



Smart City Deployment: Operator-Led Success Strategies

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Three Strategy



**"If a problem resists a simple solution,
it's usually because it's not a single
problem."**

**— Inspired by Charles Kettering,
American inventor and engineer**





Strategy #1:

**Mass Deployment of
LTE-CAT M1 &
5G REDCAP**

LTE-CAT M1 Advantage



Operates on existing LTE
infra



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Support Mobility



LTE-CAT M1 Advantage

- ✓ Operates on existing LTE infra
- ✓ Support Mobility
- ✓ Low Power Consumption



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- ✓ Ideal for SmartCity Use Cases



LTE-CAT M1 Advantage

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- ✓ Support Mobility
- ✓ Low Power Consumption
- ✓ Ideal for SmartCity Use Cases
- ✓ Advance Security and Carrier Grade Reliability



5G REDCAP Advantage



Optimized for Massive IoT
Scaling

2.2



5G REDCAP Advantage



Optimized for Massive IoT
Scaling



Designed higher efficiency
than CAT-M1

2.2



5G REDCAP Advantage

- ✓ Optimized for Massive IoT Scaling
- ✓ Designed higher efficiency than CAT-M1
- ✓ Energy-Efficient Smart City Connectivity



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- ✓ Optimized for Massive IoT Scaling
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- ✓ Energy-Efficient Smart City Connectivity
- ✓ Ideal for SmartCity Use Cases
- ✓ Enhanced Security & Industrial-Grade Connectivity





Strategy #2:

Standardization of IoT Sensor Payloads

MQTTs & HTTPS

Advantage



Industry-Standard Security
& Data Integrity

Smart City Devices



MQTTs

Lightweight data

{JSON}



MQTTs

{.....JSON}

Smart Meter



Cloud Platform

{JSON}



JSON

HTTPS



City Management

2.1

MQTTs & HTTPS Advantage



Industry-Standard Security
& Data Integrity



Scalability for Large-Scale
IoT Deployments

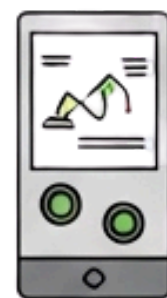
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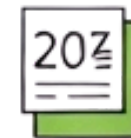
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20% JSON

HTTPS



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MQTTs & HTTPS

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Scalability for Large-Scale IoT Deployments



Efficient Data Transmission for Urban Infrastructure

Smart City Devices



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City Management

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Scalability for Large-Scale IoT Deployments



Efficient Data Transmission for Urban Infrastructure



Operator-Friendly Integration Across Network Layers

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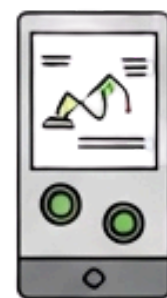
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City Management

