



Introduction to California Cannabis Track-and-Trace System



Agenda

- Who is Franwell?
- Introduction to Metrc
- Working with Metrc
 - Obtaining User Access
 - Tags and Tracking
 - Plants
 - Packages
 - Manufacturing
 - Transfers
 - Laboratory Testing
 - Retail Sales
 - Reports
- RFID, What and Why
- Integration with other Software
- Support



Who is Franwell?

- 25+ years of business experience in (high flow & volume) supply chain processes & tracking
- 30+ years of experience in computer technologies
- 15+ years focused on auto identification technology (Barcode, RFID, etc.)
- Current Statistics:
 - Over **53,000** Industry users enrolled
 - Over **200** State users
 - Over **11,501,800** plants commissioned
 - Over **8,527,139** packages tracked
 - Over **1,421,585** travel manifests processed



Natalie M. LaPrade
Maryland Medical Cannabis Commission



Introduction to Metrc

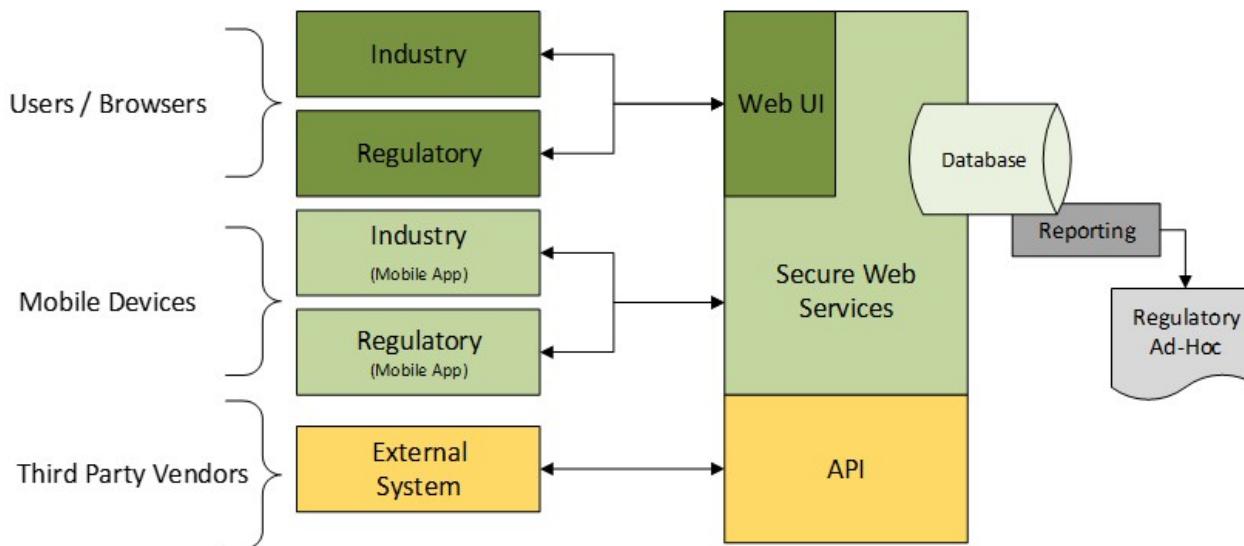
Scope

- leaf Metrc® is a compliance management solution used by regulatory bodies for the oversight of the cannabis industry.
- leaf Metrc is a cloud hosted on-line software reporting system used by licensed cannabis businesses to manage and report supply chain activities as required by State rules.
- leaf CCTT-Metrc is California's implementation of Metrc (metrc.com/California)



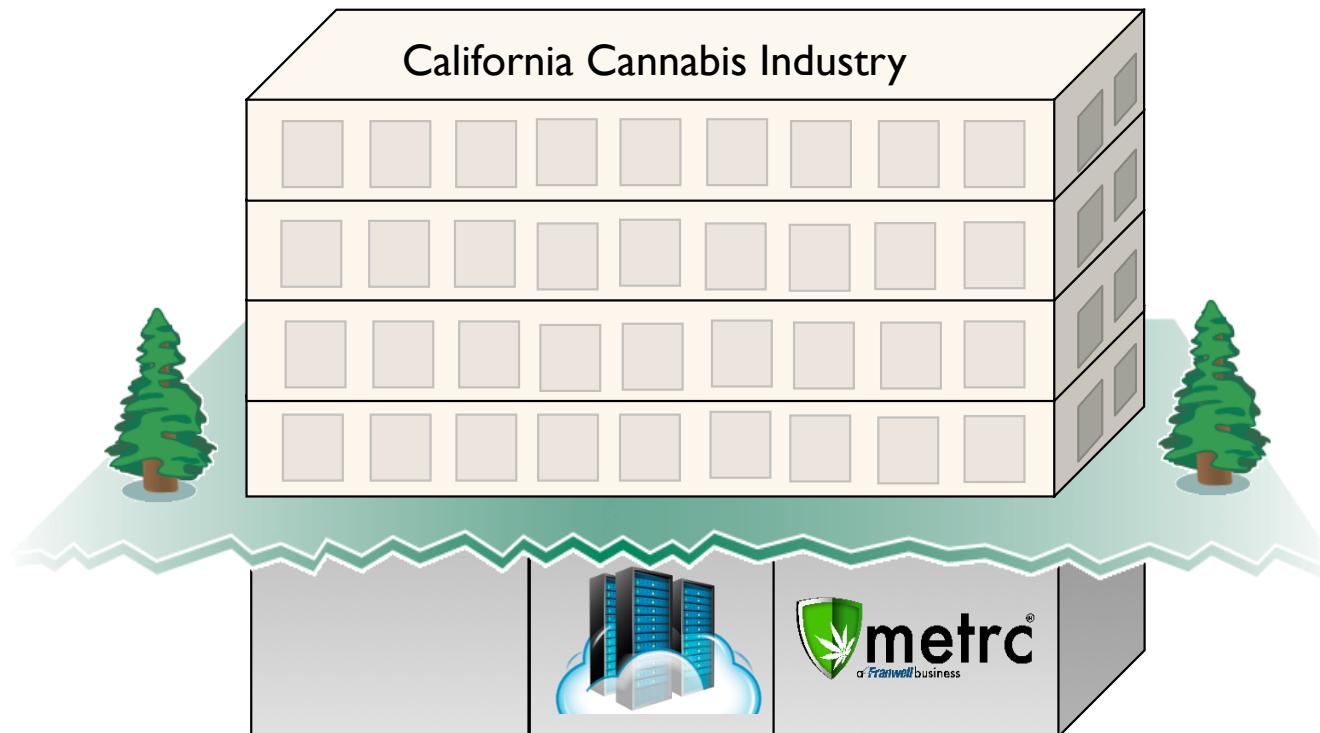
What Makes up Metrc?

