# INDATA

## Agriculture Solutions

### Intelligent Sensors and Analytics
### Software as a Service (SaaS)

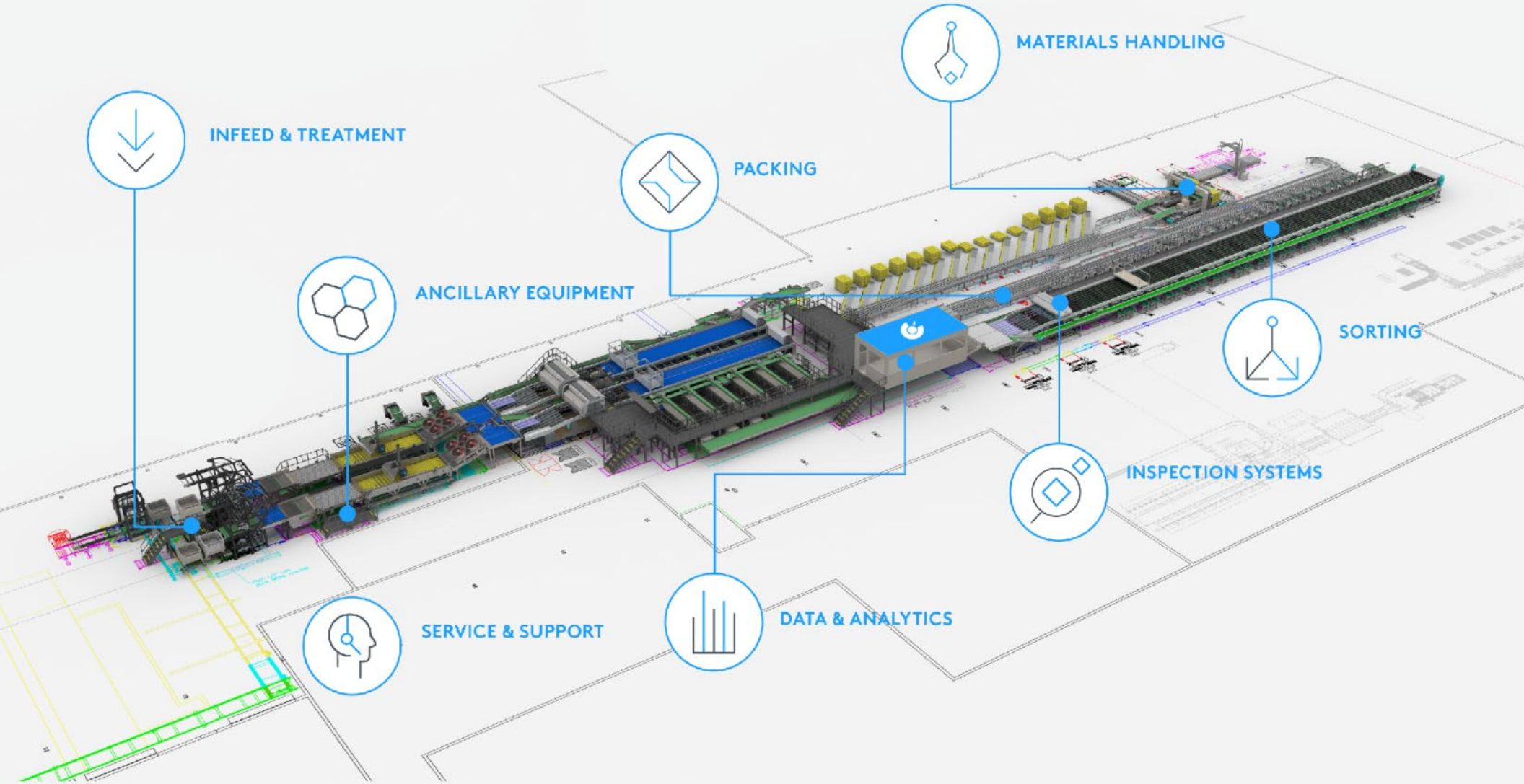
## About Us

Designing intelligent software that leverages computer vision, sensors, Internet of Things (IoT), Artificial Intelligence (AI), and data analytics to improve operational efficiency, safety and speed.

# **Speeding Up** Operations

Improve operational efficiency and process discipline for the food industry.

# Post-Harvest IoT



# The Problem

### Legacy Industrial
Old industrial systems challenged to identify inefficiencies

### Limited Visibility
Silos of belts, people, and vehicles with no overall visibility

### Walking Manager
Managers have to walk around and look for areas to manage

### Labor
Limited visibility to productivity metrics or adherence to regulatory procedures

### No Cloud
Lack of a common database between all operational systems. Limited data to analyze

# The Solution

## IoT

- Quickly retrofit legacy system with InData IoT Sensors

## Analyze

- Ability to capture the productivity data of the operations within the facility.
- Deep analytics of trends and operation anomalies

## Action

- Actionable insights on process/flow changes inside and outside the facility

# People

## Operational Insight

- Connect and analyze employee performance
- Custom Human Resource System data integrations available