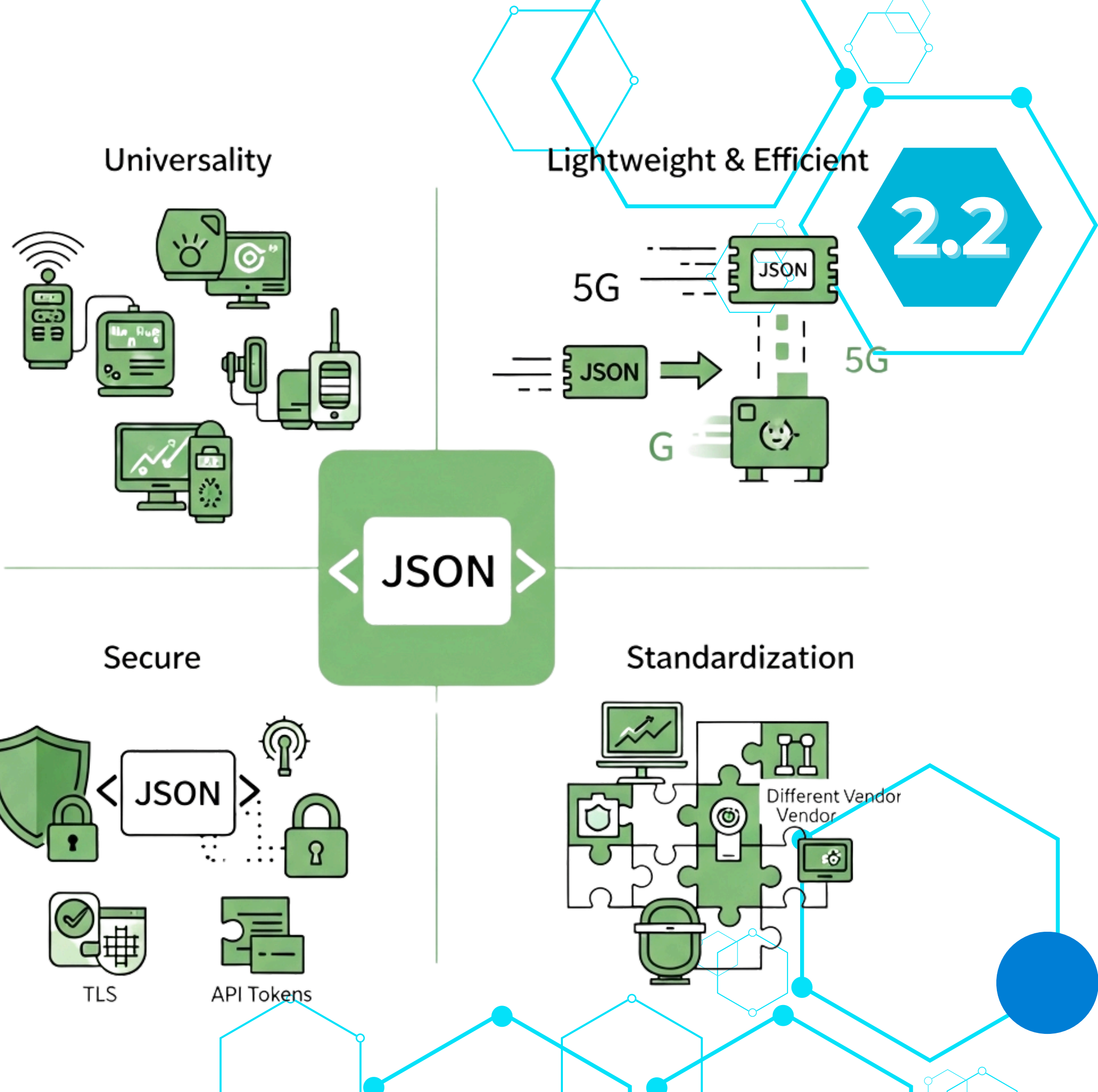
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JSON

Advantage



Industry-Standard Security
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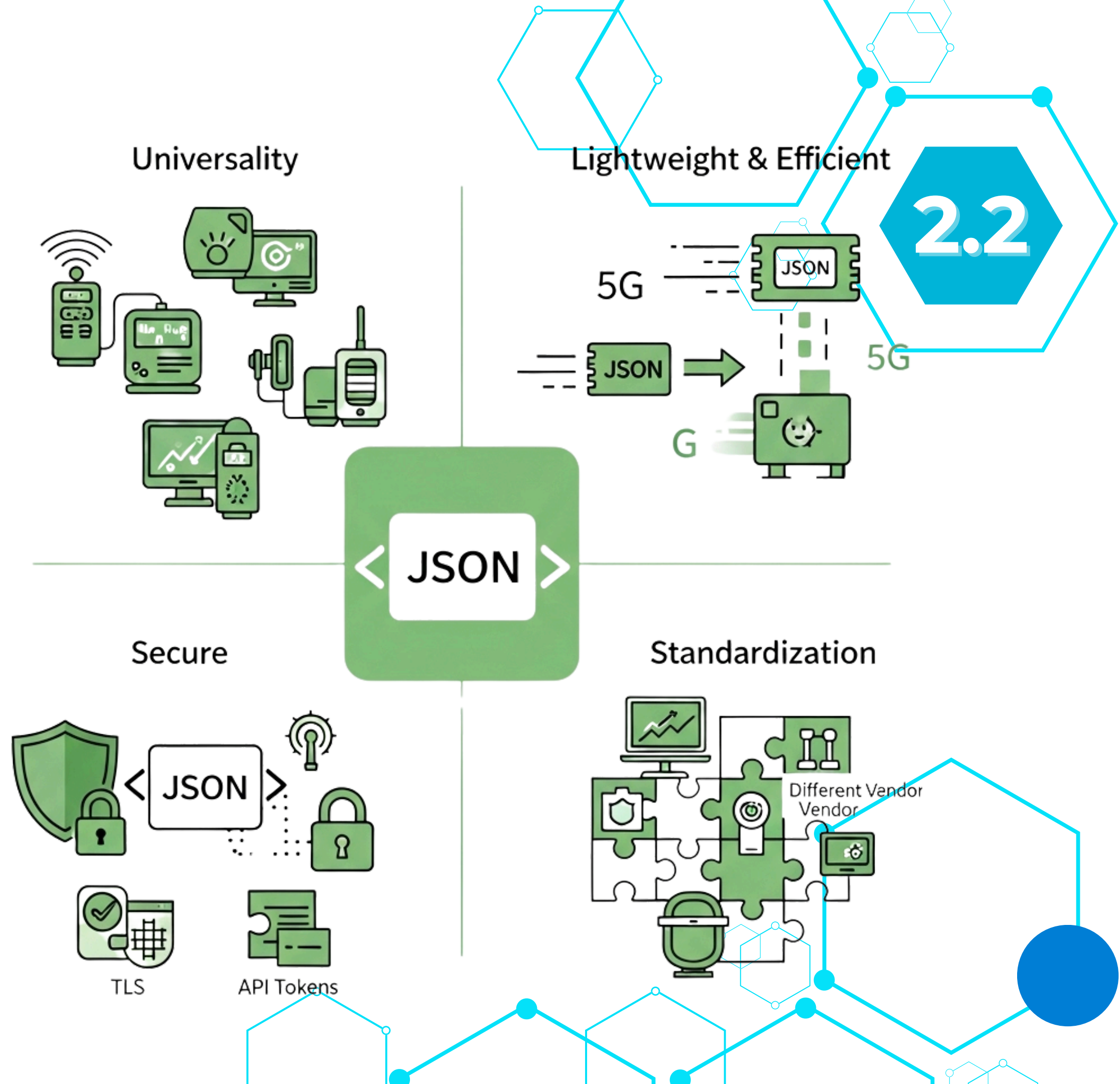
JSON Advantage



