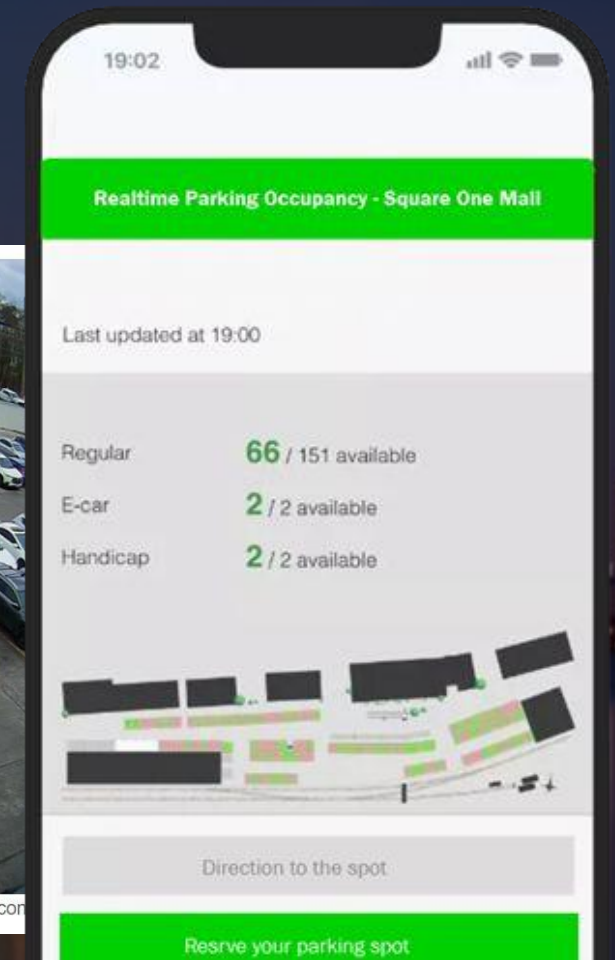


ParkSense +: AI Parking Detection System

For Cities, Towns, Airports, Malls, Hospitals & Commercial buildings



Steeson Mathew



www.LoopParking.ca



Info@LoopParking.ca

The Urban Parking Challenges



Parking is very expensive



Hard to find empty
parking spots



Increase in parking violations,
due to high parking demand



Looking for parking leads
to High Traffic Congestion



Limited Parking
Enforcement Resources



Increase in
Bike Lane Parking Violation

The Urban Parking Challenges

Increase In Bike Lane Parking Violation



The Urban Parking Challenges

Increase in hate crime against parking enforcement officers

Toronto parking enforcement officers experience rise in violence, threats

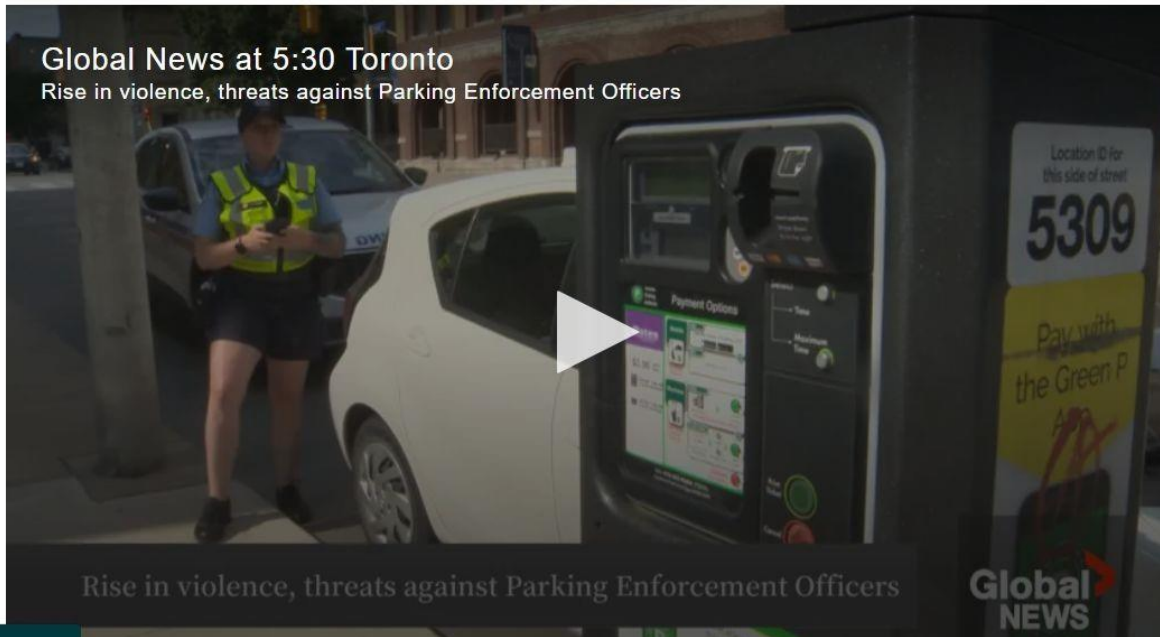


By Erica Vella • Global News

Posted July 20, 2023 3:44 pm · Updated July 20, 2023 6:10 pm

Global News at 5:30 Toronto

Rise in violence, threats against Parking Enforcement Officers



Rise in violence, threats against Parking Enforcement Officers

Global
NEWS

Toronto man charged after allegedly trying to run down parking enforcement officer



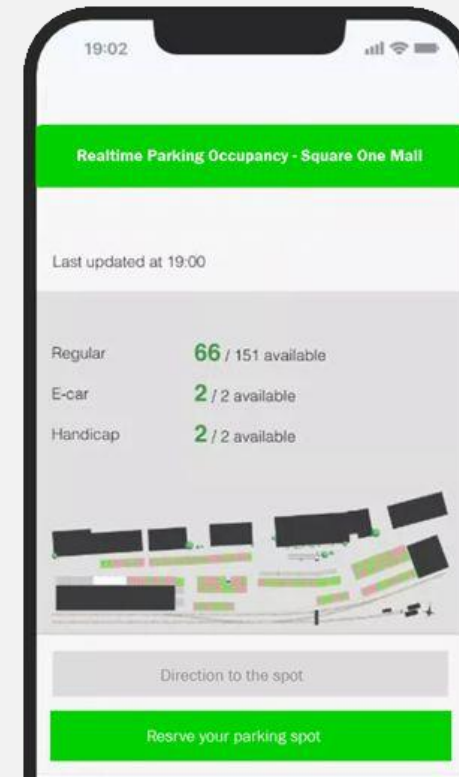
ParkSense+ : AI Curbside Parking Detection System



