Georgia Department of Transportation

Performance Measures and Health Index of ITS Assets

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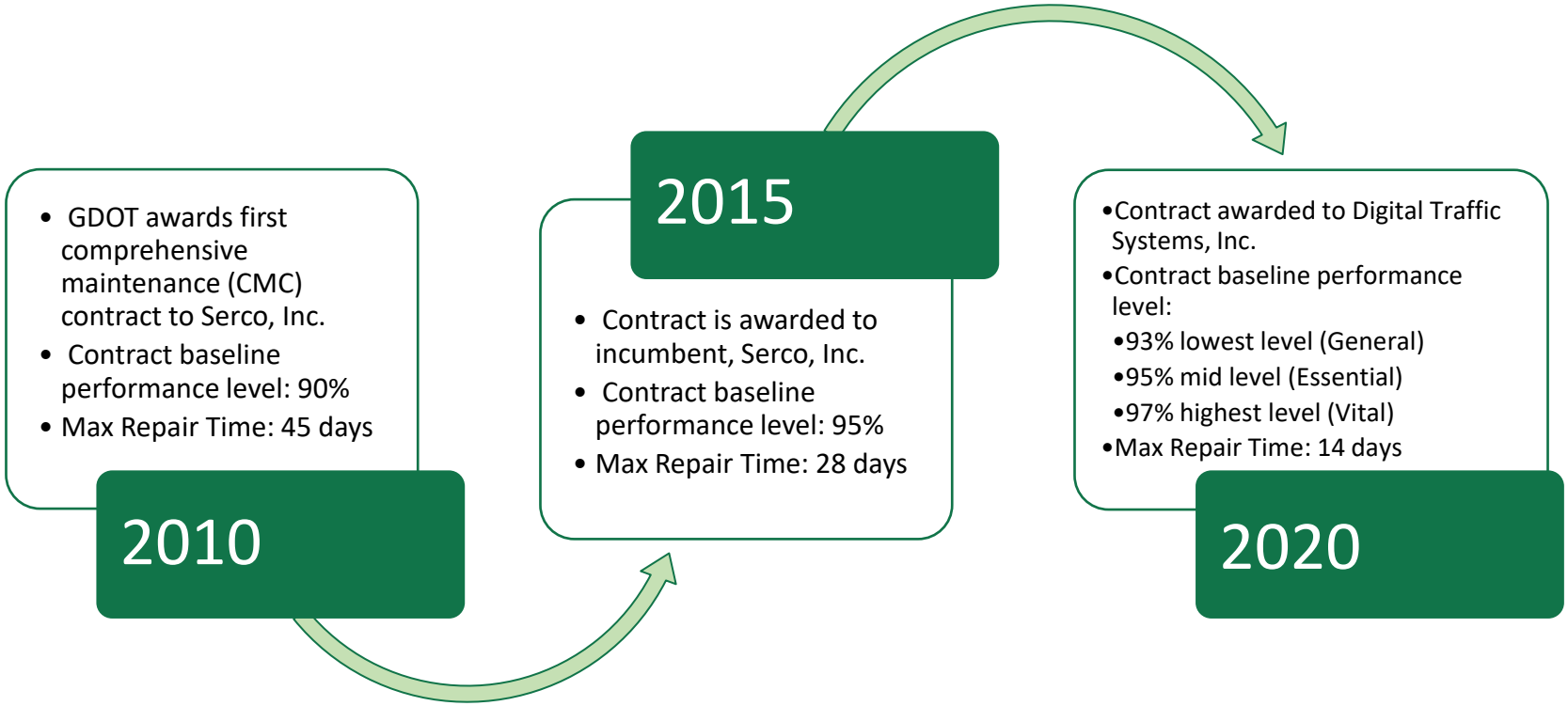
ITS Supervisor

ITS Comprehensive Maintenance Contract

- Pay for performance
  - Covers all ITS equipment, with few exemptions
- Repairs on exempt assets and non-PFP assets are completed through optional and emergency services
  - Exempt assets – sign structures, poles, fiber
  - GDOT can request emergency services on any asset as deemed necessary
- Emergency repairs are incentivized
- Approved Special Experimental Project No 14 – Innovative Contracting
  - Best value construction contract

