**ICT Technical Requirements**

**Technical Architecture**

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| --- | --- | --- | --- |
| **No.** | **Requirement** |  | **Supplier Response**  **(Yes/No or Not applicable)** |
|  | The solution must be compatible with the Council’s technical environments. | Essential | Yes/No |
|  | The Supplier must provide specification of all hardware and software components required to run the system including how they interact with each other. | Essential | Yes/No |
|  | The specification will include provision for production, testing (including regression testing) and training in line with The Council’s requirements (the Council’s training requirements are included in section 10 of the output specification). | Essential | Yes/No |
|  | The specification shall contain a diagram or diagrams providing an overview of the proposed solution and its components. | Essential | Yes/No |
|  | The solution shall be able to interoperate with Council’s technical environments without adversely affecting the operation of those environments. | Essential | Yes/No |
|  | Solution is up to date, sustainable and manageable with a clear roadmap | Essential | Yes/No |
|  | The system's user interface can be deployed as a web based application | Desirable | Yes/No |
|  | The system can be provisioned as a Software Service ( SaaS or Cloud) if LGSS wished to provide it as an offering to any of its partners or customers | Desirable | Yes/No |
|  | The system integrates with existing corporate technology stack at an authentication, data and presentation layer:  SQL Server  SQL Server Integration Services  MS Reporting Services  SharePoint  BizTalk (System has BizTalk adapter)  ASP.Net | Desirable | Yes/No |
|  | The system provides an open API (conforming to open standards) to facilitate integration with other business systems.  Open interface could be a connector, adaptor or integration service. Please provide full details of APIs for the system and confirm these are free from additional charge. | Desirable | Yes/No |
|  | The system uses open protocols for software interoperability | Desirable | Yes/No |
|  | The system uses open data and document formats | Desirable | Yes/No |
|  | Solution should be configurable to be fully resilient. This includes both server and session resilience. The expected outcome is a solution tolerant across more than one data centre. Should a primary data centre go offline users should be seamlessly moved over to a backup data centre, without user disruption, no loss of data, no restarting a process and no requirement to log back in again. | Desirable | Yes/No |
|  | All addresses or references to addresses held should include/use the UPRN. | Essential | Yes/No |

**Security**

|  |  |  |  |
| --- | --- | --- | --- |
|  | The solution must be Public Services Network (PSN) compliant and the supplier undertakes to make any required changes to ensure that the solution remains compliant with PSN Code of Connection. | Essential | Yes/No |
|  | The solution is able to interoperate with other council systems in a manner which is compliant with the PSN Code of Connection. | Essential | Yes/No |
|  | The supplier must ensure that full audit trails are available throughout the system in order for users to establish the origin of data items and events. | Essential | Yes/No |
|  | User access must be appropriate, secure and strictly controlled. | Essential | Yes/No |
|  | Any access to the system from outside of the Councils Network must be secure. | Essential | Yes/No |
|  | The supplier must ensure that the system is built with a secure development standard and ensures development best practices.  Explain how you ensure this; refer to any methodologies used. | Essential | Yes/No |
|  | Any passwords stored by the solution shall be stored in a manner that prevents them from being read, disclosed or otherwise compromised. | Essential | Yes/No |
|  | Where the solution implements its own internal authentication, it shall be able to lock out a user after a configurable number of unsuccessful login attempts. | Desirable | Yes/No |
|  | The Supplier shall supply full information regarding authentication mechanisms used in the Solution and any integration with Active Directory.(Authentication against Active Directory) | Desirable | Yes/No |
|  | Where Active Directory is used, the system must be multi-domain aware, that is able to authenticate users from other domains accessing the system. | Essential | Yes/No |
|  | Where the user has already been authenticated by the Council’s network, the solution shall support single sign on based on the user’s existing authentication. | Desirable | Yes/No |
|  | The solution shall achieve equivalent strength & configurability of security as that provided by Windows Active Directory, including control over attributes such as minimum password length, password composition and complexity, and frequency of password changes. | Essential | Yes/No |
|  | The Solution shall provide an efficient mechanism for administering access rights for large batches of users, such as the use of nested Active Directory user groups. | Desirable | Yes/No |
|  | The Solution shall support certificate based authentication, for example via integration with the Windows security model. | Desirable | Yes/No |
|  | The solution can support two factor authentication | Desirable | Yes/No |
|  | The solution can integrate with EnTrust Identity Guard to deliver two factor authentication | Desirable | Yes/No |
|  | Any open API provided as part of the system conforms to standards based security model authentication and authorisations | Desirable | Yes/No |

