Demystifying Cannabis Regulation

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Presenters

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Demystifying the current state

- Emerging Market Forces
- Required Regulations
- Federal, State and Local responsibilities
- Agency Challenges
Why Governments regulate Cannabis?

- Public protection in face of increased availability
- Restrict youth access
- Environmental safety
- Motor vehicle safety
- Community integrity
- Passive exposure prevention
- Concentration standardization & uniformity
- Healthcare considerations (positive and negative)
- Have precise, real-time data about the cannabis program/activities
- Reduce burden on Justice System
- Decrease illicit market activity
<table>
<thead>
<tr>
<th>Who regulates what?</th>
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<table>
<thead>
<tr>
<th></th>
<th>Federal</th>
<th>State</th>
<th>County</th>
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<tbody>
<tr>
<td>Criminalization / possession limits</td>
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<td>Trace and Tracking</td>
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<td>Medical and/or Adult use dispensary permitting</td>
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<td>Taxation</td>
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Federal Bill C-45 requires Provinces, Territories and local municipalities to enact legislation containing minimum conditions so that public health and safety objectives are consistently addressed across the country.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Federal responsibility?</th>
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<td>Possession limits</td>
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<tr>
<td>Trafficking</td>
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<td>Advertisement and packaging*</td>
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<td>Impaired driving</td>
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<td>Medical cannabis</td>
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<tr>
<td>Seed-to-sale tracking system</td>
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<td>Production (cultivation and processing)</td>
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<tr>
<td>Age limit</td>
<td>Yes</td>
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<tr>
<td>The federal government’s minimum age is 18 years and provinces can choose to go higher</td>
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<tr>
<td>Public health</td>
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<td>Yes</td>
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<td>Education</td>
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<tr>
<td>Taxation</td>
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<td>Home cultivation (growing plants at home)</td>
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<tr>
<td>Federal government regulation: Maximum of 4 plants, with a maximum height of 100 cm</td>
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<td></td>
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<td>Distribution and wholesaling</td>
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<td>Retail model</td>
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<tr>
<td>Retail locations and rules</td>
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<td>Regulatory compliance</td>
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<td>Public consumption</td>
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<tr>
<td>Land use and/or zoning</td>
<td>No</td>
<td>Yes</td>
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</tbody>
</table>
Demystification – the role of automation

Accela Cannabis Civic Application - purpose built, pre-packaged solution
Accela Cannabis Civic Application

Comprehensive Functionality

- Online application submittal, tracking, research
- Context driven, smart user interface
- Zoning/proximity alerts
- Electronic document capture & review
- Workflows dashboard
- Rules-based Intelligent task routing
- Business ↔ Agency ↔ Citizen automated communication

- Inter & Intra-departmental collaboration
- Integrated Inspections and Enforcement with mobile app support
- Permissions-based data access
- Open APIs for third-party system integration
- Reporting, analytics & automated data publishing
Back Office

- **Dashboards** facilitate ease of use and efficiency
- Rules **optimize workflow** and assign tasks as appropriate
- **Task-oriented interface** organizes and streamlines complex activities, data capture & document uploading/review

Agency’s Customers

- Businesses get **automated updates** on applications status and position in the workflow via email and text.
- **Real-time status** of any business, individual or application
Accela Cannabis Civic Application

Information Utilization

- **Easier case management** via access to detailed history of all activities, across programs, owners, operators, locations, individuals, etc.
- Inter & Intra-agency **data sharing** with permission controls
- **Open API’s** for system-to-system information sharing
- Provides an effective **repository for public information** access as appropriate per the Agency
- **Visualize trends** (employee productivity, costs, code enforcement cases, business location concentrations, etc.) with GIS integration
- **Enhanced analytics** via AD hoc and standardized reporting
Mobile Efficiency & Effectiveness

- Accela Code Officer and Accela Inspector mobile apps for iOS and Android
- GIS visualization aids route planning, etc.
- Comprehensive records access
- Document compliance and enforcement including images with markup
- Inspection rescheduling, workload balancing, citation management, etc.
- Rapid turn-around to business via field printing or email inspection reports
### Form / Record Type