## Instant Measurement

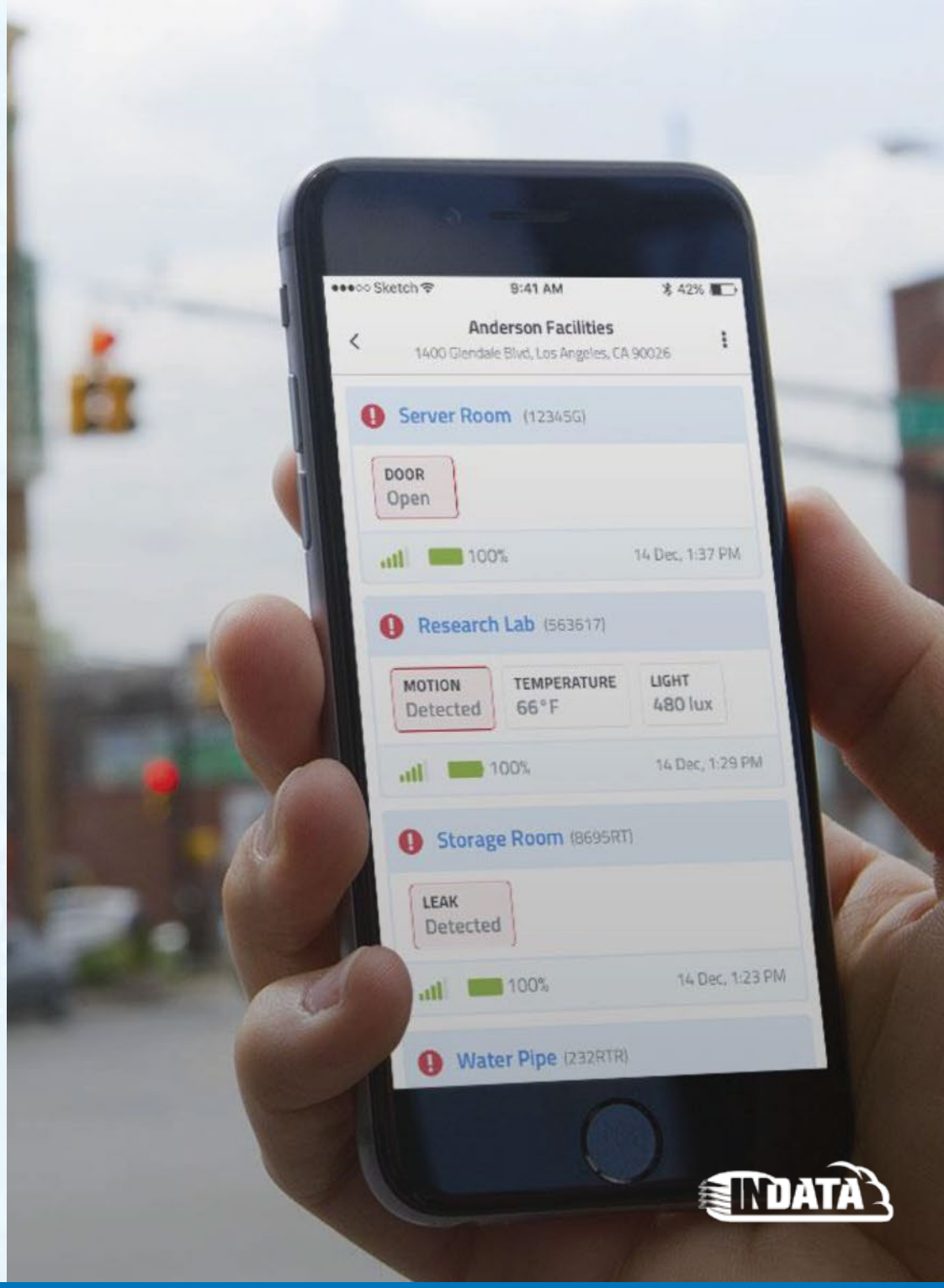
- Mobile and online charts
- Movement
- Yield

## Integrations

- Custom integrations with ERP, WMS, Food Safety, and custom Blockchain applications

# Remote Monitoring

- Mobile apps and web dashboard to monitor sensors from anywhere
- Manage 1 or 100s of locations
- Real-time device and alert status

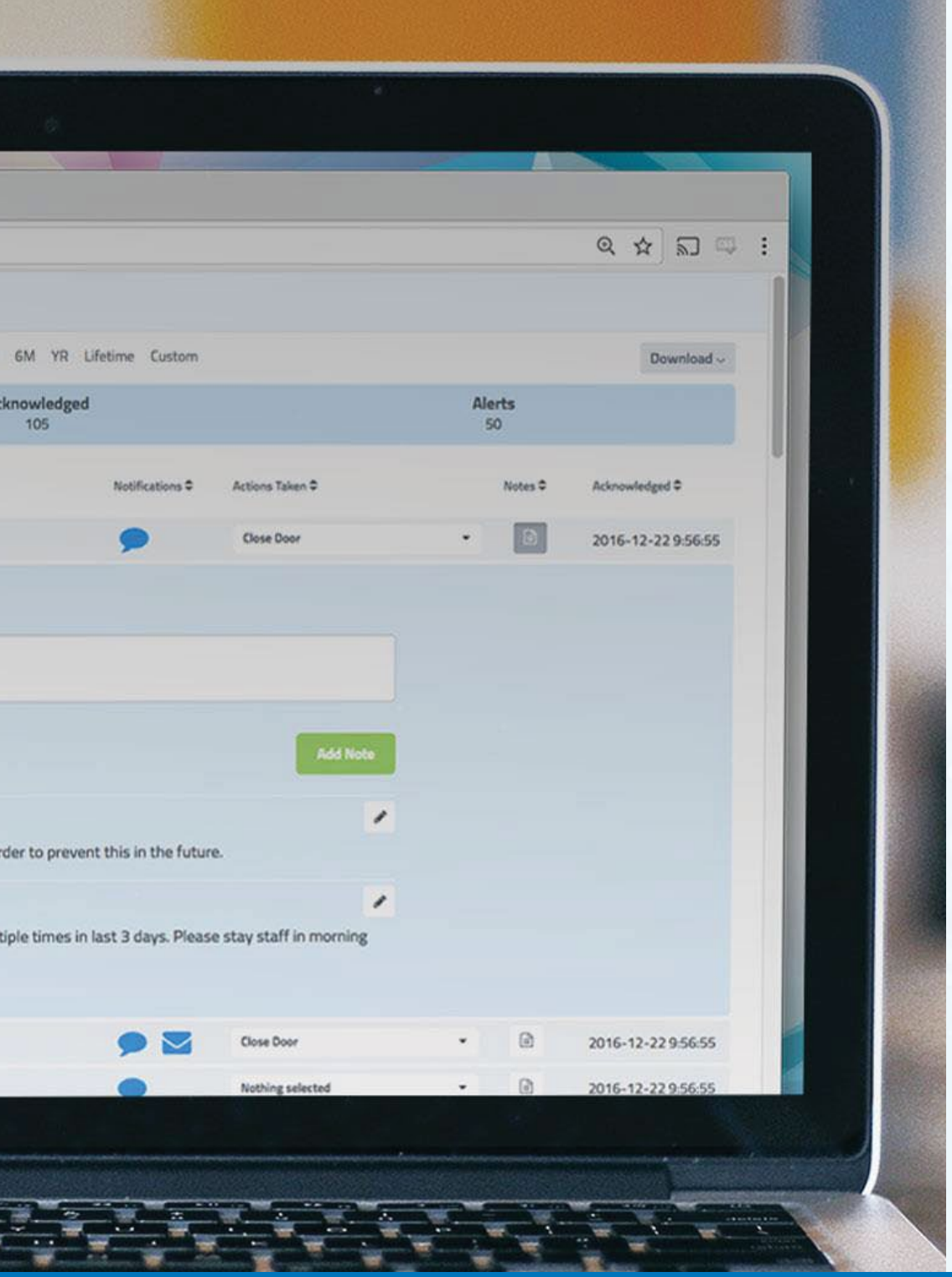


# Device History

- Access complete history of device data logs and alerts
- View trends for things you're monitoring

# Alerts

- Receive text and email alerts
- Add 1 or many recipients
- Customize alert thresholds

