

**Macomb County Department of Roads
Traffic Operations Center**
Monthly Performance Measures Report

NOVEMBER 2023



MACOMB COUNTY
COMTEC **AECOM**
Communications & Technology
Center

INTEGRAL BLUE **WSP**

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Incident Updates & Alerts

GovDelivery

5,236 subscribers



Facebook

Macomb County Department of Roads

9,600 followers



X

@MacombNewsNow

5,070 followers



Website

<https://roads.macombgov.org/Roads-Home>

4,446 website visits

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The Mall at Partridge Creek Tree Lighting Celebration

[November 19th, 2023](#)



Photo credit: Macomb Daily

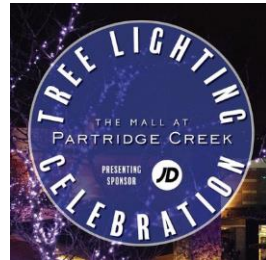


Photo credit:
[@themallatpartridgecreek](#)

The Mall at Partridge Creek hosted its annual Tree Lighting Celebration on November 19th, 2023. Lead Traffic Operations Engineer, **Santosh Miraskar**, and Traffic Operations Engineer, **Evan Tolmie**, implemented 8 signal timing changes to facilitate the influx of additional vehicles entering and exiting the event. Over the course of the event, local travel times in the immediate area never exceeded three minutes, and no incidents occurred on nearby roadways, allowing for safe and efficient traffic conditions for Macomb County drivers.

Macomb County's First Snowfall of 2023 Season

[November 27th, 2023](#)

Macomb County had its first snowfall of the 2023 season during the evening on November 26th and into the next morning on November 27th. During the Monday morning commute, the TOC identified 6 vehicle crash events within the span of 3 hours. The biggest crash involved an overturned cement truck on EB Metro Parkway (16 Mile Road) west of Utica Road that resulted in that section of roadway being closed. This should be a reminder for drivers to slow down when driving in winter conditions. It takes longer for your car to come to a complete stop in slippery conditions, so allow more room between your vehicle and the one ahead of you. This will give you more time to react and hit your brake, thereby reducing your risk of a crash.



