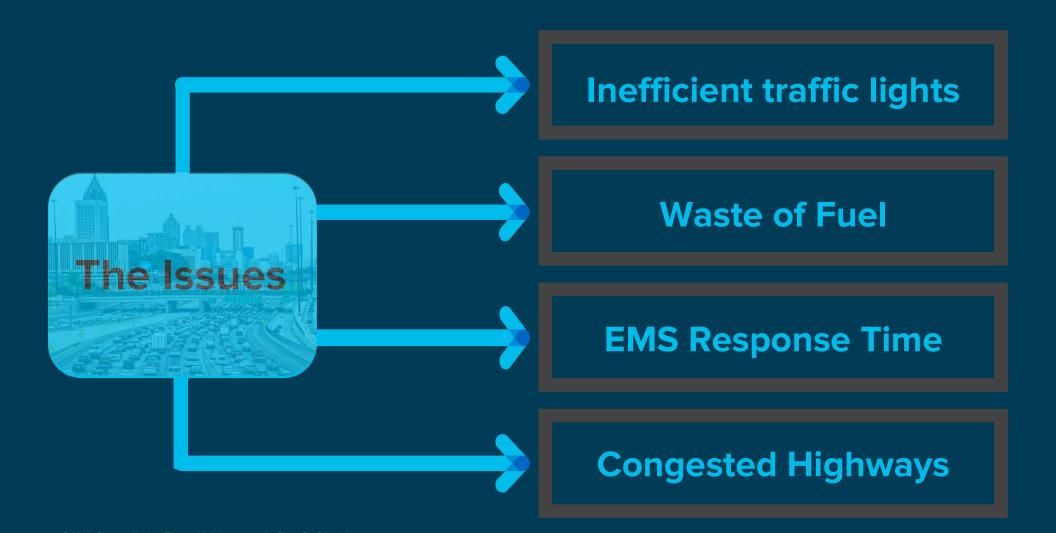
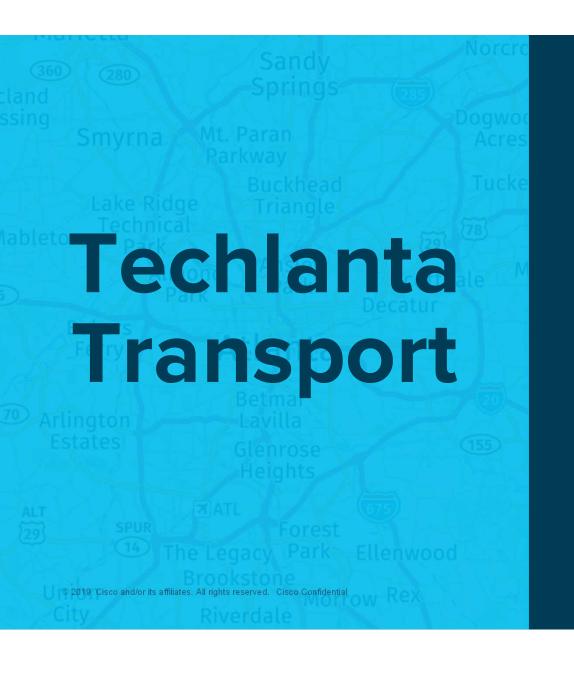


Techlanta Transport

Hari Annamraju, Noel Bosco, Ryan Gambrell, Kamryn Jones, and Keya Parikh





→ Real-time Traffic Updates

→ Collaboration with Public Services

→ Energy Redistribution

Cisco Meraki MR84

→ Wi-Fi 6 Network

→ 3.52 sq. mile area

→ One device on each block





→ Why an App?