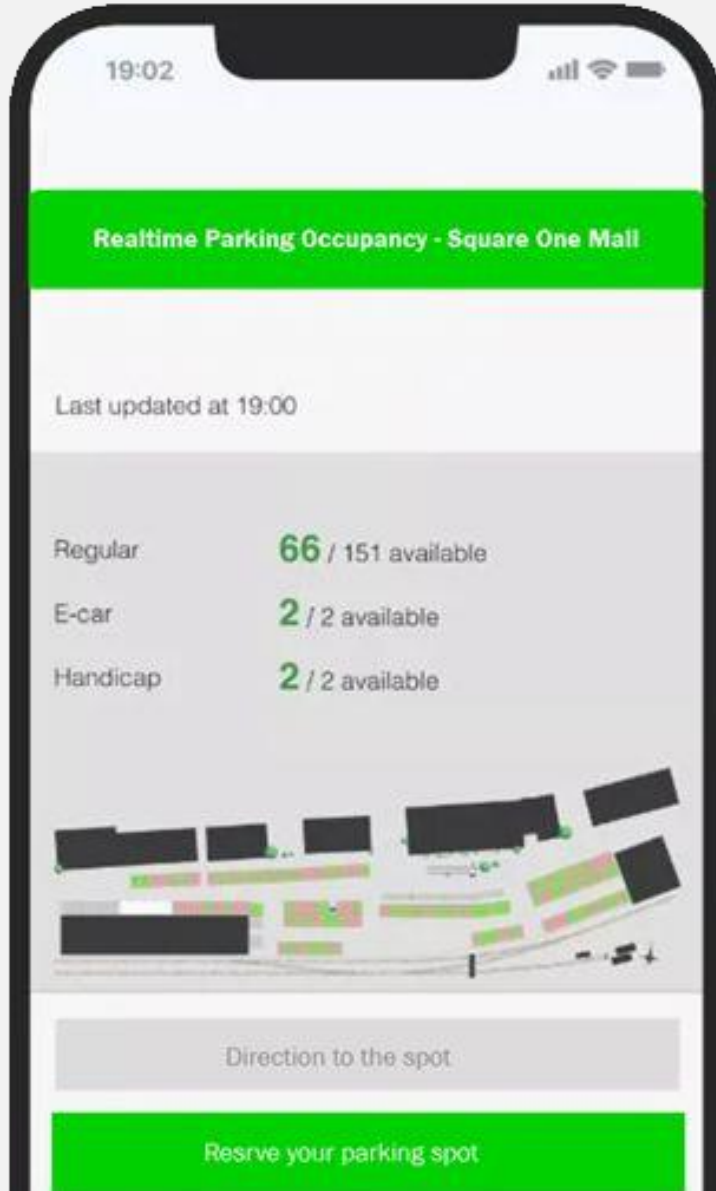
- ✓ Real-Time Parking Detection System
- ✓ Overtime & illegal parking detection - Bike Lane Parking
- ✓ Historical Datas & Insights for future Planning
- ✓ Automate Parking Enforcement & Ticketing

Benefits of AI Curbside Vehicle Detection System

- ✓ Real Time Parking Occupancy Data
- ✓ Reduce search time
- ✓ Reducing traffic congestion & Co2 emission
- ✓ Can able optimize parking usage



Solutions



Users can plan their commute, which will reduce the traffic

- ✓ **With real-time availability of parking, for On-Street & Off-Street commuters can plan their commute**
- ✓ **Commuters can able to reserve parking spots as well.**
- ✓ **Navigate commuters to the exact parking spots.**