**Client**

|  |  |  |  |
| --- | --- | --- | --- |
|  | The system's user interface can be deployed as a web based application without the need for additional client software | Desirable | Yes/No |
|  | Web-based applications are compatible with the following web browsers:   * Internet Explorer (8) * Internet Explorer (9)   and all future versions. | Essential | Yes/No |
|  | Web-based applications are compatible with current and future versions of:   * Firefox * Chrome * Safari * Opera   List all supported browsers and versions:  Answer: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | Desirable | Yes/No |
|  | Web-based applications are compatible with the browsers as specified above without the need for additional plug-ins (e.g. Java). State all plugins:  Answer: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | Desirable | Yes/No |
|  | Any additional client software must be able to packaged and deployed using Microsoft Application Virtualization (App-V) | Essential | Yes/No |
|  | Any additional client software can must be either an MSI package or have the ability to be packaged with Flexora Admin Studio | Essential | Yes/No |
|  | Any additional client software can be deployed as a VMWare ThinApp package | Essential | Yes/No |
|  | Any additional client software can be deployed silently with zero touch | Desirable | Yes/No |
|  | Any specialist client hardware/devices required for the system must be fully specified and approved and any associated costs detailed. | Essential | Yes/No |
|  | The system must be fully compatible with Microsoft Office 2003, Microsoft Office 2007, Microsoft Office 2010, at least Adobe Reader 9 and the Open Document Format (ODF) standard | Essential | Yes/No |
|  | The system must be compatible with Windows XP, Windows Vista, Windows 7 and Windows 8.1. | Essential | Yes/No |
|  | The system must be compatible with Thin Client environments including Citrix XenApp and Microsoft Remote Desktop Services | Essential | Yes/No |
|  | The system must be compatible XenAPP published desktops on Wyse THINOS devices (zero Client environments) | Essential | Yes/No |
|  | Long running tasks should be able to be run in the background whilst allowing the user to perform other tasks on the client. | Desirable | Yes/No |
|  | The supplier shall state any intensive or long running tasks that may impact performance of the client. | Essential | Yes/No |
|  | If intensive or long running tasks are required as part of a solution, and a server-based option is available to perform these, then this option will be stated by the supplier. | Essential | Yes/No |

**Server**

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| --- | --- | --- | --- |
|  | The Supplier must state the server requirements for an internally hosted system. Where the server requirements meet The Council’s standards, IT Services will supply and support the servers. Servers outside The Council’s standards will only be accepted where need can be shown and they must be sourced and supported externally. | Essential | Yes/No |
|  | The system must be compatible with Dell and HP hardware | Essential | Yes/No |
|  | The Supplier must state any additional specialist hardware requirements. These will be sourced and supported externally. | Essential | Yes/No |
|  | The Supplier must specify any server software requirements e.g. additions to the base operating system, operating system version requirements or operating system configuration requirements.  Answer: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | Essential | Yes/No |
|  | The software should be compatible with VMware vSphere virtualisation platform | Essential | Yes/No |
|  | The software should be compatible with Windows Server (x64) | Desirable | Yes/No |
|  | The software should be capable of running from a Storage Area Network (SAN). | Desirable | Yes/No |
|  | The Supplier must specify any operating system service accounts or special accounts required to run the system. | Essential | Yes/No |
|  | All server based components can operate as automatic server services without requiring the server console to be logged on or specific manual start up /login procedures to be followed? | Desirable | Yes/No |
|  | Multiple instances of the application e.g. production, UAT etc running same version of the application can co-exist on the same server?  E.G. Load Balancing | Desirable | Yes/No |
|  | The application can be scaled in a way that provides for resilience and redundancy? | Desirable | Yes/No |

