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March 30, 2009

FILED ELECTRONICALLY

Marlene H. Dortch, Secretary
Federal Communications Commission
Office of the Secretary
445 12th Street, SW
Washington, DC 20554

Re: Notice of *Ex Parte* Presentation in Amendment of the Commission's Rules Regarding Dedicated Short Range Communications Services in the 5.850-5.925 GHz Band (5.9 GHz Band), WT Docket No. 01-90 and ET Docket No. 98-95

Dear Ms. Dortch:

Pursuant to Section 1.1206(b) of the Commission's Rules (47 C.F.R. § 1.1206(b)), notice is hereby provided in the above-referenced dockets regarding an *ex parte* presentation on March 27, 2009 by Kapsch TrafficCom U.S. Corp. ("Kapsch") to staff of the Public Safety & Homeland Security Bureau ("PSHSB") and the Wireless Telecommunications Bureau. Attending on behalf of Kapsch were Suzanne Murtha, Principal Associate -- Government Relations and Business Development. Attending on behalf of the PSHSB were Michael Wilhelm, Zenji Nakazawa, Greg Intoccia, Brian Marenco, Uche Patrick and Brian Hurley. Tim Maguire attended on behalf of the Wireless Telecommunications Bureau. Also attending were Robert B. Kelly and Mark D. Johnson of Squire, Sanders & Dempsey L.L.P.

The purpose of the meeting was to update Commission staff regarding Kapsch's activities and plans related to the testing and deployment of its tolling and vehicle communications systems in the 5.9 GHz Band. Specifically, the participants discussed the status of and possible impediments to deployment of 5.9 GHz systems in the United States. Also discussed was the status of supporting technical standards. Kapsch also informed Commission staff regarding the successful demonstration of its various 5.9 GHz systems at the ITS America World Congress in New York City in November 2008 as well as Kapsch's plans for demonstrating its systems at the upcoming ITS America World Congress in Washington, DC in June 2009.

A copy of the handout distributed at the meeting is attached. In addition, a copy of this notice and the attachment is being provided via email to each of the attending Commission staff.

Please do not hesitate to contact me if there are any questions regarding this filing.

Sincerely,

/s/ Mark D. Johnson

Mark D. Johnson

Attachment

cc: Michael Wilhelm
Zenji Nakazawa
Gregg Intoccia
Brian Marenco
Uche Patrick
Brian Hurley
Tim Maguire

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1. Kapsch Background
2. Kapsch 5.9 GHz DSRC Technology
3. Solutions
   - HOT Lanes & Tolling
   - Active Traffic Management
4. Open Discussion

Kapsch TrafficCom USA is the Sum of Technology and Experience

Kapsch

Kapsch TrafficCom Inc. (Carlsbad, CA)

Market Leading 5.9 GHz DSRC Solutions

Kapsch TrafficCom US Corp (Washington, D.C.)

Unmatched End-to-End Solutions for Tolling, Congestion Management

Next generation tolling & traffic management solutions

Kapsch throughout the USA

Connected Traveler & SafeTrip 21 (SF – Bay Area)

E-470 5.9 GHz Test Site (Denver)

VII Proof of Concept (Detroit)

ITS World Congress 5.9 GHz Demo Site (New York City)

