

STAFF REPORT

SUBJECT: LAVTA's Transit Signal Priority Upgrade Project

FROM: Jennifer Yeamans, Senior Grants & Management Specialist

DATE: May 3, 2021

Action Requested

None – information only.

Background

At the April 5 Board of Directors meeting, a Board member requested an update from staff on the agency's Transit Signal Priority (TSP) system.

Discussion

At your May 3 meeting staff will present an informational update on the TSP system used on LAVTA's Rapid routes, which enables Rapid vehicles to request an extended green light at TSP-enabled intersections when running 3 or more minutes behind schedule. The goals of deploying TSP are to improve on-time performance and schedule reliability, and to reduce travel time for passengers. LAVTA recently completed a project to expand and upgrade the system in late 2020, installing new TSP equipment at 67 intersections along the 10R and 30R and on all 24 Rapid buses.

Recommendation

None – information only.

Attachments:

1. Powerpoint Presentation: LAVTA's Transit Signal Priority Upgrade

Approved: _____

LAVTA's Transit Signal Priority Upgrade

LAVTA Board of Directors
May 3, 2021

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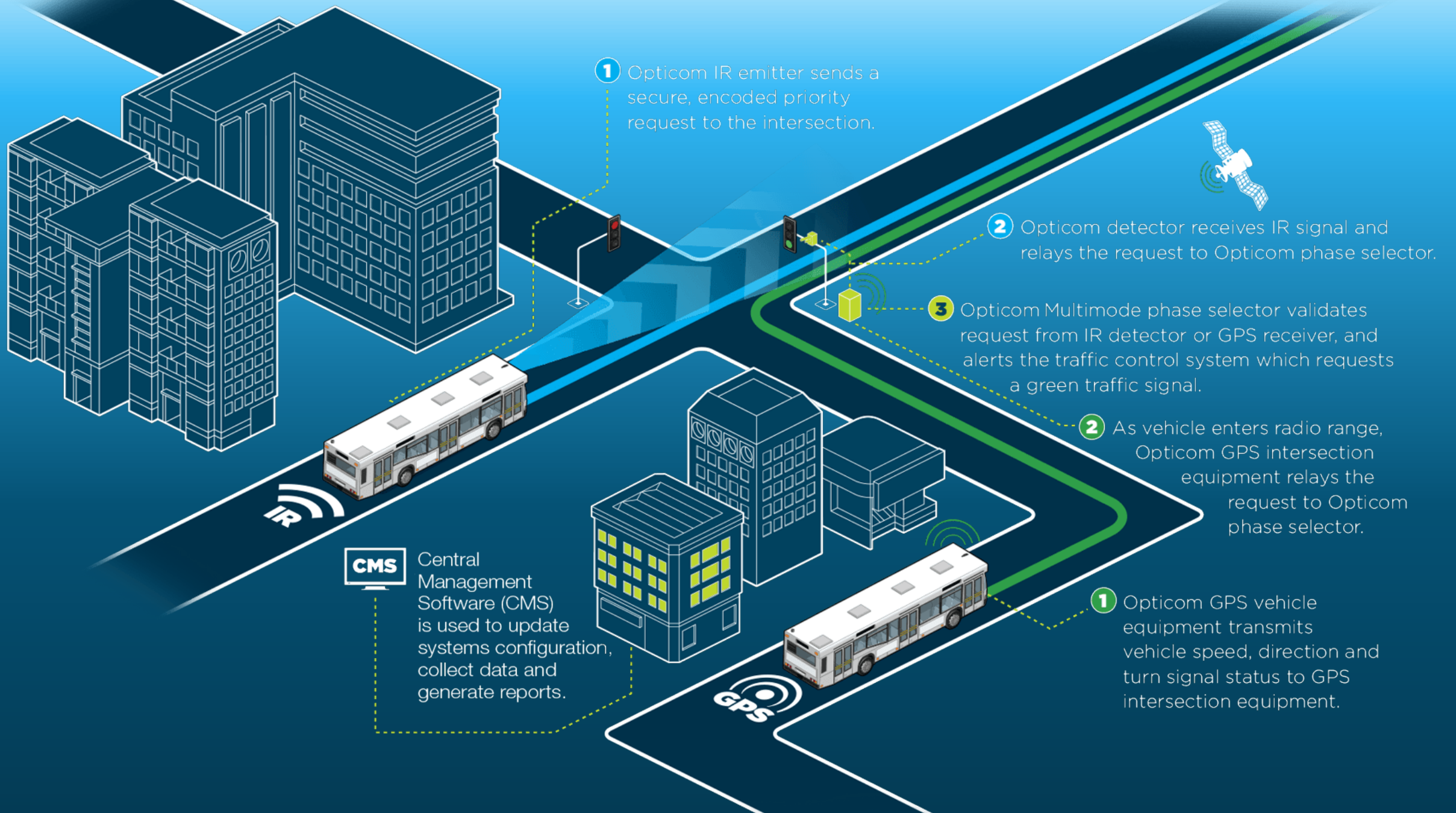
What Is TSP?