- The system consists of:
- A web application
- Web services
- A mobile application for site inspection
- A mobile application for industry use



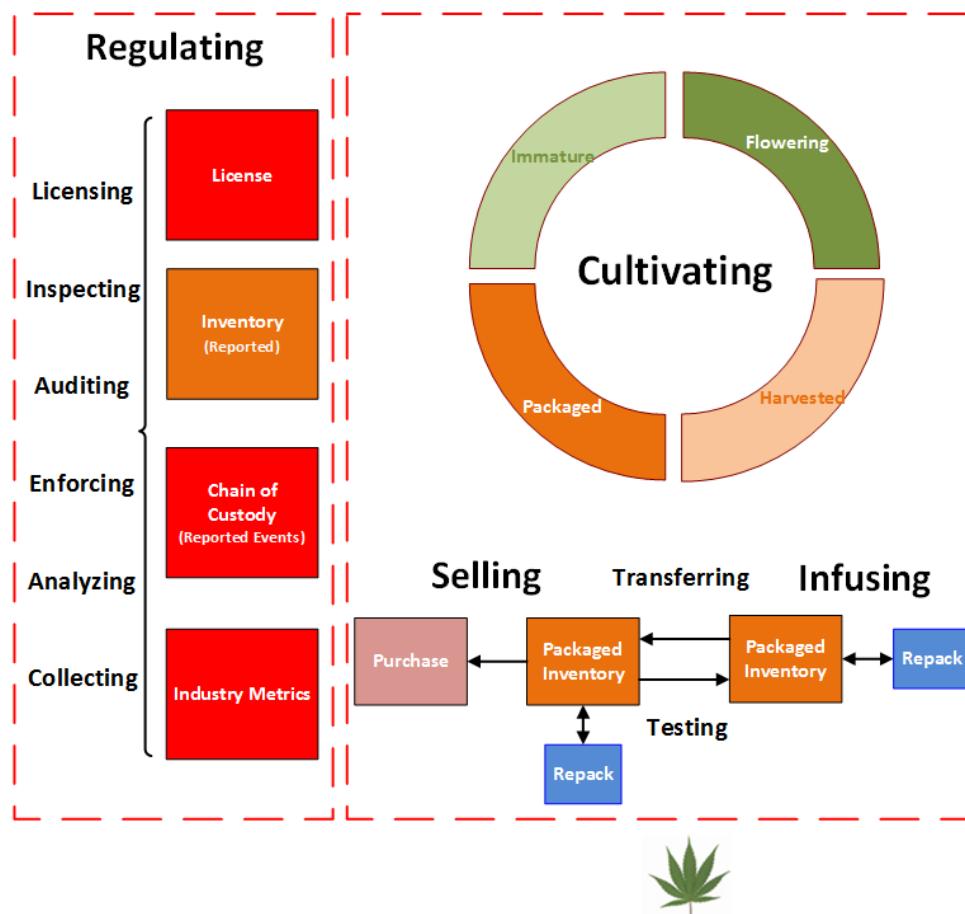
How Metrc is Built

- Private dedicated hardware
- Secure on-line access
- Real-time with data backup and failover



Introduction to California Cannabis Track-and-Trace System v1.3

How Metrc is Organized



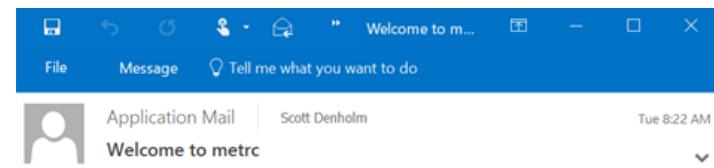
- “Immature plant” or “immature” means a cannabis plant that is not flowering.
- “Flowering” means that a cannabis plant has formed a mass of pistils measuring greater than one half inch wide at its widest point.



Working with Metrc

Obtaining User Access

- Submit your Annual license application and take the required training
- Obtain approval of Annual license
- Call or email Metrc Support to receive confirmation of Annual license and training completion
- Follow these steps to complete your login credentials upon receipt of welcome email:
 - Click on the first link in the "Welcome to Metrc" email. You will be directed to the website.
 - Accept State Attestation and Metrc Terms and Conditions
 - Setup a User Profile



Welcome to metrc!

Log-in and set your password here: <https://ca.metrc.com/log-in/first-time?key=v81zn6iRIW4045ch-u8aLVuxBAbFd7bW>

First Time log-in key: v81zn6iRIW4045eh-u8aLVuxBAbFd7bW

Once your password is set, you will log-in here: <https://ca.metrc.com/>.

A screenshot of the Metrc User Profile setup page. The page is divided into sections: "Contact Info.", "Security Info.", and "Account Recovery".

- Contact Info.** Fields include: Enter email address (with a callout), Full Name (Your Name), Email (john@gmail.com), Phone Number (719-555-2222), and Account Recovery (a long alphanumeric string).
- Security Info.** Fields include: Username (M0000X), Password, Confirm Password, and a "Password" link with a callout.
- Account Recovery**: A section containing a long alphanumeric string for account recovery.
- Buttons and Links**: Save Profile, Undo Changes, and Confirm password.
- Footnotes**: Enter Personal Security Question, View Security Answer, Occupational License Number - Badge Number, and a series of numbered callouts (1 through 10) pointing to various fields and links on the page.

Setup Business Profile

For each license (facility) add:

1. Employees
2. Strains
3. Items
4. Rooms (Cultivators Only)

California Regulations can be accessed at:

California Department of Food and Agriculture (CDFA): <http://calcannabis.cdfa.ca.gov/>
Cultivator licenses

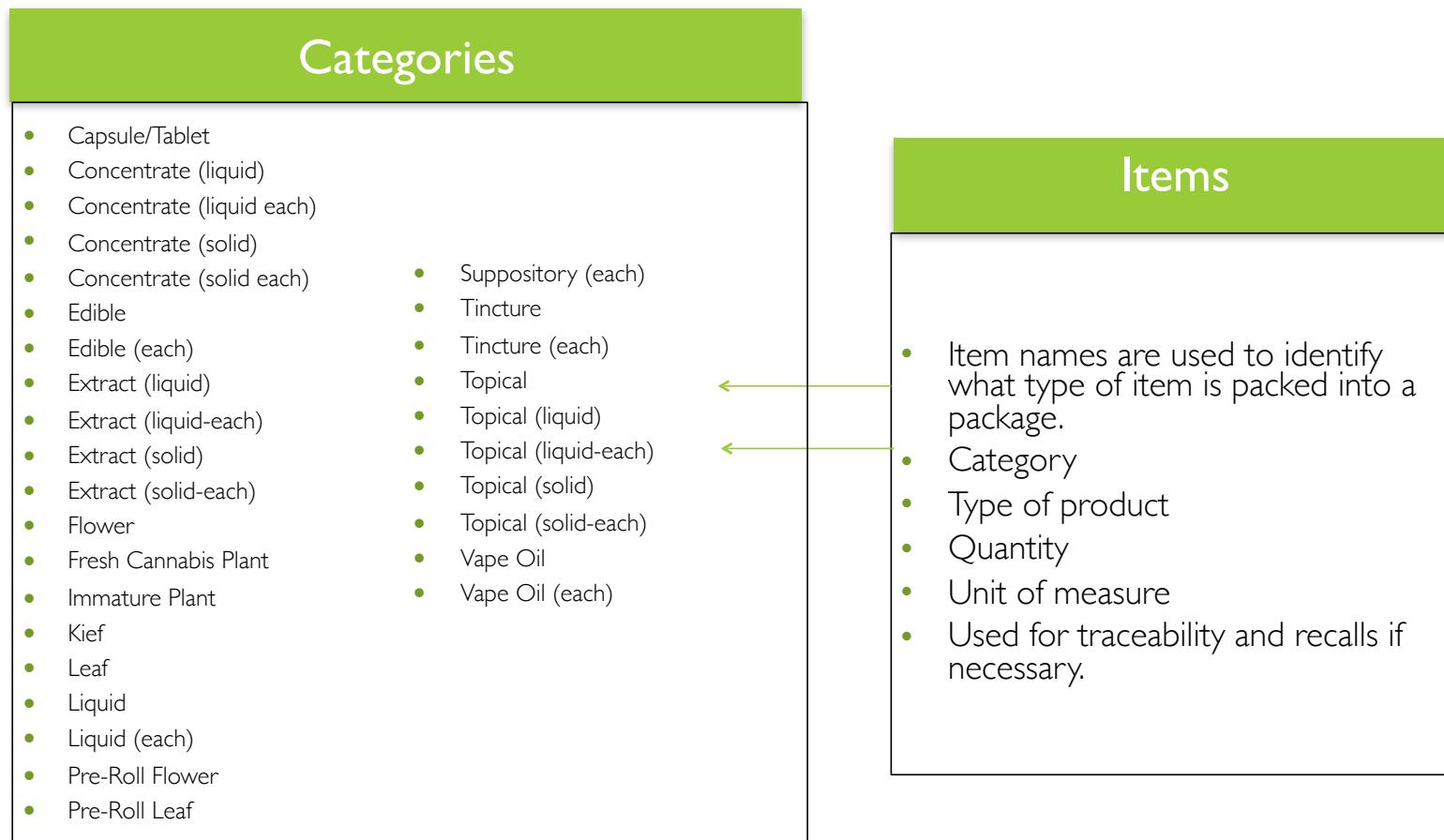
Bureau of Cannabis Control (BCC): <http://www.bcc.ca.gov>
Distributor, Retailer, Testing Laboratory and Microbusiness licenses

