



Enterprise Route Management

Optimized Routes for Mobile Workers

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Agenda

- **Background – Customers and Industries**
- **Routing and Optimization Use Cases Extend GIS**
- **Optimization Planning Fundamentals – Least Operational Cost**
- **Field Worker Planning – the Dynamic Challenge**
- **Enterprise Route Management Solution**
- **Operational Examples**

Industry use of GIS

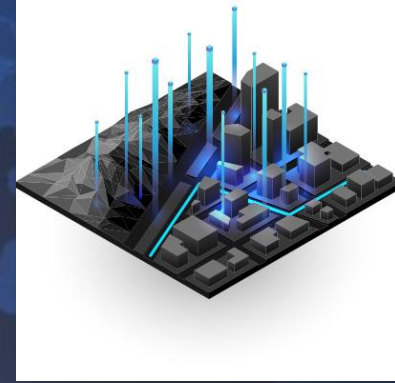
Primary, Secondary, and Routing Use Cases



Mapping & Visualization



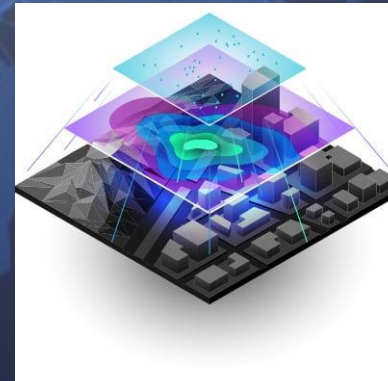
Realtime GIS



Data Collection & Management



Spatial Analytics



Territory/Service Region
Planning



Route and Wayfinding

Route Planning and Optimization

Optimizing *the least cost paths.*

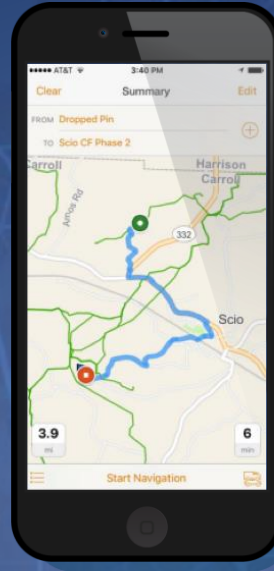
Operating *according to plan.*

Monitoring *operational progress*

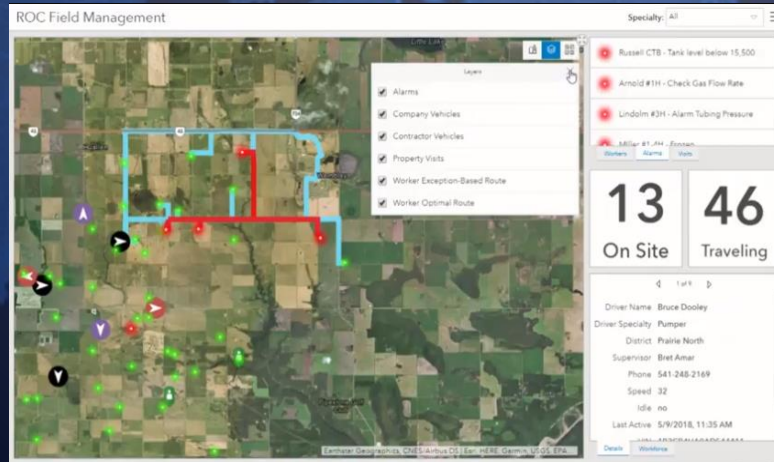
Mitigating *when conditions change*



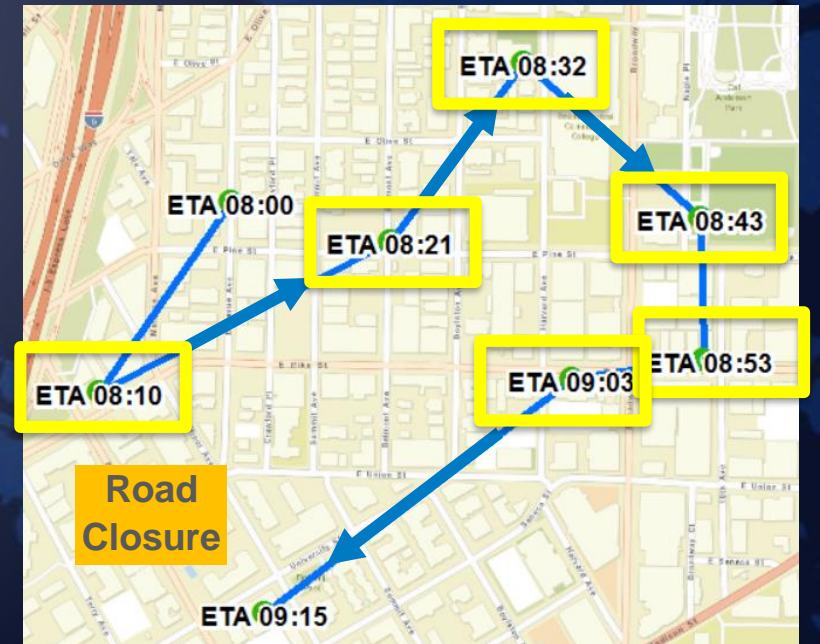
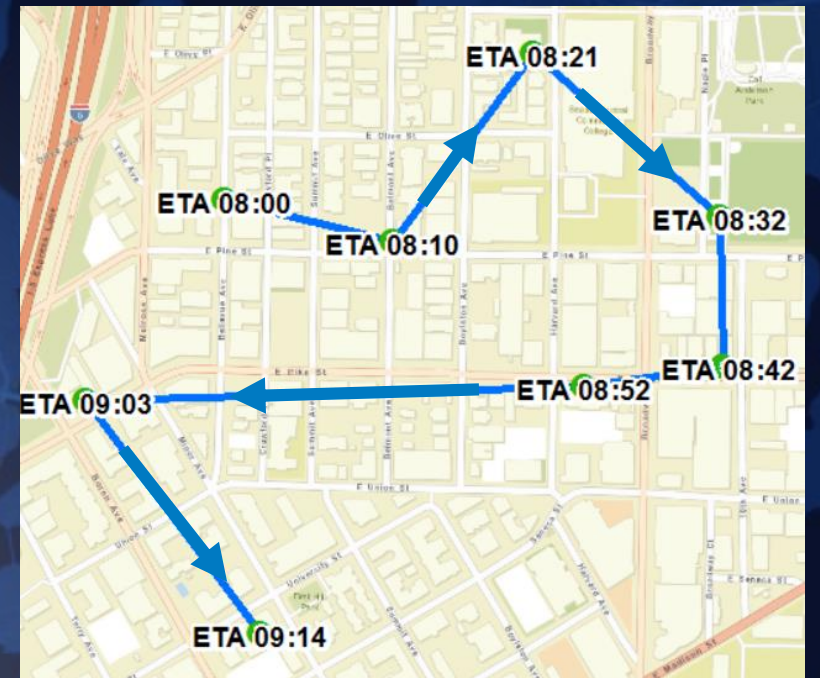
Optimal Route Planning



