

# Innovation Theater Encore

November 28  
10:00-11:00 am

CALIFORNIA TRANSIT ASSOCIATION'S INNOVATION THEATER

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# Presentations

- ***Bus Stop Signage Providing Real-Time Information*** – presented by Connexionz Smart Transit Solutions and the City of Pasadena
- ***Pedestrian Awareness Display by Lucerix*** – presented by Lucerix International Corporation and Monterey-Salinas Transit
- ***Automated Maintenance, Inspection, and Workshop Processes Through a Mobile App*** – presented by Connixt, Inc. and L.A. Metro
- ***Artificial Intelligence-Based Search of Maintenance Information*** – presented by LexX Technologies and Montebello Bus Lines

# Connexionz Smart Transit Solutions and City of Pasadena – Bus Sign

- Brian Garrett, *US Sales Director, Connexionz Smart Transit Solutions*
- Sebastian Hernandez, *Senior Planner, City of Pasadena*





Engineers and employees who have worked on some of the world's largest ITS projects.

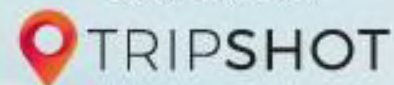
- Established in 1994, Connexionz has been delivering custom ITS solutions for more than two decades in Europe, Asia, Australasia, South America and North America
- Built longstanding, consultative relationships with some of the top technology and vehicle suppliers
- Developed a complete portfolio of CAD/AVL and fleet management and reporting services in early 2000.
- Supplying innovative, end-to-end ITS solutions (CAD/AVL, RTPI, APC, CCTV, signage, ASA) for our clients around the globe
- Winners of several international awards, including the prestigious Deloitte Fast 500 technology award.

## EXPERTISE

Our expansive knowledge and experience with world class real time passenger information solutions provides our customers with peace of mind.

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## City of Pasadena Transit

### FULL PROJECT SCOPE

## 30 Fixed route buses – Over \$1 million

Automated Voice Annunciator System (audio visual), fleet management, Real Time Passenger Information, smartphone applications, website, on vehicle video surveillance, Mobile Data Terminals, Automatic Passenger Counters, 80 x Bus finder Displays, yard WiFi.

*Pasadena had very little accurate information available to make decisions. Further, their onboard systems were separate entities that required a lot of attention from the operator. Connexionz systems succeeded in seamless onboard integration while promoting some schedule and service changes which **influenced over 10% improvement in on-time performance.***

# Innovation

## Solar Technologies and Open Standards

Evolving our battery based Busfinder to support solar, outside integrations, and open real-time standards!

Leveraging Open Standards – GTFS-RT Integration as well as power from the sun!

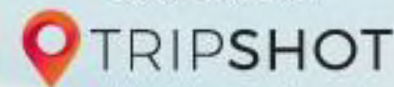


Google  
REAL TIME



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# BUSFINDER™

Build confidence and security with real time information powered by the sun.

**RUGGED AND STURDY!**

## Delivering Accurate Data

Give your passengers control at bus stops, decreasing their anxiety as they wait for the bus.



## Cost Efficiency

Address the issues of installing signs at rural and residential stops, we are able to meet a price point that allows mass deployment.



## Interface with Existing Data

Provide real time information at bus stops complimenting existing variable message signs (VMS) at less frequented locations.



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# Lucerix and Monterey-Salinas Transit Pedestrian Awareness Display

- James Anderson, *Sales Representative, Lucerix*
- Norman K. Tuitavuki, *Deputy Chief Operating Officer, Monterey-Salinas Transit*



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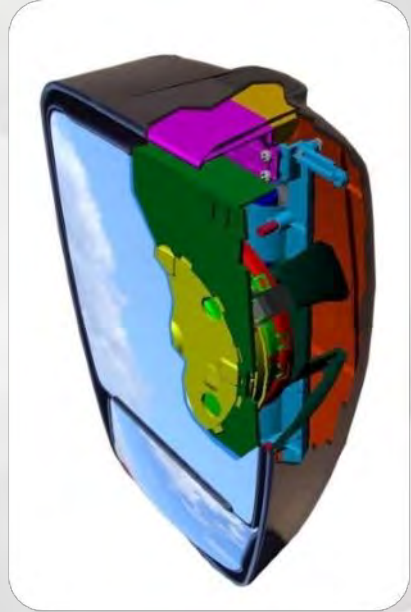
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# Lucerix International Corp.