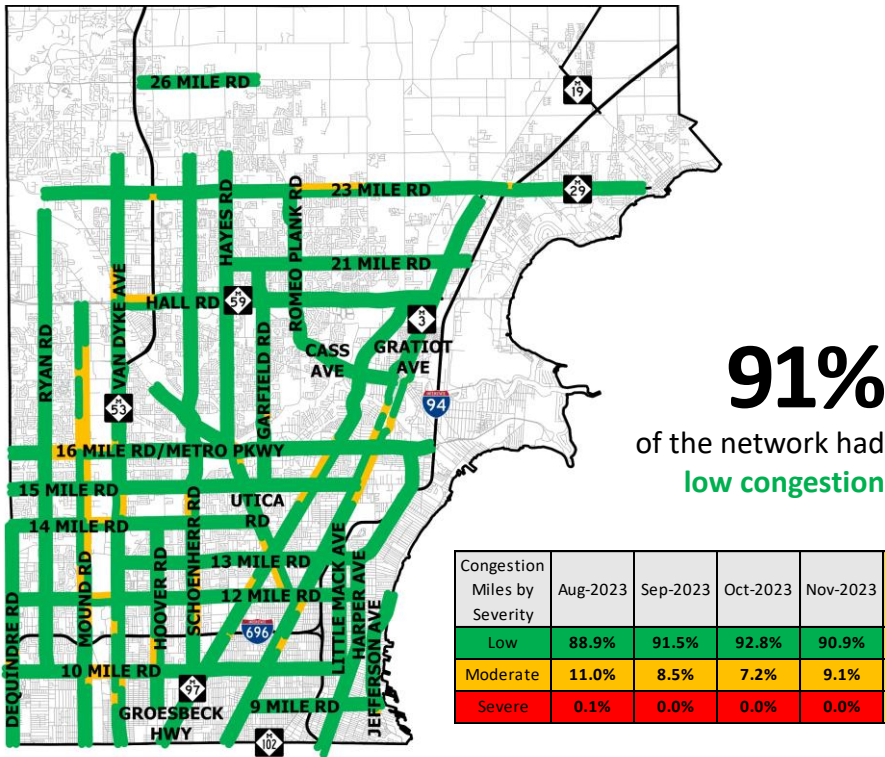
Monthly Mobility



Traffic operations engineers oversee 737 signalized intersections on 1,700 miles of road within Macomb County. They routinely look for poor traffic flow and identify opportunities for improvement through traffic signal timing adjustments. Congestion, which is defined as when vehicle speeds are less than the free-flow speed along a roadway, is the metric used for identifying poor traffic flow. Traffic operations engineers use congestion data from the Regional Integrated Transportation Information System (RITIS) which collects probe vehicle data from cell phones and navigation devices that emit GPS locations. The data displayed shows congestion percent which is averaged per weekday minute for a given month. Roadway segments are categorized into the following severity levels: Low (vehicle speeds were $\geq 85\%$ of free-flow speeds), Moderate (vehicle speeds were $\geq 50\%$ and $< 85\%$ of free-flow speeds), and Severe (vehicle speeds were $< 50\%$ of free-flow speeds).

Weekday AM Peak (6–9AM)

Compared to previous months, this month saw a slight increase in congestion levels during the AM peak. The construction on Mound Road and M-3 (Gratiot Avenue) created moderate congestion levels for drivers.

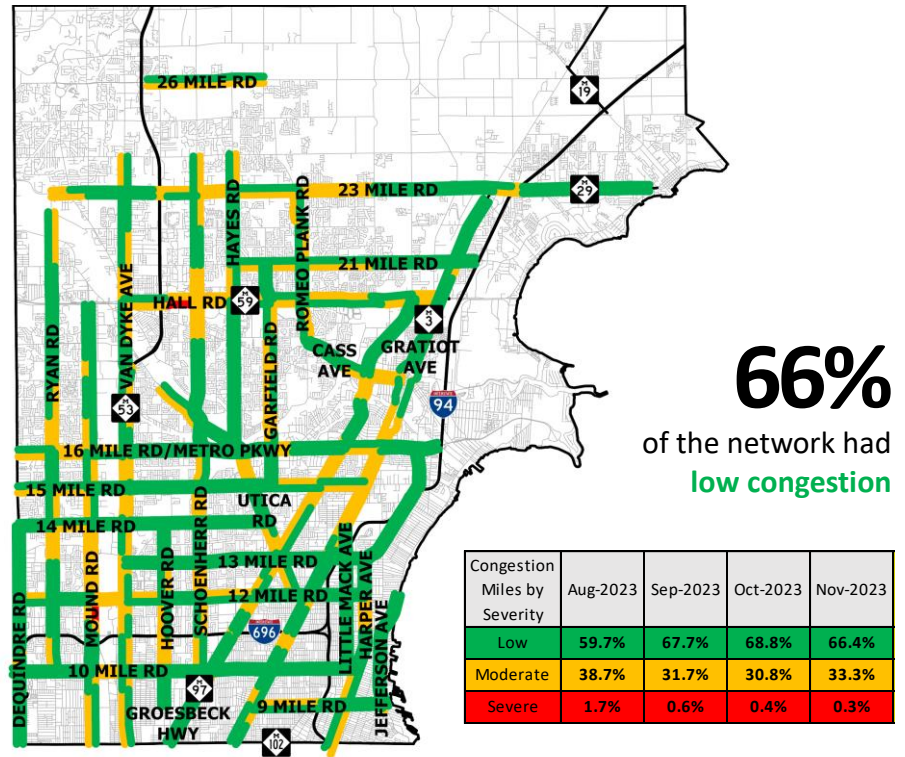


21.4% total AM peak time this month with moderate/severe congestion

▲ 9% from previous month

Weekday PM Peak (3–6PM)

Compared to previous months, this month saw a slight increase in congestion levels during the PM peak. Moderate levels of congestion are being seen across the county, but particularly in areas of lane closures.



