Department of Cannabis Control
CALIFORNIA

Market Research – Request for Information
Track and Trace Software and Implementation Services

Response Deadline - **July 3, 2023**

5/15/2023

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Clarification of Market Research Intent

This Request for Information (RFI) seeks to obtain current market conditions and to collect information from respondents related to the availability of goods or services that can meet the needs of the State of California Department of Cannabis Control. Collective information provided by the vendor community may be used to develop alternatives for consideration and may be used to estimate costs related to system acquisition and implementation. Responses to this request will be performed at no cost to the State.

Vendor Questions

Vendors requiring clarification of intent or content in the RFI and applicable documents shall submit questions to the Contact Information listed below. Question and answer sets will be provided to all respondents without identifying the submitters. At the sole discretion of the state, questions may be paraphrased for clarity.

Questions must be submitted no later than June 1, 2023.

Contact Information

Please direct all correspondence, responses, and questions to:

Department of Cannabis Control
Attn: Sean O'Connor
2920 Kilgore Road
Rancho Cordova, CA 95670
E: vendor.response@cannabis.ca.gov
P: 916-282-0384

When submitting correspondence, responses, and questions via email, please include the following in the subject line: (Vendor Name) – Department of Cannabis Control CCTT RFI

1.0 - Background and Purpose

The Department of Cannabis Control (Department) seeks information from the technology vendor community to understand available software products that can meet its California Cannabis Track and Trace (CCTT) system (track and trace) functional business needs and non-functional requirements. This request is not a request for proposal, is non-binding, and is for market research purposes only.

1.1 - Background

The Department was formed in July 2021 following the signing of Assembly Bill 141. In the State of California, the Department regulates the growing of cannabis plants, manufacture of cannabis products, transportation and tracking of cannabis and cannabis products (collectively, "cannabis") throughout the state, laboratory testing of cannabis, retail sale of cannabis (including sale by delivery) to consumers and patients, events where cannabis is sold or used, and other related aspects of the cannabis supply chain (such as advertising, marketing, and labeling). The Department regulates both adult-use (recreational) and medicinal cannabis as a matter of state law. At present time, there are over 12,000 cannabis businesses licensed by the Department in the state.

State law requires the Department to establish a track and trace system, using unique identifiers, for reporting the movement of cannabis throughout the supply chain. (See Business and Professions Code, § 26067–26069.) The Department currently has a track and trace system in place through a contract with a company called Metrc. This track and trace system has been in place since 2018. The system currently tracks cannabis as it moves through the supply chain from cultivators/nurseries to retailers. The system collects very limited information on consumers or patients. The track and trace system, which currently assigns a unique identifier to each lot of immature plants, each mature plant, and each discrete unit of cannabis resulting from these plants (e.g. a harvest, a packaged portion of cannabis harvest, a product manufactured from harvested cannabis) is intended to keep cannabis in the licensed market from being diverted to the illicit market (including to illicit markets outside the Department's jurisdiction), ensure illicit cannabis goods do not enter the licensed/regulated market, and serve other state interests related to regulation of the licensed cannabis market (e.g., enable state agencies to determine the nature, scope, and potential sources of any adulterated cannabis or other public health concerns; facilitate the collection of applicable taxes and other compliance efforts; and provide information about the nature and scope of the licensed market). Specific requirements associated with the track and trace system may change based on changes in legal requirements (including applicable statutes and regulations), industry dynamics, and other Department needs.

1.2 - Definitions

The following definitions and terms will be used throughout this document:

- "Cannabis," as used in this document, includes all cannabis and cannabis products in any form. It specifically includes both of the following:

- o "Cannabis," as defined in Business and Professions Code section 26001, subdivision (f); and
  - o "Cannabis products," as defined in Business and Professions Code section 26001, subdivision (j).
    "Cannabis," as used in this document, does not include industrial hemp or industrial hemp products.
- The "cannabis supply chain," or "supply chain," refers to the progression of cannabis from cultivation to retail sale, including all intermediate steps. It encompasses cultivation (including nursery cultivation, if applicable), distribution, laboratory testing, manufacturing (if applicable), and retail sale (including retail sale by delivery and/or retail sale at events, if applicable).
- "Diversion" means the movement of cannabis produced in the legal, licensed market into the illegal, unlicensed market.
- "Inversion" means movement of cannabis produced in the illegal, unlicensed market (i.e., cannabis produced without an applicable state license) into the legal, licensed cannabis market.
- "Unique Identifier," or "UID," means an alphanumeric code or designation issued pursuant to the track and trace program established by the Department (see Business and Professions Code sections 26067–26069) and used to identify specific cannabis in accordance with the Department's regulations and other applicable laws. A UID may be used to identify a specific plant or set of plants or a specific package (including individual packages sold or offered for sale at retail).

2.0 – Software and Services of Interest

The Department is interested in receiving responses from vendors that have experience implementing a cannabis track and trace system. The Department is interested in cloud-based software-as-a-service systems.

The functional needs of the system can be categorized across four main stakeholder groups: licensees, licensing authorities, other governmental entities, and the Department's information technology and administrative team.

2.1 - Business Need 1: Licensee

A Licensee is defined as a user of the system that has been granted a cannabis business license by the Department and who must report the movement of cannabis throughout the supply chain using a Department-approved unique identification process.

2.1.1 - Acquire and Manage Unique Identifiers

The Department is interested in exploring a UID distribution model, whereby licensees can directly acquire the UID. For example, UIDs may be sold and distributed electronically directly to licensees from the software vendor. Licensees can then print authorized tags at their business and affix or associate them to cannabis in accordance with regulations. The Department is also interested in software products that allow for virtual tagging, including the ability to tag at a ratio greater than 1:1.

The Licensee's subsequent application and assignment of UIDs to cannabis (in whatever form—e.g. seeds, one or more cultivated cannabis plants, harvested cannabis plants, dried flower, pre-rolls, manufactured cannabis products, etc.) must enable the Department, regulators, and other State of California governmental entities the ability to track cannabis from seed to sale as it moves through the entire cannabis supply chain.

Requirement ID	Requirement Description
2.1.1A	The Licensee needs to request and receive electronically-readable UIDs for use in their cannabis activities. These UIDs need to be specifically issued to the Licensee and generated in a way that protects against counterfeiting. Licensees should be able to order and receive UIDs in a timely fashion to support regulatory compliance and support business practices.
2.1.1B	The Licensee needs to record and track the disposition of all acquired UIDs, those available for Licensee's use and not yet applied/assigned to cannabis, those assigned and destroyed after use, and those applied/assigned to cannabis and those that are not assigned but are instead no longer available to apply/assign to and/or to track cannabis.
End of 2.1.1 Acquire and Manage Unique Identifiers business need.	