- Extends green lights for priority vehicles
- High- and low-priority calls
- Reduces delays at intersections
- Increases operational efficiency and reliability



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Benefits of GPS Technology

- Only “on” when vehicles detected in range of intersection
- Real-time schedule-adherence info determines whether TSP request is made
- Real-time system monitoring
- Works alongside legacy infrared (high-priority) system used by emergency vehicles and LAVTA’s 5 queue-jumps



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Upgrading & Expanding LAVTA's TSP System

- Original optical infrared system deployed with Rapid in 2010
- New GPS technology coincided with 2016 realignment/expansion of Rapid routes
- In 2017, LAVTA secured \$1.14M from Tri-Valley Transportation Council to upgrade & expand TSP



2020 TSP Upgrade & Expansion Project

- Added/upgraded TSP equipment at 67 intersections, entire Rapid fleet
- Deployed new Central Mgmt Software to provide real-time operations & monitoring data



Ongoing Operations & Monitoring

- Immediate impacts hard to determine due to COVID-19
- More benefit will accrue as traffic congestion returns
- Trip-time reliability and making timed transit connections will be keys to success

Monitoring

Report

Status

Monitoring

View

Location Status

Vehicle Status

Alert Rules

Container Status

Show details for selected items only

Details for last 24 hours

Refresh rate 10 seconds

Jurisdiction	Location	Device Type	Firmware	Last Update	Details	Device Path	Active Call Notification
Livermore	Portola Ave and Paseo Laguna Seca	Opticom™ H764	10.03.030	4/22/2023 ...	Connecting to the communication device has timed out.	10.10.06.15: 5000	No
<div> <div>(3) Status</div> <div>Normal (37)</div> </div>							
Pleasanton	SANTA RITA & BLACK	Opticom™ H764	10.03.030	4/22/2023 ...		10.03.76.6: 5000	No
Pleasanton	SANTA RITA @ VALLEY	Opticom™ H764	10.03.030	4/22/2023 ...		10.03.04.6: 5000	No
Pleasanton	SANTA RITA & HOWE	Opticom™ H764	10.03.030	4/22/2023 ...		10.03.73.6: 5000	No
Pleasanton	SANTA RITA & STONERIDGE	Opticom™ H764	10.03.030	4/22/2023 ...		10.03.72.6: 5000	No
Pleasanton	DWING @ W LAS POSTAS	Opticom™ H764	10.03.030	4/22/2023 ...		10.00.65.6: 5000	No
Pleasanton	DWING @ ROCKWOOD	Opticom™ H764	10.03.030	4/22/2023 ...		10.00.60.6: 5000	No
Pleasanton	HACIENDA @ DWING	Opticom™ H764	10.03.030	4/22/2023 ...		10.01.58.6: 5000	No
Pleasanton	DWING @ ORACLE	Opticom™ H764	10.03.030	4/22/2023 ...		10.01.47.6: 5000	No
Livermore	Portola Ave and I Street	Opticom™ H764	10.03.030	4/22/2023 ...		10.10.26.15: 5000	No
Livermore	Livermore Ave and Junction Ave	Opticom™ H764	09.03.012	4/22/2023 ...		10.11.71.15: 5000	No
Livermore	Livermore Ave and Chestnut Ave	Opticom™ H764	09.03.012	4/22/2023 ...		10.11.25.19: 5000	No
Livermore	Stanley Blvd and Saddle Creek Connector Ramp	Opticom™ H764	10.03.030	4/22/2023 ...		10.4.43.15: 5000	No