43.1% total PM peak time this month with moderate/severe congestion

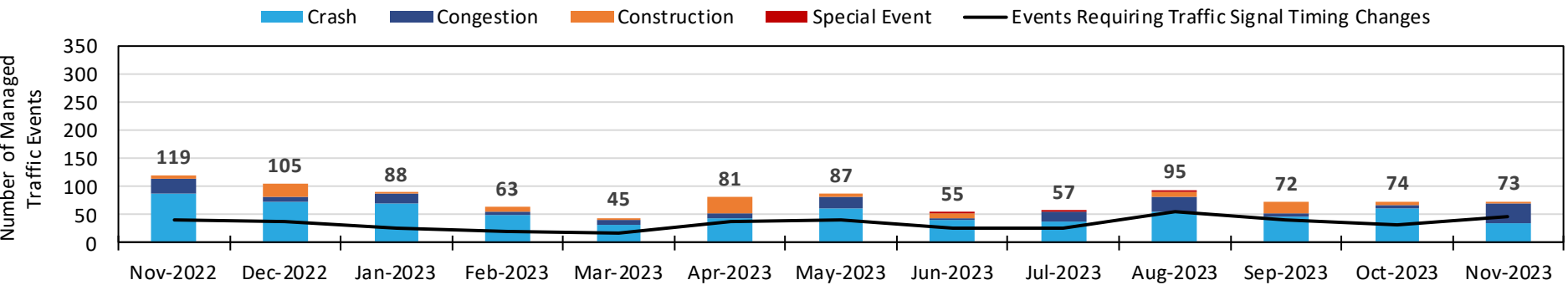
▲ 7% from previous month

Traffic Incident Management



Operations technicians monitor roadway cameras, locate traffic concerns, and disseminate traffic information to the motoring public through GovDelivery, Facebook, and Twitter. Traffic events managed by the TOC include crashes, congestion, construction (planned and unplanned projects), and special events. When a traffic event is identified, the operations technicians work together with the traffic operations engineers to determine if a traffic signal timing change is necessary to reduce congestion for drivers.

Managed Traffic Events (Mon–Fri, 6AM–6PM)



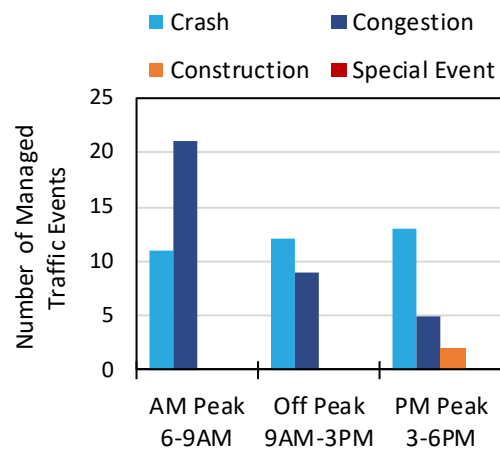
73
managed traffic events
this month

▼ **1%** from previous month
▼ **39%** from this month last year

47
managed traffic events requiring
traffic signal timing changes
this month

▲ **42%** from previous month
▲ **18%** from this month last year

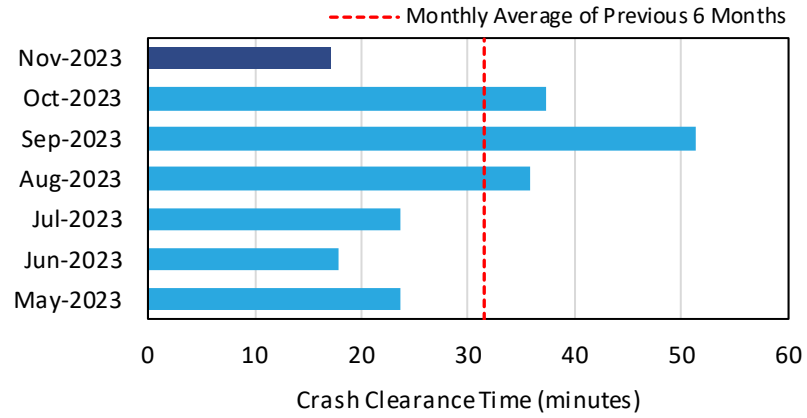
Managed Traffic Events this Month by Time of Day