Navigation

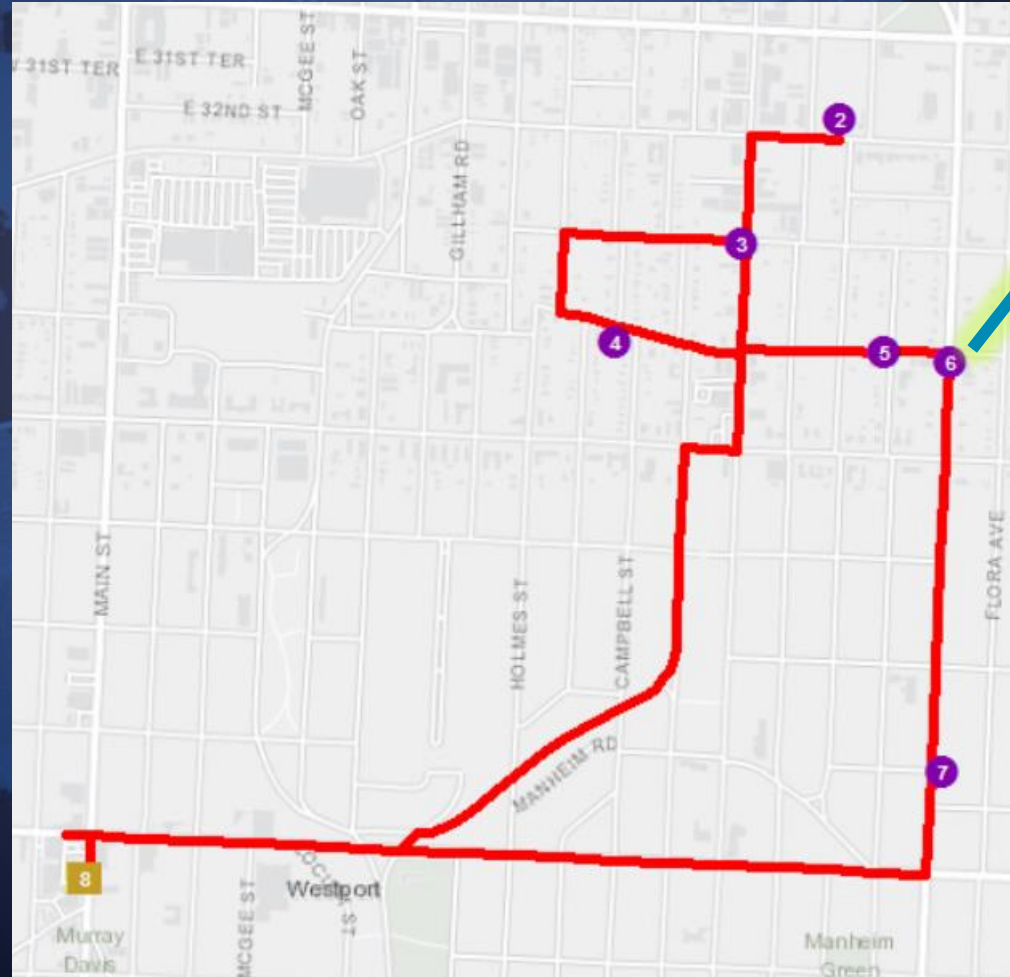


Executive Dashboards and KPI Reporting



Solving with a Least Cost Optimization

Optimization is assignment of orders to routes and sequencing of those order on each route



Orders

- Time Windows
- Volume
- Service Time
- Specialization

Routes

- Vehicle Capacity
- Work Time Duration
- Breaks

Identify

Identify from:

[-] Orders

- The Paseo Substation

Location:

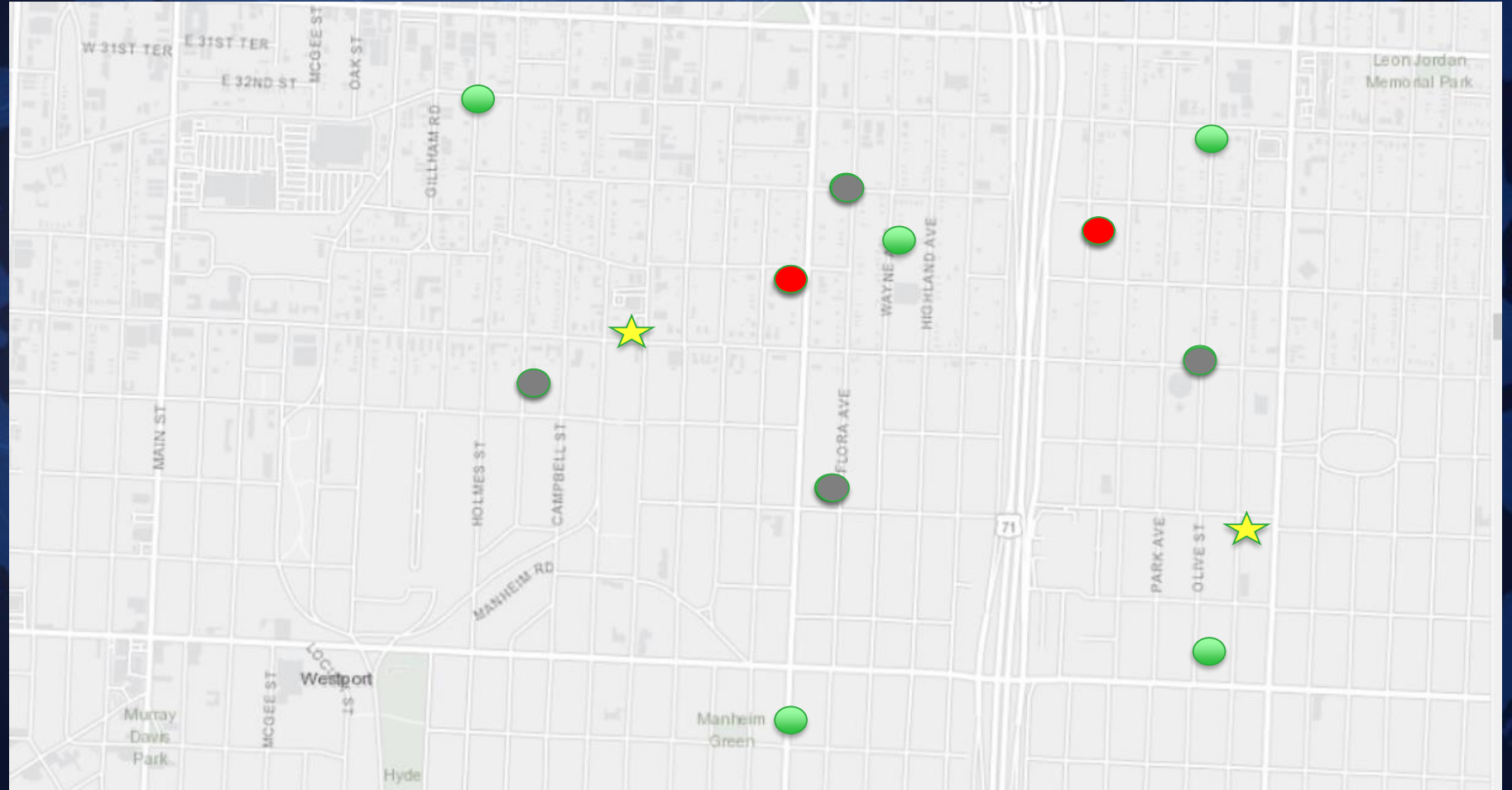
Field	Value
ObjectID	5
Shape	Point
Name	The Paseo Substation
Description	<null>
ServiceTime	15.5
TimeWindowStart1	08:00:00
TimeWindowEnd1	08:15:00
TimeWindowStart2	<null>
TimeWindowEnd2	<null>
MaxViolationTime1	<null>
MaxViolationTime2	<null>