California Department of Public Health (CDPH): <https://www.cdph.ca.gov/Programs/CEH/DFDCS/Pages/MCSB.aspx>
Manufacturing licenses

Permissions for Each Type of License Facility

	Cultivator	Cultivator Processor Only	Distributor	Distributor Transporter Only	Manufacturer	Manufacturer Packager Only	Retailer	Testing Laboratory	Microbusiness
Plants	✓								✓
Packages	✓	✓	✓		✓	✓	✓	✓	✓
Packages - Remediation					✓	✓			✓
Packages - Test Product								✓	
Licensed Transfers	✓	✓	✓		✓	✓	✓	✓	✓
Transfers Hub			✓	✓				✓	✓
Sales							✓		✓
Admin	✓	✓	✓	✓	✓	✓	✓	✓	✓
Reports	✓	✓	✓	✓	✓	✓	✓	✓	✓

Setup Product Profile





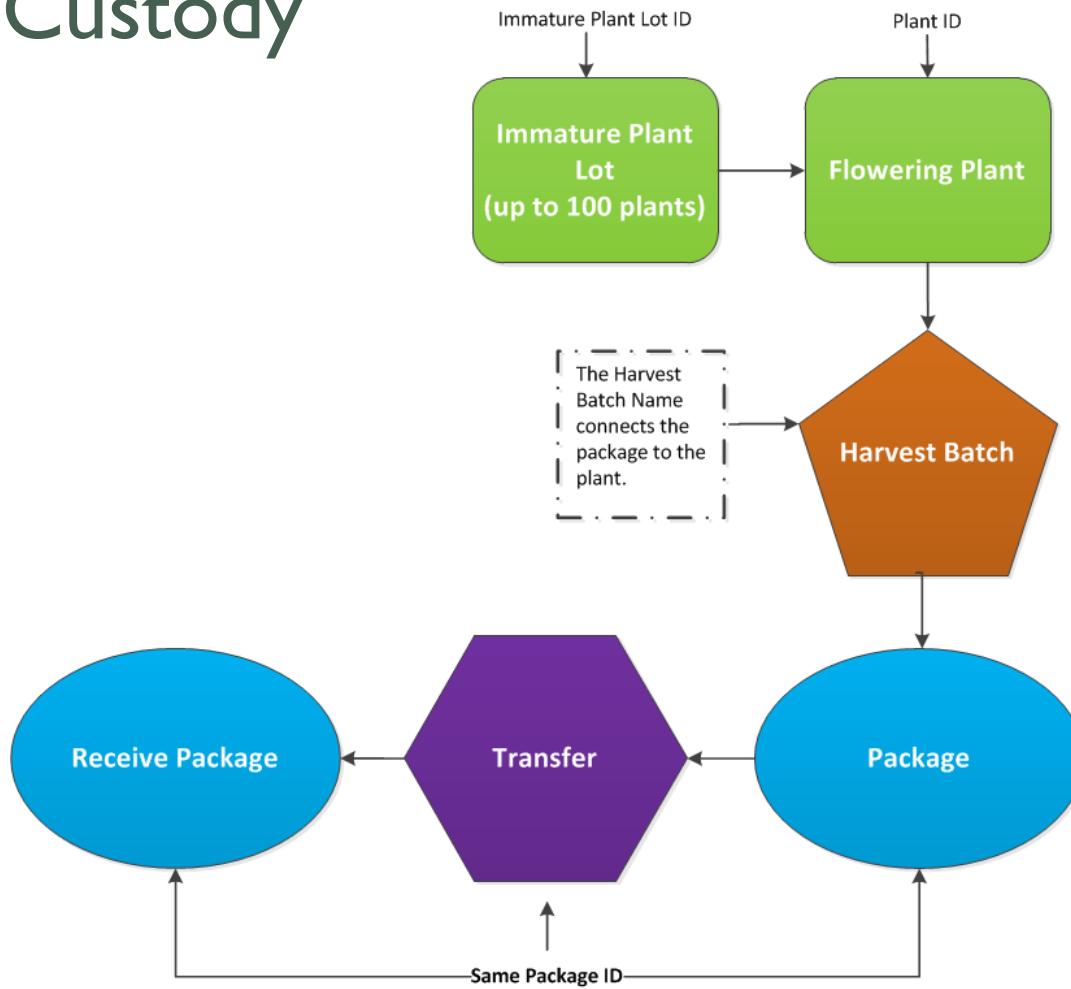
Tags and Tracking

Tagged Inventory in Metrc

- There are two types of tagged inventory in Metrc: Plants and Packages.
 -  **Plants** are immature or flowering. All plants must enter the system through immature plant lots (up to 100 plants / lot).
 - Immature plant lots (up to 100 plants) are assigned a Unique Identifier Plant tag.
 - Each immature plant must be labelled with the lot Unique Identifier (UID).
 - Individual flowering plants are assigned a Plant tag.
 -  **Packages** are created from immature plants, harvest batches, testing lab samples, production batches, and other packages.
- Licensees order tags through Metrc (costs of tags are incorporated into the license fees).



Chain of Custody



Tag Explanation



Package

- Peal and stick – adhesive backing.
- Package tag is used for transferring packages and tracking of finished product for each licensee in the chain of custody.
- The package tag is perforated with the "Package ID #" printed on the upper and lower sections. (example: can be used for jar labeling in order to identify associated package).