<table>
<thead>
<tr>
<th>Pre-configured items</th>
<th>Appl.</th>
<th>Lic.</th>
<th>Amend</th>
<th>Renew</th>
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<tr>
<td>Cultivation</td>
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<td>Processor</td>
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<td>Medical Infused Products Manufacturer</td>
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<td>Yes</td>
<td>Yes</td>
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<td>Medical Optional Premises Cultivation</td>
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<tr>
<td>Retail Infused Product Manufacturer</td>
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<td>Retail Testing Facility</td>
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<td>Add/remove employee from any licensed entity</td>
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### Integrations
- **Included**: License Verification (if applicable)
- **Included**: GIS (proximity analysis)

### Automation
- **Included**: 20 Automations / validation *(examples)*:
  - Amendments - populate reusable data
  - Daily batch job identifies records that need to be set to “about to expire”
  - Batch job for records that are set to “about to Expire” and sends notifications for specified periods before the License expires

### Reporting
- **Included**: 43 preconfigured reports *(examples)*:
  - Active Records By Record Types
  - Applications by Month
  - License Approval Letter
  - Deficiency Notification
  - Business License Renewal Notice
  - Enforcement Info
  - Licenses by County with Totals
  - Number of Complaints

### Additional Features
- **Included**: Agency Dashboard
- **Yes**: Ad-Hoc Reporting
- **Yes**: Queries & Filters
CCA in the cloud
The SaaS Advantage

1. Financial Savings
   Governments cite a desire to "reduce hardware and software costs" as the #1 reason to move to the cloud. From infrastructure hardware, software and datacenter costs, to maintenance and upgrades, and the expense of hiring and training skilled staff, governments are actively seeking alternatives to the large capital investments needed for on-premises software.

2. Improved Security
   A secure cloud solution protects and controls access while meeting stringent regulatory and compliance needs. Security and reliability are critical to any technology decision. Governments can leverage industry-leading security technologies and measures provided by top cloud providers, such as onsite security, end-to-end encryption and compliance with the most rigorous data security standards.

3. Automatic Updates
   Cloud technology eliminates the need to install updates, which often take months of planning and implementation, and can result in process disruption. Once you make the switch to the cloud, all future software feature and functionality updates are delivered automatically, ensuring you always have the latest version.

4. Talent Management
   Reduce the need for hard-to-find staff to configure, administer and keep systems current. Shift your agency’s focus from running business software to running government business, and help redirect precious talent toward innovative new ways to provide citizen and employee services vs. just keeping the lights on.

5. Data Analytics
   The cloud provides capacity to capture large amounts of process data. With the massive amounts of data that public agencies generate, the cloud is a natural fit for analytics, delivering the flexible capacity and power needed to capture actionable insights.

6. Improved System Integration
   The ability to extend processes and data across systems is a critical requirement for governments. With a cloud solution, you can integrate your hosted system with other internal and external systems and data sources using technologies such as APIs and single sign-on.

7. The Time is Right
   Governments are making the switch. The cloud delivers an unprecedented level of flexibility and responsiveness. Within the next 12 months, nearly one-third of local and state governments surveyed are planning to implement a cloud product.
Demystification – the value of experience

- Regulator Insights
- Collective learnings
Dual licensing requirements create the need to track local license information or license numbers for each State license issued and share information with local jurisdictions.

Data capture needs to be consistent and auditable to be effectively used.

**Accessible digital data better supports an effective regulation program**
Application Documentation

Ensuring that the supporting documentation submitted with a State application mirrors the supporting documentation submitted with a Local application

- Documents uploaded upon submission
- Application materials shared with Local agencies
- Fees and fines may be collected in coordination with Local agency
Rules and regulations may require the status of certain business process steps to be communicated from or shared with Local agencies

- Receiving notifications from locals concerning application & license statuses
- Local public hearing updates for locations
- Who licenses first? State or Local?
Permitting, Licensing and Enforcement require coordination among various staff members from different agencies, departments and jurisdictions.

- Sustained workflow optimization critical to meeting regulatory requirements
How can your agency be best empowered to effectively enforce the law and regulations on businesses to protect public safety?

- Data access in real time
- Inter-Agency coordination
- Actionable reporting
Lots of folks that “need to know,” and a lot of other folks that “want to know...”

