

Success Story

Developing an IT Platform For Assessment, Rating, And Certification For DRDO/QCI



Customer

Quality Council of India (QCI)

Country

India

Industry

Public Sector

About The Client

The Quality Council of India(QCI) is an autonomous organization established with the backing of the Government of India and industry associations. Its primary objective is to institute a framework for impartial third-party evaluation of goods, services, and procedures. QCI assumes a crucial role on a national scale by promoting the acceptance and observance of quality benchmarks across various vital domains such as education, healthcare, environmental conservation, governance, social sectors, infrastructure, and other organized endeavors that greatly impact the enhancement of the quality of life and welfare of Indian citizens.

Technology Stack

React	PostgreSQL
React Native	Laravel

Business Situation

In its efforts to ensure quality across different sectors, QCI partnered with the Defence Research Development Organisation (DRDO) to maintain high standards in defense-related R&D projects. This collaboration aimed to set a thorough certification process for vendors providing materials and services to DRDO in order to evaluate its' material quality, standards, employment practices, and more.

However, the prevailing certification process faced significant challenges. Firstly, it was manual, leading to long waiting times, often taking several months from application to certification issuance. This delay not only slowed down the procurement of necessary goods and services but also added administrative burdens for vendors and certification authorities.

Secondly, relying on retired defense personnel to conduct physical audits caused logistical issues, especially in remote areas. Assessors often had to travel long distances, resulting in increased costs and time constraints. Additionally, the lack of real-time visibility into ongoing assessments made it difficult to monitor progress and address issues promptly, delaying decision-making.

Moreover, manual data capture and documentation were prone to errors and inconsistencies. Assessors relied on handwritten notes and paper forms, increasing the risk of data loss or inaccuracies.

Recognizing these challenges, QCI sought a technology-driven solution to streamline their audit process, aiming to automate procedures, reduce manual effort, and enhance efficiency.

To meet these goals, QCI partnered with Daffodil, a technology company known for its expertise in digital platform development. Collaborative efforts between Daffodil Software and QCI resulted in outlining a comprehensive set of requirements, including:

To meet these goals, QCI was on the lookout for a technology partner with expertise in digital platform development. After carefully evaluating various options in the market, Daffodil Software was meritoriously selected due to its proven track record, adaptable approach, and expertise in key areas such as business process automation and custom vendor management solutions.

- ✔ Planning and outlining the entire development process of the IT platform for assessment, rating, and certification.
- ✔ Developing a web and mobile application to automate the audit and certification process, improving transparency and flexibility.
- ✔ Implementing mobile app-based assessments aligned with DRDO standards.
- ✔ Incorporating role-based access control for administrators, assessors, and vendors to protect sensitive data.
- ✔ Creating an intuitive interface to ensure a smooth experience for all users.
- ✔ Integrating security features to meet industry regulations and standards, with the ability to generate reports for regulatory purposes.

The Solution

To kickstart our project, our team of business analysts began by understanding the needs of all stakeholders involved. Following this initial step, our software architects crafted the platform's architecture, ensuring scalability, performance, and security were crucial considerations throughout the development process.

Given the stringent requirements of QCI's audit and certification procedures, Daffodil carefully selected technologies that would best suit their needs. This included utilizing technologies such as ReactJS for the user interface, Node.JS for the backend operations, and PostgreSQL for efficient data management.

To ensure a smooth and efficient audit process, we tailored workflows to suit the specific requirements of the client. These workflows were designed to guide users through each stage of the audit process systematically.

The application was designed to accommodate various user roles, including Main Admin, Admin, Assessor, and Client login.

Our solution for streamlining QCI and DRDO's certification process was developed with a focus on addressing the challenges discussed during our consultations. Leveraging our expertise in software development, we designed a comprehensive strategy to modernize and simplify the certification process for defense producers (vendors).

Some of the key features of the vendor management system were:

A crucial aspect of our solution was ensuring seamless functionality even in offline environments. We implemented a feature that allowed assessors to conduct assessments without internet access. Once back online, all data automatically synced up.

To ensure security and clarity, we implemented distinct access levels. Administrators from both QCI and DRDO were granted specific privileges for managing assessments, reviewing certifications, and configuring assessment criteria. Assessors were provided with dedicated logins to conduct assessments, while vendors could track the status of their certification applications.

Automation played a pivotal role in expediting the certification process. Once an assessment was completed and approved by the reviewing committee, certifications were instantly generated and issued to vendors via email. This automated process eliminated the need for manual certificate printing and courier services, further reducing processing time and enhancing operational efficiency.

Real-time monitoring was essential for maintaining visibility into the assessment process. Administrators could access the platform at any time to monitor the progress of assessments and address any potential issues swiftly.

Additionally, we incorporated multimedia capture capabilities into the platform. This feature allowed assessors to capture evidence, such as photos and videos, during assessments, enhancing transparency and providing a comprehensive record of the process.

The Impact

The partnership between Daffodil Software and the QCI has led to huge improvements in streamlining the certification process for vendors. By working together and employing innovative technology solutions, we have successfully overcome various challenges and introduced a more efficient, transparent, and accountable system.

Through our joint efforts and expertise, we've successfully overcome various challenges to introduce a more efficient, transparent, and accountable system. The implementation of the integrated IT platform has resulted in tangible benefits, notably in cutting down the time it takes to issue certifications from months to just 3 weeks. As we continue to collaborate and innovate, our commitment remains to drive positive change and deliver solutions that empower organizations to thrive in today's dynamic environment.

Services Used

UI/UX Services

Software Consulting

Software Product Engineering

Have a software product vision in mind?

Setup a personalized consultation with our technology expert.

Let's Talk