2.1.2 - Input/Upload inventory & transactions

The Licensee needs to be able to enter and manage their cannabis inventory. At a minimum, Licensees need to record in the system all the information required by the Department. In addition to manually entering inventory information into the system through a secure Web-based Graphical User Interface (GUI), the Licensee needs the capability to upload required data into the system from third-party inventory management and related systems (e.g., POS) used by Licensees via an open, industry standard file format (i.e., .csv and .xls/xlsx) and a secure, open, bi-directional RESTful Application Programming Interface (API). The Licensee needs the capability to enter daily inventory amounts, additions, reductions, and adjustments. The Department and other government regulators must be able to review and track all of a Licensee's cannabis and all related activity (including all transactions with other licensees) and ensure that diversion or inversion of cannabis does not occur. Therefore, the system must allow a Licensee to enter and maintain information related to all of their cannabis and all commercial cannabis activity (including all transactions with other licensees).

Requirement ID	Requirement Description
2.1.2A	The Licensee needs to enter and maintain data related to their cannabis (including all inventory) and commercial cannabis activity (including all transactions with other licensees) into the system on a real-time or daily basis via a secure Web-based solution that allows for manual entry through a GUI. (e.g., UID, weight and volume, strain, location within cultivation site, pesticides and rodenticides applied, inventory, expiration date, trade samples, donations, test package creation, sales etc.)
2.1.2B	The Licensee needs to update the system as UIDs are applied and assigned to cannabis, and to record information related to that assignment (e.g., the discrete unit of cannabis assigned the UID, location of that cannabis, and date the UID is applied/assigned). The system must be able to identify the specific form of cannabis (e.g., seeds, one or more cultivated cannabis plants, harvested cannabis plants, dried flower, pre-rolls, manufactured cannabis products, etc.) associated with each UID at each point in the cannabis supply chain.
2.1.2C	The Licensee needs to associate UIDs when cannabis originates from other uniquely identified cannabis, and to capture any other change in the status or identification of the relevant cannabis prior to retail sale. Examples include, but are not limited to, repackaging of cannabis , such as:

• A one-pound package with a UID is broken down into 128 eighth-ounce packages, each with a new UID that links to the "parent" UID.
• A one-pound container of extract with a UID is used over time to manufacture several batches of cannabis candies. Each manufactured batch would be assigned a distinct UID and linked to the extract "parent" UID. |

2.1.2D	The Licensee needs be able to record information about adjustments to, their inventory (e.g., date of adjustment, type of adjustment, associated UID(s)). Examples of such adjustments, include, but are not limited to the following: • Sales, both wholesale and retail • Any other transfer of inventory to another licensee • Sample collection from existing inventory for any purpose • Theft or loss • Intentional destruction • Seizure by law enforcement
2.1.2E	The Licensee needs be able to record information about returned (a specific type of adjustment) cannabis, update the disposition for the associated UID to reflect that the cannabis was returned, and distinguish whether the return was between Licensees or from a consumer to a Licensee.
2.1.2F	The Licensee needs the capability to securely upload and retrieve inventory data using secure file upload via an open, industry standard file format (e.g., .csv and.xls/xlsx) and a secure, open, bi-directional RESTful API into the system from their third-party inventory management and related systems (e.g., Point of Sale).
2.1.2G	The Licensee needs to review and, if needed, revise uploaded data before it is recorded in the system.
2.1.2H	The Licensee needs the capability to correct/amend/supplement posted data and information.
2.1.2I	The Licensee needs the ability to upload various file types (e.g., documents, photographs).
2.1.2J	The Licensee needs the ability to "read" the machine-readable UID with a mobile electronic device in order to efficiently add, evaluate and maintain information about their cannabis inventory.
2.1.2K	The Licensee needs the ability to determine, if taxes are owed, the amount of tax owed, tag or mark cannabis to identify the amount of tax due, and subsequently tag or mark cannabis when it changes possession, composition, packaging or size and retain the cultivation tax history.

2.1.2L	The Licensee needs to be able to associate a code to a product suitable for scanning, including on an individual's personal mobile electronic device. The system shall be able to generate labels using this code to affix to products and associate them with UIDs. Scanned codes should provide consumers a method to verify attributes for the product like potency, expiration date, and COA data.
2.1.2M	The Licensee needs to retain all information related to cannabis supply chain activity for a minimum of seven (7) years in the system.

End of 2.1.2 Input/Upload Cannabis Supply Chain Information business need.

2.1.3 - Track Shipments

To enable the Department to track the sale or other transfer of cannabis between Licensees, a Licensee needs to complete an electronic shipping manifest that includes the UID(s) of the original cannabis being transported and transmit the completed shipping manifest to the DCC and the Licensee that will receive the shipment. When applicable, a Licensee needs to access or generate a shipping manifest to make it available for review by the Department, other regulators, and other authorized governmental entities (e.g., law enforcement) if requested. A Licensee receiving a shipment needs to verify receipt of the shipment and confirm details of the cannabis it includes.

2.1.3 Manage Shipments

Requirement ID	Requirement Description
2.1.3A	The Licensee needs to complete an unalterable electronic manifest to transfer cannabis between Licensees. The manifest shall include, but is not limited to, information such as: The origin and destination of cannabis shipped. The quantity, or weight, and variety of cannabis shipped. The estimated times of departure and arrival. The quantity, or weight, and variety of cannabis received. The actual time of departure and arrival. A categorization of the cannabis. The unique identifier(s) for the cannabis. The license numbers for all Licensees involved in the shipping or retail sales delivery process.

	The name and driver's license number for all licensed and authorized individuals involved in the shipping or retail sales delivery process.
	The make, model, and license plate of the vehicle involved in the process.
2.1.3B	The Licensee sending the cannabis needs the ability to notify the Department and the Licensee designated to receive the cannabis that an electronic shipping manifest has been created.
2.1.3C	The Licensee needs the ability to generate an unalterable shipping manifest using an industry standard printer, copier, or similar multi-function device.
2.1.3D	The Licensee receiving the shipment needs to verify receipt of the shipment and the details of the shipment. This information must be entered into the system.
2.1.3E	The Licensee receiving the shipment needs to maintain each electronic shipping manifest.
2.1.3F	The Department needs the ability to prevent a licensee from being selected as a destination on an electronic shipping manifest.
End of 2.1.3 - Manage Shipments business need.	