- Internal information sharing
- Real time visibility & easy reporting
- External curiosity, FOIAs, open data
- Demonstrate your results
Paper vs Automated

- Access database and spreadsheets
- Files misplaced, misfiled or sitting on someone’s desk
- Inability to share information timely
- Unable to provide reliable metrics
- Physical space restrictions for storage
- Siloes and loss of institutional knowledge

- Streamlined workflows, conditions and digitized images
- Automated communications
- Easily accessible and reliable reporting
- Collaboration, learning and sharing
- Permission controls when sharing data
- Automate business processes across multiple departments
- Real time inspections
For an Agency that receives 1,100 pages per day...

- Paper filing takes 8 hrs/day.
- Labor cost = $30/hr.
- Cost/day = $240.
- With 261 working days/yr that equates to $62,400 in paper filing/yr

- Scanning documents takes 1.5 hrs/day.
- Labor cost = $30/hr.
- Cost/day = $45.
- With 261 working days/yr that equates to $11,700 in document scanning/yr

Annual Cost avoidance = $50,700
3 Year Cost avoidance = $152,100
Field inspector prep time at HQ office is significantly reduced by Accela mobile access to schedule, documents and approvals

- 7 licensing inspectors x (5 business days/wk x 50 work wks/yr) = 1,750 annual work days.
  14,000 hr/yr @ 46/hr = $644,000

- 7 inspectors take 180 minutes of prep time/day (current state).
  Future state reduces that to 120 minutes prep time/day.
  = 60 minutes prep time/day (saved)

- 1 Hr/day saved X 1,750 annual work days
  @ $46/Hr = $80,500

Annual Cost avoidance = $80,500
3 Year Cost avoidance = $241,500
Addressing Timeline, Volume, Transparency, the Future

- Had just 15 months to set up an agency, hire staff, and install a system to operationalize the regulatory framework
- Designed a secure, automated way to share data with local governments and other agencies
- As of June 2018, received 668 applications, each requiring a thorough investigation. Several hundred pages of documentation per application.
- Leveraging online access to enhances applicant convenience and reduce Bureau’s staff workload.
- Built for the future; Medical program scale increases and possible expansion to recreational use

"The Accela system allowed us to be creative in our approach to implementing our processes and adjusting on the fly as our knowledge of the industry grew."

ANDREW BRISBO
DIRECTOR OF LARA’S BUREAU OF MEDICAL MARIJUANA REGULATION
Outcomes for a local agency (County)

- Started with 160 applications in 2016 and a staff of 3
- Now on Accela they are processing/have processed 2,300 applications and workflows touching 60 different County personnel
- Goals are to provide a better way to interface with the public by engaging in the status of their applications and permits
- The public can obtain real-time information
- Permit processing is reduced overall with less time delays
- The permit authority is now able to better coordinate with all the agencies and departments necessary
- System allows the County to effectively manage the workloads and remove bottlenecks
Outcomes for a local agency (City)

◉ Comprehensive Regulation + Efficiency
  - 22 record types
  - Optimized workflow and processes
  - Quicker application review, leading to more efficient work by staff and less work for the applicants

◉ Citizen Engagement
  - Applicants see submitted records, get updates and request city inspections.

◉ Speed to Solution
  - Installed in 5 months (contract to activation)
  - Fewer agency resources
Outcomes & Value

› Enhances **public safety** protection
› Improves cross-agency **collaboration and data sharing**
› Maximizes agency resources
  › **Optimize workflows** and internal processes
  › Enhances "back office" **productivity and efficiency**
  › Ability to **absorb high volume** demand
  › Facilitates **efficient & effective enforcement**
  › Quicker deployment at **lower cost & resource** requirement
› Improves **service to businesses and citizens**
› Improves **transparency**
› Ability to quickly **respond to changing regulations**
› Better reporting to **support decision making** process
› **Risk mitigation** with a proven vendor and software solution
› Significant and measurable **return on investment**
Contact Information

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Emerging Legal Market Fueled By:

- **Voter demand** for medical use, program expansion
- **Sustained growth** in demand in legal states as consumers transition from the illicit to the legal market.
- **New revenue source potential**
Nevada's 1st year of pot sales beats forecast by 40 per cent

RENO, Nev. — The first full year of legal marijuana sales in Nevada exceeded expectations by 40 per cent, state tax officials said Tuesday.

