Analysis Report

Originating and Developing Concepts

Created by

**UPTOWN IT**

For

**TQLD Lawyers**

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**YOUR STUDENT NUMBER: 467513560**

**PROJECT REFERENCE: TQLD Lawyers Migration**

**DATE:**

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# Part 1 Solution to a Problem

### 1.1 Evaluate project scenario

**Client:**

TQLD Lawyers is a law firm based in Brisbane City, Queensland, operating from a three-story office. Historically, the firm has relied on a paper-based system to safeguard sensitive legal documents. They are now looking to switch to a digital system while ensuring the same level of security.

**Target Audience:**

* Internal Users: The firm’s 23 employees include 15 lawyers, 5 administrative clerks, and 3 receptionists. They need secure access to a local network for databases, shared files, printers, and projectors.
* External Users (Clients): Clients will use a new dynamic website to manage their own information, with features to add, delete, and update their data securely.
* Visitors: Clients visiting the office need secure guest Wi-Fi that is separate from the firm's internal network.

**Issues Presented:**

1. Transition from Paper to Digital: TQLD Lawyers needs to replace its paper-based system with a secure digital solution that offers improved efficiency and accessibility without compromising security.
2. Local Server Setup: The firm plans to convert its archive room into a server room for managing client data and supporting office functions. These servers must be secure, efficient, and accessible to employees.
3. Dynamic Website Development: The current static website needs to be upgraded to a dynamic platform allowing clients to interact with their data securely, with access limited to relevant information only.
4. Desktop Application and Admin Portal: Employees require a desktop application for office use and an admin portal for remote access, both of which need to connect securely to the database. The admin portal should include extra security measures like multi-factor authentication.
5. Security Concerns: Protecting sensitive legal data is paramount. The solution must guard against:
   * + Unauthorized access, especially isolating client data
     + SQL injections
     + Cross-site scripting attacks
     + Brute force attacks
     + Other potential cyber threats
6. Guest Wi-Fi Network: A guest Wi-Fi network must be set up for office visitors, ensuring it does not compromise the internal network or access sensitive information.
7. Compliance with Regulations: The new system must adhere to Queensland and Australian laws, including privacy regulations, copyright laws, and ethical standards, due to the sensitive nature of the firm’s work.

### 1.2 Brainstorm 5 innovative concepts

A paper with writing on it

Description automatically generated

* Blockchain storage systems
* Network Segregation
* Cloud Storage
* Role Based access controls
* Self service portal with End to End encryption

### 1.3 Identify and assess constraints or restrictions

* Legal Compliance: Must adhere to Queensland laws, including privacy legislation, data protection, and copyright laws.
* Budget: The firm might have a limited budget for transitioning from paper to digital systems.
* Server Space: Limited space in the archive room for running servers, may need ventilation and power upgrade.
* User Training: Ensuring staff are trained on the new system to reduce errors and security risks.

### 1.4 Document group feedback

1. Hybrid Cloud and On-Premises Infrastructure:

This concept balances the need for local control over sensitive data while leveraging the cloud's scalability and flexibility. It provides a practical solution for both security and accessibility.

1. Role-based Access Control (RBAC):

RBAC is crucial for ensuring data security within the firm. It restricts access based on job roles, ensuring that only authorized personnel can access sensitive information. This aligns with the firm’s security requirements while allowing efficient workflows.

### 1.5 Assess the viability of implementing 2 of your concepts

**Concept One:** Hybrid Cloud and On-Premises Infrastructure

Commercial Potential:

* + Financial Worth: The hybrid cloud model allows cost efficiency by utilizing the cloud for non-critical resources while keeping critical data secure on-site. It reduces the need for expensive hardware upgrades. Costs might rise if cloud usage expands, or if there are high initial setup fees for on-premises hardware and cloud integration.

Suitability of the Target Users/Business:

* + Fit for TQLD Lawyers: This solution is suitable for TQLD Lawyers as it balances security with accessibility, allowing sensitive data to remain on-site while still offering the flexibility of the cloud for less sensitive tasks. It fits the firm’s need for strong data protection while providing scalability for future growth.

Feasibility of Implementing the Solution:

* + Realism & Practicality: Hybrid solutions are practical for businesses that prioritize security and need scalability. The main challenge is ensuring proper configuration and integration of both cloud and on-premises resources. Costs for ongoing maintenance and managing the hybrid environment could pose challenges but are manageable with a clear strategy.
  + Benefits: Provides scalability, security, and flexibility. However, potential roadblocks include technical complexities during integration and the need for skilled IT staff to manage both infrastructures.

**Concept Two:** Role-Based Access Control (RBAC)

Commercial Potential:

* Financial Worth: RBAC is cost-effective, focusing on improving internal security without requiring substantial financial investment in hardware or software. Potential expenses might involve initial setup and training. Its value increases with the need to mitigate risks of data breaches, though it might not offer immediate ROI.

Suitability of the Target Users/Business:

* Fit for TQLD Lawyers: This solution perfectly aligns with TQLD Lawyers' needs, as it provides tailored access control, ensuring only authorized employees can view sensitive data. Given the legal industry's strict confidentiality requirements, RBAC is well-suited to their security needs.

Feasibility of Implementing the Solution:

* Realism & Practicality: Implementing RBAC is straightforward and affordable. It requires minimal ongoing costs but must be set up correctly to ensure no gaps in access control. Factors like user error in assigning roles or inadequate role definitions could affect implementation success.
* Benefits: Strongly supports security and data protection goals. The primary roadblock might be ensuring consistent role updates as personnel and roles within the firm change.