Crash Clearance Time

17 mins.
average crash clearance
time this month

▼ **46%**
compared to monthly average
of previous 6 months

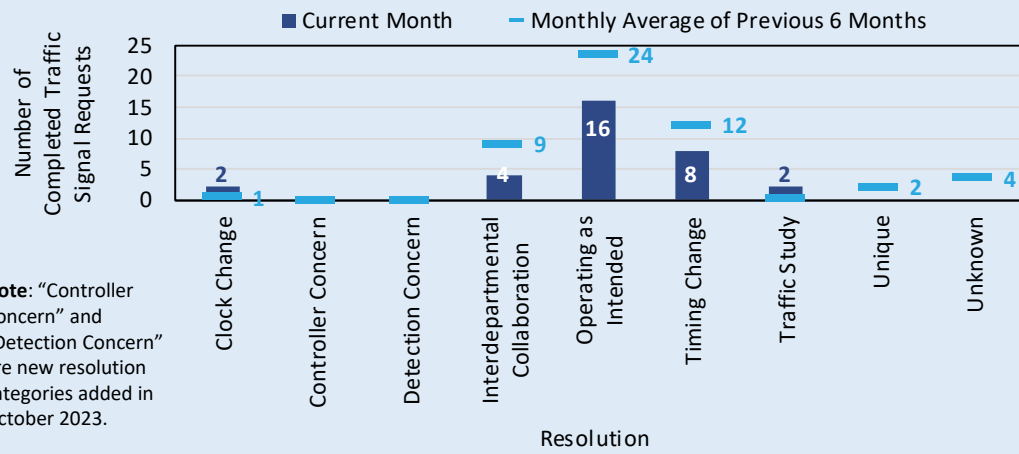


Traffic Signal Requests



Motorists driving in Macomb County can report traffic signal concerns to our operations technicians. The operations technicians disseminate these requests to the appropriate group for a timely resolution.

Completed Traffic Signal Requests



Note: "Controller Concern" and "Detection Concern" are new resolution categories added in October 2023.

32

completed traffic signal requests this month

▼ 38% compared to monthly average of previous 6 months

Signalized Intersections Requiring Maintenance

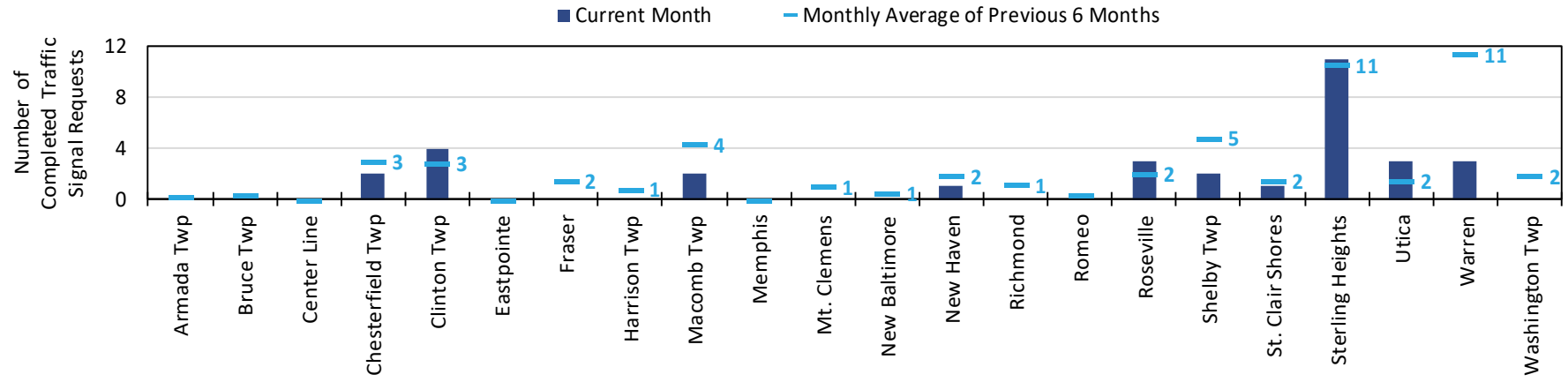
Reports of intersections in flash or burnt-out traffic signal bulbs are verified by the TOC and forwarded to the Macomb County Electrical Department

