SMART ROAD & HIGHWAY CASE STUDY

Edge Networking As Connectivity Platform For Ayalon Highway

ACiiST

Overview

Edge Network as the infrastructure of "Smart Road". Key requirement was to connect rich content sensors with various algorithmic solutions and demonstrate a 'smart road'. Implementation without impacting the traffic or the pavement.

Implementation

Deploying a Reliable, Scalable, Giga rate, Secure edge network that connects and powers rich content devices (such as cameras, signs, Wi-Fi or any other standard sensors and actuators) with 24/7 power. The network acts as a smart platform Supporting 'high availability' systems with redundancy. Supporting standard equipment and providing a dedicated network for each application. A Server-less, Distributed management with no "single point of failure" together with self commissioning guaranties continues operation and ease of service during the years to follow installation.

5G Pico cells

IOT devices
Smart-Light
CCTV
Sensors
Air & Weather
Wi-Fi

ACiiST
POLARITY II

Approach

- ✓ High-Bandwidth to support symmetric high data bitrate
- ✓ Using a Small Form Factor Switch
- ✓ Protected esthetic Installation inside the Lamppost
- ✓ No single point of failure
- ✓ Separate Virtual Network for each Application

- ✓ Auto Load-Balancing and redundancy
- ✓ Power source available 24/7 and support the end device with PoE
- ✓ Standard connection of end devices
- ✓ Weatherproof ready for severe environmental conditions

Results

₴

Overall Cost
75% reduction compared to budget

0

Mile Trenching
No Need. ACiiST utilizes the existing lamppost infrastructure

0

Roadblock
No permit is needed, no coordination with Police or Municipalities are required

3

Installation Days
Only **3** Days. Multiple teams can shortage it

Conclusion

Using Small Form Factor solution solved the logistic hassle of having both networking and electricity to multiple applications.

Beside meeting all the project requirements, the solution main advantage is the ability to install the networking equipment hidden inside the lamppost and avoid trenching or roadblock and doing that in only 3 installations days!!!