

**Children's Services  
Management Information Systems  
Tender Process**

**Externally Hosted Early Help Management  
Information Systems:**

**Early Years & Childcare  
and  
Children's Centres with Early Help Case  
Management**

**Reference 1039**

**Document 1  
Service Specification**

**August 2015**

# ROYAL GREENWICH CHILDREN'S SERVICES

## Early Years & Early Help Information Systems

### Service Specification

#### I. INTRODUCTION

- 1.1 The Royal Borough of Greenwich (RBG) is seeking an organisation to deliver externally hosted solutions to replace a number of current Early Help management information systems. Namely:
- *Early Years and Childcare* - the childcare information system which supplies information to professionals, provides the data required to support the Ofsted application and regulatory processes; this system also supports the training offer
  - *Children's Centres with Early Help Case Management* - children's centres client management information system which holds registration information and service take-up information and other case management recording systems.
- 1.2 Additionally, the current childcare information system need to be expanded to support the early learning funding and auditing processes and the children's centre client management system to be expanded to support case management as well as build upon the current, basic functions.

#### 2. CONTEXT

- 2.1 The Royal Borough of Greenwich is a great place to grow up. We want every child, living in a great borough in a great capital city, to be able to take full advantage of the opportunities available. Some children will need more support and, for them, every day matters and every action counts.
- 2.2 The Greenwich Children and Young People's Plan 2014-17<sup>1</sup> sets out our ambitions for children and young people and is built around three priorities:
- Resilience
  - Prevention
  - Protection
- 2.3 Royal Greenwich is well known for its naval and architectural heritage as well as being the home of Greenwich Mean Time. The borough boasts the longest riverfront in London and in 2014 was host to the Tall Ships Regatta. We are proud of becoming a Royal Borough and LGC Council of the Year in 2013, and we think the 2012 Olympics and Paralympic games helped show the world what Greenwich has to offer.

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<sup>1</sup> [http://www.royalgreenwich.gov.uk/downloads/file/624/children\\_and\\_young\\_people\\_plan\\_2014\\_to\\_2017](http://www.royalgreenwich.gov.uk/downloads/file/624/children_and_young_people_plan_2014_to_2017)

- 2.4 Our profile of children and young people is our local strategic needs assessment and can be accessed here: <http://edition.pagesuite-professional.co.uk/launch.aspx?pbid=fc749135-cd09-4e7a-97e1-b036eed74a28>

## 2.5 **Early Help and Early Years in Royal Greenwich**

In terms of areas of work, the Early Help division in Royal Greenwich, is responsible for:

- 2.5.1 Providing an information and outreach service to families in Royal Greenwich about a diverse range of issues concerning families.
- 2.5.2 Providing a childcare brokerage service to suit diverse requirements of all types of families in Royal Greenwich.
- 2.5.3 Recruitment, training and support of childcare providers in Greenwich
- 2.5.4 Monitoring and managing the funding of early learning places for 2, 3 and 4 year olds
- 2.5.5 Monitoring, funding and managing the funding of childcare placements for specifically targeted groups.
- 2.5.6 Monitoring and implementing policies and practice in the provision, effectiveness, take-up and quality of these services
- 2.5.7 Providing quality improvement through support and challenge to children's centre contractors.
- 2.5.8 Providing data / systems leadership and training to children's centre contractors
- 2.5.9 Providing early help family support and guidance to those families who do not meet the threshold for social care assessment/ intervention as well as those who no longer require intensive support.
- 2.5.10 Overseeing the contract management of the children's centre contracts.
- 2.5.11 Ensuring all children's centre groups receive a good or outstanding Ofsted Inspection outcome.

## **3. SERVICE AIMS**

### **3.1 The Early Years and Childcare system will be used to support:**

- 3.1.1 Meeting the Early Years Outcomes Duty specifically:

- the quality and inclusiveness of provision for under-fives.
- workforce development, including leadership and management.
- flexible and extended free early learning entitlement for two, three and four year old provision.

#### 3.1.2 The Childcare Sufficiency Duty specifically:

- improving assessment and securing sufficiency.
- planning for Childcare sufficiency.
- promoting take-up of formal childcare including out of school care.

#### 3.1.3 Information for Parents and Providers specifically:

- childcare and early learning provision.
- outreach and information sharing.
- childcare brokerage.

#### 3.1.4 Integrated working of professionals by providing information on local and national services and activities for children, young people, parents and carers.