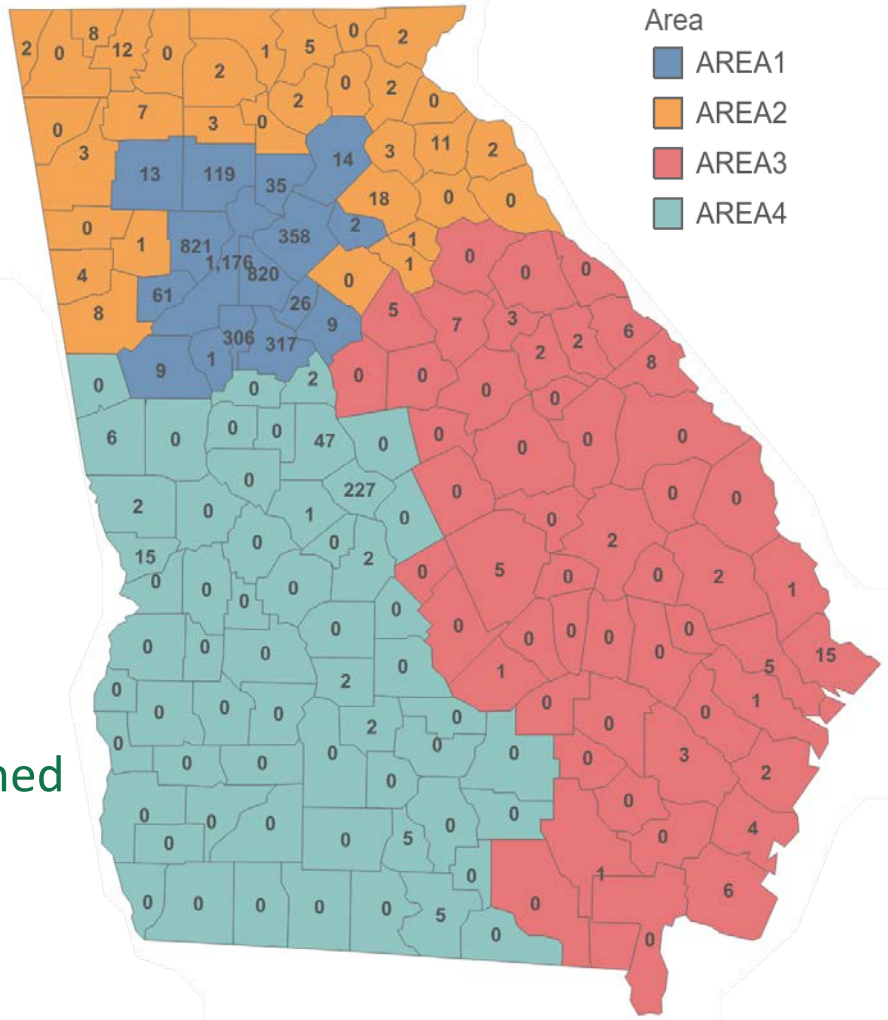
Comprehensive Maintenance Contract Timeline