39

signalized intersections requiring maintenance this month

▼ 45% compared to monthly average of previous 6 months

Completed Traffic Signal Requests per Municipality

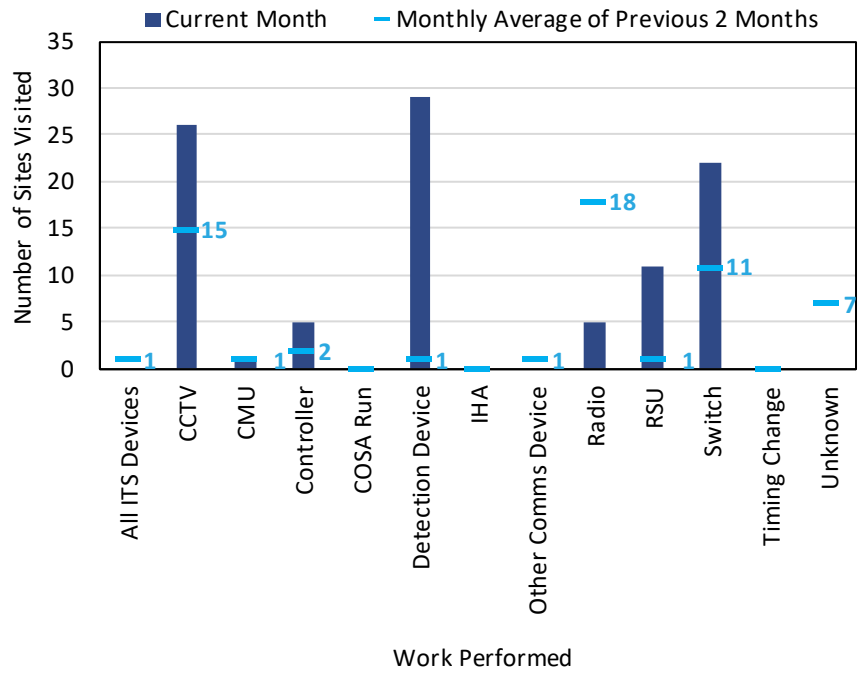


Field Work and Traffic Signal Timing Changes

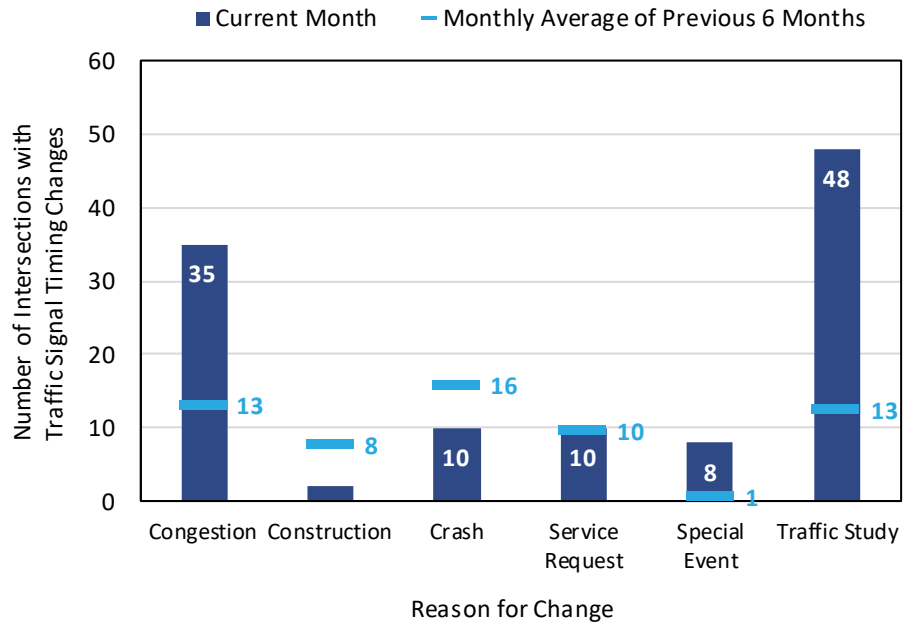


IT/ITS technicians work in the field on a variety of devices at signalized intersections to maintain the Macomb County transportation network. Traffic operations engineers configure vehicle detection zones at signalized intersections, as well as perform traffic signal timing changes due to traffic events, motorist requests, or through proactive approaches.

