Request for Proposal of a Tech Enabled Vaping Device

All Canadian Vaping Inc.

RFP13

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Executive Summary

Problem Statement:
The widespread use of vaping devices among children and teenagers in Canada poses a significant challenge. Current devices do not differentiate users, allowing minors easy access to vaping. This issue raises concerns about the potential negative impact on public perception and the likelihood of government intervention through bans or increased regulations.

Objective:
To address the issue of underage vaping and mitigate potential consequences for the industry, we seek proposals for the development of an innovative vaping device that incorporates advanced features to enforce age restrictions and enhance user accountability.

Key Components:
The proposed vaping device should include the following high-level components:
1. Biometric Authentication:
   - Implementation of biometric authentication to ensure only authorized users can use the device.
2. Age Verification:
   - Use of age verification technologies to ensure compliance with legal age restrictions.
3. Smart Integration:
   - Integration with smartphones to enable remote management, data tracking.

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Introduction to Our RFP

Background of our Organization
All Canadian Vaping Inc. has been in the vaping industry for 5 years, now invites proposals to address underage vaping. Employing more than 50 employees, we currently focus on the young adult market segment with our continues innovation.

Our Project Objective
The main objective of this project is to develop a tech-enabled vaping device that prevents underage usage while promoting safe and responsible nicotine consumption. We aim to combine features namely biometric authentication, age verification, and smart phone integration to create a securer and user-friendly vaping experience.

The Purpose of Our RFP
The purpose of this RFP is to solicit responses from qualified vendors capable of producing the tech-enabled vaping device with the mentioned features. In addition, we are seeking expertise in developing the corresponding mobile application to streamline the process.

We invite vendors to submit proposals outlining their approach, technical capabilities, timeline, and cost estimates. The selected vendor will join force with us in preventing underage vaping.

Furthermore, the collaborative effort between our organization and the selected vendor goes beyond mere product development. We envision a shared commitment to social responsibility, with a focus on implementing measures that actively prevent underage vaping. The chosen vendor will play a crucial role in contributing to the technological solutions and awareness campaigns that reinforce responsible use and compliance with regulatory standards.

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Our Project Timeline

This timeline outlines the key milestones and activities that our project team envisioned in this project. Beginning with the project kick-off on September 11, we have planned and organized various tasks to ensure a comprehensive approach to understanding, addressing, and proposing a tech-enabled solution to curb nicotine consumption among underage individuals.

The timelines started after the project kickoff and research on the impact of vaping on children in Canada, which led to the identification of key stakeholders. It also captures significant events such as conducting surveys among students at George Brown College (GBC) and presenting a detailed project status update through our Request for Proposal (RFP).

Chart 1. Our Project Timeline

Number	Task	Date Due
1	Issuing RFP	09-November-2023
2	Detailed description of our solution including functional and non-functional requirements	20-November-2023
3	Use case scenarios	22-November-2023
4	Success Criteria of our proposal	23-November-2023
5	Response Guidelines	26-November-2023
6	Vendor Information Session	02-December-2023
7	RFP Team Assignment Report	12-December-2023
8	Project Kick Off	13-December-2023
9	Project Sign Off	20-April-2024

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Functional Requirements

Our Challenge

The main challenge we face is the prevalence of underage vaping and its consequences. Conventional vapes' inability to differentiate users allow easy access for minors. We need to reverse the situation to improve public perception.

The high-level functional requirements revolve around biometric authentication, age verification, and smart phone integration. The vaping device and the mobile app should comply with the relevant regulations and standards.

The following charts introduce some of our mandatory and nice-to-have functional requirements along with their descriptions.

Chart 2 – Mandatory Functional Requirements

Mandatory Functional Requirements	Description
Pairing function for the vaping device	The vaping device need to have a pairing function with the mobile application. The linking can be through Bluetooth or Wi-Fi or other suitable methods.
Statistics tracking for the vaping device	Our vaping device should have a statistic tracking feature, providing users with analytics on device usage. Key metrics, such as usage frequency, inhalation patterns, and nicotine consumption.
Mobile Application-Support For IOS & Android	The mobile application should support both iOS and Android platforms, ensuring accessibility for users across different devices.
Biometric Authentication	The mobile application should feature biometric authentication integration. Facial and finger print recognition should be available depending on the smart phone.
Age Verification Support	The mobile application has capabilities to upload age verification document. Regulation and compliance requirements will need to be met.

