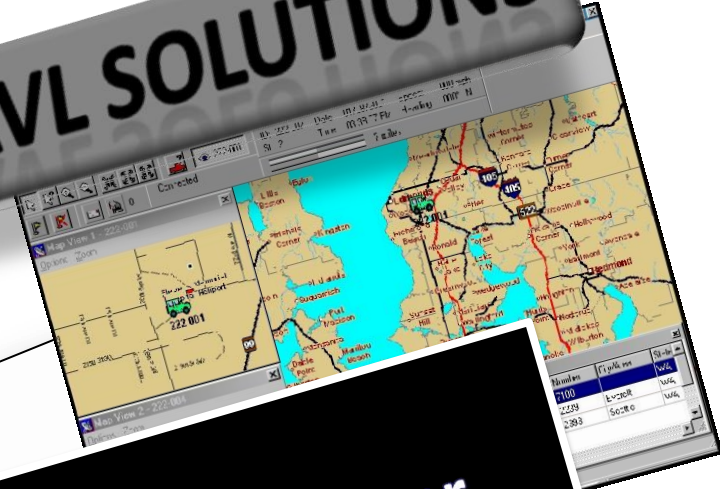
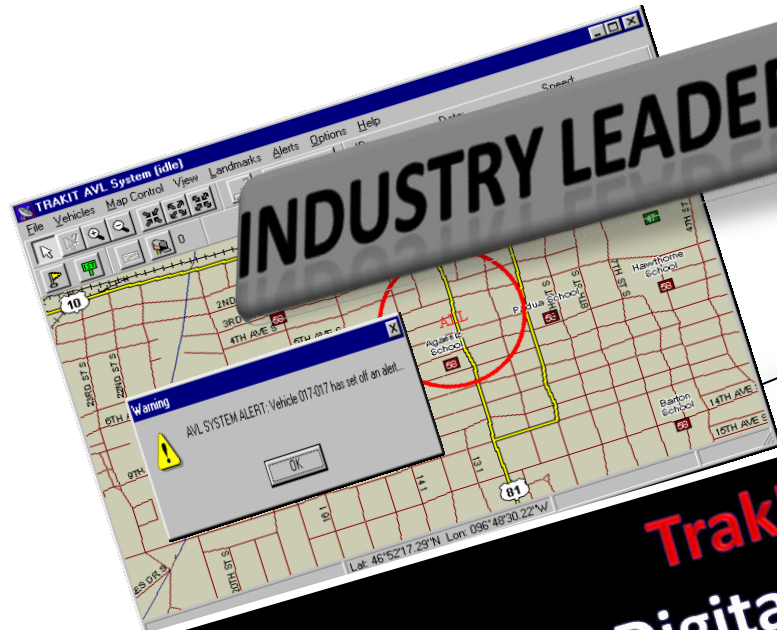
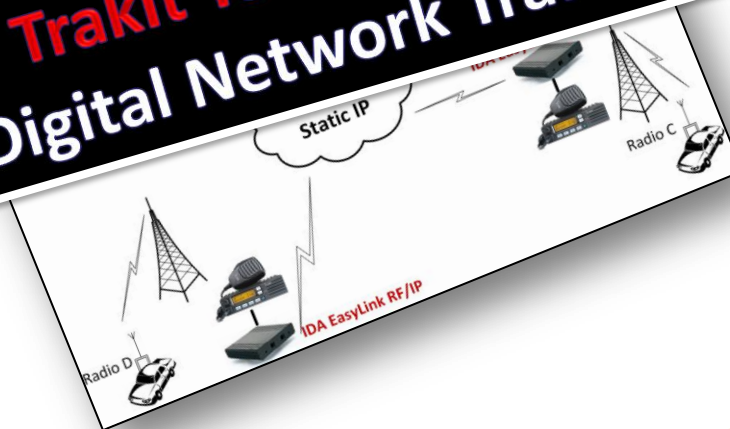


INDUSTRY LEADERSHIP IN AVL SOLUTIONS



Trakl Technology
Pioneering Digital Network Traffic Optimizer



IDA
THE WAY FOR 2-WAY

WHAT DOES TRAKIT OFFER?

Realtime Intel

- Tracking ...
 - Mapping ...
 - Managing ...

..... Assets in a Cost-effective Way

What can be Tracked?

- **Mobile Assets**

- Digital / Analog Radios
- Public Safety Personnel & Vehicles
 - Law Enforcement Personnel, First Responders
- Transit / Transportation – School Bus, City Bus
- Commercial / Service Vehicles

- **Immobile Assets**

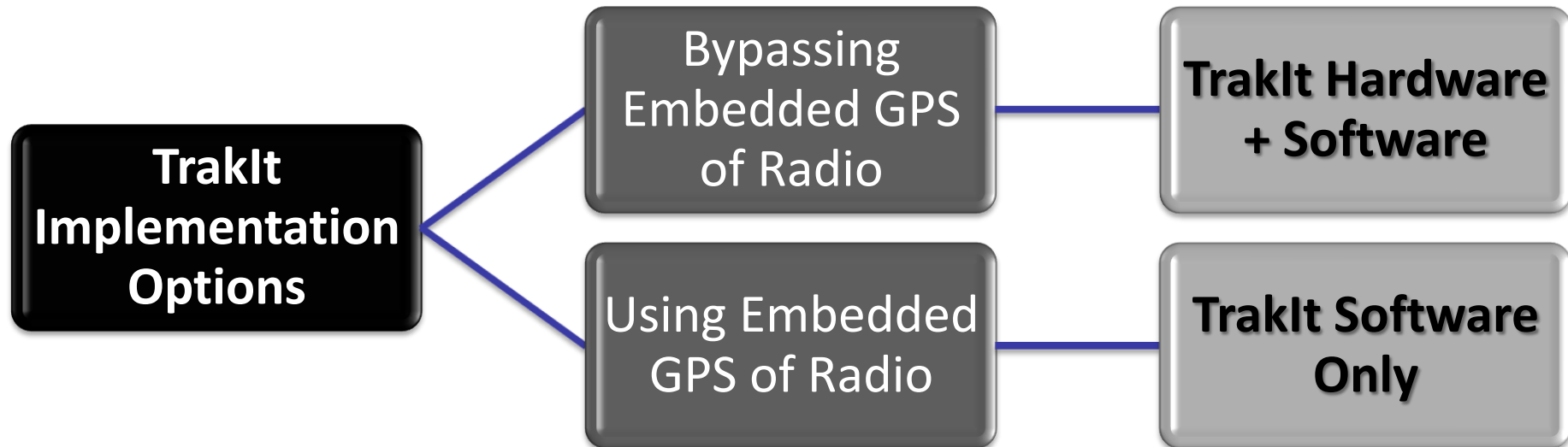
- Network Devices
- Expensive Equipment
- Geostationary Machinery