#### 3.1.5 Provision of the Disabled Children and Young People Register (DCYPR).

#### 3.1.6 Provision of the “Local Offer” as specified in the Special Educational Needs and Disability (SEND) Code of Practice.

### 3.2 **The Childrens Centre and Early Help case management system will be used to support:**

#### 3.2.1 Delivery of the core offer specifically:

- monitoring take up of the range of services to support school readiness, parenting, health, learning and development and skills for employment for parents
- showing the availability of services which reflect local needs and feedback from parents
- take up of services by pregnant women, children and their parents / carers

#### 3.2.2 Recording of direct work with families

#### 3.2.3 Case supervision and management oversight

#### 3.2.4 Reporting to support reviews and inspections, specifically:

- providing information on take up of services by geographical areas, service type, age range, ethnicity, etc
- sustained engagement in services and impact of engagement

#### 4. STRUCTURE OF THE TENDER

- 4.1. Royal Greenwich is letting two contracts for these externally hosted management information systems.
- Lot 1 - Early Years and Childcare Information System
  - Lot 2 - Children's Centre's with Early Help Case Management Information system
- 4.2. The contract period is for three years with the option to extend for a further period of up to two years, extended on an annual basis dependent on performance.
- 4.3. The bid will be assessed against the following evaluation criteria:

<b>Evaluation criteria</b>	<b>Weighting</b>
Application Specification	45%
Service Delivery – including implementation	35%
Contract Service Level Agreement	10%
Value for Money	5%
Workforce	5%
<b>Total</b>	<b>100%</b>

- 4.4. We are inviting bids from the market. RBG has not set out a budget for this process
- 4.5. Suppliers are invited to bid for one or more of these contracts. Where organisations are bidding for more than one contract they will need to evidence value for money savings that will be achieved through consequent management efficiencies.

#### 5. PROJECT MANAGEMENT AND SUPPORT DURING IMPLEMENTATION

The supplier will:

- 5.1 Provide a detailed project management plan (using an appropriate project management methodology) for delivery of the project to achieve a go live date of 1st April 2016. The plan should fully outline provider and RBG responsibilities.
- 5.2 Make sure business continuity of related functions during implementation of the new system by working with the incumbent supplier to ensure a smooth transition, i.e. there is no disruption of service.
- 5.3 Work with the incumbent provider to make sure the 'go live' of the new system on 1st April 2016.

- 5.4 Provide on-site/remote support during installation and testing of live and test versions of the database.
- 5.5 Provide initial user training (including administration of the system for identified individuals) and manuals within the contract price. Training to be completed by 31<sup>st</sup> March 2016.
- 5.6 Provide specialised training for the information and performance manager and operational managers regarding reporting and validating within the contract price. Training to be completed by 31<sup>st</sup> March 2016
- 5.7 Provide tools and support for the data cleansing, transfer and mapping processes during the transfer of data to the new system.
- 5.8 Allow a period for user testing before 'go-live' to ensure that the product is fit for purpose. To be completed by 26<sup>th</sup> February 2016
- 5.9 Provide on-site/remote support during installation and testing of live and test versions of the system.
- 5.10 Appoint a supplier representative who will liaise with Royal Greenwich's nominated contact for all issues during implementation and life of the contract

## 6 SERVICE OUTPUTS AND OUTCOMES

The detailed application specification follows in the next section. However the outputs and outcomes are summarised below and will be used as a basis for service monitoring.

Output areas	Outcome
Data quality and sharing	<ul style="list-style-type: none"> <li>• A shared dataset</li> <li>• Reduced data entry</li> <li>• Improved information quality</li> <li>• Up to date and accurate tracking of children and young people (and parents where applicable)</li> </ul>
Access to the database, system security and service continuity	<ul style="list-style-type: none"> <li>• Secure access for authorised staff</li> <li>• Secure access for childcare and early learning providers</li> <li>• Robust and compliant data protection</li> <li>• Legal obligations fulfilled</li> <li>• Service support within timeframe.</li> </ul>
Data Protection and Statutory reporting from the database	<ul style="list-style-type: none"> <li>• Legal obligations fulfilled</li> <li>• Central and local government has reliable evidence base</li> </ul>
Provision of standard management information (MI) reports	<ul style="list-style-type: none"> <li>• Informed decision making</li> </ul>