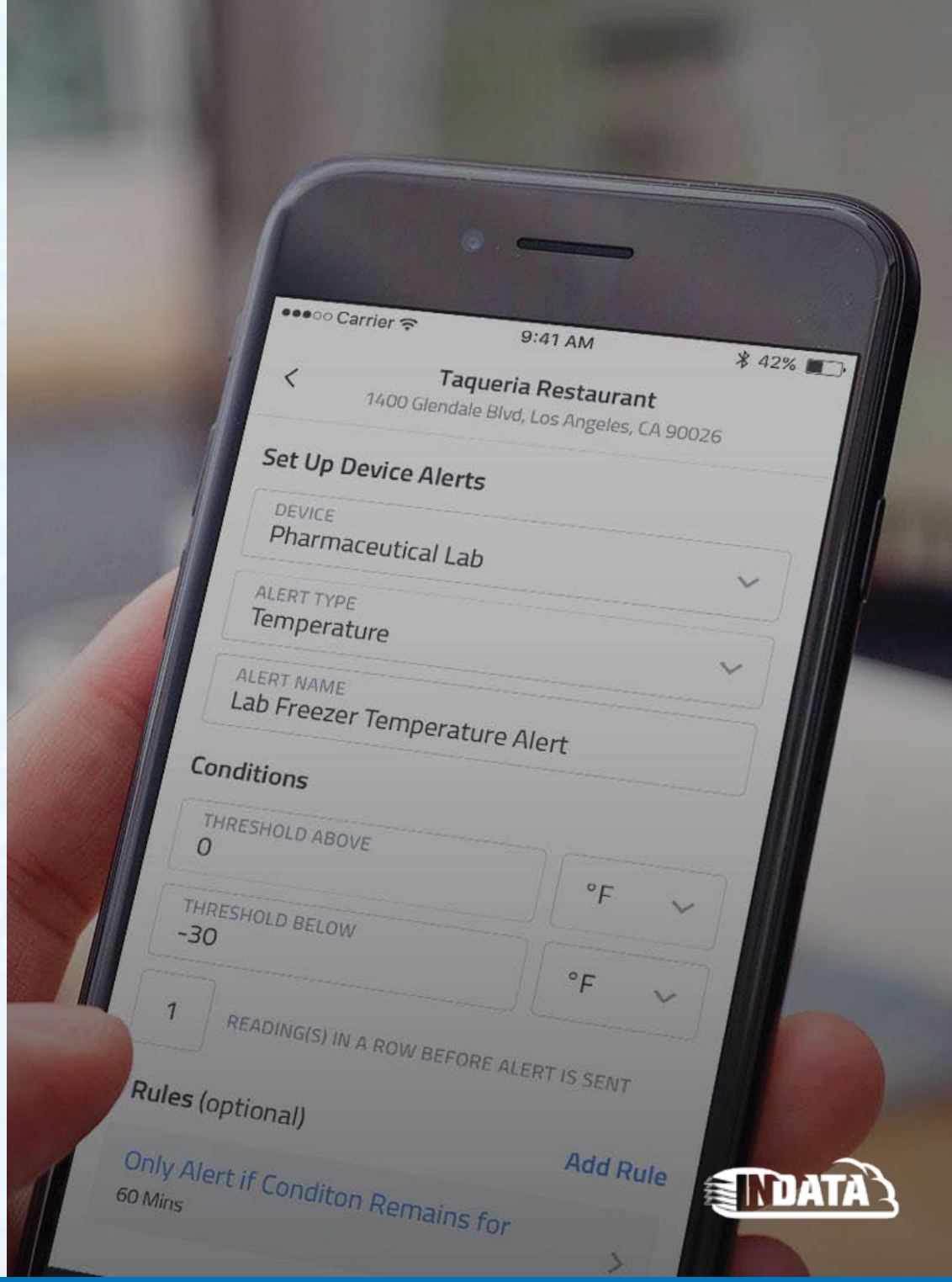


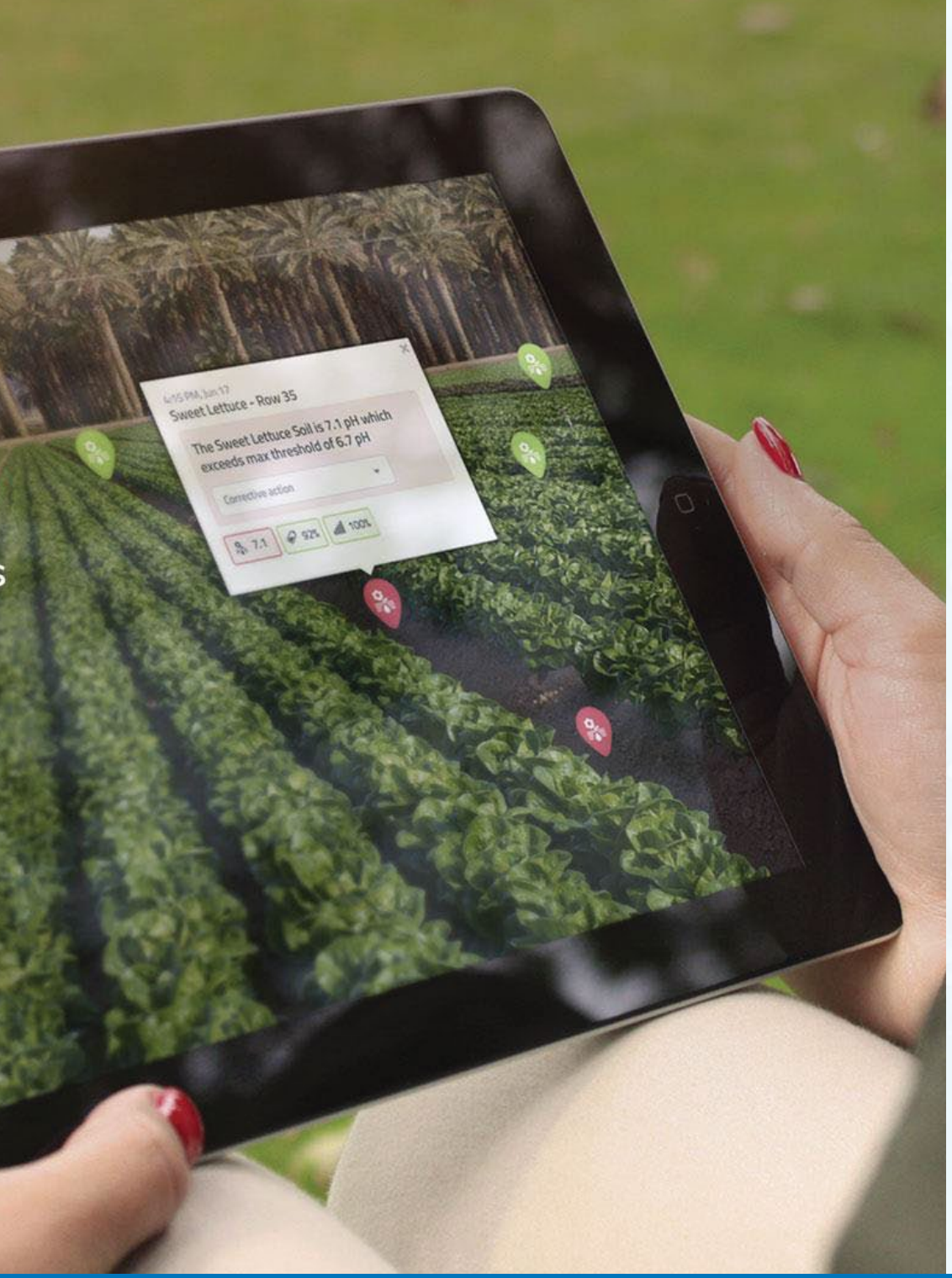

# Corrective Action

- Record action taken
- Add notes and folllow up tasks

# Alert Rules

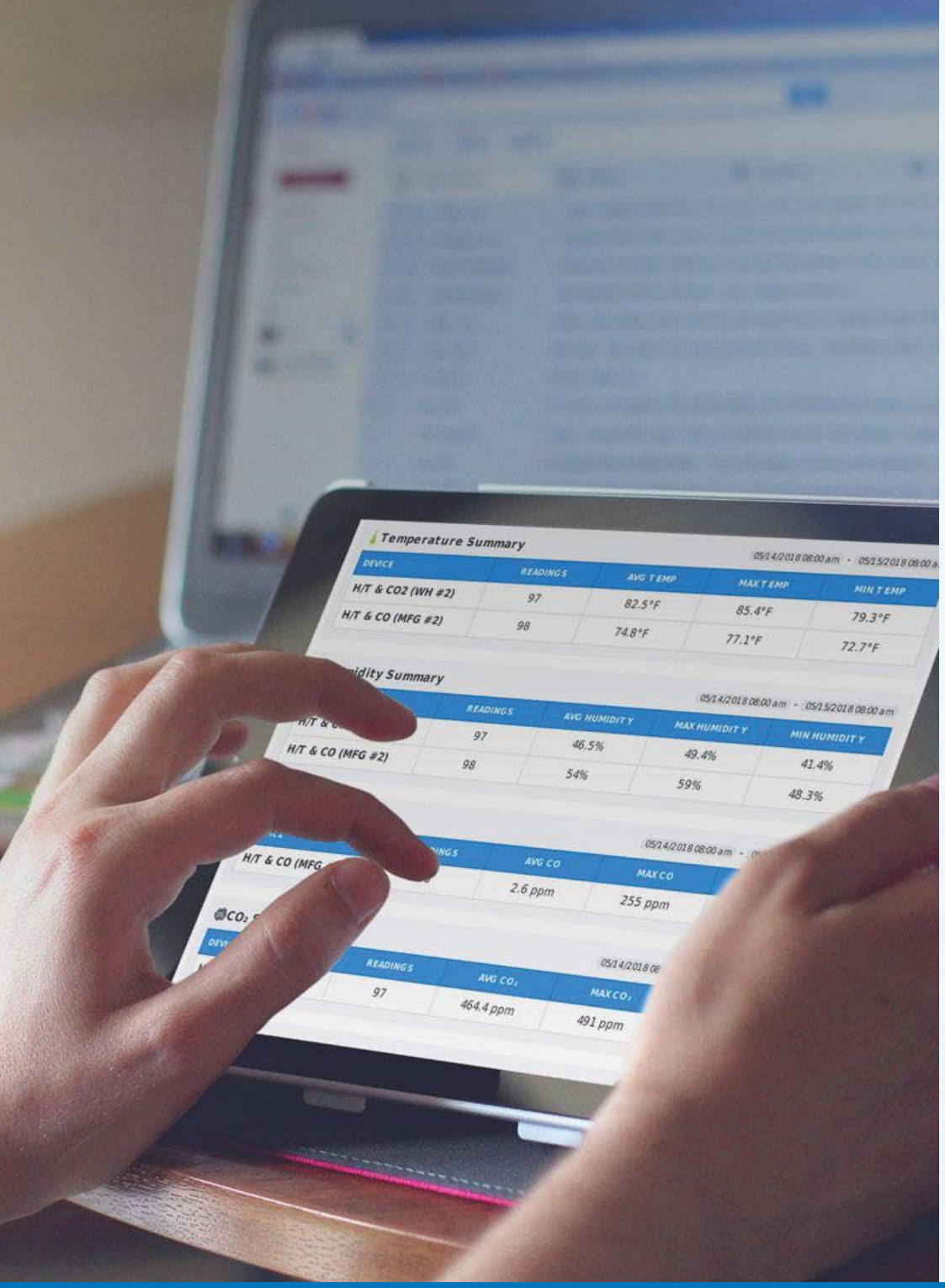
- Only alert if conditions remains for (X) mins
- (X) readings in a row
- Change threshold between
- Don’t alert between
- Alert if (X) readings in (Y) minutes






# Sensor Maps

- Visualize sensor status
- Upload images and blueprints
- Add Google maps




# Reports

- Schedule daily, weekly or monthly reports
- Receive compliance reports for regulations and inspectors

# Product

## Operational Insight

- Monitor, measure, data on product, basic counting module, barcodes, boxes, and logos