2.1.4 - Access Policy and System Assistance

To ensure the integrity and accuracy of all information related to cannabis and commercial cannabis activity subject to the jurisdiction of the Department and other regulators, a Licensee may need to access relevant information related to state laws and regulations to ensure they understand the information the Licensee is required to enter and maintain in the system. In addition, the Licensee may need additional information and guidance about how to use the system to completely and accurately enter and maintain the required cannabis information at each step of the system data entry and extraction processes. To that end, the Licensee needs the ability to access informational aids (e.g., frequently asked questions, pop-up instructions, etc.) or helpdesk assistance throughout the process. Therefore, the system must allow a Licensee to access policies, regulations, and related information, instructions, and aids in order to help the Licensee to successfully enter and maintain accurate and complete cannabis activity information; this is the scope of this **2.1.4 - Access Policy and System Assistance** business need.

Requirement ID	Requirement Descriptions
2.1.4A	A Licensee needs to review information describing, explaining, and otherwise pertaining to the information that the Licensee is required to enter and maintain in the system.

2.1.4B	A Licensee needs to review the instructions about how to use the system to completely and accurately enter and maintain the required cannabis activity information at each step of the system data entry and extraction processes.
2.1.4C	A Licensee needs to review aids (e.g., frequently asked questions, pop-up instructions, etc.) about using the system to assist and guide them to successfully enter and maintain accurate and complete information.
2.1.4D	A Licensee needs to be able to contact a California-specific system helpdesk to receive assistance and support.

End of 2.1.4 Access Policy and System Assistance business need.

2.1.5 - Extract Cannabis Supply Chain Information

The Licensee needs to be able to obtain (print, download) data the Licensee has added to the system. Therefore, the system must allow a Licensee to query and report on the supply chain data they have entered into the solution; this is the scope of this **2.1.5 - Extract Cannabis Supply Chain Information** business need.

Requirement ID	Requirement Descriptions
2.1.5A	A Licensee needs to be able to extract and download information about their cannabis supply chain activities in industry standard formats (i.e., .csv, .xls/.xlsx, .pdf) from the system.
2.1.5B	A Licensee needs to be able to generate and print/save reports in industry standard formats (i.e., .csv, .xls/.xlsx, .pdf) to obtain information about their cannabis supply chain activity.
2.1.5C	A Licensee needs to be able to generate and print/save ad hoc, user-created, queries in industry standard formats (i.e., .csv, .xls/.xlsx, .pdf) that include information about their cannabis supply chain information.

End of 2.1.5 - Extract Cannabis Supply Chain Information business need.

2.1.6 - Establish and Maintain Licensee Cannabis Activity Tracking System Account

Licensees must have a functioning account within the system before they can engage in any commercial cannabis activity under a state license. In order for the Licensee to input, upload, and manage information about their commercial cannabis activity, the Licensee needs to obtain a user account and manage it over time. Therefore, the system must allow a Licensee to establish

and maintain a system account; this is the scope of this **2.1.6 Establish and maintain Licensee CCTT System Account** business need.

Requirement ID	Requirement Descriptions
2.1.6A	A Licensee needs the ability to establish a user account that provides secure access to the system.
2.1.6B	A Licensee needs the ability to designate an Account Manager that will be responsible for authorizing and managing system access for the Licensee's employees and agents.
2.1.6C	The Licensee Account Manager needs the ability to receive the state-required training (train the trainer) on system usage so that they can: Successfully complete a training assessment demonstrating a basic understanding of how to accurately and effectively use the system and receive full account access, and Train other Licensee employees and agents who receive system access.
2.1.6D	The Licensee Account Manager needs the ability to immediately suspend or block system access for the Licensee's employees or agents (e.g., when an employee leaves the Licensee's employment).
2.1.6E	A Licensee needs the ability to maintain the system user account, including but not limited to, designate an email address, recover lost User ID(s), manage passwords, and reset password without helpdesk assistance.
End of 2.1.6 - Establish and Maintain Licensee System Account business need.	

2.2 – Business Need 2: Department Staff Needs

A Department staff user defined as a user of the system that needs to use the system to regulate the movement of cannabis throughout the supply chain.

2.2.1 – Review Cannabis Supply Chain Information

The Department staff is responsible for administering regulatory frameworks for both adult-use and medicinal cannabis. The Department needs to be able to distinguish between adult-use and medicinal cannabis. The Department needs to determine the amount (quantity and weight) of cannabis being cultivated or otherwise produced at a licensed site and the disposition of cannabis as it moves through the supply chain. The Department needs to ensure that legally produced cannabis is not diverted outside the legal market. Likewise, the Department needs to be able to distinguish between adult-use and medicinal cannabis in the cannabis supply chain, as required by law (including any applicable regulation) or as the Department otherwise deems

appropriate. Additionally, the Department needs to be able to prevent cannabis produced outside the legal, licensed market from entering (i.e., being inverted into) the legal, licensed cannabis supply chain. Therefore, the system must provide a means for Department staff to review Licensees' cannabis supply chain information in order to track and validate cultivation, packaging, manufacture, transport, testing, and sale, and to distinguish between adult-use and medicinal cannabis; this is the scope of this **2.2.1 Review Cannabis Supply Chain information** business need.

Requirement ID	Requirement Description
2.2.1A	The Department needs to track the movement of cannabis (as identified by assigned UID(s)) throughout the supply chain. Therefore, the Department needs to review Licensees' cannabis supply chain activity. For example, when evaluating cannabis that has been transferred between Licensees, the Department needs to have access to information such as, but not limited to, the following: • The Licensee receiving the cannabis, • The Licensee originating the cannabis; • The Licensee transporting the cannabis; • License number of each Licensee; • Shipping and destination weight; • Changes during non-manufacturing or manufacturing process (i.e. packaging flower for retail sale, making pre-rolls, hydrocarbon extraction, CO_2 extraction, winterization, butter extract/infusion, and infusing edibles) • Product type and/or description; • All applicable UID(s) for the transferred cannabis; and, • The date of the transfer.
2.2.1B	For each type of license, the Department needs the ability to designate the specific elements of cannabis supply chain information they need to review, validate, and track within and between Licensees in the system.
2.2.1C	The Department needs the ability to determine how discrete units of cannabis (tracked by UIDs) are related across the cannabis supply chain to track and validate that diversion and inversion are not occurring. Making such determinations includes, but is not limited to tracking the UID's relationships between: • plants to harvest; • distributor repackaged cannabis to packaged end-user product; • cannabis package to manufactured product; and, • manufactured product to packaged end-user product. The display of the supply chain shall be viewable in one screen and shall be in an expandable tree-like display.