Taxable pot sales statewide totaled $529.9 million and raised nearly $70 million in tax revenue, including $27.5 million for schools, the Nevada Department of Taxation said.

Adult sales that first became legal on July 1, 2017, accounted for about 80 per cent of that figure and sales for medical use made up about 20 per cent of the total for the fiscal year that ended June 30.

State Tax Director Bill Anderson is predicting combined marijuana tax revenue will total $694 million in the current fiscal year ending June 30, 2019. The number of marijuana dispensaries selling pot for adult use in Nevada totals 61, with three additional outlets dedicated solely to medical sales.

California made $60.9M in tax revenue from cannabis industry in 2018 first quarter

This undated file photo shows a marijuana plant in an indoor grow. (Shutterstock)

Tax revenue from the cannabis industry totaled $60.9 million in the first quarter of 2018, according to the California Department of Tax and Fee Administration.

That amount includes state cultivation, excise and sales taxes and does not include local tax revenue collected by cities or counties, the CDTFA said in a news release.
Not the same as alcohol regulation

- Decades of controversy, public scrutiny, associated transparency
- Existing robust illicit alternative market
- Commercial production standards adherence is difficult
- Can be easily infused into various products
- Different consumption routes
- Metabolic pathways are different, pharmacology is different
- Detection is more problematic, impairment threshold difficult to determine
- Passive exposure is possible
- Has medicinal value, and health risks

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A Matrix Of Complexities

- Ensuring public and environmental safety
- Meet compressed timelines
- High volumes, limited agency resources
- Need to automate and streamline agency processes
- Improve inter-agency/dept. collaboration and responsiveness
- Measure program effectiveness & support transparency
- Citizen engagement & timely enforcement
- Prevent diversion or inversion
- Leverage data analytics - proactive decision support
- Agility to quickly adjust to changing laws and regulations
- Program cost containment
BioTrackTHC Case Study
An Overview of the Delaware Traceability Implementation

Patrick Vo, President and CEO, BioTrackTHC
Our Track Record

- One of the first government traceability providers in cannabis

- Currently hold 9 government contracts
  - 3 renewals - New Mexico, Illinois, Hawaii

- Deployed the industry’s only private traceability system
  - “We’ve asked the state to return to BioTrack multiple times and I would gladly have them over the current vendor or other potential vendors.” - Washington State Tier 3 Producer-Processor and Traceability Advisory Group Member, September 2018

- Former WA Attorney General and two former Deputy Attorneys General legally opined BioTrackTHC is fully Cole Memo compliant

- First to deploy in FedRAMP authorized environment and first to complete industry standard SOC 2 audit.
Key Takeaways

- **Defining Your State’s Needs Before Seeking a Traceability Provider**
  - Working hand-in-hand with future stakeholders (vendors and licensees)

- **Confidence in Product Delivery**
  - Proven products and people vs. interested parties

- **Understanding Go-Live Priorities**
  - Patient access delays vs. optimal structures

- **Phasing the Rollout**
  - Progress is better than waiting for perfection

- **Program Improvements and Changes**
  - What you need now vs. what you’ll need in 2 years

- **Key Metrics and Defining Program Goals**
  - What to look for in the data and why
The Problem

- State selected a vendor via RFP
- Award then went to BioTrackTHC, the runner-up
- Critical time was lost (five months), exacerbating time constraints
The Consequences

- **Lost Time**
  - Patients and businesses have expectation of timely go-live

- **Political Pressure**
  - Upset business owners and patients if program is delayed
  - Potential for negative press

- **Financial Impacts to State and Businesses**
  - Market forecasts defined by expected go-live timing
  - Lost tax revenue

- **As a result...**
  - BioTrack and the Department was expected to meet the same go-live with less time
The Solution

- Working hand-in-hand with state and licensees
  - Partner, not just a provider

- Understanding Go-Live Priorities
  - Adherence to rules and regulations
  - Data Migration
  - Patient access
  - Businesses reaching operational status
  - Ability to oversee market supply-chain
  - Eliminate opportunities for diversion/bad actors

- Creating a Phased Rollout
  - Prioritize launch functionality
  - Define phase two rollout for less pertinent functions

- Customization
  - Essential to achieving phased rollout and ongoing improvements
Breaking Deployment Into Phases

- Phase 1: Patient Registry (2 months)
- Phase 2: Seed-to-Sale System (1 month later)
- Phase 3: Legacy Data Migration (2 months later)
The Execution

- **Proven Track Record**
  - Can the provider deliver on what’s promised?

