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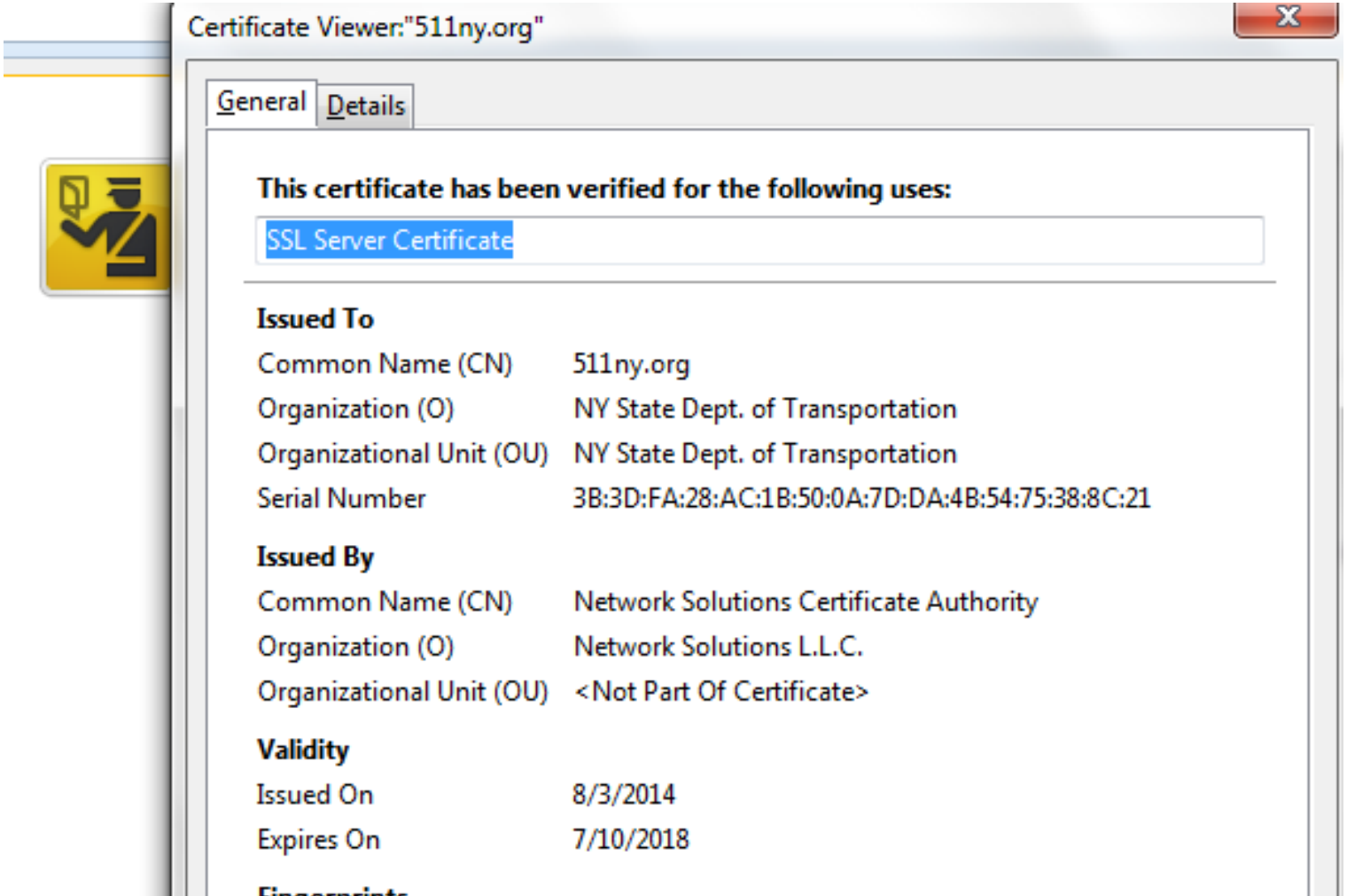
- January 2014 NYCLU files FOILs to New York City Police Department (NYPD), New York City Department of Transportation (NYCDOT), and New York State Department of Transportation (NYSDOT)
- Seeking information on E-Zpass Readers
  - Purpose
  - Locations
  - Privacy policies
  - Data sharing policies
  - Contacts