## *Mirrors On The Move!*



**Lucerix International Corporation is absolutely committed to meet and exceed the quality expectations of our customers for all products and services that we provide.**

**Automotive Mirror & Vision Systems.**

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BY



**PEDESTRIAN AWARENESS DISPLAY**

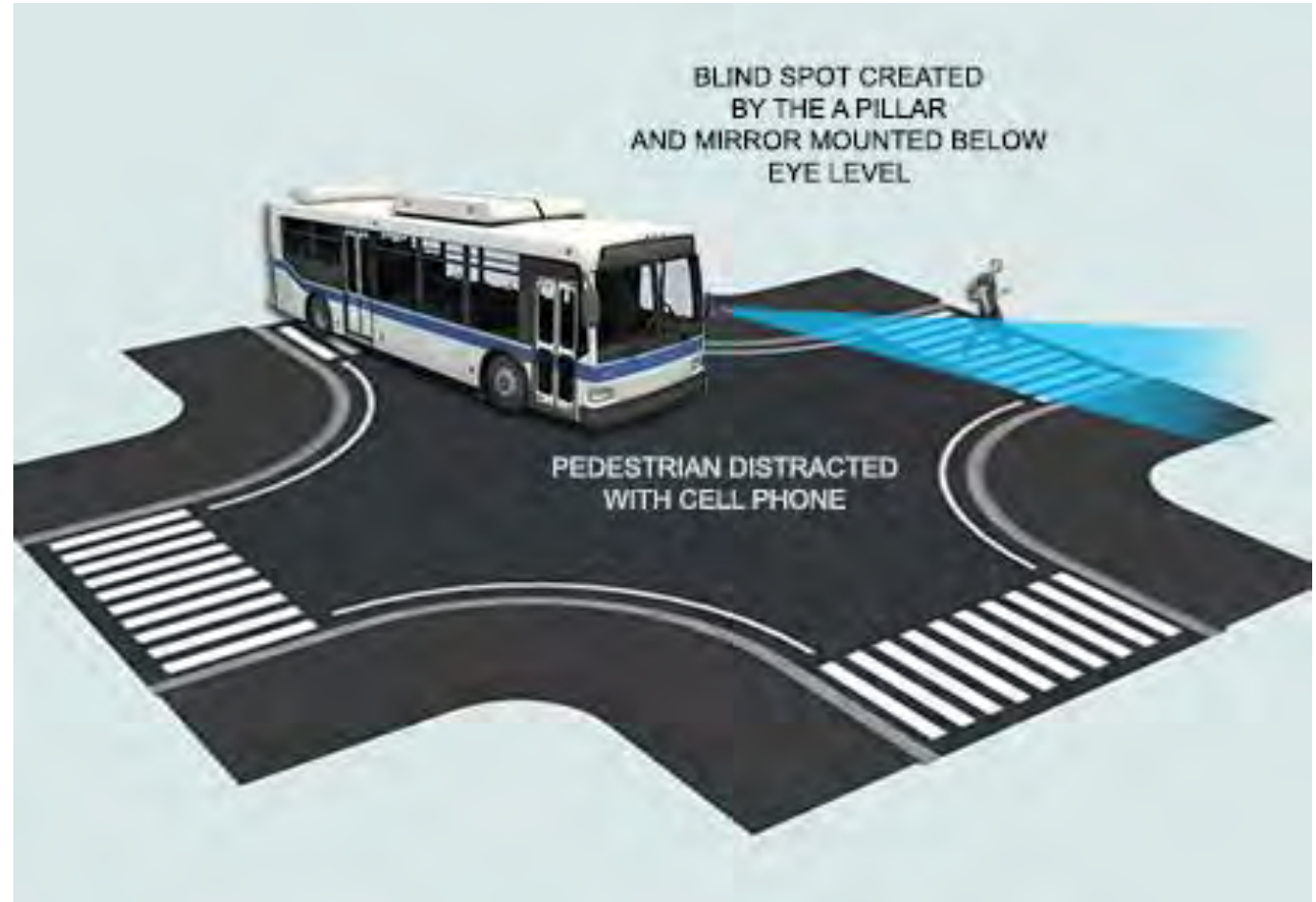
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## The Problem:

- Blind Zone
- Drivers Sight Line
- Road Side A Pillar
- Road Side Mirror Location
- Distracted Pedestrians



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# What are your options?

