Perception Gardens

A Craft Growing, and Dispensing operation proposal.

Legislation References:

http://www.ilga.gov/legislation/101/HB/PDF/10100HB1438lv.pdf

Dispensing Organization: Page 63

Cultivation Centers: Page 161

Craft Growers: Page 200

Infusers: Page 225

Transporting Organization: Page 247

Laboratory Testing: Page 267

Perception Divisions

From seed to sale:

- Perception Gardens (perceptionfarms.com): Craft Grow
- Perception Cannabis (perceptioncannabis.com): Dispensary
- Perception Labs (future): Processing

The “Perception Farms” branding is also used strategically.

New License Supply

Timeline	Dispensary	Cultivation Center	Craft Grower	Infuser	Transporter
2020-05-01	75	X	X	X	Unknown
2020-07-01	X	X	40	40	Unknown
2021-12-21	110	X	60	60	Unknown

Ownership Limits

	Dispensary	Craft Grower	Cultivation Center
2020-07-01	10 Licenses	1 License	3 Centers
2021-12-21	10 Licenses	2 Licenses	Unknown
2022-01-01	10 Licenses	3 Licenses	Unknown

Tax Rates

Cultivation	Below 35% THC	Infusions	Above 35% THC
7%	10%	20%	25%

Fees

License Type	Craft Grower	Infuser	Dispensary	Cultivation Center
Early Approval Application Fee	X	X	$30,000	$100,000
Early Approval Licensing Fee	X	X	3% Past Year Sales $100k Cap	5% Past Year Sales $250k Floor $750k Cap
Application Fee	$5,000	$,5000	$5,000	X
Licensing Fee	$40,000	$5,000	$60,000	X

Craft Grower Flowering Canopy Limits

Level	Area
Initial Max	5,000 sq-ft
Allowances For Market / Compliance	3,000 sq-ft
Absolute Max	14,000 sq-ft

Craft Grower Application

Legal Name

Proposed Physical Address

Principal Officer Info

Proceeding Disclosure

Operating Bylaws

Background Checks

Local Zoning Verification

Proposed Employment Practices

Demonstrate Economic Empowerment

Cultivation Experience

Facility Description

Facility Survey

Officer Degrees, Certifications & Experience

ID For All Stakeholders > 5%

Environmental Plan

Operating Bylaws

Plant Monitoring System

Record Keeping

Staffing Plan

Security Plan

Physical Inventory

Environmental Plan

Energy Requirements

- 39W / sq-ft Max
- Efficiency > 2.2 micromoles per joule
- High Efficiency HVAC (ductless split or variable refrigerant flow)

Water Requirements

- Automated watering (flood tables, drip, etc)
- Max 20% runoff
- Wastewater filtration and reuse

Additional:

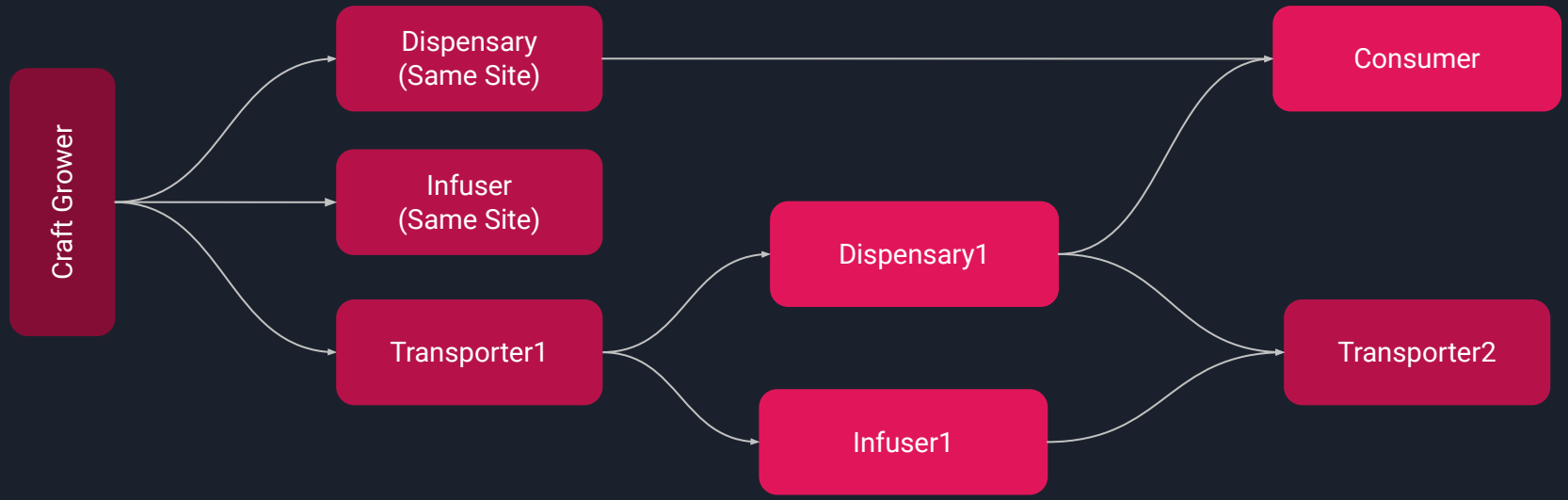
- Waste Management
- Recycling Plan
- Energy Use Efficiency Reporting