Chart 3 – Nice-to-Have Functional Requirements

Nice-to-Have Functional Requirements	Description
Remote control for the vaping device	The vaping device may feature remote control capabilities via the mobile app, allowing user to manage the device from a distance.
Nicotine intake limit	The vaping device and mobile app may allow user to set a nicotine limit, sending a warning or stopping the device when the limit is reached. Moreover, the app could include a feature that notifies users if they have been vaping for an extended period and if their nicotine intake reaches a certain level.
Geographic restrictions	The mobile app may feature geographic restrictions, preventing the vape from activation within the proximity of certain areas like within 1km of a high school.

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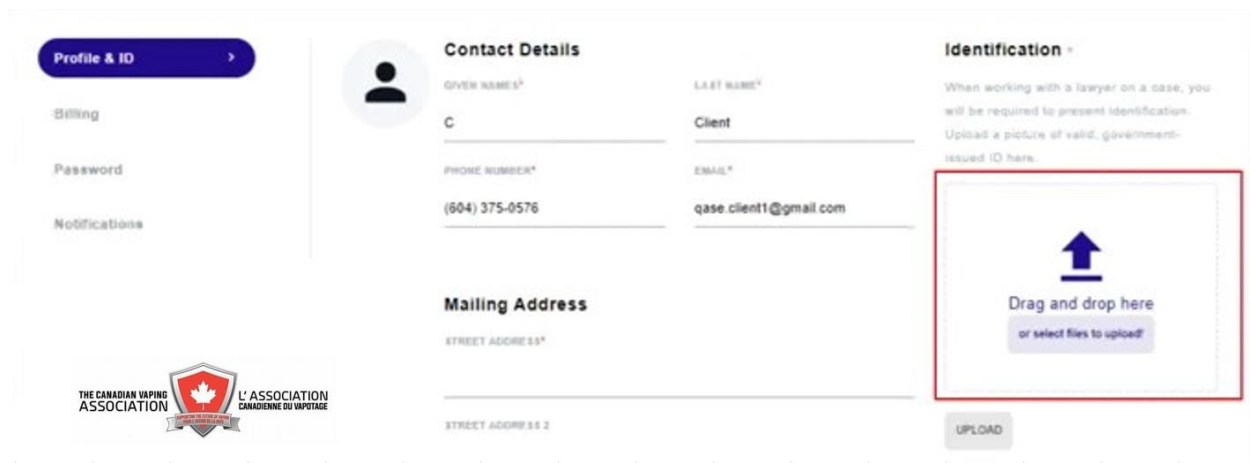TRP13- (team@acvi.ca)

Use Case Scenarios

Use Case Scenario 1: Age Verification

Actor: Vape user
Precondition: The user has not verified with the system.

Flow of Events:

1. Login to the system.
2. Select Identification to drop down your ID which would be an essential step to have been registered with us and be verified with your age.

The user will be directed to a page with the option to submit a Government-issued Identification document.

3. User uploads the document.
4. The real time feature will verify the government issued ID and will verify the age as per the given records.
5. Notify the user that his ID has been verified and can proceed with the further steps of registration.

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Use Case Scenario 2: Vape device pairing.

Actor: User
Precondition: The device is on, and the mobile application is installed on the phone.

Flow of Events:

1. User starts the mobile application.
2. User selects "start pairing" function.
3. User sees the option QR Scanner where he can the scan the code.
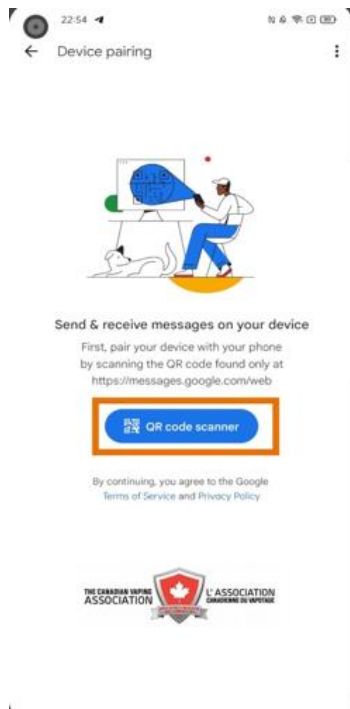
4. User scans the code and prompts to pair up his device with the application.
5. User presses the pairing button on the vaping device until the light start blinking yellow.
6. User gets a notification saying device paired successfully.
7. Dialogue box confirms the device is paired.