**Radar Technology**

**Warning Lights**

**Audible Tones**

**External Speakers with Voice Command**

**Reality**



**PAD** BY **LUCERIX**  
PEDESTRIAN AWARENESS DISPLAY

Image taken from Pilot-  
King County Transit.  
Seattle WA.

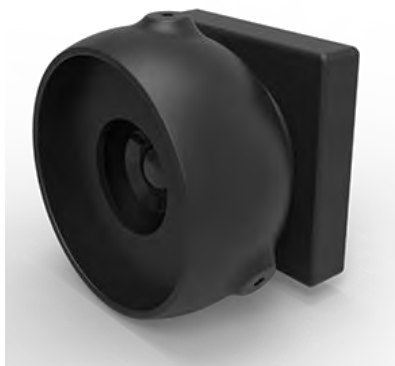
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# How does **PAD** BY **LUCERIX** work?

PEDESTRIAN AWARENESS DISPLAY



## Forward Facing HD Camera A-Pillar HD Monitor Processor Unit



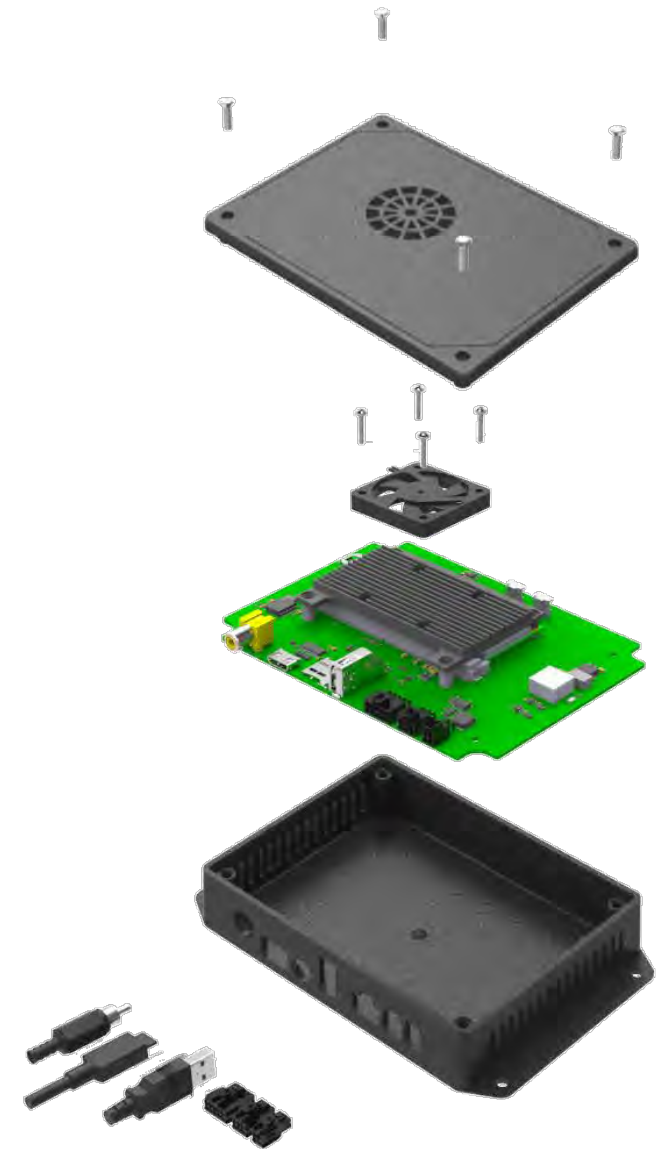
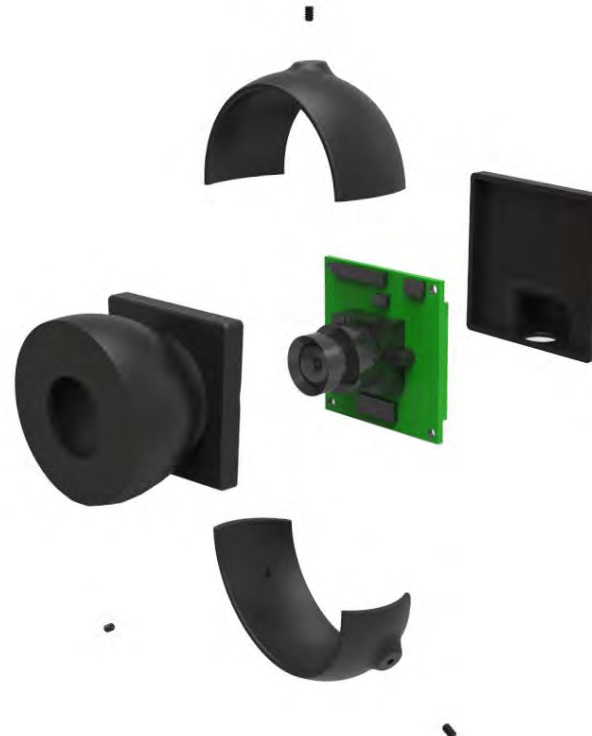
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# Features