→ Wi-Fi Authentication

Traffic Light Software



Run ML Algorithm to study traffic patterns in Metro Atlanta

Create a dataset

1

Permanent
Dataset 1 in AWS
Cloud Server

Step 2: Decision Process and **Prediction**

Create a ML algorithm to use realtime traffic data from traffic map

Create a second dataset

Permanent
Dataset 1 in AWS
Cloud Server

Make prediction and modify signals accordingly

Temporary

Dataset 2 in AWS

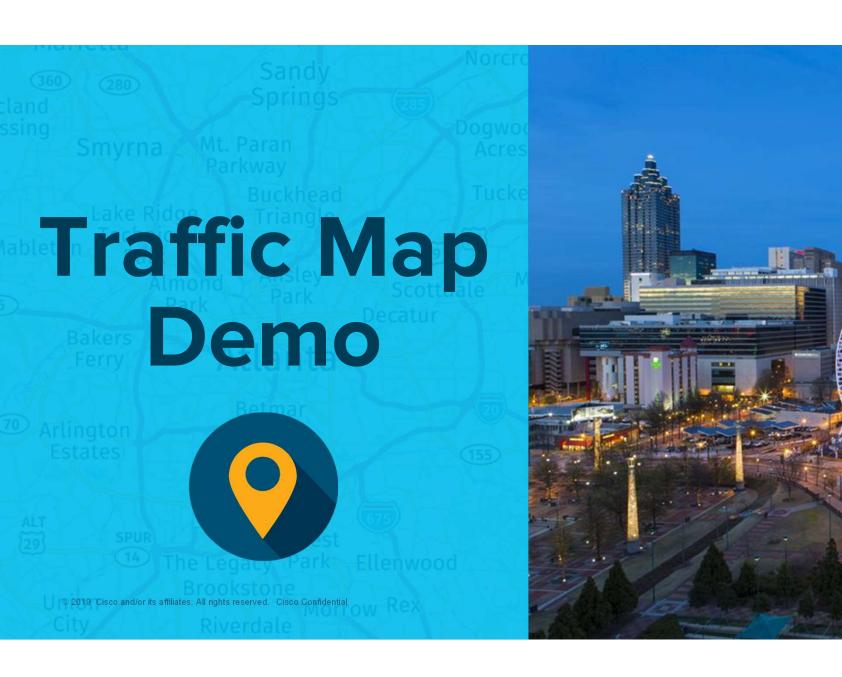
Cloud Server

Step 3: Update Traffic Data

Update and Train ML Algorithm

Permanent
Dataset 1 in AWS
Cloud Server

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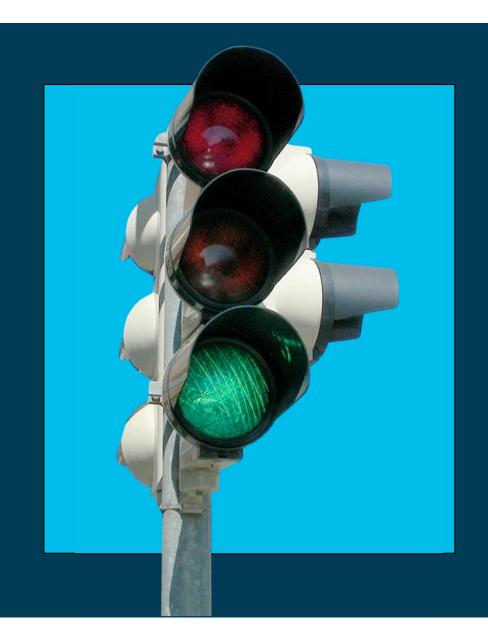
Smart Traffic Lights

→ Receive information from traffic map

→ Dynamically update traffic signals

→ Optimizes traffic flow

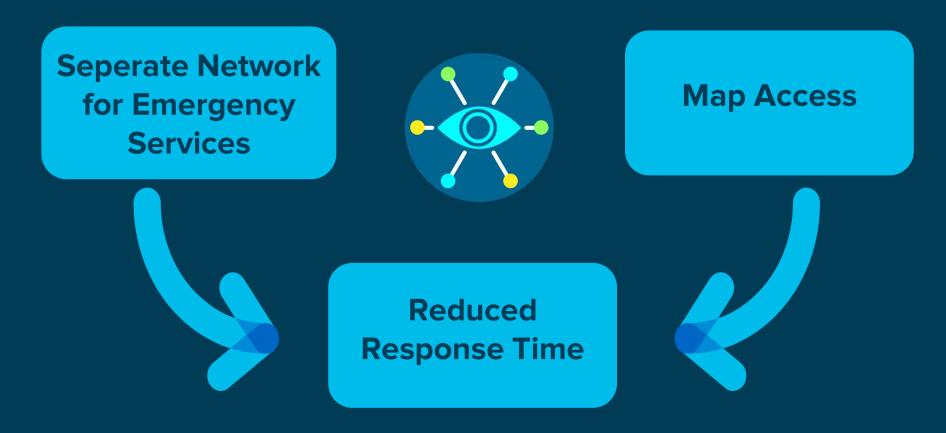
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- → Real time alerts and updates
- → Send location to EMS
 - Verification