Real-time data



Fully privacy-compliant



Automatic real-time alerts



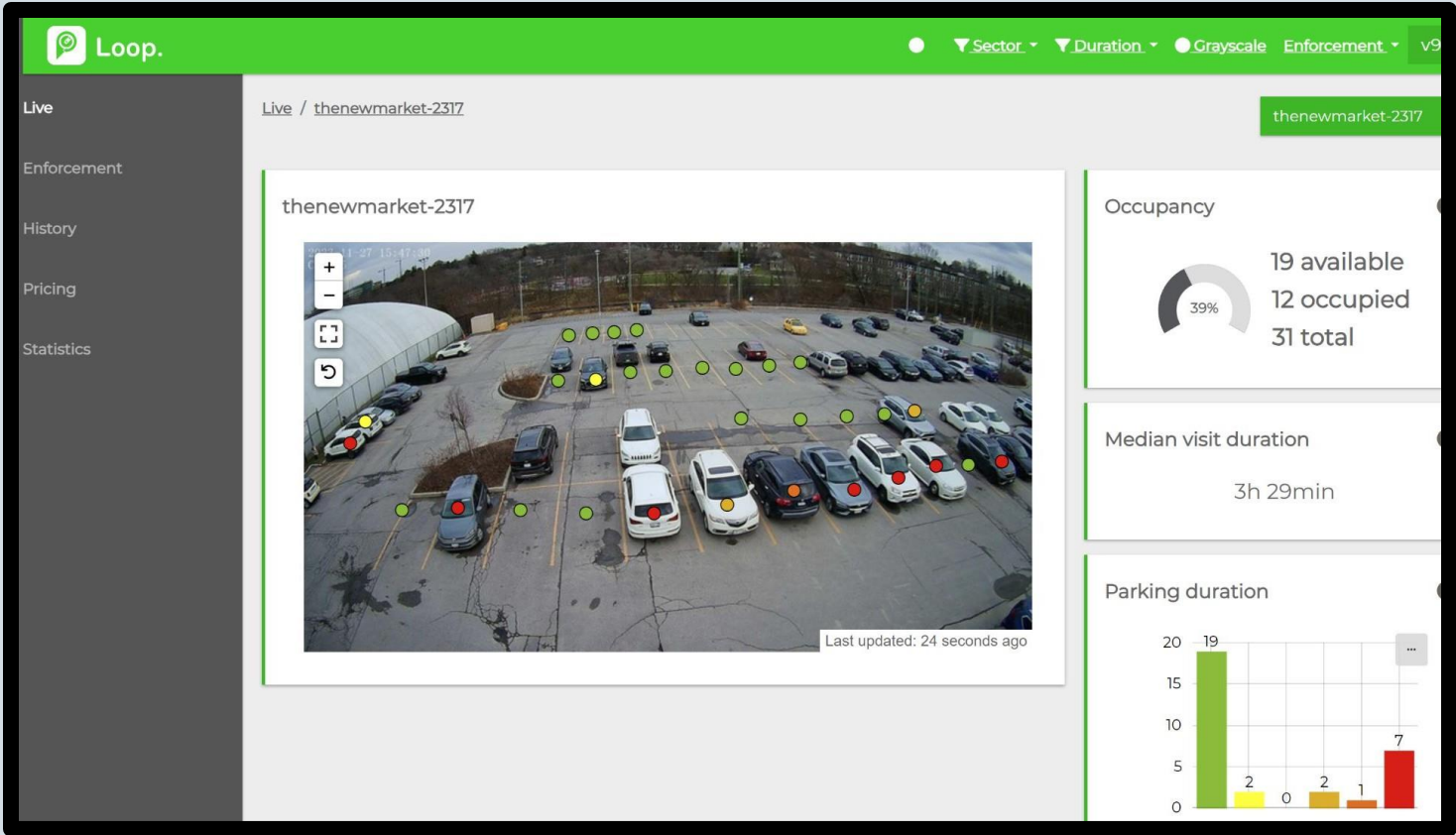
Insights
historical statistics



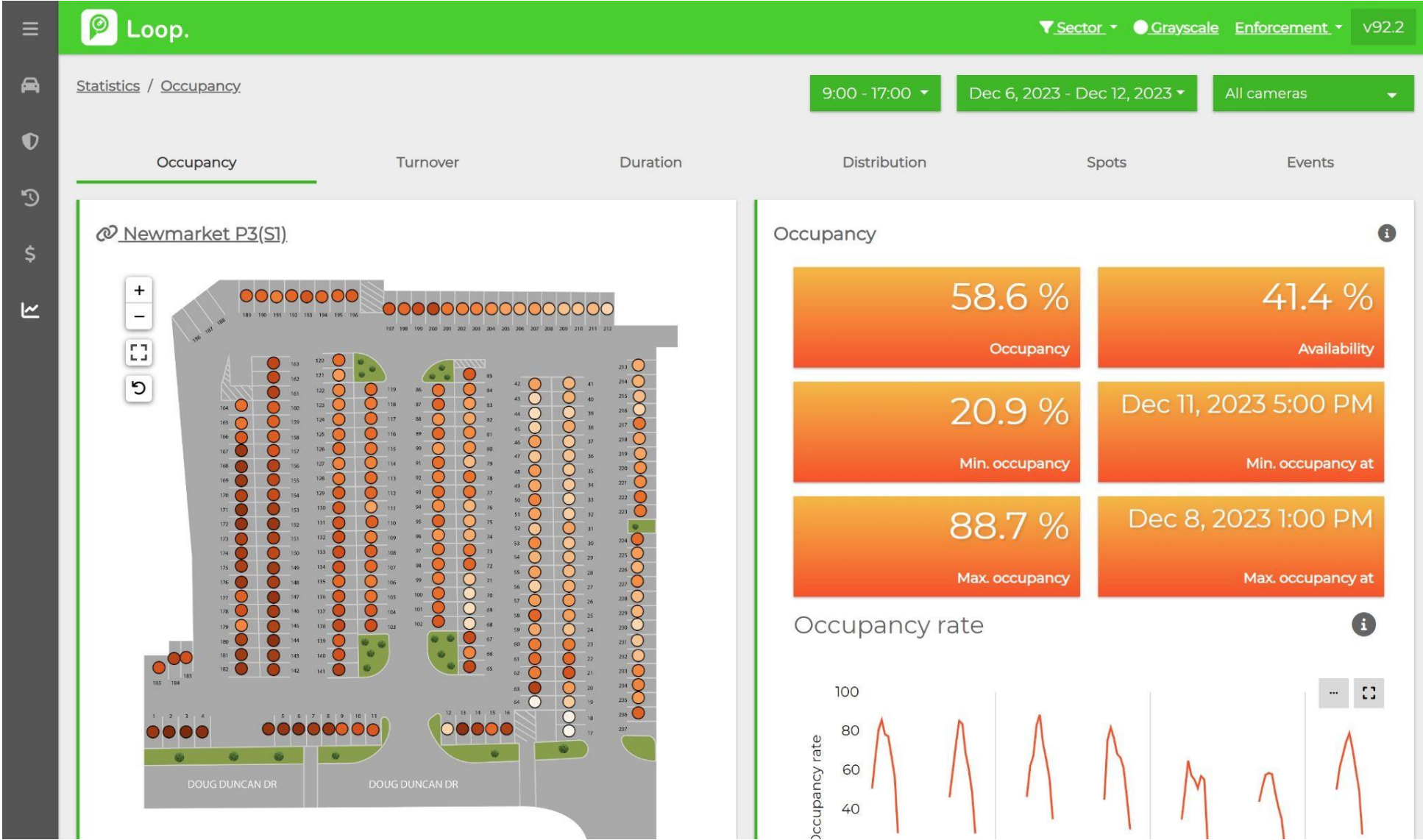
License Plate Recognition

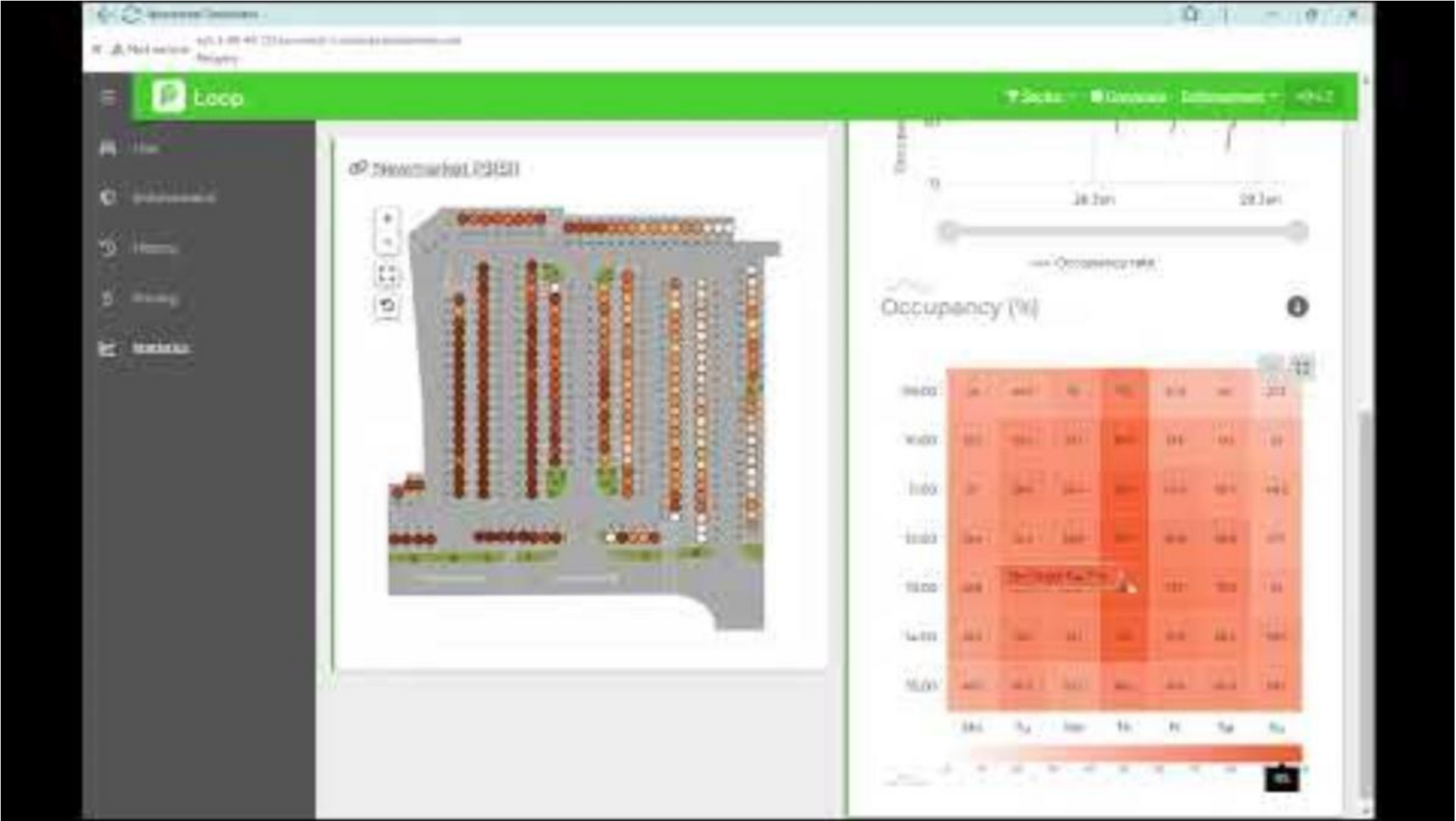


Evidence for Issuing Citations

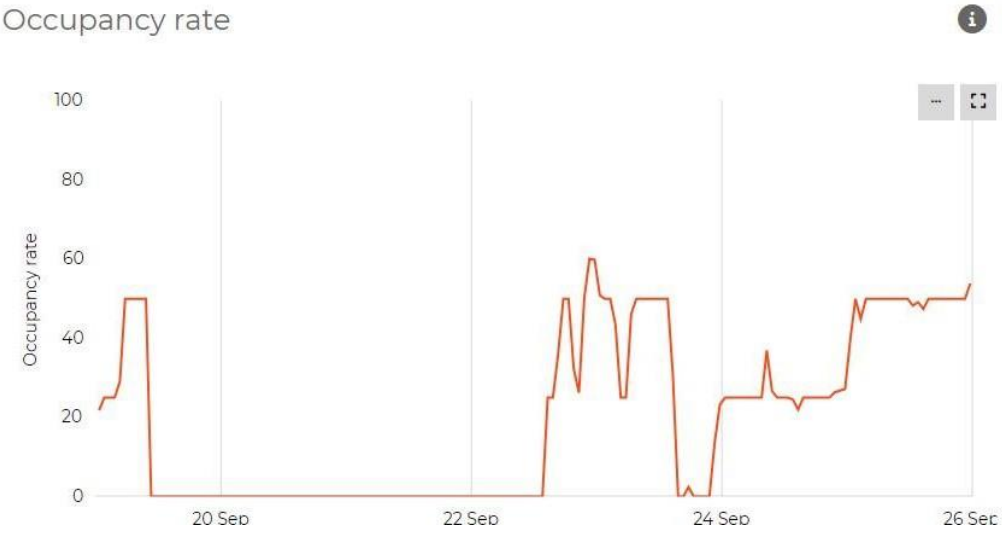


Screenshot from Town of Newmarket pilot project dashboard

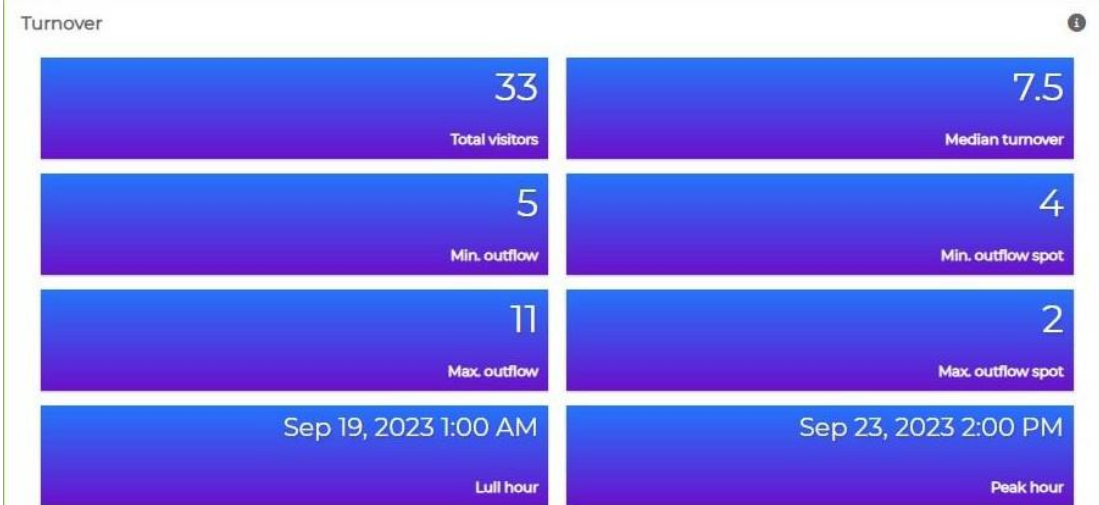




Occupancy Rate & Visitor Flow Rate



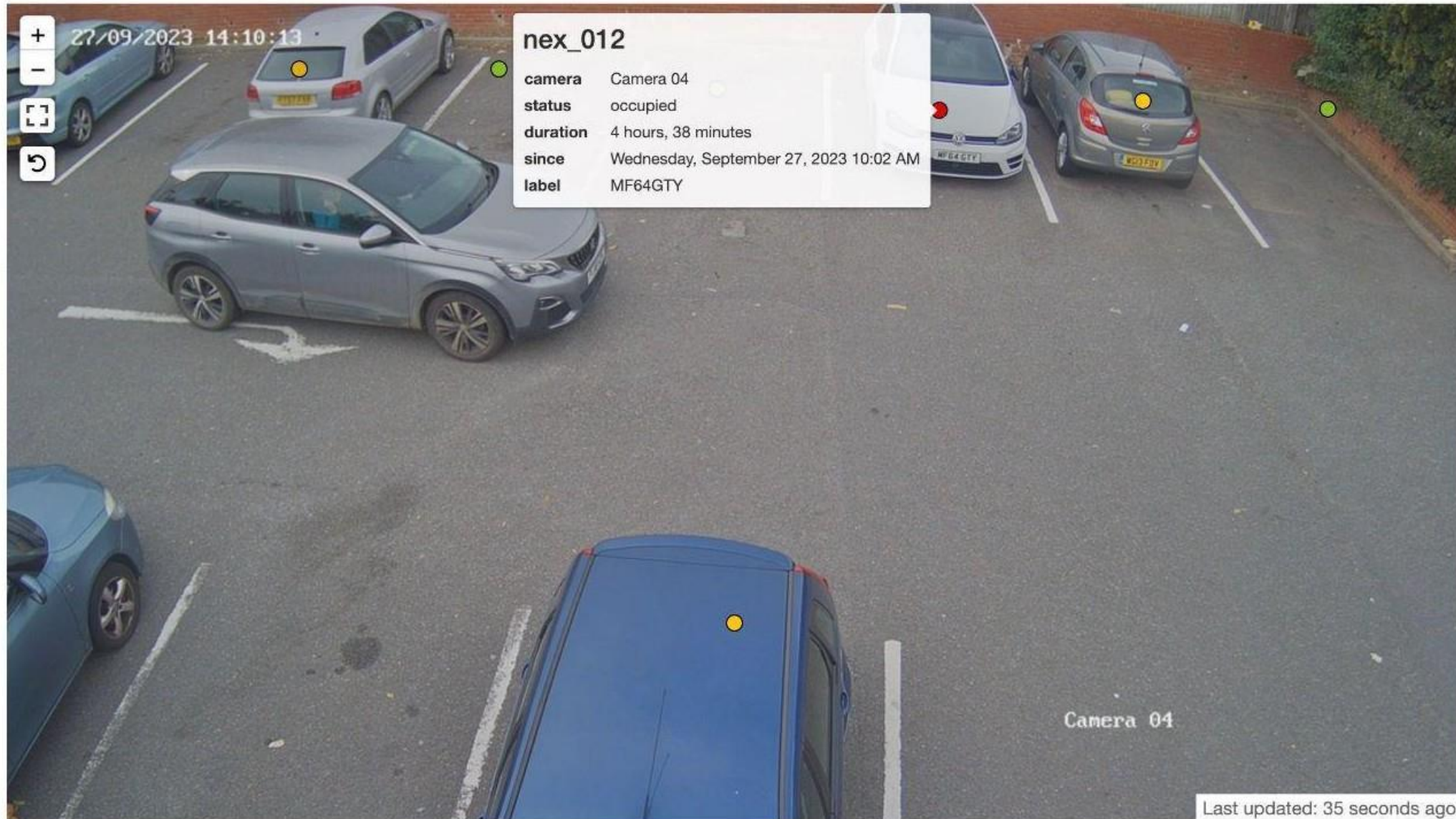
Occupancy Rate



Visitor Flow Rate

License Plate Recognition Feature

Camera 04





Violations - Overnight Parked Vehicles



