infrastructure through CPU, memory, disk space and storage file system utilisation.
- The supplier shall provide notification to the customer via an agreed method to for every
    - Backup Failure
    - Physical security risk and /or breach
- Full machine specifications should be as per the Supplier's tender submission and must contain:
    - OS Version
    - CPU
    - Memory
    - Disk Volume (EBS) (optimisation to be included)
    - AMI type
    - Bit Version
- The number of nodes shall be like-for-like with the Council's current footprint:
    - 1 x Production 12.1.3, 1 x Production DR, 3 x Non Production 12.1.3
    - 1 x Production OBIEE, 1 x OBIEE Production DR, 1 x OBIEE Non Production
- The Supplier must provide the Council with:
    - DMZ access for Production and Test 12.1.3
    - Full administration access to all EBS development environments for named individuals as requested by the Council.

- o Full administration access to both production and test OBIEE databases
- o Site-to-Site VPN connectivity between the Council's Corporate Data Centre and the Hosting solution.
- o Secure access for Employee Self Service via a direct link accessible outside of the Council's network.
- o An encrypted IPSEC Tunnel to connect the Council's Corporate Network to the Cloud.
- o Continued uninterrupted access and operation of current SFTP processes and loading scripts.
- o 24 hours a day 7 days a week service availability and operation.
- o A review and report of current Oracle CPU licences to ensure sufficient for the new solution.
- The security of the hosting solution should be compliant the Government security classification of 'Official' as published in the Government security classification scheme effective from 2 April 2014.
- The supplier may access the Council's environment during the term of the contract to perform Computer and Administration services and if applicable Service options and supplemental services
- The supplier must supply a pre-configured VPN device to be installed on the Councils Internet circuit, and provide details of the standards and specification.

4.3.5. Migration

The Supplier must provide Migration Services in accordance with the Supplier's migration plan submitted during the tender process to off-board from OMCS and on-board onto the new Cloud solution.

The Supplier shall:

- Gather key facts about the current environments to set up new hosting solution ready for migration of existing EBS and OBIEE systems.
- Take inventory and review CEMLI Elements, to complete an impact assessment for the server migration, and identify changes to SFTP processes that may be required after the data centre move.
- Provide support for CEMLI defect or enhancement requests and patch impact analysis
- Review current SFTP processes to ensure continued uninterrupted access and operation of loading scripts, this review must include capability of handling multiple interface files.
- Provide details to the Council's Authorised Representative of any development freeze requirements (including relevant dates and timings) in the existing EBS system.
- Work collaboratively with the Council, Oracle and the Council's other nominated support providers to clone the existing environment to the new hosting solution.

In doing so the Supplier shall provide all things necessary (expressed or otherwise) for successful Migration Services, including, but not limited to:

- Advising and assisting the Council of all of the steps required to facilitate a successful migration.
- Managing the delivery of the USB media and staging in the hosting solution.
- Providing qualified personnel (Oracle DBA's) to assist with the decommissioning of Computer and Administration Services.
- Creating, maintaining and delivering Cloud infrastructure to meet the needs of the Council's Oracle solution as specified in the tender submission.
- Ensuring that all Oracle software is installed and pre-requisite Oracle O/S patches are applied for acceptance of Oracle software.
- Providing all necessary Oracle O/S accounts and interface file systems are created.
- Providing correct file system layout.
- Providing all Access Control Lists (ACL's), routing and security groups are created
- Running the clone from the USB database and application backup for the 12.1.3 Production environment.
- Installing Media for Business Intelligence and configure in the Cloud.
- Modifying the configuration files to include the new server name, SID name, path, etc.
- Providing the requisite non-production environments.
- Performing post clone activities on the new hosting solution.
- Testing the solution before release to the Council.
- Supporting the testing of the solution by the Council's end users.
- Delivering a full handover to the Council's ICT operational staff including training.
- Providing backup policies and lifecycle rules.

4.4. Project Implementation Stages

The Supplier shall undertake delivery of the Services according to the following implementation stages:

- Create new hosting environment.
- Migrate existing EBS systems to new host.
- Ensure all current SFTP processes still operate.
- Set up backup processes.
- Assist and advise in UAT of new solution post migration.
- Transition to a business as usual state.

4.5. Third-party Sub-contracting

Should the Supplier elect to utilise sub-contractors, this must be done in accordance with the Contract and will not be at the degradation of service responsiveness and performance, or performance against the Service Level Agreement. The Supplier will remain solely responsible for providing a single-point-of-contact for all support issues whether they are for software or hardware, supplied direct or via a third-party. The Supplier will be held responsible for all failures in performance or liabilities as a result of a third-party's actions or inactions in accordance with the Contract.