- NYPD responded in May 2014 stating that they do not operate any E-Zpass readers.
- NYCDOT has not officailly responded
- NYSDOT responded in May 2014
  - Mostly cost documentation for a company "TRANSCOM" an corporation in Jersey City, NJ
  - Included a privacy blurb
  - Listed 56 E-Zpass readers NY State pays for
  - For data sharing the official response was to see
    - https://165.193.215.51/xmlfeeds/feedinfo
    - http://www.511ny.org/developer.aspx

- Cert is “bad” due to IP, not name; but was also expired for some time
- Was recently renewed, 4 days ago (coincident?)



- On that site there is a database of E-Zpass monitored segment not just for NJ State but many others
  - Garden Stat Parkway
  - NJ Turnpike
  - NYC DOT
  - GW Bridge
  - ETC
- It is out of date (last updated 2010, states so)
- 730+ monitored locations
- Data appears to be only time to compete segments and average speed

- When an EZ Pass tag enters an instrumented corridor, any specific identifying information related to the EZ Pass account is electronically scrambled .. unique ID to protect the account holder's privacy, and that ID is tracked through the instrumented system.
- The unique ID given to a tag while in the system has no relation to the owner's actual EZ Pass. Even the unique IDs given to vehicles that traverse the instrumented system is "dumped" every few hours, again as a protective measure to guarantee privacy.

- At all TRANSMIT locations, except those at toll plazas, the TRANSMIT system uses a completely different set of readers from the E-ZPass toll collection system. At toll plazas, two independent data feeds exist, one to the TRANSMIT network and one to the toll collection network, ensuring the same degree of privacy.
- Further, the TRANSMIT system scrambles the identity of each E-ZPass tag, and the system then disposes of the scrambled tag number when the vehicle leaves the system

- No information on how the tag ID is “scrambled”
- What a good job the NYC TLC did with anonymizing taxi GPS locations

arstechnica.com/tech-policy/2014/06/poorly-anonymized-logs-reveal-nyc-cab-drivers-detailed-whereabouts/

MAIN MENU ▾ MY STORIES: 25 ▾ FORUMS SUBSCRIBE JOBS

Poorly anonymized logs reveal NYC cab drivers’ detailed whereabouts

Botched attempt to scrub data reveals driver details for 173 million taxi trips.

by Dan Goodin - June 23 2014, 2:25pm EST

GOVERNMENT PRIVACY 30

- E-Zpass tag IDs are not that long.
- Even shorter than you think. One part is the issuing agency (only 25) and then a serial

STATE OF NEW YORK **C003407**
Department of Transportation

AGREEMENT

This AGREEMENT is entered into pursuant to State Finance Law between the State of New York, acting by and through its Department of Transportation (hereafter "the State"), headquartered at 50 Wolf Road, Albany, NY 12232 and

TRANSCOM
(hereafter, "Contractor")

Doing business as a [>] Corporation [ ] Partnership [ ] Individual [ ] Other

- TRANSCOM is non-profit formed in 1986 by NY and NJ transportation departments
- Built the initial E-Zpass tracking of 20 miles of road in 1995
- It has now expanded to 16 agencies, including 3 law enforcement only agencies (NYPD, NY State Police, NJ State Police) as well as two agencies that have police departments with full police powers (Port Authority of NY and NJ, and NJ Transit)
- xcm.org