Industry-Standard Security
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Scalability for Large-Scale
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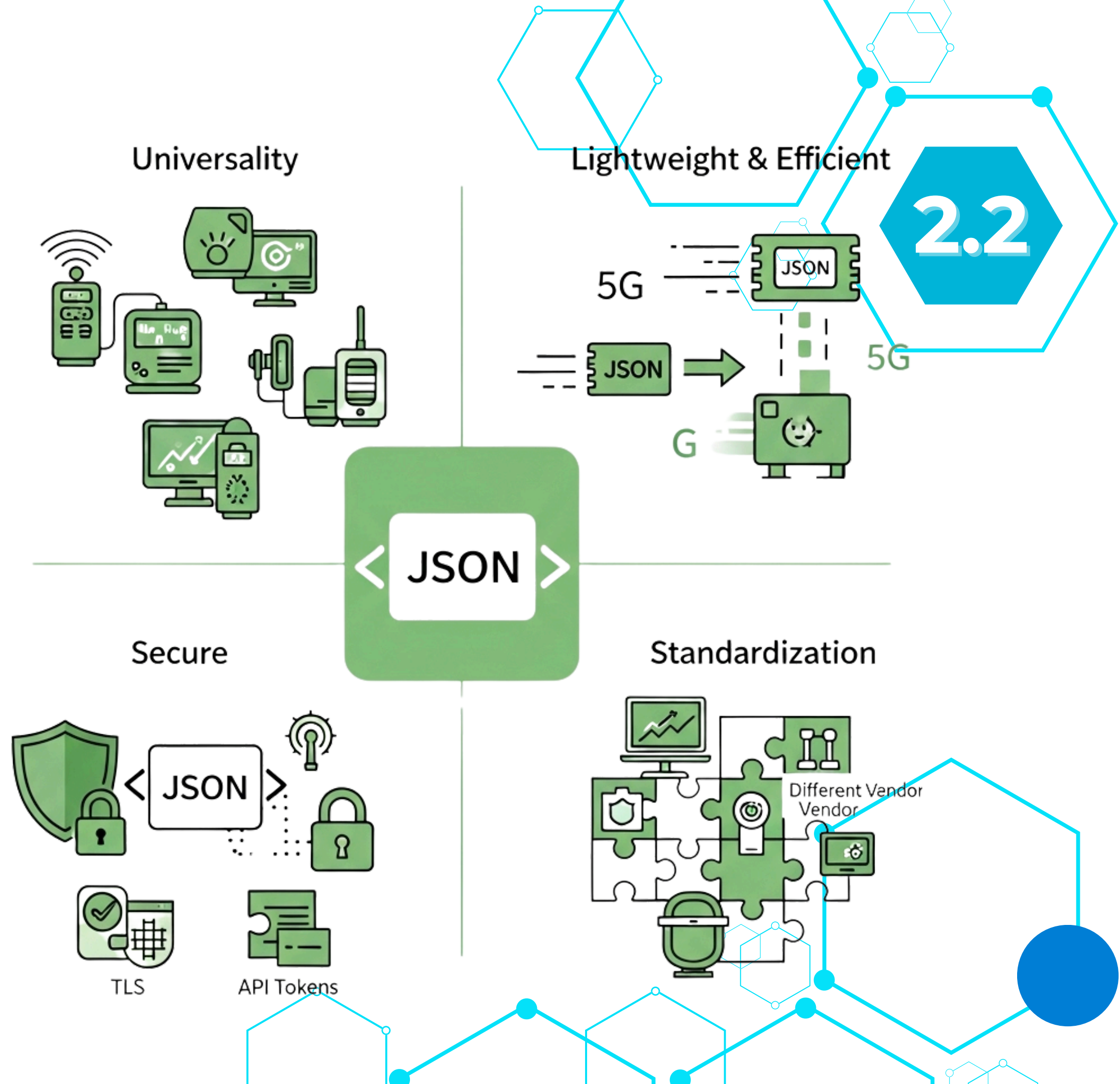
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Scalability for Large-Scale