Uniqueness of TrakIt Technology

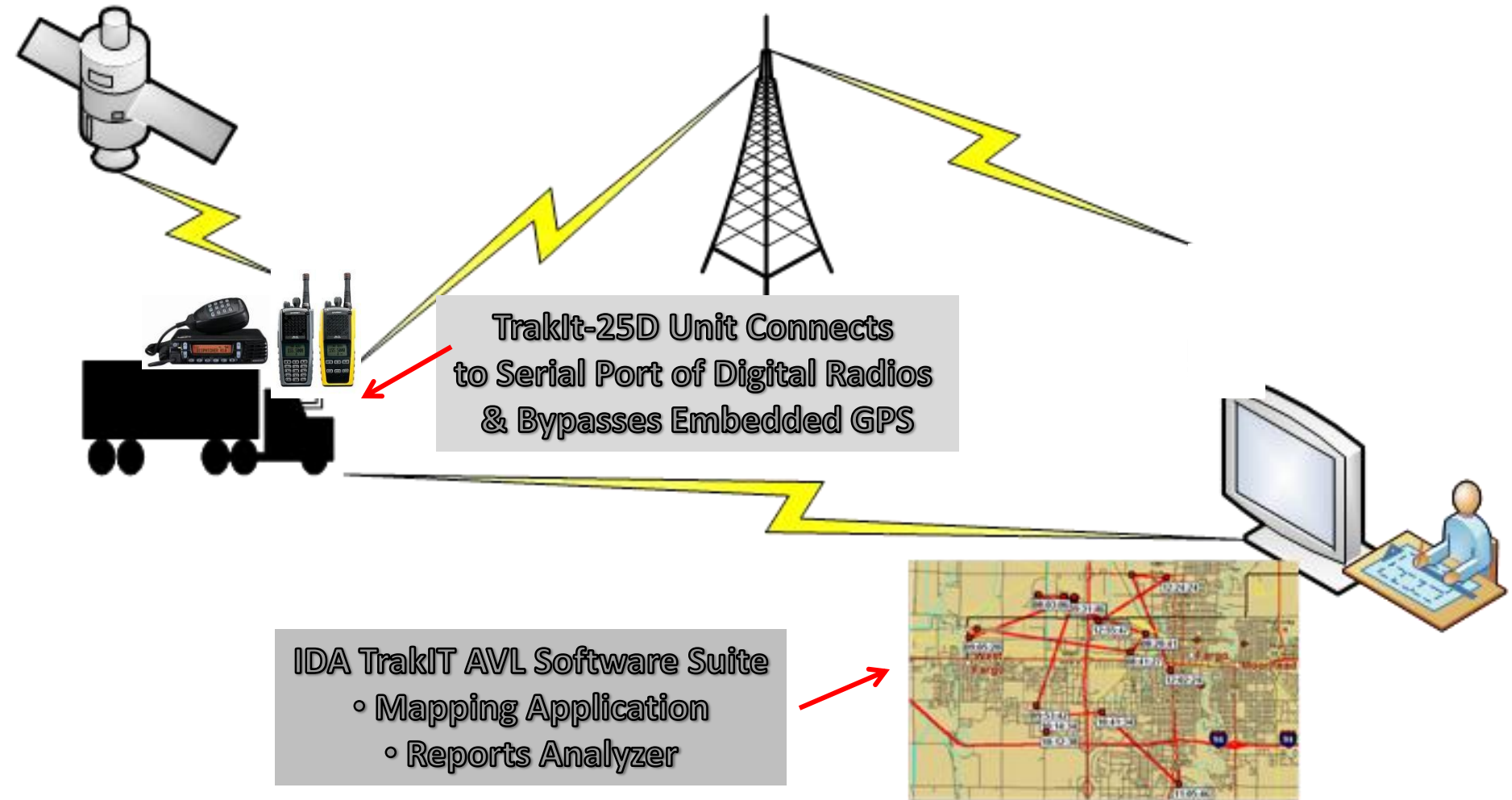
- **Asset Tracking in ALL Types of Networks**
 - Digital / Analog Radio & Cellular Networks
- **Latest Mapping Engines – Google, ESRI, 911**
- **Simple Implementation**
- **Zero Monthly Recurring Cost**
- **Scalability to meet large growth & geographical spread**
- **Easily Customizable for:**
 - Law Enforcement Agencies
 - Co-ops, City Transit, Enterprise / Industry clients
- **35+ Years of Proven Integration with diverse networks**

