

<b>BUSINESS CASE</b>	
<b>Proposed Project</b>	MediLocate
<b>Date Produced</b>	13/September/2024
<b>Background</b>	<p>Patients usually face difficulties when trying to find doctors or schedule appointments, mostly due to the necessity to use outdated systems and scattered information all around the web. Many medical institutions lack an efficient way for patients to search for the needed professionals, check availability, or book appointments seamlessly. At the same time, medical staff need to have an organized method to manage their schedules and connect with patients.</p>
<b>Business Need/ Opportunity</b>	<p>The healthcare industry is facing increasing challenges with fragmented and outdated appointment systems, leading to patient frustration and institutional inefficiencies. There is a growing demand for a solution that simplifies and centralizes the process of connecting patients with healthcare providers. Medical institutions also face financial losses due to missed appointments and inefficient scheduling practices.</p> <p>The project will be a success if it increases patient satisfaction, reduces appointment no-shows, improves operational efficiency for healthcare providers and complies with PIPEDA and HIPAA regulations.</p>
<b>Options</b>	<p><b>Option 1: In-house Development of the Platform</b></p> <p><b>Approach:</b> Develop the platform internally using the organization's existing IT and development resources.</p> <p><b>Features:</b>  Custom-built platform tailored to the exact needs of the organization.  Full control over the development process, including features, timelines, and data security.  The team can iterate and adjust features easily as the platform evolves.</p> <p><b>Risks:</b>  Longer development timelines due to resource constraints.  High learning curve for the internal team if they lack experience in healthcare IT solutions.  Potential for higher costs if unforeseen challenges arise during development.</p> <p><b>Option 2: Outsource to a Consultant or Specialized Development Firm</b></p> <p><b>Approach:</b> Hire a consultant company or a specialized healthcare technology firm to design, develop, and deploy the MediLocate platform.</p> <p><b>Features:</b>  Leverage industry expertise and experience from specialized firms.</p>

Faster time-to-market as the external team would already have the expertise in healthcare platforms.  
Potential access to pre-built modules that could be customized for MediLocate, reducing development time.  
Ongoing support and training provided by the consultant firm.  
**Risks:**  
Higher upfront costs for consulting services.  
Less control over the development process and reliance on external partners for changes or fixes.  
Potential data security concerns if the consultant firm does not fully comply with HIPAA or other regulations.

### **Option 3: Use a Software-as-a-Service (SaaS) Platform**

**Approach:** Utilize an existing SaaS healthcare platform that offers scheduling, patient management, and appointment booking, with some customization to fit MediLocate's needs.

**Features:**  
Immediate access to a tested, functional system with minimal setup time.  
Monthly subscription model, reducing large upfront development costs.  
Continuous updates and support managed by the SaaS provider.

**Risks:**  
Limited customization compared to in-house or consultant-built solutions.  
Data ownership and privacy issues may arise if the SaaS provider manages sensitive patient data.  
Potential for recurring costs to exceed long-term development costs if usage scales up.

### **Option 4: Do Nothing**

**Approach:** Continue with the current fragmented system, allowing patients to use a variety of platforms to find and book appointments.

**Risks:**  
Continuation of current inefficiencies and frustrations for both patients and staff.  
Lost revenue opportunities due to missed appointments and poor user experience.

**Benefits:**  
No immediate development costs.  
No need to train staff or onboard patients to a new system.

## **Cost-Benefit Analysis**

### **Option 1: In-house Development**

**Costs:**

Salaries and resource allocation for internal teams.  
Potential additional costs for training or hiring experienced developers.  
Possible delays in the timeline if the team lacks experience in similar projects.

**Benefits:**

Full control over features and future development.  
Customization to match the specific needs of the healthcare providers and patients.  
Internal expertise developed over time for system management.

**Option 2: Outsource to a Consultant Firm**

**Costs:**

High upfront costs for hiring an experienced firm.  
Ongoing costs for maintenance and support.  
Possible delays if there is a mismatch between expectations and delivery.

**Benefits:**

Faster time-to-market and access to specialized knowledge.  
Better risk management due to the firm's experience with healthcare software.  
Reduced risk of project failure as the firm would have expertise in similar implementations.

**Option 3: SaaS Platform**

**Costs:**

Recurring subscription fees.  
Potential customization costs to fit the unique needs.  
Lower upfront investment but long-term financial commitments as usage grows.

**Benefits:**

Immediate implementation and use.  
Ongoing updates and support without the need for a dedicated internal IT team.  
Proven reliability of the platform with existing customer base.

**Option 4: Do Nothing**

**Costs:**

Opportunity cost in terms of lost revenue and patient dissatisfaction.  
No improvement in operational inefficiencies.  
Long-term negative impact on brand reputation.

**Benefits:**

No immediate financial expenditure.  
No disruptions in current operations.

**Recommendation**

After analyzing all the options, **Option 1: In-house Development** is recommended. While this approach may require a longer development timeline and initial investment in training and resource allocation, the long-term benefits outweigh the challenges. Here's why in-house

development is the best choice:

1. **Customization and Control:**

The platform can be fully tailored to meet the specific needs of MediLocate's stakeholders, including patients and medical providers. This ensures that all features align closely with operational requirements and user expectations.

2. **Cost Efficiency in the Long Term:**

Though the upfront costs might be significant, avoiding recurring subscription fees or reliance on third-party consultants will save costs over time.

3. **Data Security and Compliance:**

Developing the platform internally ensures full control over data security, making it easier to comply with regulations like PIPEDA and HIPAA. There's no reliance on external providers who might handle sensitive patient data.

4. **Skill Development and Independence:**

Building the platform in-house allows the internal team to develop expertise in healthcare IT, which will prove invaluable for future updates and maintenance without incurring additional external costs.

5. **Scalability and Flexibility:**

An in-house team can continuously iterate and enhance the platform, ensuring it grows with the organization's needs without being limited by the capabilities of a SaaS or third-party system.