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Efficient Data Transmission for
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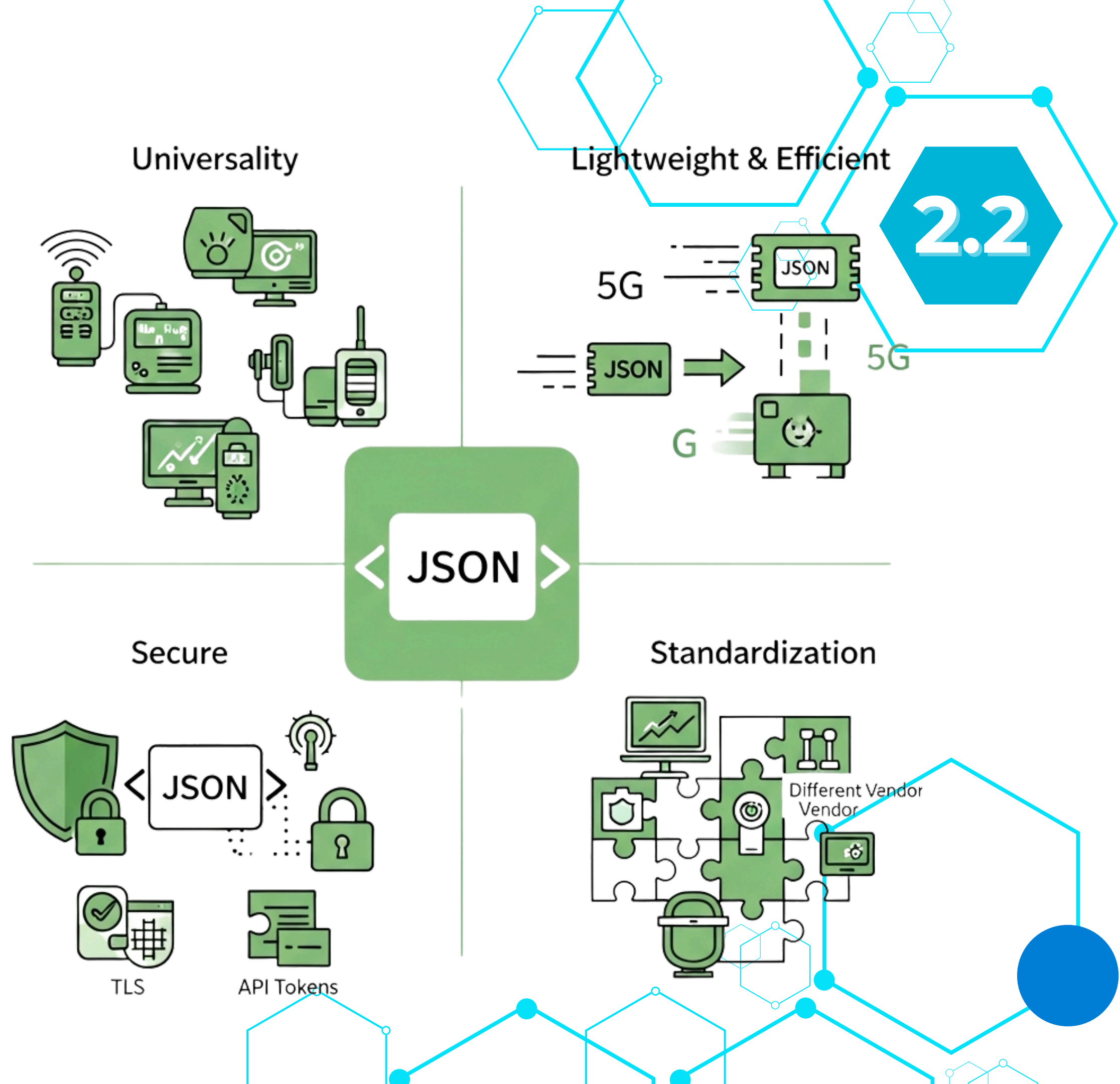
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Operator-Friendly Integration
Across Network Layers