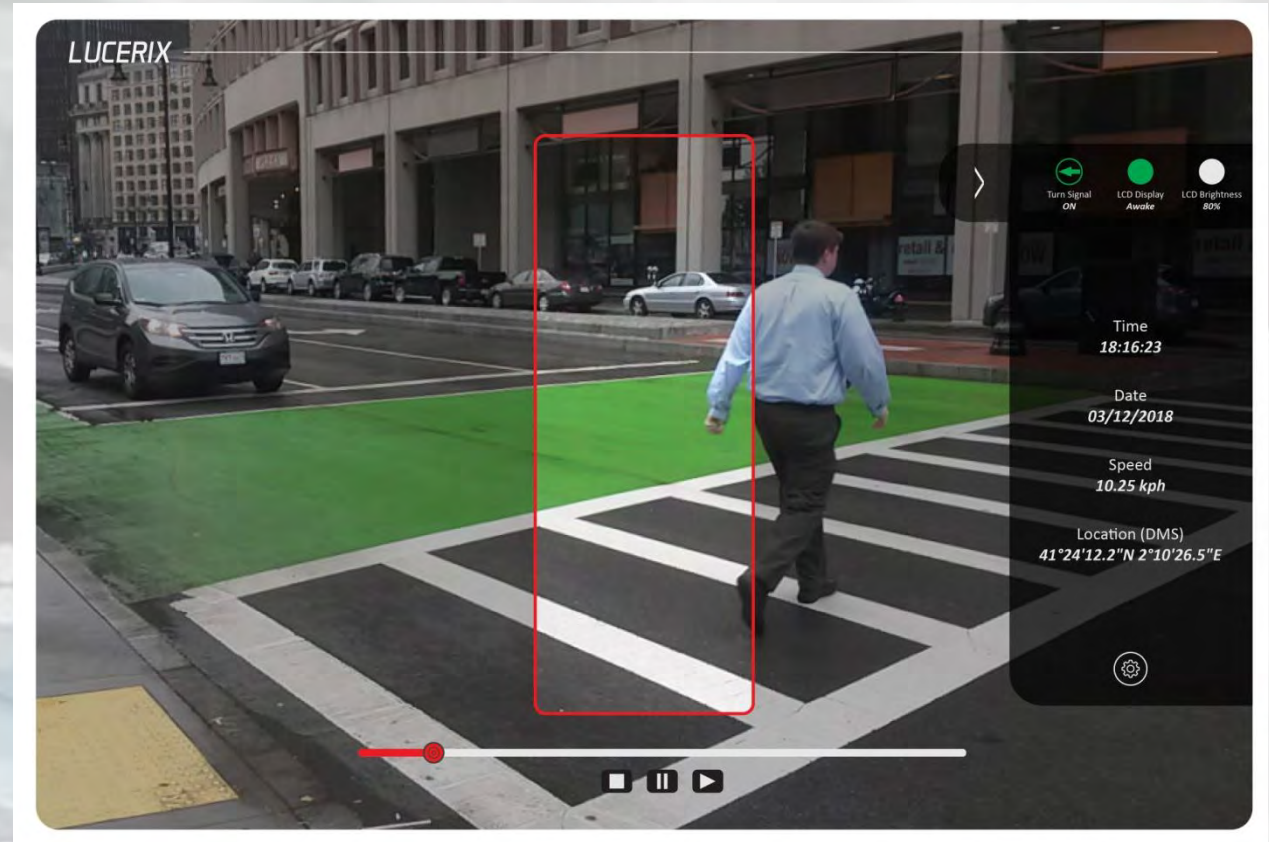
- Built in Memory and recorder.
- Monitor Sleep Mode
- Automatic Left Turn Activation
- Brightness Control
- 9V – 33 V (built in breaker)
- External Video Output (Analog / Digital)
- 15" x 4" Low Profile HD Monitor
- HD Camera



