Smart city use case

Edge service

Dynamic Edge Service Customization for Smart Cities

What it is ?

Leverage Nokia's Network as Code capabilities to facilitate a dynamic edge service customization platform specifically for smart cities.

For whom ?

This platform would enable local governments and municipalities to quickly deploy, customize, and scale various edge computing services based on real-time data analytics and community needs.

What are the features?

Customizable Edge Services

Municipalities can access a user-friendly interface that allows them to easily configure and deploy edge services directly from Nokia’s network using templates. Services could include things like smart lighting, public Wi-Fi hotspots, emergency response systems, and traffic management systems.

Real-Time Local Data Collection

Utilize IoT devices distributed throughout the city to collect data on environmental conditions, traffic patterns, and public service usage. This data can be analyzed in real-time to identify the needs of the community.

Automated Scaling

Based on the data collected, the platform can automatically scale edge resources up or down to accommodate varying demands, such as increased traffic during events or enhanced connectivity during emergencies.

Make users participate, for example, citizens could vote on new services or report issues in their area, driving community engagement and feedback loops.

Integration with Urban Management Systems

integration with existing city management systems (like public safety systems, utilities management, etc.) would allow for good end to end and interconnected urban services.

The platform could provide APIs for third-party developers to create additional applications or services that could be easily plugged into the city’s edge computing ecosystem, promoting innovation.

What use cases?

* Smart traffic lights that adapt based on real-time traffic flow to minimize congestion.
* Environmental sensors that provide real-time air quality data and automatically adjust local services based on pollution levels.
* On-demand public transportation systems that align with user requests and optimize routes accordingly.

While smart cities are a growing field, the combination of user-driven, dynamic customization with a highly adaptable edge service model remains relatively unexplored. Existing applications tend to be static or less responsive to real-time data. This approach enhances community involvement, promotes rapid adaptation to changing needs, and utilizes Nokia’s advanced network capabilities to ensure reliability and scalability.