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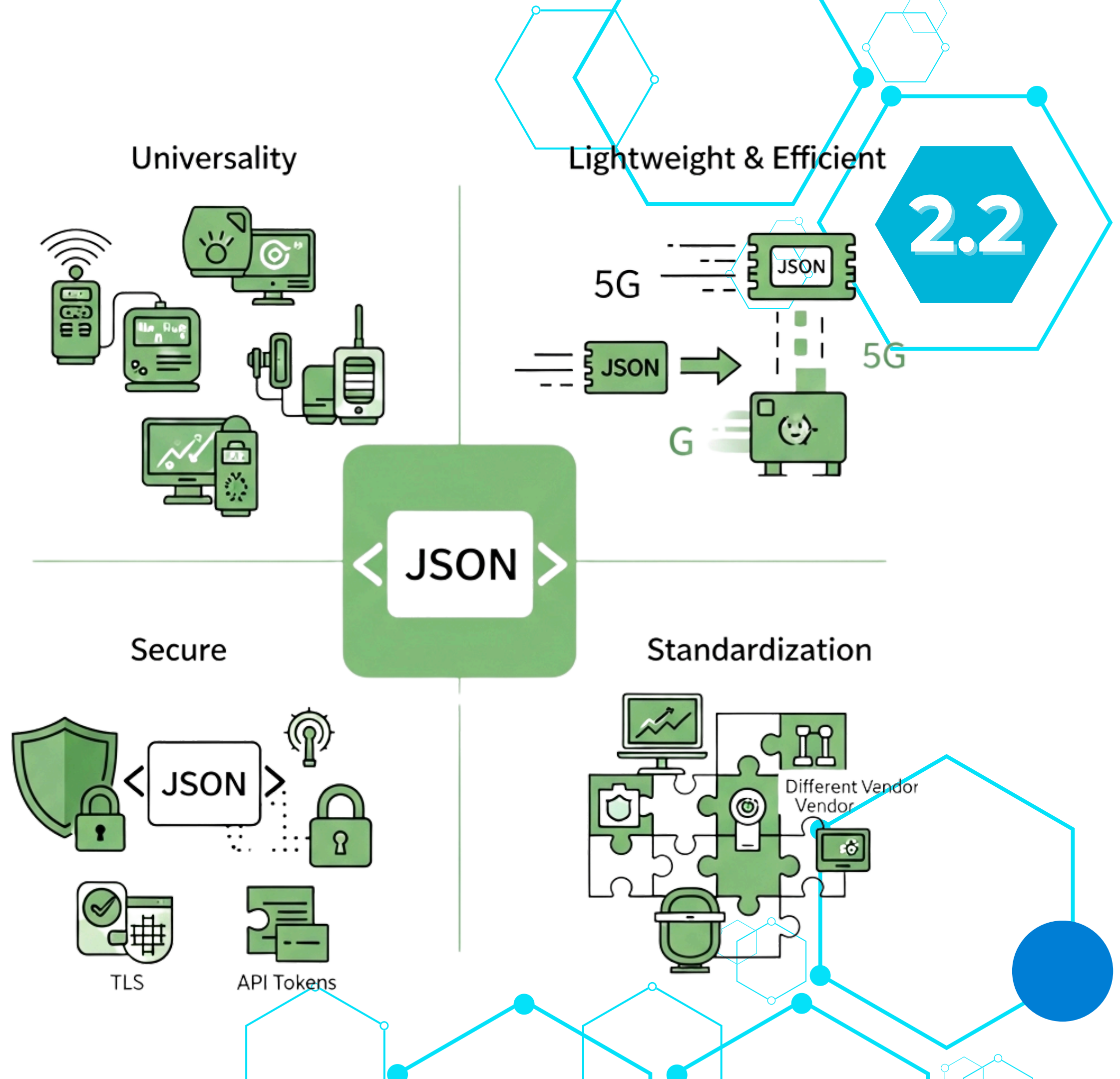
Efficient Data Transmission for Urban Infrastructure