Application training	<ul style="list-style-type: none"> <li>• Proficient use of required functionality for staff</li> <li>• High user satisfaction and adoption</li> <li>• Improved data quality</li> <li>• Faster data entry</li> <li>• Improved efficiency</li> </ul>
Application configuration	<ul style="list-style-type: none"> <li>• Improved data validation</li> <li>• Appropriate record keeping</li> <li>• Improved information sharing</li> <li>• Compliance with local and national information standards</li> <li>• Linkage as necessary with other management information systems</li> </ul>
System management, maintenance and development	<ul style="list-style-type: none"> <li>• Customisable system</li> <li>• Appropriate and timely upgrade releases</li> <li>• Reliable system availability</li> <li>• High speed performance</li> </ul>
Service levels	<ul style="list-style-type: none"> <li>• Consistent, predictable and timely support</li> </ul>
Service continuity	<ul style="list-style-type: none"> <li>• Reliable system availability</li> </ul>

## 7 APPLICATION SPECIFICATION

### 7.1 Lot 1 – Early Years and Childcare Information System

Common functionality required in core and service areas:

- Document storage to include Microsoft Office, PDF and image formats.
- Flexible reporting tools to output in Microsoft Office and CSV format.
- Correspondence mail merge and recording of all communications
- Link to GIS mapping tool to provide maps and graphical display of search results.
- Ability to edit look up table values.
- Email prompts to support validation of information supplied

#### 7.1.1 Core Database

The central database will provide:

- Management of child and young person, parent, service provider, address and other information common to all modules.
- Comprehensive data management tools to support data checking, update and transfer, including data feeds from Ofsted and other organisations, creation of statutory returns including the Childcare Sufficiency Assessment and Early Years Census, and provide a data feed to the Royal Greenwich Preventions Directory.
- User administration including usage and the ability to restrict access to individual records.
- Record audit trail.

### **7.1.2 Childcare Provider Information**

The statutory requirement is to collect information on all past, current and proposed Ofsted registered childcare providers within Royal Greenwich, including:

- Status of provision (active, proposed, resigned, cancelled, inactive and suspended)
- Registration details (Ofsted grade and date of inspection)
- Qualifications and training needs for current and potential providers
- Professional network membership
- Registered places, vacancies, cost information and services provided (including school pickup locations).

Providers should be able to access and update their information online.

### **7.1.3 Enquiry Management**

Royal Greenwich handles enquiries on subjects including early years provision, free early learning, family support, childcare brokerage and school admissions. The system will:

- Record details of:
  - the enquirer (including person type).
  - the nature and reason for enquiry.
  - method of contact.
  - child/children requiring the services, any additional needs and dates required.
  - where they heard of the service.
  - information provided and referrals to other services as a result of the enquiry and whether their requirements were met and provide for free text entry.
- Generate evaluation forms for service feedback including take up of services.
- Produce management reports including:
  - location/demographics and profiles of callers.
  - types and outcomes of enquiries.
  - Childcare Sufficiency data.

### **7.1.4 Disabled Children and Young People's Register (DCYPR)**

This will manage the statutory requirement to record information on children and young people aged 0-25 including:

- The child or young person's information including their disabilities/additional needs.
- Guardian contact details.



- Consent to hold details under the Data Protection Act.

Where records are marked as deceased, these should be excluded from reports.

### **7.1.5 Early Learning Funding Management**

To manage funding of the free early learning entitlement, the system will:

- Collect data from settings (including schools), via a web form, including:
  - personal details for children attending the provision, including special needs and free meal entitlement (pupil premium).
  - start date at setting.
  - funded, additional funded and total hours at setting, attendance pattern and whether lunch is provided.
  - class type (nursery or reception) for school settings.
  - details of leavers with last attendance date.

This data will be collected termly but settings should be able to submit additional returns for children starting at other times during the term.

- Be able to record where child attends more than one setting and apply different rates, including hourly rate (dependent on age) and lunch payment (dependent on free meal entitlement).
- Provide address and date of birth validation for two, three and four year olds and tools to highlight where total hours claimed exceeds entitlement or attendance.
- Produce financial reports for each setting.
- Create statutory returns including the Early Years Census.
- Provide an online facility for service users to check eligibility and for those eligible, issue a voucher.
- Provide collated information on eligibility checks carried out.
- Produce a data feed and matching facility into the enquiry management tool for 2 year old place take up.

### **7.1.6 Training**

To support the work of Early Help and the development of traded services, this will manage:

- Course providers' details.
- Course arrangements including dates, venues, class sizes, alterations and cancellations.
- Applications, including candidates' details and training record.
- Waiting lists.
- All correspondence (letters and electronic).
- Finances (income and expenditure).
- Online facility to complete course evaluation.