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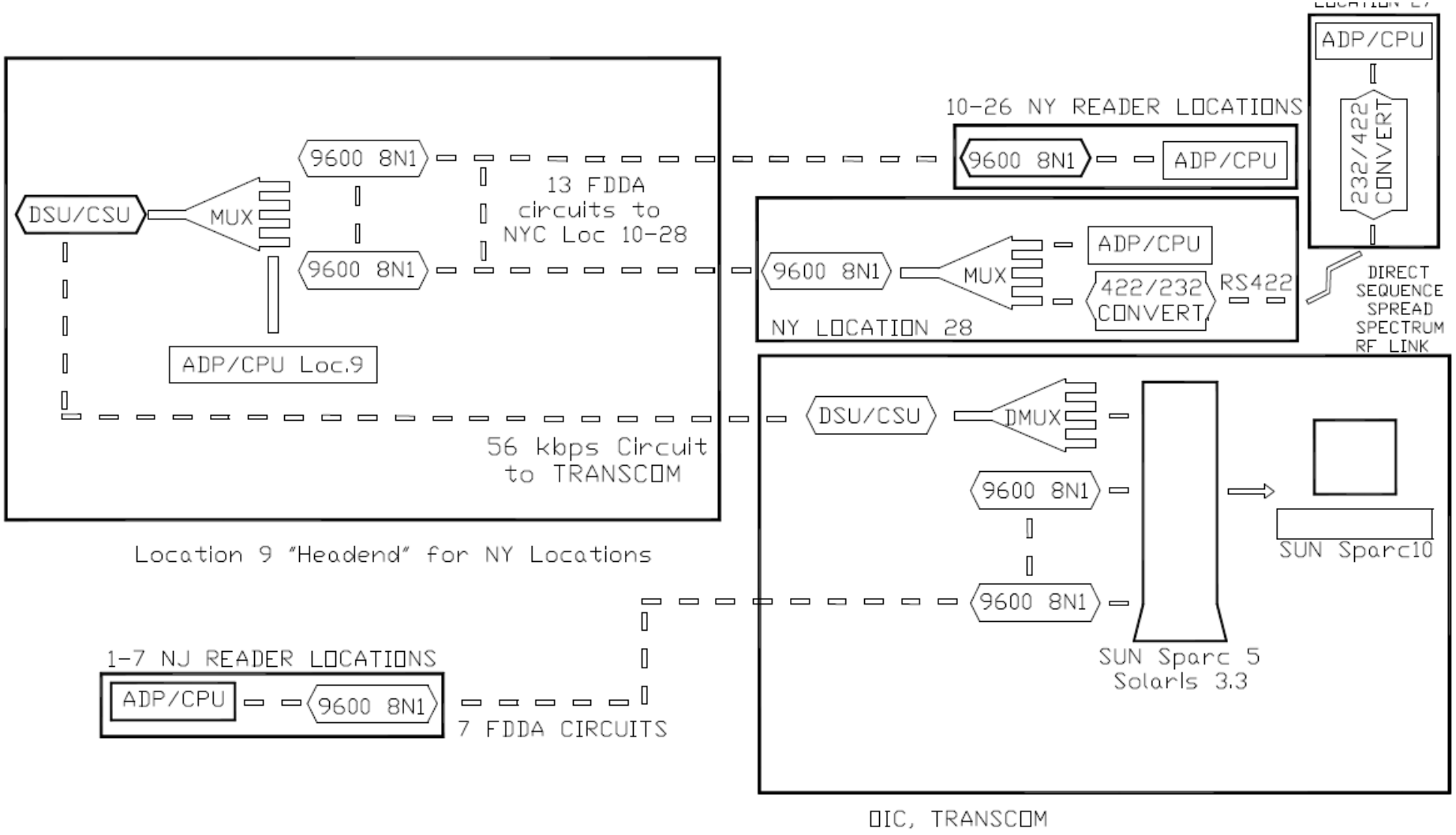


Location 9 "Headend" for NY Locations

- Tag readers connect back via 9600 baud modems to the Operations Information Center (OIC)
- 920MHz wireless links or places that have no phone lines to a place that dose have a modem
- The tag scramble happens at the OIC data center, not at the tag reader, and sent in the clear
- source: TRANSMIT SYSTEM EVALUATION - FINAL REPORT. KYRIACOS C. MOUSKOS, PH.D. EDIP NIVER, PH.D. LOUIS J. PIGNATARO, PH.D.