Use Case Scenario 3: Using the vape.

Actor: User
Precondition: A vaping device has been paired and the use has been verified.

Flow of Events:

1. After pairing up the device the user is asked to unlock the device.
2. Click on Unlock with fingerprint.
3. The application will prompt the user to pass a biometric authentication.
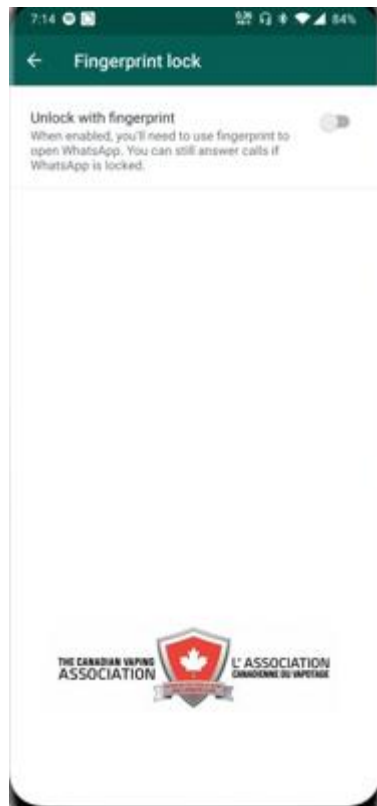
4. User unlocks the paired device with his biometric authentications.
5. User finishes the authentication.
6. The vaping device will be unlocked for 1 hour.

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Success Criteria

Proposals will be evaluated in 3 main areas, they are development expertise, integration capabilities, security & compliance. Note that a score of at least 40% is required in all 3 main areas to pass the minimum requirement to be considered.

The chart below are the detail success criteria, their minimum requirements, and their rating.

Chart 4. Success Criteria

Success Criteria	Minimum Requirement	Rating
Demonstrated experience in designing and creating tech-enabled devices with similar features such as paring, tracking etc.	2 projects	30%
Demonstrated experience in device-mobile phone integration. This includes developing the mobile application that work with the devices.	1 project	20%
Vendors with deep understanding of security and compliance requirements in vaping and personal information handling will be prioritized.	2 years	30%
Vendors with good track record in controlling cost and time will also be prioritized.	2 projects	20%
Total Points		100%

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Our Vendor Information Session

We will be conducting a Vendor Information Session, where we aim to provide in-depth insights into our organization and the specific requirements outlined in our proposal request. This session serves as a opportunity for potential vendors to gain a deeper understanding of our project, ask questions, and engage directly with key decision-makers. Your attendance is highly valued, and we look forward to fostering collaborative partnerships that will contribute to the success of our initiative.

Chart 5. Vendor Information Session Details

Date	Location	Registration Details	RSVP Date	Additional Information
December 2,2023	160 Kendal Ave, Toronto, ON	Email to sub@rfp13.com with your Name and designation	November 27,2023	Host: - Anson CEO All Canada Vaping Inc

Our Contact Details

For any inquiries related to the project, contact Yuen Man Chun at team@acvi.ca. Ensure your participation in the Vendor Information Session by reviewing the contact details below. We look forward to engaging with you on this exciting venture.

Chart 6. Contact Details for **Canadian Vaping Inc** Organization

Company	Location	Website	Contact Manager Name and Email
All Canadian Vaping Inc	450 Danforth Road, Toronto, Ontario	www.acvi.com	Yuen Man Chun (team@acvi.ca)

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Appendix

Additional Background Details:

The foundation of ACVI's innovation is its dedication to limiting young people's access to vapor goods by utilizing state-of-the-art age verification technology.

Technical details:

Modern age verification techniques are integrated into ACVI's technological advancements to go above and beyond traditional standards and guarantee that only qualified clients can use vaping products.

This demonstrates ACVI's commitment to social responsibility in the distribution of vaping products and is in line with regulatory regulations.

Growth Plan:

With its quick and broad expansion, ACVI has become a major player in the US and Canadian markets.

This achievement is credited to ACVI's unwavering commitment to innovation, the provision of high-quality products.

Product Innovation:

ACVI consistently releases state-of-the-art vaporizers that blend technology and user-friendly design to provide a singular and fulfilling experience.

Regulatory Compliance:

To ensure ethical production, marketing, and distribution methods, ACVI's systems are built to meet and surpass regulatory requirements.