Immature Plant Lot Tagging



- One UID (plant tag) is assigned to an Immature Plant Lot (up to 100 plants per lot).
- Each plant in the lot must be labelled with the corresponding UID.

Tag Attached to Flowering Plant

- leaf Plant Tags are assigned to individual plants when moved to canopy or when plant flowers
- leaf Must be attached to main stem at the base of each plant using a tamper evident strap or zip tie
- leaf Must be visible and within clear view



Reminder

- “Immature plant” or “immature” means a cannabis plant that is not flowering.
- “Flowering” means that a cannabis plant has formed a mass of pistils measuring greater than one half inch wide at its widest point.



Plants

Plant Tracking

The screenshot shows a software interface for plant tracking. At the top, there's a navigation bar with tabs like 'Plants', 'Immature', 'Inactive', 'Flowering' (which is selected), 'On Hold', 'Inactive', 'Additive', 'Waste', 'Harvested', 'On Hold', and 'Inactive'. Below the navigation bar is a toolbar with buttons for 'Replace Tags', 'Change Room', 'Changes by Room', 'Destroy', 'Record Additives', 'Record Waste', 'Create Plantings', 'Manicure', and 'Harvest'. The main area is a table with columns for 'Tag', 'Strain', 'Room', 'Hold', 'Group Date', and 'Phase Date'. A specific row is highlighted for a tag labeled '1A4FF00000000002000000133' with strain '9 Lb. Hammer' and room 'Flower Room 3'. The table also contains several rows of event history for this plant, such as 'Planted', 'Moved to room "Immature Room 3"', 'Changed Growth Phase to Flowering', 'Attached tag 1A4FF00000000002000000133', and 'Moved to room "Flower Room 3"'. Arrows from callout boxes point to various parts of the interface: one arrow points to the 'Flowering' tab; another points to the 'Create Plantings' button; a third points to the event history table; and two arrows point to the 'Complete event history' callout.

Each plant uniquely serialized

Complete event history

Each phase of plant life captured

Ability to replace tags, change rooms, record destroyed plants, record additives, record waste, and create plantings.

Each plant location captured

Harvest Steps - Cultivator

- **Harvest Name** – Harvest name is required to be unique name. Strain Name & Harvest Date is recommended best practice.
- **Weight** – the plant in its entirety after being cut from root ball (stems, stalk, flower, leaves, trim, etc.)
- **Waste** – can be multiple entries but must be reported within 3 days after it is created. Waste may include stems, stalk, flower, leaf, trim, etc.
- **Package** – package with unique identifier (flower, leaf, kief, fresh cannabis plant, or pre-rolls)
- **Finish** – when Harvest Batch (HB) is completely done (packages created and waste calculated), click 'Finish'. Any remaining weight associated to the HB is considered moisture loss. Harvest must be completed within 60 days.
- **Transfer** – must create transfer manifest to move product (by a Distributor) to a Processor or Manufacturer or to a Distributor for testing and quality assurance prior to retail sale.



Harvest Tracking

Each harvest captured

Harvest details captured

Plants												
Immature	Inactive	Flowering	On Hold	Inactive	Additives	Waste	Harvested	On Hold	Inactive			
							Create Packages	Report Waste	Finish			
							Harvest Batch ↑	Room	Strain	Plants	Wet Wgt.	Waste
►	Q *	11/17/17 9 Lb Hammer	Drying Room	9 Lb. Hammer	9	120 oz	0 oz	0 oz	0 oz	0	120 oz	0 oz
►	Q *	11/17/17 Lemon Stomp	Harvest Room	Lemon Stomper	5	100 oz	1.0392 oz	40 oz	40 oz	2	58.9608 oz	0 oz
△	Q *	11/17/17 Mani 9lbHammer	Harvest Room	9 Lb. Hammer	5	300 g	0 g	0 g	0 g	0	300 g	0 g

Packages Waste History

John Jones (Jones)			
Description	Employee	Date	Reported
Harvest created in room "Harvest Room"	John Jones (Jones5***)	11/17/2017	11/17/2017 11:00 am
Manicured 100 Grams from Plant 1A4FF0000000002000000020	John Jones (Jones5 ***)	11/17/2017	11/17/2017 11:00 am
Manicured 100 Grams from Plant 1A4FF0000000002000000021	John Jones (Jones5 ***)	11/17/2017	11/17/2017 11:00 am
Manicured 25 Grams from Plant 1A4FF0000000002000000023	John Jones (Jones5 ***)	11/17/2017	11/17/2017 11:00 am

All associated plant data captured



Packages

Packages in Metrc - Definition

- 🛍 Any amount of cannabis or cannabis product that may be sold, manufactured or transferred, must be placed into one or more packages, each package having a UID (package tag) created in Metrc.
- 🛍 Any product that you intend to transfer from one licensee to another must have a UID which must be physically attached to the package.
- 🛍 Metrc allows you to repack any package into a new package.



Package Tracking

Each package uniquely serialized

All associated plant or product data captured

Packages

Tag	Harvest	Item	Category	Quantity	P.B.	P.B. No.	Lab Testing	A.H.	Date	Rcv'd
1A4FF010000002000000025		Afghan Haze Trim	Leaf	11 g	No		NotSubmitted	No	11/17/2017	

Description

Packaged 11 Grams of Afghan Haze Trim from another Package

- Took 11 Grams of Afghan Haze Trim from Package 1A4FF010000002000000022

Employee	Date	Reported	Sources	External App
John Jones (JonesS***)	11/17/2017	11/17/2017 02:20 pm	User	
John Jones (JonesS***)	11/17/2017	11/17/2017 02:20 pm	User	

Page 1 of 1 20 rows per page

Viewing 1 - 2 (2 total)

Tag	Harvest	Item	Category	Quantity	P.B.	P.B. No.	Lab Testing	A.H.	Date	Rcv'd
1A4FF010000002000000012		Immature Pineapple Express	Immature Plant	5 ea	No		NotRequired	No	11/14/2017	
1A4FF010000002000000010		Immature Pineapple Express	Immature Plant	5 ea	No		NotSubmitted	No	11/13/2017	
1A4FF010000002000000005		Immature Pineapple Express	Immature Plant	0 ea	No		NotSubmitted	No	11/09/2017	11/09/2017
1A4FF010000002000000009		Immature Pineapple Express	Immature Plant	12 ea	No		NotSubmitted	No	11/08/2017	

Page 1 of 1 20 rows per page

Viewing 1 - 5 (5 total)