2.2.1D	The Department needs the ability to review all adjustments made to a Licensee's cannabis supply chain information and inventory. Such adjustments must be linked to the specific UIDs of the cannabis that is the subject of the adjustment. Adjustments include the receipt of cannabis from other Licensees; transfer and sale of cannabis to other Licensees or retail customers; testing sample taken from the cannabis inventory; and loss of cannabis through theft, destruction, disposal, or seizure by law enforcement.
2.2.1E	The Department needs to track each sample (as identified by UID) used for laboratory testing. The information in the system regarding the cannabis UID from which the sample was taken should reflect the amount (weight and/or quantity) removed and amount remaining.
2.2.1F	The Department needs to be able to review the point-in-time total inventory for a Licensee, including all UIDs assigned to cannabis that makes up the Licensee's inventory and related quantities and weights.
2.2.1G	The Department needs the ability to review all file types uploaded to the system by a Licensee (e.g., photographs).
2.2.1H	The Department needs the ability to review any changes made to a Licensee's cannabis supply chain activity information over time, including, but not limited to, the following: the change; who performed the change; and the time the change occurred.
2.2.1I	The Department needs to be able to accurately distinguish and trace the change in disposition of cannabis through the various stages of the supply chain by capturing the processing (packaging flower, extraction, etc.) and the quantify of inventory. This information must be quantifiable in a licensee's inventory before and during inspection of a business.
2.2.1J	The Department needs to be able to easily quantify and report on the total amounts of cannabis plant material or goods that only contain cannabis flower, unfinished manufactured product (e.g. bulk distillate, unpackaged cookies, etc.), and goods that are packaged and labeled for retail sale.
2.2.1K	The Department needs the ability to distinguish between medicinal and adult-use cannabis.
End of 2.2.1 Review Cannabis Supply Chain Information.	

2.2.2 - Perform Department Staff Updates

The Department needs the ability to perform updates to specific cannabis supply chain information to reflect regulatory actions impacting cannabis at any point in the supply chain. These updates include, but are not limited to, designating cannabis that has been recalled, embargoed, and/or seized. Therefore, the system must enable the Licensing Authority to update those portions of information entered by, maintained by, or otherwise related to a Licensee as necessary to reflect regulatory action; this is the scope of this **2.2.2 Perform Department Staff Updates** business need.

Requirement ID	Requirement Description
2.2.2A	The Department needs the ability to update a Licensee's cannabis supply chain information using a secure, Web-based Graphical User Interface to reflect information about regulatory actions impacting cannabis and cannabis products.
2.2.2B	For each license type, the Department needs the ability to designate the specific elements of cannabis supply chain information they are eligible to update to show regulatory actions on cannabis.
2.2.2C	The Department needs the ability to update elements of a Licensee's cannabis supply chain information (stored in the system) when cannabis has been recalled, and identify all impacted cannabis based on associated UIDs. The system should be able to support selecting similar data elements from a list view to prevent repetitive individual updates.
2.2.2D	The Department needs the ability in the system to create a flag for all Licensees with recalled cannabis in their inventory to prevent the sale or movement of the recalled cannabis.
2.2.2E	The Department needs the ability to update elements of a Licensee's cannabis supply chain information (stored in the system) when cannabis at any stage of growth or production has been embargoed, and identify all related UIDs associated with the embargoed cannabis based on associated UIDs. Once embargoed, Department staff should have the ability to freeze further product movement in the system.
2.2.2F	The Department needs the ability to notify all Licensees with embargoed cannabis in their inventory to prevent the sale or movement of the embargoed cannabis inventory.
2.2.2G	The Department needs the ability to release an embargo for cannabis and notify impacted Licensees.

Requirement ID	Requirement Description
2.2.2H	The Department needs the ability to update elements of a Licensee's cannabis supply chain activity information (stored in the system) when cannabis has been seized by a regulatory or law enforcement agency.
2.2.2I	The Department needs to review the history of cannabis supply chain information updates made by licensing authority/staff, including the licensing authority/staff making the update and the reason for the update.
2.2.2J	The Department needs to retain all information related to a Licensee's cannabis supply chain activity and the Department's updates of that information for a minimum of seven (7) years in the system.

End of 2.2.2 Perform Department Staff Updates business need.

2.2.3 - Track Distributions

The Department needs to track all distribution of cannabis. The system must allow the Department to view and print both current and historical manifests; this is the scope of this **2.2.3 Track Distributions** business need.

Requirement ID	Requirement Description
2.2.3A	The Department needs the system to provide specified information on a manifest. The manifest shall include, but is not limited to, the following information: • The origin and destination of cannabis shipped or sold via a retail sales delivery. • The quantity, or weight, and variety of cannabis shipped or sold via a retail sales delivery. • The estimated times of departure and arrival. • The quantity, or weight, and variety of cannabis received. • The actual time of departure and arrival. • A categorization of the cannabis. • The UID for each discrete unit of cannabis. • The license numbers for all Licensees involved in the distribution process. • A driver's license number for each driver involved in the distribution process.

2.2.3B	The Department needs the ability to electronically generate and print shipping manifests in an industry standard format (e.g., .pdf).
2.2.3C	The Department needs the ability to keep a historical record of all shipping manifests created in the system.
End of 2.2.3 Track Distributions business need.	

2.2.4 - Review Flagged Irregularities

The Department needs to be aware of "irregular" cannabis supply chain activity (e.g., activity that falls outside expected values and statistical norms). The Department shall receive guidance from the system provider based on market information available in California and other jurisdictions to set effective irregular flags. As market conditions change, the Department expects to have ongoing discussions with the system provider to revisit and modify the parameters of irregularity flags. The Department will designate the criteria used to flag irregular activity and will refine these criteria over time. Therefore, the system must flag irregularities for the Department to investigate. Specifically, the system must automatically flag irregularities based on identified criteria and allow the Department to review the specific cannabis supply chain activity information that is flagged as irregular; this is the scope of this **2.2.4 Review Flagged Irregularities** business need.

Requirement ID	Requirement Description
2.2.4A	The Department needs the ability to receive notifications of, and review irregularities in cannabis supply chain activity (e.g., weight loss during harvest drying that falls outside expected limits, weight loss during distribution, etc.).
2.2.4B	For each type of license, the Department needs the ability to designate specific criteria to be used by the system to automatically detect and flag irregularities for the Department to investigate. The Department must be able to revise and update these criteria based on its evolving knowledge and experience, as well as other feedback and broader changes in market conditions.
2.2.4C	The Department needs the ability to produce one or more report(s) identifying cannabis activity that is considered "irregular", based upon Department-specified criteria.
2.2.4D	The Department needs the ability to view a record of all changes made to the configurable parameters and algorithm data elements used to flag irregularities to audit and refine any such changes made over time.