Network Segmentation







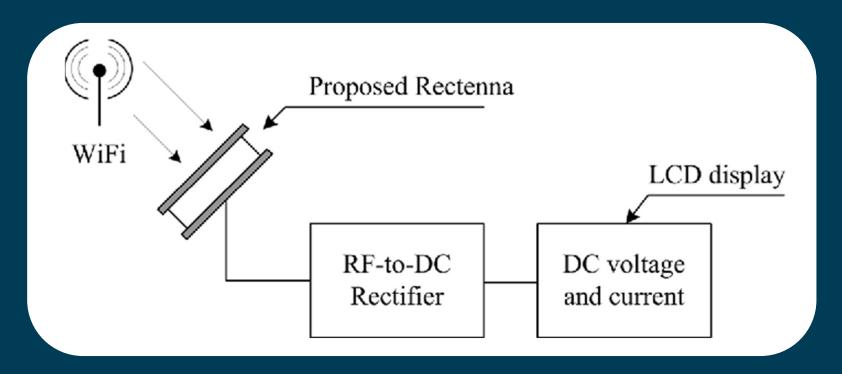
- → Location dependent advertisements
- → Subscription Modeling



- → AWS
 - Visibility
 - Identity
 - Policy Declaration

- → Stealthwatch
 - Entity Modeling

Energy Conversion



Implementation

Meraki Access Points \$649,400/yr

Rectenna \$5,000/yr

App \$8,333/yr

Data Storage \$63,000/yr

Security \$58,000/yr

Meraki Heat Map \$70,000/yr

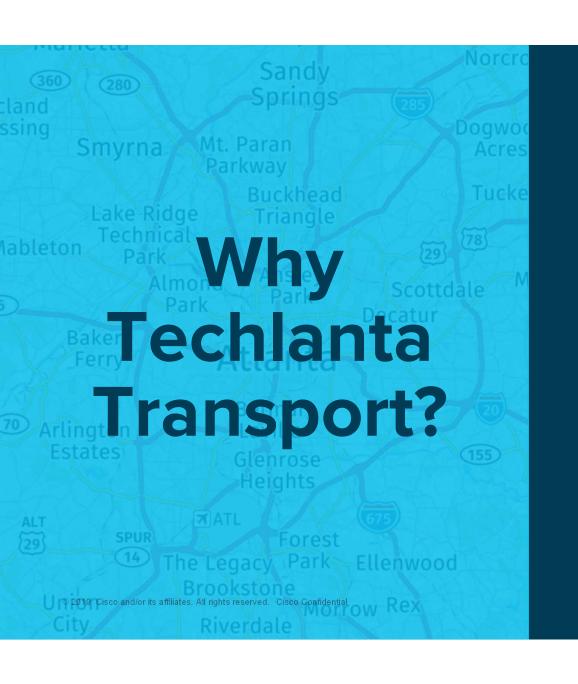
\$865,711/yr



5 year total cost: \$4,328,554

Industries



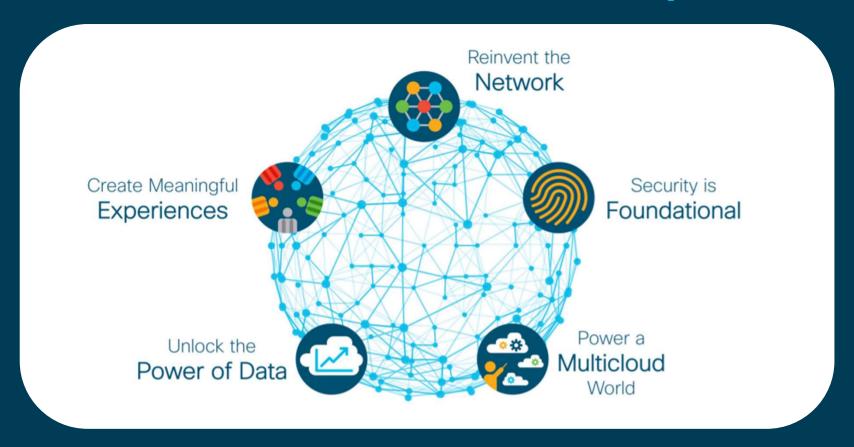


→ All-encompassing

→ Dynamic

→ Scalable

Cisco and Techlanta Transport



Questions?



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