- Reporting on range and number of courses, level of interest and take-up, course income and expenditure, evaluation from participants.
- Promotion of opportunities.

## **7.2 Lot 2 - Children's Centres and Early Help Case Management Information System**

Common functionality required in core and service areas:

- Document storage to include Microsoft Office, PDF and image formats.
- Flexible reporting tools to output in Microsoft Office format.
- Correspondence mail merge and recording of all communications
- Link to GIS mapping tool to provide maps and graphical display of search results.
- Ability to edit look up table values.
- Email prompts to support validation of information supplied

### **7.2.1 Core Database**

The central database will provide:

- Management of child and young person, parent, service providers, address and other information common to both modules.
- Comprehensive data management tools to support data checking, flexible reporting, contract reports and management oversight.
- Document storage facility.
- Calendar function.
- Booking system with email / text prompt capacity.
- User administration including usage and the ability to restrict access to individual records and manage levels of access.
- Record audit trail.

### **7.2.2 Children's Centre service user information**

Families will be registered with children's centre services. Their record will include:

- Personal information relating to babies, children and their adults (including pregnant women).
- Contact information.
- Take up of services.
- Tracking information to demonstrate impact of services.

The system will need to:

- Produce management reports by children's centre reach areas, target groups and any other feature of the client group / service provider as required. Examples of required reports may be viewed here <https://www.gov.uk/government/publications/the-framework-for-childrens-centre-inspection-from-april-2013>

- Generate evaluation forms for service feedback including take up of services.

Children's centres should be able to access all of the information relating to families within their reach area even if taking up services outside of it.

### **7.2.3 Case Management**

Children's Centres and the Early Help division carry out direct work with families to support parenting. The system will:

- Record details of:
  - the family and other relevant people
  - referral reasons / route
  - details of other professionals involved
  - chronology
  - risk assessments
  - observations and contacts
  - supervision
  - work plans
  - evaluation and impact/outcome information
  - all work carried out and contacts made with the family

The system should send prompts to managers / supervisors if a file has not been worked on for any given period and flag up if case management / supervision is due / overdue.

## **8. STANDARD REQUIREMENTS FOR IT DATA SYSTEMS PURCHASE**

### **8.1. General**

The Council's IT Department supports over 3,500 concurrent staff. The Authority sees IT as a strategic asset, underpinning the provision of a wide variety of services to its constituents, whilst driving down the cost of IT support.

### **8.2. Existing Infrastructure**

- 8.2.1 The network topology is star based and has a mixture of connections depending on the location and size of the site. The council utilises a mixture of firewall technologies to isolate internet (unsecure) traffic from the corporate (secure) traffic.
- 8.2.2 The corporate network has a single Microsoft Windows 2008 R2 Domain using Microsoft Active Directory Services.
- 8.2.3 For public facing applications, a Demilitarised Zone (DMZ) is provided where servers are isolated for security purposes. Each server that has contact with the

general public will need to be locked down and secured in this area to minimise the risk of unauthorised access.

### **8.3. Server Hardware**

- 8.3.1 All physical servers should be installed with dual power for resilience and redundancy.
- 8.3.2 All physical servers should be installed with multiple (minimum of 2) Network Interface Cards (NICs) for resilience. Where NICs are teamed, these should be set in an active/passive manner.
- 8.3.3 All physical servers should be procured with iDrac/iLO licensing (or equivalent).
- 8.3.4 Where host-based physical disks are required, the following RAID configuration should be adopted
  - RAID 1 for OS partition
  - RAID 5 for Data partitions

### **8.4. Application/Web Servers**

- 8.4.1 The Authority is actively consolidating its server hardware to improve the utilisation of the hardware resources; it would therefore be beneficial if the solution's application and web servers work in such an environment. The Authority has chosen VMware as its consolidation tool and has implemented a VMware ESX infrastructure to accommodate this process.
- 8.4.2 Where virtualisation technology cannot be used (e.g. physical connectivity or server isolation is required), the Authority will need to review the hardware specification and individual software requirements before proceeding with any necessary work. The hardware requirements for this server should be in-line with those defined in section 8.3.

### **8.5. Operating System**

- 8.5.1 A strategic decision has been taken to ensure that all new systems must run on Intel hardware and run under the Microsoft Windows Server 2008 R2 operating system and their service packs and releases. . We are currently moving to Microsoft Windows Server 2012 R2, the supplier must declare a commitment to continued support of the solution on the current and future versions, including maintenance releases, of the selected operating system.
- 8.5.2 Currently the PC client population is Windows 7 Enterprise (x64) SPI with Internet Explorer 8, with a project reviewing the option to upgrade to IE11.
- 8.5.3 Any solution must be capable of being deployed utilising this technology.