**Database**

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| --- | --- | --- | --- |
|  | The Supplier shall state what database software and version they propose for the system including service pack level. | Essential | Yes/No |
|  | The Supplier shall state clearly what disk capacity is required to support the estimated initial and full size database. | Essential | Yes/No |
|  | The Supplier shall quantify the performance required from the database system, and what would be unacceptable performance. | Essential | Yes/No |
|  | Where the solution uses a relational database to store its data, the solution shall allow the use of Microsoft SQL Server 2008 or above | Desirable | Yes/No |
|  | Where the solution uses a relational database to store its data, the database shall be able to be queried and administered by the Council. | Desirable | Yes/No |
|  | The database can be hosted in a virtual machine environment | Desirable | Yes/No |
|  | The database can be co-hosted with other databases e.g. on a cluster | Desirable | Yes/No |
|  | The application and database layers can be installed separately | Desirable | Yes/No |
|  | Application owners, users & external support will NOT require access to any Fixed Server Roles on the database server | Desirable | Yes/No |
|  | The database is compatible with NetApp SnapManager for SQL Server | Desirable | Yes/No |
|  | State proposed database Recovery model and approach to backup and restore.  Answer: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | Desirable | Yes/No |

**Geographic Information Systems (GIS)**

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| --- | --- | --- | --- |
|  | The system must be able to integrate with the Council’s current GIS software/data formats, MapInfo. All forms of MapInfo data (flat file, commercial database, open source database) must be usable. | Essential | Yes/No |
|  | Users must be able to link all records (including, if appropriate, photographs with the location from which they were taken) to GIS data using polygons, lines or points. | Essential | Yes/No |
|  | Users must be able to request a display of the geographical location of a record. | Essential | Yes/No |
|  | Users must be able to search/locate/select records geographically (eg with an existing polygon feature, or within a generated/drawn polygon for that purpose) | Essential | Yes/No |
|  | Users must be able to use and/or extract data geographically relating to surrounding or linked records. | Essential | Yes/No |
|  | If Address lookup is required then this must be accessed via a web service. | Essential | Yes/No |
|  | Users should be able to use address data to create mailing lists for properties selected using polygons or buffers around database entities | Desirable | Yes/No |
|  | Users should be able to import and export data (geography and attributes) from and to any of the following formats: MapInfo .tab file; ESRI .shp file or spatial database format (incl PostGIS). | Desirable | Yes/No |
|  | Users should be able to access and create/update metadata for all individual data sets. Metadata is “data about data”; the critical requirement is to hold provenance information so that ownership, currency and accuracy information for datasets is available. This will then allow users of the datasets to evaluate the use of the data as to whether it is fit for purpose.  Scope is any and all geographic datasets used or created by the system.  If creating metadata, an appropriate standard is Gemini see: <http://www.agi.org.uk/uk-gemini/> | Desirable | Yes/No |

**Network**

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| --- | --- | --- | --- |
|  | IP (v4) networking must be used. | Essential | Yes/No |
|  | The Supplier shall supply precise details of all network traffic required for partnership working to enable the configuration of firewall and router controls if the solution requires it. | Essential | Yes/No |
|  | The Supplier shall specify any essential network requirements e.g. high bandwidth between particular servers or proximity requirements as these may incur additional costs to support. | Essential | Yes/No |
|  | The Supplier shall specify any network protocols are to be used e.g. DNS, DHCP, TCP, TFTP, HTTP, HTTPS, UDP etc. | Essential | Yes/No |
|  | The Supplier shall detail security protocols used to protect network traffic in transit through the system | Essential | Yes/No |

**Installation/Implementation**

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| --- | --- | --- | --- |
|  | The Supplier shall ensure that the personnel assigned to The Contract accept and sign up to the Terms & Conditions for Connection to The Council’s IT network in advance of contract commencement. | Essential | Yes/No |
|  | The Supplier shall be able to demonstrate a suitable Project and Change management experience according to a recognised methodology | Essential | Yes/No |
|  | The supplier must provide an estimate of the amount and type of resources required from The Council to implement the system, including hardware. | Essential | Yes/No |
|  | A project plan shall be provided for the development stage to include   * Any resource needed to be supplied by The Supplier or Council (e.g. Legal or IT Service, support during User Acceptance Testing) * Any configuration work The Council will need to undertake prior to or following commissioning (e.g. setting up standard codes, users or security groups) | Essential | Yes/No |