Operator-Friendly Integration Across Network Layers



Enhanced Security & Industrial-Grade Connectivity





Strategy #3:

Network Operators as Smart City Coordinators

Case Study: "Unifying Public Infrastructure with Operator-Led IoT Networks"

2.1

5G RedCap

CAT-M1



A city which is well connected with CAT-M1 or 5G RedCap

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Operator have long term commitment to ensure stable connection

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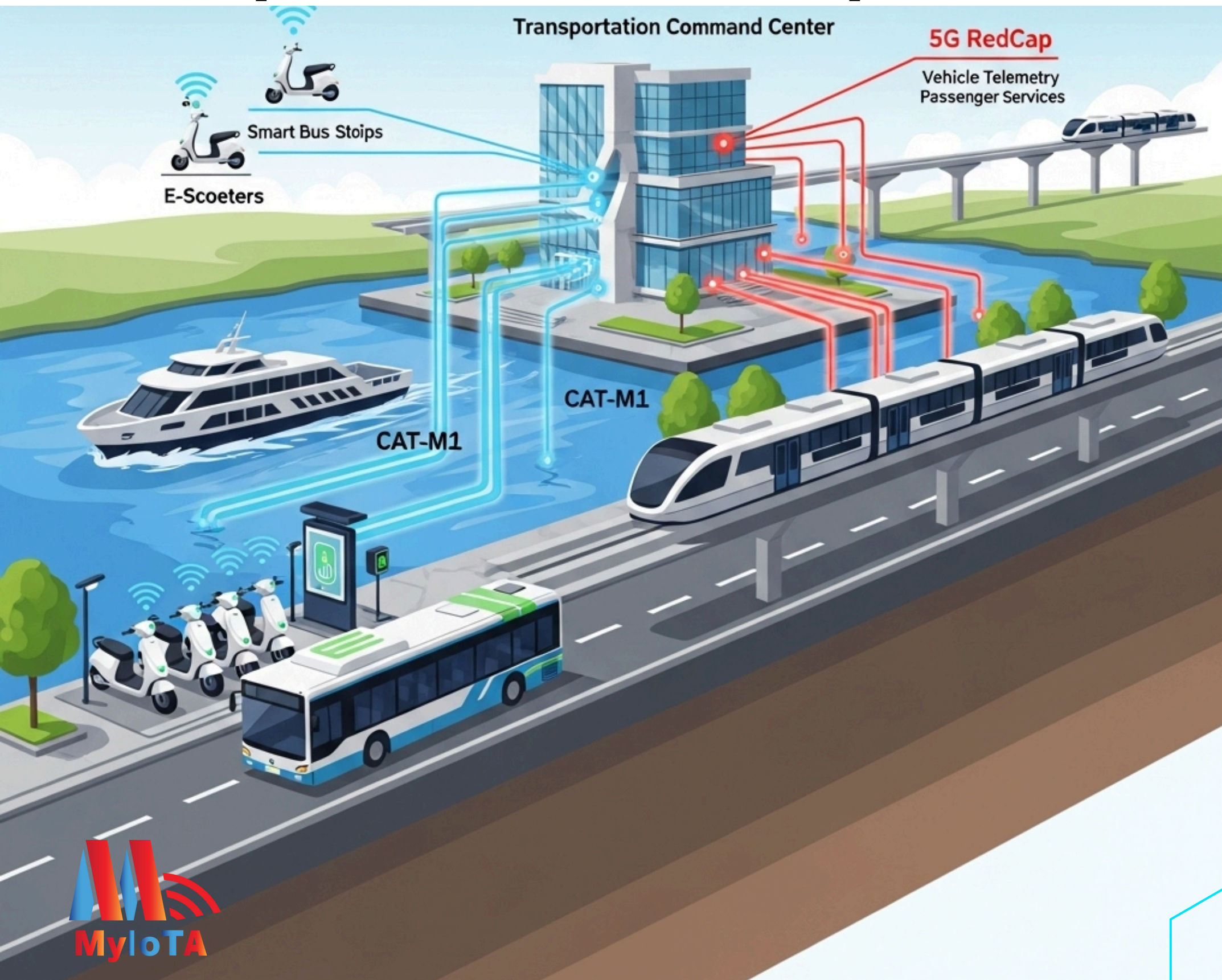
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Both indoor and outdoor connection is covered by reliable partner