Screenshot from Town of Newmarket pilot project dashboard

Loop.

Enforcement / Newmarket P3(S1)

10 hours ▾

+

-

📏

🔄

137

camera

status

duration

since

thenewmarket-2313

occupied

13 hours, 39 minutes

Tuesday, December 12, 2023 6:34 PM

189

190

191

192

193

194

195

196

197

198

199

200

201

202

203

204

205

206

207

208

209

210

211

212

163

162

161

160

159

158

157

156

155

154

153

152

151

150

149

148

147

146

145

144

143

142

141

179

178

177

176

175

174

173

172

171

170

169

168

167

166

165

164

163

162

161

160

159

158

157

156

155

154

153

152

151

150

149

148

147

146

145

144

143

142

141

119

118

117

116

115

114

113

112

111

110

109

108

107

106

105

104

103

102

101

100

99

98

97

96

95

94

93

92

91

90

89

88

87

86

85

84

83

82

81

80

79

78

77

76

75

74

73

72

71

70

69

68

67

66

65

64

63

62

61

60

59

58

57

56

55

54

53

52

51

50

49

48

47

46

45

44

43

42

41

40

39

38

37

36

35

34

33

32

31

30

29

28

27

26

25

24

23

22

21

20

19

18



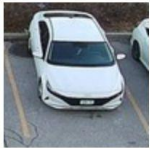



17

DOUG DUNCAN DR

DOUG DUNCAN DR

Last updated: 33 seconds ago

ec2-3-99-44-123.ca-central-1.compute.amazonaws.com/thenewmarket/parking/?spot...