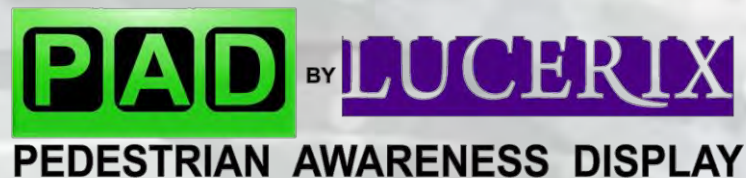
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# Internal Recorder "Black Box"

- 9 Hour loop (256 GB Mini SD)
- Circular buffer with 1 minute files, Seamless
- HD. 264 format 1
- 1280P x 720P
- Full Screen Record with Display Overlay
- Slider Playback Control
- Pop up menu (Dashboard)
  - a. Turn Signal Status (on/off)
  - b. LPAD Display Status
  - c. LPAD Back Light Intensity Status
  - d. Date / Time
  - e. Vehicle Speed
  - f. GPS Location Information







# Demo Footage, MST CA, King County, WA.

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# Lucerix International Corp.

*Mirrors On The Move!*



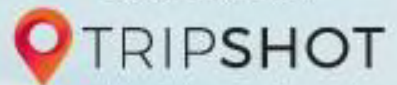
PEDESTRIAN AWARENESS DISPLAY

## Thank You.

Contact: James Anderson, [janderson@lucerix.com](mailto:janderson@lucerix.com)

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# Connixt, Inc. and Los Angeles Metro

- Prabu Ekambaram, *Co-founder & Chief Technology Officer, Connixt, Inc.*
- Al Martinez, *Senior Director Transit Applications, Los Angeles Metro*

CONNIXT

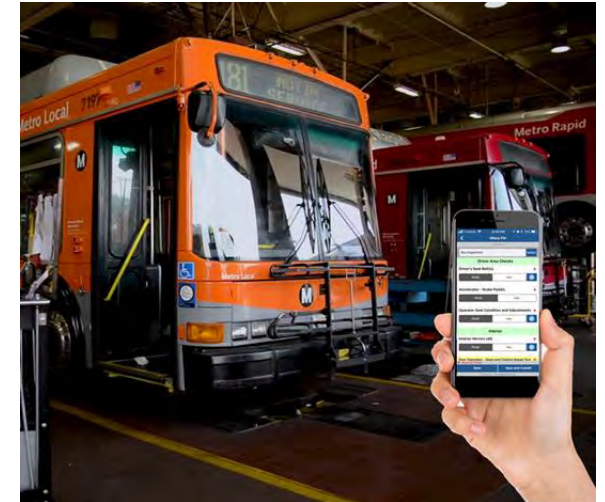
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# Mobile apps for Inspection, Maintenance & SGR

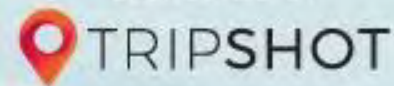
LA Metro's use of Connixt cloud-mobile app suite for Rail, Bus, Wayside, Signals, Facilities & SGR



Presented by: Los Angeles Metro and Connixt, Inc.