Case Study: "Transforming Public Transportation with Operator-Led IoT Integration"

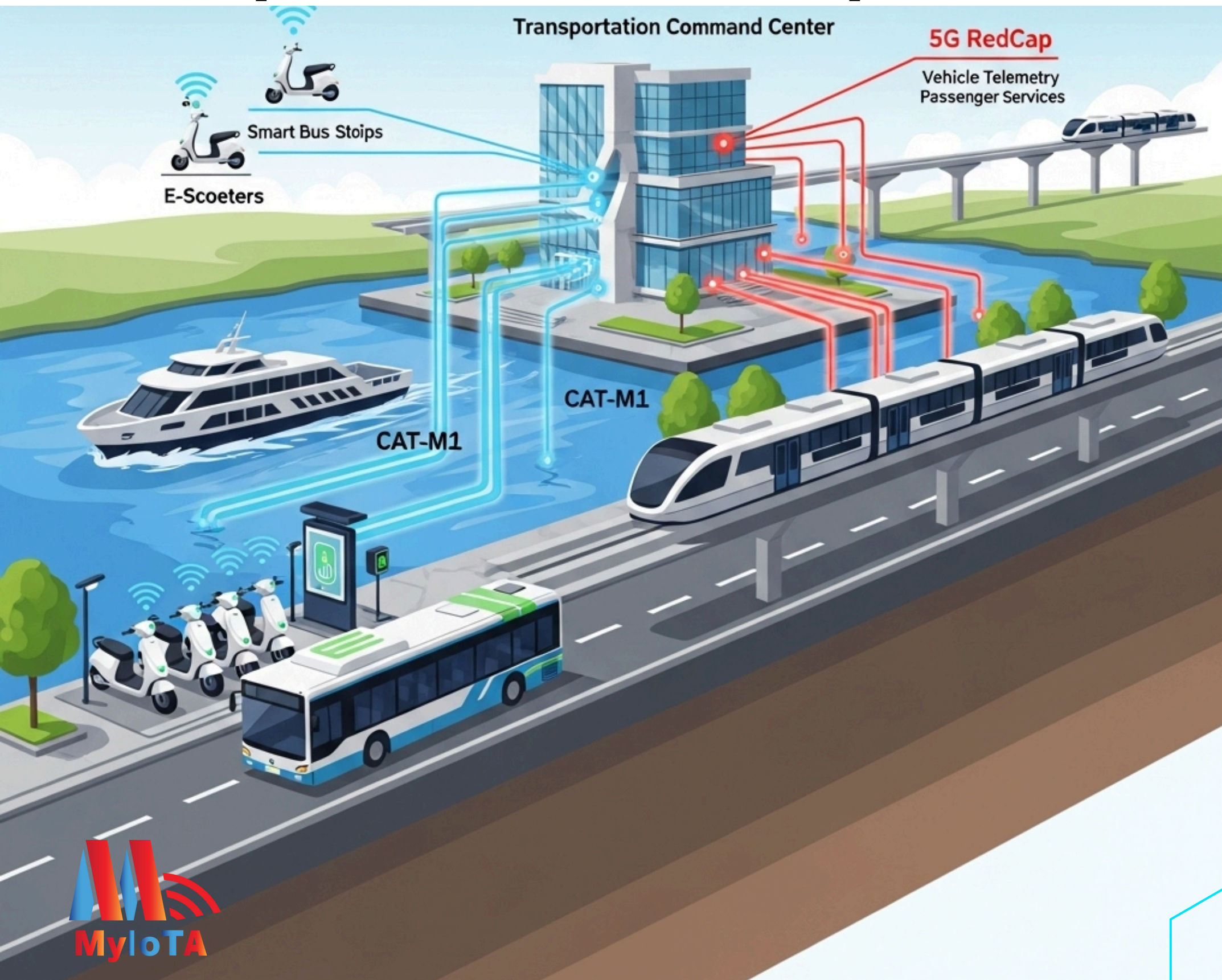
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Well connected public transport system, enables coordinated traffic flow

Case Study: "Transforming Public Transportation with Operator-Led IoT Integration"

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Well connected public transport system, enables coordinated traffic flow



Innovative transportation, cost saving, and reduce private vehicles



Three Question?