- **Team & Culture**
  - 9 to 5er’s or start-up mentality
  - Understanding stumbles in other markets
  - First hand experience

- **Experience Proved Essential**
Results

- **Launched on Time**
  - Provided only essential features for go-live
  - Hurricane Maria hit a month after go-live, no service interruption

- **Planned a Phase Two of Updates**
  - Were able to incorporate all requested functionality
  - Able to add features that were not originally requested
  - Provided granular customization and workflows specific to DE

- **Maximum Visibility**
  - Allowed Law Enforcement to uncover “bad actors”

- **Added Efficiencies**
  - Patient turnaround
  - Decreased workload to the state
Customization Proved Essential

- Met and exceeded workflow requirements
  - Immediately available to Law Enforcement:
    - Patient Status
    - Patient Limits

- Improved turnaround time of patient applications and patient card processing. Also in:
  - New Mexico
  - North Dakota

- Created visible accountability
  - Allows the state to oversee entire market’s supply chain in a snapshot
  - Ad-hoc Reporting
  - Integrated Laboratory Testing Module
  - Transfer Manifests
  - Real-time Data Analytics

Amylea Nuñez - New Mexico resident who became a “Colorado medical cannabis refugee”.
Youngest patient to ever receive a MMJ card.
Uncovering Bad Actors Within the Data

- Identifying Criminal Activity
  - Time required from initial question being raised, all the way to formal search warrant and arrest - 3 days

Timeline:
- Patient inquired about application status
  - Inquiring about the status of a Medical Marijuana Application
  - Looked up patient application within the Patient Registry
- Physician never saw the patient, no longer worked at facility
  - Lead to question of who signed the patient’s application?
- Looked up scan of Patient Application and a signature was present
- Investigation begins
  - Pulled report looking up applicants-by-physician and facility
  - SQL Query uncovered 135 patients who were victims of fraud
- Turned over to state police
  - Compared system data against tampered physical records
- Search warrant and arrest
# Patient Turnaround Stats

**JIS Automation** - Time/Process required to provide key info to to Justice Information System, which provides visibility to key officials, law enforcement, etc.

<table>
<thead>
<tr>
<th></th>
<th>Sept 2017 (Pre-BT)</th>
<th>Sept 2018 (Post-BT)</th>
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<tbody>
<tr>
<td>Total Number of Cards Issued</td>
<td>3,558</td>
<td>6,625</td>
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<tr>
<td>Average Processing Time</td>
<td>1 month/30 days</td>
<td>36 hours or 1.5 days</td>
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<tr>
<td>Card Printing Process</td>
<td>10 Minutes Per Card</td>
<td>1 Minute Per Card</td>
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<tr>
<td>Data Available for Annual Report</td>
<td>1 week or 7 days</td>
<td>1 day or 24 hours</td>
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<tr>
<td>Lost/Stolen Card</td>
<td>1 week or 7 days</td>
<td>Approximately 5 Minutes</td>
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<tr>
<td>JIS Submission</td>
<td>Manual-entry of all data into JIS</td>
<td>Approximately 10 hours of labor per week</td>
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Data Readily Accessible

<table>
<thead>
<tr>
<th>DATE</th>
<th>SEPTEMBER 2017</th>
<th>OCTOBER 2017</th>
<th>FY18 Totals to Date</th>
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<tbody>
<tr>
<td></td>
<td>Sales</td>
<td>Excise Tax Due</td>
<td>Total (Shelf Price)</td>
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Avoiding the Problem

- **Defining Your State’s Current Needs**
  - Uncharted territory for new programs
  - Communicate with vendors and licensees leading up to RFP release
    - Washington - Chose vendor that uses RFID, licensees were upset

- **Inevitability of Change**
  - Out-of-the-box vs. customizable
  - Industry evolution - What you need now compared to 2 years
    - Illinois and New York - both looking at adult-use

- **Confidence in Product Delivery**
  - Proven products and people vs. interested parties
  - Successful Implementation and M&O
Questions?

Contact our Government Affairs Team
StateMonitoring@biotrackthc.com
Phone: (800) 797-4711