TWO IMPLEMENTATION MODELS

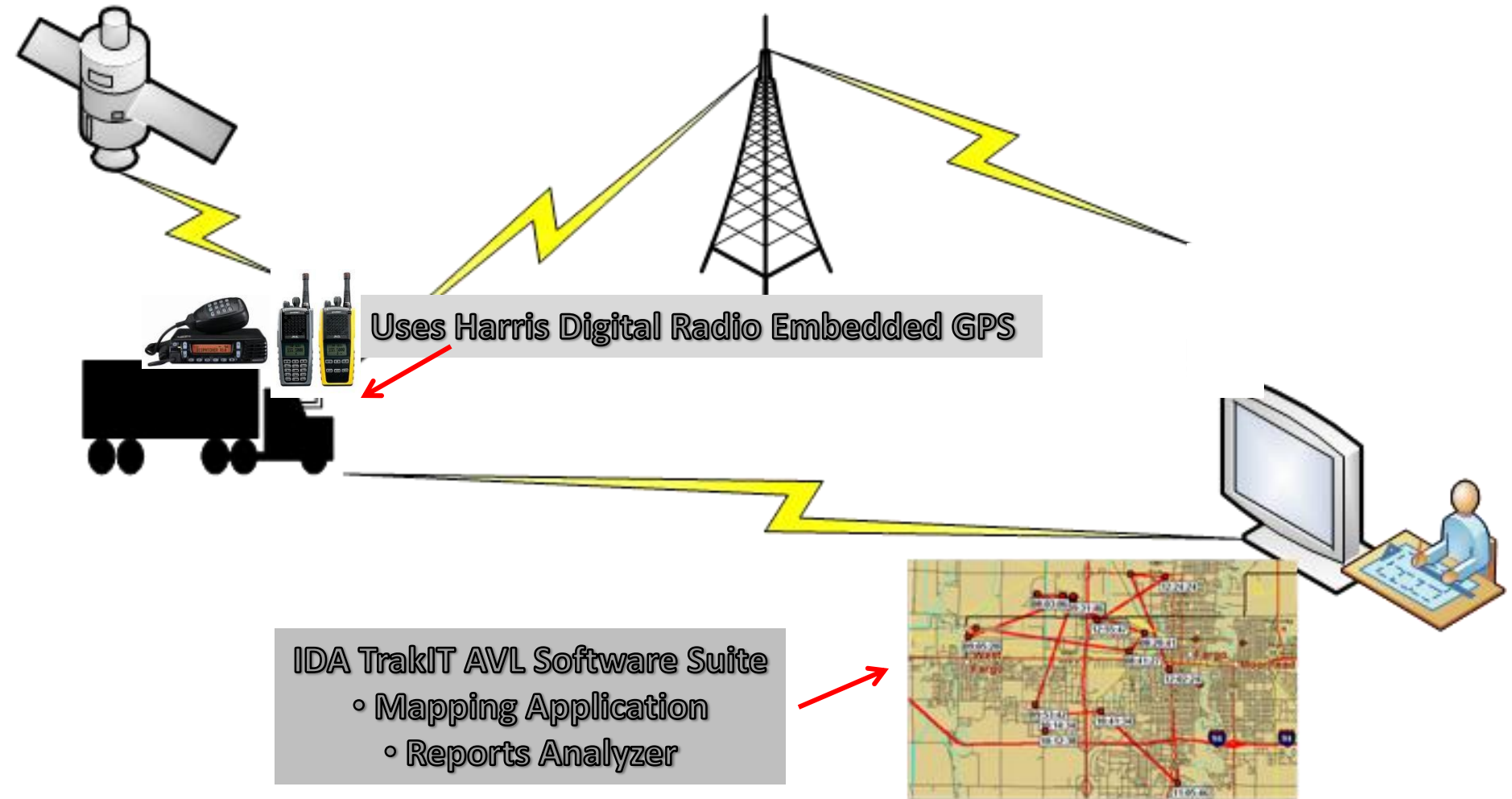
With & Without TrakIt Hardware Device



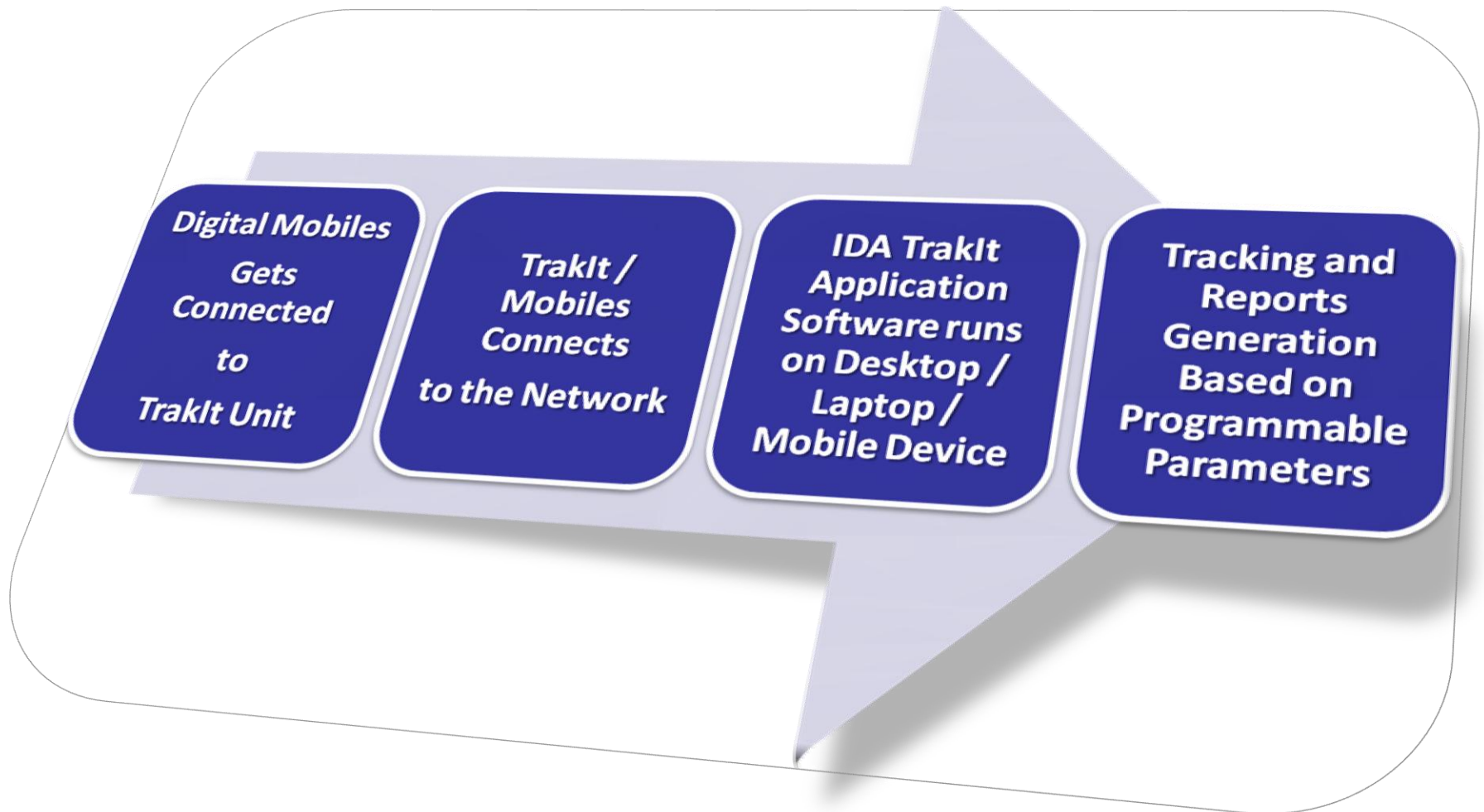
Using TrakIt Hardware + TrakIt Software



Using TrakIt Software Only



Connectivity Flow with TrakIt Hardware Option



CHALLENGES OF DIGITAL NETWORK

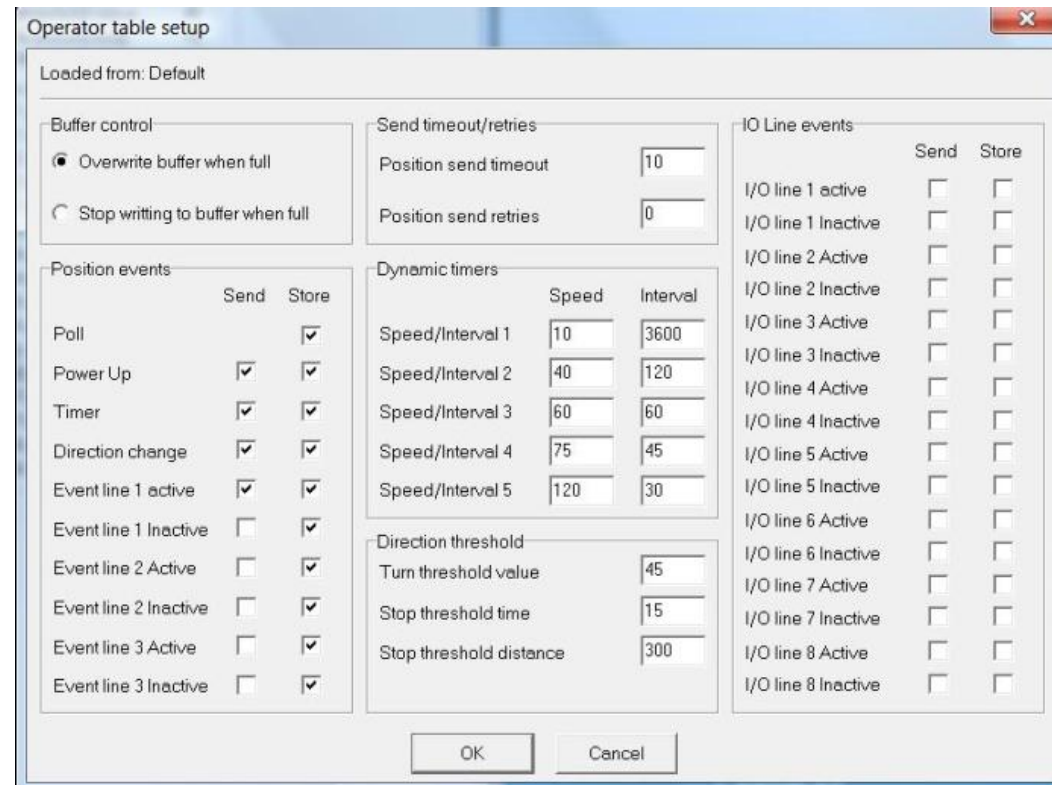
Traffic Congestion

- **Large Number of Connected Mobiles, Handhelds and Network Devices**
- **Overwhelming Growth of Data Traffic**
- **Constant conflict of Voice VS Data traffic**
- **Spewing Embedded GPS Data**
- **Multi-site Network Load**
- **Data encroaching mission-critical Voice communication**

NETWORK OPTIMIZATION

Selective Geolocation Data Transfer

- Offloads GPS / Tracking Data to TrakIt Unit
- Transmits Data **ONLY** based on Selected & Programmable Parameters
 - Speed
 - Headings
 - Distance Travelled
 - Critical Even Triggers
 - Manual Triggers



The image shows a screenshot of a software window titled "Operator table setup". The window is divided into several sections for configuring data transfer parameters.