<div>P</div>	<div>🕒</div>	<div>⌂</div>		
141	15h 31min			<div>📹 + 🔍</div>
185	15h 28min			<div>📹 + 🔍</div>
140	14h 14min			<div>📹 + 🔍</div>
5	13h 52min			<div>📹 + 🔍</div>
137	13h 40min			<div>📹 + 🔍</div>
3	12h 3min			<div>📹 + 🔍</div>

Case Study – Comparison – ParkSense+ V/S Ground Sensors

For 230 Parking spots

- Setup Cost for ground based sensor : \$ 90,000
- Setup Cost for ParkSense+ : \$ 15,000

Saving nearly \$75k | Six times cost savings

ParkSense+



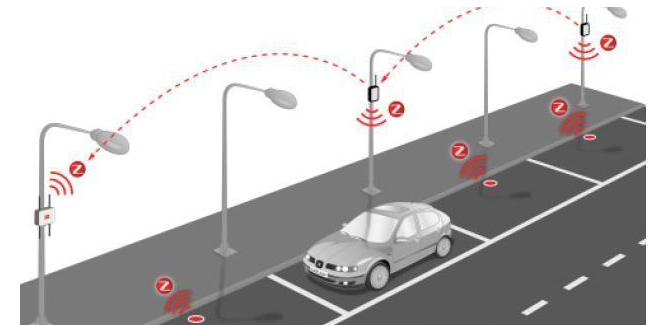
Less Cost, More Reliable



Easy to Install

V/S

Ground Based Sensors



Expensive , Less Reliable

Use Cases

Parking Enforcement & Management | Real-Time Availability For Drivers

- ✓ Real-Time Parking Availability For Drivers For On-Street & Off-Street
- ✓ Effectively Manage Curbside Parking
- ✓ To Monitor Parking spots where Max. Parking limit is enforced
- ✓ Real-Time Violation Monitoring for Bike Lane & No Parking Zones and Loading Zones Parking
- ✓ Used to conduct Parking Studies
- ✓ Data-Driven Decision Making - Enables data-driven urban planning and policy-making.



Some More Use Cases

Parking Enforcement & Management | Real-Time Availability For Drivers



Airports



Hospitals



Shopping Centers



Tourism Destinations



Train Stations



Hotels



Employee Car Parks



Stadiums

Any Type Of Spots In Any Weather



Off-street



On-street



Unmarked



Indoor



Truck parking



Bus depots



Marinas and harbors



In any weather



We are seeking Cities, Towns & commercial partners to pilot our solution



Partnership



Pilot Projects



Support

Supported By :

PLUGANDPLAY

 **FOUNDER
INSTITUTE**

 **COMMUNITech®**

 **ROGERS**

OVIN
AUTONOMOUS • CONNECTED • ELECTRIC

 **treefrog**
Accelerator

INVEST BRAMPTON.CA

**Innovation
Guelph**

 **cisco Jasper**

myQ

Ontario 

Featured On :

**City
News
680**

 **CBCNEWS**



Making Parking Affordable & Sustainable

Join us in our
Journey



Loop Parking



Info@loopparking.ca

Implementation Process

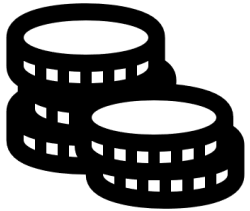


- ✓ Initial Assessment
- ✓ 6 Month Pilot Project
- ✓ Use Existing Cameras or Install New Cameras to Lamp Posts
- ✓ Testing and Optimization

Business Model



P-Saas (Parking Solution as a Service)