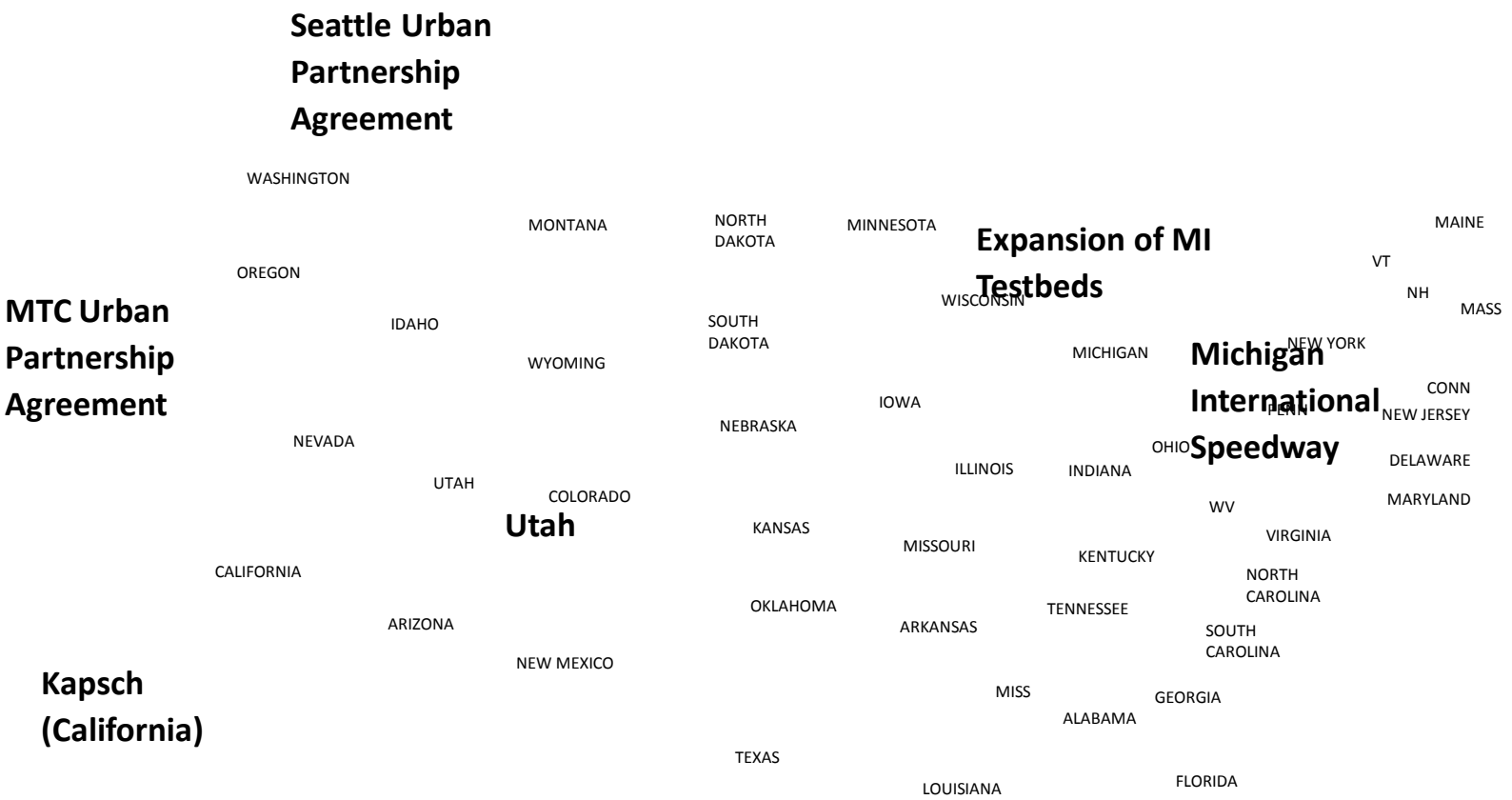
Kapsch (Virginia)

Kapsch (California)

KTA Video Demonstration (Wichita)

NCTA Video Demonstration (Raleigh)

Possible Upcoming 5.9 Installations in the U.S.



Kapsch as a Global Leader: 140 systems in 30 countries

Tolling Systems

Urban Traffic Solutions

Operations

Components

Traffic Surveillance

Offices References

Fully Interoperable Solutions

Multi Platform Support

DSRC Systems

Cellular

GPS

Operations

Road Operations

Enforcement System

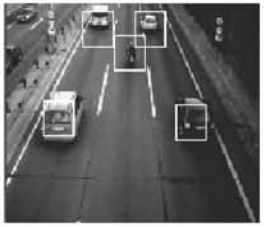
Back Office System

Components

DSRC Products

Video Solutions

Traffic Management



Interoperable DSRC Solutions

- 5.9GHz DSRC is an open standard technology providing robust bandwidth to enable active high-volume communication
- Provides new communication network capability spanning state and local boundaries for new era of interoperability
- 5.9 GHz DSRC is a natural fit for Open Road Tolling and road user pricing systems
- Open standards permits better integration of tolling and ITS on same
- Reduces infrastructure density

Example Installation from E-470

Trigger line for front camera

Trigger line for rear camera

Driving direction

Robust Video Tolling Solutions and 5.9

- Robust video tolling solutions with high resolution Kapsch cameras that will aid a 5.9 based system
- The solution is optimized for each individual installation to guarantee highest possible performance rates