Loaded from: Default

Buffer control:

- ☒ Overwrite buffer when full
- ☐ Stop writing to buffer when full

Position events:

	Send	Store
Poll		<input checked="" type="checkbox"/>
Power Up	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Timer	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Direction change	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Event line 1 active	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Event line 1 Inactive	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Event line 2 Active	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Event line 2 Inactive	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Event line 3 Active	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Event line 3 Inactive	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Send timeout/retries:

- Position send timeout: 10
- Position send retries: 0

Dynamic timers:

	Speed	Interval
Speed/Interval 1	10	3600
Speed/Interval 2	40	120
Speed/Interval 3	60	60
Speed/Interval 4	75	45
Speed/Interval 5	120	30

Direction threshold:

- Turn threshold value: 45
- Stop threshold time: 15
- Stop threshold distance: 300

I/O Line events:

	Send	Store
I/O line 1 active	<input type="checkbox"/>	<input type="checkbox"/>
I/O line 1 Inactive	<input type="checkbox"/>	<input type="checkbox"/>
I/O line 2 Active	<input type="checkbox"/>	<input type="checkbox"/>
I/O line 2 Inactive	<input type="checkbox"/>	<input type="checkbox"/>
I/O line 3 Active	<input type="checkbox"/>	<input type="checkbox"/>
I/O line 3 Inactive	<input type="checkbox"/>	<input type="checkbox"/>
I/O line 4 Active	<input type="checkbox"/>	<input type="checkbox"/>
I/O line 4 Inactive	<input type="checkbox"/>	<input type="checkbox"/>
I/O line 5 Active	<input type="checkbox"/>	<input type="checkbox"/>
I/O line 5 Inactive	<input type="checkbox"/>	<input type="checkbox"/>
I/O line 6 Active	<input type="checkbox"/>	<input type="checkbox"/>
I/O line 6 Inactive	<input type="checkbox"/>	<input type="checkbox"/>
I/O line 7 Active	<input type="checkbox"/>	<input type="checkbox"/>
I/O line 7 Inactive	<input type="checkbox"/>	<input type="checkbox"/>
I/O line 8 Active	<input type="checkbox"/>	<input type="checkbox"/>
I/O line 8 Inactive	<input type="checkbox"/>	<input type="checkbox"/>

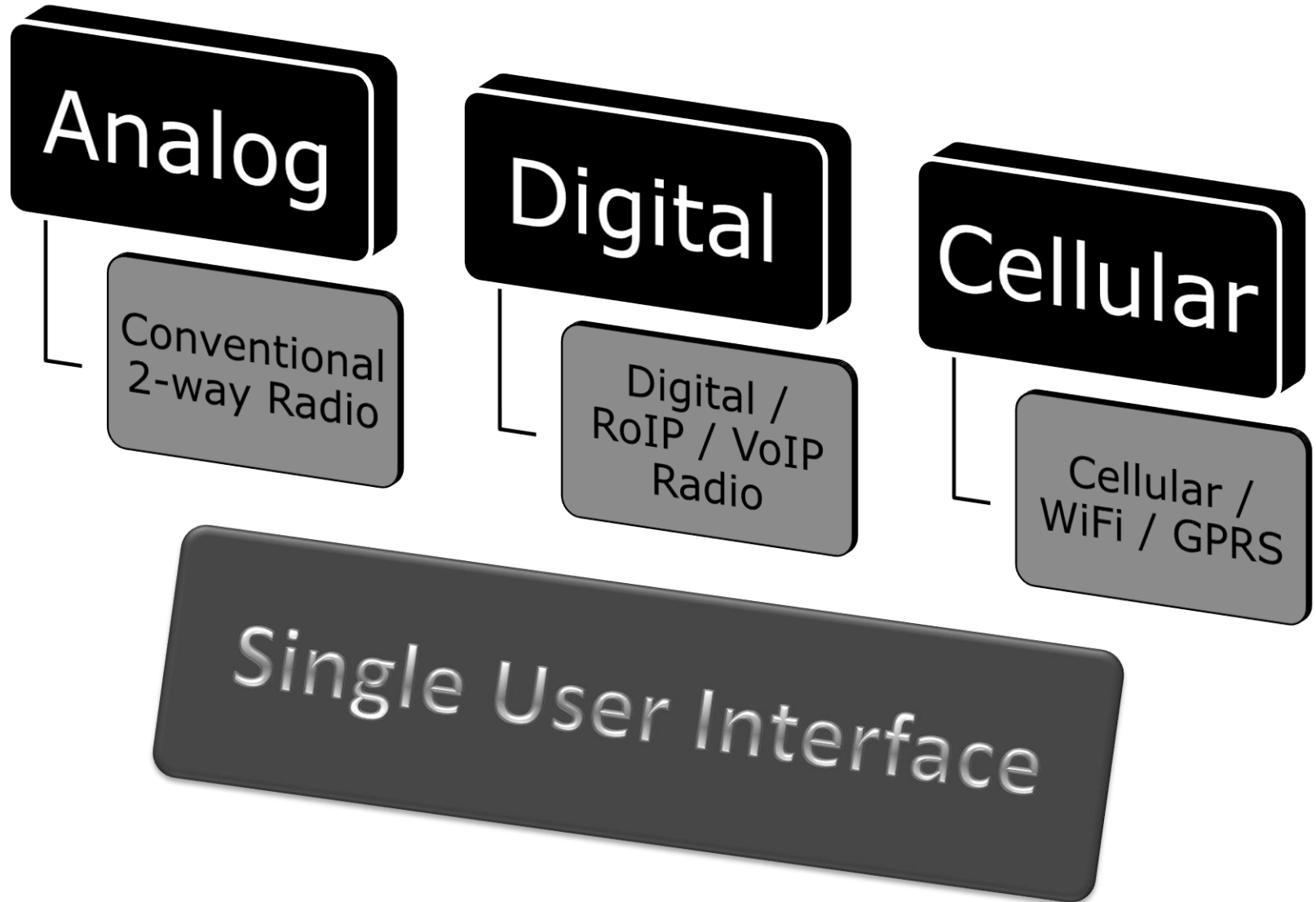
OK Cancel

Before & After Scenario

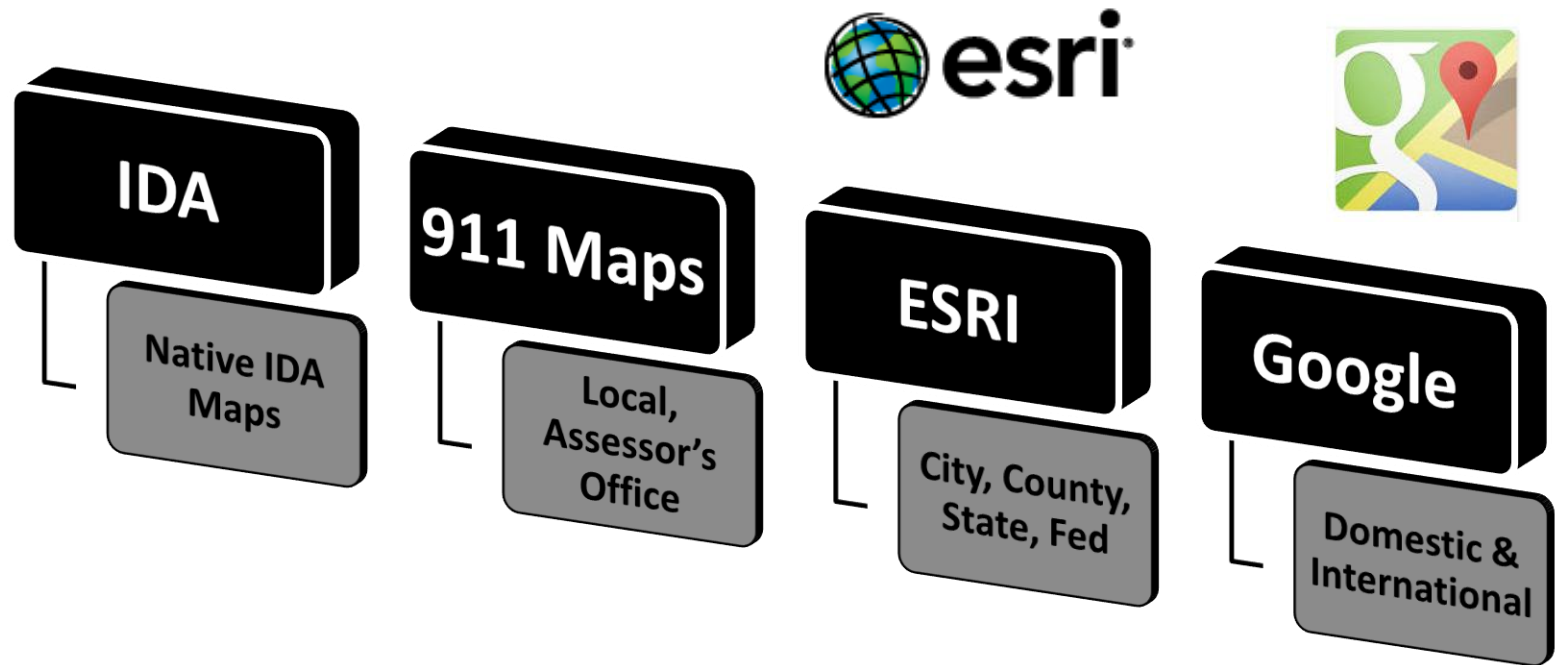
- **Current Scenario (Before TrakIt):**
 - Embedded GPS of Digital Radio Polls Location Data
 - With multiple Digital Radios in the network pinging at the Same Time, this geolocational data leads to traffic congestion in the network
- **After TrakIt is Deployed:**
 - Instead of using Embedded GPS of the Radio, TrakIt uses its in-built GPS
 - Additionally TrakIt can be programmed to transmit GPS Data based on particular Events, Triggers and Time Schedules
 - Resulting in Data Transfers at Lower Rate & At Desired Frequency, thereby Reducing Network Traffic Congestion