End of 2.2.4 - Review Flagged Irregularities business need.

2.2.5 - Extract Cannabis Supply Chain Information

The Department needs to be able to manage staff workload in the organizations and to generate reports for program administration and reporting. As more cannabis supply chain information is added to the system, management staff of the Department needs to be able to determine the amount of staff workload associated with monitoring and administering CCTT activity in specific locations, counties, and regions for their respective organizations.

In addition, the Department needs to be able to generate reports to include yearly, monthly, weekly, and daily workload metrics. The Department also needs to generate ad hoc queries to address emerging business needs, investigations, and audits. Therefore, the CCTT solution needs to allow the Department to swiftly generate reports for its own use and for stakeholders, and to perform ad hoc queries; this is the scope of this **2.2.5 - Extract Cannabis Supply Chain Information** business need.

Requirement ID	Requirement Description
2.2.5A	The Department needs the ability to generate and print/save in industry standard formats (i.e., .csv, .xls/.xlsx, .pdf) custom and preconfigured reports based on Licensee cannabis supply chain information. Upon running the reports, data should be returned in not less than an hour for small and medium report outputs, and not more than 24 hours for extremely large report outputs.
2.2.5B	The Department needs the ability to generate and print/save in industry standard formats (i.e., .csv, .xls/.xlsx, .pdf) ad hoc reports based on user-developed queries.
2.2.5C	The Department needs the ability to schedule the execution of reports and queries in the system for later delivery to the authorize system user.
2.2.5D	The Department needs the ability to extract cannabis supply chain data from the system in industry standard formats (i.e., .csv,.xls/.xlsx, .pdf) and via secure REST API.
End of 2.2.5 - Extract Cannabis Supply Chain Information business need.	

2.3 – Business Need 3: Other Governmental Entities

Other Governmental Entities is defined as a user of the system who performs some aspect of regulatory oversight or enforcement as required by the Medical and Adult-Use Cannabis Regulation and Safety Act or as otherwise authorized by law, and which is distinct from the Department. Other Governmental Entities includes state and local officials performing compliance and enforcement activities with respect to their statutory or regulatory authority (e.g., the Department of Fish and Wildlife, State Water Resources Control Board, Board of Equalization; city and county officials; and other state and local regulatory and law enforcement personnel). Other Governmental Entities may also include other governmental entities as authorized by law. Other Governmental Entities need to be able to verify that a person, entity, and/or location is licensed to perform the actions (e.g., cultivating, dispensing), the specific activity that is licensed and that the activity comports with applicable laws and guidelines.

2.3.1 - Obtain System Access

In order for Other Governmental Entities to view information about cannabis supply chain activity, users in the organizations represented by Other Governmental Entities need to obtain appropriate role- based access to the information in the system to perform their respective duties. Therefore, the system must allow the Other Governmental Entities users to establish and maintain a system account providing access only to the cannabis supply chain information they are authorized to review; this is the scope of this **2.3.1- Obtain System Access** business need.

Requirement ID	Requirement Description
2.3.1A	Other Governmental Entities users need the ability to establish an account to allow secure role-based access to the system.
2.3.1B	Other Governmental Entities users need to maintain the established system user account, including but not limited to, email address, lost User ID, password management and lost password resets without helpdesk assistance.
End of 2.3.1 - Obtain System Access business need.	

2.3.2 - Review cannabis supply chain activity information

Other Governmental Entity users need to review and verify those elements of a Licensee's cannabis supply chain information (including shipping manifests) necessary to meet their responsibilities. Therefore, the CCTT solution must allow authorized Other Governmental Entities users to verify the movement of cannabis items throughout the supply chain based on the role-based access established for them; this is the scope of this **2.3.2 Review cannabis supply chain activity information** business need.

Requirement ID	Requirement Description
2.3.2A	Other Governmental Entity users need the ability to review a Licensee's cannabis supply chain information to verify against the cannabis onsite at a Licensee's facility or in a Licensee's vehicle.
2.3.2B	Other Governmental Entity users need the ability to review and verify the movement of cannabis items throughout the supply chain.
2.3.2C	Other Governmental Entity users need the ability to verify the shipping manifest against the information in the system.
2.3.2D	Other Governmental Entity users need the ability to determine that a licensee is in possession of cannabis that originated from a licensed cultivator and the amount of cultivation tax that was due by the cultivator on that cannabis.
End of 2.3.2 Review Cannabis Supply Chain Information business need.	

2.3.3 Extract Licensee Cannabis Supply Chain Information

Other Governmental Entity users need to obtain (including print, download) selected information in the system. Therefore, the system must allow Other Governmental Entity users to query and report on Licensees' cannabis supply chain information; this is the scope of this **2.3.3 Extract Licensee Cannabis Supply Chain Information** business need.

Requirement ID	Requirement Description
2.3.3A	Other Governmental Entity users need the ability to extract and download from the CCTT solution selected information about cannabis supply chain activities in industry standard formats (i.e., .csv, .xls/.xlsx, .pdf). The results of the reports should respect established roles in the system. For example, if a user is a staff person in a local jurisdiction, they should only see results pertaining to cannabis in their local jurisdiction.
2.3.3B	Other Governmental Entity users need the ability to generate and print/save reports in industry standard formats (i.e., .csv, .xls/.xlsx, .pdf).
2.3.3C	Other Governmental Entity users need the ability to generate and print/save in industry standard formats (i.e., .csv, .xls/.xlsx, .pdf) ad hoc, user-created, queries to obtain information about selected cannabis activity information stored in the system.
2.3.3D	Other Governmental Entity users need the ability to apply electronically through the CCTT solution to obtain access to reports related to supply chain activity.

End of 2.3.3. Extract Licensee Cannabis Supply Chain Information.

2.4 – Business Need 4: Department CCTT Administrator

The Department CCTT Administrator is defined as the state department statutorily required to establish and administer the system. The Department's Information Technology Services Division supports the program in this role by: monitoring the status of implementing the system; managing the contract during any contracted Maintenance and Operations (M & O) period(s); and, providing user (account) management support once the system is operational.

The Department CCTT Administrator needs to ensure that Licensees are not able to record cannabis supply chain information or produce a shipping manifest reflecting movement of cannabis in violation of State law. To maintain the confidentiality of Licensees' cannabis supply chain information, the Department CCTT Administrator needs to assure that appropriate role-based access to the Trace and Trace system and its data is established and maintained for authorized Licensees, the Department, Other Governmental Entities, and its own staff. The Department CCTT Administrator (or designee) also needs to issue and monitor state-authorized UIDs to individual Licensees.