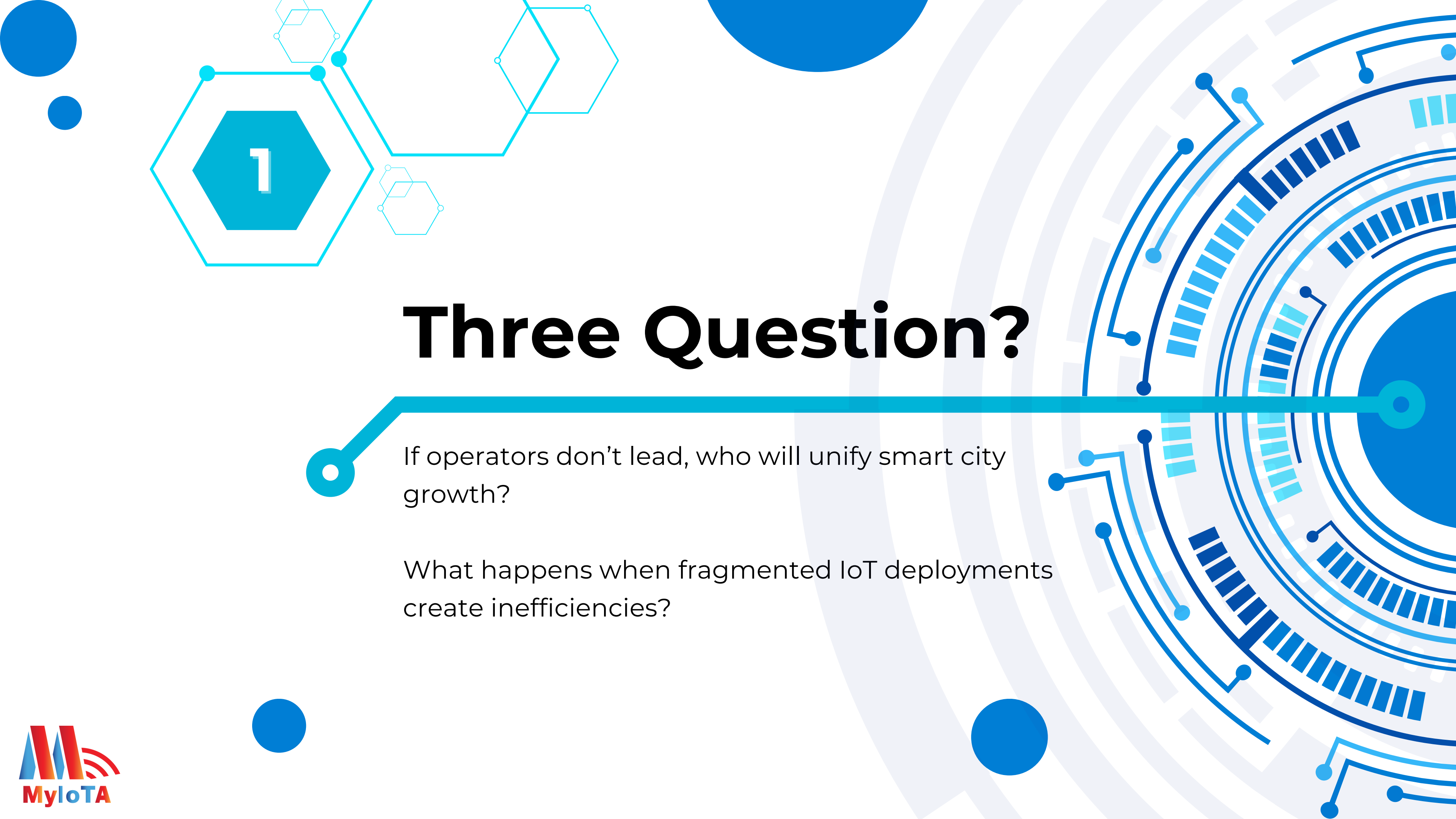




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If operators don't lead, who will unify smart city growth?





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What happens when fragmented IoT deployments create inefficiencies?



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Three Question?

If operators don't lead, who will unify smart city growth?

What happens when fragmented IoT deployments create inefficiencies?

How can Malaysia accelerate standardization in IoT infrastructure?



THANK YOU & ANY QUESTION

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