June 2008 Testing Results from North Carolina Turnpike Authority

0.3%

99.7% Video Capture Rate

91.7%

8.0%

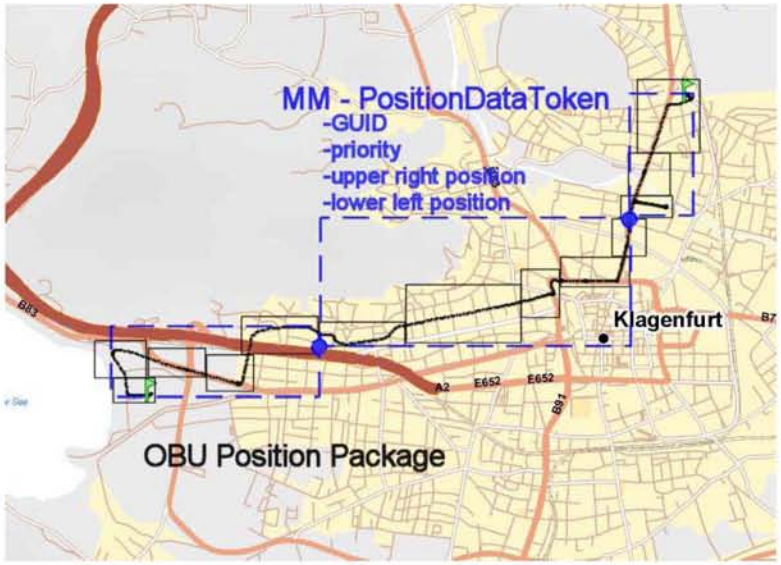
Not Readable

Operator Readable

ALPR Readable

GPS and 5.9 Solutions for Wide Network Coverage

- Kapsch's GPS solutions utilize a Thin Client approach, which forwards GPS locations to a central back office instead of downloading maps of each travelled region
- There are no geo-mapping costs or downloads, which may slow down the system down and increase communication costs
- Will be combined with 5.9 GHz for a highly cost-effective system
- The GPS solution covers rural areas via a map-matching technique that approximates travel routes based on travel times and complete route



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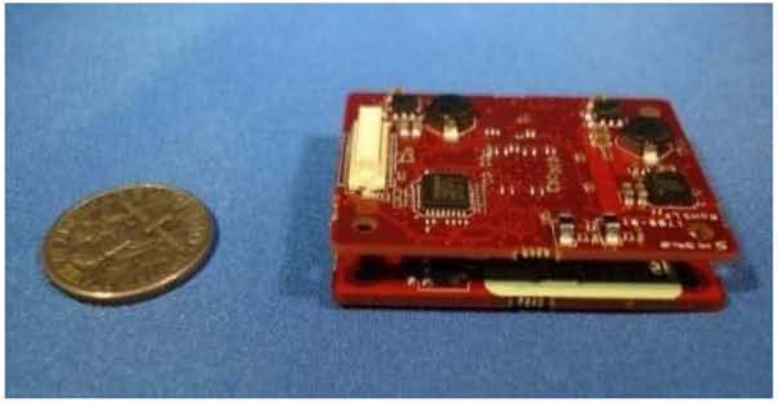
5.9 GHz DSRC Technology

- Kapsch is the only company worldwide providing 5.9 GHz DSRC technology and services for both the CVIS and VII Proof-of-Concept programs
- 5.9 GHz DSRC roadside equipment is installed in over 200 locations world wide
  - Detroit (100 units)
  - California (30 units)
  - New York City (45 units) – Tolling & VII demo at ITS World Congress 2008
  - New York State Thruway (18 units)
- 5.9 GHz DSRC OBUs are installed in over 400 trials globally
  - VII Consortium 5.9 GHz DSRC supplier
  - New York ITS World Congress
  - New York Commercial VII trial
  - CVIS program in Europe (ERTICO)



Integrated Mobility Applications and VII

5.9GHz DSRC Migration Path

VII

- VII applications such as crash avoidance
- In vehicle signing
- Emergency vehicle traffic signal pre-emption
- Commercial vehicle inspection

Mobility

- Real time traffic info (Signal timing, Traveler info)
- Traffic signal priority for transit vehicles
- Weigh in motion

eCommerce

- Tolling & HOT Lanes
- Payment systems (Parking, Gas/Food Payments
- Infotainment

Kapsch 5.9 GHz DSRC Platform

- The 5.9GHz DSRC open standard enables a series of applications that leads to advanced safety functionality via VII
- 5.9 GHz co-exists peacefully with legacy systems

5.9 GHz is the Step Beyond Legacy 915 MHz Systems

915 MHz Legacy Systems

- Legacy 915MHz systems has limited accuracy - it cannot locate a tag within a particular lane
- 915 MHz has limited bandwidth and incompatible proprietary technologies
- In order to enable ORT, 915 MHz involves high infrastructure costs

5.9 GHz DSRC

- 5.9 GHz systems deliver superior technical performance - locating a tag to within +/- 5 cm accuracy
- 5.9GHz has high bandwidth and an open standard, enabling multi-lane-free-flow tolling and added application on one cost-effective infrastructure base