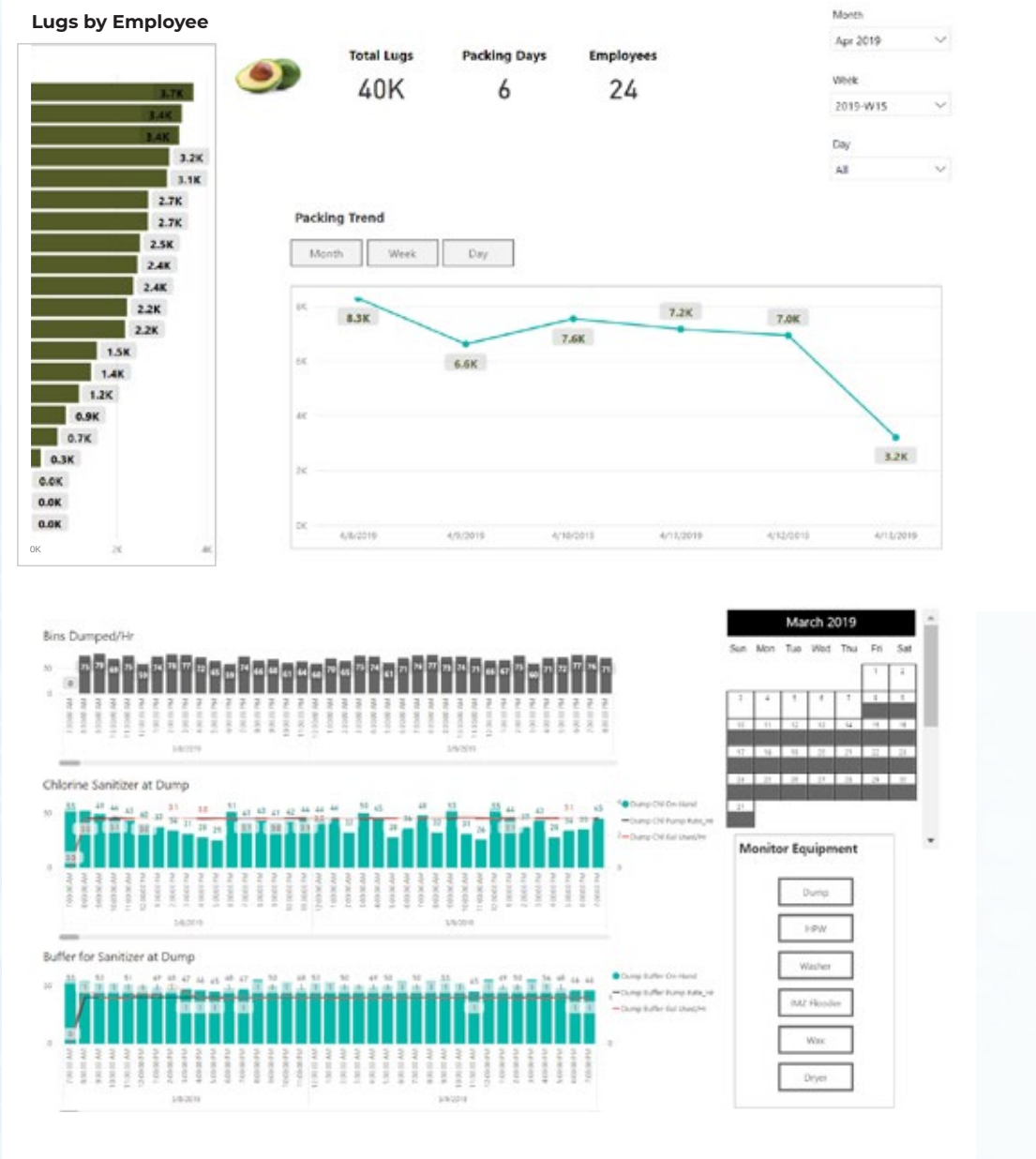
## Instant Measurement

- Mobile and online charts
- Reduce shrinkage
- Piece count inventory automatically

## Integrations

- Custom integrations with ERP, WMS, Food Safety, and custom Blockchain applications

# Data Analytics




## Decision Support Tool

- Operational Insight
- Visualize key performance indicators (KPI)
- Data driven view
- Historical and up to the minute food safety data

## Role Based Dashboards

- Make sense of your data through interactive, real-time dashboards and unlock the insights needed to drive your business forward

## Integrations

- Read valuable data from data silos
- Legacy custom connectors available

# Cloud

## Migrate

- Move legacy infrastructure to the cloud

## Monitor

- Network Operation Center Monitoring

## Scale

- Infinite growth
- Troubleshoot and resolve system issues

# Service and Support

## Phone

- (888) 502-3221 x 1

## Email

- Helpdesk@Indataconsulting.com

## Security Services

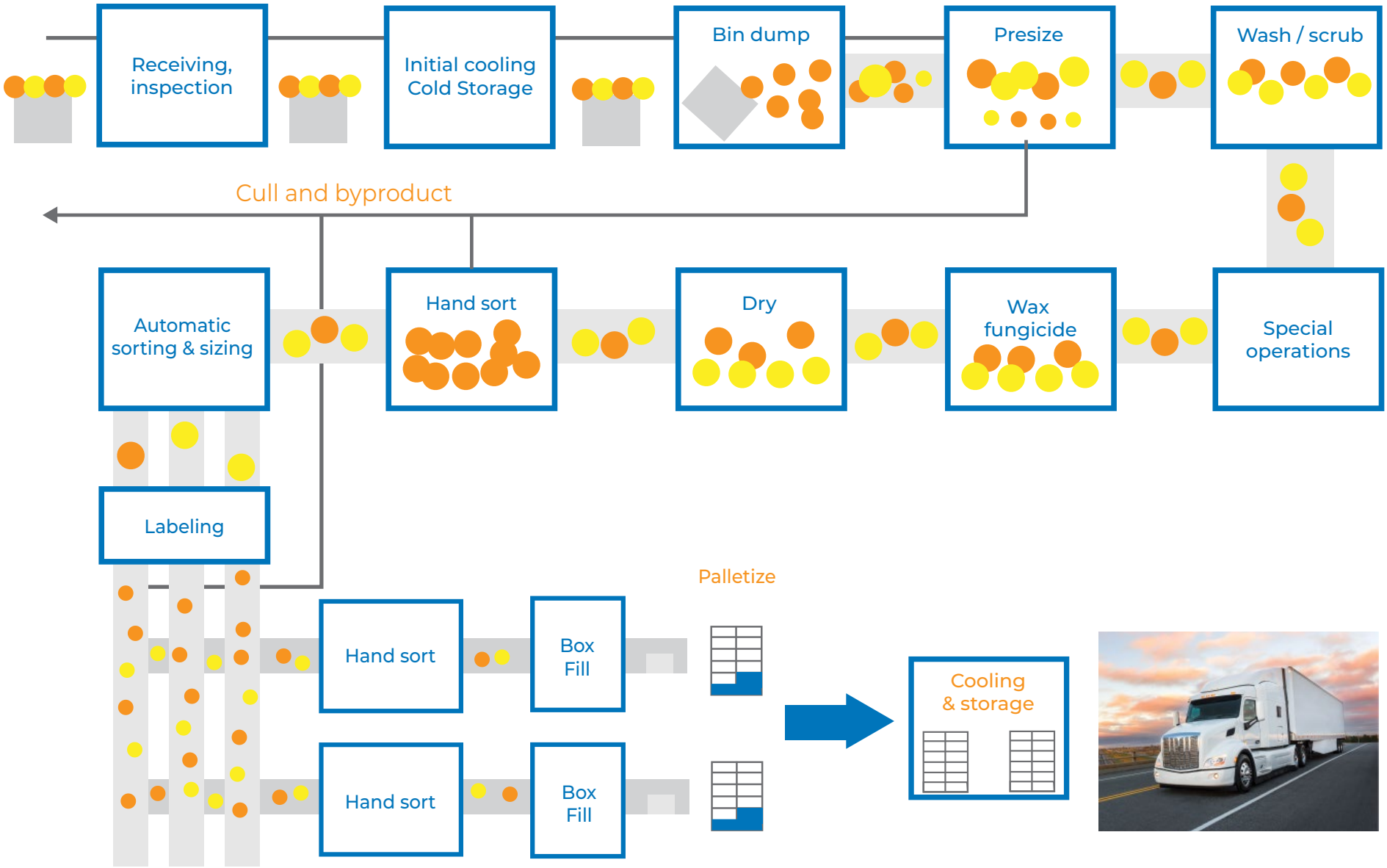
- Automatic IoT Software and firmware updates