- 8.5.4 Where there is no solution that meets the above requirements, the Council will review each tender response on an individual basis alongside the user requirements.

## **8.6. Relational Data Base Management Systems (RDBMS)**

- 8.6.1 The Authority has consolidated its RDBMS to Microsoft SQL Server. The current preferred version is Microsoft SQL Server 2012. Where the proposed solution requires a RDBMS, this option must be used. The Authority is reviewing the use of a clustered SQL service in the future. Proposed solutions must be cluster aware and capable of sharing an instance with other databases.
- 8.6.2 The supplier must declare a commitment to continued support of the solution on the current and future versions, including maintenance releases, of the selected RDBMS.
- 8.6.3 Where there is no solution that meets the above requirements, the Council will review each tender response on an individual basis alongside the user requirements.

## **8.7. System Support**

- 8.7.1 The Council encourages suppliers to remotely support their system to deliver high quality support to the user. Suppliers must agree and comply with the Council's security policies so it can maintain its ISO 27001 accreditation status and PSN Code of Connection requirements and utilise compatible tools for day-to-day support.
- 8.7.2 The standard used by the Council for remote access by outside suppliers is via VPN. This remote access is for support issues only and must not be used for installation of the solution nor subsequent upgrades to the production (live) system environment. All installations to production (live) system environments must be performed on site by the supplier to ensure that resources are at hand to resolve any issues immediately. Access is granted exclusively to the server which the supplier is responsible for.

## **8.8. eGIF Compliance**

The system must comply with the Electronic Government Interoperability Framework, (eGIF). The eGIF will evolve over time and there must be a commitment from the supplier to evolve their product in line with this.

## **8.9. Integration**

- 8.9.1 The Council's strategy for integration is in line with eGIF and centres on the use of XML and primarily XML web services accessed via Simple Object Access Protocol

(SOAP).

- 8.9.2 Suppliers must provide full details of the XML and XML web service integration functionality that their product supports. Where this functionality is not yet supported, suppliers must provide full details of other available options for integration along with their future plans with regards to supporting integration through XML and XML web services. The details provided must include fully documented reference information on how the integration functionality works, what functions are available and how they might be accessed using technologies such as Microsoft.Net and Java.
- 8.9.3 All integration options provided must be fully supported by the supplier and any software upgrades/patches applied must not compromise the use of the integration functionality.
- 8.9.4 As part of the proposal, suppliers must provide full details of the license cost for using the integration functionality.

#### **8.10. Web Browser Interface**

- 8.10.1 The Council prefers to deliver the user interface to all of its data systems via a web browser ideally based upon a thin, HTML based client interface as opposed to the use of Java Applet technology.
- 8.10.2 To reduce network bandwidth usage, the Council prefers to limit each web page to 40 Kbytes. The system would need to take this on board and potentially use paging techniques where information exceeds this 40Kb level. There must be an ability to change the look and feel of any web browser interface to fit in with the Council's standards – this being achieved via the use of Cascading Style Sheets.
- 8.10.3 All data in transit must be encrypted using, as a minimum, TLS 1.2.
- 8.10.4 The application should not cache any data or pages served up to the client.
- 8.10.5 Any cookies used should be per session only and not reside on the disk cache

#### **8.11. Portals**

The Council will look to use portal technology to offer staff views on information held in its various systems as well as provide 'cut down' functionality. The aforementioned XML web service technology will be used to develop these views of information in order to support day-to-day business processes.

## **8.12. Mobile Working**

- 8.12.1 The Council needs to provide systems to allow its services to be provided as efficiently as possible. Many such services will benefit from the use of systems in the field utilising laptops, tablets and smartphone devices.
- 8.12.2 A key concern regarding this way of working is the security of data both held on the devices and when it is transmitted to and from the device. The Council encrypts the data held on all of its mobile devices and any system must be capable of operating within these restrictions.
- 8.12.3 Systems that offer such facilities via smartphone devices should operate under BlackBerry, iOS, Android or Windows 8.
- 8.12.4 The application should be available to Royal Greenwich devices only.