Categorization of Devices

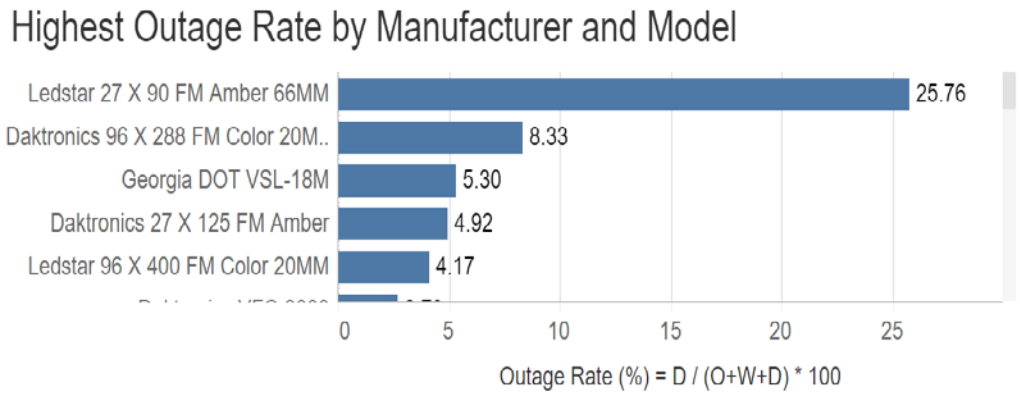
- Class
  - CCTV, Emergency Access Gates, Environmental Sensor Stations, Gate Lift/Swing Systems, Hubs, Message Signs, RACS, Ramp Meter Systems, Vehicle Detection Systems
- Classification
  - General, Essential, Vital
- Asset Status
  - Operational, Down, Waiting,

    Not Ready, Transition, Decommissioned
- Area



ITS Asset Management (IAMS)

- Allows GDOT to monitor device availability in real time
- Ticketing system for TMC staff
- Data Analytics
  - MTBF by manufacturer
  - Warranty tracking
  - Device age
  - Data exports by corridor
- Contract payment tracking per device



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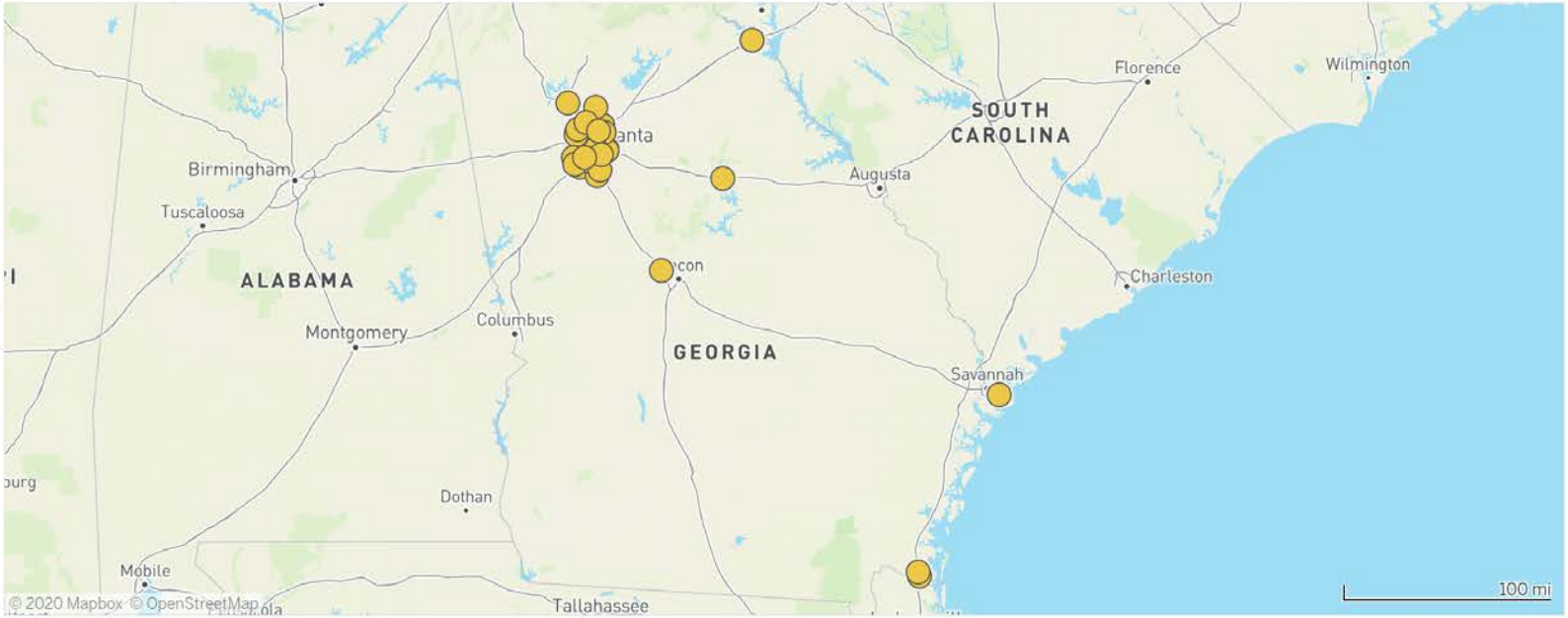
Current Status of ITS Devices