Livermore	Stanley Blvd and Murdell Ln	Opticom™ H764	10.03.030	4/22/2023 ...		10.4.42.19: 5000	No
Livermore	Stanley Blvd and El Caminito	Opticom™ H764	10.03.030	4/22/2023 ...		10.4.106.19: 5000	No
Livermore	Stanley Blvd and Wall St	Opticom™ H764	10.03.030	4/22/2023 ...		10.4.41.15: 5000	No
Livermore	Stanley Blvd and Huerta Blvd	Opticom™ H764	10.03.030	4/22/2023 ...		10.12.42.19: 5000	No
Livermore	Stanley Blvd and Fenton St	Opticom™ H764	09.03.012	4/22/2023 ...		10.13.39.15: 5000	No
Livermore	Railroad Ave and S Street/Stanley Blvd	Opticom™ H764	10.03.030	4/22/2023 ...		10.13.36.19: 5000	No
Livermore	Railroad Ave and P Street	Opticom™ H764	10.03.030	4/22/2023 ...		10.13.17.15: 5000	No
Livermore	Railroad Ave and L Street	Opticom™ H764	10.03.030	4/22/2023 ...		10.13.14.15: 5000	No
Livermore	Railroad Ave and S Livermore	Opticom™ H764	10.03.030	4/22/2023 ...		10.13.13.15: 5000	No
Livermore	Railroad Ave and Parking Structure	Opticom™ H764	10.03.030	4/22/2023 ...		10.13.10.15: 5000	No
Livermore	Railroad Ave and First St/Majac	Opticom™ H764	10.03.030	4/22/2023 ...		10.12.86.15: 5000	No
Livermore	East Ave and Dolores St	Opticom™ H764	10.03.030	4/22/2023 ...		10.9.53.15: 5000	No
Livermore	East Ave and Hillcrest Ave	Opticom™ H764	10.03.030	4/22/2023 ...		10.9.52.15: 5000	No
Livermore	East Ave and Madison Ave	Opticom™ H764	10.03.030	4/22/2023 ...		10.9.51.15: 5000	No
Livermore	East Ave and Loyola Way	Opticom™ H764	10.03.030	4/22/2023 ...		10.9.50.15: 5000	No
Livermore	East Ave and Weiss Rd	Opticom™ H764	10.03.030	4/22/2023 ...		10.9.18: 5000	No
Livermore	East Ave and Charlotte Way	Opticom™ H764	10.03.030	4/22/2023 ...		10.5.46.15: 5000	No
Livermore	East Ave and Vasco Rd	Opticom™ H764	10.03.030	4/22/2023 ...		10.5.19: 5000	No
Livermore	East Ave and Maple St	Opticom™ H764	10.03.030	4/22/2023 ...		10.12.54.15: 5000	No
Dublin	Dubin Blvd at Golden Gate Dr	Opticom™ H764	10.03.030	4/22/2023 ...		10.126.6.7: 5000	No
Dublin	Dubin Blvd at Amador Plaza Rd	Opticom™ H764	10.03.030	4/22/2023 ...		10.126.8.9: 5000	No
Dublin	Dubin Blvd at Village Pkwy	Opticom™ H764	10.03.030	4/22/2023 ...		10.126.6.9: 5000	No
Dublin	Dubin Blvd at Clark Ave	Opticom™ H764	10.03.030	4/22/2023 ...		10.126.6.10: 5000	No
Dublin	Dubin Blvd at Sierra Ct	Opticom™ H764	10.03.030	4/22/2023 ...		10.126.6.11: 5000	No
Dublin	Dubin Blvd at Dublin Ct	Opticom™ H764	10.03.030	4/22/2023 ...		10.126.6.12: 5000	No
Dublin	Dubin Blvd at Dougherty Road	Opticom™ H764	10.03.030	4/22/2023 ...		10.126.6.13: 5000	No
Dublin	Dubin Blvd at Sackelft Dr	Opticom™ H764	10.03.030	4/22/2023 ...		10.126.6.14: 5000	No
Dublin	Dubin Blvd at DeMarco Blvd-Clarking St	Opticom™ H764	10.03.030	4/22/2023 ...		10.126.6.15: 5000	No
Dublin	Dubin Blvd at Iron Horse Pkwy	Opticom™ H764	10.03.030	4/22/2023 ...		10.126.6.16: 5000	No
Dublin	Dubin Blvd at ...	Opticom™ H764	10.03.030	4/22/2023 ...		10.126.6.17: 5000	No

Monitoring

Reports

Opticom Logs

Questions?

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