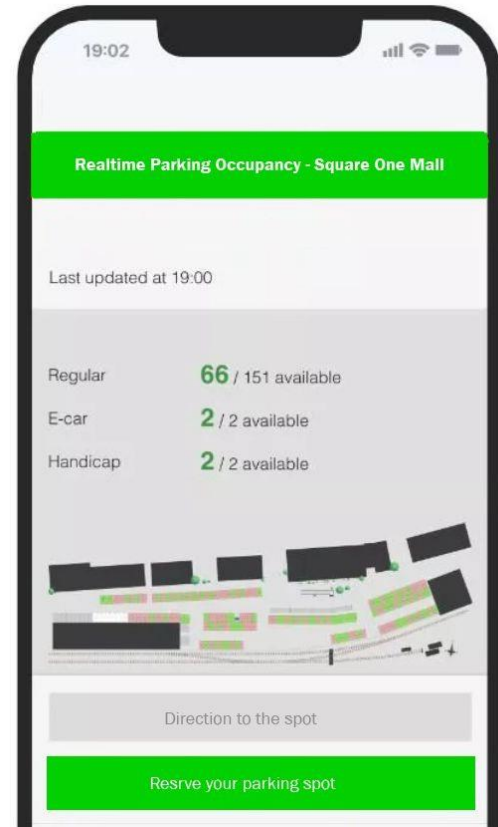


For Ai Curbside detection system

\$8.5 / Month per parking spot + One Time Setup Cost

le: For a medium Size - 300 parking spots - Monthly \$2,500

Real-Time Parking Occupancy Information is completely FREE for Drivers



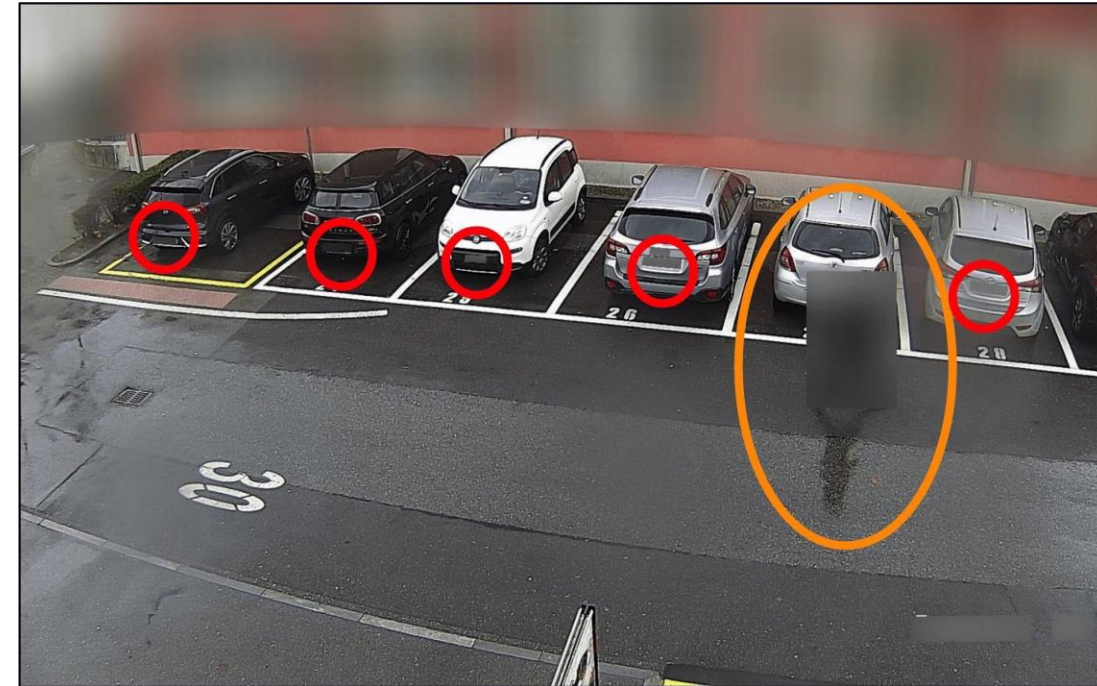
ParkSense+ Performs well during Winter

loopparking-2280



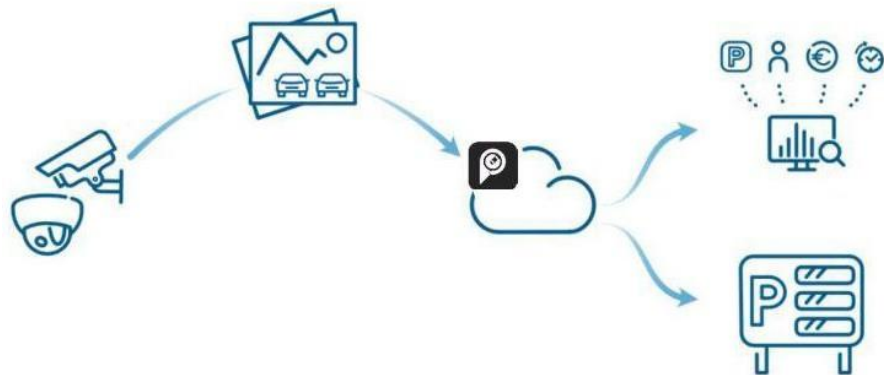
Both, On-premise & cloud analysis comply

- ✓ We do not store any images.
- ✓ We automatically delete images after processing.
- ✓ Our solution automatically blurs pedestrians & vehicle number plates before image analysis to ensure data remains anonymous.
- ✓ If analyzed on-premise, the images do not leave the customer's premises but are processed and analyzed on a server on-site.

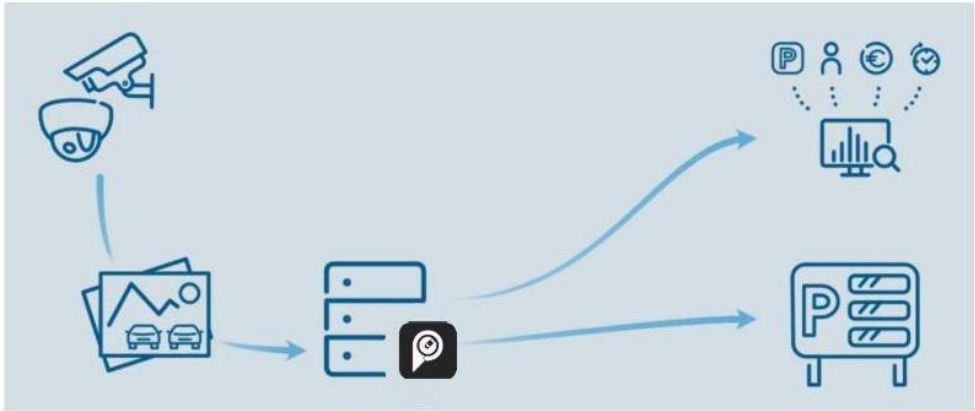


Server Options

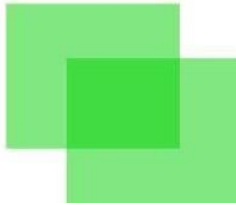
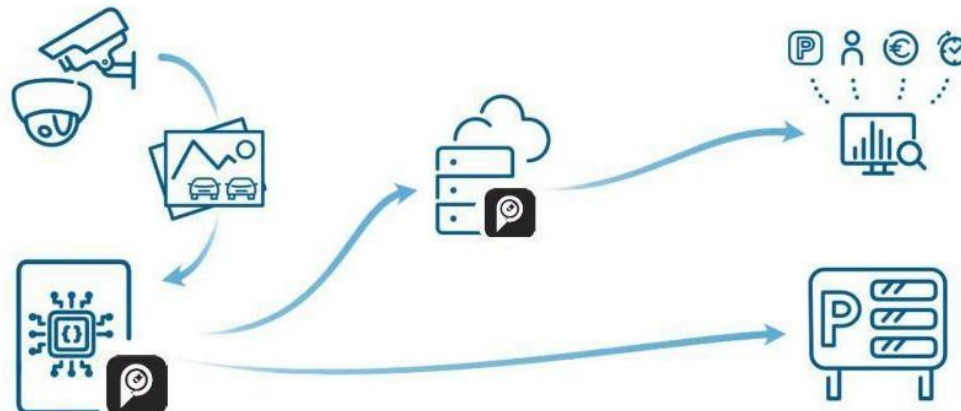
Directly From IP Camera - Cloud Processing