2.4.1 - Issue and Control Unique Identifiers

To ensure the cannabis is not diverted from the legal supply chain (diversion) and that illegal cannabis does not enter the supply chain (inversion), the Department CCTT Administrator (or designee) must support the Department's efforts to assure that all cannabis subject to its jurisdiction (e.g., all cannabis cultivated or produced, packaged, tested, transported, distributed, and sold in California's licensed cannabis market) is identified and accounted for. To do this, the Department CCTT Administrator (or designee) needs to issue a group of unique identifiers (UIDs) to Licensees so that each Licensee can later assign individual UIDs (from the group) to each discrete unit of cannabis the Licensee cultivates, packages or produces. The Licensee's subsequent application and assignment of unique identifiers to cannabis will enable the Department, regulators and other state governmental entities to track cannabis throughout the cannabis supply chain. To support such tracking, the system must provide a means of linking a UID assigned to a discrete unit of cannabis (e.g., e.g. seeds, one or more cultivated cannabis plants, harvested cannabis plants, dried flower, pre-rolls, manufactured cannabis products, etc.) to the UID(s) of the cannabis used in its production (the "parent" cannabis), where applicable. The Department CCTT Administrator needs to determine the disposition of UIDs allocated to a Licensee to ensure each UID is accounted for and to verify it is not being misused. Therefore, the Department CCTT Administrator (or designee) needs a solution that allows the Administrator to issue a group of UIDs to a Licensee, determine the disposition of the individual UIDs in the group over time, track uniquely identified cannabis as it moves through the supply chain and link interrelated UIDs; this is the scope of this **2.4.1 Issue and Control Unique Identifiers** business need.

Requirement ID	Requirement Description
2.4.1A	The Department CCTT Administrator needs a UID to be machine-readable via a mobile electronic device (i.e. phone, tablet, etc.).
2.4.1B	The Department CCTT Administrator needs to track the issuance of UIDs to a Licensee. For example, such tracking could include UID numbers (series), date of issuance, the Licensee the UIDs were issued to, disposition (or status) of the UID.
2.4.1C	The Department CCTT Administrator needs to ensure that UIDs are only issued to the active Licensees allowed to receive them.
2.4.1D	The Department CCTT Administrator needs to ensure a UID cannot be duplicated, reused, and can be frozen from being associated to product if appropriate.
2.4.1E	The Department CCTT Administrator needs to establish protections against falsification of UIDs and fraudulent UIDs.
2.4.1F	The Department CCTT Administrator needs to access and track information about the Licensee requesting and receiving UIDs (e.g., license status, license type, etc.).

End of 2.4.1 Issue and Control Unique Identifiers business need.

2.4.2 Manage System Access

Considering its responsibility to ensure the confidentiality of the Licensee cannabis supply chain activity information in the CCTT solution, the Department CCTT Administrator needs to define all user access roles to assure individuals and organizations have access to the information they are statutorily required and only that information. ***Note***: see Business Needs for Licensees, the Department, and Other Governmental Entities for additional information.

Requirement ID	Requirement Description
2.4.2A	The Department CCTT Administrator needs the ability to define and assign different user access roles based on the responsibilities and authorizations statutorily assigned to and/or as determined by the Department CCTT Administrator in collaboration and per agreements (e.g., MOUs) with the following types of CCTT parties (and others that may be subsequently identified) to ensure that authorized staff within each is able to access and, where appropriate, update the Licensee cannabis supply chain information within the system: Licensees Department Other state regulators Other governmental stakeholders The Department CCTT Administrator also needs the ability to assign the user access roles appropriate to the Department staff supporting the administrator role.
2.4.2B	The Department CCTT Administrator needs the ability to authenticate the validity of other governmental users through the use of external systems where appropriate and mutually agreed (e.g. Law Enforcement access confirmed with the use of a DOJ system)
2.4.2C	The Department CCTT Administrator needs to classify Licensee cannabis supply chain information as public or private in accordance with State law and further classify the private information for access by specific roles (e.g., Licensee, the Department, Department CCTT Administrator, other state regulators, and other governmental stakeholders).
2.4.2D	The Department CCTT Administrator needs the ability to designate information in the system as confidential.

End of 2.4.2 - Manage System Access business need.

2.4.3 Monitor Status of Solution

In support of the Department CCTT Administrator, the Department Information Technology Services Division (ITSD) staff need to be able to monitor the operational characteristics of the system in real time. This includes such characteristics as performance, availability, API performance, and overall system utilization. The Department anticipates the amount of licensees will increase in future years, which will increase the number of users and records. The performance must keep pace with that increase. Furthermore, the system must be performant in remote areas as some licensees operate in rural areas with limited internet bandwidth. In addition, the Department ITSD staff needs to review workload with respect to help desk tickets, call volumes, tickets still in work, tickets escalated, and metrics associated with help desk tickets to identify variances from Service Level Agreements (SLAs). Therefore, the Department requires a solution to allow Department ITSD staff to assess the proposed system's characteristics, help desk workload and response times; this is the scope of this **2.4.3 Monitor Status of Solution** business need.

Requirement ID	Business Need
2.4.3A	The Department ITSD staff need to access the proposed system metric information related to the solution's boundary characteristics, such as response time, availability, uptime, API performance, etc. and not the internal characteristics as all IT solutions must be a Software-as-a-Service (SaaS) solution.
2.4.3B	The Department ITSD staff need to access information related to the help desk to include help desk metric data such as call volumes, wait times, missed calls, durations, open tickets, closed tickets, escalated tickets, ticket categorization or classification of type of problem, etc.
2.4.3C	The system shall be capable of setting policies to throttle API usage at agreed upon limits directed by Department staff to support consistent system performance.
End of 2.4.3 - Monitor Status of Solution business need.	

2.4.4 User Management

In support of the Department CCTT Administrator, the Department staff needs to be able to add, delete, and suspend users of the CCTT solution and to perform

other user management functions such as the assignment of previously defined roles (that define role-based system access and permissions) to specific CCTT solution users, assigning initial passwords, performing password resets, etc. This need is distinct from 2.4.2 Manage System Access, as this need addresses the need to routinely maintain and support user access to the system. Therefore, the Department requires a solution to allow the Department staff to provide overall user management functions for the system; this is the scope of this **2.4.4 User Management** business need.

Requirement ID	Requirement Description
2.4.4A	The Department staff needs to perform user management functions for the system to include user account management, user privilege management (role-based), and general user account maintenance functions.
2.4.4B	The Department staff need to review and audit all user accounts and user account activities in the system and store the results.
End of 2.4.4 User Management business need.	