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# This is iMarq™



iMarq - mobile app suite for the transit industry from Connixt

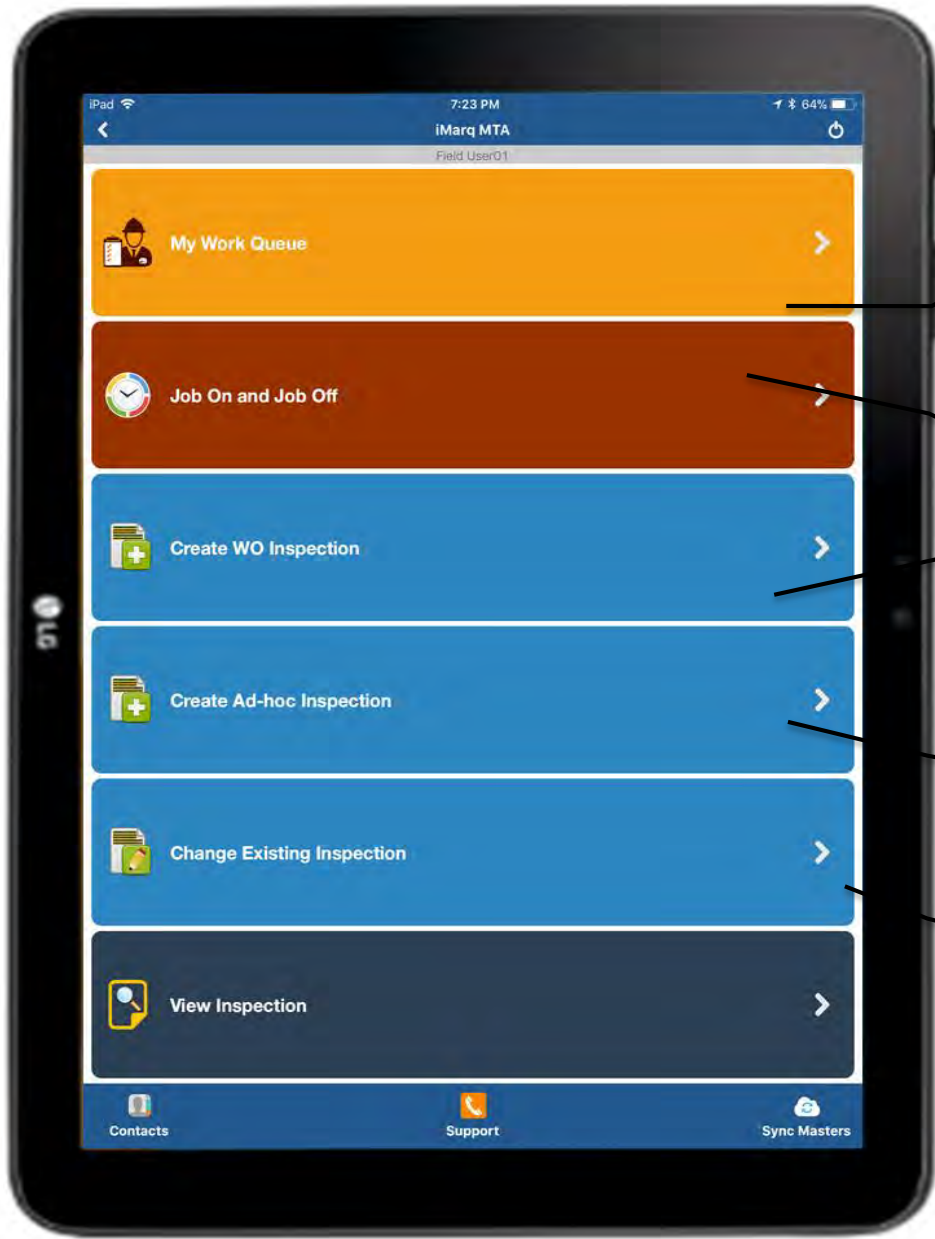
Digitize inspections, maintenance and SGR processes for workshop, field and facilities