Supply Chain Transparency & Trust

One of the great challenges in migrating from a black market to one that is regulated involves supply chain transparency and trust. From seed to sale, each step in the supply chain of a cannabis product is associated with important data regarding quality. From genetic lineage to THC level certification, there is data specifically associated with this product, which if verifiable could drastically improve the efficiency and quality of the market. Furthermore, by being verifiable, this product demands a premium in the marketplace due to not being available on the black market. How do we achieve this?

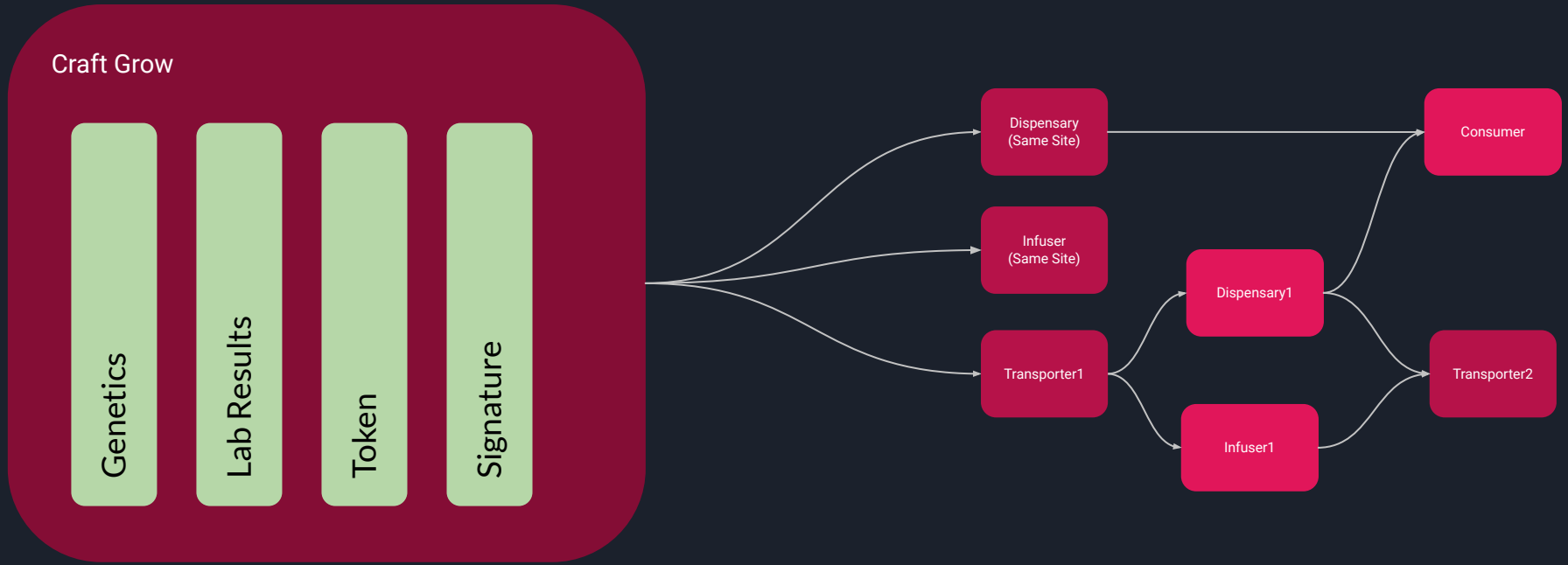
Blockchain Tokenization

By tokenizing our product, we can create a completely distributed and transparent seed to sale system:



Blockchain Tokenization

Critical data captures at each step from germination, cloning, flowering and processing to THC levels and other laboratory testing.