**Licensing and Technical Support**

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| --- | --- | --- | --- |
|  | The system should be available to be purchased with a concurrent licensing model. | Desirable | Yes/No |
|  | The Supplier must demonstrate a commitment to make changes necessary to the functionality of the system which are brought about by changes in legislation and statutory requirements in a timely manner. | Essential | Yes/No |
|  | The Supplier must provide The Council with the opportunity to upgrade to new versions of the software within the licensing agreement | Essential | Yes/No |
|  | Data within the system can be extracted and shared under the Open Government License (The system should not introduce additional licensing implications onto data within it) | Desirable | Yes/No |
|  | The Supplier must provide full documentation on the system for both users and support staff. | Essential | Yes/No |
|  | The support service must include telephone support and support desk availability | Essential | Yes/No |
|  | Any support service provided by The Supplier must be IT Infrastructure Library (ITIL v3+) or similar compliant. | Essential | Yes/No |
|  | The Supplier must detail any remote support requirements they have for supporting their system. Access to the system will be via the Internet and a controlled portal into The Council’s network using two-factor authentication. | Essential | Yes/No |
|  | The Supplier should provide a mechanism for making customers aware of future developments to the system (Roadmap) | Desirable | Yes/No |
|  | The supplier should provide a mechanism for customers’ suggestions to be considered in the future development of the system. | Desirable | Yes/No |
|  | The Supplier shall ensure that product version releases are accompanied by a draft project plan which includes resource for the implementation; likely levels of disruption for live processing and regression testing; and consultation with the Council. | Essential | Yes/No |
|  | The Supplier shall ensure that Product Version Releases are accompanied with any options available should The Council not accept updates to The Product- including the length of support available to prior versions. | Essential | Yes/No |
|  | The system should be compatible, or be able to be made compatible, with all future versions of the above mentioned systems. | Desirable | Yes/No |
|  | The Supplier undertakes to ensure that the solution is forward compatible server and client operating systems service packs and security updates, releasing patches as necessary to allow the software to continue to function | Desirable | Yes/No |
|  | The solution shall be able to be operationally managed by staff with current skills in Microsoft Windows technologies.  Microsoft development skills (.NET; Web Services, SQL Server, IIS) | Essential | Yes/No |

**Maintenance, Performance and availability**

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| --- | --- | --- | --- |
|  | The Supplier shall specify the number of users that can access the system concurrently without degrading performance | Essential | Yes/No |
| 1. 4 | The Live system must not be impacted by non-production activity (such as testing or training) | Essential | Yes/No |
|  | The Supplier shall ensure that on-line real time updating or transferring of information shall not significantly degrade response times and impact on other users | Essential | Yes/No |
|  | The Supplier shall ensure that all back-up of the system must be able to take place while the system remains available to users | Desirable | Yes/No |
|  | The solution is compatible with HP Data Protector and other major back up vendors. State any known compatibility issues.  Answer: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | Desirable | Yes/No |
|  | Updating and maintenance of the system should be able to take place while the system remains available to users | Desirable | Yes/No |
|  | The Supplier shall detail load balancing, scale out configurations for higher performance/availability | Desirable | Yes/No |
|  | The technical architecture specified is sufficient to deliver the service levels required in the output specification. | Essential | Yes/No |
|  | Explicitly state any performance requirements for the hosting environment and any known performance bottlenecks.  Answer: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | Essential | Yes/No |
|  | The solution can be load balanced using Riverbed Stingray traffic managers | Desirable | Yes/No |
|  | The solution can be load balanced using Citrix Netscaler | Desirable | Yes/No |