- … data identifying the tag ID, detection time and lane position are recorded. This data is forwarded to the OIC, where the tag ID is encrypted.
- The vehicle ID is encoded immediately upon reception at the OIC. This policy avoided any potential negative public reactions towards the system and lead to a smooth implementation of the TRANSMIT system

- The TRANSMIT system has implemented a procedure which encodes the vehicle's tag ID upon receipt at the OIC computer. The encoded ID data is then processed immediately and the encoded tag IDs are not stored. Encoded data are saved only for evaluation purposes and validation of the algorithms of the system.
- It is noted though that this encoding is based on the policy of TRANSCOM. This policy should be preserved in the future as the TRANSMIT system is expanded

- Source: TRANSMIT - TRANSCOM'S SYSTEM FOR MANAGING INCIDENTS AND TRAFFIC - Tom Batz, TRANSCOM; Richard Newhouse, New York State Thruway Authority

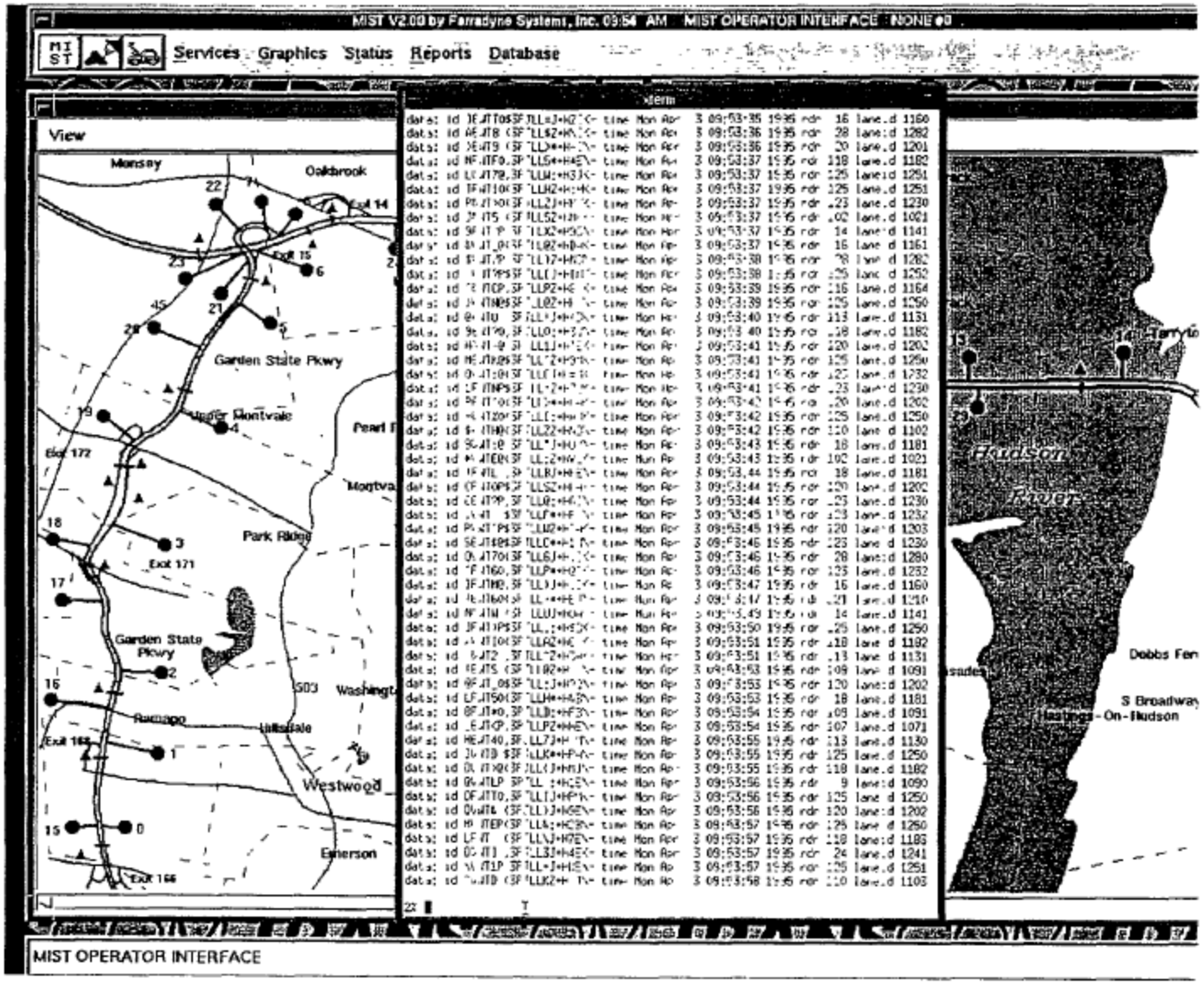
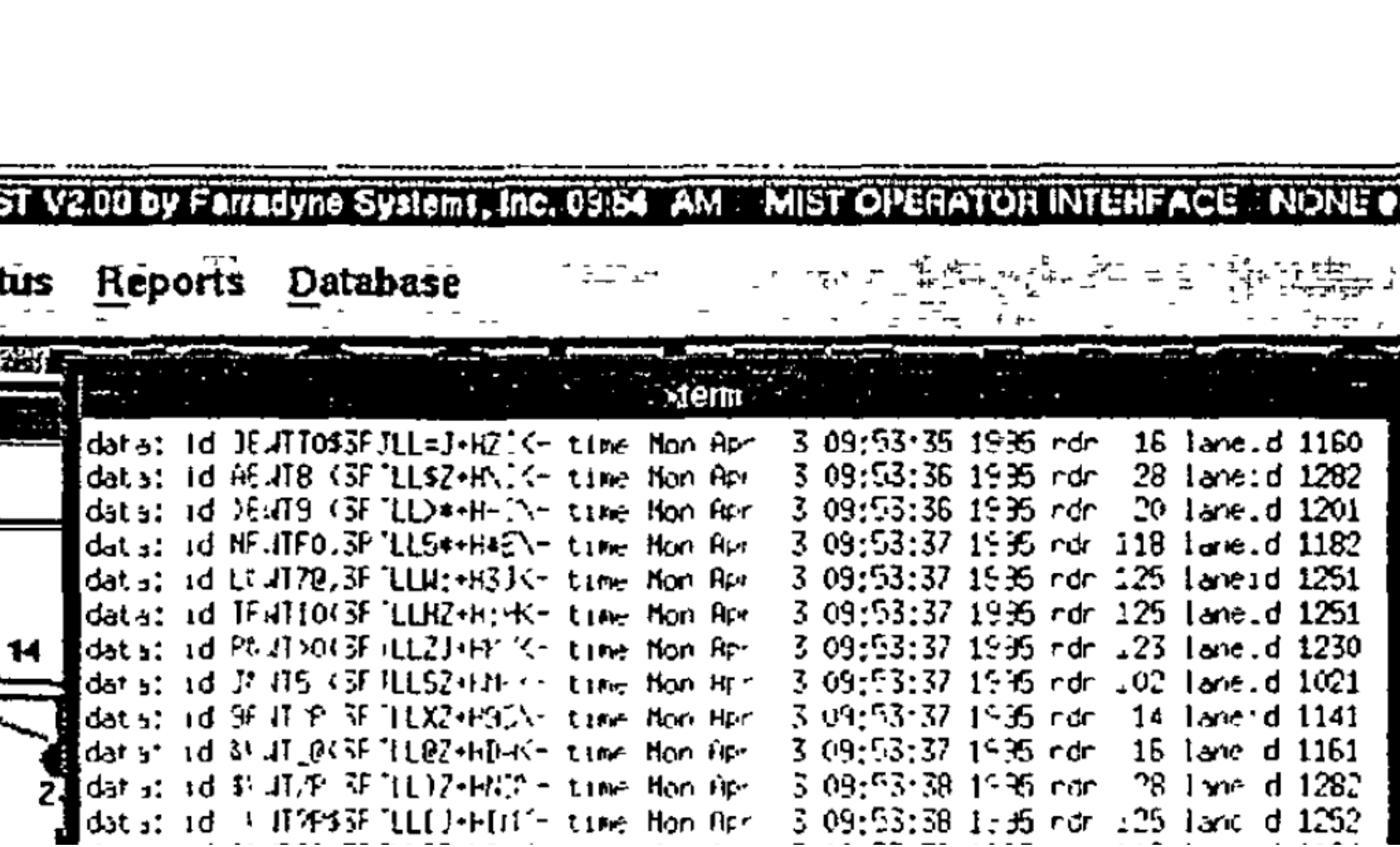