POWER OF CHOICE

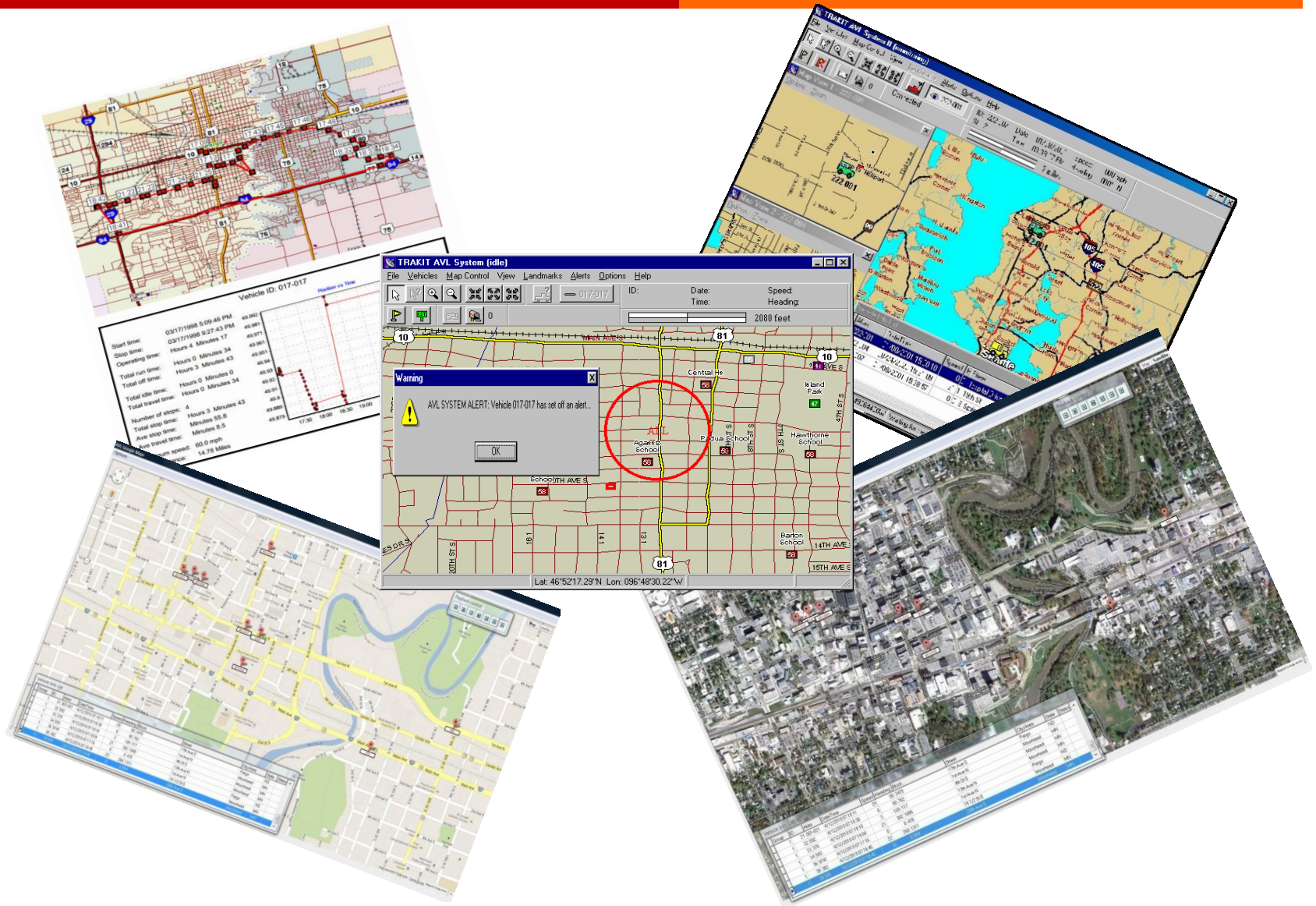
Choice of Network



Choice of Mapping Technologies



Choice of Reports



Choice of Industry Verticals



Law Enforcement

Public Works

Business & Industry

Local & State Government



Emergency Management

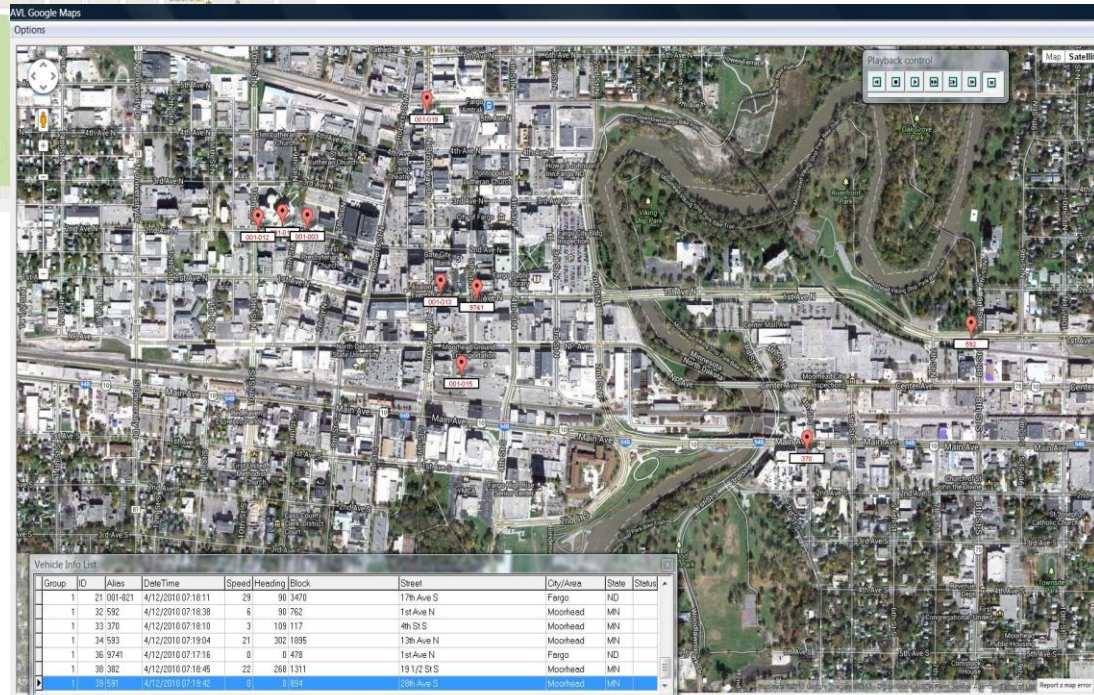
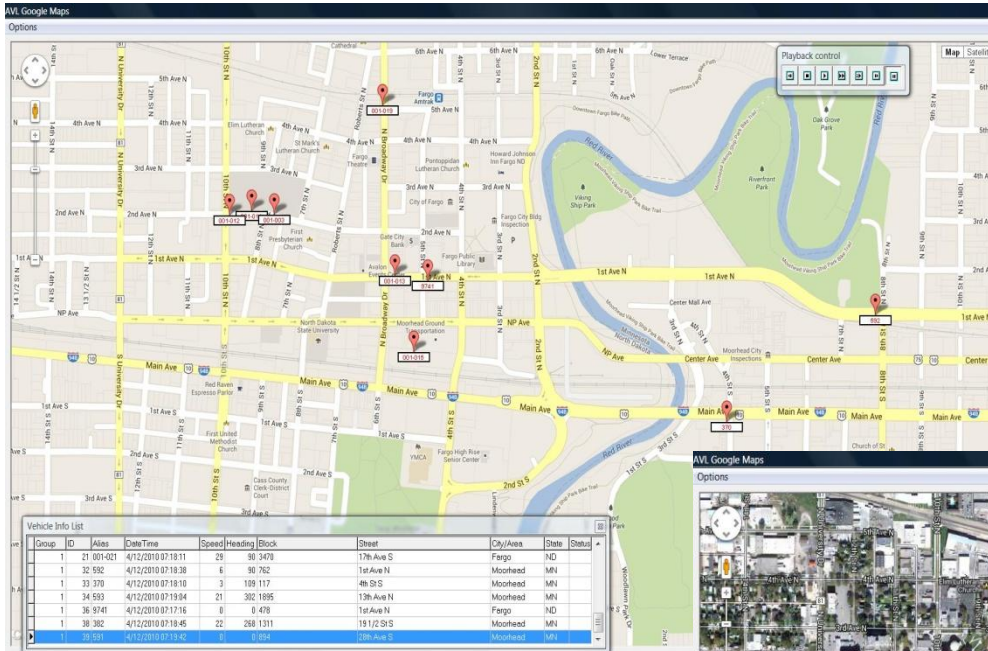
Private & Public Utilities