Device Location and Asset Status Indicator: Down



Device Name: (All)

Select Asset Status: Down

Class: (All)

Priority: (All)

Work Order Category: (All)

Asset Status Display: Selected Asset Status

Map Color Legend: Selected Asset Status

Current Status and Work Orders

Asset Name	Asset Status	Class	Type	Priority	Workorder No	Workorder Ca..	Released	Workorder Failure	Workorder Status	Age (Days)
BIBB-AID-N2C28	Down	VDD	AID	General	A4-00357	Corrective	2020-08-28	Failed Communications	In-Progress	11.00
GDOT-CAM-043	Down	CCTV	CCTV	General	A1-03743	Corrective	2020-07-28	CCTV No Video	Released	42.00
GDOT-CAM-I-85-177	Down	CCTV	CCTV	General	A2-00098	Corrective	2020-08-09	Failed Communications	Released	30.00
GDOT-CMS-060	Down	MS	DMS	General	A1-04763	Corrective	2020-09-01	Failed Communications	Released	7.00
GDOT-CMS-804	Down	MS	DMS ACS	Vital	A1-04852	Corrective	2020-09-07	MS Blank	Released	1.00
GDOT-CMS-805	Down	MS	DMS ACS	Vital	A1-04853	Corrective	2020-09-07	MS Blank	Released	1.00
GDOT-CMS-902	Down	MS	DMS	General	A3-00120	Corrective	2020-09-02	MS Blank	Released	6.00
GDOT-ESS-I-20-126.00	Down	ESS	ESS	General	A3-00119	Corrective	2020-09-02	Failed Communications	Released	6.00