- Pre-built
- Configurable
- Workflows
- Reporting

Cloud-based – No additional hardware or software



# iMarq™ - Mobile App



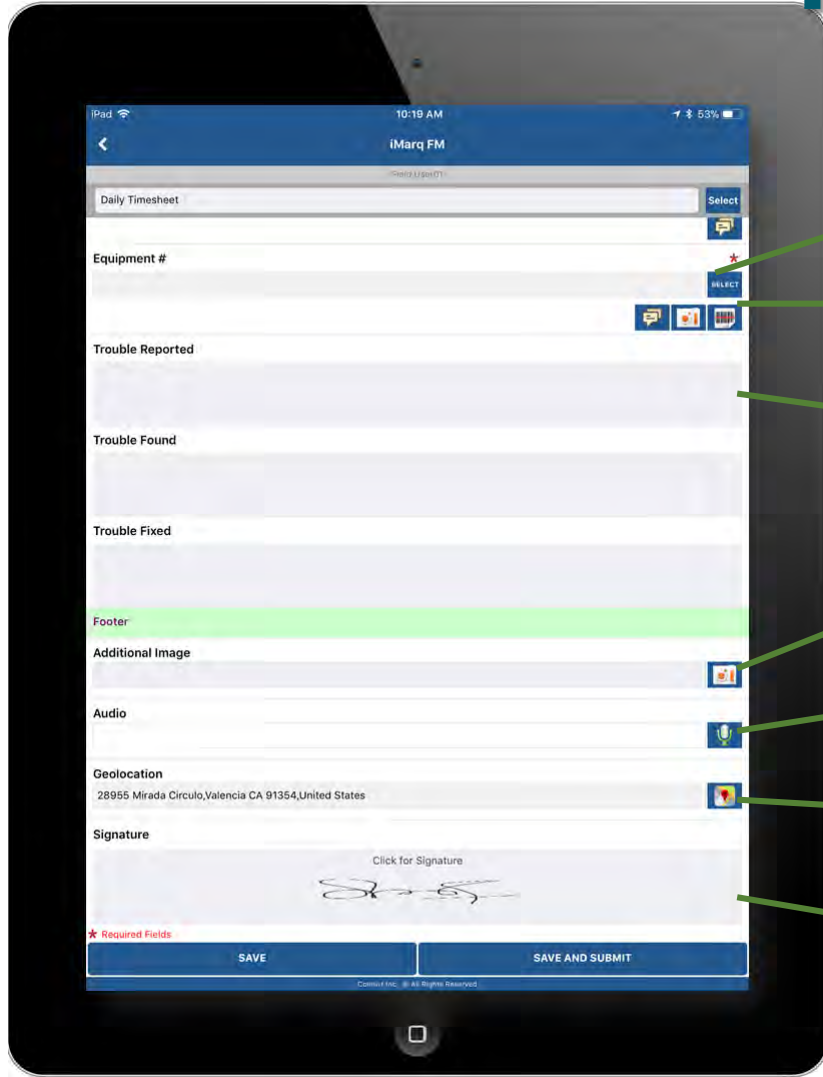
- **Any device, anywhere**
  - Android/iOS; Tablets & Smartphones
  - WiFi/LTE/Offline

- **Configurable**
  - Inspections, forms, checklists, Work Orders, Incident Reports
  - Job-on/job-off
  - SGR, inventory, condition assessment

- **User-friendly, low training**

- **Back-end integration**
- **No additional infrastructure**

# Empowering the User



Selectable from Master

Barcode Scanning

Speech to text

Image Upload and Annotation

Audio Upload

Geotag

Signature

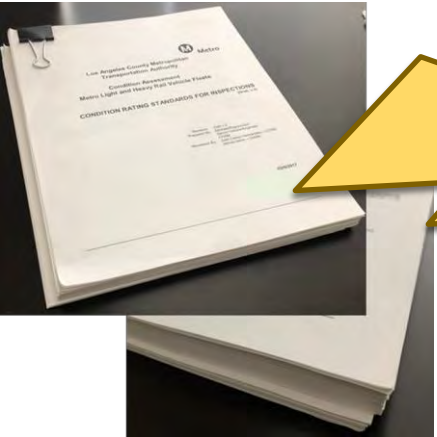


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# Demo: SGR @ Metro with Connixt iMarq