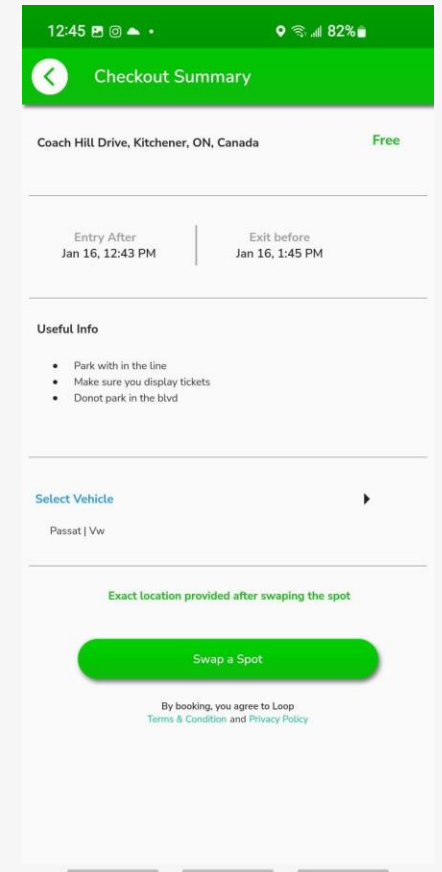
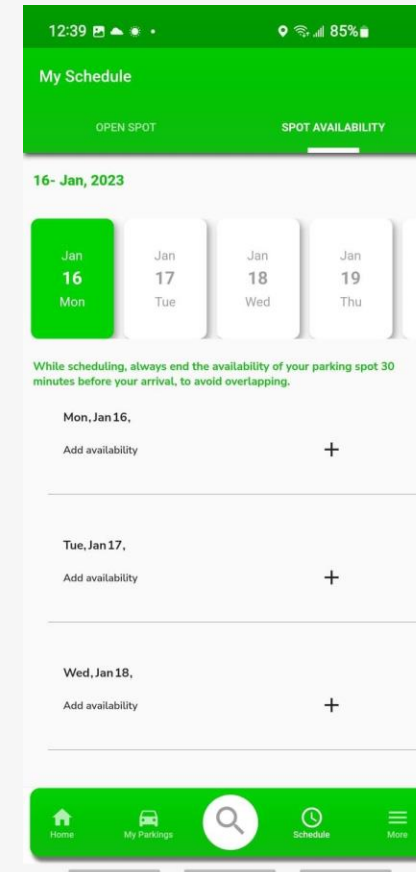
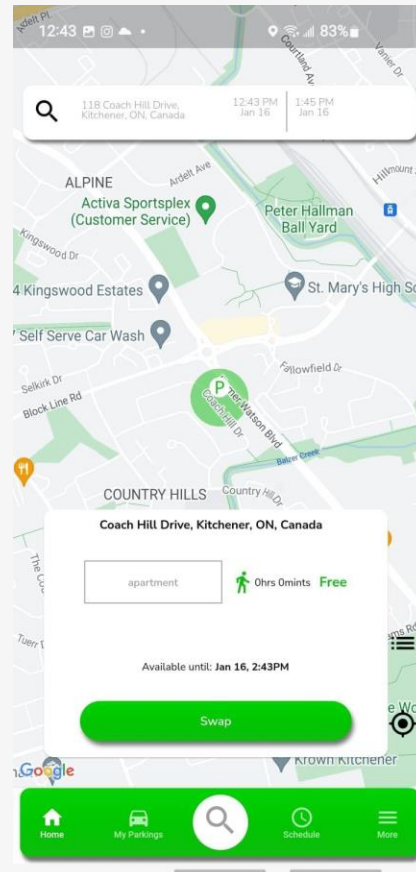
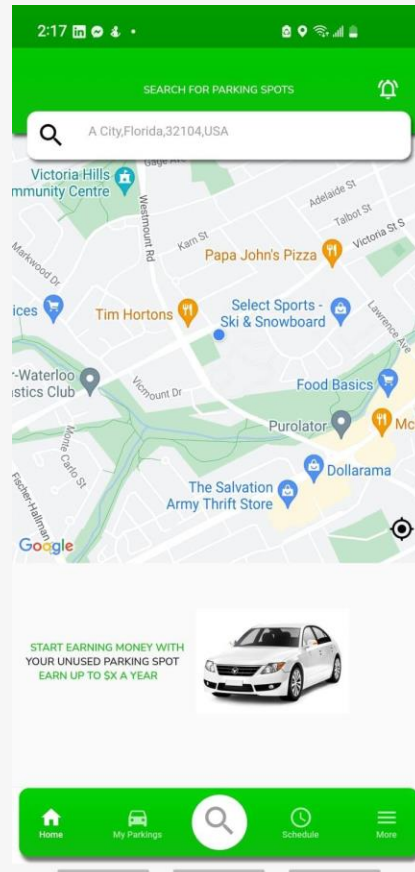
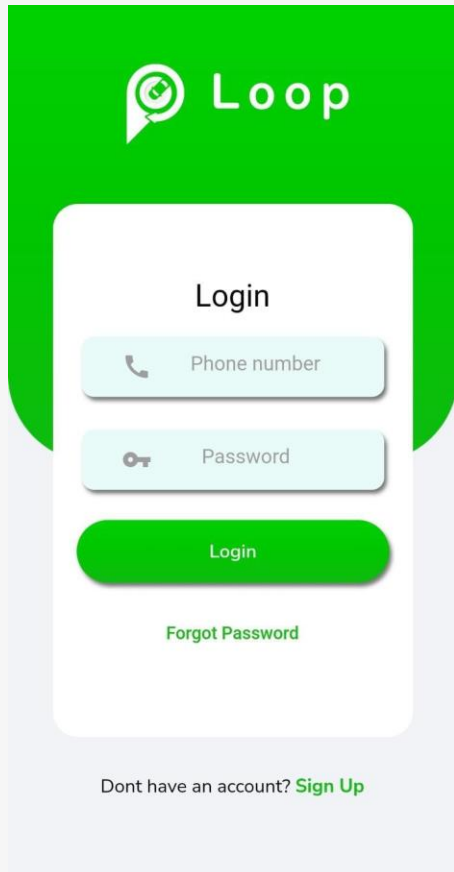
On-premise – Processing using Server



On the edge – Processing in edge



Parking App Screenshots



Our Team



Steeson Mathew
Co-Founder/ CEO



Rasmin A.S
Co-Founder/ CTO
AI/Machine Learning



Daison Mathew
Co-Founder/ CMO



Bijal George
Co-Founder / COO



Grant Brigden
Advisor
Co-Founder Rover Parking (**DMZ Alumni**)