5.9 GHz DSRC Delivers Significant Advantages over 915 MHz

- 5.9GHz delivers superior technical performance due to greater bandwidth, range, bi-directional communication, and security

Protocols	IEEE, open standard (802.11p)	Multiple versions, many proprietary
Largest Data Rate	3 MBit/s to 27 Mbit/s & 54 MBit/s (w/ 2 channels)	In the range of 500 Kbits/s
Range	Up to 1,000 meters	Approximately 10 meters
Max. Transmit Power (EIRP)	+ 33 dBm (2 W)	+ 33 dBm (2 W), + 36 dBm (4 W)
Competitive multi-vendor market	Expected: Standard open to all vendors	Limited to Title 21 suppliers
Reliability of bi-directional data	High. Designed to meet these requirements	Weak
Capabilities to shape communication zones	Very good	Limited
Size of antennae	Smaller	Larger
“Built-in” localization capabilities	Very good	N/A
Security & Encryption	Up to 256 bit AES encryption	Weak or not implemented

Superior Performance and Added Functionality

User Benefits

Safety

- VII collision avoidance applications

Reduced Congestion

- Real time traffic info, including signal timing and signal priority for transit vehicles

eCommerce

- Payment applications (Parking, roadside purchases)
- Infotainment

Banking-grade Security

- Security that protects user privacy for payments and related applications,

5.9 GHz DSRC System

Agency Benefits

Maximum Tolling Revenue

- Interoperable free flow tolling & future related applications
- Variable pricing

Open Procurement

- Interoperability creates open procurement from multiple bidders in competition

Mobility

- Lane localization enabling HOT lanes & congestion management

Scalability

- Applications & systems are combined seamlessly
- Cross-border revenue sharing

Denver E-470 Independent Test Bed

The E-470 test-bed has been operational since February 2008; Southwest Research Institute independently tested the system from August 25 to September 5, 2008

E-470 Performance
(Vehicles Tolled as % of Traffic Volume)

- 5.9 GHz DSRC performance:

  Sample: 10,526 transactions

  5.9 GHz DSRC performance of **100%**

- ALPR performance:

  Human Readable Rate of **98.30%**

  Of 10,828 human readable images, **93.84%** were correctly read by the ALPR system

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Road Tolling Solutions to Maximize Revenue

Kapsch 5.9 GHz DSRC Tolling Solution

On Board Unit
Vehicles equipped with onboard transponder

Video
Video Solutions supplement DSRC mounted on overhead gantries

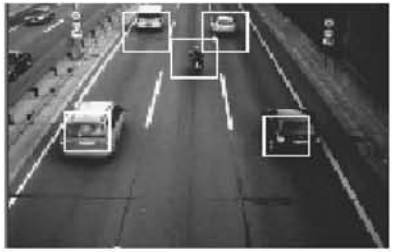
Road Side Equipment
Transceivers at intersections & urban freeways

Back Office
Transactions flow into the network, clearing among Users & the Toll Authority

- 5.9 GHz DSRC superior performance drives a more accurate, higher capacity system
- Kapsch's leading tolling performance is driven by leading vehicle capture/read rates and enforcement
- Higher capture rates maximize revenue to agency
- With greater bandwidth and speed, 5.9GHz DSRC clears large transaction volumes in less time than legacy systems

Active Traffic Management using 5.9 GHz DSRC and VII

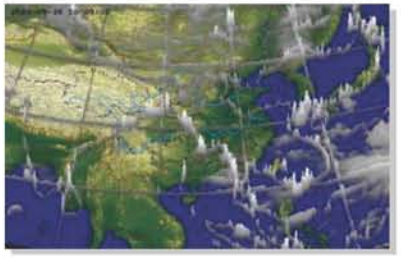
Traffic Monitoring (Telematics, ETC, Video)



Traffic Signal Control

Incident Management

Traffic Weather Information Systems



HOT/ Managed Lanes

Connectivity & Safety

5.9 GHz can Seamlessly Integrate with Existing Infrastructure

Current Situation

- 915 MHz systems currently in place

Peaceful Co-Existence

- 5.9GHz easily and seamlessly installed next to legacy 915 MHz systems
- Proven zero interference

Legacy 915 MHz Phase-Out

- Users gradually migrate to 5.9 GHz tags and accounts
- Added functionality increases with migration

Total 5.9 GHz systems enabling Next Generation Solutions

- 5.9GHz DSRC handles 100% of traffic
- The tolling platform is now able to deliver value to all users
- Future applications including VII bolt-on seamlessly

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