Complete package status & history



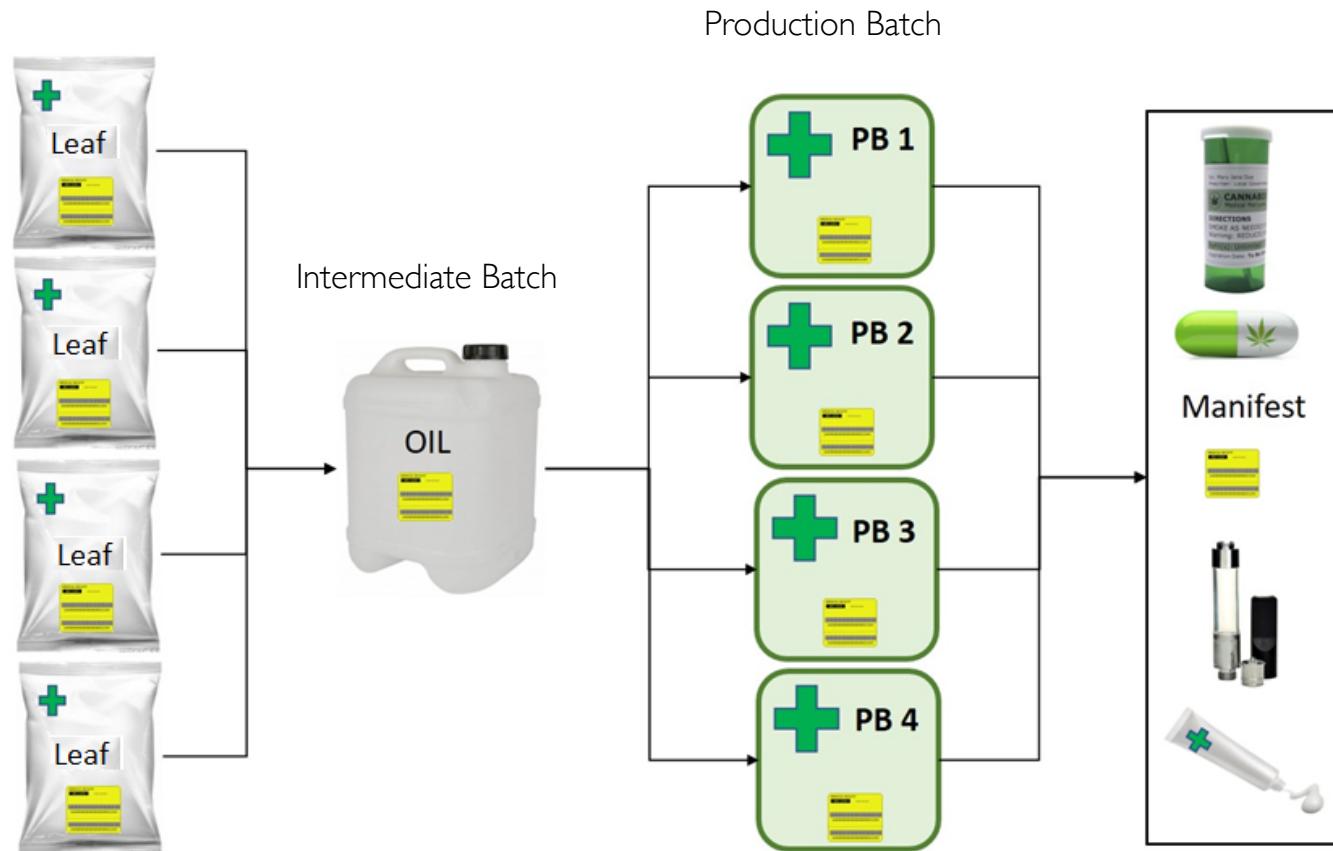
Manufacturing

Packages, Intermediate Batches and Production Batches

- Incoming packages can be used in an intermediate batch such as making **concentrate**.
 - Pull from existing packages to make an intermediate batch of **concentrate**.
 - Create a new package for the **concentrate**.
 - The newly packaged **concentrate** may then be partially used in a production batch to make an infused product such as an Infused Edible or Infused Non-Edible or another Concentrate.



Manufactured Product Process





Transfers

Transfers

- A transfer must be created anytime a package moves from one licensed facility to another (even on same property).
- A transfer can be rejected by package or wholly reject all packages.
- A rejected package will require the originating Licensee to receive the rejected package back into inventory.
- You can only transport packages if you have a Distributor license or a Laboratory with samples.
- Transporters are required to record actual departure and arrival times in Metrc.

New Licensed Transfer

Destination 1	Type part of the License Number. <input type="text"/> <input type="button" value="clear"/>	Type - Select - <input type="button" value="Select"/>
Planned Route	Est. Departure <input type="text" value="11/22/2017"/> today 10 : 42 AM	
	Est. Arrival <input type="text" value="11/22/2017"/> today 10 : 42 AM	
Transport # 1 Type part of the License Number. <input type="text"/> <input type="button" value="clear"/> Layered		
<input type="button" value="Lookup -"/> Employee ID <input type="text"/> Driver's Name <input type="text"/> Driver's Lic. No. <input type="text"/> Phone No. <input type="text" value="831-728-9772"/> (use default)		
<input checked="" type="radio"/> (transporter) Vehicle Make <input type="button" value="Lookup -"/> <input checked="" type="radio"/> Package # 1 Type part of Package number. <input type="text"/> <input type="button" value="clear"/> <input checked="" type="radio"/> (package) Vehicle Model <input type="text"/> <input checked="" type="radio"/> (destination) License Plate <input type="text"/>		
<input type="button" value="Register Transfer"/> <input type="button" value="Cancel"/>		

**METRC®
CANNABIS TRANSPORTATION MANIFEST**

All sales transactions are to be completed prior to transportation of any cannabis. The receiving entity may reject product delivery, but amount delivered must be limited to amount agreed upon in prior sales transaction.

Manifest #:	0000001101	Date Created:	11/17/2017 5:31 PM
Originating Entity:	Freedom Farms Cultivation For Agency Use Only		
Originating License Number:	CML17-0000001		
Address of Originating Entity:	1702 Freedom Blvd Suite #5000 Freedom, CA 93610		
Phone No. of Originating Entity:	831-728-9772		
Destination # 1:	Harvest Moon Manufacturer	Destination Phone No.:	530-987-6298
Destination License Number:	CDPH-0000003	Date and Approximate Time of Departure:	11/17/2017 5:23 PM
Address of Destination:	13550 Cement Hill Rd Nevada City, CA 95959		
Actual Date/Time of Departure:	11/17/2017 5:34 PM		
Date and Approximate Time of Arrival:	11/17/2017 7:22 PM		
Actual Date/Time of Arrival:	11/17/2017 5:38 PM		
Date/Time Received:	11/17/2017 5:43 PM		
Route to be Traveled:	Notes: enter for extenuating circumstances (e.g. road closure, flat tire, etc.) 1233		
Transporter # 1:	Cannabis Connection Distributor	Non-JavaVer	
Transporter License Number:	A11-0000002		
Address of Transporter:	4260 MILLPORT WAY Sacramento, CA 95823		
Contact Phone No. for Inquiries:	831-728-9772		
Name of Person Transporting:	Skip McGee	Employee ID of Driver:	1234
State Driver's License No.:	B1234567	Signature of Person Transporting:	
Make, Model, License Plate No.:	Honda Civic TABCD123		
Package Label:	Harvest Name	Item Name	Weight/Quantity
1A4FF010000000000000000002	Afghan Hazelnut Trim	Shp. 14,0000 g	
PRODUCT REJECTION (if only a portion of shipment is rejected, circle that portion above)			
Name of Person Receiving or Rejecting Product:			
I confirm that the contents of this shipment match weight records entered above, and I agree to take custody of those portions of this shipment not circled above. Those portions circled were returned to the individual delivering this shipment.			
Signatures:			
Signature of individual taking receipt of rejected portion of this shipment:		Date:	

Transfer Tracking

Transfer manifest created, and monitored by the system

Licensed Transporter and estimated and actual departure and arrival times

Manifest package details

Licensed Transfers									
Manifest		Origin	Type	Pkg's	ETD	ETA	Received		
0000001201	CML17-0000001 Cannabis Farms	Transfer	4	01/03/2018 11:42 am	01/03/2018 12:42 pm			<button>Receive</button>	

Notes to Remember about Transfers

- A package must exist in order for it to be selected for transfer. Transfers are real-time inventory-dependent.
- If you receive a package that doesn't match the weight, volume or count on the manifest (but varies only slightly) you must adjust the package in your inventory to report the actual, adjusted weight, volume or count.
- If you have any question at all about the transfer; then you need to reject it.