Healthcare & Insurance

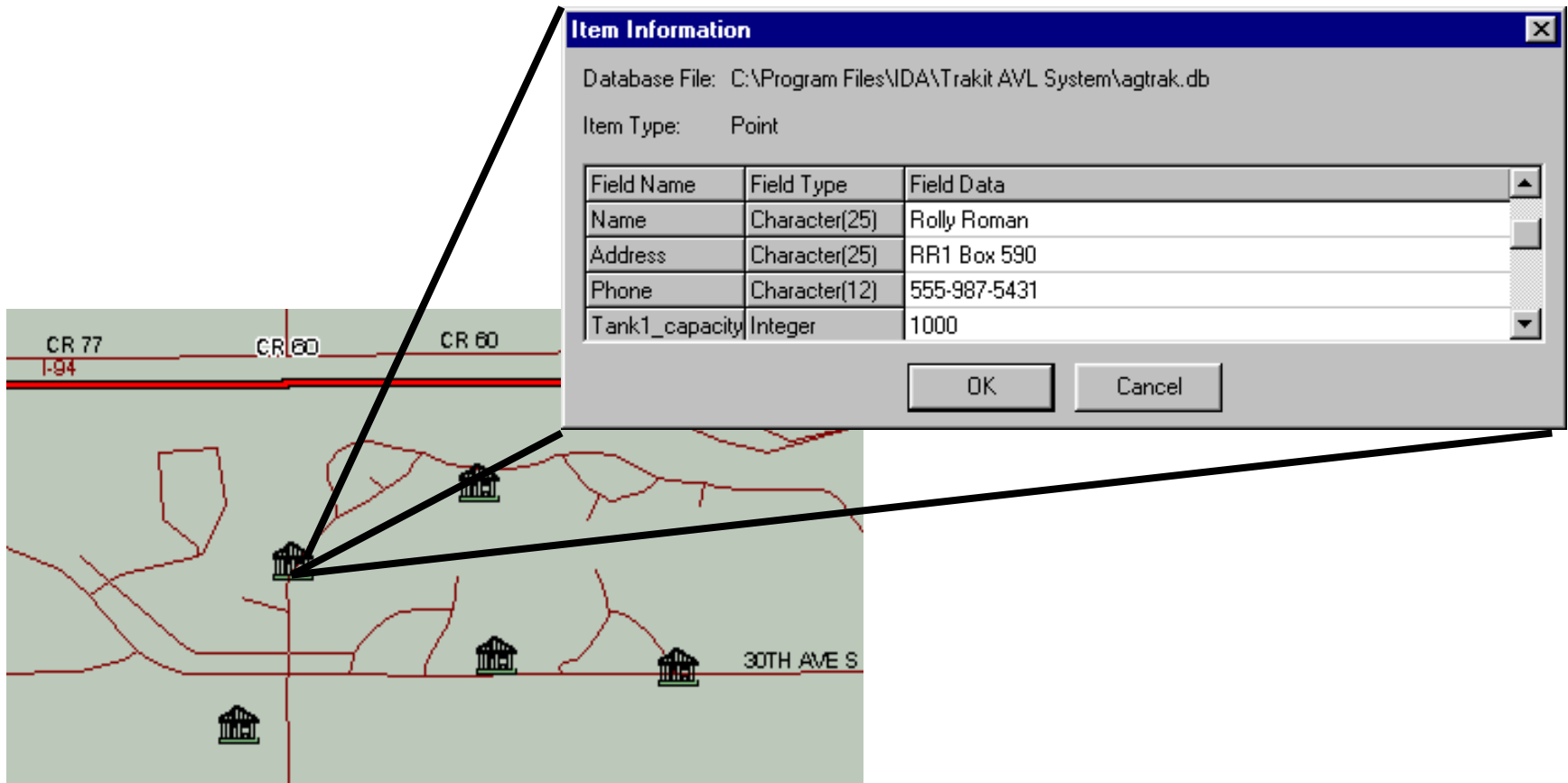
Transportation & Logistics

PICTURE SPEAKS A THOUSAND WORDS

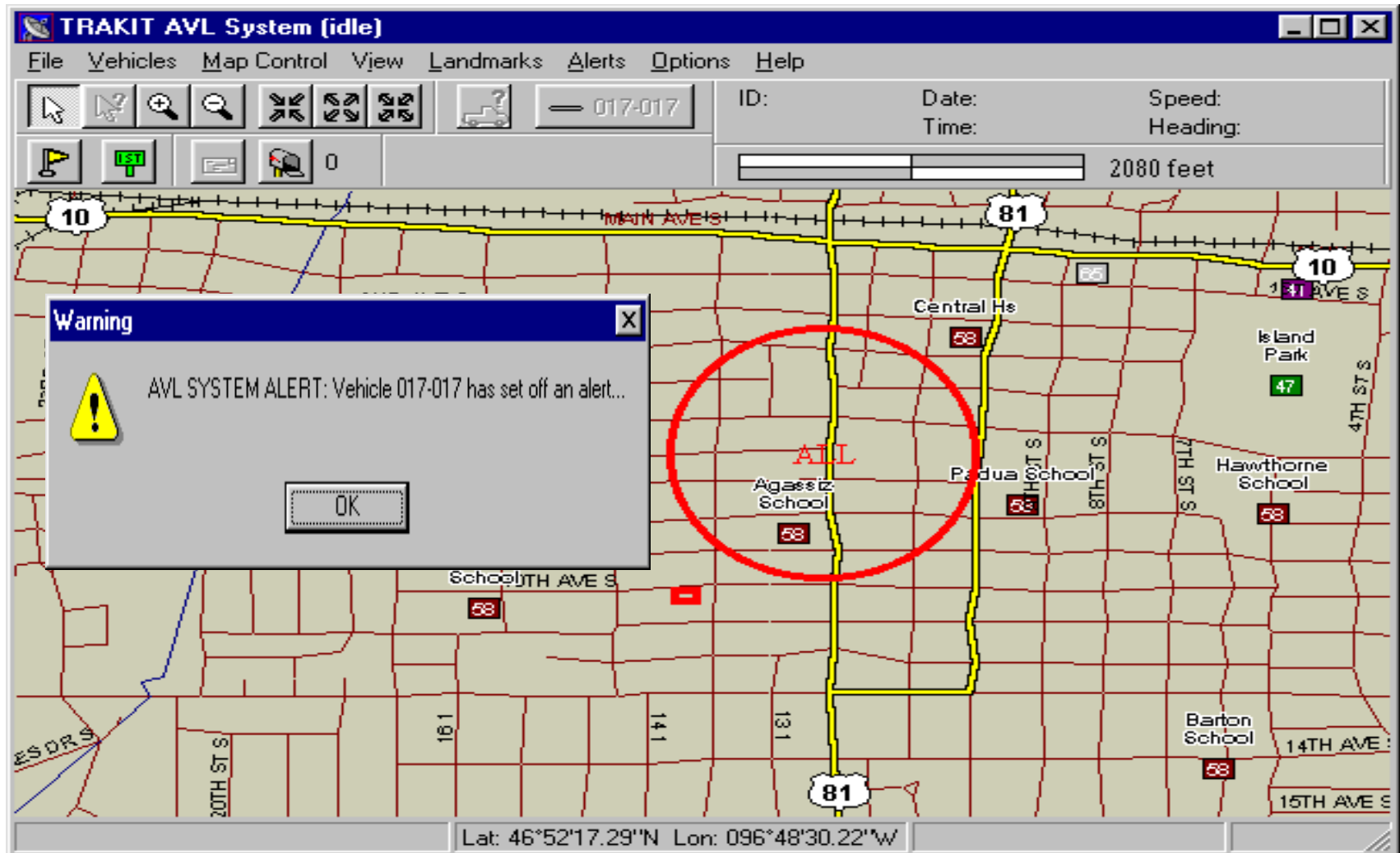
Asset Tracking With Google Maps



Reports – Realtime Tracking



Reports – Alerts / Zone / Perimeter Fencing



Reports – Realtime Data Capture

- **Vehicle ID**
- **Longitude / Latitude**
- **Date / Time**
- **Record Type**
- **Driver Name**
- **User reference number**
- **Speed / Heading**
- **Road, Address, City, State, Zip**

Reports – Location Analysis

Process Report Data

Process Data

Position data input file:
C:\avl\psdata.dat

Group: 003 ID: 003

Search Group/ID
Group:003 ID:003

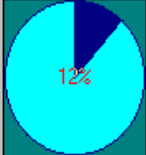
Search

Location Filter

☒ Poll ☒ Timer ☐ Closure Low
☐ Power ☐ Closure High

Process Cancel

Progress: 12%



Location Report

Page No. 1
3/3/98

**TRAKIT
Vehicle Location Analysis**

Group ID	Date/Time	Spd	Head	Type	Road	Block	City/State	State Zip
3	02/16/1998 08:50:42	0	0	1	4TH AVEN	200 - 299	Fargo City	ND 58102
3	02/16/1998 08:51:09	0	2					
3	02/16/1998 08:51:29	2	345	2	N BROADWAY ST	400 - 499	Fargo City	ND 58102
3	02/16/1998 08:52:09	0	2	2	7TH STN	400 - 499	Fargo City	ND 58102
