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| **CUSTOMER:** The Home Office for Digital Services at the Border Programme  **CUSTOMER LOCATION**: 8 - 10 Great George St, Westminster, London SW1P 3AE and possible other London Locations.  **PHASE:** Discovery  START DATE: 15/06/2015 TIMEFRAME: 6 months | |
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# CURRENT SITUATION / BACKGROUND INFORMATION

Digital Services at the Border (DSAB) is an agile programme within the Border Systems Portfolio that is building functionality to transform the way the Home Office manages Borders into the United Kingdom. It is currently in Discovery Phase and requires three developers to join an agile, multi-disciplinary and highly skilled digital team to deliver a specific product as part of the first Alpha.

# CURRENT TECHNOLOGIES AND LANGUAGES

The following software development skills are mandatory for the role:

* Java (7 and 8)
* RESTful API Development
* Test Driven Development (TDD) and specifically Spock, Geb & Cucumber

The following software development skills will be advantageous for the role:

* Microservices
* Enterprise Integration Patterns
* Groovy/Grails
* Spring Boot
* JAXRS/Jersey
* Mobile UI
* Apache Camel
* Hadoop
* HBase

Additionally exposure to the following techniques, tools and platforms will be advantageous:

* “Clean Code”
* Linux (Centos, Ubuntu)
* IntelliJ
* JIRA
* Confluence

# CURRENT ROLES AND RESPONSIBILITIES OF THE CUSTOMER

DSAB are operating a mixed team of contractors and civil servants to establish the key building blocks required to deliver the Digital Services at the Border programme.

# REQUIRED OUTCOMES

* Develop a solution in partnership with product owners, delivery managers, technical architects, designers and user researchers.
* Develop solutions that meet the Digital by Default Service Standard.
* Develop a solution that can meet Home Office Security Accreditation requirements in the Security Policy Framework and its supporting documentation.
* Apply agile best practice such as Continuous Integration.
* Develop comprehensive and automated tests suites to demonstrate functional requirements.
* Develop comprehensive and automated tests suites to demonstrate non-functional requirements such as availability, resilience and security.
* Provide hands-on technical expertise, in the development, operation and ongoing improvement of complex, transformational digital services.
* Develop high-quality software as part of a cross functional team.
* Work with delivery teams and partners to break technical requirements down into appropriate pieces, and to identify key API requirements for integration with internal and external systems.
* Assist with building a culture of continuous delivery and improvement, ensuring that key systems are regularly analysed, maintained and improved.

# CAPABILITIES AND ROLES

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| **CAPABILITY** | **CUSTOMER’S REQUIRED OUTCOME** |
| **Capability: Software Engineering and On-going Support**  **Role : Developer x3** | **Outcome 1:**  Lead the rapid development of user-driven prototypes to identify technical options and inform architectural approaches, working with colleagues and supplier team members to write tests, code and documentation for new and existing systems.  **Outcome 2:**  Build and prove a new orchestration service that integrates a front end user interface with back end data services.  **Outcome 3:**  Transfer expertise and knowledge. Strong contribution to growing an agile delivery capability within DSAB.  **Must Have:**   * 2+ years of agile delivery experience. * Previous experience on complex integration projects involving legacy systems. * Evidence of the mandatory software development skills listed. * Immediate availability. * CTC (all candidates will require SC clearance ASAP).   **Preferred:**   * Be well versed in digital agile tools (Atlassian tools preferred – Confluence and Jira). * Experience in a large-scale agile environment. * Evidence of the other software development skills listed. * Experience of creating applications on cloud (IaaS) platforms. * Experience in packaging code sets and products for automated deployment & repository storage using products such as Docker. * At least one previous project included complex legacy technical and operational aspects. * SC cleared. |

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| PRICING MODEL | Time and Materials (T&M) |
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| TEST & DEVELOPMENT REQUIREMENTSHOW TO RESPOND TO THIS REQUIREMENT **EVALUATION** SOFTWARE TEST | N/A Please submit the following:  CVs.  Cover sheets, including pricing, availability and clearance level:   * - the level of clearance held (CTC or SC) * - when the clearance  was issued * - which body currently holds the clearance * - whether the clearance has been used to work within a government department within the previous 12 months. * - where individuals do not currently hold SC clearance, confirmation of the ability and willingness to apply for SC level clearance   Please note that candidates that are deemed to have suitable experience and are available within the Customer’s stipulated timeframes, will be asked to complete a short software test.  Please note that successful candidates will also be invited to present to the Customer (8-10 Great George St, London SW1P 3AE). The Agenda for the presentation is shown below.  This will be emailed to candidates to complete remotely.  The test will be based around a mock scenario that requires a short Groovy/Java program to be written.  Further details will be provided following sift selection. |

# INTERVIEW FORMAT

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| Time | Agenda |
| Introduction | |
| 5 mins | Customer Introduction  * Programme context |
| Presentation / pair programming | |
| 10 mins | Candidate presentation on the logic that they applied to the code produced for the software test. |
| 10 mins | Based on the scenario from the software test, the candidate will be asked to perform paired programming to implement a minor change request to the code. |
| Questions | |
| 5 mins | 1. Candidates will be asked questions relating to Java programming. |
| 5 mins | 2. Candidates will be asked questions relating to RESTful API development. |
| 5 mins | 3. Candidates will be asked questions relating to Test Driven Development (TDD) development. |
| 5 mins | 4. Candidates will be asked to describe any experience evidenced from their CV that relate to the desirable skills defined for this role. |
| 5 mins | 5. Candidates will be asked to provide an example from their CV where they have worked on a complex integration project. |
| 5 mins | Questions from the candidate:  * Next steps. * Logistics – availability, planned leave, etc. |