Transfer Procedures – Annual vs. Temporary Licenses

Transfers Involving Temporary Licensees

- leaf After completing required training, an approved Annual licensee will be credentialed into Metrc and report supply chain activities (Metrc Enabled).
- leaf Temporary licensees will not be provided access to Metrc to report supply chain activities (non-Metrc Enabled).
- leaf Transfers between temporary and Annual licensees require some manual paper process.
 - leaf The paper process is also required for transfers between two temporary licensees.



Manual Manifest Transfer Process

If the **originating** licensee is a Metrc enabled Annual licensee and the destination entity is a temporary licensee:

- 👉 The originating licensee creates an external manifest in Metrc by manually entering the temporary licensee information on the external transfer manifest.
- 👉 The Distributor keeps the manifest during transport, and documents the departure and arrival information.
- 👉 The destination licensee receives the transfer and follows the paper process prescribed by the Licensing Authority.

Manual Manifest Transfer Process

If the **destination** licensee is a Metrc enabled annual licensee and the sending entity is a temporary licensee:

- ☛ The originating temporary licensee creates a paper transfer document (per the paper process prescribed by the Licensing Authority) that contains the required package details.
- ☛ The Distributor keeps the paper transfer document during transport, and documents the departure and arrival information.
- ☛ The destination licensee enters the paper transfer document details and assigns a package tag UID from Metrc using the external transfer function.



Distributors

Distributors



Only Distributors can transport packages



Testing Laboratories can transport packages of samples



Important role in maintaining Chain of Custody during transport

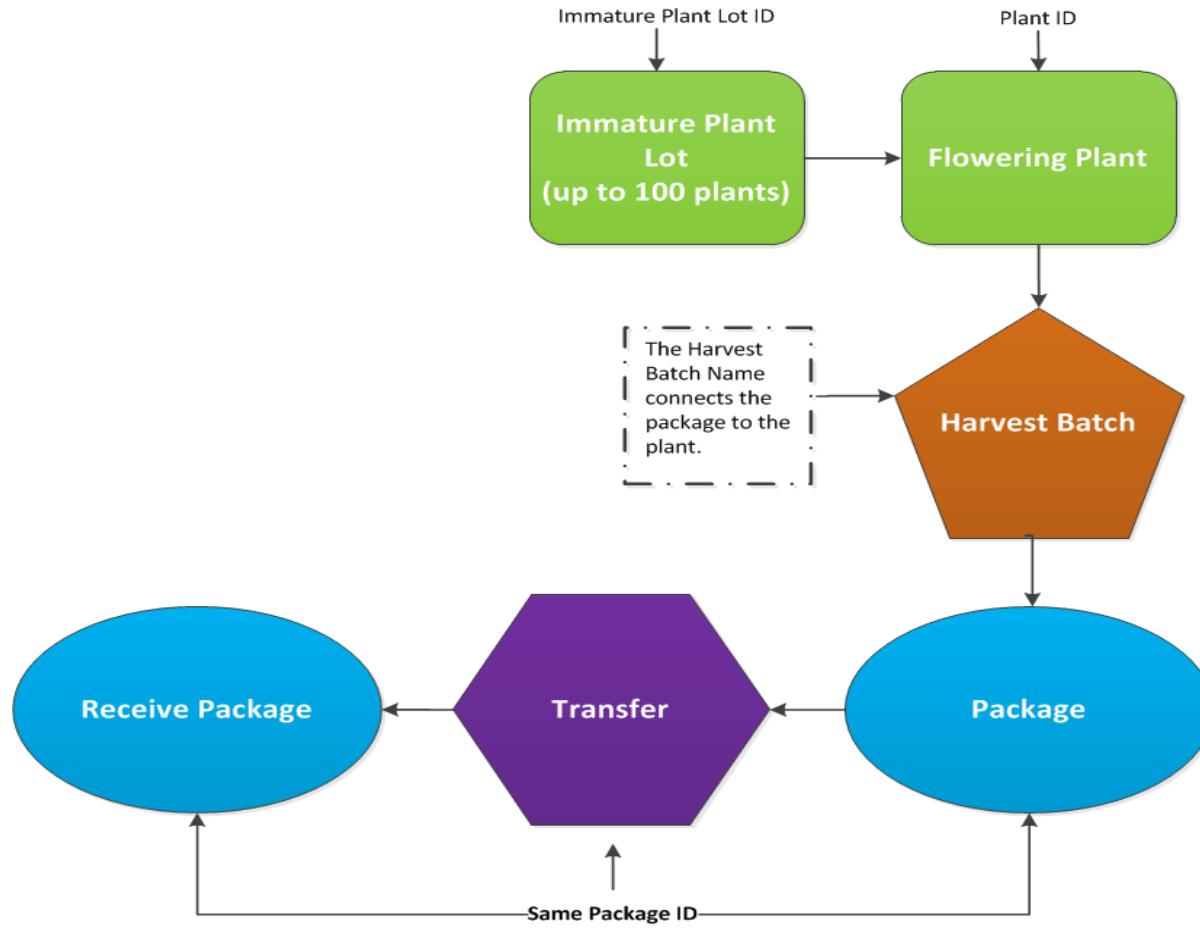


Responsible for submitting samples of final product for testing prior to transferring to Retailer



Distributors are required record actual departure and arrival times at destinations and layover stops in Metrc

Chain of Custody





Laboratory Testing

Lab Test Results

Test Result Tracking

Selecting a Test Batch Adds One or More Tests

Record Tests

Test Package # 1

Package: 1A4FF0300000026000000004 (clear)

Result Date: 01/03/2018 today

Test Batch: - Select -

- Select -

- Cannabinoids
- Category I Residual Pesticides (required)
- Category I Residual Solvent or Processing Chemicals
- Category II Residual Pesticides
- Category II Residual Solvents and Processing Chemicals
- Foreign Materials (optional)
- Heavy Metals (optional)
- Homogeneity (edibles)
- Microbiological Impurities (Aspergillus)
- Microbiological Impurities (required)**
- Moisture Content and Water Activity
- Mycotoxins (optional)
- Terpenoids (optional)

Mini-template

Status: Passed Failed

Result # 1

Test Result: Escherichia coli. (pass/fail) ex. 100.2345

Status: Passed Failed

Notes: Additional notes...

Result # 2

Test Result: Salmonella spp. (pass/fail) 0.0001

Status: Passed Failed

Notes: Additional notes...

(results)

+

Record Tests Cancel

Test Results recorded by Quantity and Status.

Notes can also be recorded.