## Sensor Health

- InData sensors are monitored 24x7

# PACKING OPERATIONS

Schematic of the typical unit operations in a mechanized packinghouse

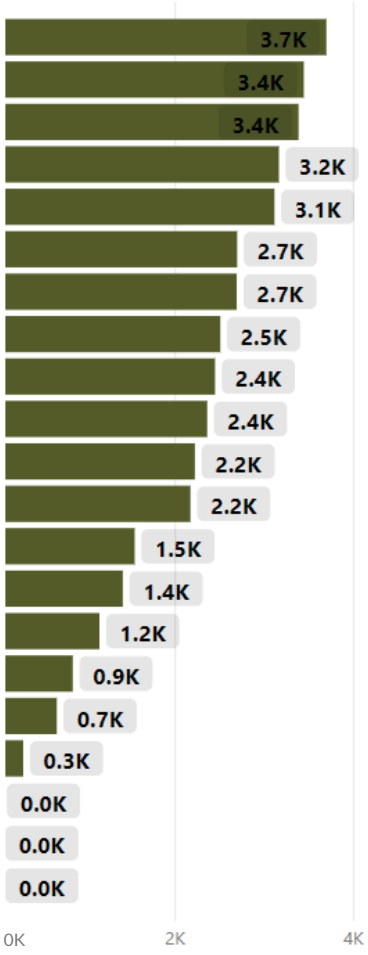


# Employee Productivity Sensors And Analytics

- Employee Productivity by hour, minute, day, week, month and year
- Piece count per employee

