



# TRAFFIC NETWORK UPGRADE

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TRANSPORTATION & DRAINAGE OPERATIONS

Transportation, Technology and Infrastructure Committee  
July 13, 2023



# SUMMARY OF REQUEST

<b>Council Action Request</b>	Approve motion for spending authority
<b>Vendor</b>	Netsync Network Solutions
<b>Purpose</b>	Purchase ruggedized network routers and related software, support and professional services to provide state-of-the-art traffic control capabilities throughout the City of Houston. The equipment will replace end-of-life components and enhance cybersecurity protection for the City's Intelligent Transportation Systems.
<b>Total Spending Authority Requested</b>	\$5,391,015.80

The Traffic Network synchronizes traffic signals and allows for remote management of our Intelligent Transportation Systems.

This includes dynamic message signs, transportation CCTV cameras to monitor crashes, and vehicle and pedestrian detection systems following the Vision Zero Action Plan.



# CURRENT CONDITIONS

The Federal Communications Commission (FCC) has changed the frequency requirements and HPW legacy WiMAX equipment is no longer in compliance.

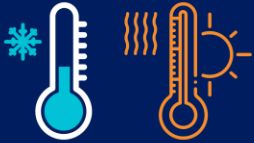
The current equipment reached **end-of-life** and has compatibility issues with the wireless carriers who provide the wireless cellular service.

The current equipment does not work well in harsh environments, causing stability issues as it aged over time.

Not 5G ready.



# BENEFITS OF NEW PLATFORM



Ruggedized to withstand the extreme outdoor climate conditions in Houston (-40 C to 160 C)..



Modularity and expansion capabilities – 5G ready.



Web-based management; leverage tools and enablement team for rapid deployment.

# BENEFITS OF NEW PLATFORM



Enhances cybersecurity monitoring; no additional hardware required, provides detailed inventory/access/vulnerability data without interfering with operations.



Easily enable Connected and Autonomous vehicle applications.



Edge compute built into platform - Increased safety.

# IMPLEMENTATION PLAN



4 to 6 weeks for planning

10 to 12 weeks for deployment (based on 200 per week)



# REQUESTED SPENDING AUTHORITY

Fund	FY2024
Dedicated Drainage and Street Renewal Fund, Ad Valorem Tax (Fund 2311)	\$5,391,015.80





# thank you!

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