Retail Sales

Sales

- ⌚ Recording of Sales in Metrc is “reporting last event in chain of custody” and are entered **by transaction** per California requirements
 - ⌚ Total quantity
 - ⌚ Unit of Measure
 - ⌚ Date and time
 - ⌚ Total dollars of the sale
- ⌚ Transactions must be entered within 24 hours
- ⌚ There is sales data import functionality currently with POS companies
- ⌚ CSV File upload



Sales Reporting

Sales Receipts

Record Receipts Edit Receipts Import Daily Sales (read-only)

Receipt : Sales : Customer Type : Patient

Record Receipts

Sales Receipt # 1 (clear)

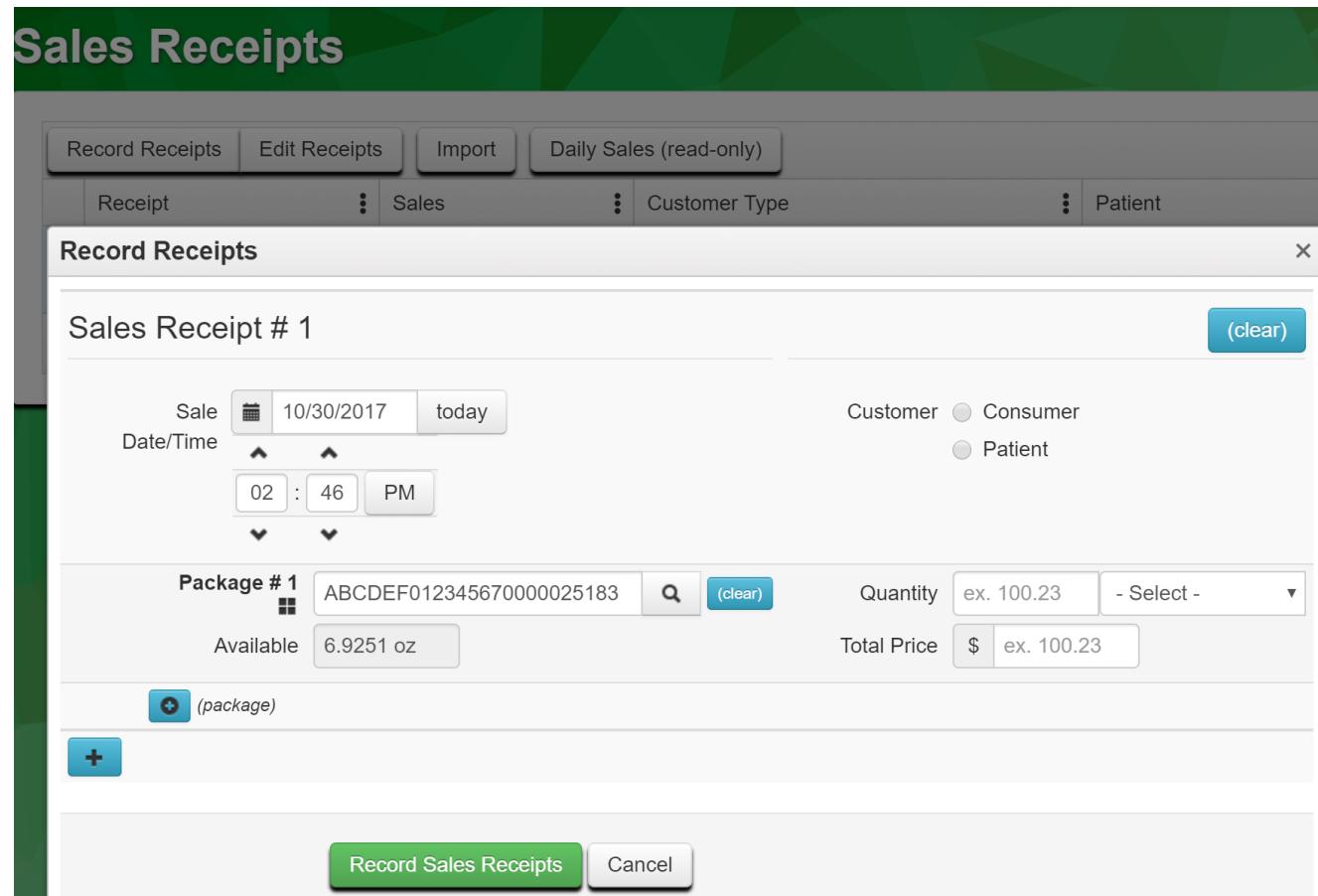
Sale 10/30/2017 today
Date/Time
02 : 46 PM

Customer Consumer
 Patient

Package # 1 ABCDEF012345670000025183 (clear)
Available 6.9251 oz
Quantity ex. 100.23 - Select -
Total Price \$ ex. 100.23

+ (package)

Record Sales Receipts Cancel





Reports

Reports

Reports Control Panel

Sausalito Solutions Retailer | M10-0000004 California

select one, or multiple, tags to filter reports

[adjustments](#) [destroyed](#) [facility](#) [harvests](#) [inventory](#) [packages](#) [plants](#) [transfers](#) [trends](#)

Monthly Sales

Start Date: today / End Date: today / 11/1/2017

[PDF](#) [Excel](#) [CSV](#) [Word](#)

Packages Adjustments

Item Filter (optional) - All Item Categories - All Adjustment Reasons -

Start Date: today / End Date: today / 11/21/2017

[PDF](#) [Excel](#) [CSV](#) [Word](#)

Packages Inventory

Harvest Filter (optional) - All Item Categories - All Lab Testing States -

Start Date: today / End Date: today / 11/21/2017

[PDF](#) [Excel](#) [CSV](#) [Word](#)

[facilities](#) [adjustments](#) [packages](#)

Sales

Reports Control Panel

Freedom Farms Cultivation | CML17-0000001 California

select one, or multiple, tags to filter reports

[adjustments](#) [destroyed](#) [facility](#) [harvests](#) [inventory](#) [packages](#) [plants](#) [transfers](#) [trends](#)

Harvests

Harvest Name Filter (optional) Room Filter (optional)

Start Date: today / End Date: today / 11/1/2017

[PDF](#) [Excel](#) [CSV](#) [Word](#)

Monthly Plants Inventory

Start Date: today / End Date: today / 11/21/2017

[PDF](#) [Excel](#) [CSV](#) [Word](#)

Packages Adjustments

Item Filter (optional) - All Item Categories - All Adjustment Reasons -

Start Date: today / End Date: today / 11/21/2017

[PDF](#) [Excel](#) [CSV](#) [Word](#)

[facility](#) [harvests](#) [plants](#)