### 1.6 Seek client feedback on these 2 concepts

To: Client Representative

From: James Eastman

CC:

BCC:

Date: 8/08/2024

Subject: Recommendations for TQLD Lawyers' Digital Transition

Hi <Client>

I hope this email finds you well.

After conducting research on potential solutions for TQLD Lawyers' transition to a digital system, I have focused on two primary concepts that align with your business needs. Below are the findings for each concept:

**1. Hybrid Cloud and On-Premises Infrastructure**

This solution provides a combination of local server control for sensitive data and cloud storage for non-critical information. It enhances flexibility while maintaining security, which is critical for TQLD Lawyers.

* **Commercial Potential:**  
  This approach is financially viable, offering long-term cost savings due to reduced need for hardware upgrades. Initial setup costs could vary depending on server and cloud provider choices.
* **Suitability for Target Users:**  
  Ideal for a law firm with a strong focus on security. Sensitive legal data can be stored locally, while the cloud offers scalability for less sensitive operations. The hybrid setup balances both security and flexibility needs.
* **Feasibility:**  
  It is realistic and practical for the business, though careful planning is required for integration. Challenges include managing both environments and ensuring proper network security measures.

**2. Role-Based Access Control (RBAC)**

This solution focuses on limiting data access based on roles, ensuring sensitive information is only accessible by authorized personnel. It emphasizes internal security without needing significant financial investment.

* **Commercial Potential:**  
  RBAC is a cost-effective solution, with minimal ongoing costs once implemented. It provides strong protection against unauthorized data access, which could reduce potential legal liabilities.
* **Suitability for Target Users:**  
  Perfectly suited for the legal industry, where confidentiality is paramount. It ensures employees access only the data relevant to their role, aligning with TQLD Lawyers' security priorities.
* **Feasibility:**  
  Implementing RBAC is straightforward and affordable. Ongoing management of roles might require some attention, but it provides the desired security benefits with minimal disruption.

We would appreciate your feedback on these two concepts so we can narrow down which option is best suited for further development. Once we have your thoughts, we can proceed with the next steps in tailoring the solution to your specific needs.

Looking forward to hearing from you.

Kind regards,

James Eastman

Systems Analyst

*SystemsAnalyst@UptownIT.com.au*

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**Summary of the client’s feedback**:

*The client indicated:*

* *Comment 1…*
* *Comment 2…*
* *Comment 3…*

### 1.7 Document your final concept

1.7 Document which final concept you are going to further develop and why it was selected

### 1.8 Brainstorm and assess viability of implementation ideas

1.8 Brainstorm ideas of how to address the above identified factors for the selected concept. Assess each idea against the identified factor and how it would be viable to implement.

*Ideas identified:*

* *Idea 1 – viability assessment (sentence or 2)…*
* *Idea 2 – viability assessment (sentence or 2)…*
* *Idea 3 – viability assessment (sentence or 2)…*

### 1.9 Document the detail of your selected viable concept

1.9 Collating your initial innovative concept, the organisational restrictions and the viability factors, fully develop your concept to a viable concept. *(NOTE: you are preparing a final concept / design,* ***not*** *a final software program, product or solution.)*

The filename of my final concept / design is: << Filename>>.

### 1.10 Evaluate your final overall concept.

1.10 Evaluate if the overall concept is a viable solution to be implemented. If it is not, what can be done to make it viable?

### 1.11 Compare and evaluate your concept to currently available commercial solutions

1.11 Compare and evaluate your innovative solution to commercial solutions that are already on the market

# Part 2 Solution Presentation

### 2.1 Prepare a concept ‘pitch’

2.1 Prepare a presentation to “pitch” your final concept to the client and a group of class peers. Make sure to check your vocabulary and grammar,

*Note: Your ‘pitch’ might be prepared using a software application such as Microsoft PowerPoint (or equivalent).*

The filename of my final concept ‘pitch’ is: << Filename>>.

### 2.2 Anticipate your presentation answers

2.2 Answer the questions that the client will ask about your solution in AT2 - Solution Presentation.

1. What factors could affect the commercial potential for your solution?

2. What factors could affect the suitability of the target audience for your solution?

3. What factors could affect the feasibility of implementing for your solution?

### 2.2a Present your solution

2.2a Present your final concept / solution to the class or group as indicated by the teacher.

*In relation to your presentation, note the following requirements:*

1. *Speak clearly*
2. *Use correct terminology for the IT industry*
3. *Present their final concept, including but not limited to:*
4. *What the initial issue was*
5. *What business restrictions influenced the ideas*
6. *What factors affected the viability of the solution*
7. *How those factors were taken into consideration*
8. *What the final solution would be*
9. *How viable the final solution would be to implemented*

*Note:* ***No comments or notes are required here*** *for this item – see further items presented below.*

### 2.3 Document presentation feedback

2.3 Document all feedback given by the client and class peers.

### 2.4 Reflect on your presentation feedback

2.4 Reflect on the feedback given and what adjustments can be made to refine the solution.

### 2.5 Prepare an updated final concept / design.

2.5 Implement the adjustment to refine and finalise the solution for submission.

*(Again, NOTE: you are preparing a final concept / design,* ***not*** *a final software program, product or solution.)*

The filename of my **updated** final concept / design (after my presentation and my review of subsequent feedback) is: << NEW Filename>>.