## **8.13. NLPG/Addressing Standards**

- 8.13.1 BS7666 is the British Standard for the representation of address information, in particular with reference to gazetteers. Any application must hold addresses in a form compliant with the current BS7666.
- 8.13.2 The standard provides the basis for the definitive, local address list that provides unique identification of properties and land parcels: the Local Land & Property Gazetteer (LLPG) which feeds the National Land & Property Gazetteer (NLPG), administered by GeoPlace, a joint venture by the Ordnance Survey and Local Government Association. Systems using address data must store the Local Land & Property Gazetteer (LLPG), Unique Property Reference Number (UPRN), address and status in BS7666 format.
- 8.13.3 Systems based on or using address data must also be able to interface with the Local Land & Property Gazetteer (LLPG) to receive property additions, changes and deletions, using one of the supported methods (XML/XSL), NLPG Data Transfer Format (DTF) or Simple Object Access Protocol (SOAP).

## **8.14. Single Sign-On**

- 8.14.1 The solution should offer a single sign-on facility that integrates with the Authority's existing Active Directory Domain to remove the need for the user to sign into the system. Where this is not possible, the user's email address should be used as a universal log in credential.
- 8.14.2 Under no circumstances will Royal Greenwich logon credentials be passed to the vendor for the purpose of authentication of users.

### **8.15. Hosted Solution/Service**

- 8.15.1 Where vendors are proposing an externally hosted solution (wholly or part), the following requirements must be met.
- 8.15.2 The hosting of the Council's solutions and its data is extremely important. The provider must host their solution within the European Economic Area and preferably within the UK. This includes any failover or disaster recovery data centres.
- 8.15.3 The provisions underpinning the availability, resilience, security and performance of the system is a crucial consideration that must be reviewed as part of the tender process. As this is the case, the vendor must provide details of
- Information Security Plan
  - Business Continuity Plan.
  - Disaster Recovery Plan.
  - Change management procedures.
  - Any accreditation associated with the hosting service/infrastructure, e.g. ISO27001, Cyber Essentials, PCI-DSS, IG Toolkit etc.
  - The latest security threat/Pen Test report relating to the proposed hosting data centre.
  - Confirmation of how the supplier would return the Council's data at the end of the contract term, i.e. the format and medium to be used.
  - Service Level Agreement. This document must detail the
    - Service desk/support opening hours.
    - Service level delivery options (e.g. remote access, telephone, web).
    - Availability (up-time) targets for the solution.
    - Solution performance targets.
    - Response/fix targets when incidents/problems arise.
    - Customer care escalation process.
    - Dispute resolution process.
    - Compensation arrangements when availability targets not met.
- 8.15.4 Royal Greenwich's Hosted Service and Data Centre Questionnaire should be completed. (Document 4 in the Tender Pack).
- 8.15.5 The hosted solution shall not be on a shared instance.

## **9. DATA PROTECTION**

- 9.1 The solution must adhere to the 8 guiding principles of the Data Protection Act, particularly principles 7 and 8:



- 9.2 Principle 7 states: Appropriate technical and organizational measures shall be taken against unauthorised or unlawful processing of personal data and against accidental loss or destruction of, of damage to, personal data.
- 9.3 Principle 8 states: Personal data shall not be transferred to a country or territory outside the EEA unless that country or territory ensures an adequate level of protection of the rights and freedoms of data subjects in relation to the processing of personal data.
- 9.4 A data sharing agreement shall be put in place between Royal Greenwich and the 3<sup>rd</sup> party supplier.

## **10. CLOUD SECURITY**

- 10.1 Cloud hosting services should demonstrate how they follow CESG's 14 Cloud Principles:

- Principle 1: Data in transit protection
- Principle 2: Asset protection and resilience
- Principle 3: Separation between consumers
- Principle 4: Governance framework
- Principle 5: Operational security
- Principle 6: Personnel security
- Principle 7: Secure development
- Principle 8: Supply chain security
- Principle 9: Secure consumer management
- Principle 10: Identity and authentication
- Principle 11: External interface protection
- Principle 12: Secure service administration
- Principle 13: Audit information provision to consumers
- Principle 14: Secure use of the service by the consumer

## **11. CONNECTIVITY**

- 11.1 Connectivity between the hosted application and RBG network shall ensure data is sufficiently secured in transit commensurate with the data classified at OFFICIAL and OFFICIAL-SENSITIVE.
- 11.2 Standards used to secure data in transit shall be in line with RBG's Cryptography policy and CESG guidelines.
- 11.3 Where data traverses untrusted networks the following will be required:
- Leased line with end to end encryption
  - VPN
  - IPsec
  - TLS (minimum 1.2)