3	02/16/1998 08:52:39	0	2	2	7TH STN	400 - 499	Fargo City	ND 58102
3	02/16/1998 08:53:09	0	2	2	7TH STN	400 - 499	Fargo City	ND 58102
3	02/16/1998 08:53:29	0	2	2	7TH STN	400 - 499	Fargo City	ND 58102
3	02/16/1998 08:53:57	0	2	2	7TH STN	400 - 499	Fargo City	ND 58102
3	02/16/1998 08:54:28	0	2	2	7TH STN	400 - 499	Fargo City	ND 58102
3	02/16/1998 08:54:58	0	2	2	7TH STN	400 - 499	Fargo City	ND 58102
3	02/16/1998 08:55:28	0	2	2	7TH STN	400 - 499	Fargo City	ND 58102
3	02/16/1998 08:55:58	0	2	2	7TH STN	400 - 499	Fargo City	ND 58102
3	02/16/1998 08:56:28	0	2	2	7TH STN	400 - 499	Fargo City	ND 58102
3	02/16/1998 08:56:58	0	2	2	7TH STN	400 - 499	Fargo City	ND 58102
3	02/16/1998 08:57:28	0	2	2	7TH STN	400 - 499	Fargo City	ND 58102
3	02/16/1998 08:57:58	0	2	2	7TH STN	400 - 499	Fargo City	ND 58102
3	02/16/1998 08:58:28	0	2	2	7TH STN	400 - 499	Fargo City	ND 58102
3	02/16/1998 08:58:58	0	2	2	7TH STN	400 - 499	Fargo City	ND 58102
3	02/16/1998 08:59:28	0	2	2	7TH STN	400 - 499	Fargo City	ND 58102
3	02/16/1998 08:59:58	0	2	2	7TH STN	400 - 499	Fargo City	ND 58102
3	02/16/1998 09:00:28	0	2	2	7TH STN	400 - 499	Fargo City	ND 58102

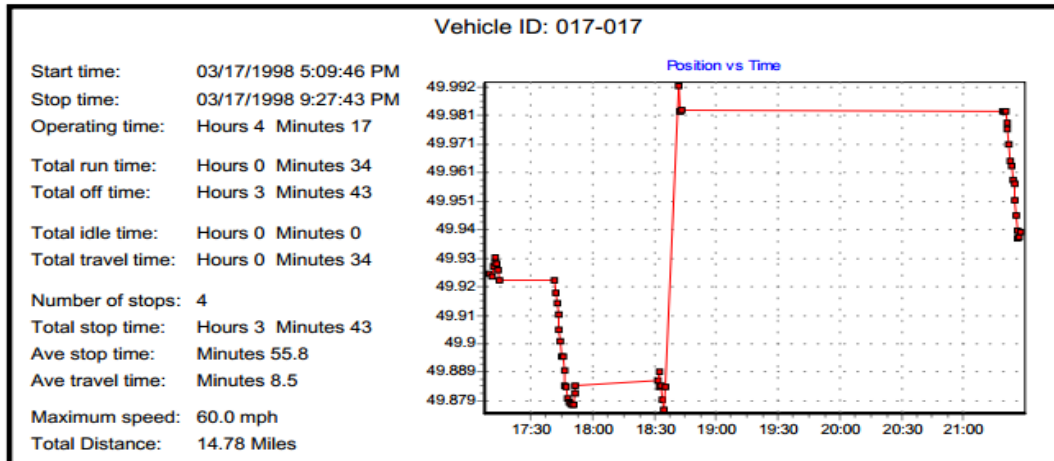
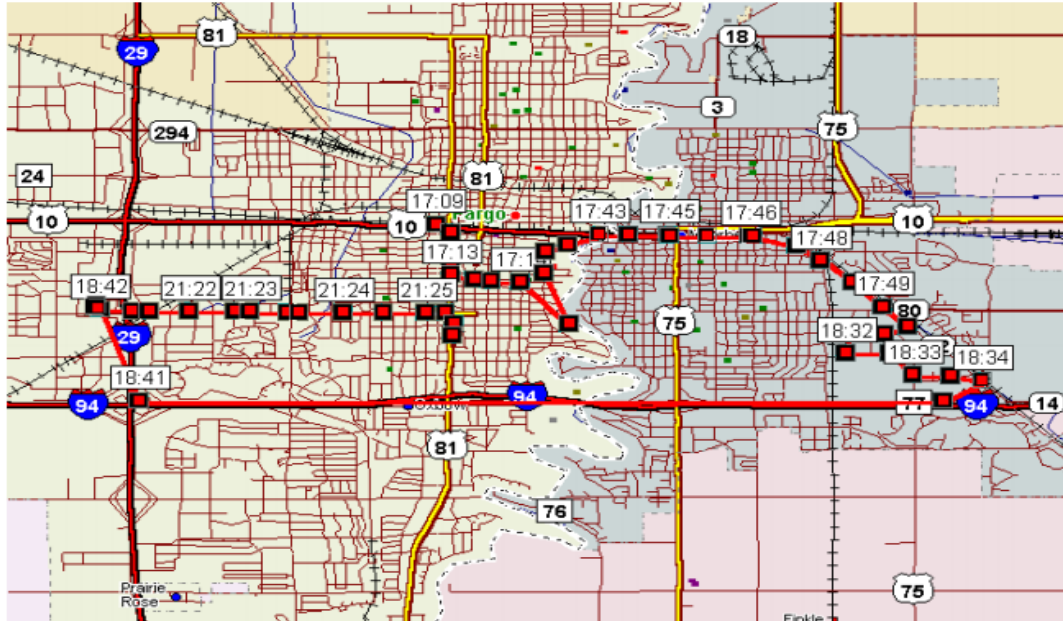
Position Report