Number of Devices Down
33

Number of Records in Table
33

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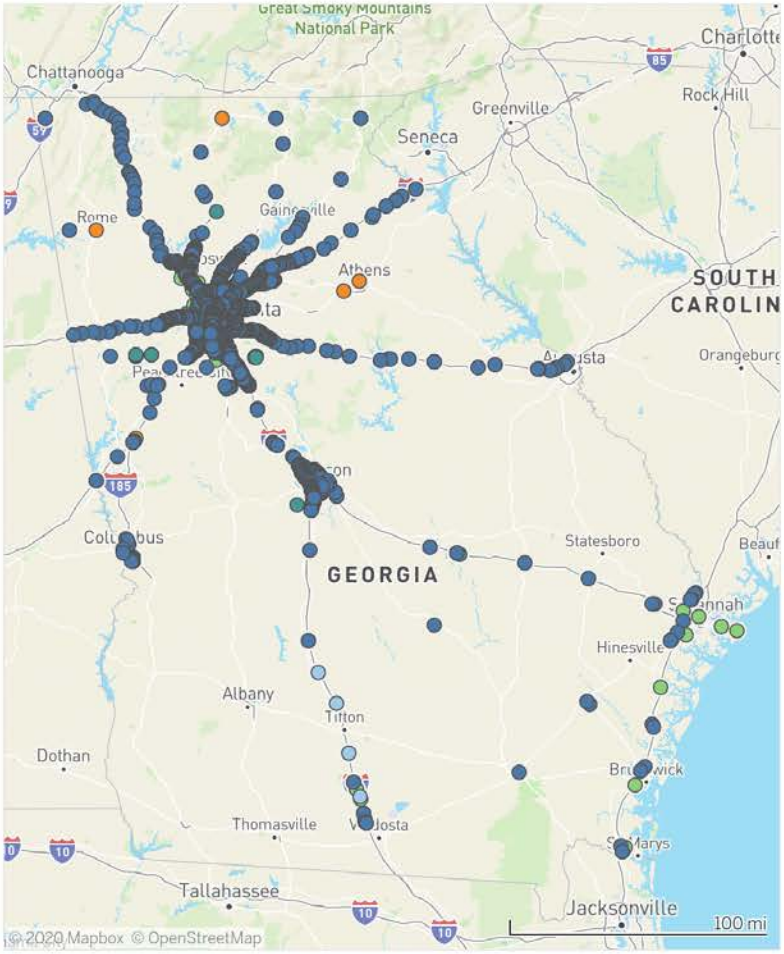
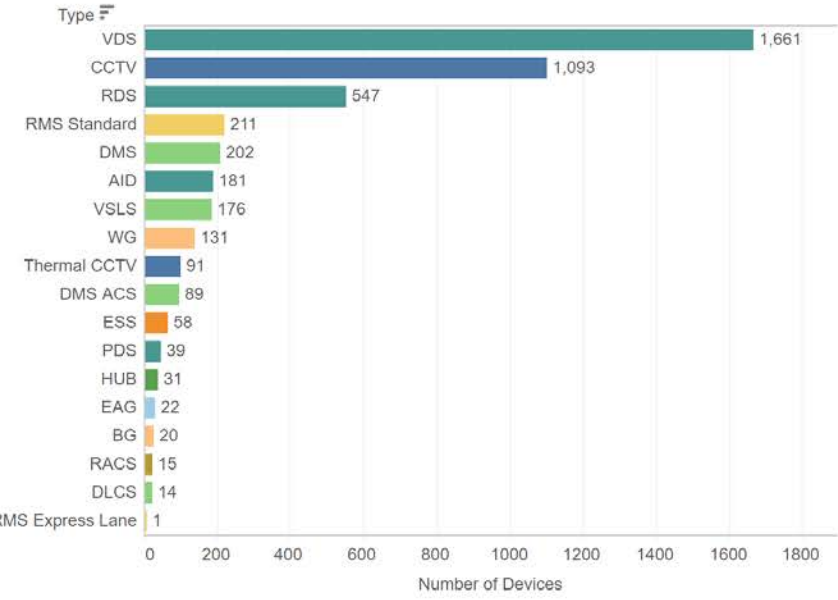
ITS Device Viewer by Route

Device Selection, Location and Road View



Current Number of ITS Devices



ITS Device Attributes

Device Name	Type	Manufacturer	Model	Route	Mile Marker
AMS-CAM-113	CCTV	Axis	Q6045-E MkII	SR 3	3.30
AMS-CAM-901	CCTV	Cohu	4224-1000	SR 20	
AMS-CAM-902	CCTV	Cohu	4224-1000	SR 20	
AMS-CAM-903	CCTV	Axis	Q6055-E	SR 20	
AMS-CAM-904	CCTV	Axis	Q6055-E	SR 20	
BIBB-AID-N1C01	AID	Axis	Q1615	I-475	0.38
BIBB-AID-N1C02	AID	Axis	Q1615	I-475	0.06
BIBB-AID-N1C03	AID	Axis	Q1615	I-475	

Class
(All)

Type
(All)

Route
(All)

Managed Lane
(All)

Priority
(All)

Device Name
(All)

Manufacturer
(All)

Model
(All)