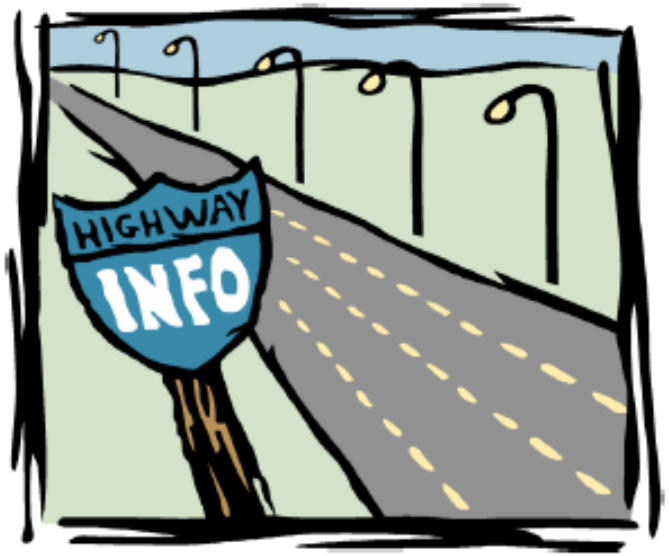
Fig.1 - Scrambled Tag Data


ST V2.00 by Farradyne Systems, Inc. 09:54 AM MIST OPERATOR INTERFACE NONE
tus Reports Database
stem
data: id JE JTTO$3F JLL=J+HZ K- time Mon Apr 3 09:53:35 1995 rdr 16 lane.d 1160
data: id AE JT8 (3F 'LL$Z+HX K- time Mon Apr 3 09:53:36 1995 rdr 28 lane.d 1282
data: id)E JT9 (3F 'LL)*+H- X- time Mon Apr 3 09:53:36 1995 rdr 20 lane.d 1201
data: id NF JTF0.3F 'LL5*+H*E\- time Mon Apr 3 09:53:37 1995 rdr 118 lane.d 1182
data: id LT JT70,3F 'LLW:+H3 K- time Mon Apr 3 09:53:37 1995 rdr 125 lane.d 1251
data: id IF JTI0(3F 'LLHZ+H;+K- time Mon Apr 3 09:53:37 1995 rdr 125 lane.d 1251
data: id P JT>0(3F 'LLZJ+H' K- time Mon Apr 3 09:53:37 1995 rdr 123 lane.d 1230
data: id J JT5 (3F 'LL5Z+H time Mon Apr 3 09:53:37 1995 rdr 102 lane.d 1021
data: id 9F JT P 3F 'LX2+H9 \- time Mon Apr 3 09:53:37 1995 rdr 14 lane d 1141
data: id 8 JT_@(3F 'L@Z+HD-K- time Mon Apr 3 09:53:37 1995 rdr 16 lane d 1161
data: id $ JT/P 3F 'L)Z+H time Mon Apr 3 09:53:38 1995 rdr 28 lane d 1282
data: id JT%$3F 'LL J+H time Mon Apr 3 09:53:38 1995 rdr 125 lane d 1252