Page No. 1
3/3/98

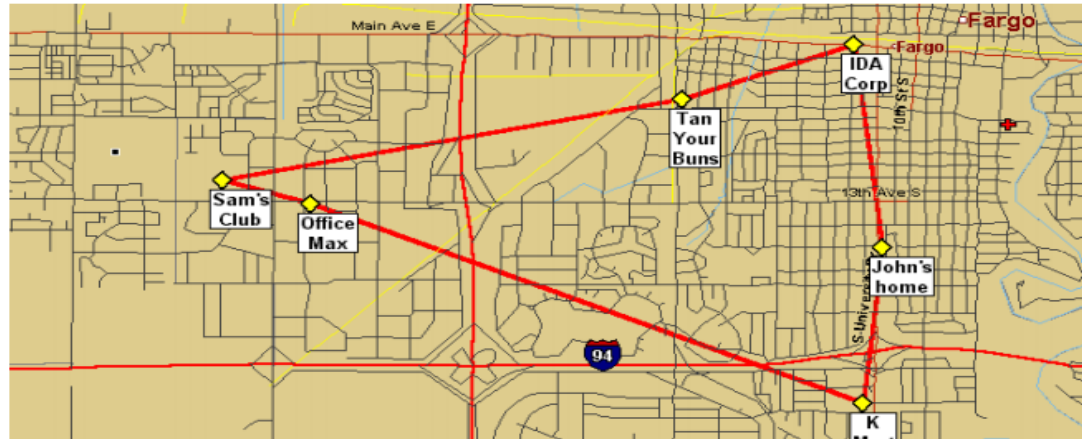
**TRAKIT
Vehicle Position Analysis**

Group/ID	Date/Time	Ref#	Driver#	Pos Type	Lat	Lon
3	02/16/1998 08:50:42			1	46.88	-96.782
3	02/16/1998 08:51:09			2	46.88	-96.782
3	02/16/1998 08:51:39			2	46.881	-96.787
3	02/16/1998 08:52:09			2	46.881	-96.791
3	02/16/1998 08:52:39			2	46.881	-96.791
3	02/16/1998 08:53:09			2	46.881	-96.791
3	02/16/1998 08:53:39			2	46.881	-96.791
3	02/16/1998 08:53:57			2	46.881	-96.791
3	02/16/1998 08:54:28			2	46.881	-96.791
3	02/16/1998 08:54:58			2	46.881	-96.791
3	02/16/1998 08:55:28			2	46.881	-96.791
3	02/16/1998 08:55:58			2	46.881	-96.791
3	02/16/1998 08:56:28			2	46.881	-96.791

Reports – Daily Activity Report



Reports – Stop Report



Report Information

Alias: John Start Time: 01/18/2002 00:00:00 Report Mode: 5 Minute Mode
 Min: 0041034519 Stop Time: 01/18/2002 23:59:59

Arrived Time	01/18/2002 07:07:49	Departed Time	01/18/2002 11:34:49	Duration (Min)	267.0
Customer ID	1	Customer Name	IDA Corp	Phone	701-280-1122
Address 1	1345 Main Ave	Address 2		Zip Code	58103
City	Fargo	State	ND		
Arrived Time	01/18/2002 11:54:42	Departed Time	01/18/2002 12:15:54	Duration (Min)	21.2
Customer ID	14	Customer Name	Tan Your Buns	Phone	
Address 1		Address 2		Zip Code	
City		State			
Arrived Time	01/18/2002 12:52:07	Departed Time	01/18/2002 13:01:39	Duration (Min)	9.5
Customer ID	18	Customer Name	Sam's Club	Phone	
Address 1		Address 2		Zip Code	
City	Fargo	State	ND		
Arrived Time	01/18/2002 13:04:09	Departed Time	01/18/2002 13:15:09	Duration (Min)	11.0
Customer ID	19	Customer Name	Office Max	Phone	
Address 1		Address 2		Zip Code	
City	Fargo	State	ND		
Arrived Time	01/18/2002 13:23:18	Departed Time	01/18/2002 13:41:13	Duration (Min)	17.9
Customer ID	20	Customer Name	K Mart	Phone	
Address 1		Address 2		Zip Code	
City	Fargo	State	ND		
Arrived Time	01/18/2002 13:45:13	Departed Time	01/18/2002 13:52:37	Duration (Min)	7.4
Customer ID	15	Customer Name	John's home	Phone	
Address 1		Address 2		Zip Code	
City		State			

TRUE TEST OF RELATIONSHIP

ABILITY TO CUSTOMIZE

Custom Reports



IDA Custom Engineering Services

- Custom Design
- Custom Engineering
- Custom Re-engineering
- Custom Project Management
- Custom Application Development
- Custom Product Logistics Management
- Custom Product Life-Cycle Management
- Custom Product Support Services (Tier-1, -2, -3)



CS7000



Custom Web & Mobile Ecosystem Expertise

IDA Software Services

(Powered by Clifton Labs – an IDA sister company)

- Mission Driven Engineering



Hardware



Software



Web & Mobile

IDA Software Services Custom Projects



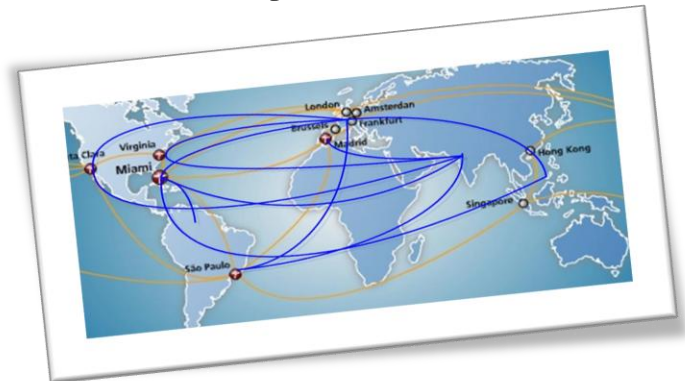
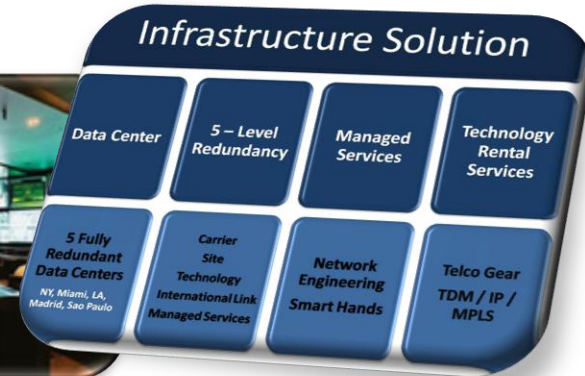
IDA COMMITMENT

35+ Years of Commitment Continues...



New IDA ...

- New Management
- Global Footprint
- Deep Resources
- Core IT / IP Infrastructure Expertise
 - Cloud, SaaS, Data Center, IP Connectivity, Telecom
- Growth through Acquisitions
- Relationship Driven
- Partnership Mindset



Your Challenges Resolved

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THE WAY FOR 2-WAY

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