**Requirements for Externally hosted systems/components**

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| --- | --- | --- | --- |
| **No.** | **Requirement** |  | **Supplier Response** |
| EXT1. | The Council requires the ability to audit the complete system and related processes provided by the Supplier and any Sub-Suppliers. | Essential | Yes/No \* |
| EXT2. | The hosted system (including but not limited to operating system, database, and software) shall be kept up-to-date with security patches as recommended by their appropriate suppliers. | Essential | Yes/No |
| EXT4. | The hosted service must be located within the EU. Where will the service be hosted?  Answer: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | Essential | Yes/No |
| EXT5. | Suppliers must be able to provide and demonstrate appropriate contingency planning and data backup provision, along with data archiving facilities available within the system. | Essential | Yes/No |
| EXT6. | Both physical and software security should meet the requirements of ISO27001 | Desirable | Yes/No/Partial |
| EXT7. | The supplier’s organisation and service should be independently audited and assured.  Provide details of how this is achieved. | Desirable | Yes/No/Partial |
| EXT8. | Any user administration carried out by the Supplier must be appropriately authorised and carried out within agreed timelines. | Essential | Yes/No |
| EXT9. | Appropriate back-up and restore and disaster recovery procedures must be in place to ensure system availability of at least 98% | Essential | Yes/No |
| EXT10. | Our data must be separated from other data sets hosted by the same company.  Illustrate how this is achieved. | Essential | Yes/No |
| EXT11. | The Council shall require (where appropriate) all staff employed in the delivery of services to be subject to criminal record checks and to comply with any security arrangements which may be issued from time to time.  The Council requires the ability to audit this process including viewing the relevant HR data. | Essential | Yes/No |
| EXT12. | The Council shall have the right, at its absolute discretion,  1) to require any Supplier to remove, or permanently exclude, any persons from its premises  and/or  2) to require any Supplier to remove access rights to the system from any persons  and will observe its obligations under the Data Protection Act which prohibits disclosure of details that might inform any such decision. | Essential | Yes/No |
| EXT13. | Staff who leave the Supplier establishment shall have their access to systems/data removed immediately.  Explain how this is achieved. | Essential | Yes/No |
| EXT14. | The system must be capable of retaining, enabling access to, and removing historical data in accordance with our retention period requirements. | Essential | Yes/No |
| EXT15. | The Supplier must be registered under and adhere to the Data Protection Act 1988 | Essential | Yes/No |
| EXT16. | The Supplier must provide appropriate training for staff in data protection and information security.  Briefly describe your training provision. | Essential | Yes/No |
| EXT17. | The Supplier must have a documented system in place for recording and investigating security breaches (losses of data, inadvertent release to unauthorised personnel, accidents) and a process to ensure lessons are learnt from any incident. The Council must be allowed to view that process and amend it if required.  The Council must be immediately notified of any breaches of information security. | Essential | Yes/No |
| EXT18. | The Supplier shall ensure that all data input previously is retained i.e. data is not lost due to system failure or any other reason. | Essential | Yes/No |
| EXT19. | An adequate data export process is required to return all data to the Council in a format which enables it to be moved to an alternative supplier if required.  This process must be auditable and appropriately secured. | Essential | Yes/No |
| EXT20. | Any confidential information supplied or held as part of the contract must be kept secure, in hard copy and electronically and securely destroyed when no longer required. | Essential | Yes/No |
| EXT21. | All data held under this contract must be destroyed when no longer required. |  |  |
| EXT22. | Provide your organisation’s DPA registration number:  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | Information required | Yes/No |
| EXT23. | Have you had any data protection or information security breaches in the last 3 years?  Provide details where applicable. | Information required | Yes/No |

*Note to bidders– You may adjust the size of the following text boxes to suit your response.*

# **QUALITY – Method Statements**

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| --- | --- | --- |
| Technical requirements | | |
| Method Statement # | Relevant requirement #s | With reference to the Technical Architecture section, describe the end to end architecture of your proposed solution including a solution architecture diagram. |
| **Suppliers Response:**  *(1,500 words max)* | | |
| Method Statement # | Relevant requirement #s | Provide reference sites for existing deployments that are identical or similar to your proposed solution architecture.  Explicitly state any variations between your proposed solution architecture and the references provided. |
| **Suppliers Response:**  *(500 words max)* | | |
| Method Statement # | Relevant requirement #s | Describe your strategy for managing new releases and upgrades. |
| **Suppliers Response:**  *(500 words max)* | | |