Roadmap

Legacy Investments & Current Systems

ex. PA Wide Area Network (PAWANET); TRANSMIT readers



Current Initiatives

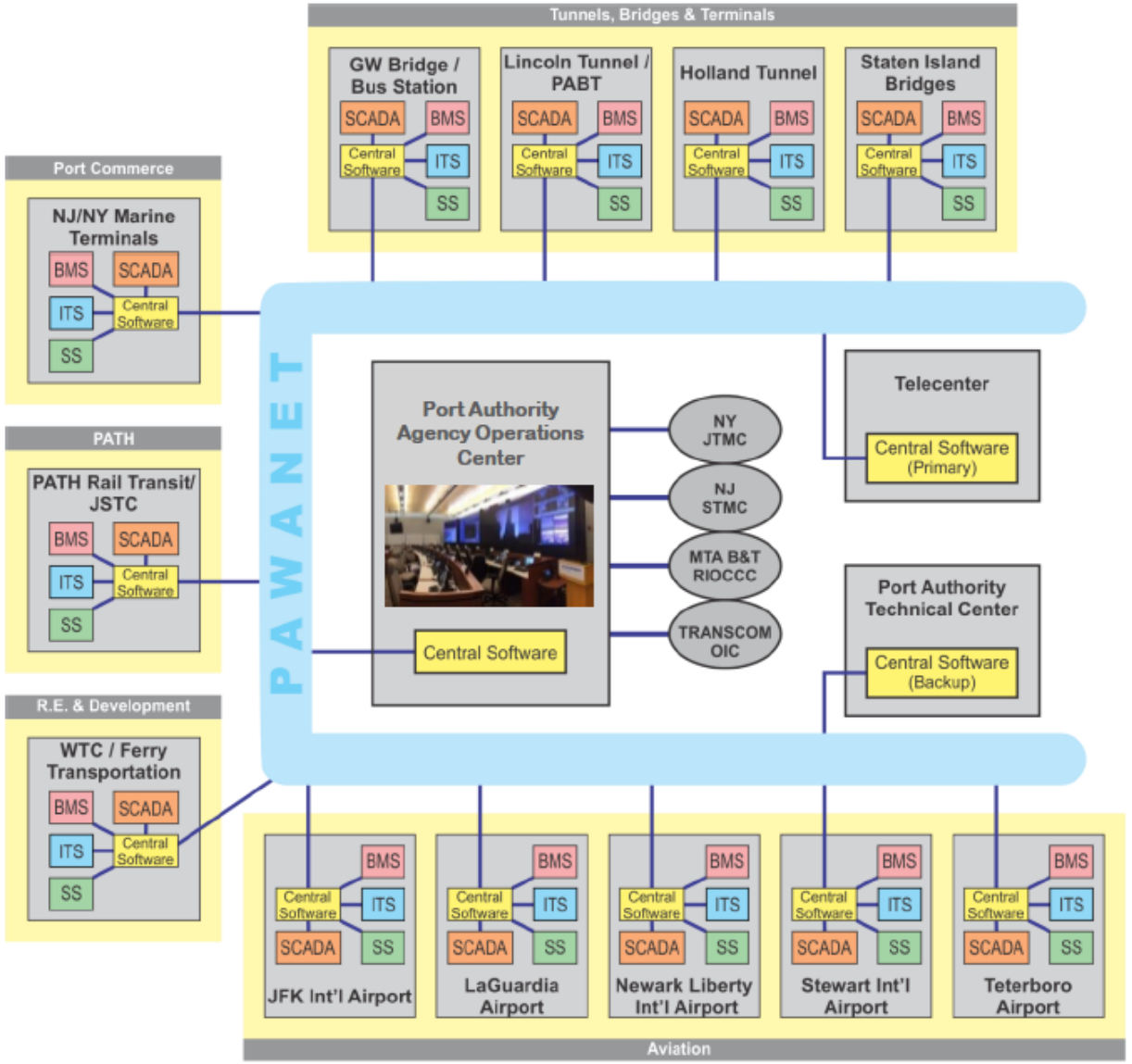
ex. Enterprise Transportation Management Software; Video Management & SCADA systems consolidation & mgt