4.6. Service/Support and SLAs

4.6.1. Hours Required

The Supplier must ensure that the Council's Oracle system is available 24 hours a day, 7 days a week, 365 days of the year, with DBA Support Services from 08:00 to 18:00 Monday to Friday (excluding Public Holidays), with exceptional 24 hours a day 7 days a week support for Major Events. Planned Preventative Maintenance

The Supplier will monitor the Council's Oracle system to ensure consistent performance and make any adjustments required to ensure that the system is available and in a usable condition to ensure the Council can perform it essential business processes.

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4.6.2. Patch Application

The Supplier shall provide the following Periodic Maintenance/Patching Services:

Interval	Services
Ad Hoc	As requested
Weekly	Mandatory and emergency patching.
Monthly	Mandatory and emergency patching and content updates
Quarterly	Critical Patch Updates.
Bi-Annual	Technology Stack Updates. Applications patch sets that do not affect functionality. Assessment Recommendations, Recommended Patch Collections.
Annual	End of year Payroll and Roll Up Patches
Every 12 -18 Months	Minor Releases. Patch Set Updates Recommendations.

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4.6.3. Fault Response and Resolution Targets

Fault response time will commence when a call has been logged to the Supplier either by email, telephone, remote monitoring or portal.

The Supplier shall perform the Services in accordance with the following response and resolution times:

Each incident raised will be allocated an Impact (High, Medium or Low) and Urgency (High, Medium or Low). These priorities are agreed with the person raising the issue.

As a guide the definitions of the incident impact and urgency categories are:

Impact

Category	Description
High (H)	• A large number of users are affected and/or not able to do their job. • The financial impact of the Incident is (for example) likely to exceed £10,000. • The damage to the reputation of the Council is likely to be high
Medium (M)	• A moderate number of users are affected and/or not able to do their job properly. • The financial impact of the Incident is (for example) likely to exceed 1,000 but will not be more than £10,000. • The damage to the reputation of the Council is likely to be moderate.
Low (L)	• A minimal number of users are affected and/or able to deliver an acceptable service but this requires extra effort. • The financial impact of the Incident is (for example) likely to be less than £1,000. • The damage to the reputation of the Council is likely to be minimal.

Urgency

Category	Description
High	• The damage caused by the Incident increases rapidly. • Work that cannot be completed by staff is highly time sensitive. • A minor Incident can be prevented from becoming a major Incident by acting immediately. • Several essential users are affected.
Medium	• The damage caused by the Incident increases considerably over time. • A single essential users are affected
Low	• The damage caused by the Incident only marginally increases over time. • Work that cannot be completed by staff is not time sensitive.

The combination of Impact and Urgency defines the Priority as follows:

Impact	Urgency	Priority
High	High	1
High	Medium	2
Medium	High	2
Medium	Medium	3
Medium	Low	4
Low	Medium	4
Low	Low	5

The response and resolution times for incidents and patching are as follows:

Priority	Target Response Time	Target Resolution Time
1	15 Minutes	2 Hours
2	1 Hour	4 Hours
3	4 Hours	8 Hours
4	8 Hours	16 Hours
5	3 Days	5 Days

4.6.4. Oracle Availability to users

Oracle EBS and OBIEE shall be up for 24 hours a day, 7 days a week 365 days a year with a target of 99.5% uptime/availability.

4.6.5. Supplier Escalation Procedures

Suppliers shall provide the Services according to the escalation procedures as submitted in the Supplier's tender response.

4.6.6. Service Credits

Suppliers shall provide the Council with rebates and service credits in accordance with the Supplier's tender response.

4.7. Account Management

The Supplier shall provide a consistent and structured Account Management approach. The Supplier shall provide one Account Manager (and one deputy for contingency) as the sole point of contact for managing the Contract. The Supplier's Account Manager shall:

- Act as first point of contact for all enquiries and issues.
- Respond to sales enquiries and review support arrangements.

- Manage any potential future developments, variations or changes.
- Attend required meetings with the Council.

5. Service Charge Pricing

<mark>As submitted in the Supplier tender response</mark>.

Appendix 2 - Key Performance Indicators

Key Performance

Category	Detail	Performance Measure	Target	Reporting Frequency
Account Management Availability		No. of times Account Manager or line management cover has been unavailable/not responded within agreed timescale. If unavailable, the Account Manager shall respond to the Council within 1 hour of receiving a telephone call/email requesting assistance.	100%	Quarterly
Support	Resolution of services requests within agreed SLA criteria	Percentage of service requests resolved within SLA	97%	Monthly
Support	Average time from call incident being logged to resolution of fault.	Average time between the occurrence of an incident and its resolution	80% (subject to further discussion) i.e. Priority 1 is 4 hours, average resolution 3 hours 12 minutes.	Monthly
System Availability	Oracle EBS and OBIEE available and working for all users	Percentage of time the total service has been available.	99.5%	Monthly
Patching	Application of patches when required	All approved patches applied to environments for the Council ICT to test supported by Supplier	97%	Quarterly