



Terms of Reference for

Maintenance, support and enhancement of the Certification and Verification Systems (CVS) and Apprentice Certification System

1. Purpose

The purpose of these Terms of Reference is to appoint a suitably qualified service provider to provide maintenance, support and enhancement services of the custom-built Certification and Verification Systems (CVS) and Apprentice Certification System at the Quality Council for Trades and Occupations (QCTO) offices in Hatfield, Pretoria.

The objective of the Request for Quotation is to ensure that the QCTO has ongoing system development expertise for its CVS and Apprentice System to fulfil its mandated responsibility of issuing certificates for qualifying learners on the OQSF (Occupational Qualifications Sub Framework) as well as providing verification services for those who wish to authenticate the certificates issued. Furthermore, a key deliverable of the project will also be skills transfer to QCTO's internal software developers.

2. Objectives

The objectives of this project are to:

- i. Resolve system bugs and issues as reported by end users
- ii. Scope enhancement requests with end users
- iii. Develop and test enhancements
- iv. Automated deployment and ensure version control management
- v. Update of required Business Requirements Specification.

3. Background and Current Infrastructure

3.1 Application Background

The Certification and Verification System (CVS) and the Apprentice Certification System are business-critical applications used by QCTO to support certification, verification, and related operational processes.

Both applications were developed using C# and ASP.NET with Razor Pages and follow a similar technical architecture. They rely extensively on Microsoft SQL Server stored procedures to execute key business rules, data processing operations, and other critical system functions.

The applications are currently hosted on Microsoft Azure Windows Virtual Machines (VMs), with the application and database environments supporting their day-to-day operations.

4. Scope of Work

The appointed service provider shall provide maintenance, support, enhancement, deployment improvement and technical knowledge transfer services for the Certification and Verification System (CVS) and the Apprentice Certification System.

The scope covers the existing C# .NET ASP Razor Pages applications, associated SQL Server stored procedures, Azure Windows Virtual Machine hosting environment, manual deployment process, source code management and related documentation.

The scope shall include:

- i. Assess the existing CVS and Apprentice Certification System application codebase, database stored procedures, deployment approach and hosting environment.
- ii. Provide ongoing corrective maintenance, including investigation, diagnosis and resolution of system defects reported by QCTO users.
- iii. Analyse, scope, develop and implement approved system enhancement requests in consultation with QCTO business and ICT stakeholders.
- iv. Review and improve relevant C# .NET ASP Razor Pages application components and SQL Server stored procedures where required to support system stability, maintainability and operational efficiency.
- v. Establish proper source code management using GitHub or an approved source code repository, including repository setup, code check-in, branching approach and version control practices.
- vi. Improve the deployment process by recommending and implementing a controlled deployment approach that supports version tracking, release management and rollback where applicable.
- vii. Update the required technical documentation, including deployment notes, system configuration details, database change notes and relevant Business Requirements Specification updates.
- viii. Provide skills transfer to QCTO internal software developers on the application structure, codebase, stored procedures, deployment process and source control practices.
- ix. Provide regular progress reporting to QCTO on support activities, defects resolved, enhancements developed, risks, issues and recommendations.

5. Deliverables

- i. Assessment report on the existing CVS and Apprentice Certification System applications, including application code structure, stored procedures, deployment approach, hosting environment and key improvement areas.
- ii. Defect register and resolution reports for bugs and system issues logged by QCTO users.
- iii. Approved enhancement specifications, including scoped requirements, technical approach and implementation plan for each enhancement request.
- iv. Developed, tested and implemented system enhancements for the CVS and Apprentice Certification System as approved by QCTO.
- v. Updated and optimised C# .NET ASP Razor Pages application components and SQL Server stored procedures where required.
- vi. GitHub or approved source code repository configured with the latest application source code, branching approach and version control practices.
- vii. Controlled deployment process documentation, including deployment steps, release notes, version tracking and rollback guidance where applicable.