Cultivation

Transfer

Package

Reports
configured with
trend analysis

Exportable to
MS Word, MS
Excel, CSV and
PDF formats



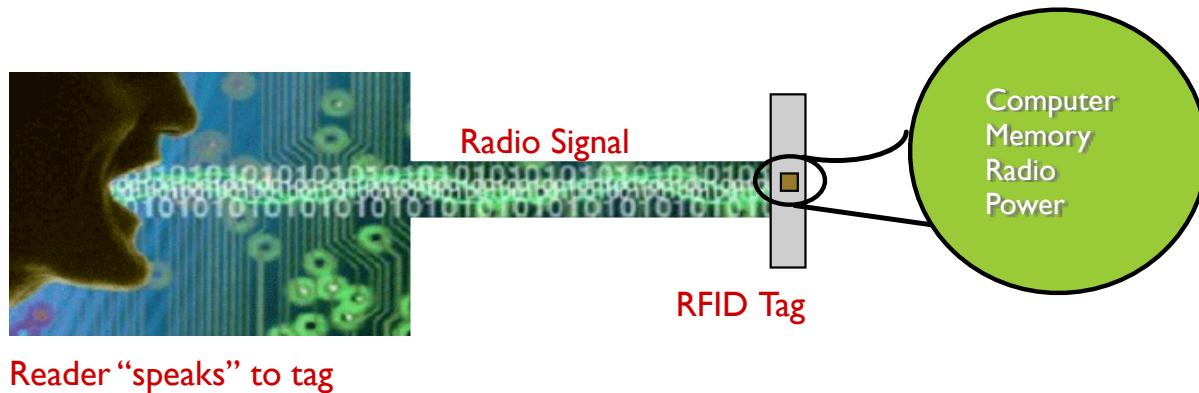
RFID, What & Why

Speed / Accuracy / Precision

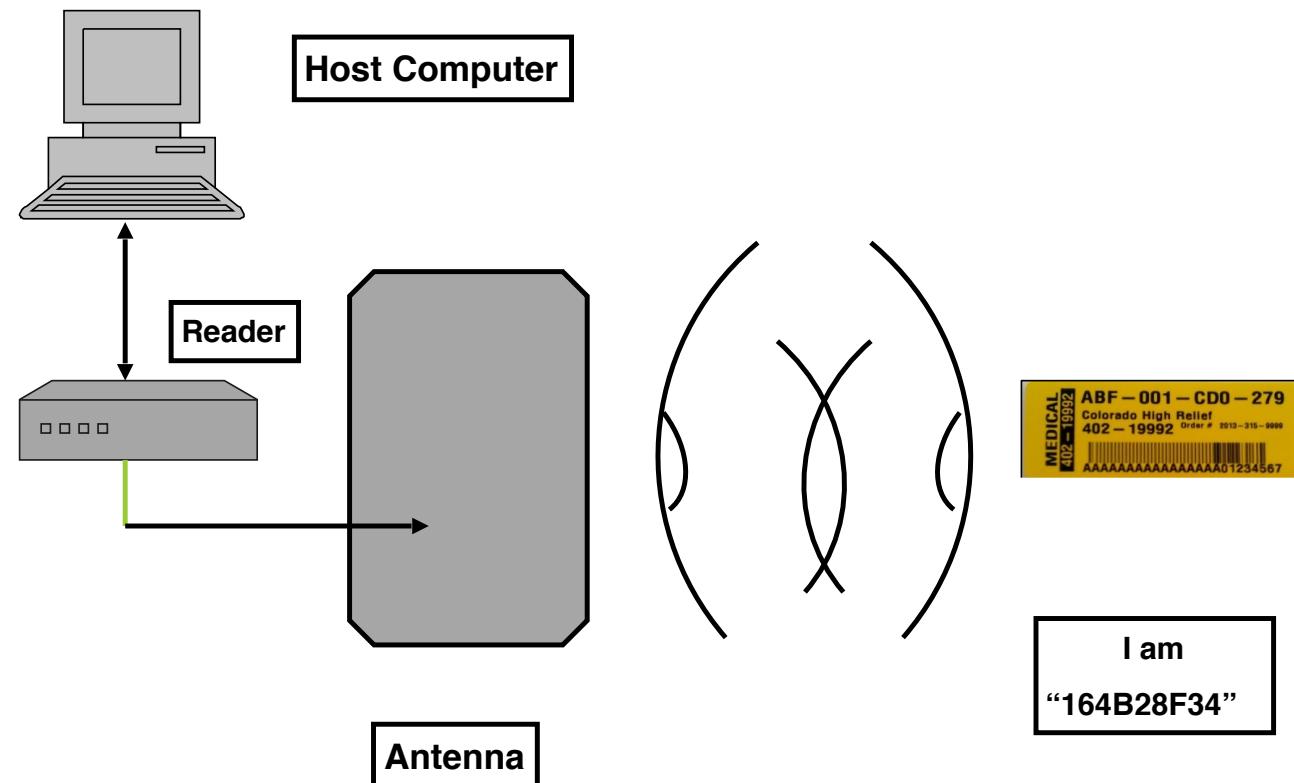


What is RFID?

- Radio Frequency Identification
 - A technology that identifies objects using low-power radio frequency technology.
- RFID Solutions consist of three components:
 - Hardware (Reader and Antenna)
 - RFID Tag
 - Software

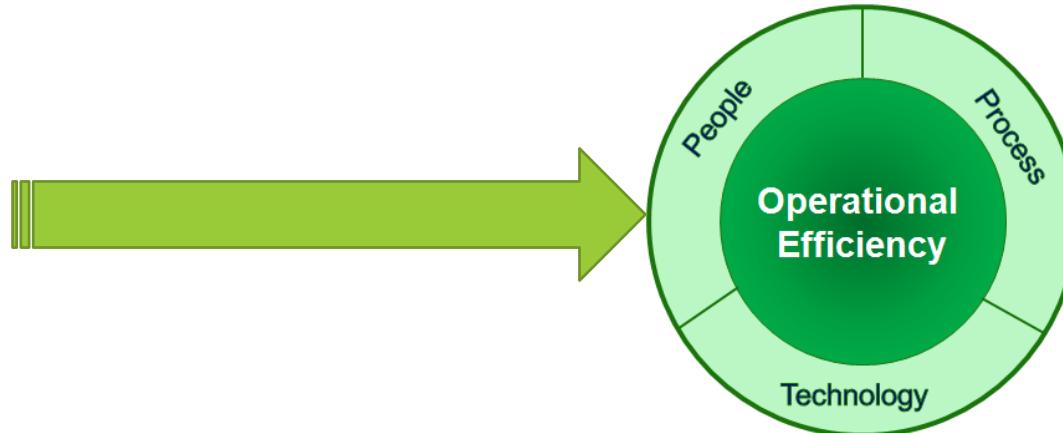


How Passive RFID Works



Why RFID?

- Read Range – 10+ Feet
- No line of sight
- Speed 8 to 10 times faster than bar-code
 - Improved Accuracy
 - Faster compliance
 - Search and find feature





Integration

Application Programming Interface

- The API supports data transfer FROM third party vendor (TPV) applications to METRC
- Not all aspects of Metrc are available in the API
- The API supports data transfer TO TPV from METRC
- CA POS / API Integration training will begin on January 24th.





Support

Support Resources

California Licensing Authorities

- California Department of Food and Agriculture (CDFA): calcannabis.cdfa.ca.gov
 - Cultivator licenses
- Bureau of Cannabis Control (BCC): www.bcc.ca.gov
 - Distributor, Retailer, Testing Laboratory and Microbusiness licenses
- California Department of Public Health (CDPH): www.cdph.ca.gov/mcsb
 - Manufacturing licenses

Support Tab

- Metrc Manual/User Guide
- State Supplemental Guide
- Training
- **Interactive Support**
- E-mail
 - Support@metrc.com
 - Metrc support line - 877-566-6506





Contact Information

Support Desk

877-566-6506

Support@metrc.com

www.metrc.com/california