# Employee Productivity Data Analytics Report

## Lugs by Employee



| Total Lugs | Packing Days | Employees |
|---|---|---|
| 40K | 6 | 24 |

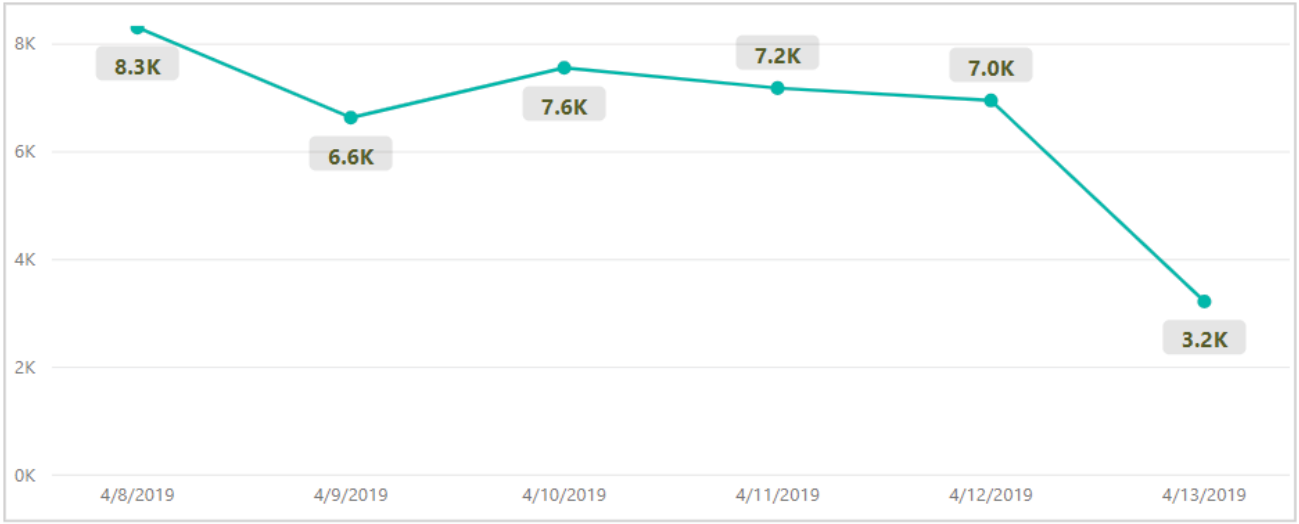
Month
Apr 2019

Week
2019-W15

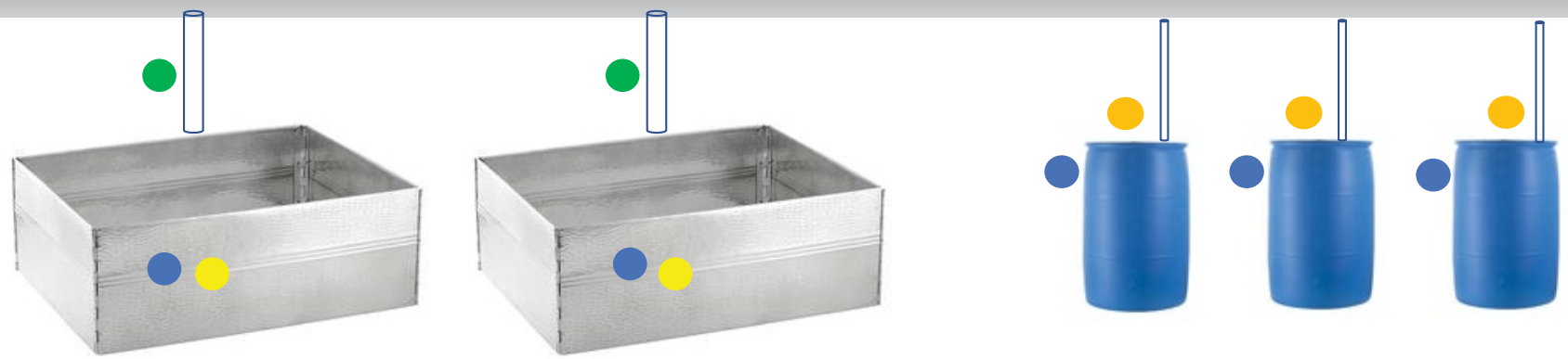
Day
All

## Packing Trend

Month | Week | Day



# Wash Line Sensors And Analytics



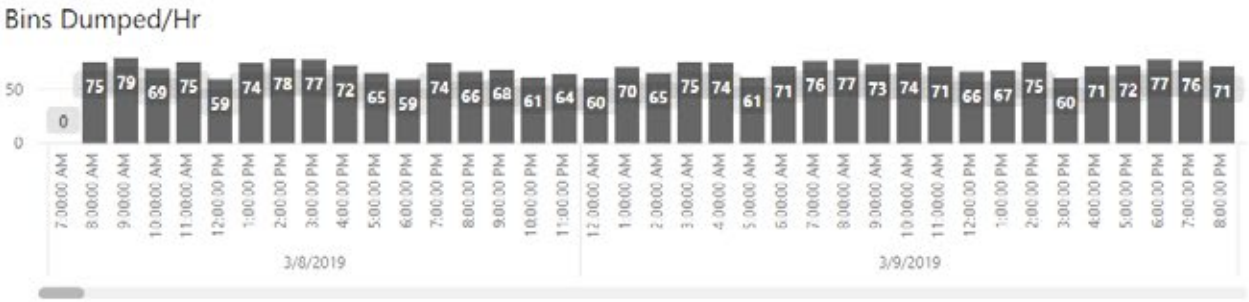
Flow Sensor 1/8 inch

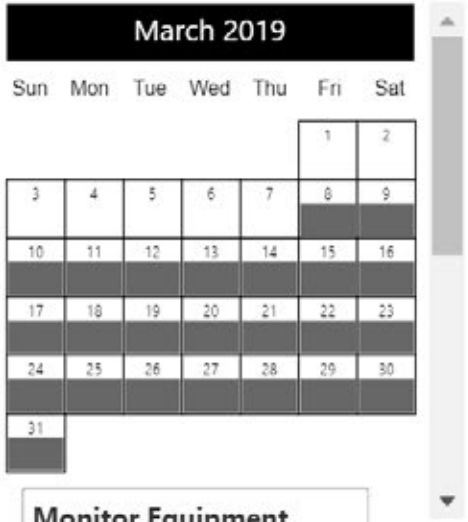
Liquid Level Sensor

Flow Sensor 1/2 inch

PH Sensor

# Wash Line Data Analytics Report






**Monitor Equipment**

- Dump
- HPW
- Washer
- IMZ Flooder
- Wax
- Dryer

# Sample Grower Packout Data Analytics Report

| Variety | Brand | Grade | UOM | | 028 | 032 | 036 | 040 | 048 | 060 | 070 | 075 | 084 | 095 | 096 | 115 | 140 | 165 | 200 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HASS | | 5-CULL | LB | 5,170.00 | | | | | | | | | | | | | | | |
| | Del Rey | 1-NO1 | CTN | | 8.00 | 81.00 | 292.00 | 395.00 | 1,591.00 | 936.00 | 475.00 | | 154.00 | | | | | | |
| | | | LB | | | | | | | | | | | | 562.24 | | | | |
| | | 2-NO2 | LB | | | | | | | | | | | | | | | | |
| | Westfalia | 1-NO1 | CTN | | | 57.00 | 170.00 | 524.00 | 1,586.00 | 1,352.00 | 326.00 | | 104.00 | | 18.00 | | | | |
| | | 2-NO2 | CTN | | | 4.00 | 13.00 | 45.00 | 304.00 | 364.00 | 209.00 | | 76.00 | | 19.00 | | | | |
| | | | LB | | | | | | | | | | | | | | | | |
| LEMON | | 0-FRESH | BIN | 215.00 | | | | | | | | | | | | | | | |
| | | 4-JUICE | BIN | 879.21 | | | | | | | | | | | | | | | |
| | | 5-CULL | CTN | 2,659.82 | | | | | | | | | | | | | | | |
| | Belle of Piru | 1-FANCY | CTN | | | | | | | | | | | 108.00 | | 2,522.00 | 3,687.00 | 506.00 | 576.00 |
| | Cupid | 1-FANCY | CTN | | | | | | | | | | | 162.00 | | 378.00 | 643.00 | 811.00 | |

| Ending_Date | RPO # | Line # | Grower | Grower Block No | Item No | Grade | Size | Brand | Location Code | Bin Code | Status | UOM | Released Qty |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/14/2018 | RPO100533 | 20000 | Grower 1 | F | LEM-IM0002 | 0-FRESH | | | WHS | WASH-GRADE-PACK | Released | BIN | 23.00 |
| 12/14/2018 | RPO100533 | 30000 | Grower 1 | F | LEM-IM0003 | 0-FRESH | | | WHS | WASH-GRADE-PACK | Released | BIN | 16.00 |
| 12/14/2018 | RPO100533 | 40000 | Grower 1 | F | LEM-IM0004 | 0-FRESH | | | WHS | WASH-GRADE-PACK | Released | BIN | 33.00 |
| 12/14/2018 | RPO100533 | 50000 | Grower 1 | F | LEM-IM0005 | 0-FRESH | | | WHS | WASH-GRADE-PACK | Released | BIN | 1.00 |
| 4/1/2019 | RPO104357 | 110000 | Grower 2 | LEMONS | LEM-FG0103 | 1-FANCY | 140 | Belle of Piru | WHS | LEM-PACKED | Released | CTN | 455.00 |
| 4/1/2019 | RPO104357 | 140000 | Grower 2 | LEMONS | LEM-FG0106 | 1-FANCY | 235 | Belle of Piru | WHS | LEM-PACKED | Released | CTN | 30.00 |
| 4/1/2019 | RPO104357 | 250000 | Grower 2 | LEMONS | LEM-FG0303 | 2-CHOICE | 140 | Cycle | WHS | LEM-PACKED | Released | CTN | 408.00 |
| 4/1/2019 | RPO104357 | 260000 | Grower 2 | LEMONS | LEM-FG0304 | 2-CHOICE | 165 | Cycle | WHS | LEM-PACKED | Released | CTN | 403.00 |
| 4/1/2019 | RPO104357 | 270000 | Grower 2 | LEMONS | LEM-FG0305 | 2-CHOICE | 200 | Cycle | WHS | LEM-PACKED | Released | CTN | 130.00 |
| 4/1/2019 | RPO104357 | 280000 | Grower 2 | LEMONS | LEM-FG0306 | 2-CHOICE | 235 | Cycle | WHS | LEM-PACKED | Released | CTN | 12.00 |
| 4/1/2019 | RPO104357 | 430000 | Grower 2 | LEMONS | LEM-FG0604 | 3-STD | 165 | Trysum | WHS | LEM-PACKED | Released | CTN | 343.00 |
| **Total** | | | | | | | | | | | | | **105,429.78** |