- viii. Testing evidence and sign-off documentation, including unit testing, system testing and user acceptance testing support records.
- ix. Updated Business Requirements Specification, technical documentation, database change notes and system configuration documentation.
- x. Skills transfer sessions delivered to QCTO internal software developers, including attendance records, training material and handover notes.
- xi. Monthly progress reports covering work completed, issues resolved, enhancements delivered, risks, dependencies and recommendations.
- xii. Final close-out report summarising all work completed, outstanding items, lessons learnt and recommendations for future system maintenance.

6. Evaluation Criteria

6.1.

Evaluation Criterion	Description / Requirements	Points
1. Project Methodology and Survey Approach	Detailed project plan outlining the survey methodology, tools to be used, reporting approach, and project timelines.	15 Points maximum 15 Points: Comprehensive, Project Methodology and Survey Approach. 8 Points: Moderate methodology with some gaps. 0 Points: Incomplete or unclear plan.
2. References from similar projects	Reference letters for comparable projects or similar work done on a previous client's letterhead, signed and dated with contact email and telephone number and a brief description of the work done and the client's level of satisfaction.	20 Points maximum 3 or more references = 20 points 1-2 references = 10 points No reference = 0 points
3. System Developer 1	The proposed senior resource must have a minimum of seven (7) years' experience in C# .NET, ASP.NET Razor Pages, SQL Server and stored procedure development. The resource must have senior-level experience in application maintenance, enhancements, troubleshooting, deployment support and technical guidance. Experience in the higher education, post-school education and training, certification, learner records or regulatory environment will be an added advantage and will form part of the scoring.	40 Points maximum 40 Points: Seven (7) or more years' experience in the required technologies, including senior-level maintenance and enhancement experience, plus at least three (3) years' experience in the higher education, post-school education and training,

Evaluation Criterion	Description / Requirements	Points
	The bidder must submit the resource's CV and supporting evidence of relevant experience.	certification, learner records or regulatory environment, supported by a CV and evidence. 25 Points: Seven (7) or more years' experience in the required technologies and senior-level maintenance and enhancement experience, but no higher education or related-sector experience supported by evidence. 20 Points: Five (5) to six (6) years' experience in the required technologies, with higher education or related-sector experience supported by evidence. 10 Points: Five (5) to six (6) years' experience in the required technologies, with no higher education or related-sector experience supported by evidence. 0 Points: Less than five (5) years' relevant experience or no supporting evidence provided.
4. System Developer 2	The proposed junior or intermediate resource must have a minimum of three (3) years' practical experience maintaining, enhancing and supporting enterprise web-based systems developed using C# .NET, ASP.NET Razor Pages and SQL Server. The resource should have exposure to source code version control, deployment support, troubleshooting, testing and technical documentation.	25 Points maximum 25 Points: Five (5) or more years' practical experience in C# .NET, ASP.NET Razor Pages and SQL Server web-based systems, including version control, deployment support,

Evaluation Criterion	Description / Requirements	Points
	The bidder must submit the resource CV and supporting evidence of relevant experience.	troubleshooting, testing and documentation, supported by a CV and evidence. 18 Points: Three (3) to four (4) years' practical experience in the required technologies, with supporting evidence covering at least four of the listed support areas. 10 Points: Two (2) years' practical experience in the required technologies, with supporting evidence covering at least two of the listed support areas. 5 Points: One (1) year practical experience in web-based system support or development, with limited supporting evidence. 0 Points: No relevant experience or no supporting evidence provided.

To qualify, a bidder must score **80/100** or above across the four criteria.

7. COMPULSORY INFORMATION SESSION

7.1 The QCTO has one site situated in Hatfield, Pretoria.

7.2 It is important to note that site inspection and evaluation of the existing infrastructure is compulsory before sending through your quotation.

8. ENQUIRIES

8.1 For further information, please contact the following QCTO staff members:

Technical enquiries can be directed to:

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