Identified 1 feature

The Dynamic Planning Challenge

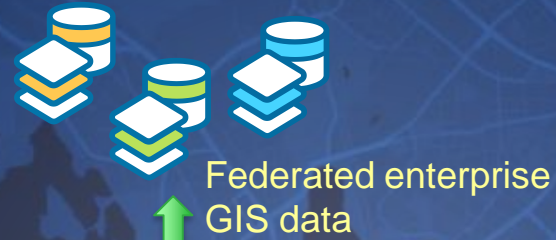
Optimal Solutions Get Stale

- Planned Work
- Completed Work
- Projected Late Arrivals
- ★ New Work



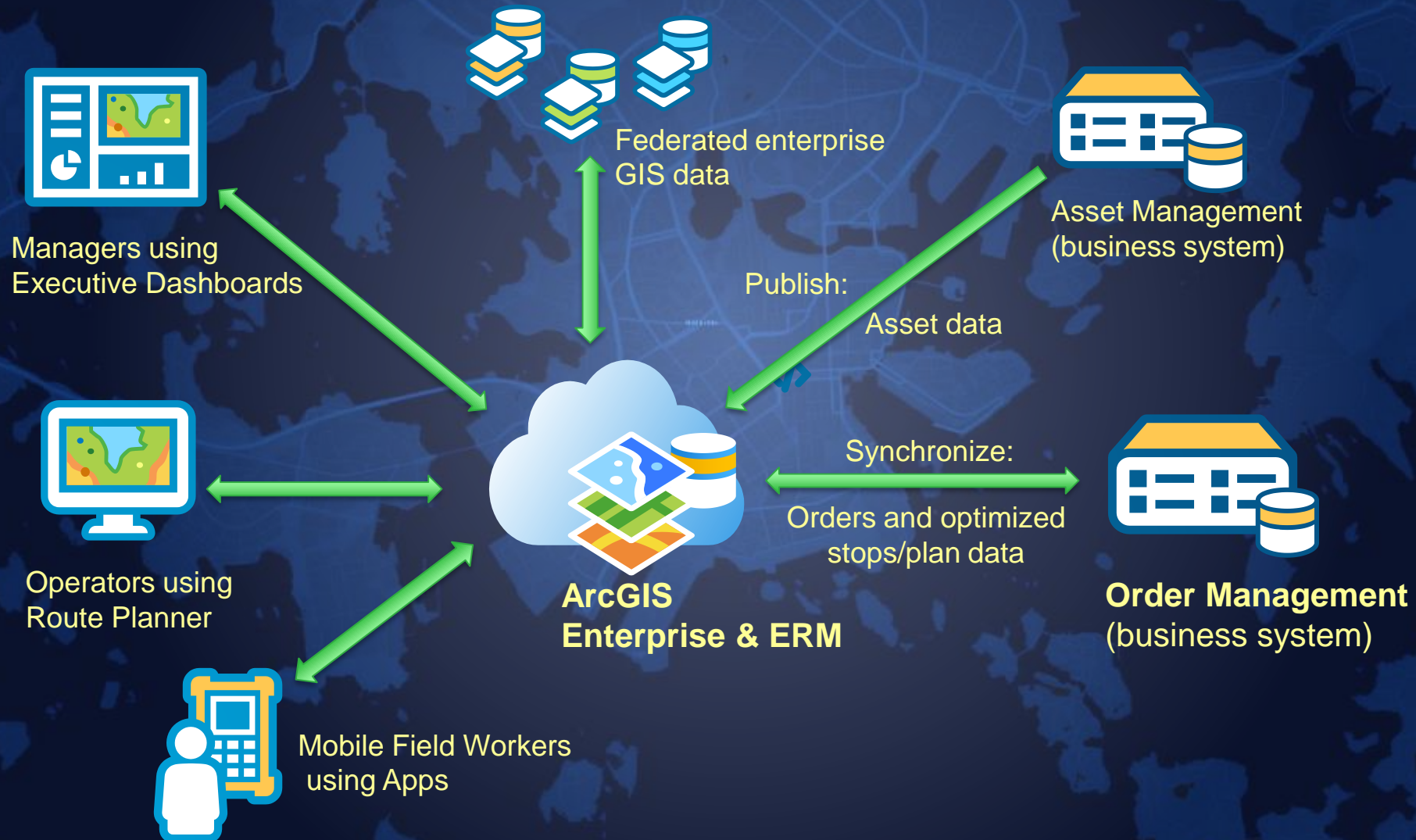
Enterprise Route Management

GIS as an integration point