The technological innovations of All Canadian Vaping Inc. are revolutionizing the vaping market and establishing new standards for ethical business conduct and technological integration. In addition to improving the vaping experience for customers, ACVI's dedication to innovation establishes the business as a leader in tackling youth-related regulatory issues.

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Frequently Asked Questions

Below are the questions that are been asked by some Vendors to know more about our products and services and how can they better understand our devices.

Q.1 Are joint bids allowed for the mobile integration and vape device aspects of the project?
By having two companies collaborate on the bid, it allows for specialization in their respective areas of expertise, including a holistic approach. The mobile integration team can focus on developing a seamless application, while the vape device team can concentrate on hardware design and manufacturing. We encourage this collaboration as it leads to optimized solutions, efficient project management, and a more holistic approach to meeting the project's requirements.

Q.2 Can you provide more details on the age verification process through the mobile application?
The age verification process through the mobile application involves users submitting a registered government ID, such as a driver's license or passport. The submitted ID is then processed securely to verify the user's age. This ensures compliance with regulatory requirements and responsible marketing practices. The mobile application should guide users through the submission process, making it user-friendly and accessible.

Q.3 In the case of using fingerprint scanners or facial recognition for biometric features, how should the system ensure the security and privacy of users' biometric data?
The implementation of biometric features, such as fingerprint scanners or facial recognition, should prioritize user security and privacy. Biometric data needs to be securely uploaded using advanced encryption methods, ensuring that sensitive information remains confidential.

Additional questions will be answered in our Vendor Information Session on December 2, 2023, at 160 Kendal Ave, Toronto, ON.

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Glossary or Terminology

1. **Age Verification:**
   - The process of confirming the user's age, typically through a mobile phone app, to ensure compliance with legal age restrictions on vaping.

2. **Mobile Device Pairing:**
   - The action of connecting the vaping device with a mobile phone through a secure and encrypted link, enabling age verification and additional control features.

3. **Power Restriction:**
   - A feature that limits the vaping device's power activation until successful age verification is completed through the linked mobile phone.

4. **Age-Locked Activation:**
   - Refers to the state where the vaping device remains inactive until the user's age is verified, preventing unauthorized usage by underage individuals.

5. **Authentication Protocol:**
   - The set of procedures and security measures used to verify the user's identity and age during the device activation process.

6. **Mobile App Interface:**
   - The graphical user interface on the mobile phone application that facilitates age verification, device pairing, and access to additional control settings.

7. **Underage Prevention Mode:**
   - A mode activated by default, ensuring that the vaping device remains inoperable until successful age verification, effectively preventing use by individuals below the legal age.

8. **Biometric Verification:**
   - The use of unique biological characteristics (such as fingerprints or facial recognition) to confirm the user's identity and age.

9. **Device Lockdown:**
   - The state where the vaping device restricts all functionalities until the user's age is successfully verified, ensuring compliance with age-related regulations.

10. **Secure Data Transmission:**
   - The encrypted communication between the mobile app and the vaping device, protecting sensitive user information during the age verification process.
11. **Compliance Log:**
   - A record-keeping system that logs all age verification attempts, ensuring transparency and accountability for regulatory compliance.
12. **Age Verification Failure Alert:**
   - A notification sent to the user or an authorized guardian if the age verification process is unsuccessful, indicating a potential underage access attempt.
13. **Legal Compliance Module:**
   - The component within the vaping device's firmware responsible for ensuring adherence to relevant laws and regulations regarding age restrictions.
14. **User Consent Management:**
   - The system through which users grant consent for age verification and data processing, ensuring compliance with privacy regulations.
15. **Nicotine Monitoring:**
   - The capability of the vaping device to track and record the user's nicotine consumption over time, providing valuable data for personal usage patterns and potential health considerations.

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Proposal Response Guidelines

Proposal Outline

1. **Executive Summary of the Proposal** - A brief overview of the proposal, highlighting the key points and objectives.
2. **Your Understanding of Our Requirements** - Detailed analysis and understanding of our specific project requirements based on your discussions and research.
3. **Proposal Information** - Explanation of the proposal structure, details on the content, and how the proposal addresses each requirement.
4. **Pricing** - Breakdown of the pricing structure, including costs, fees, and any other financial details related to the proposal.
5. **Vendor Profile** - Comprehensive information about our company, including our history, experience, expertise, and successful projects.
6. **Resources** - Information about the resources we plan to allocate for the project, including team members, technologies, and support.

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