Ending_Date

12/14/2018 4/16/2019

Type

All

Variety

All

Grade

All

Grower Name

All

Grower Block No

All

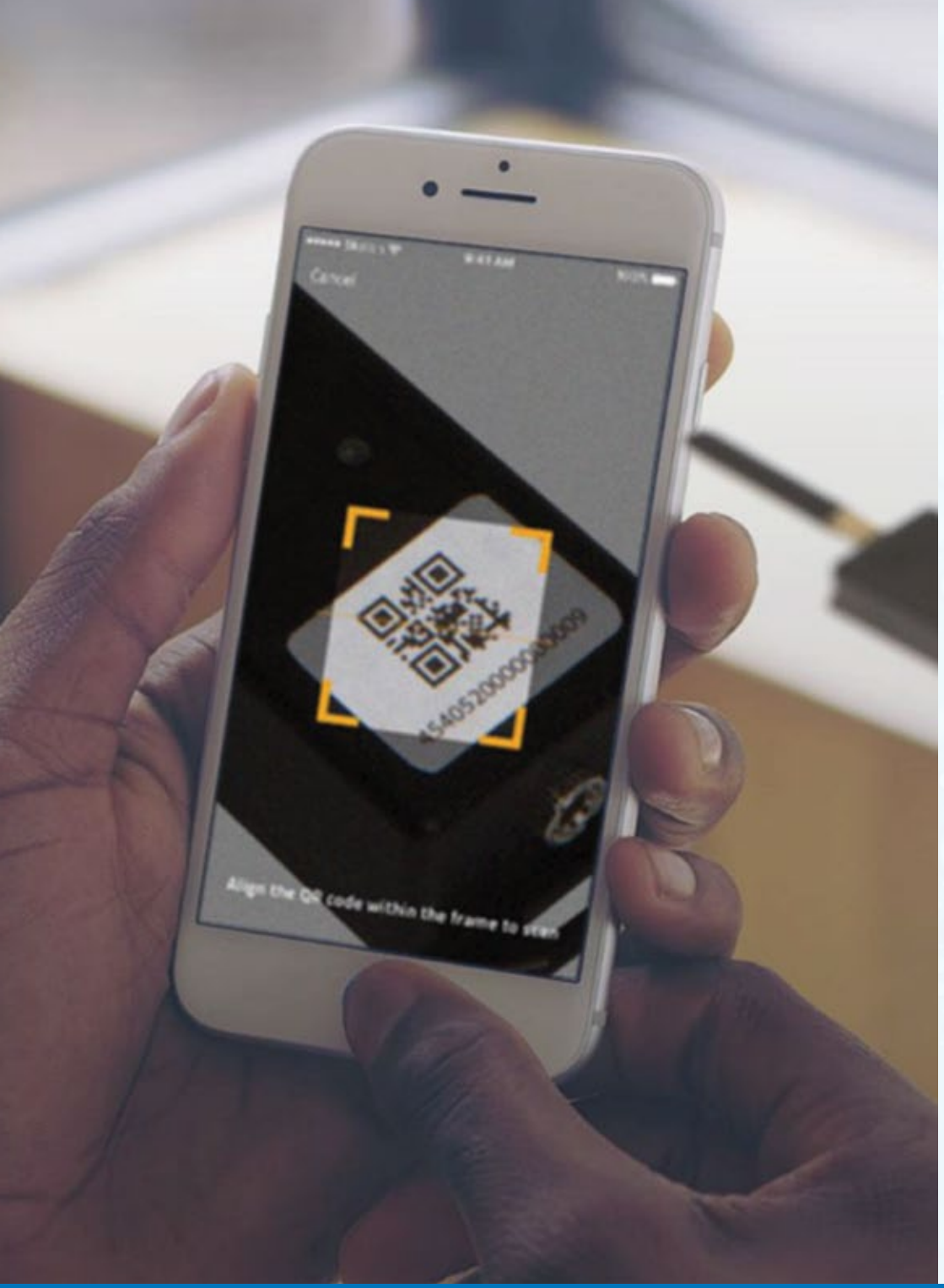
RPO No

All

Source_No

All

# EXTRA MATERIAL

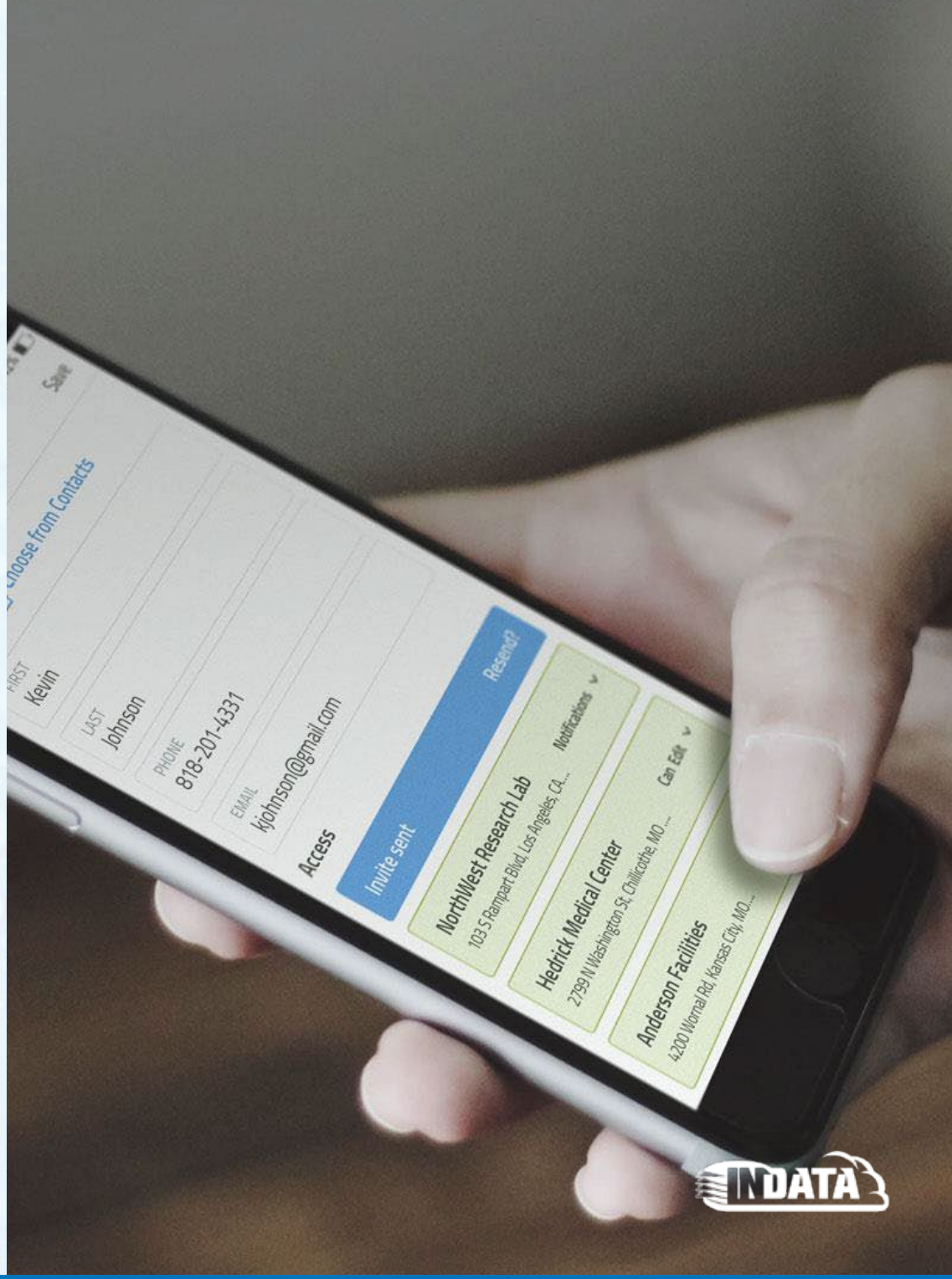



# Provisioning Devices

- Scan QR code to add in app
- Plug in gateway
- Place sensors in areas to monitor

# User Management

- Add contacts to 1 or 100s of locations
- Set admin, can edit, can view and notifications only permissions levels



# THANK YOU

**Mike Braico**
+1 (310) 463-9701
mbraico@indataconsulting.com

**www.indataconsulting.com**