Class Legend
- CCTV
- EAG
- ESS
- GLSS
- HUB
- MS
- RACS
- RMS
- VDD

Total Devices
4,582

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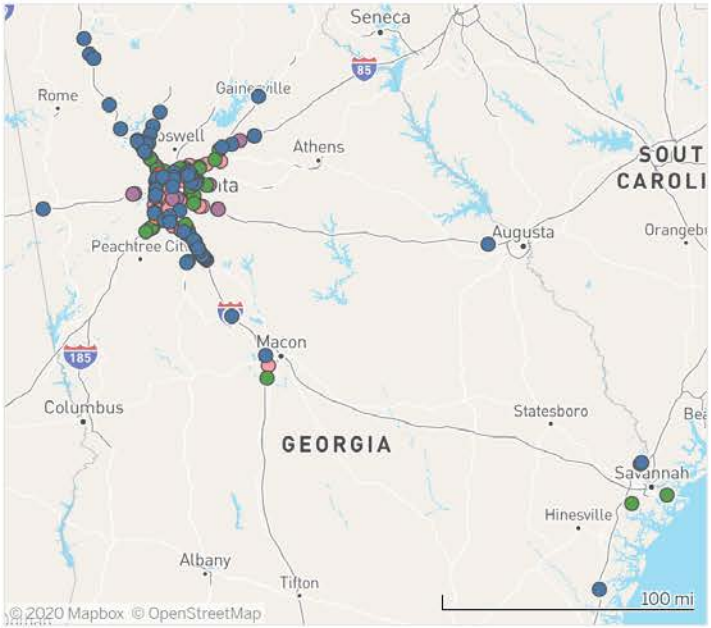
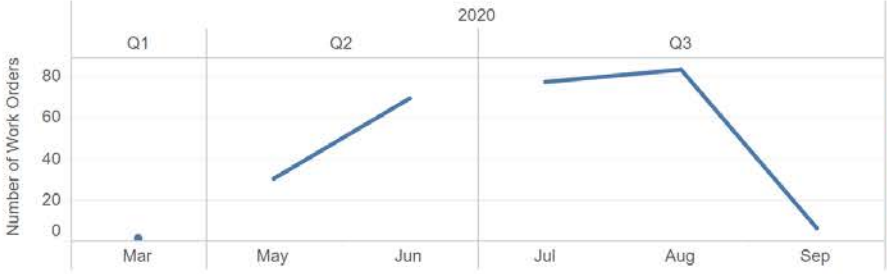
Corrective Work Order Analysis

Device Location and Road View



Number of Work Orders for Maintenance Catetory: Cause

Number of Work Orders by Time Period



Workorder Released Date
1/1/2020 9/7/2020

Maintenance Report Category
Cause

Maintenance Report Result
Communication

Class
(All)

Workorder Status
(All)

Device Name
(All)

Class
- CCTV
- ESS
- GLSS
- MS
- RMS
- VDD

Corrective Work Orders

Workorder No	Released	Device Name	Class	Workorder Failure	Workorder Cause	Workorder Action	Workorder Status	Age (Days)
A1-04798	2020-09-03	GDOT-ESS-I-285-001.10	ESS	Failed Communications	Communication	None	Closed	0.9
A1-04774	2020-09-02	GDOT-CAM-428	CCTV	Failed Communications	Communication	Reset Camera	Closed	0.2
A1-04773	2020-09-02	GDOT-CAM-814	CCTV	Failed Communications	Communication	None	Closed	0.2
A1-04765	2020-09-01	GDOT-CMS-709	MS	MS Blank	Communication	Replace Board	Closed	0.1
A1-04760	2020-09-01	GDOT-CMS-855	MS	MS Blank	Communication	Replace Board	Closed	0.0
A1-04745	2020-09-01	GDOT-CMS-882	MS	MS Blank	Communication	None	Closed	0.4
A1-04737	2020-08-31	GDOT-CAM-767	CCTV	Failed Communications	Communication	None	Closed	0.1
A1-04736	2020-08-31	GDOT-CAM-763	CCTV	Failed Communications	Communication	None	Closed	0.1

Corrective Workorders Displayed
266

Total Corrective Workorders to Date
2,808

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Pros

- Improved system reliability
  - Typically above 99% of devices are operational at all times
- Ability to identify device non-performance
  - Data for use in maintaining GDOT's Qualified Product List
- Significantly reduced repair times
  - Longest allowable repair time across all classes and classifications is 14 days, down from 45 days in the 2010 contract

Cons

- Expensive to maintain highly available system
- Complicated contract
- Requires daily project oversight

Questions?

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