2.4.5 Update Processes

The Department CCTT Administrator needs to update or modify the CCTT process (or to delegate making such modifications to Department IT staff). While it is not expected that the Department CCTT Administrator needs the ability to modify all processes without contractor support, the Department CCTT Administrator does need the ability to modify some items such as reference values (e.g., criteria for flagging irregularities) and other similar values and parameters (e.g., strain information, wholesale price). Also, such Department CCTT Administrator changes must be supported by effective dating to implement the change in advance of when it is needed but not enable the change to come into effect until the assigned effective date. The Department CCTT Administrator needs a clear definition or delineation from the system contractor about what changes can be made, by whom, and a defined process to implement any and all changes to the system, which will be integrated with the project's Change Control Process. Therefore, the Department CCTT Administrator requires a solution that enables the Department CCTT Administrator to make updates and modifications to the system's processes in accordance with agreements established with the contractor implemented in accordance with the project's Change Control Process; this is the scope of this **2.4.5 Update Processes** business need.

Requirement ID	Requirement Description
2.4.5A	The Department CCTT Administrator needs to modify publications, instructions, guides, and other similar static Web content for review by Licensees.
2.4.5B	The Department CCTT Administrator needs to modify reference/parameter values of the business process and to identify the effective date and end date for when the changes should be applied. This is considered a small or minor modification of the system that, while it needs to adhere to a change process, it is expected that the Department CCTT Administrator can make the change without contractor support.
End of 2.4.5 Update Processes business need.	

2.4.6 - Extract Cannabis Supply Chain Information

The Department CCTT Administrator need to be able to manage the staff workload required to establish and administer the system as the number of system users, the volume of cannabis supply chain information and the refinement of processes (as described in 4F, above) expands and extends over time. To support such workload management, Department management need to generate yearly, monthly, weekly, and daily reports and ad hoc queries associated with system-related staff support activities.

In addition, the Department Administrator may be requested to extract data and generate reports or queries to meet specific, authorized stakeholder needs on a scheduled or "as needed" basis to support sporadic business needs, investigations, and audits. Therefore, the Department CCTT Administrator requires a solution to allow Department staff and management to generate and view reports and queries in a timely manner related to system-related staff support activities and to generate and provide reports to authorized state stakeholders to support sporadic business needs, investigations, and audits; this is the scope of this **2.4.6 Extract Cannabis Supply Chain Information** business need.

Requirement ID	Requirement Description
2.4.6A	The Department CCTT Administrator needs to delegate to Department management the ability to generate and print/save reports in support of monitoring and projecting system-related staff workload.

2.4.6B	The Department CCTT Administrator needs to delegate to Department management the ability to generate and print/save ad hoc, user-formed queries in support of monitoring and projecting system- related staff workload.
2.4.6C	The Department CCTT Administrator needs to generate and print/ save custom and canned reports based on Licensee cannabis supply chain activity information and user-defined criteria.
2.4.6D	The Department CCTT Administrator needs to generate and print/save ad hoc, user-developed queries based on Licensee cannabis supply chain activity information and user-defined criteria.
2.4.6E	The Department CCTT Administrator need to schedule the execution of reports and queries.
2.4.6F	The Department CCTT Administrator need the capability to export data associated with CCTT Administrator workload.
End of 2.4.6 Extract Cannabis Supply Chain Information business need.	

3.0 - Non-Functional Requirements

The non-functional requirements are included in the attached Response Matrix.

4.0 - State Development Framework Description

Working in partnership with the State, the Contractor would provide DCC with a team to implement the system for meeting the State's statutory and regulations. The scope of the Contractor's would include:

1. Configuring, developing, and implementing an existing SaaS product to meet the State's operational requirements;
2. Converting data from any existing system or systems with cannabis activity tracking data into the SaaS product;
3. Developing, implementing, and supporting the CCTT solution using an approach that aligns with the State's Development Framework; and,
4. Enhancing software and updating configuration in a timely manner when updates are made to State laws and regulations.

The State's Development Framework involves a hybrid of two software development models, Rapid Application Development (RAD) and Agile. RAD ensures that the Contractor follows best practices, involves Joint Application Design (JAD) sessions, utilizes visualization/process support tools, and focuses on mitigating risks. Agile ensures customer engagement, involves small teams, adapts to changing requirements, and focuses on quality assurance.

The State's Development Framework includes three development activity workstreams: product backlog elaboration, iterative development and delivery, and data conversion.

4.1 - Product Backlog Elaboration

Product Backlog Elaboration is a continuous interactive process, which will allow the State staff to understand, modify, and eventually approve a working model of the system that meets their needs. During the Product Backlog Elaboration Phase, State staff will interact with the Contractor using a combination of JAD techniques and Computer Aided Software Engineering (CASE) tools to translate business needs into business processes then finally into user stories.

The Contractor will utilize the State-identified Business Needs to first develop the business processes. Next, the Contractor will conduct a Fit-Gap Analysis between the existing SaaS product that will serve as the basis of the system and State law. Following the Fit-Gap, the Contractor will lead JAD sessions with the State and other system users to refine and expand on the proposed high-level business processes and sub-processes. The purpose is to obtain concurrence from system users for each process, sub-process, and associated steps.

The Contractor will then proceed in developing user stories for the selected process and sub-processes in an iterative approach. All user stories should include a written sentence or two and, more importantly, a series of conversations about the desired functionality. User stories should be short, simple descriptions of a feature told from the perspective of the person who desires the new capability, usually a user or customer of the system. The State expects the Contractor to use the CASE tool to document and manage the user stories. In addition, the User Story Development tasks should define and document the system interfaces required for supporting fully automated data transfer and machine-to-machine communications. The CASE tools will be used to document and track execution of test scripts in alignment with the acceptance criteria of the user stories.

Product backlog maintenance and elaboration will continue throughout major system configuration and development and completion of initial user story development will be a prerequisite to beginning the Iterative Development and Activity workstream. Critical to backlog evaluation will be a partnership with the Contractor to establish a system to determine the level of effort and impact of each proposed user story as these factors will play into the prioritization of user stories.

4.2 - Iterative Development and Delivery

The Iterative Development and Delivery workstream will commence once sufficient definition and documentation of requirements has occurred in the Product Backlog Elaboration workstream. This workstream will utilize a Sprint Cycle to complete development activities. Sprint planning, development, testing, and retrospectives will occur repeatedly throughout this process. Multiple sprints will form a functioning product increment that will provide end-to-end functionality that may be delivered to production internal and external end users.