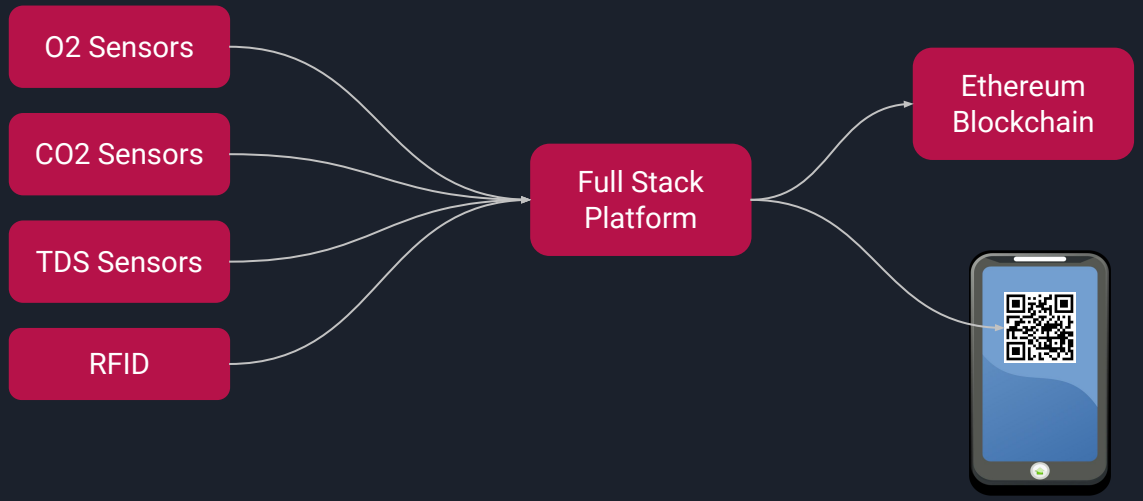


But isn’t blockchain hard?

There’s a DApp for that! By using standard off the shelf blockchain aware applications (MetaMask, MEW, etc), our token can easily be used by any participant in the supply chain to verify that the product is authentic, and that the claimed potencies and genetics have been digitally signed.