12000 MILES GENERAL MAJOR INSPECTION

NA PASS FAIL FAIL-RED LINE

Signature

Click to Sign

SUPERVISOR

Name

524

WET FLOOR  
CAUTION  
PISO MOJADO

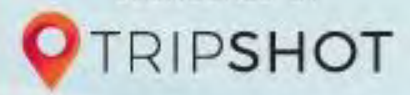






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# Mobile @ Metro today



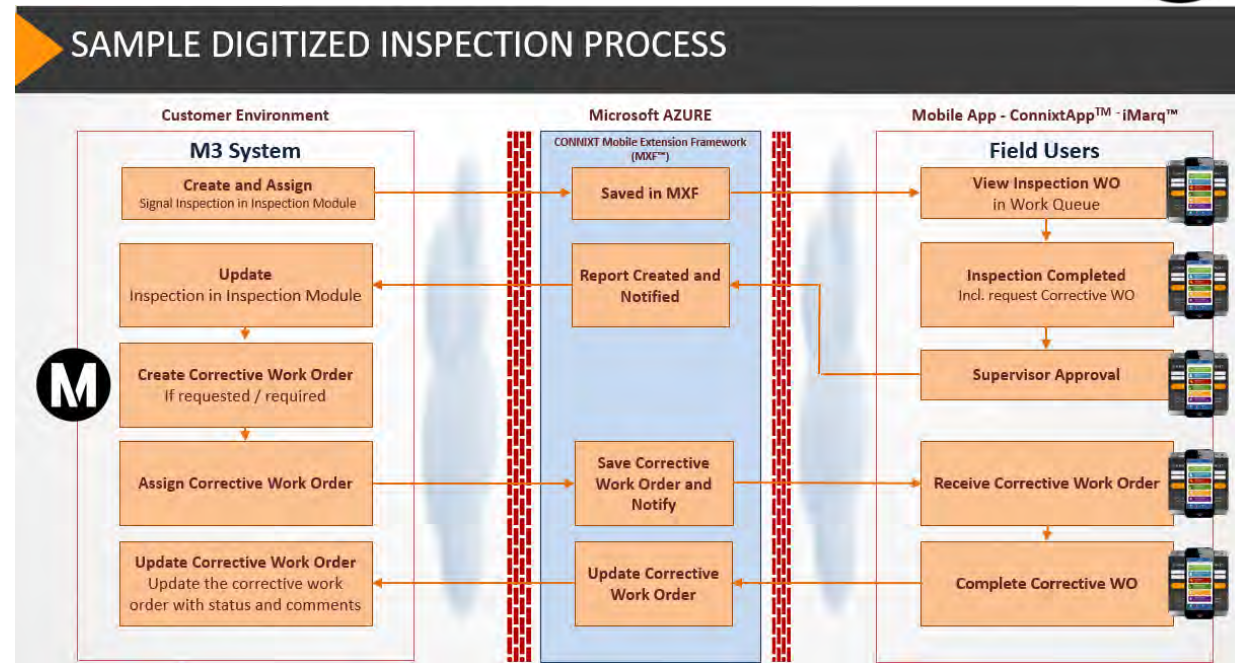
Metro®

## In Production

- Bus Inspection
- Track Inspection
- Rail Car Daily Inspection
- SGR
- Bus QA
- Rail QA (Rail and Station)

## Deployment

- Rail Car PM Inspections
- Rail Wayside Signal (Grade and Main)
- Rail Wayside Switch and Frog
- Incident Reporting
- ECR
- Bus Equipment (ATMS and UFS)



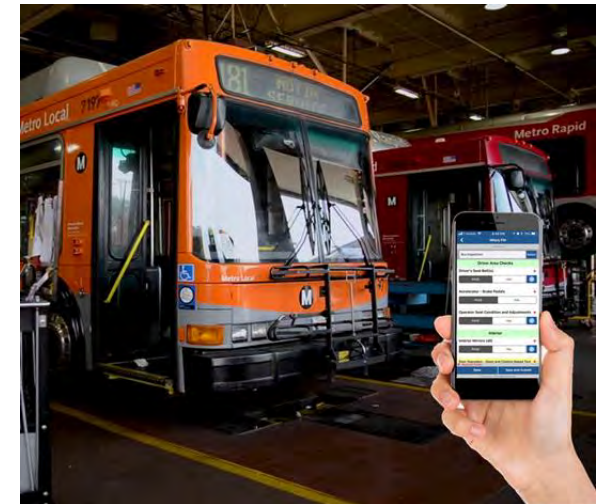
- 20% Labor hour savings
- Inspections saved as PDF with photographs & signature in back-end system
- Next phase – extend apps to
  - Facilities Management/General Services
  - Rail/Bus PM
- FRA certification

# Why this technology makes sense

- Metro is setting the standard for areas like SGR
  - Translate thousands of pages of goals, procedures and exceptions into actions and tasks for field / workshop crew
  - Flexibility to change quickly as standards evolve
- Make the technology easy to adopt, deploy and scale
  - Intuitive for the end user
  - Integrates with any back-end system(s)
  - Provide documentation/drawings help within app
  - Expand to other areas
  - Easy to deploy and manage
- **Digitize processes & data collection → actionable intelligence**

# Mobile apps for Inspection, Maintenance & SGR

LA Metro's use of Connixt cloud-mobile app suite for Rail, Bus, Wayside, Signals, Facilities & SGR



Presented by: Los Angeles Metro and Connixt, Inc. [www.connixt.com/transit](http://www.connixt.com/transit)

[info at Connixt dot com](mailto:info@connixt.com)

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# LexX Technologies and Montebello Bus Lines – Artificial Intelligence

- Nishant Sahai, *COO, LexX Technologies*
- Tom Barrio, *CEO/General Manager, Montebello Bus Lines*



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# Thank You Presenters

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