4.3 - Data Conversion

Depending on the development approach and SaaS product, the State may require the completion of data conversion activities from one or more databases containing current system data. Data conversion activities should occur in parallel with the two other workstreams and should align key milestones product increments. The State expects the Contractor to provide all data conversion software and tools to consume and transform data into the implemented SaaS solution.

Data conversion activities should include analysis of existing data structures and fields, mapping to the new target SaaS solutions database tables and tools, transformation of data if necessary and approved, audit reports to document that no data was not converted that was deemed to be in scope, and multiple rounds of conversion dry runs and testing to ensure maximum confidence in the integrity of the data conversion process.

4.4 - Project Management

The DCC expects the Contractor to proactively manage its responsibilities. This means in addition to normal software development lifecycle activities, the Contractor would be expected to complete standard project management tasks and deliverables including weekly status reports, project schedule updates, evaluation and response to project risks and issues, budget tracking, and presentations to senior management.

4.5 - Deliverables

Deliverables expected to be a part of the implementation of the system are provided below for reference:

- System Development Plan
- Project Schedule
- Weekly Status Report
- Sprint Status Report
- Sprint Planning Ceremony
- Sprint Retrospective
- System Development and Configuration Plan
- Data Conversion Plan
- Maintenance and Operations Plan

- Interface Control Documents
- External Stakeholder Communication Plan
- Training Plan
- Training Material
- Go Live Plan
- Go Live Report

4.6 - Training

The Contractor will be required to develop a comprehensive State-accepted training program for the delivered system. The Contractor will be required to execute the training program through Contractor-delivered training sessions to all State-identified stakeholder groups requiring training. The Contractor will be expected to deliver training to system users after initial deployment and after major releases that change functionality. The Department expects these trainings to be a combination of in-person, virtual, and on-demand video.

The following table shows some of the stakeholder groups that will use or support the system and/or access its data. This information is intended to provide an example of the types of users anticipated and should not be considered comprehensive. Different groups will have different levels of access that should be controlled through role-based security.

Stakeholder	Examples
Cannabis Industry Licensees	An entity or individual awarded a license to engage in commercial cannabis activity and participate in related supply chain activities from cultivation through retail.
State Department	Department staff, including peace officers.
Department Track and Trace Administrator	Department staff (or designee(s)) that administer the system and the IT staff that support them
Law Enforcement	California peace officers, including (but not limited to): • California Highway Patrol officers • Peace officers employed by other state agencies • Sheriffs and sheriffs' deputies • Local police officers Other authorized law enforcement officers
Other State Regulators	Department of Tax and Fee Administration State Water Resources Control Board

	Department of Fish and Wildlife
Other Governmental Entities	Local cannabis regulators Other government entities as authorized by law County Agricultural Commissioners and their staff
Third party integrators	An entity that utilizes the system's API endpoints to access or update data in the cannabis supply chain (e.g. point of sale systems).

Training the industry on the system will be a crucial step in the industry's adoption of the system. The State expects the Contractor to draw upon past experiences when providing these training services. The Contractor's Training Plan should describe how it will provide training at multiple, geographically and culturally-diverse locations throughout the State to align with the expected geographic dispersion of licensees, and nuances thereof, throughout the State. Knowledge transfer and training of state staff will also be important for state staff to continuously improve the data being collected.

4.7 - Help Desk System Support

The Contractor will be expected to provide a Help Desk to respond to technical questions. The State will have a Help Desk to respond to questions regarding policy and regulations. The Help Desk will also respond to third party users of API endpoints or file uploads. Examples of support that would be provided through a help desk include password resets, assistance with understanding how to correct data entry errors, assistance in understanding and resolving system errors, and providing guidance on how to navigate and use the system.

4.8 - Post Implementation Support Tasks

The objective of Post-Implementation Support Tasks is to define the tasks that are required during the System Acceptance period and the Maintenance and Operations (M&O) period of the contract. For M&O, the Contractor is responsible for all of the configurations, customizations and interfaces in creating the system.

During M&O, it is anticipated that the Contractor shall maintain adequate staffing levels, as approved by the State, to perform updates, resolve problems, make changes to improve efficiencies, etc. and continue to implement new functionality throughout the life of the contract as prioritized and mutually agreed. The cannabis industry is also a relatively new industry still undergoing frequent updates to underlying statutes and regulations. Because of this it is imperative that adequate staffing be available and an effective analysis process be in place to determine how changes to laws and regulations will impact system software and functionality.

5.0 - Response Instructions

DCC seeks information from the technology vendor community to understand available software products that can meet its system functional business needs and non-functional requirements. This request is not a request for proposal, is non-binding, and is for market research purposes only.

DCC requests a response into this request for information in the following format:

- Business Need Narrative Response – Vendors shall provide a narrative response to how their system meets the business needs outlined. Narratives should be organized by business need area and clearly labeled. For example, the narrative response to Business Need 1 should be included in a section clearly labeled Business Need 1. The Department requests screenshots be included wherever possible. The Department also requests a detailed description of the following functionality:
    - How the system utilizes the data it collects to provide analytics of market trends throughout the supply chain including but not limited to geographic, product, and consumer factors.
    - How the system flags and notifies of irregularities in the cannabis supply chain as mentioned in section 2.2.4, and how the system provider will share insights gained from other jurisdictions to set and update system flags for irregularities.
    - How the system can support a UID distribution model that is not reliant on the Department or its designee distributing physical uniform hard copy tags. The Department's interests in alternate methods of UID distribution are discussed in section 2.1.1.
- State Development Framework Narrative Response – Vendors shall provide a narrative response detailing how their process aligns with DCC's discussed development approach in the document in Section 4.0. DCC recommends including in the narrative response what roles members from the vendor's system development will serve in the different development workstreams.
- Training Narrative Response - Vendors shall provide a narrative response detailing how their process aligns with DCC's discussed development approach in the document in Section 4.6. DCC recommends including discussion around how training will be delivered to different stakeholder groups.
- Help Desk Narrative Response - Vendors shall provide a narrative response detailing how their process aligns with DCC's discussed development approach in the document in Section 4.7.
- Post Implementation Support Tasks - Vendors shall provide a narrative response detailing how their process aligns with DCC's discussed development approach in the document in Section 4.8.
- Response Matrix – Vendors should provide a response on each business need in the response matrix and include all requested values. The purpose of the response matrix is to collect information from respondents in a consistent manner to determine the viability of the software products. Please note that the response matrix also includes requests for

client reference contact information that DCC may use to verify the accuracy of the data submitted.

- Cost Estimate – Vendors should complete the 'Cost Estimate' tab in the Response Matrix. The cost estimates are for market research purposes only and are not contractually binding.