IOT

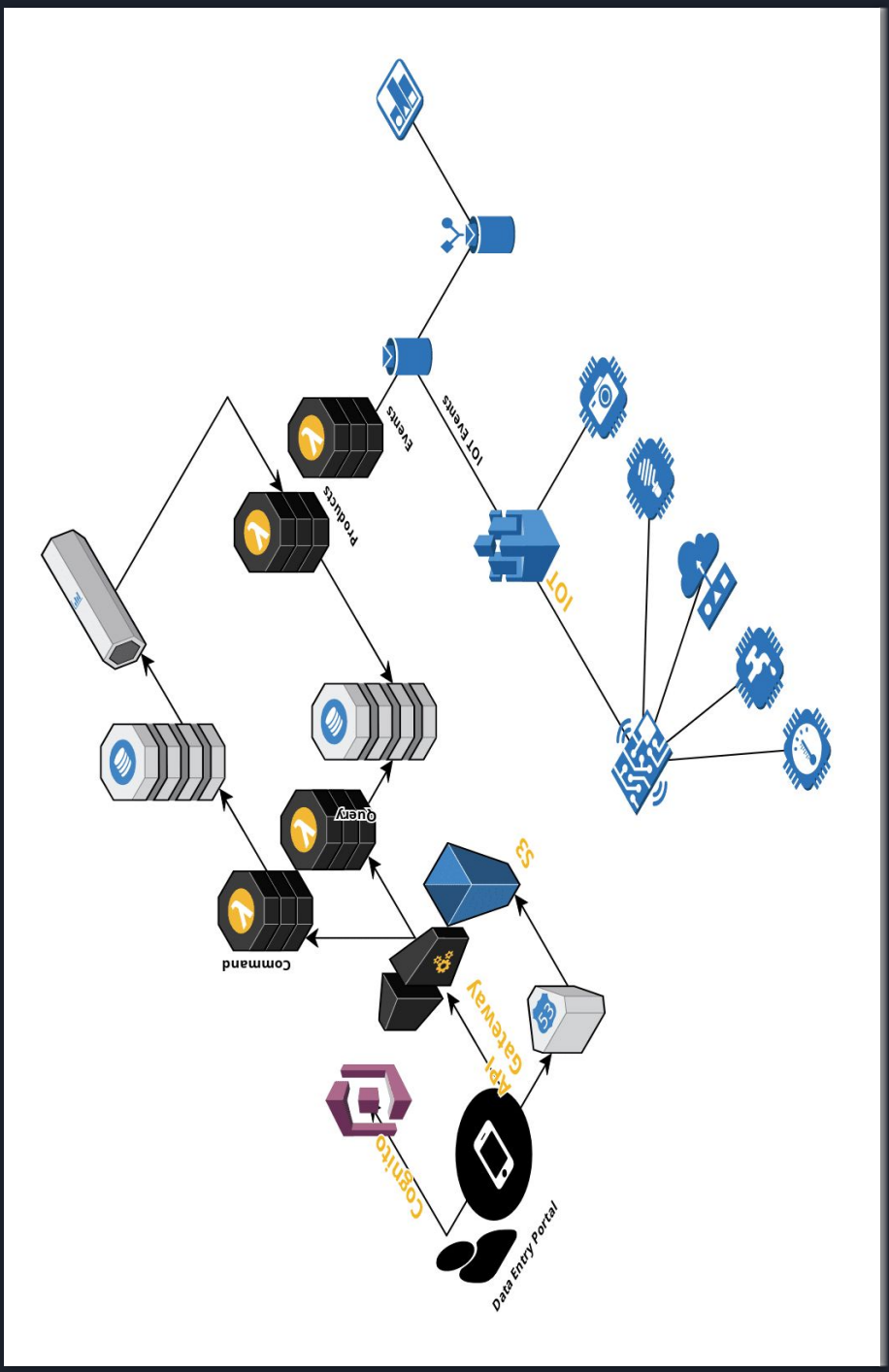
The rapidly decreasing cost of micro sensors, RFID tags, and micro computing / controller platforms like Raspberry Pi and Arduino, open up an entire universe of new data and control abilities. Small cultivators can now cheaply and efficiently leverage Big Data!



Plant Monitoring System

- RFID Tagged Plants
- Environmental Sensors
- Cloud Infrastructure Leveraging Lambda (transaction level pricing)
- AWS IOT Event Backend
- AWS Analytics Suite
- Machine learning for optimizing compound yields.
- Custom automation toolset will be open sourced (social equity + crowd sourced engineering)
- $300 per month @ 5 Million requests

Plant Monitoring Architecture



Grow space allocations:

Canopy (Square Feet)

Phase	Flowering	Vegetative	Rooting	Mothers	Total
1	5000	2031	254	407	7,692
2	8000	3250	406	650	12,307
3	11000	4469	559	894	16,922
4	14000	5688	711	1138	21,536

Other space considerations

H20 Tanks	10,000 gal ?
Admin Office	500 sq-ft
Waste Management	500 sq-ft
2 Vaults	250 sq-ft each
Working room between plants (% sq-ft)	20%
Drying / Curing	500 sq-ft
Trimming, processing & packaging	500 sq-ft
Dispensary retail space	1000 sq-ft

Other structural, mechanical or systematic considerations.

- C02 enrichment
- Evaporative and runoff capture (+ filtration and water reuse, max 20% runoff).
- LED based spectrum specific light sources.
- Natural light control / isolation.
- Cooling (~30 million BTUs for HPS, less for LED)
- Large elevator if multiple levels are built out (for transporting plants and equipment from floor to floor).

Hydroponics

Hydro system type	Mothers	Clone	Veg	Flower
Drip	100.00%	0.00%	0.00%	25.00%
Ebb & Flow	0.00%	100.00%	33.00%	25.00%
NFT	0.00%	0.00%	33.00%	25.00%
DWC	0.00%	0.00%	33.00%	25.00%

Security Plan

- Badge based electronic access.
- 2 vaults for cash and product storage.
- 24 hour video surveillance (with permissioned access).
- Alarm system.
- 2FA for all systems containing logins.
- Penetration testing and phishing drills.
- Secure dock for product transporters.