Field Work



Traffic Signal Timing Changes



99
sites visited this month
▲ 22% compared to monthly average of previous 6 months

100
hours spent in field this month
▼ 45% compared to monthly average of previous 6 months

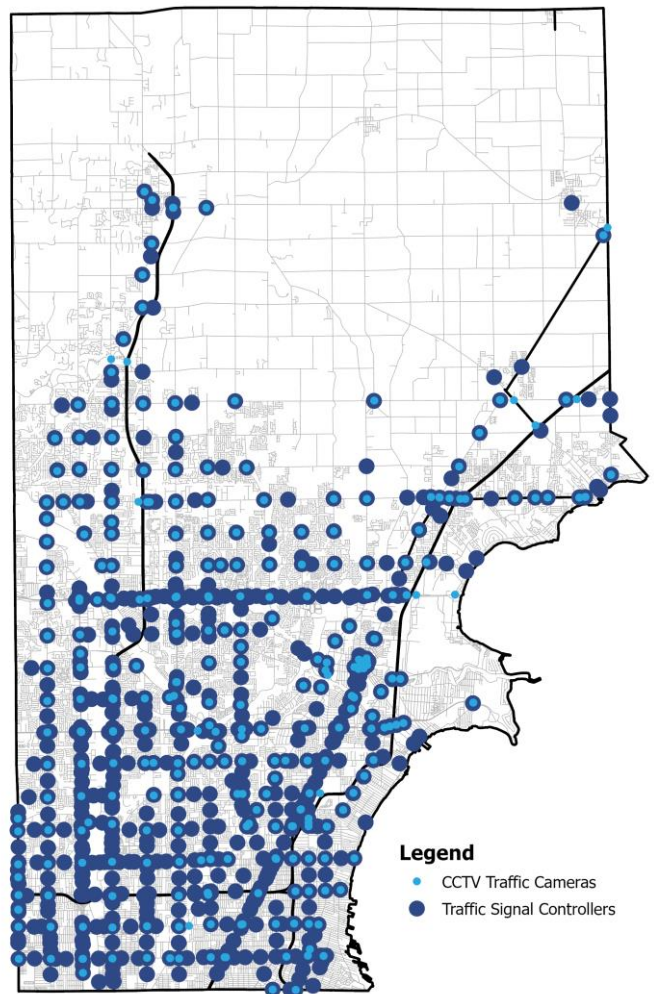
113
intersections with traffic signal timing changes this month
▲ 89% compared to monthly average of previous 6 months

Infrastructure Connectivity



Macomb County has an extensive ITS network that is maintained by IT/ITS technicians. This includes 312 closed-circuit television (CCTV) traffic cameras and 735 traffic signal controllers that are located at signalized intersections throughout the county. It is important to upkeep and maintain the communication availability to these devices so that they can be remotely accessed by traffic operations engineers.


Macomb County ITS Map



Legend
 • CCTV Traffic Cameras
 • Traffic Signal Controllers

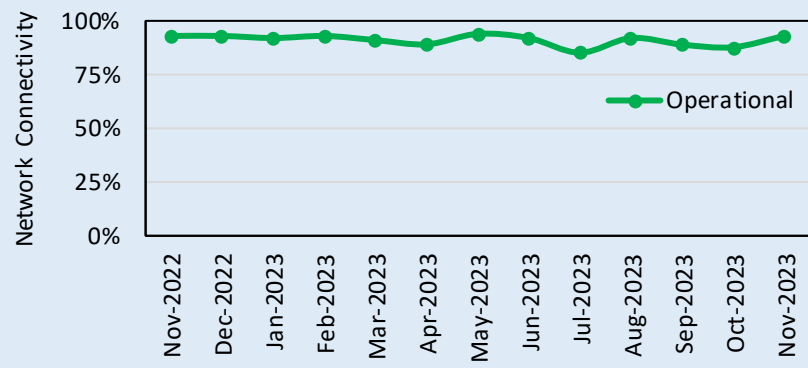


315
 CCTV Traffic
 Cameras



701
 Traffic Signal
 Controllers

CCTV Traffic Camera Network Connectivity



Traffic Signal Controller Network Connectivity