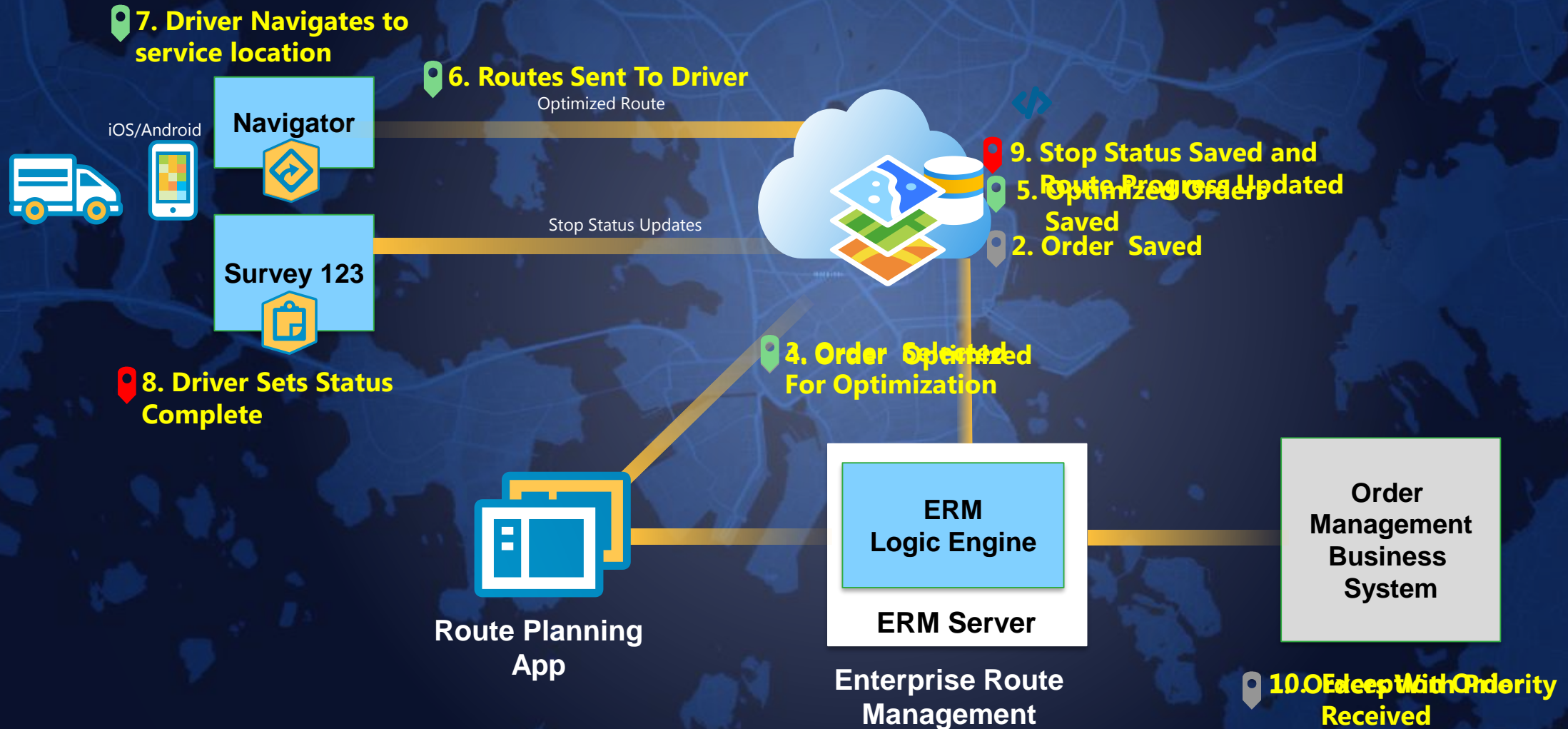
Enterprise Route Management

GIS as an integration point



Real Time Status and Continuous Optimization

Accounting for dynamic changes through the day



Demo (time permitting)

Questions?

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