Mid-Term Opportunities

ex. Regional App; Center-to-Center; ITS for Goods Movement/Port Operations

Functional System Block Diagram

Future Vision - 2020



Legend

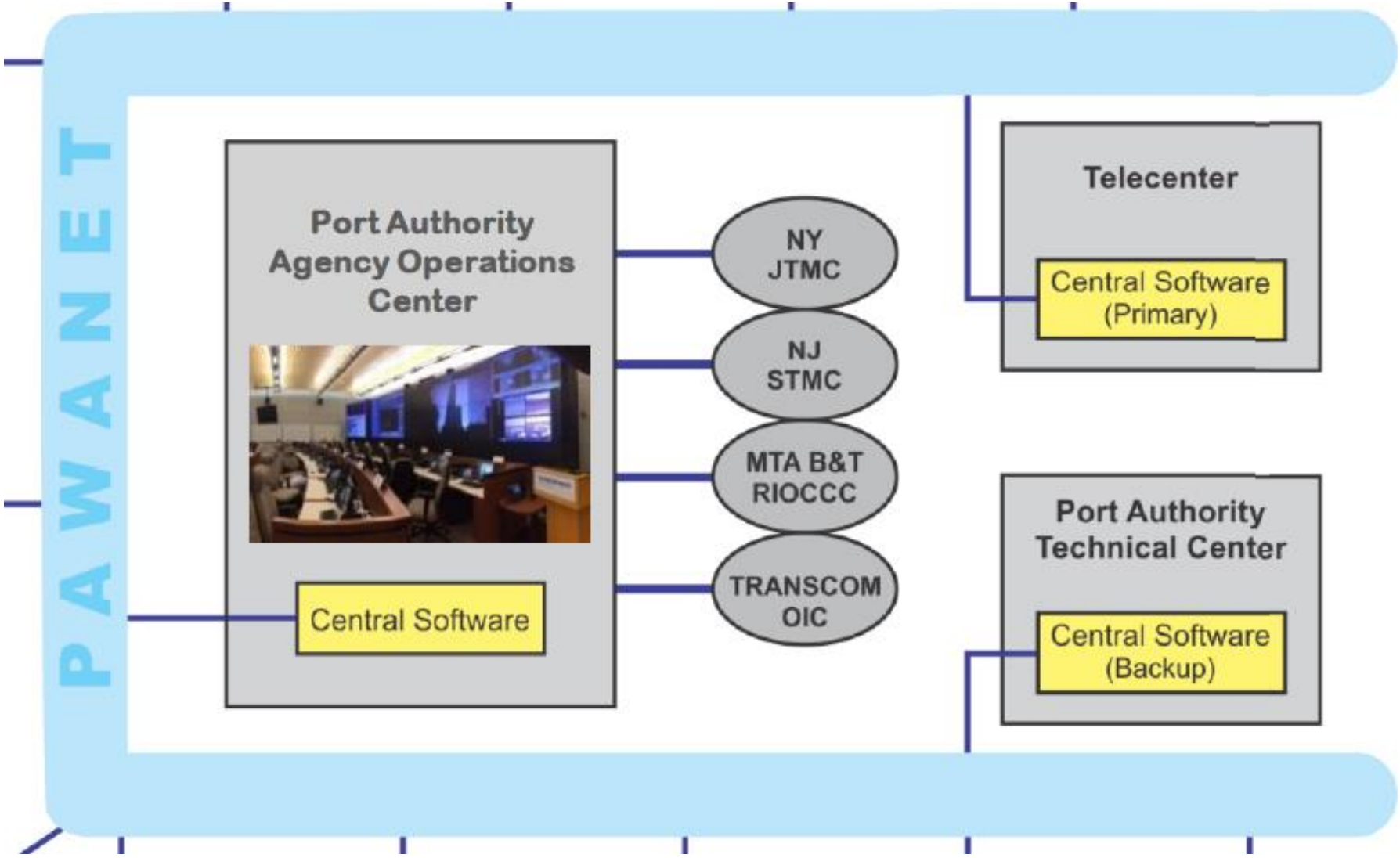
- BMS.....Building Management Systems
- ITS.....Intelligent Transportation Systems
- SCADA..Supervisory Control & Data Acquisition
- SS.....Security Systems (Intrusion Detection, Access Control and Alarm Monitoring, CCTV and Video Recording)
- Central Software.....Central Command & Control System (Enterprise software / Dashboard that controls ITS & future systems)

Abbreviations

- JTMC.....Joint Transportation Management Center
- OIC.....Operations Information Center
- RIOCCC..Randall's Island Operations Control and Communications Center
- STMC.....Statewide Traffic Management Center

Functional System Block Diagram

Port Authority ITS Strategic Plan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Port Authority
Agency Operations
Center
Central Software
NY
JTMC
NJ
STMC
MTA B&T
RIOCCC
TRANSCOM
OIC
Telecenter
Central Software
(Primary)
Port Authority
Technical Center
Central Software
(Backup)

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